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중앙선 도담~영천 복선전철 제5공구(시공10공구) 노반 기본 및 실시설계

구 조 계 산 서 (17/20)

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2015. 4.

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중앙선 도담~영천 복선전철 제5공구(시공10공구)

노반 기본 및 실시설계

구 조 계 산 서 (17/20)

자료번호 :

개 정 현 황					
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개정 번호	일 자	개 정 사 유	작 성	검 토	승 인

중앙선 도담~영천 복선전철 제5공구 노반 기본 및 실시설계

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C(함) 탑리제4

- 2.0 x 2.00 x 1
- 토피 = 7.6m 이하

1. 설 계 조 건
2. 단 면 가 정
3. 해석모델 및 단면제원
4. 하중산정
5. 하중재하도
6. 하중계수 및 하중조합
7. INPUT DATA
8. OUTPUT
9. 단면력요약
10. 단 면 력 도
11. 단 면 검 토
12. 우각부 검토
13. 배력철근 검토
14. 사용성 검토
15. 기초지지력 검토
16. 주철근조립도
17. 날개벽 설계

1. 설계 조건

1) 구조물명 : c (함)

2) 구조형식 : 철근 콘크리트 구조

3) 설계하중 : KRL2012 (복 선)

4) 재료중량

- 철근 콘크리트(γ_c)	=	24.5	kN/m^3
- 무근 콘크리트(γ_{con})	=	23.0	kN/m^3
- 뒷채움 토사(γ_t)	=	20.0	kN/m^3
- 뒷채움 토사(γ_{sub})	=	11.0	kN/m^3
- 지하수(γ_w)	=	10.0	kN/m^3

5) 사용재료의 성질

- 콘크리트 설계기준 강도(fck)	=	30.0	MPa
- 콘크리트 탄성계수(Ec)	=	27537	MPa
- 철근의 항복강도(fy)	=	400.0	MPa
- 철근의 탄성계수(Es)	=	200000	MPa

6) 토 사

- 흙의 내부마찰각 (ϕ)	=	35.0	°
- 정지 토압계수 (Ko)	=	0.426	

7) 기 초 형 식 : 직접기초

8) 사 각(Skew) : 71.00 ° 연 장 (L) : 42.00 m

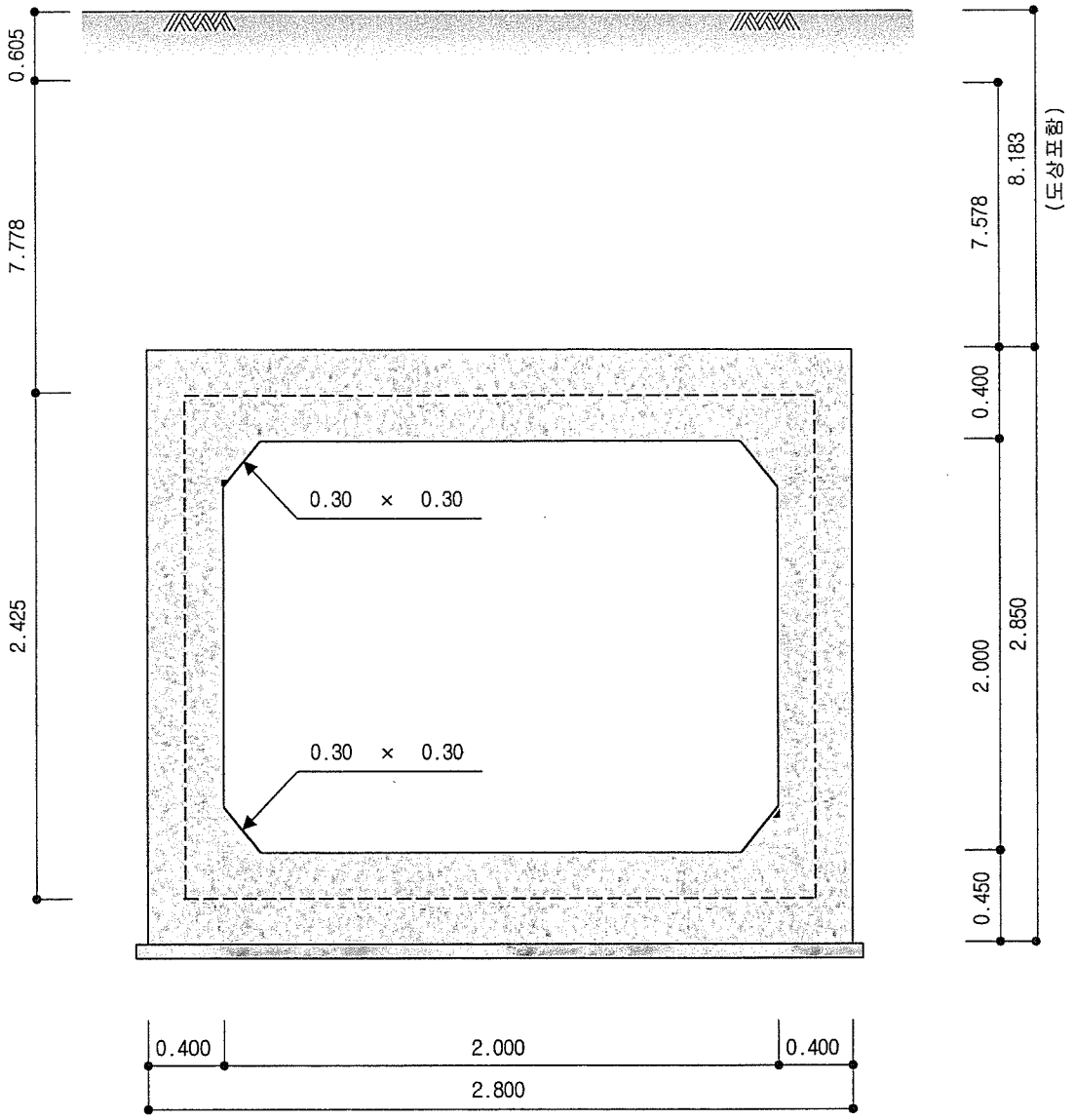
9) 설계방법

- 강도 설계법 : 부재 단면검토(슬래브, 벽체, 보, 기둥 등)
- 허용응력 설계법 : 사용성 검토(처짐, 균열, 우각부 검토)

10) 참고문헌

- 철도설계기준(노반편), 국토해양부, 2013
- 콘크리트 구조설계기준해설, 한국콘크리트 학회, 2012

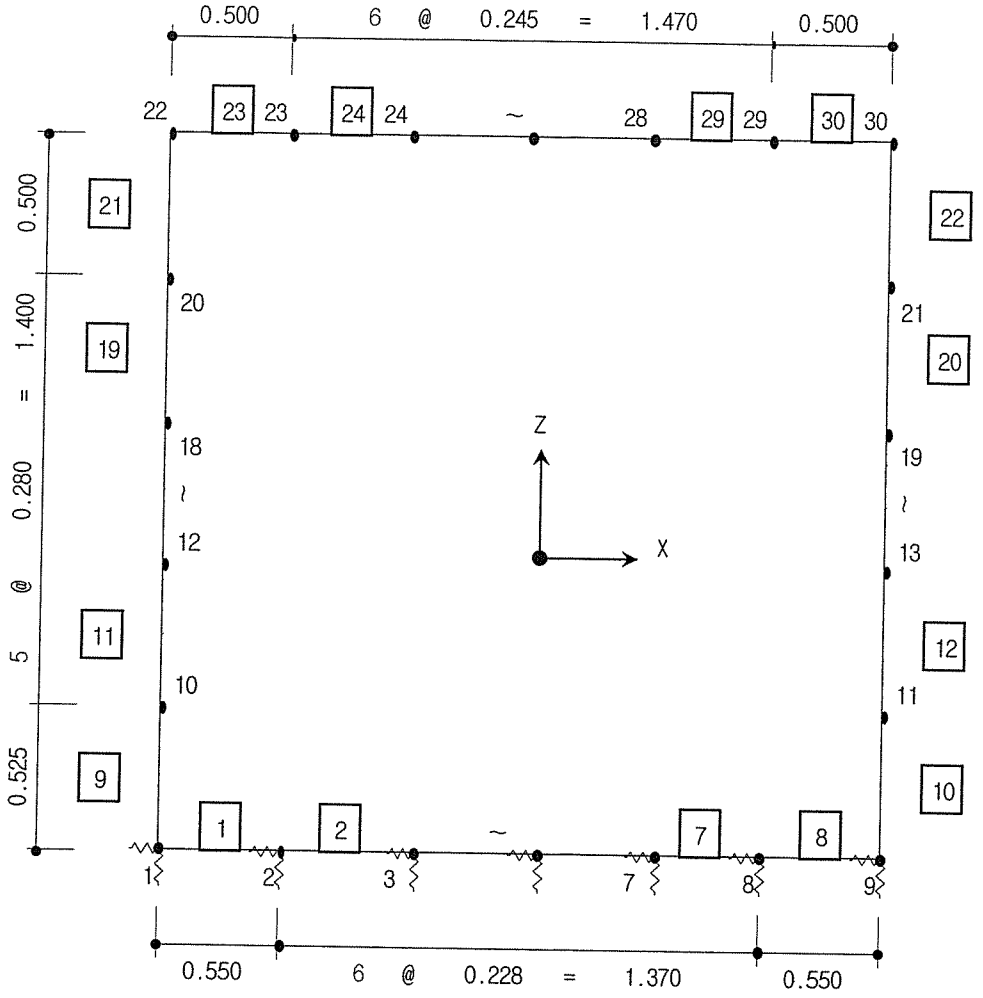
2. 단면 가정



※ 유효경간

Skew =	71.0	°				
Ln =	2.400	m				
Ls =	2.538	m				
Ls/B =	2.538	/	18.000	=	0.141	< 1.500
L =	2.470	m				

3. 해석모델 및 단면제원



1) 절점 좌표

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
1	0.000	0.000	0.000	13	2.470	0.000	0.805
2	0.550	0.000	0.000	14	0.000	0.000	1.085
3	0.778	0.000	0.000	15	2.470	0.000	1.085
4	1.007	0.000	0.000	16	0.000	0.000	1.365
5	1.235	0.000	0.000	17	2.470	0.000	1.365
6	1.463	0.000	0.000	18	0.000	0.000	1.645
7	1.692	0.000	0.000	19	2.470	0.000	1.645
8	1.920	0.000	0.000	20	0.000	0.000	1.925
9	2.470	0.000	0.000	21	2.470	0.000	1.925
10	0.000	0.000	0.525	22	0.000	0.000	2.425
11	2.470	0.000	0.525	23	0.500	0.000	2.425
12	0.000	0.000	0.805	24	0.745	0.000	2.425

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
25	0.990	0.000	2.425	28	1.725	0.000	2.425
26	1.235	0.000	2.425	29	1.970	0.000	2.425
27	1.480	0.000	2.425	30	2.470	0.000	2.425

2) 경계 조건

joint	spring계수 (kN/m²)		joint	spring계수 (kN/m²)	
	z방향(수직)	x방향(수평)		z방향(수직)	x방향(수평)
1 . 9	23715		3 ~ 7	11400	
2 . 8	19430				

3) 단면제원

Element	두께	폭	비 고
23 ~ 30	0.400	1.000	상부슬래브
1 ~ 8	0.450	1.000	하부슬래브
9 ~ 22	0.400	1.000	벽 체

4) 강역설정

(1) 강역설정기준(콘크리트구조설계기준 2012)

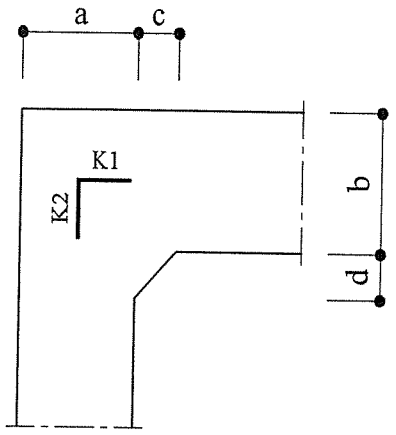
CASE 1 : 부재단부가 다른 부재와 접합할 때는 부재단에서 부재두께의 1/4 안쪽점에서 절점까지

CASE 2 : 부재가 그 축선에 대해 25° 이상 60° 미만인 경사진 헌치를 갖는 경우에는 부재두께가 1.5배가 되는 점에서 부터 절점까지

CASE 3 : 헌치의 경사가 60° 이상의 경우는 헌치의 시점에서 부재두께의 1/4 안쪽 점에서부터 절점까지

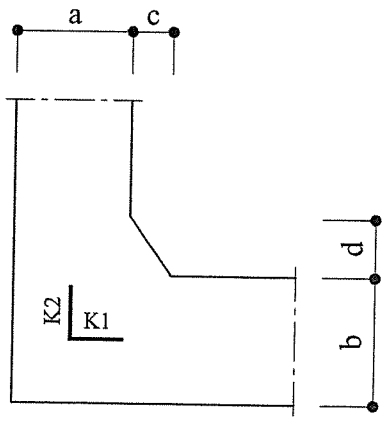
(2) 강역설정

- 절점 22 , 30



a =	400	mm	c =	300	mm
b =	400	mm	d =	300	mm
K1 =	300	mm	K2 =	300	mm

- 절점 1 , 9

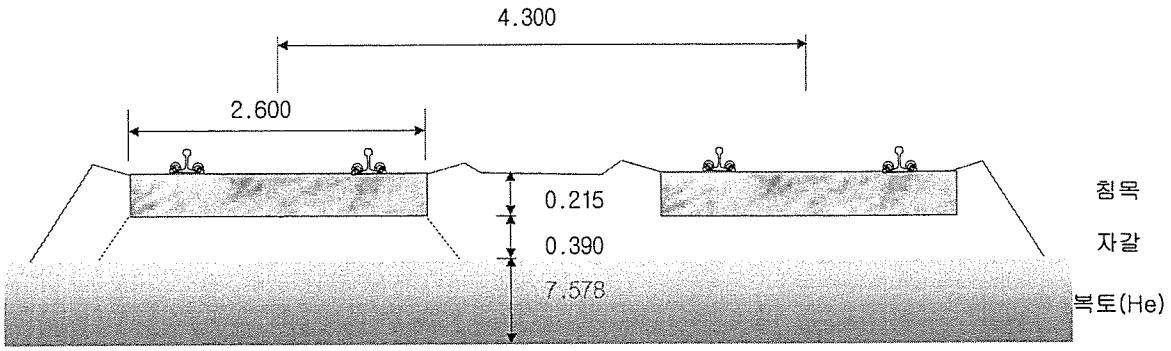


a =	400	mm	c =	300	mm
b =	450	mm	d =	300	mm
K1 =	275	mm	K2 =	325	mm

4. 하중산정

4.1 상시

1) 상부 고정하중(지하수 無)



① 하중 분포폭 산정 (b')

① He < 0.5m 경우 : b + d

b_1 = 2.600 + 0.390 = 2.990 m

② He ≥ 0.5m 경우 : c + b + (d + He)

b_2 = 4.300 + 2.600 + (0.390 + 7.578) = 14.590 m

여기서, He : 시공기면에서의 토피고(m)

a : 동륜간 축간거리(m) c : 복선선로 중심간격(m)

b : 침목길이(m) d : 침목하면의 도상두께(m)

H : 상부슬래브 두께

He ≥ 0.5 m

∴ b' = 14.590 m

② 구조물 자중 : 프로그램 상에서 Self Weight 기능을 이용하여 자동 고려

③ 궤도 중량

- 레일 : 레일당 1.5kN/m를 적용

q_1 = 4 × 1.500 / 14.590 = 0.411 kN/㎡

- 침목 : 고속철도용 5.0kN/m

q_2 = 5.000 × 2 / 14.590 = 0.685 kN/㎡

= 1.096 kN/㎡

④ 도상 (q_2)

TCL = 0.215 × 19.000 × 1.3 = 5.311 kN/㎡

HSB = 0.390 × 19.000 × 1.3 = 9.633 kN/㎡

= 14.944 kN/㎡

⑤ 복토하중 (q_3) = 20.000 × 7.578 = 151.560 kN/㎡

∴ $q_1 + q_2 + q_3$ = 1.096 + 14.944 + 151.560 = 167.600 kN/㎡

2) 활하중

① 활하중 산정 : KRL 2012

$$W_{HL} = \frac{2P}{a \times b'} = \frac{2\times(220+80x3)}{3.000 \times 14.590} = 21.019 \text{ kN/㎡}$$

∴ W = 21.019 kN/㎡

② 충격계수

1) 단선 (i_0) (철도설계기준 노반편(2013) p.5-7)

지 간 L (m)	0	5	10	20	30	40	50	70	100
충격계수 (i)	0.60	0.48	0.43	0.37	0.34	0.32	0.30	0.27	0.24

* 상기표에 없는 지간의 충격 계수는 보간법으로 구한다.

지 간 L (m) = 2.470 m

따라서 i_0 = 0.541 (보간법에 의하여 산정된 충격계수)

2) 구조물 상면의 복토높이에 따른 충격 계수

H ≥ 1.0일 경우 $i = io \cdot \{(2.5 - H)/1.5\}$

여기서, H ≤ 1.0 m 에서는 $i = i_o$

H ≥ 2.5 m 에서는 i = 0

따라서, 본 구조물의 H = 8.183 m i = 0.000

W_L = 21.019 ×(1 + 0.000) = 21.019 kN/㎡

③ 활하중에 의한 측압 (충격비고려)(철도설계기준 노반편(2013) p.5-6)

W_{LH} = 21.019 × 0.4 = 8.408 kN/㎡

3) 토 압

- 지하수가 없는 경우 작용 토압

q_1 = 0.426 ×(16.040 + 20.000 × 7.778) = 73.102 kN/㎡

q_2 = 73.102 + 0.426 ×(20.000 × 0.500) = 77.362 kN/㎡

q_3 = 77.362 + 0.426 ×(20.000 × 0.280) = 79.748 kN/㎡

q_4 = 79.748 + 0.426 ×(20.000 × 0.280) = 82.134 kN/㎡

q_5 = 82.134 + 0.426 ×(20.000 × 0.280) = 84.520 kN/㎡

q_6 = 84.520 + 0.426 ×(20.000 × 0.280) = 86.906 kN/㎡

q_7 = 86.906 + 0.426 ×(20.000 × 0.280) = 89.292 kN/㎡

q_8 = 89.292 + 0.426 ×(20.000 × 0.525) = 93.765 kN/㎡

- 시공중 편토압 산정 (지하수가 없는 경우 작용 토압)

q_1 = 0.426 ×(0.000 + 20.000 × 0.200) = 1.704 kN/㎡

q_2 = 1.704 + 0.426 ×(20.000 × 0.500) = 5.964 kN/㎡

q_3 = 5.964 + 0.426 ×(20.000 × 0.280) = 8.350 kN/㎡

q_4 = 8.350 + 0.426 ×(20.000 × 0.280) = 10.736 kN/㎡

q_5 = 10.736 + 0.426 ×(20.000 × 0.280) = 13.122 kN/㎡

q_6 = 13.122 + 0.426 ×(20.000 × 0.280) = 15.508 kN/㎡

q_7 = 15.508 + 0.426 ×(20.000 × 0.280) = 17.894 kN/㎡

q_8 = 17.894 + 0.426 ×(20.000 × 0.525) = 22.367 kN/㎡

4) 온도하중

토피가 1.0m 이상일 경우에는 온도변화를 고려치 않으며, 토피가 1.0m 이하일 경우에는 다음식을 따른다.

$t = a \times t_0$ = 0.000 × 15.0 = 0.000 ℃

t : 박스 구조물의 상부 슬래브에 작용하는 온도변화

a : 토피심도(m)에 따른 저감률 $a=1-h_0$ (h_0:토피심도)

t_0 : 지표면에서의 기본온도 변화

상부슬래브의 두께가 700mm 이상인 경우 $t_0 = \pm 10$℃

상부슬래브의 두께가 700mm 미만인 경우 $t_0 = \pm 15$℃

토피고 H > 1.0m 이므로 온도변화는 고려하지 않는다.

5) 건조수축

$$\Delta Tx = \frac{\varepsilon}{\alpha} = \frac{-0.00015}{0.00001} = -15\,^{\circ}C$$

6) 장대레일 하중

장대레일 종하중은 필요시에 고려하여야 하며, 1궤도당 10 kN/m로 하고 작용위치는 상부슬래브 축선으로 한다. (단, 토피가 1.0m 이상인 경우는 이를 무시한다.)

토피가 8.183 m 이므로 장대레일 하중을 무시한다.

H_r = 0.000 × 4 / 14.590 = 0.000 kN/㎡

7) 상시 지반반력 계수

지지 지반 N치 = 26

Eo = 2800 × N = 2800 × 26 = 72800

Kvo = 1 / 0.3 x α x Eo = 1 / 0.3 × 1 x 72800 = 242667

Bv = √ Av = √ (2.470 × 2.470) = 2.470

Kv = Kvo (Bv/0.3)^-3/4 = 49926 kN/㎡

49926 × (0.400 / 2 + 0.550 / 2) = 23715 kN/㎡ - 저판 단부 스프링

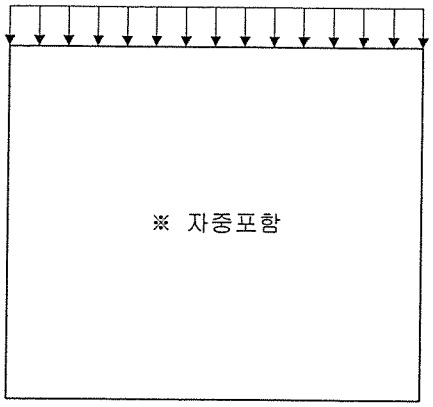
49926 × (0.550 / 2 + 0.228 / 2) = 19430 kN/㎡ - 저판 전단검토위치

49926 × (0.228 / 2 + 0.228 / 2) = 11400 kN/㎡ - 저판 중앙부 스프링

5. 하중재하도

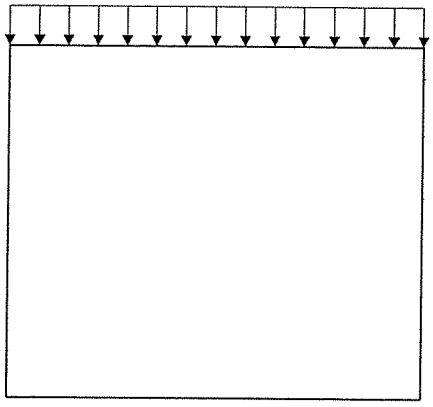
① 고정하중

W_D = 167.600 kN/㎡



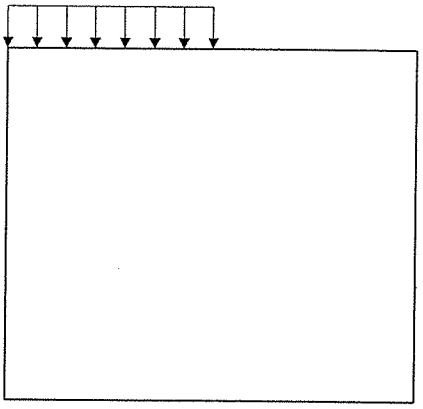
② 활하중(만재하)

W_L = 21.019 kN/㎡



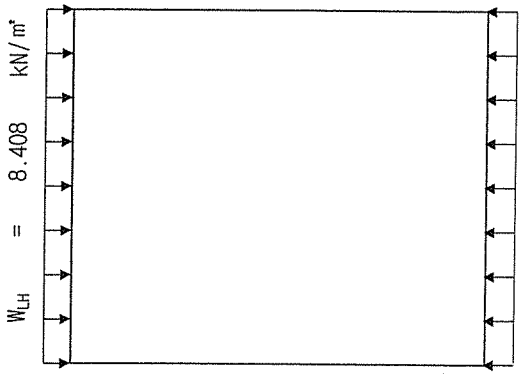
③ 활하중(편재하)

W_L = 21.019 kN/㎡



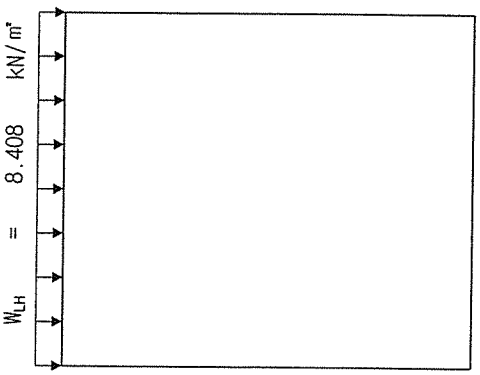
④ 활하중에 의한 측압(만재하)

W_{LH} = 8.408 kN/㎡

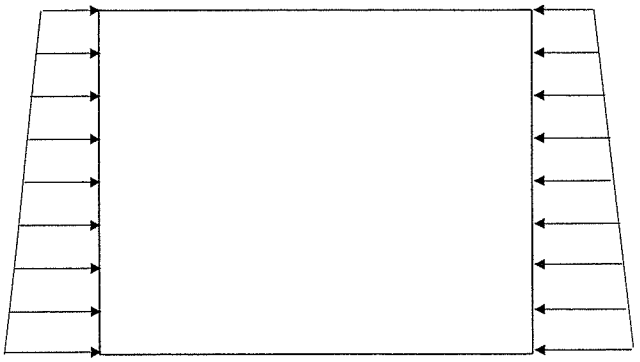


⑤ 활하중에 의한 측압(편재하)

W_{LH} = 8.408 kN/㎡



⑥ 수평토압(지하수 없는 경우)

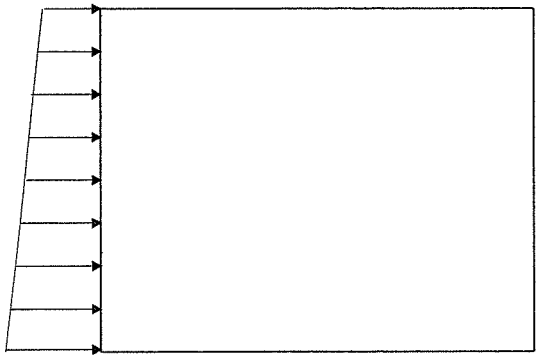


q_1 = 73.102 kN/㎡

q_7 = 93.765 kN/㎡

⑦ 편측토압(지하수 없는 경우)

q_1 = 1.704 kN/㎡



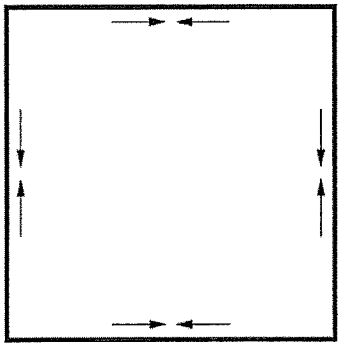
q_7 = 22.367 kN/㎡

⑧ 온도하중

△T = 0 °

⑨ 건조수축

△T = -15 °



⑩ 장대레일 종하중

Hr = 0.000 kN/㎡

6. 하중계수 및 하중조합

1) 극한하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
1	1.35	1.85		1.85		1.6						
2	1.35	1.85		1.85		0.6						
3	1.35		1.85		1.85	1.6						
4	1.35		1.85		1.85	0.6						
5	1.6	1.60		1.60		1.6						
6	1.6	1.60		1.60		0.6						
7	1.6		1.6		1.6	1.6						
8	1.6		1.6		1.6	0.6						
9	1.35	1.40		1.40		1.6		1.35		1.35		
10	1.35	1.40		1.40		0.6		1.35		1.35		
11	1.35	1.40		1.40		1.6			1.35	1.35	1.40	
12	1.35	1.40		1.40		0.6			1.35	1.35	1.40	
13	1.35		1.40		1.40	1.6		1.35		1.35		
14	1.35		1.40		1.40	0.6		1.35		1.35		
15	1.35		1.40		1.40	1.6			1.35	1.35	1.4	
16	1.35		1.40		1.40	0.6			1.35	1.35	1.4	
17	1.35		1.85		1.85		1.60					
18	1.35		1.85		1.85		0.60					
19	1.60		1.60		1.60		1.60					
20	1.60		1.60		1.60		0.60					

2) 사용하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
21	1.0	1.0		1.0		1.0						
22	1.0	1.0		1.0		0.5						
23	1.0		1.0		1.0	1.0						
24	1.0		1.0		1.0	0.5						
25	1.0	1.0		1.0		1.0		1.0			1.0	
26	1.0	1.0		1.0		0.5		1.0			1.0	
27	1.0	1.0		1.0		1.0			1.0	1.0	1.0	
28	1.0	1.0		1.0		0.5			1.0	1.0	1.0	
29	1.0		1.0		1.0	1.0		1.0			1.0	
30	1.0		1.0		1.0	0.5		1.0			1.0	
31	1.0		1.0		1.0	1.0			1.0	1.0	1.0	
32	1.0		1.0		1.0	0.5			1.0	1.0	1.0	
33	1.0					1.0						
34	1.0		1.0		1.0		1.0					
35	1.0		1.0		1.0		0.5					

7. INPUT DATA

```
*VERSION
   8.3.1

*UNIT    ; Unit System
; FORCE, LENGTH, HEAT, TEMPER
   KN   , M, J, C

*STRUCTYPE    ; Structure Type
; iSTYP, iMASS, iSMAS, bMASSOFFSET, bSELFWEIGHT, GRAV, TEMPER, bALIGNBEAM, bALIGNSLAB, bROTRIGID
     1, 1, 1, NO, YES, 9.806, 0, NO, NO, NO

*REBAR-MATL-CODE    ; Rebar Material Code
; CONC_CODE, CONC_MDB, SRC_CODE, SRC_MDB
 KS01-Civil(RC), SD300, KS01-Civil(RC), SD300

*NODE    ; Nodes
; iNO, X, Y, Z
     1, 0, 0, 0
     2, 0.55, 0, 0
     3, 0.772, 0, 0
     4, 0.993, 0, 0
     5, 1.215, 0, 0
     6, 1.437, 0, 0
     7, 1.658, 0, 0
     8, 1.88, 0, 0
     9, 2.43, 0, 0
    10, 0, 0, 0.525
    11, 2.43, 0, 0.525
    12, 0, 0, 0.805
    13, 2.43, 0, 0.805
    14, 0, 0, 1.085
    15, 2.43, 0, 1.085
    16, 0, 0, 1.365
    17, 2.43, 0, 1.365
    18, 0, 0, 1.645
    19, 2.43, 0, 1.645
    20, 0, 0, 1.925
    21, 2.43, 0, 1.925
    22, 0, 0, 2.425
    23, 0.5, 0, 2.425
    24, 0.738, 0, 2.425
    25, 0.977, 0, 2.425
    26, 1.215, 0, 2.425
    27, 1.453, 0, 2.425
    28, 1.692, 0, 2.425
    29, 1.93, 0, 2.425
    30, 2.43, 0, 2.425

*ELEMENT    ; Elements
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, iOPT(EXVAL2) ; Frame  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, EXVAL2, bLMT ; Comp/Tens Truss
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iSUB, iWID             ; Planar Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iN5, iN6, iN7, iN8     ; Solid  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, REF, RPX, RPY, RPZ, iSUB, EXVAL  ; Frame(Ref. Point)
     1, BEAM  ,    2,    2,    1,    2,  180
     2, BEAM  ,    2,    2,    2,    3,  180
     3, BEAM  ,    2,    2,    3,    4,  180
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     5, BEAM  ,    2,    2,    5,    6,  180
     6, BEAM  ,    2,    2,    6,    7,  180
     7, BEAM  ,    2,    2,    7,    8,  180
     8, BEAM  ,    2,    2,    8,    9,  180
     9, BEAM  ,    2,    3,    1,   10,  180
    10, BEAM  ,    2,    3,    9,   11,    0
    11, BEAM  ,    2,    3,   10,   12,  180
    12, BEAM  ,    2,    3,   11,   13,    0
    13, BEAM  ,    2,    3,   12,   14,  180
    14, BEAM  ,    2,    3,   13,   15,    0
    15, BEAM  ,    2,    3,   14,   16,  180
    16, BEAM  ,    2,    3,   15,   17,    0
    17, BEAM  ,    2,    3,   16,   18,  180
    18, BEAM  ,    2,    3,   17,   19,    0
    19, BEAM  ,    2,    3,   18,   20,  180
    20, BEAM  ,    2,    3,   19,   21,    0
    21, BEAM  ,    2,    3,   20,   22,  180
    22, BEAM  ,    2,    3,   21,   30,    0
    23, BEAM  ,    2,    1,   22,   23,    0
    24, BEAM  ,    2,    1,   23,   24,    0
    25, BEAM  ,    2,    1,   24,   25,    0
    26, BEAM  ,    2,    1,   25,   26,    0
    27, BEAM  ,    2,    1,   26,   27,    0
    28, BEAM  ,    2,    1,   27,   28,    0
    29, BEAM  ,    2,    1,   28,   29,    0
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    30, BEAM ,    2,     1,    29,    30,     0

*MATERIAL    ; Material
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA1]          ; STEEL, CONC, USER
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA2], [DATA2] ; SRC
; [DATA1] : 1, DB, NAME, CODE
; [DATA1] : 2, ELAST, POISN, THERMAL, DEN, MASS
; [DATA1] : 3, Ex, Ey, Ez, Tx, Ty, Tz, Sxy, Sxz, Syz, Pxy, Pxz, Pyz, DEN, MASS   ; Orthotropic
; [DATA2] : 1, DB, NAME, CODE or 2, ELAST, POISN, THERMAL, DEN, MASS
    1, USER , STEEL             , 0, 0, , C, NO, 0, 2, 2.0000e+008,   0.3, 1.1700e-005, 76.8196,     0
    2, USER , CONC              , 0, 0, , C, NO, 0, 2, 2.7537e+007,  0.18, 1.0000e-005,  24.5,     0

*MATL-COLOR
; iMAT, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
    1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
    2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5


*SECTION    ; Section
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL              ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF          ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE                ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       [SIZE-A]                                                              ; 3rd line
;       [SIZE-B]                                                              ; 4th line
;       [SIZE-C]                                                              ; 5th line
;       [SIZE-D]                                                              ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb                     ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                       ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                    ; 4th line
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;       [SIZE-A]                                                                ; 5th line
;       [SIZE-B]                                                                ; 6th line
;       [SIZE-C]                                                                ; 7th line
;       [SIZE-D]                                                                ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]  : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.45, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0

*SECT-COLOR
; iSEC, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
   1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   3, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5

*DGN-SECT
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL             ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF         ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE               ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
```

```
  ; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                  ; 1st line - COMPOSITE-CI/CT
  ;       OPT1, OPT2, [JOINT]                                                ; 2nd line
  ;       [SIZE-A]                                                           ; 3rd line
  ;       [SIZE-B]                                                           ; 4th line
  ;       [SIZE-C]                                                           ; 5th line
  ;       [SIZE-D]                                                           ; 6th line
  ;       SW, GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb                  ; 7th line
  ; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                  ; 1st line - PSC
  ;       OPT1, OPT2, [JOINT]                                                ; 2nd line
  ;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                    ; 3rd line
  ;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                 ; 4th line
  ;       [SIZE-A]                                                           ; 5th line
  ;       [SIZE-B]                                                           ; 6th line
  ;       [SIZE-C]                                                           ; 7th line
  ;       [SIZE-D]                                                           ; 8th line
  ; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
  ; [DATA2] : CCSHAPE or iCEL or iN1, iN2
  ; [SRC]  : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
  ; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
  ; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
  ; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
  ; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
  ; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
  ; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
  ; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
  ; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
  ; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
  ; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
  ; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
  ; [CMPWEB] : EFD, LRF, A, B, H, T
     1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0
     2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.45, 1, 0, 0, 0, 0, 0, 0, 0, 0
     3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0

  *STLDCASE    ; Static Load Cases
  ; LCNAME, LCTYPE, DESC
     LC1  , USER,
     LC2  , USER,
     LC3  , USER,
     LC4  , USER,
     LC5  , USER,
     LC6  , USER,
     LC7  , USER,
     LC8  , USER,
     LC9  , USER,
     LC10 , USER,
     LC11 , USER,
     NCOMB1, USER,
     NCOMB2, USER,
     NCOMB3, USER,
     NCOMB4, USER,
     NCOMB5, USER,
     NCOMB6, USER,
     NCOMB7, USER,
     NCOMB8, USER,
     NCOMB9, USER,
     NCOMB10, USER,
     NCOMB11, USER,
     NCOMB12, USER,
     NCOMB13, USER,
     NCOMB14, USER,
     NCOMB15, USER,
     NCOMB16, USER,
     NCOMB17, USER,
     NCOMB18, USER,
     NCOMB19, USER,
     NCOMB20, USER,
     NCOMB21, USER,
     NCOMB22, USER,
     NCOMB23, USER,
     NCOMB24, USER,
     NCOMB25, USER,
     NCOMB26, USER,
     NCOMB27, USER,
     NCOMB28, USER,
     NCOMB29, USER,
     NCOMB30, USER,
     NCOMB31, USER,
     NCOMB32, USER,
     NCOMB33, USER,
     NCOMB34, USER,
     NCOMB35, USER,

  *SPRING    ; Point Spring Supports
  ; NODE_LIST, Type, SDx, SDy, SDz, SRx, SRy, SRz, GROUP, FROMTYPE, EFFAREA, Kx, Ky, Kz
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; NODE_LIST, Type, Direction, Vx, Vy, Vz, Stiffness, GROUP, FROMTYPE, EFFAREA
; NODE_LIST, Type, Multi-Linear Type, Direction, Vx, Vy, Vz, ax, ay, bx, by, cx, cy, dx, dy, ex, ey, fx, fy, GROUP, FROMTYPE, EFFAREA
   1, LINEAR, 1e+010, 0, 0, 0, 0, 0, NO, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0
   2 8, COMP  ,  5, 0, 0, 0, 12000, , 0, 0, 0, 0, 0, 0
   3to7, COMP  ,  5, 0, 0, 0, 6894, , 0, 0, 0, 0, 0, 0
   9, COMP  ,  5, 0, 0, 0, 14774, , 0, 0, 0, 0, 0, 0

*OFFSET    ; Beam End Offsets
; ELEM_LIST, TYPE, RGDXi, RGDYi, RGDZi, RGDXi, RGDYi, RGDZi, GROUP  ; TYPE=GLOBAL
; ELEM_LIST, TYPE, RGDi, RGDj, GROUP                                ; TYPE=ELEMENT
     1, ELEMENT, 0.275, 0,
     8, ELEMENT, 0, 0.275,
     9, ELEMENT, 0.325, 0,
    10, ELEMENT, 0.325, 0,
    21, ELEMENT, 0, 0.3,
    22, ELEMENT, 0, 0.3,
    23, ELEMENT, 0.3, 0,
    30, ELEMENT, 0, 0.3,

*USE-STLD, LC1

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC1] ------------------------

*USE-STLD, LC2

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC2] ------------------------

*USE-STLD, LC3

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC3] ------------------------

*USE-STLD, LC4

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
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      13, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      14, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      15, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      16, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      17, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      18, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      19, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      20, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      21, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
      22, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC4] ----------

*USE-STLD, LC5

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
      9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
     11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
     13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
     15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
     17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
     19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
     21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC5] ----------

*USE-STLD, LC6

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
      9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 60.189, 1, 55.716, 0, 0, 0, 0, , NO, 0, 0, NO
     10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -60.189, 1, -55.716, 0, 0, 0, 0, , NO, 0, 0, NO
     11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 55.716, 1, 53.33, 0, 0, 0, 0, , NO, 0, 0, NO
     12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -55.716, 1, -53.33, 0, 0, 0, 0, , NO, 0, 0, NO
     13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 53.33, 1, 50.944, 0, 0, 0, 0, , NO, 0, 0, NO
     14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -53.33, 1, -50.944, 0, 0, 0, 0, , NO, 0, 0, NO
     15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 50.944, 1, 48.558, 0, 0, 0, 0, , NO, 0, 0, NO
     16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -50.944, 1, -48.558, 0, 0, 0, 0, , NO, 0, 0, NO
     17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 48.558, 1, 46.172, 0, 0, 0, 0, , NO, 0, 0, NO
     18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -48.558, 1, -46.172, 0, 0, 0, 0, , NO, 0, 0, NO
     19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 46.172, 1, 43.786, 0, 0, 0, 0, , NO, 0, 0, NO
     20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -46.172, 1, -43.786, 0, 0, 0, 0, , NO, 0, 0, NO
     21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 43.786, 1, 39.526, 0, 0, 0, 0, , NO, 0, 0, NO
     22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -43.786, 1, -39.526, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC6] ----------

*USE-STLD, LC7

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
      9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 22.367, 1, 17.894, 0, 0, 0, 0, , NO, 0, 0, NO
     11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 17.894, 1, 15.508, 0, 0, 0, 0, , NO, 0, 0, NO
     13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.508, 1, 13.122, 0, 0, 0, 0, , NO, 0, 0, NO
     15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.122, 1, 10.736, 0, 0, 0, 0, , NO, 0, 0, NO
     17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 10.736, 1, 8.35, 0, 0, 0, 0, , NO, 0, 0, NO
     19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.35, 1, 5.964, 0, 0, 0, 0, , NO, 0, 0, NO
     21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 5.964, 1, 1.704, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC7] ----------

*USE-STLD, LC10

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
     1, -15.
     2, -15.
     3, -15.
     4, -15.
     5, -15.
     6, -15.
     7, -15.
     8, -15.
     9, -15.
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    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
    30. -15.

; End of data for load case [LC10] ------------------------

*USE-STLD. NCOMB1

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB1] ------------------------

*USE-STLD. NCOMB2

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB2] ----------------------

*USE-STLD. NCOMB3

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB3] ------------------------

*USE-STLD. NCOMB4

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB4] ------------------------

*USE-STLD. NCOMB5

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
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    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB5] ----------

*USE-STLD. NCOMB6

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB6] ------------------------

*USE-STLD. NCOMB7

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB7] ------------------------

*USE-STLD. NCOMB8

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
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     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB8] ------------------------

*USE-STLD. NCOMB9

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. N(
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. N(
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. N(
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. N(
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. N(
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB9] ------------------------

*USE-STLD. NCOMB10

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. N(
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
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    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB10] ------------------------

*USE-STLD. NCOMB11

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
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     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB11] ------------------------

*USE-STLD. NCOMB12

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
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    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB12] ------------------------

*USE-STLD. NCOMB13

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
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     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB13] ------------------------

*USE-STLD. NCOMB14

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB14] ------------------------

*USE-STLD. NCOMB15

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB15] ------------------------

*USE-STLD. NCOMB16

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
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      28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
      29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
      30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
      1. -20.25.
      2. -20.25.
      3. -20.25.
      4. -20.25.
      5. -20.25.
      6. -20.25.
      7. -20.25.
      8. -20.25.
      9. -20.25.
     10. -20.25.
     11. -20.25.
     12. -20.25.
     13. -20.25.
     14. -20.25.
     15. -20.25.
     16. -20.25.
     17. -20.25.
     18. -20.25.
     19. -20.25.
     20. -20.25.
     21. -20.25.
     22. -20.25.
     23. -20.25.
     24. -20.25.
     25. -20.25.
     26. -20.25.
     27. -20.25.
     28. -20.25.
     29. -20.25.
     30. -20.25.

; End of data for load case [NCOMB16] ----------

*USE-STLD. NCOMB17

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 35.7872. 1. 28.6304. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 28.6304. 1. 24.8128. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.8128. 1. 20.9952. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.9952. 1. 17.1776. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.1776. 1. 13.36. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.36. 1. 9.5424. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.5424. 1. 2.7264. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB17] ----------

*USE-STLD. NCOMB18

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
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; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
    9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4202, 1, 10.7364, 0, 0, 0, 0, , NO, 0, 0, NO
   11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 10.7364, 1, 9.3048, 0, 0, 0, 0, , NO, 0, 0, NO
   11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
   13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
   13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 9.3048, 1, 7.8732, 0, 0, 0, 0, , NO, 0, 0, NO
   15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 7.8732, 1, 6.4416, 0, 0, 0, 0, , NO, 0, 0, NO
   15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
   17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 6.4416, 1, 5.01, 0, 0, 0, 0, , NO, 0, 0, NO
   17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
   19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 5.01, 1, 3.5784, 0, 0, 0, 0, , NO, 0, 0, NO
   19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
   21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 3.5784, 1, 1.0224, 0, 0, 0, 0, , NO, 0, 0, NO
   21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
   23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -119.86, 1, -119.86, 0, 0, 0, 0, , NO, 0, 0, NO
   23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
   24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -119.86, 1, -119.86, 0, 0, 0, 0, , NO, 0, 0, NO
   24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
   25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -119.86, 1, -119.86, 0, 0, 0, 0, , NO, 0, 0, NO
   25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
   26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
   26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -119.86, 1, -119.86, 0, 0, 0, 0, , NO, 0, 0, NO
   27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -119.86, 1, -119.86, 0, 0, 0, 0, , NO, 0, 0, NO
   28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -119.86, 1, -119.86, 0, 0, 0, 0, , NO, 0, 0, NO
   29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -119.86, 1, -119.86, 0, 0, 0, 0, , NO, 0, 0, NO
   30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -119.86, 1, -119.86, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [NCOMB18] ------------------------

*USE-STLD, NCOMB19

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1.6,

*BEAMLOAD     ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
    9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
    9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 35.7872, 1, 28.6304, 0, 0, 0, 0, , NO, 0, 0, NO
   11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
   11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 28.6304, 1, 24.8128, 0, 0, 0, 0, , NO, 0, 0, NO
   13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 24.8128, 1, 20.9952, 0, 0, 0, 0, , NO, 0, 0, NO
   13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
   15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
   15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 20.9952, 1, 17.1776, 0, 0, 0, 0, , NO, 0, 0, NO
   17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
   17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 17.1776, 1, 13.36, 0, 0, 0, 0, , NO, 0, 0, NO
   19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.36, 1, 9.5424, 0, 0, 0, 0, , NO, 0, 0, NO
   19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
   21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
   21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 9.5424, 1, 2.7264, 0, 0, 0, 0, , NO, 0, 0, NO
   23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -33.6304, 1, -33.6304, 0, 0, 0, 0, , NO, 0, 0, NO
   23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -142.056, 1, -142.056, 0, 0, 0, 0, , NO, 0, 0, NO
   24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -33.6304, 1, -33.6304, 0, 0, 0, 0, , NO, 0, 0, NO
   24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -142.056, 1, -142.056, 0, 0, 0, 0, , NO, 0, 0, NO
   25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -33.6304, 1, -33.6304, 0, 0, 0, 0, , NO, 0, 0, NO
   25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -142.056, 1, -142.056, 0, 0, 0, 0, , NO, 0, 0, NO
   26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -142.056, 1, -142.056, 0, 0, 0, 0, , NO, 0, 0, NO
   26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -33.6304, 1, -33.6304, 0, 0, 0, 0, , NO, 0, 0, NO
   27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -142.056, 1, -142.056, 0, 0, 0, 0, , NO, 0, 0, NO
   28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -142.056, 1, -142.056, 0, 0, 0, 0, , NO, 0, 0, NO
   29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -142.056, 1, -142.056, 0, 0, 0, 0, , NO, 0, 0, NO
   30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -142.056, 1, -142.056, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [NCOMB19] ------------------------

*USE-STLD, NCOMB20

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1.6,

*BEAMLOAD     ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
    9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4202, 1, 10.7364, 0, 0, 0, 0, , NO, 0, 0, NO
    9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
   11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 10.7364, 1, 9.3048, 0, 0, 0, 0, , NO, 0, 0, NO
   11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.4528, 1, 13.4528, 0, 0, 0, 0, , NO, 0, 0, NO
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      13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.3048. 1. 7.8732. 0. 0. 0. 0. . NO. 0. 0. NO
      13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
      15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
      15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.8732. 1. 6.4416. 0. 0. 0. 0. . NO. 0. 0. NO
      17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.4416. 1. 5.01. 0. 0. 0. 0. . NO. 0. 0. NO
      17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
      19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
      19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.01. 1. 3.5784. 0. 0. 0. 0. . NO. 0. 0. NO
      21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 3.5784. 1. 1.0224. 0. 0. 0. 0. . NO. 0. 0. NO
      21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
      23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
      24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
      24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
      25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
      25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
      26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
      26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
      27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
      28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
      29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
      30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB20] ------------------------

*USE-STLD. NCOMB21

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB21] ------------------------

*USE-STLD. NCOMB22

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB22] ----------------------

*USE-STLD. NCOMB23

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
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     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB23] ----------

*USE-STLD. NCOMB24

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB24] ----------

*USE-STLD. NCOMB25

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
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    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB25] ------------------------

*USE-STLD. NCOMB26

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB26] ------------------------

*USE-STLD. NCOMB27

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
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    27. -15.
    28. -15.
    29. -15.
    30. -15.

; End of data for load case [NCOMB27] ------------------------

*USE-STLD. NCOMB28

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
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      23. -15.
      24. -15.
      25. -15.
      26. -15.
      27. -15.
      28. -15.
      29. -15.
      30. -15.

; End of data for load case [NCOMB28] ------------------------

*USE-STLD. NCOMB29

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB29] ------------------------

*USE-STLD. NCOMB30

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
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    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB30] ------------------------

*USE-STLD. NCOMB31

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
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      23. -15.
      24. -15.
      25. -15.
      26. -15.
      27. -15.
      28. -15.
      29. -15.
      30. -15.

; End of data for load case [NCOMB31] ------------------------

*USE-STLD. NCOMB32

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
      1. -15.
      2. -15.
      3. -15.
      4. -15.
      5. -15.
      6. -15.
      7. -15.
      8. -15.
      9. -15.
     10. -15.
     11. -15.
     12. -15.
     13. -15.
     14. -15.
     15. -15.
     16. -15.
     17. -15.
     18. -15.
     19. -15.
     20. -15.
     21. -15.
     22. -15.
     23. -15.
     24. -15.
     25. -15.
     26. -15.
     27. -15.
     28. -15.
     29. -15.
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    30. -15.

; End of data for load case [NCOMB32] ------------------------

*USE-STLD. NCOMB33

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB33] ------------------------

*USE-STLD. NCOMB34

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.367. 1. 17.894. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.894. 1. 15.508. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.508. 1. 13.122. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.122. 1. 10.736. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.736. 1. 8.35. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.35. 1. 5.964. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.964. 1. 1.704. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB34] ------------------------

*USE-STLD. NCOMB35

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
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; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]        : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]        : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]   : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.1835. 1. 8.947. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.947. 1. 7.754. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.754. 1. 6.561. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.561. 1. 5.368. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.368. 1. 4.175. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 4.175. 1. 2.982. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 2.982. 1. 0.852. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
; End of data for load case [NCOMB35] ------------------------


*LOADCOMB    ; Combinations
; NAME=NAME. KIND. ACTIVE. bES. iTYPE. DESC. iSERV-TYPE. nLCOMTYPE   ; line 1
;      ANAL1. LCNAME1. FACT1. ...                                    ; from line 2
  NAME=COMB1. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 1.6
  NAME=COMB2. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 0.6
  NAME=COMB3. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 1.6
  NAME=COMB4. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 0.6
  NAME=COMB5. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 1.6
  NAME=COMB6. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 0.6
  NAME=COMB7. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 1.6
  NAME=COMB8. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 0.6
  NAME=COMB9. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
       ST. LC11. 1.35
  NAME=COMB10. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
       ST. LC11. 1.35
  NAME=COMB11. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
       ST. LC10. 1.35. ST. LC11. 1.4
  NAME=COMB12. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
       ST. LC10. 1.35. ST. LC11. 1.4
  NAME=COMB13. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
       ST. LC11. 1.35
  NAME=COMB14. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
       ST. LC11. 1.35
  NAME=COMB15. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
       ST. LC10. 1.35. ST. LC11. 1.4
  NAME=COMB16. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
       ST. LC10. 1.35. ST. LC11. 1.4
  NAME=COMB17. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 1.6
  NAME=COMB18. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 0.6
  NAME=COMB19. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 1.6
  NAME=COMB20. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 0.6
  NAME=COMB21. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1
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NAME=COMB22. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5
NAME=COMB23. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1
NAME=COMB24. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5
NAME=COMB25. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB26. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB27. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB28. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB29. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB30. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB31. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB32. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB33. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC6. 1
NAME=COMB34. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 1
NAME=COMB35. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 0.5
NAME=USD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB1. 1. ST. NCOMB2. 1. ST. NCOMB3. 1. ST. NCOMB4. 1
     ST. NCOMB5. 1. ST. NCOMB6. 1. ST. NCOMB7. 1. ST. NCOMB8. 1
     ST. NCOMB9. 1. ST. NCOMB10. 1. ST. NCOMB11. 1. ST. NCOMB12. 1
     ST. NCOMB13. 1. ST. NCOMB14. 1. ST. NCOMB15. 1. ST. NCOMB16. 1
     ST. NCOMB17. 1. ST. NCOMB18. 1. ST. NCOMB19. 1. ST. NCOMB20. 1
NAME=WSD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB21. 1. ST. NCOMB22. 1. ST. NCOMB23. 1. ST. NCOMB24. 1
     ST. NCOMB25. 1. ST. NCOMB26. 1. ST. NCOMB27. 1. ST. NCOMB28. 1
     ST. NCOMB29. 1. ST. NCOMB30. 1. ST. NCOMB31. 1. ST. NCOMB32. 1
     ST. NCOMB33. 1. ST. NCOMB34. 1. ST. NCOMB35. 1
NAME=NCOMB1. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB1. 1
NAME=NCOMB2. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB2. 1
NAME=NCOMB3. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB3. 1
NAME=NCOMB4. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB4. 1
NAME=NCOMB5. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB5. 1
NAME=NCOMB6. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB6. 1
NAME=NCOMB7. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB7. 1
NAME=NCOMB8. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB8. 1
NAME=NCOMB9. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB9. 1
NAME=NCOMB10. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB10. 1
NAME=NCOMB11. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB11. 1
NAME=NCOMB12. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB12. 1
NAME=NCOMB13. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB13. 1
NAME=NCOMB14. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB14. 1
NAME=NCOMB15. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB15. 1
NAME=NCOMB16. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB16. 1
NAME=NCOMB17. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB17. 1
NAME=NCOMB18. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB18. 1
NAME=NCOMB19. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB19. 1
NAME=NCOMB20. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB20. 1
NAME=NCOMB21. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB21. 1
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   NAME=NCOMB22. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB22. 1
   NAME=NCOMB23. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB23. 1
   NAME=NCOMB24. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB24. 1
   NAME=NCOMB25. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB25. 1
   NAME=NCOMB26. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB26. 1
   NAME=NCOMB27. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB27. 1
   NAME=NCOMB28. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB28. 1
   NAME=NCOMB29. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB29. 1
   NAME=NCOMB30. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB30. 1
   NAME=NCOMB31. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB31. 1
   NAME=NCOMB32. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB32. 1
   NAME=NCOMB33. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB33. 1
   NAME=NCOMB34. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB34. 1
   NAME=NCOMB35. CONC. STRENGTH. 0. 0. . 0. 0
        ST. NCOMB35. 1

*LOADCONST    ; Load Constribution for Nonlinear Load Case
; NAME=STLDCASE. DESC                                          ; 1st line
;      LCNAME1. LCTYPE1. FACTOR1. LCNAME2. LCTYPE2. FACTOR2. ...   ; from line 2
   NAME=NCOMB1.
        LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 1.6
   NAME=NCOMB2.
        LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 0.6
   NAME=NCOMB3.
        LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 1.6
   NAME=NCOMB4.
        LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 0.6
   NAME=NCOMB5.
        LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 1.6
   NAME=NCOMB6.
        LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 0.6
   NAME=NCOMB7.
        LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 1.6
   NAME=NCOMB8.
        LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 0.6
   NAME=NCOMB9.
        LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
        LC11. ST. 1.35
   NAME=NCOMB10.
        LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
        LC11. ST. 1.35
   NAME=NCOMB11.
        LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
        LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB12.
        LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC9. ST. 1.35
        LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB13.
        LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
        LC11. ST. 1.35
   NAME=NCOMB14.
        LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
        LC11. ST. 1.35
   NAME=NCOMB15.
        LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
        LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB16.
        LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 0.6. LC9. ST. 1.35
        LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB17.
        LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC7. ST. 1.6
   NAME=NCOMB18.
        LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC7. ST. 0.6
   NAME=NCOMB19.
        LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC7. ST. 1.6
   NAME=NCOMB20.
        LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC7. ST. 0.6
   NAME=NCOMB21.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 1
   NAME=NCOMB22.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5
   NAME=NCOMB23.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1
   NAME=NCOMB24.
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        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5
    NAME=NCOMB25,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 1, LC8, ST, 1, LC11, ST, 1
    NAME=NCOMB26,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5, LC8, ST, 1
        LC11, ST, 1
    NAME=NCOMB27,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 1, LC9, ST, 1, LC10, ST, 1
        LC11, ST, 1
    NAME=NCOMB28,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5, LC9, ST, 1
        LC10, ST, 1, LC11, ST, 1
    NAME=NCOMB29,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC8, ST, 1, LC11, ST, 1
    NAME=NCOMB30,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC8, ST, 1
        LC11, ST, 1
    NAME=NCOMB31,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC9, ST, 1, LC10, ST, 1
        LC11, ST, 1
    NAME=NCOMB32,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC9, ST, 1
        LC10, ST, 1, LC11, ST, 1
    NAME=NCOMB33,
        LC1, ST, 1, LC6, ST, 1
    NAME=NCOMB34,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 1
    NAME=NCOMB35,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 0.5

*LC-COLOR    ; Diagram Color for Load Case
; ANAL, LCNAME, iR1(ALL), iG1(ALL), iB1(ALL), iR2(MIN), iG2(MIN), iB2(MIN), iR3(MAX), iG2(MAX), iB2(MAX)
 CB, COMB1, 160, 255, 255, 255, 87, 87, 192, 192, 0
 CB, COMB2, 192, 192, 0, 0, 128, 128, 0, 192, 192
 CB, COMB3, 192, 72, 0, 85, 0, 192, 160, 192, 255
 CB, COMB4, 192, 128, 0, 212, 160, 255, 93, 255, 87
 CB, COMB5, 255, 192, 87, 85, 192, 0, 192, 192, 192
 CB, COMB6, 192, 192, 192, 192, 0, 192, 160, 255, 255
 CB, COMB7, 255, 87, 128, 93, 255, 87, 0, 192, 128
 CB, COMB8, 210, 210, 210, 0, 128, 255, 85, 0, 192
 CB, COMB9, 163, 255, 160, 192, 128, 0, 148, 87, 255
 CB, COMB10, 0, 128, 255, 0, 128, 255, 85, 192, 0
 CB, COMB11, 93, 255, 87, 192, 0, 192, 192, 128, 0
 CB, COMB12, 85, 192, 0, 255, 87, 128, 192, 72, 0
 CB, COMB13, 0, 157, 192, 0, 128, 57, 0, 192, 128
 CB, COMB14, 0, 192, 128, 255, 0, 192, 0, 192, 128
 CB, COMB15, 0, 128, 255, 163, 160, 255, 192, 192, 0
 CB, COMB16, 0, 128, 255, 85, 0, 192, 148, 87, 255
 CB, COMB17, 163, 255, 160, 160, 255, 255, 128, 192, 0
 CB, COMB18, 0, 128, 192, 192, 0, 192, 163, 160, 255
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 CB, COMB22, 0, 192, 192, 163, 160, 255, 163, 255, 160
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 ST, LC5, 85, 192, 0, 255, 255, 87, 192, 128, 0
 ST, LC6, 255, 255, 255, 0, 128, 255, 163, 160, 255
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CBC. NCOMB19. 78. 0. 255. 192. 0. 192. 192. 0. 128
CBC. NCOMB20. 0. 192. 192. 255. 87. 128. 255. 255. 255
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CBC. NCOMB32. 146. 0. 255. 0. 192. 192. 255. 160. 255
CBC. NCOMB33. 255. 160. 255. 255. 192. 160. 0. 192. 192
CBC. NCOMB34. 255. 255. 87. 210. 210. 210. 78. 0. 255
CBC. NCOMB35. 0. 192. 192. 212. 160. 255. 192. 192. 0
ST. NCOMB1. 93. 255. 87. 210. 210. 210. 163. 255. 160
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8.OUPUT

FRAME ELEMENT FORCES

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
1	USD(max)	I[1]	31.650	0.000	-249.900	0.00E+00	-17.430	0.000
1	USD(max)	1/4	31.650	0.000	-250.930	0.00E+00	3.070	0.000
1	USD(max)	2/4	31.650	0.000	-251.950	0.00E+00	23.660	0.000
1	USD(max)	3/4	31.650	0.000	-252.970	0.00E+00	44.330	0.000
1	USD(max)	J[2]	31.650	0.000	-254.000	0.00E+00	65.090	0.000
1	USD(min)	I[1]	-172.190	0.000	-302.090	0.00E+00	-59.220	0.000
1	USD(min)	1/4	-172.190	0.000	-303.300	0.00E+00	-41.500	0.000
1	USD(min)	2/4	-172.190	0.000	-304.510	0.00E+00	-23.710	0.000
1	USD(min)	3/4	-172.190	0.000	-305.730	0.00E+00	-5.850	0.000
1	USD(min)	J[2]	-172.190	0.000	-306.940	0.00E+00	12.080	0.000
1	WSD(max)	I[1]	19.780	0.000	-169.310	0.00E+00	-12.200	0.000
1	WSD(max)	1/4	19.780	0.000	-170.070	0.00E+00	0.650	0.000
1	WSD(max)	2/4	19.780	0.000	-170.820	0.00E+00	13.560	0.000
1	WSD(max)	3/4	19.780	0.000	-171.580	0.00E+00	26.520	0.000
1	WSD(max)	J[2]	19.780	0.000	-172.340	0.00E+00	39.530	0.000
1	WSD(min)	I[1]	-104.760	0.000	-188.800	0.00E+00	-35.470	0.000
1	WSD(min)	1/4	-104.760	0.000	-189.560	0.00E+00	-22.750	0.000
1	WSD(min)	2/4	-104.760	0.000	-190.320	0.00E+00	-9.970	0.000
1	WSD(min)	3/4	-104.760	0.000	-191.080	0.00E+00	2.870	0.000
1	WSD(min)	J[2]	-104.760	0.000	-191.840	0.00E+00	15.750	0.000
2	USD(max)	I[2]	31.650	0.000	-154.170	0.00E+00	65.090	0.000
2	USD(max)	1/4	31.650	0.000	-155.130	0.00E+00	77.210	0.000
2	USD(max)	2/4	31.650	0.000	-156.090	0.00E+00	89.400	0.000
2	USD(max)	3/4	31.650	0.000	-157.040	0.00E+00	101.660	0.000
2	USD(max)	J[3]	31.650	0.000	-158.000	0.00E+00	114.000	0.000
2	USD(min)	I[2]	-172.190	0.000	-195.870	0.00E+00	12.080	0.000
2	USD(min)	1/4	-172.190	0.000	-197.010	0.00E+00	22.490	0.000
2	USD(min)	2/4	-172.190	0.000	-198.140	0.00E+00	32.960	0.000
2	USD(min)	3/4	-172.190	0.000	-199.270	0.00E+00	43.500	0.000
2	USD(min)	J[3]	-172.190	0.000	-200.410	0.00E+00	54.090	0.000
2	WSD(max)	I[2]	19.780	0.000	-102.320	0.00E+00	39.530	0.000
2	WSD(max)	1/4	19.780	0.000	-103.030	0.00E+00	47.160	0.000
2	WSD(max)	2/4	19.780	0.000	-103.740	0.00E+00	54.850	0.000
2	WSD(max)	3/4	19.780	0.000	-104.450	0.00E+00	62.570	0.000
2	WSD(max)	J[3]	19.780	0.000	-105.160	0.00E+00	70.350	0.000
2	WSD(min)	I[2]	-104.760	0.000	-122.420	0.00E+00	15.750	0.000
2	WSD(min)	1/4	-104.760	0.000	-123.130	0.00E+00	23.160	0.000
2	WSD(min)	2/4	-104.760	0.000	-123.840	0.00E+00	30.610	0.000
2	WSD(min)	3/4	-104.760	0.000	-124.550	0.00E+00	38.110	0.000
2	WSD(min)	J[3]	-104.760	0.000	-125.250	0.00E+00	45.650	0.000
3	USD(max)	I[3]	31.650	0.000	-91.610	0.00E+00	114.000	0.000
3	USD(max)	1/4	31.650	0.000	-92.570	0.00E+00	121.680	0.000
3	USD(max)	2/4	31.650	0.000	-93.520	0.00E+00	129.430	0.000
3	USD(max)	3/4	31.650	0.000	-94.470	0.00E+00	137.250	0.000
3	USD(max)	J[4]	31.650	0.000	-95.420	0.00E+00	145.150	0.000
3	USD(min)	I[3]	-172.190	0.000	-128.650	0.00E+00	54.090	0.000
3	USD(min)	1/4	-172.190	0.000	-129.780	0.00E+00	60.630	0.000
3	USD(min)	2/4	-172.190	0.000	-130.910	0.00E+00	67.040	0.000
3	USD(min)	3/4	-172.190	0.000	-132.040	0.00E+00	73.400	0.000
3	USD(min)	J[4]	-172.190	0.000	-133.170	0.00E+00	79.820	0.000
3	WSD(max)	I[3]	19.780	0.000	-60.760	0.00E+00	70.350	0.000
3	WSD(max)	1/4	19.780	0.000	-61.460	0.00E+00	75.220	0.000
3	WSD(max)	2/4	19.780	0.000	-62.170	0.00E+00	80.140	0.000
3	WSD(max)	3/4	19.780	0.000	-62.870	0.00E+00	85.100	0.000
3	WSD(max)	J[4]	19.780	0.000	-63.580	0.00E+00	90.110	0.000
3	WSD(min)	I[3]	-104.760	0.000	-80.410	0.00E+00	45.650	0.000
3	WSD(min)	1/4	-104.760	0.000	-81.110	0.00E+00	50.240	0.000
3	WSD(min)	2/4	-104.760	0.000	-81.820	0.00E+00	54.450	0.000
3	WSD(min)	3/4	-104.760	0.000	-82.530	0.00E+00	58.450	0.000
3	WSD(min)	J[4]	-104.760	0.000	-83.230	0.00E+00	62.490	0.000
4	USD(max)	I[4]	31.650	0.000	-29.230	0.00E+00	145.150	0.000
4	USD(max)	1/4	31.650	0.000	-30.190	0.00E+00	148.420	0.000
4	USD(max)	2/4	31.650	0.000	-31.150	0.00E+00	151.760	0.000
4	USD(max)	3/4	31.650	0.000	-32.100	0.00E+00	155.170	0.000
4	USD(max)	J[5]	31.650	0.000	-33.060	0.00E+00	158.660	0.000
4	USD(min)	I[4]	-172.190	0.000	-60.230	0.00E+00	79.820	0.000
4	USD(min)	1/4	-172.190	0.000	-61.370	0.00E+00	82.290	0.000
4	USD(min)	2/4	-172.190	0.000	-62.500	0.00E+00	84.820	0.000
4	USD(min)	3/4	-172.190	0.000	-63.640	0.00E+00	87.410	0.000
4	USD(min)	J[5]	-172.190	0.000	-64.770	0.00E+00	90.070	0.000
4	WSD(max)	I[4]	19.780	0.000	-19.290	0.00E+00	90.110	0.000
4	WSD(max)	1/4	19.780	0.000	-20.000	0.00E+00	92.230	0.000
4	WSD(max)	2/4	19.780	0.000	-20.710	0.00E+00	94.400	0.000
4	WSD(max)	3/4	19.780	0.000	-21.420	0.00E+00	96.610	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
4	WSD(max)	J[5]	19.780	0.000	-22.130	0.00E+00	98.870	0.000
4	WSD(min)	I[4]	-104.760	0.000	-37.650	0.00E+00	62.490	0.000
4	WSD(min)	1/4	-104.760	0.000	-38.360	0.00E+00	63.760	0.000
4	WSD(min)	2/4	-104.760	0.000	-39.060	0.00E+00	65.060	0.000
4	WSD(min)	3/4	-104.760	0.000	-39.770	0.00E+00	66.420	0.000
4	WSD(min)	J[5]	-104.760	0.000	-40.480	0.00E+00	67.820	0.000
5	USD(max)	I[5]	31.650	0.000	39.120	0.00E+00	158.660	0.000
5	USD(max)	1/4	31.650	0.000	37.980	0.00E+00	157.450	0.000
5	USD(max)	2/4	31.650	0.000	36.850	0.00E+00	156.310	0.000
5	USD(max)	3/4	31.650	0.000	35.720	0.00E+00	155.240	0.000
5	USD(max)	J[6]	31.650	0.000	34.580	0.00E+00	154.490	0.000
5	USD(min)	I[5]	-172.190	0.000	2.460	0.00E+00	90.070	0.000
5	USD(min)	1/4	-172.190	0.000	1.500	0.00E+00	88.730	0.000
5	USD(min)	2/4	-172.190	0.000	0.540	0.00E+00	87.460	0.000
5	USD(min)	3/4	-172.190	0.000	-0.410	0.00E+00	86.250	0.000
5	USD(min)	J[6]	-172.190	0.000	-1.370	0.00E+00	85.100	0.000
5	WSD(max)	I[5]	19.780	0.000	24.450	0.00E+00	98.870	0.000
5	WSD(max)	1/4	19.780	0.000	23.740	0.00E+00	98.190	0.000
5	WSD(max)	2/4	19.780	0.000	23.030	0.00E+00	97.560	0.000
5	WSD(max)	3/4	19.780	0.000	22.320	0.00E+00	96.970	0.000
5	WSD(max)	J[6]	19.780	0.000	21.610	0.00E+00	96.560	0.000
5	WSD(min)	I[5]	-104.760	0.000	5.940	0.00E+00	67.820	0.000
5	WSD(min)	1/4	-104.760	0.000	5.240	0.00E+00	66.420	0.000
5	WSD(min)	2/4	-104.760	0.000	4.530	0.00E+00	65.060	0.000
5	WSD(min)	3/4	-104.760	0.000	3.820	0.00E+00	63.760	0.000
5	WSD(min)	J[6]	-104.760	0.000	3.110	0.00E+00	62.490	0.000
6	USD(max)	I[6]	31.650	0.000	112.890	0.00E+00	154.490	0.000
6	USD(max)	1/4	31.650	0.000	111.760	0.00E+00	149.360	0.000
6	USD(max)	2/4	31.650	0.000	110.630	0.00E+00	144.300	0.000
6	USD(max)	3/4	31.650	0.000	109.500	0.00E+00	139.310	0.000
6	USD(max)	J[7]	31.650	0.000	108.370	0.00E+00	134.390	0.000
6	USD(min)	I[6]	-172.190	0.000	64.020	0.00E+00	85.100	0.000
6	USD(min)	1/4	-172.190	0.000	63.060	0.00E+00	79.960	0.000
6	USD(min)	2/4	-172.190	0.000	62.110	0.00E+00	74.880	0.000
6	USD(min)	3/4	-172.190	0.000	61.160	0.00E+00	69.710	0.000
6	USD(min)	J[7]	-172.190	0.000	60.210	0.00E+00	63.800	0.000
6	WSD(max)	I[6]	19.780	0.000	70.550	0.00E+00	96.560	0.000
6	WSD(max)	1/4	19.780	0.000	69.850	0.00E+00	93.350	0.000
6	WSD(max)	2/4	19.780	0.000	69.140	0.00E+00	90.190	0.000
6	WSD(max)	3/4	19.780	0.000	68.440	0.00E+00	87.070	0.000
6	WSD(max)	J[7]	19.780	0.000	67.730	0.00E+00	83.990	0.000
6	WSD(min)	I[6]	-104.760	0.000	50.480	0.00E+00	62.490	0.000
6	WSD(min)	1/4	-104.760	0.000	49.780	0.00E+00	58.450	0.000
6	WSD(min)	2/4	-104.760	0.000	49.070	0.00E+00	54.450	0.000
6	WSD(min)	3/4	-104.760	0.000	48.370	0.00E+00	50.490	0.000
6	WSD(min)	J[7]	-104.760	0.000	47.660	0.00E+00	46.580	0.000
7	USD(max)	I[7]	31.650	0.000	186.870	0.00E+00	134.390	0.000
7	USD(max)	1/4	31.650	0.000	185.730	0.00E+00	124.550	0.000
7	USD(max)	2/4	31.650	0.000	184.600	0.00E+00	114.780	0.000
7	USD(max)	3/4	31.650	0.000	183.470	0.00E+00	105.090	0.000
7	USD(max)	J[8]	31.650	0.000	182.330	0.00E+00	95.470	0.000
7	USD(min)	I[7]	-172.190	0.000	127.280	0.00E+00	63.800	0.000
7	USD(min)	1/4	-172.190	0.000	126.320	0.00E+00	53.660	0.000
7	USD(min)	2/4	-172.190	0.000	125.370	0.00E+00	43.580	0.000
7	USD(min)	3/4	-172.190	0.000	124.410	0.00E+00	33.560	0.000
7	USD(min)	J[8]	-172.190	0.000	123.450	0.00E+00	23.600	0.000
7	WSD(max)	I[7]	19.780	0.000	116.790	0.00E+00	83.990	0.000
7	WSD(max)	1/4	19.780	0.000	116.080	0.00E+00	77.840	0.000
7	WSD(max)	2/4	19.780	0.000	115.370	0.00E+00	71.740	0.000
7	WSD(max)	3/4	19.780	0.000	114.670	0.00E+00	65.680	0.000
7	WSD(max)	J[8]	19.780	0.000	113.960	0.00E+00	59.670	0.000
7	WSD(min)	I[7]	-104.760	0.000	96.080	0.00E+00	46.580	0.000
7	WSD(min)	1/4	-104.760	0.000	95.370	0.00E+00	39.850	0.000
7	WSD(min)	2/4	-104.760	0.000	94.660	0.00E+00	33.160	0.000
7	WSD(min)	3/4	-104.760	0.000	93.960	0.00E+00	26.510	0.000
7	WSD(min)	J[8]	-104.760	0.000	93.250	0.00E+00	19.920	0.000
8	USD(max)	I[8]	31.650	0.000	306.130	0.00E+00	95.470	0.000
8	USD(max)	1/4	31.650	0.000	304.920	0.00E+00	76.680	0.000
8	USD(max)	2/4	31.650	0.000	303.710	0.00E+00	57.980	0.000
8	USD(max)	3/4	31.650	0.000	302.500	0.00E+00	39.370	0.000
8	USD(max)	J[9]	31.650	0.000	301.280	0.00E+00	21.920	0.000
8	USD(min)	I[8]	-172.190	0.000	231.710	0.00E+00	23.600	0.000
8	USD(min)	1/4	-172.190	0.000	230.690	0.00E+00	5.810	0.000
8	USD(min)	2/4	-172.190	0.000	229.670	0.00E+00	-11.920	0.000
8	USD(min)	3/4	-172.190	0.000	228.640	0.00E+00	-30.110	0.000
8	USD(min)	J[9]	-172.190	0.000	227.620	0.00E+00	-48.280	0.000
8	WSD(max)	I[8]	19.780	0.000	191.330	0.00E+00	59.670	0.000
8	WSD(max)	1/4	19.780	0.000	190.580	0.00E+00	47.930	0.000
8	WSD(max)	2/4	19.780	0.000	189.820	0.00E+00	36.240	0.000
8	WSD(max)	3/4	19.780	0.000	189.060	0.00E+00	24.600	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
8	WSD(max)	J[9]	19.780	0.000	188.300	0.00E+00	13.020	0.000
8	WSD(min)	I[8]	-104.760	0.000	171.130	0.00E+00	19.920	0.000
8	WSD(min)	1/4	-104.760	0.000	170.380	0.00E+00	8.100	0.000
8	WSD(min)	2/4	-104.760	0.000	169.620	0.00E+00	-3.670	0.000
8	WSD(min)	3/4	-104.760	0.000	168.860	0.00E+00	-16.590	0.000
8	WSD(min)	J[9]	-104.760	0.000	168.100	0.00E+00	-29.560	0.000
9	USD(max)	I[1]	-362.020	0.000	-14.850	0.00E+00	-70.380	0.000
9	USD(max)	1/4	-360.280	0.000	-13.590	0.00E+00	-64.680	0.000
9	USD(max)	2/4	-358.550	0.000	-12.350	0.00E+00	-59.370	0.000
9	USD(max)	3/4	-356.810	0.000	-11.120	0.00E+00	-54.430	0.000
9	USD(max)	J[10]	-355.070	0.000	-9.910	0.00E+00	-49.880	0.000
9	USD(min)	I[1]	-443.480	0.000	-131.160	0.00E+00	-97.320	0.000
9	USD(min)	1/4	-441.430	0.000	-123.340	0.00E+00	-95.760	0.000
9	USD(min)	2/4	-439.370	0.000	-115.550	0.00E+00	-94.310	0.000
9	USD(min)	3/4	-437.310	0.000	-107.800	0.00E+00	-92.960	0.000
9	USD(min)	J[10]	-435.250	0.000	-100.080	0.00E+00	-91.720	0.000
9	WSD(max)	I[1]	-249.430	0.000	-11.470	0.00E+00	-46.830	0.000
9	WSD(max)	1/4	-248.150	0.000	-10.570	0.00E+00	-43.610	0.000
9	WSD(max)	2/4	-246.860	0.000	-9.670	0.00E+00	-40.610	0.000
9	WSD(max)	3/4	-245.570	0.000	-8.790	0.00E+00	-37.830	0.000
9	WSD(max)	J[10]	-244.290	0.000	-7.920	0.00E+00	-35.260	0.000
9	WSD(min)	I[1]	-277.180	0.000	-78.650	0.00E+00	-60.830	0.000
9	WSD(min)	1/4	-275.890	0.000	-73.820	0.00E+00	-59.850	0.000
9	WSD(min)	2/4	-274.600	0.000	-69.020	0.00E+00	-58.940	0.000
9	WSD(min)	3/4	-273.320	0.000	-64.240	0.00E+00	-58.100	0.000
9	WSD(min)	J[10]	-272.030	0.000	-59.480	0.00E+00	-57.330	0.000
10	USD(max)	I[9]	-350.290	0.000	31.650	0.00E+00	-50.100	0.000
10	USD(max)	1/4	-348.560	0.000	31.650	0.00E+00	-51.640	0.000
10	USD(max)	2/4	-346.820	0.000	31.650	0.00E+00	-48.390	0.000
10	USD(max)	3/4	-345.080	0.000	31.650	0.00E+00	-44.350	0.000
10	USD(max)	J[11]	-343.350	0.000	31.650	0.00E+00	-40.650	0.000
10	USD(min)	I[9]	-443.480	0.000	-120.520	0.00E+00	-84.120	0.000
10	USD(min)	1/4	-441.430	0.000	-112.700	0.00E+00	-82.170	0.000
10	USD(min)	2/4	-439.370	0.000	-104.910	0.00E+00	-80.380	0.000
10	USD(min)	3/4	-437.310	0.000	-97.160	0.00E+00	-78.760	0.000
10	USD(min)	J[11]	-435.250	0.000	-89.440	0.00E+00	-77.300	0.000
10	WSD(max)	I[9]	-249.430	0.000	19.780	0.00E+00	-39.220	0.000
10	WSD(max)	1/4	-248.150	0.000	19.780	0.00E+00	-40.210	0.000
10	WSD(max)	2/4	-246.860	0.000	19.780	0.00E+00	-38.210	0.000
10	WSD(max)	3/4	-245.570	0.000	19.780	0.00E+00	-35.710	0.000
10	WSD(max)	J[11]	-244.290	0.000	19.780	0.00E+00	-33.420	0.000
10	WSD(min)	I[9]	-277.180	0.000	-72.890	0.00E+00	-52.470	0.000
10	WSD(min)	1/4	-275.890	0.000	-68.070	0.00E+00	-50.790	0.000
10	WSD(min)	2/4	-274.600	0.000	-63.270	0.00E+00	-49.240	0.000
10	WSD(min)	3/4	-273.320	0.000	-58.490	0.00E+00	-47.830	0.000
10	WSD(min)	J[11]	-272.030	0.000	-53.730	0.00E+00	-46.540	0.000
11	USD(max)	I[10]	-355.070	0.000	-9.910	0.00E+00	-49.880	0.000
11	USD(max)	1/4	-354.150	0.000	-8.230	0.00E+00	-44.130	0.000
11	USD(max)	2/4	-353.220	0.000	-6.570	0.00E+00	-39.110	0.000
11	USD(max)	3/4	-352.290	0.000	-4.940	0.00E+00	-34.820	0.000
11	USD(max)	J[12]	-351.370	0.000	-3.330	0.00E+00	-31.250	0.000
11	USD(min)	I[10]	-435.250	0.000	-100.080	0.00E+00	-91.720	0.000
11	USD(min)	1/4	-434.150	0.000	-89.330	0.00E+00	-90.170	0.000
11	USD(min)	2/4	-433.060	0.000	-78.650	0.00E+00	-88.810	0.000
11	USD(min)	3/4	-431.960	0.000	-68.040	0.00E+00	-88.410	0.000
11	USD(min)	J[12]	-430.860	0.000	-57.490	0.00E+00	-88.120	0.000
11	WSD(max)	I[10]	-244.290	0.000	-7.920	0.00E+00	-35.260	0.000
11	WSD(max)	1/4	-243.600	0.000	-6.710	0.00E+00	-32.030	0.000
11	WSD(max)	2/4	-242.920	0.000	-5.530	0.00E+00	-29.220	0.000
11	WSD(max)	3/4	-242.230	0.000	-4.370	0.00E+00	-26.830	0.000
11	WSD(max)	J[12]	-241.540	0.000	-3.220	0.00E+00	-24.860	0.000
11	WSD(min)	I[10]	-272.030	0.000	-59.480	0.00E+00	-57.330	0.000
11	WSD(min)	1/4	-271.350	0.000	-52.860	0.00E+00	-56.350	0.000
11	WSD(min)	2/4	-270.660	0.000	-46.270	0.00E+00	-55.510	0.000
11	WSD(min)	3/4	-269.970	0.000	-39.730	0.00E+00	-55.160	0.000
11	WSD(min)	J[12]	-269.290	0.000	-33.230	0.00E+00	-54.890	0.000
12	USD(max)	I[11]	-343.350	0.000	31.650	0.00E+00	-40.650	0.000
12	USD(max)	1/4	-342.420	0.000	31.650	0.00E+00	-36.050	0.000
12	USD(max)	2/4	-341.490	0.000	31.650	0.00E+00	-32.120	0.000
12	USD(max)	3/4	-340.570	0.000	31.650	0.00E+00	-28.870	0.000
12	USD(max)	J[13]	-339.640	0.000	31.650	0.00E+00	-26.280	0.000
12	USD(min)	I[11]	-435.250	0.000	-89.440	0.00E+00	-77.300	0.000
12	USD(min)	1/4	-434.150	0.000	-78.690	0.00E+00	-75.540	0.000
12	USD(min)	2/4	-433.060	0.000	-68.010	0.00E+00	-77.310	0.000
12	USD(min)	3/4	-431.960	0.000	-57.400	0.00E+00	-79.180	0.000
12	USD(min)	J[13]	-430.860	0.000	-46.850	0.00E+00	-81.060	0.000
12	WSD(max)	I[11]	-244.290	0.000	19.780	0.00E+00	-33.420	0.000
12	WSD(max)	1/4	-243.600	0.000	19.780	0.00E+00	-30.590	0.000
12	WSD(max)	2/4	-242.920	0.000	19.780	0.00E+00	-28.180	0.000
12	WSD(max)	3/4	-242.230	0.000	19.780	0.00E+00	-26.180	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
12	WSD(max)	J[13]	-241.540	0.000	19.780	0.00E+00	-24.600	0.000
12	WSD(min)	I[11]	-272.030	0.000	-53.730	0.00E+00	-46.540	0.000
12	WSD(min)	1/4	-271.350	0.000	-47.110	0.00E+00	-46.630	0.000
12	WSD(min)	2/4	-270.660	0.000	-40.520	0.00E+00	-47.840	0.000
12	WSD(min)	3/4	-269.970	0.000	-33.980	0.00E+00	-49.060	0.000
12	WSD(min)	J[13]	-269.290	0.000	-27.480	0.00E+00	-50.270	0.000
13	USD(max)	I[12]	-351.370	0.000	-3.330	0.00E+00	-31.250	0.000
13	USD(max)	1/4	-350.440	0.000	-1.750	0.00E+00	-28.270	0.000
13	USD(max)	2/4	-349.520	0.000	-0.200	0.00E+00	-25.560	0.000
13	USD(max)	3/4	-348.590	0.000	3.910	0.00E+00	-23.570	0.000
13	USD(max)	J[14]	-347.660	0.000	8.300	0.00E+00	-22.280	0.000
13	USD(min)	I[12]	-430.860	0.000	-57.490	0.00E+00	-88.120	0.000
13	USD(min)	1/4	-429.760	0.000	-47.010	0.00E+00	-87.940	0.000
13	USD(min)	2/4	-428.670	0.000	-36.590	0.00E+00	-87.870	0.000
13	USD(min)	3/4	-427.570	0.000	-26.240	0.00E+00	-87.910	0.000
13	USD(min)	J[14]	-426.470	0.000	-15.960	0.00E+00	-88.060	0.000
13	WSD(max)	I[12]	-241.540	0.000	-3.220	0.00E+00	-24.860	0.000
13	WSD(max)	1/4	-240.860	0.000	-2.100	0.00E+00	-23.300	0.000
13	WSD(max)	2/4	-240.170	0.000	-1.000	0.00E+00	-22.140	0.000
13	WSD(max)	3/4	-239.490	0.000	0.310	0.00E+00	-21.400	0.000
13	WSD(max)	J[14]	-238.800	0.000	3.770	0.00E+00	-21.050	0.000
13	WSD(min)	I[12]	-269.290	0.000	-33.230	0.00E+00	-54.890	0.000
13	WSD(min)	1/4	-268.600	0.000	-26.770	0.00E+00	-54.710	0.000
13	WSD(min)	2/4	-267.920	0.000	-20.350	0.00E+00	-54.600	0.000
13	WSD(min)	3/4	-267.230	0.000	-13.980	0.00E+00	-54.570	0.000
13	WSD(min)	J[14]	-266.540	0.000	-7.640	0.00E+00	-54.610	0.000
14	USD(max)	I[13]	-339.640	0.000	31.650	0.00E+00	-26.280	0.000
14	USD(max)	1/4	-338.720	0.000	31.650	0.00E+00	-24.280	0.000
14	USD(max)	2/4	-337.790	0.000	31.650	0.00E+00	-22.830	0.000
14	USD(max)	3/4	-336.860	0.000	31.650	0.00E+00	-22.030	0.000
14	USD(max)	J[15]	-335.940	0.000	31.650	0.00E+00	-21.870	0.000
14	USD(min)	I[13]	-430.860	0.000	-46.850	0.00E+00	-81.060	0.000
14	USD(min)	1/4	-429.760	0.000	-36.370	0.00E+00	-82.940	0.000
14	USD(min)	2/4	-428.670	0.000	-25.950	0.00E+00	-84.820	0.000
14	USD(min)	3/4	-427.570	0.000	-15.600	0.00E+00	-86.690	0.000
14	USD(min)	J[15]	-426.470	0.000	-5.380	0.00E+00	-88.570	0.000
14	WSD(max)	I[13]	-241.540	0.000	19.780	0.00E+00	-24.600	0.000
14	WSD(max)	1/4	-240.860	0.000	19.780	0.00E+00	-23.300	0.000
14	WSD(max)	2/4	-240.170	0.000	19.780	0.00E+00	-22.140	0.000
14	WSD(max)	3/4	-239.490	0.000	19.780	0.00E+00	-21.400	0.000
14	WSD(max)	J[15]	-238.800	0.000	19.780	0.00E+00	-21.050	0.000
14	WSD(min)	I[13]	-269.290	0.000	-27.480	0.00E+00	-50.270	0.000
14	WSD(min)	1/4	-268.600	0.000	-21.020	0.00E+00	-51.490	0.000
14	WSD(min)	2/4	-267.920	0.000	-14.600	0.00E+00	-52.700	0.000
14	WSD(min)	3/4	-267.230	0.000	-8.230	0.00E+00	-53.920	0.000
14	WSD(min)	J[15]	-266.540	0.000	-2.030	0.00E+00	-55.140	0.000
15	USD(max)	I[14]	-347.660	0.000	8.300	0.00E+00	-22.280	0.000
15	USD(max)	1/4	-346.740	0.000	12.670	0.00E+00	-21.690	0.000
15	USD(max)	2/4	-345.810	0.000	17.040	0.00E+00	-21.790	0.000
15	USD(max)	3/4	-344.890	0.000	26.970	0.00E+00	-22.580	0.000
15	USD(max)	J[16]	-343.960	0.000	36.840	0.00E+00	-24.060	0.000
15	USD(min)	I[14]	-426.470	0.000	-15.960	0.00E+00	-88.060	0.000
15	USD(min)	1/4	-425.370	0.000	-5.750	0.00E+00	-88.310	0.000
15	USD(min)	2/4	-424.280	0.000	-1.020	0.00E+00	-88.660	0.000
15	USD(min)	3/4	-423.180	0.000	1.370	0.00E+00	-89.120	0.000
15	USD(min)	J[16]	-422.080	0.000	3.700	0.00E+00	-89.670	0.000
15	WSD(max)	I[14]	-238.800	0.000	3.770	0.00E+00	-21.050	0.000
15	WSD(max)	1/4	-238.110	0.000	7.210	0.00E+00	-21.110	0.000
15	WSD(max)	2/4	-237.430	0.000	10.650	0.00E+00	-21.570	0.000
15	WSD(max)	3/4	-236.740	0.000	16.860	0.00E+00	-22.420	0.000
15	WSD(max)	J[16]	-236.060	0.000	23.020	0.00E+00	-23.660	0.000
15	WSD(min)	I[14]	-266.540	0.000	-7.640	0.00E+00	-54.610	0.000
15	WSD(min)	1/4	-265.860	0.000	-1.350	0.00E+00	-54.730	0.000
15	WSD(min)	2/4	-265.170	0.000	1.510	0.00E+00	-54.910	0.000
15	WSD(min)	3/4	-264.490	0.000	2.910	0.00E+00	-55.170	0.000
15	WSD(min)	J[16]	-263.800	0.000	4.280	0.00E+00	-55.500	0.000
16	USD(max)	I[15]	-335.940	0.000	31.650	0.00E+00	-21.870	0.000
16	USD(max)	1/4	-335.010	0.000	31.650	0.00E+00	-22.350	0.000
16	USD(max)	2/4	-334.090	0.000	31.650	0.00E+00	-23.470	0.000
16	USD(max)	3/4	-333.160	0.000	32.970	0.00E+00	-25.220	0.000
16	USD(max)	J[17]	-332.230	0.000	41.900	0.00E+00	-27.600	0.000
16	USD(min)	I[15]	-426.470	0.000	-5.380	0.00E+00	-88.570	0.000
16	USD(min)	1/4	-425.370	0.000	4.570	0.00E+00	-90.450	0.000
16	USD(min)	2/4	-424.280	0.000	14.420	0.00E+00	-92.330	0.000
16	USD(min)	3/4	-423.180	0.000	18.610	0.00E+00	-94.200	0.000
16	USD(min)	J[17]	-422.080	0.000	22.780	0.00E+00	-96.080	0.000
16	WSD(max)	I[15]	-238.800	0.000	19.780	0.00E+00	-21.050	0.000
16	WSD(max)	1/4	-238.110	0.000	19.780	0.00E+00	-21.110	0.000
16	WSD(max)	2/4	-237.430	0.000	19.780	0.00E+00	-21.570	0.000
16	WSD(max)	3/4	-236.740	0.000	20.610	0.00E+00	-22.420	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN・m)	Moment-y (kN・m)	Moment-z (kN・m)
16	WSD(max)	J[17]	-236.060	0.000	26.190	0.00E+00	-23.660	0.000
16	WSD(min)	I[15]	-266.540	0.000	-2.030	0.00E+00	-55.140	0.000
16	WSD(min)	1/4	-265.860	0.000	3.680	0.00E+00	-56.350	0.000
16	WSD(min)	2/4	-265.170	0.000	9.340	0.00E+00	-57.570	0.000
16	WSD(min)	3/4	-264.490	0.000	14.030	0.00E+00	-58.780	0.000
16	WSD(min)	J[17]	-263.800	0.000	17.370	0.00E+00	-60.000	0.000
17	USD(max)	I[16]	-343.960	0.000	36.840	0.00E+00	-24.060	0.000
17	USD(max)	1/4	-343.030	0.000	46.640	0.00E+00	-26.220	0.000
17	USD(max)	2/4	-342.110	0.000	56.370	0.00E+00	-29.050	0.000
17	USD(max)	3/4	-341.180	0.000	66.040	0.00E+00	-32.490	0.000
17	USD(max)	J[18]	-340.250	0.000	75.640	0.00E+00	-36.620	0.000
17	USD(min)	I[16]	-422.080	0.000	3.700	0.00E+00	-89.670	0.000
17	USD(min)	1/4	-420.980	0.000	5.950	0.00E+00	-90.320	0.000
17	USD(min)	2/4	-419.890	0.000	8.150	0.00E+00	-91.070	0.000
17	USD(min)	3/4	-418.790	0.000	9.970	0.00E+00	-91.910	0.000
17	USD(min)	J[18]	-417.690	0.000	11.420	0.00E+00	-92.840	0.000
17	WSD(max)	I[16]	-236.060	0.000	23.020	0.00E+00	-23.660	0.000
17	WSD(max)	1/4	-235.370	0.000	29.150	0.00E+00	-25.290	0.000
17	WSD(max)	2/4	-234.680	0.000	35.230	0.00E+00	-27.310	0.000
17	WSD(max)	3/4	-234.000	0.000	41.270	0.00E+00	-29.590	0.000
17	WSD(max)	J[18]	-233.310	0.000	47.270	0.00E+00	-32.280	0.000
17	WSD(min)	I[16]	-263.800	0.000	4.280	0.00E+00	-55.500	0.000
17	WSD(min)	1/4	-263.110	0.000	5.590	0.00E+00	-55.890	0.000
17	WSD(min)	2/4	-262.430	0.000	6.870	0.00E+00	-56.350	0.000
17	WSD(min)	3/4	-261.740	0.000	7.960	0.00E+00	-56.880	0.000
17	WSD(min)	J[18]	-261.060	0.000	8.850	0.00E+00	-57.470	0.000
18	USD(max)	I[17]	-332.230	0.000	41.900	0.00E+00	-27.600	0.000
18	USD(max)	1/4	-331.310	0.000	50.760	0.00E+00	-30.600	0.000
18	USD(max)	2/4	-330.380	0.000	59.550	0.00E+00	-34.220	0.000
18	USD(max)	3/4	-329.450	0.000	68.270	0.00E+00	-38.320	0.000
18	USD(max)	J[19]	-328.530	0.000	76.930	0.00E+00	-43.050	0.000
18	USD(min)	I[17]	-422.080	0.000	22.780	0.00E+00	-96.080	0.000
18	USD(min)	1/4	-420.980	0.000	25.910	0.00E+00	-97.960	0.000
18	USD(min)	2/4	-419.890	0.000	25.910	0.00E+00	-100.100	0.000
18	USD(min)	3/4	-418.790	0.000	25.910	0.00E+00	-102.310	0.000
18	USD(min)	J[19]	-417.690	0.000	25.910	0.00E+00	-104.530	0.000
18	WSD(max)	I[17]	-236.060	0.000	26.190	0.00E+00	-23.660	0.000
18	WSD(max)	1/4	-235.370	0.000	31.720	0.00E+00	-25.290	0.000
18	WSD(max)	2/4	-234.680	0.000	37.220	0.00E+00	-27.310	0.000
18	WSD(max)	3/4	-234.000	0.000	42.670	0.00E+00	-29.710	0.000
18	WSD(max)	J[19]	-233.310	0.000	48.080	0.00E+00	-32.490	0.000
18	WSD(min)	I[17]	-263.800	0.000	17.370	0.00E+00	-60.000	0.000
18	WSD(min)	1/4	-263.110	0.000	17.370	0.00E+00	-61.210	0.000
18	WSD(min)	2/4	-262.430	0.000	17.370	0.00E+00	-62.560	0.000
18	WSD(min)	3/4	-261.740	0.000	17.370	0.00E+00	-63.940	0.000
18	WSD(min)	J[19]	-261.060	0.000	17.370	0.00E+00	-65.330	0.000
19	USD(max)	I[18]	-340.250	0.000	75.640	0.00E+00	-36.620	0.000
19	USD(max)	1/4	-339.330	0.000	85.170	0.00E+00	-41.440	0.000
19	USD(max)	2/4	-338.400	0.000	94.640	0.00E+00	-46.920	0.000
19	USD(max)	3/4	-337.480	0.000	104.030	0.00E+00	-53.080	0.000
19	USD(max)	J[20]	-336.550	0.000	113.370	0.00E+00	-59.900	0.000
19	USD(min)	I[18]	-417.690	0.000	11.420	0.00E+00	-92.840	0.000
19	USD(min)	1/4	-416.590	0.000	12.850	0.00E+00	-93.860	0.000
19	USD(min)	2/4	-415.490	0.000	14.250	0.00E+00	-94.980	0.000
19	USD(min)	3/4	-414.400	0.000	15.630	0.00E+00	-96.540	0.000
19	USD(min)	J[20]	-413.300	0.000	16.980	0.00E+00	-100.530	0.000
19	WSD(max)	I[18]	-233.310	0.000	47.270	0.00E+00	-32.280	0.000
19	WSD(max)	1/4	-232.630	0.000	53.230	0.00E+00	-35.400	0.000
19	WSD(max)	2/4	-231.940	0.000	59.150	0.00E+00	-38.930	0.000
19	WSD(max)	3/4	-231.250	0.000	65.020	0.00E+00	-42.870	0.000
19	WSD(max)	J[20]	-230.570	0.000	70.850	0.00E+00	-47.230	0.000
19	WSD(min)	I[18]	-261.060	0.000	8.850	0.00E+00	-57.470	0.000
19	WSD(min)	1/4	-260.370	0.000	9.720	0.00E+00	-58.120	0.000
19	WSD(min)	2/4	-259.680	0.000	10.570	0.00E+00	-58.830	0.000
19	WSD(min)	3/4	-259.000	0.000	11.400	0.00E+00	-59.600	0.000
19	WSD(min)	J[20]	-258.310	0.000	12.210	0.00E+00	-60.930	0.000
20	USD(max)	I[19]	-328.530	0.000	76.930	0.00E+00	-43.050	0.000
20	USD(max)	1/4	-327.600	0.000	85.520	0.00E+00	-48.440	0.000
20	USD(max)	2/4	-326.680	0.000	94.640	0.00E+00	-54.490	0.000
20	USD(max)	3/4	-325.750	0.000	104.030	0.00E+00	-61.200	0.000
20	USD(max)	J[21]	-324.820	0.000	113.370	0.00E+00	-68.550	0.000
20	USD(min)	I[19]	-417.690	0.000	25.910	0.00E+00	-104.530	0.000
20	USD(min)	1/4	-416.590	0.000	25.910	0.00E+00	-106.740	0.000
20	USD(min)	2/4	-415.490	0.000	25.910	0.00E+00	-108.960	0.000
20	USD(min)	3/4	-414.400	0.000	25.910	0.00E+00	-111.170	0.000
20	USD(min)	J[21]	-413.300	0.000	25.910	0.00E+00	-113.390	0.000
20	WSD(max)	I[19]	-233.310	0.000	48.080	0.00E+00	-32.490	0.000
20	WSD(max)	1/4	-232.630	0.000	53.450	0.00E+00	-35.650	0.000
20	WSD(max)	2/4	-231.940	0.000	59.150	0.00E+00	-39.180	0.000
20	WSD(max)	3/4	-231.250	0.000	65.020	0.00E+00	-43.090	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
20	WSD(max)	J[21]	-230.570	0.000	70.850	0.00E+00	-47.360	0.000
20	WSD(min)	I[19]	-261.060	0.000	17.370	0.00E+00	-65.330	0.000
20	WSD(min)	1/4	-260.370	0.000	17.370	0.00E+00	-66.710	0.000
20	WSD(min)	2/4	-259.680	0.000	17.370	0.00E+00	-68.100	0.000
20	WSD(min)	3/4	-259.000	0.000	17.370	0.00E+00	-69.480	0.000
20	WSD(min)	J[21]	-258.310	0.000	17.370	0.00E+00	-70.870	0.000
21	USD(max)	I[20]	-336.550	0.000	113.370	0.00E+00	-59.900	0.000
21	USD(max)	1/4	-334.900	0.000	119.990	0.00E+00	-65.180	0.000
21	USD(max)	2/4	-333.240	0.000	126.580	0.00E+00	-70.770	0.000
21	USD(max)	3/4	-331.590	0.000	133.140	0.00E+00	-76.660	0.000
21	USD(max)	J[22]	-329.940	0.000	139.660	0.00E+00	-82.350	0.000
21	USD(min)	I[20]	-413.300	0.000	16.980	0.00E+00	-100.530	0.000
21	USD(min)	1/4	-411.340	0.000	17.930	0.00E+00	-103.550	0.000
21	USD(min)	2/4	-409.380	0.000	18.870	0.00E+00	-106.720	0.000
21	USD(min)	3/4	-407.420	0.000	19.790	0.00E+00	-110.030	0.000
21	USD(min)	J[22]	-405.460	0.000	20.710	0.00E+00	-113.490	0.000
21	WSD(max)	I[20]	-230.570	0.000	70.850	0.00E+00	-47.230	0.000
21	WSD(max)	1/4	-229.340	0.000	75.000	0.00E+00	-50.590	0.000
21	WSD(max)	2/4	-228.120	0.000	79.110	0.00E+00	-54.100	0.000
21	WSD(max)	3/4	-226.890	0.000	83.210	0.00E+00	-57.750	0.000
21	WSD(max)	J[22]	-225.670	0.000	87.290	0.00E+00	-61.480	0.000
21	WSD(min)	I[20]	-258.310	0.000	12.210	0.00E+00	-60.930	0.000
21	WSD(min)	1/4	-257.090	0.000	12.770	0.00E+00	-63.180	0.000
21	WSD(min)	2/4	-255.860	0.000	13.320	0.00E+00	-65.530	0.000
21	WSD(min)	3/4	-254.640	0.000	13.870	0.00E+00	-68.000	0.000
21	WSD(min)	J[22]	-253.410	0.000	14.400	0.00E+00	-70.580	0.000
22	USD(max)	I[21]	-324.820	0.000	113.370	0.00E+00	-68.550	0.000
22	USD(max)	1/4	-323.170	0.000	119.990	0.00E+00	-74.170	0.000
22	USD(max)	2/4	-321.520	0.000	126.580	0.00E+00	-79.990	0.000
22	USD(max)	3/4	-319.860	0.000	133.140	0.00E+00	-86.100	0.000
22	USD(max)	J[30]	-318.210	0.000	139.660	0.00E+00	-92.500	0.000
22	USD(min)	I[21]	-413.300	0.000	25.910	0.00E+00	-113.390	0.000
22	USD(min)	1/4	-411.340	0.000	25.910	0.00E+00	-114.970	0.000
22	USD(min)	2/4	-409.380	0.000	25.910	0.00E+00	-116.550	0.000
22	USD(min)	3/4	-407.420	0.000	25.910	0.00E+00	-118.140	0.000
22	USD(min)	J[30]	-405.460	0.000	25.910	0.00E+00	-119.720	0.000
22	WSD(max)	I[21]	-230.570	0.000	70.850	0.00E+00	-47.360	0.000
22	WSD(max)	1/4	-229.340	0.000	75.000	0.00E+00	-50.640	0.000
22	WSD(max)	2/4	-228.120	0.000	79.110	0.00E+00	-54.100	0.000
22	WSD(max)	3/4	-226.890	0.000	83.210	0.00E+00	-57.750	0.000
22	WSD(max)	J[30]	-225.670	0.000	87.290	0.00E+00	-61.570	0.000
22	WSD(min)	I[21]	-258.310	0.000	17.370	0.00E+00	-70.870	0.000
22	WSD(min)	1/4	-257.090	0.000	17.370	0.00E+00	-71.860	0.000
22	WSD(min)	2/4	-255.860	0.000	17.370	0.00E+00	-72.850	0.000
22	WSD(min)	3/4	-254.640	0.000	17.370	0.00E+00	-73.830	0.000
22	WSD(min)	J[30]	-253.410	0.000	17.370	0.00E+00	-74.820	0.000
23	USD(max)	I[22]	-25.910	0.000	-251.870	0.00E+00	-2.600	0.000
23	USD(max)	1/4	-25.910	0.000	-238.860	0.00E+00	9.720	0.000
23	USD(max)	2/4	-25.910	0.000	-225.850	0.00E+00	22.750	0.000
23	USD(max)	3/4	-25.910	0.000	-212.720	0.00E+00	35.520	0.000
23	USD(max)	J[23]	-25.910	0.000	-199.230	0.00E+00	47.520	0.000
23	USD(min)	I[22]	-178.610	0.000	-313.310	0.00E+00	-50.560	0.000
23	USD(min)	1/4	-178.610	0.000	-297.950	0.00E+00	-36.170	0.000
23	USD(min)	2/4	-178.610	0.000	-282.590	0.00E+00	-23.430	0.000
23	USD(min)	3/4	-178.610	0.000	-267.230	0.00E+00	-11.360	0.000
23	USD(min)	J[23]	-178.610	0.000	-251.880	0.00E+00	-0.240	0.000
23	WSD(max)	I[22]	-17.370	0.000	-174.380	0.00E+00	-3.190	0.000
23	WSD(max)	1/4	-17.370	0.000	-165.830	0.00E+00	5.760	0.000
23	WSD(max)	2/4	-17.370	0.000	-157.280	0.00E+00	14.220	0.000
23	WSD(max)	3/4	-17.370	0.000	-148.740	0.00E+00	22.200	0.000
23	WSD(max)	J[23]	-17.370	0.000	-140.190	0.00E+00	29.700	0.000
23	WSD(min)	I[22]	-111.300	0.000	-195.820	0.00E+00	-31.600	0.000
23	WSD(min)	1/4	-111.300	0.000	-186.220	0.00E+00	-22.050	0.000
23	WSD(min)	2/4	-111.300	0.000	-176.620	0.00E+00	-12.980	0.000
23	WSD(min)	3/4	-111.300	0.000	-167.020	0.00E+00	-4.390	0.000
23	WSD(min)	J[23]	-111.300	0.000	-157.420	0.00E+00	3.120	0.000
24	USD(max)	I[23]	-25.910	0.000	-199.230	0.00E+00	47.520	0.000
24	USD(max)	1/4	-25.910	0.000	-180.830	0.00E+00	62.670	0.000
24	USD(max)	2/4	-25.910	0.000	-162.420	0.00E+00	76.380	0.000
24	USD(max)	3/4	-25.910	0.000	-144.010	0.00E+00	88.670	0.000
24	USD(max)	J[24]	-25.910	0.000	-125.610	0.00E+00	99.560	0.000
24	USD(min)	I[23]	-178.610	0.000	-251.880	0.00E+00	-0.240	0.000
24	USD(min)	1/4	-178.610	0.000	-230.910	0.00E+00	13.720	0.000
24	USD(min)	2/4	-178.610	0.000	-209.950	0.00E+00	26.460	0.000
24	USD(min)	3/4	-178.610	0.000	-188.980	0.00E+00	38.000	0.000
24	USD(min)	J[24]	-178.610	0.000	-168.020	0.00E+00	48.320	0.000
24	WSD(max)	I[23]	-17.370	0.000	-140.190	0.00E+00	29.700	0.000
24	WSD(max)	1/4	-17.370	0.000	-128.520	0.00E+00	39.170	0.000
24	WSD(max)	2/4	-17.370	0.000	-116.850	0.00E+00	47.740	0.000
24	WSD(max)	3/4	-17.370	0.000	-105.180	0.00E+00	55.420	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
24	WSD(max)	J[24]	-17.370	0.000	-92.830	0.00E+00	62.220	0.000
24	WSD(min)	I[23]	-111.300	0.000	-157.420	0.00E+00	3.120	0.000
24	WSD(min)	1/4	-111.300	0.000	-144.320	0.00E+00	12.290	0.000
24	WSD(min)	2/4	-111.300	0.000	-131.220	0.00E+00	20.670	0.000
24	WSD(min)	3/4	-111.300	0.000	-118.120	0.00E+00	28.240	0.000
24	WSD(min)	J[24]	-111.300	0.000	-105.010	0.00E+00	35.020	0.000
25	USD(max)	I[24]	-25.910	0.000	-125.610	0.00E+00	99.560	0.000
25	USD(max)	1/4	-25.910	0.000	-107.130	0.00E+00	109.180	0.000
25	USD(max)	2/4	-25.910	0.000	-88.660	0.00E+00	117.370	0.000
25	USD(max)	3/4	-25.910	0.000	-70.190	0.00E+00	124.110	0.000
25	USD(max)	J[25]	-25.910	0.000	-51.720	0.00E+00	129.410	0.000
25	USD(min)	I[24]	-178.610	0.000	-168.020	0.00E+00	48.320	0.000
25	USD(min)	1/4	-178.610	0.000	-146.980	0.00E+00	57.460	0.000
25	USD(min)	2/4	-178.610	0.000	-125.940	0.00E+00	65.380	0.000
25	USD(min)	3/4	-178.610	0.000	-104.900	0.00E+00	71.420	0.000
25	USD(min)	J[25]	-178.610	0.000	-83.860	0.00E+00	75.970	0.000
25	WSD(max)	I[24]	-17.370	0.000	-92.830	0.00E+00	62.220	0.000
25	WSD(max)	1/4	-17.370	0.000	-79.680	0.00E+00	68.210	0.000
25	WSD(max)	2/4	-17.370	0.000	-66.530	0.00E+00	73.310	0.000
25	WSD(max)	3/4	-17.370	0.000	-53.380	0.00E+00	77.500	0.000
25	WSD(max)	J[25]	-17.370	0.000	-40.230	0.00E+00	80.790	0.000
25	WSD(min)	I[24]	-111.300	0.000	-105.010	0.00E+00	35.020	0.000
25	WSD(min)	1/4	-111.300	0.000	-91.860	0.00E+00	41.030	0.000
25	WSD(min)	2/4	-111.300	0.000	-78.710	0.00E+00	46.230	0.000
25	WSD(min)	3/4	-111.300	0.000	-65.560	0.00E+00	50.630	0.000
25	WSD(min)	J[25]	-111.300	0.000	-52.410	0.00E+00	54.230	0.000
26	USD(max)	I[25]	-25.910	0.000	-51.720	0.00E+00	129.410	0.000
26	USD(max)	1/4	-25.910	0.000	-33.310	0.00E+00	133.260	0.000
26	USD(max)	2/4	-25.910	0.000	-14.900	0.00E+00	135.680	0.000
26	USD(max)	3/4	-25.910	0.000	3.500	0.00E+00	136.660	0.000
26	USD(max)	J[26]	-25.910	0.000	21.910	0.00E+00	136.220	0.000
26	USD(min)	I[25]	-178.610	0.000	-83.860	0.00E+00	75.970	0.000
26	USD(min)	1/4	-178.610	0.000	-62.890	0.00E+00	79.280	0.000
26	USD(min)	2/4	-178.610	0.000	-41.930	0.00E+00	81.390	0.000
26	USD(min)	3/4	-178.610	0.000	-20.960	0.00E+00	82.280	0.000
26	USD(min)	J[26]	-178.610	0.000	0.000	0.00E+00	81.960	0.000
26	WSD(max)	I[25]	-17.370	0.000	-40.230	0.00E+00	80.790	0.000
26	WSD(max)	1/4	-17.370	0.000	-27.130	0.00E+00	83.180	0.000
26	WSD(max)	2/4	-17.370	0.000	-14.030	0.00E+00	84.660	0.000
26	WSD(max)	3/4	-17.370	0.000	-0.920	0.00E+00	85.260	0.000
26	WSD(max)	J[26]	-17.370	0.000	12.180	0.00E+00	84.960	0.000
26	WSD(min)	I[25]	-111.300	0.000	-52.410	0.00E+00	54.230	0.000
26	WSD(min)	1/4	-111.300	0.000	-39.310	0.00E+00	57.020	0.000
26	WSD(min)	2/4	-111.300	0.000	-26.210	0.00E+00	59.010	0.000
26	WSD(min)	3/4	-111.300	0.000	-13.100	0.00E+00	60.200	0.000
26	WSD(min)	J[26]	-111.300	0.000	0.000	0.00E+00	60.600	0.000
27	USD(max)	I[26]	-25.910	0.000	21.910	0.00E+00	136.220	0.000
27	USD(max)	1/4	-25.910	0.000	38.160	0.00E+00	134.420	0.000
27	USD(max)	2/4	-25.910	0.000	56.820	0.00E+00	131.350	0.000
27	USD(max)	3/4	-25.910	0.000	75.490	0.00E+00	127.010	0.000
27	USD(max)	J[27]	-25.910	0.000	94.160	0.00E+00	121.390	0.000
27	USD(min)	I[26]	-178.610	0.000	0.000	0.00E+00	81.960	0.000
27	USD(min)	1/4	-178.610	0.000	17.760	0.00E+00	80.500	0.000
27	USD(min)	2/4	-178.610	0.000	35.520	0.00E+00	77.960	0.000
27	USD(min)	3/4	-178.610	0.000	53.280	0.00E+00	74.350	0.000
27	USD(min)	J[27]	-178.610	0.000	71.040	0.00E+00	69.660	0.000
27	WSD(max)	I[26]	-17.370	0.000	12.180	0.00E+00	84.960	0.000
27	WSD(max)	1/4	-17.370	0.000	23.850	0.00E+00	83.820	0.000
27	WSD(max)	2/4	-17.370	0.000	35.510	0.00E+00	81.880	0.000
27	WSD(max)	3/4	-17.370	0.000	47.180	0.00E+00	79.140	0.000
27	WSD(max)	J[27]	-17.370	0.000	58.850	0.00E+00	75.610	0.000
27	WSD(min)	I[26]	-111.300	0.000	0.000	0.00E+00	60.600	0.000
27	WSD(min)	1/4	-111.300	0.000	11.670	0.00E+00	60.200	0.000
27	WSD(min)	2/4	-111.300	0.000	23.340	0.00E+00	59.010	0.000
27	WSD(min)	3/4	-111.300	0.000	35.000	0.00E+00	57.020	0.000
27	WSD(min)	J[27]	-111.300	0.000	46.670	0.00E+00	54.230	0.000
28	USD(max)	I[27]	-25.910	0.000	94.160	0.00E+00	121.390	0.000
28	USD(max)	1/4	-25.910	0.000	112.900	0.00E+00	114.470	0.000
28	USD(max)	2/4	-25.910	0.000	131.640	0.00E+00	106.260	0.000
28	USD(max)	3/4	-25.910	0.000	150.370	0.00E+00	96.770	0.000
28	USD(max)	J[28]	-25.910	0.000	169.110	0.00E+00	86.000	0.000
28	USD(min)	I[27]	-178.610	0.000	71.040	0.00E+00	69.660	0.000
28	USD(min)	1/4	-178.610	0.000	88.870	0.00E+00	63.870	0.000
28	USD(min)	2/4	-178.610	0.000	106.690	0.00E+00	56.970	0.000
28	USD(min)	3/4	-178.610	0.000	123.990	0.00E+00	48.720	0.000
28	USD(min)	J[28]	-178.610	0.000	139.800	0.00E+00	39.380	0.000
28	WSD(max)	I[27]	-17.370	0.000	58.850	0.00E+00	75.610	0.000
28	WSD(max)	1/4	-17.370	0.000	70.560	0.00E+00	71.260	0.000
28	WSD(max)	2/4	-17.370	0.000	82.270	0.00E+00	66.110	0.000
28	WSD(max)	3/4	-17.370	0.000	93.980	0.00E+00	60.160	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
28	WSD(max)	J[28]	-17.370	0.000	105.690	0.00E+00	53.400	0.000
28	WSD(min)	I[27]	-111.300	0.000	46.670	0.00E+00	54.230	0.000
28	WSD(min)	1/4	-111.300	0.000	58.380	0.00E+00	50.630	0.000
28	WSD(min)	2/4	-111.300	0.000	70.090	0.00E+00	46.150	0.000
28	WSD(min)	3/4	-111.300	0.000	81.800	0.00E+00	40.280	0.000
28	WSD(min)	J[28]	-111.300	0.000	93.520	0.00E+00	33.620	0.000
29	USD(max)	I[28]	-25.910	0.000	169.110	0.00E+00	86.000	0.000
29	USD(max)	1/4	-25.910	0.000	188.980	0.00E+00	73.990	0.000
29	USD(max)	2/4	-25.910	0.000	209.950	0.00E+00	60.710	0.000
29	USD(max)	3/4	-25.910	0.000	230.910	0.00E+00	46.150	0.000
29	USD(max)	J[29]	-25.910	0.000	251.880	0.00E+00	30.320	0.000
29	USD(min)	I[28]	-178.610	0.000	139.800	0.00E+00	39.380	0.000
29	USD(min)	1/4	-178.610	0.000	155.560	0.00E+00	29.010	0.000
29	USD(min)	2/4	-178.610	0.000	171.310	0.00E+00	17.550	0.000
29	USD(min)	3/4	-178.610	0.000	187.060	0.00E+00	5.030	0.000
29	USD(min)	J[29]	-178.610	0.000	202.810	0.00E+00	-8.570	0.000
29	WSD(max)	I[28]	-17.370	0.000	105.690	0.00E+00	53.400	0.000
29	WSD(max)	1/4	-17.370	0.000	118.120	0.00E+00	45.880	0.000
29	WSD(max)	2/4	-17.370	0.000	131.220	0.00E+00	37.560	0.000
29	WSD(max)	3/4	-17.370	0.000	144.320	0.00E+00	28.440	0.000
29	WSD(max)	J[29]	-17.370	0.000	157.420	0.00E+00	18.520	0.000
29	WSD(min)	I[28]	-111.300	0.000	93.520	0.00E+00	33.620	0.000
29	WSD(min)	1/4	-111.300	0.000	105.180	0.00E+00	26.170	0.000
29	WSD(min)	2/4	-111.300	0.000	116.850	0.00E+00	17.940	0.000
29	WSD(min)	3/4	-111.300	0.000	128.520	0.00E+00	8.900	0.000
29	WSD(min)	J[29]	-111.300	0.000	140.190	0.00E+00	-0.930	0.000
30	USD(max)	I[29]	-25.910	0.000	251.880	0.00E+00	30.320	0.000
30	USD(max)	1/4	-25.910	0.000	267.230	0.00E+00	17.920	0.000
30	USD(max)	2/4	-25.910	0.000	282.590	0.00E+00	4.830	0.000
30	USD(max)	3/4	-25.910	0.000	297.950	0.00E+00	-8.950	0.000
30	USD(max)	J[30]	-25.910	0.000	313.310	0.00E+00	-23.110	0.000
30	USD(min)	I[29]	-178.610	0.000	202.810	0.00E+00	-8.570	0.000
30	USD(min)	1/4	-178.610	0.000	214.350	0.00E+00	-19.220	0.000
30	USD(min)	2/4	-178.610	0.000	225.890	0.00E+00	-30.440	0.000
30	USD(min)	3/4	-178.610	0.000	237.430	0.00E+00	-42.250	0.000
30	USD(min)	J[30]	-178.610	0.000	248.970	0.00E+00	-54.920	0.000
30	WSD(max)	I[29]	-17.370	0.000	157.420	0.00E+00	18.520	0.000
30	WSD(max)	1/4	-17.370	0.000	167.020	0.00E+00	10.750	0.000
30	WSD(max)	2/4	-17.370	0.000	176.620	0.00E+00	2.550	0.000
30	WSD(max)	3/4	-17.370	0.000	186.220	0.00E+00	-6.070	0.000
30	WSD(max)	J[30]	-17.370	0.000	195.820	0.00E+00	-15.120	0.000
30	WSD(min)	I[29]	-111.300	0.000	140.190	0.00E+00	-0.930	0.000
30	WSD(min)	1/4	-111.300	0.000	148.740	0.00E+00	-8.640	0.000
30	WSD(min)	2/4	-111.300	0.000	157.280	0.00E+00	-16.770	0.000
30	WSD(min)	3/4	-111.300	0.000	165.830	0.00E+00	-25.330	0.000
30	WSD(min)	J[30]	-111.300	0.000	174.380	0.00E+00	-34.320	0.000

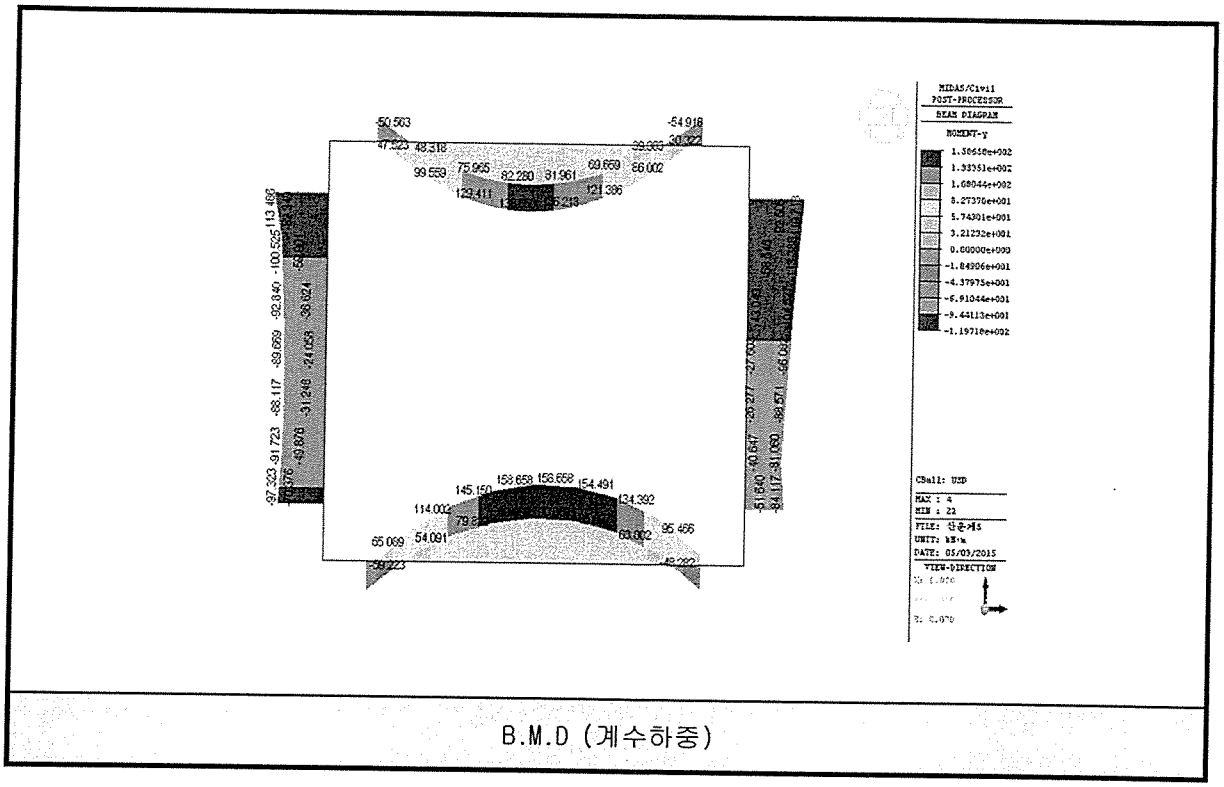
9. 단면력 요약

구분	위치	부재	극한하중			사용하중	비고
			Mu(kN · m)	Su(kN)	Pu(kN)	M(kN · m)	
상부슬래브	단부	23,30	-54.92	313.31	-	-34.32	
	중앙부	26,27	136.66	94.16	-	85.26	
벽체	상단부 (축력최대)	21,22	-100.53	139.66	-413.30	-47.23	
	상단부 (모멘트최대)	21,22	-119.72	139.66	-380.55	-74.82	
	중앙부 (축력최대)	15,16	-72.00	41.90	-426.47	-21.05	
	중앙부 (모멘트최대)	15,16	-96.08	-15.96	-394.68	-60.00	
	하단부 (축력최대)	9,10	-84.12	-131.16	-443.48	-33.42	
	하단부 (모멘트최대)	9,10	-97.32	-131.16	-424.00	-60.83	
하부슬래브	단부	1,8	-59.22	306.94	-	-35.47	
	중앙부	4,5	158.66	64.77	-	98.87	

-'전단력과 사용하중 상태에서의 모멘트는 선택 부재에서의 최대값 적용

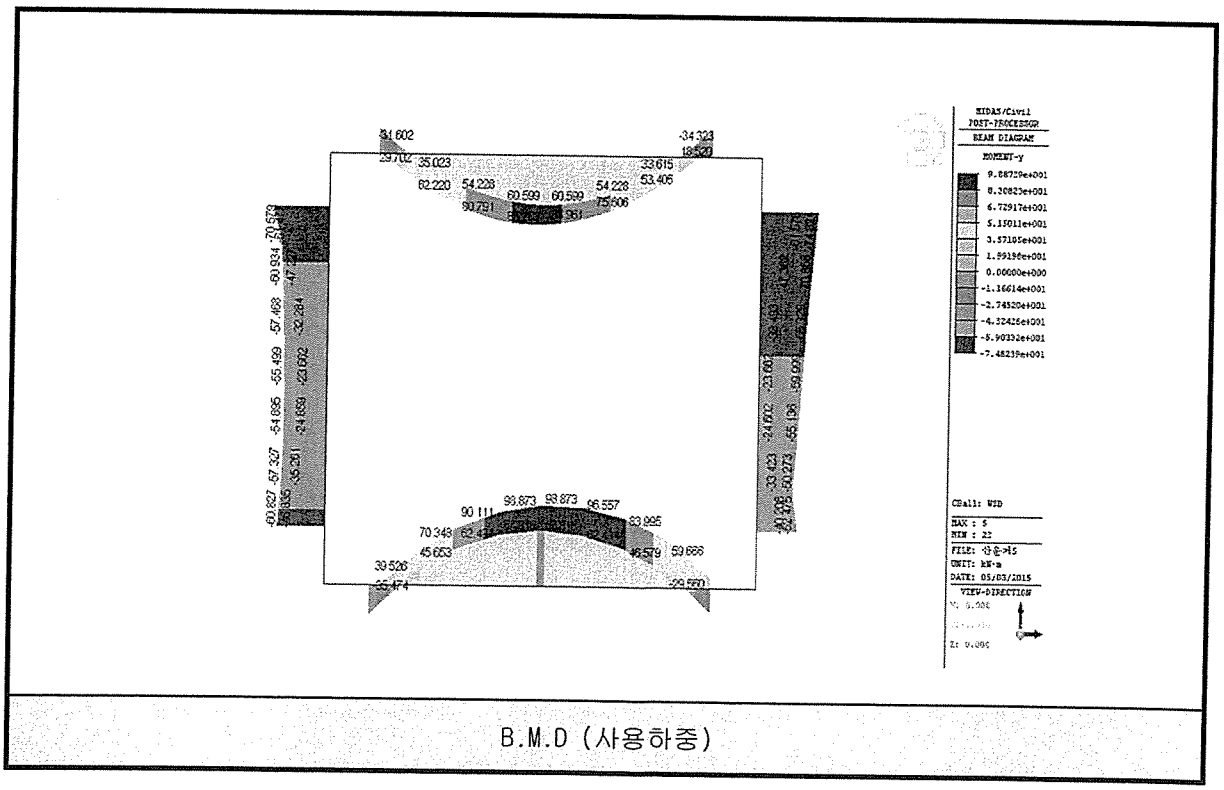
10. 단면력도

(1) 극한하중 모멘트도



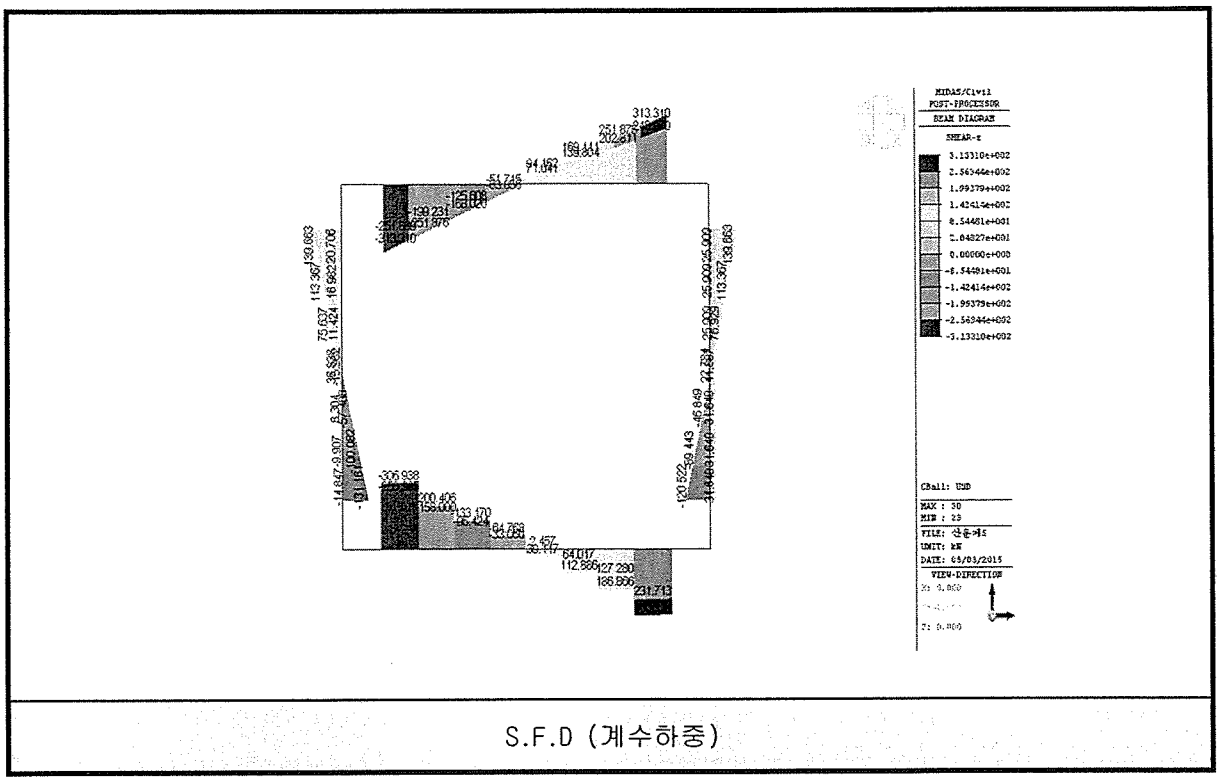
B.M.D (계수하중)

(2) 사용하중 모멘트도



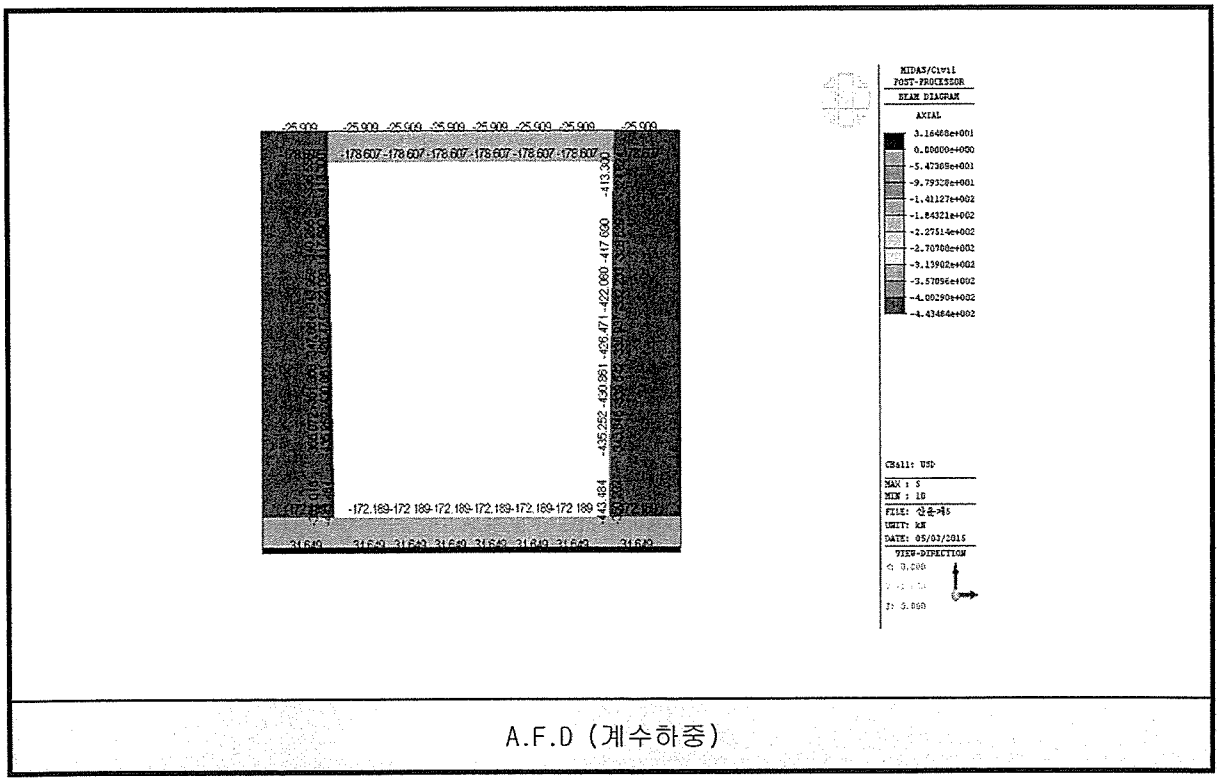
B.M.D (사용하중)

(3) 극한하중 전단력도



S.F.D (계수하중)

(4) 극한하중 축력도



A.F.D (계수하중)

11. 단면검토

① 상부 슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	34.320
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Su (kN)
1000.0	500.0	400.0	100.0	54.920	313.310

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 384.284 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 384.284 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 512.379 mm^2 ※ As = 512.379 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 54.920 kN · m ----- ∴ O.K. [사용률 = 4.036]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

Vu > Φv x Vc ∴ 전단철근보강이 필요하다.

Req Av = (313.3 - 232.782)×10³ ×150.0 / (400.0×300.0×0.85)

= 118.423 ㎟

Use Av = 253.400 ㎟ (H13×2 EA, 간격 s = 150.0 mm)

Øv · As = Øv · Av · fy · D / (s × B) = 172.312 kN

s = 150.0 mm ≥ Min (600, 0.5D) = 150.0 mm ----- ∴ O.K.

Øv · Vn = Øv · Vc + Øv · Vs = 405.094 kN > Vu ----- ∴ O.K.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 34.32 × 1000000 / [1588.8×(400 - 83.857/3)]

= 58.060 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 58.06) - 2.5 × 92 = 1126.348 mm

300 x (210 / fs) = 300 × (210 / 58.06) = 1085.078 mm

Sa는 작은 값인 1085.078 mm 를 적용

S = 125.00 ≤ Sa (= 1085.078 mm) ----- ∴ O.K.

② 상부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	85.260
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	400.0	300.0	100.0	136.660	94.160

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.02719 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ———————— (1)

$a = As \times fy / (0.85 \times fck \times b)$ ———————— (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1310.253 mm^2

사용철근비 : Puse = As / (B × D) = 0.00530

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1310.253 mm^2 As(min) = 1050.000 mm^2

4/3×As(req) = 1747.004 mm^2 ※ As = 1310.253 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 164463107 N · mm

= 164.463 kN · m > 136.660 kN · m ----- ∴ O.K. [사용률 = 1.203]

* 전단력 검토

$\phi v \cdot Vc = \phi v \cdot 1/6 \cdot \sqrt{fck} \cdot B \cdot d / 1000 =$ 232.782 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 85.26 \times 1000000 / [1588.8 \times (300 - 71.32/3)]$

= 194.272 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 300/(7 \times 1588.8)]}$

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 194.272) - 2.5 × 92 = 175.359 mm

300 x (210 / fs) = 300 × (210 / 194.272) = 324.287 mm

Sa는 작은 값인 175.359 mm 를 적용

S = 125.00 ≤ Sa (= 175.359 mm) ----- ∴ O.K.

③ 하부슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	35.470
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	550.0	450.0	100.0	59.220	306.940

전단설계시 단면의 유효높이 ds = 350.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.04229 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 367.915 mm^2

사용철근비 : Puse = As / (B × D) = 0.00353

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 367.915 mm^2 As(min) = 1575.000 mm^2

4/3×As(req) = 490.553 mm^2 ※ As = 490.553 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 250258307 N · mm

= 250.258 kN · m > 59.220 kN · m ----- ∴ O.K [사용률 = 4.226]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 271.579 kN

Vu > Φv x Vc ∴ 전단철근보강이 필요하다.

Req Av = (306.9 - 271.579)×10³ ×150.0 / (400.0×350.0×0.85)

= 44.573 ㎟

Use Av = 253.400 ㎟ (H13×2 EA, 간격 s = 150.0 mm)

Øv · As = Øv · Av · fy · D / (s × B) = 201.031 kN

s = 150.0 mm < Min (600, 0.5D) = 175.0 mm ----- ∴ O.K

Øv · Vn = Øv · Vc + Øv · Vs = 472.610 kN > Vu ----- ∴ O.K

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 35.47 × 1000000 / [1588.8×(450 - 89.542/3)]

= 53.136 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×450/(7×1588.8)]

= 89.542 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 53.136) - 2.5 × 92 = 1252.060 mm

300 x (210 / fs) = 300 × (210 / 53.136) = 1185.648 mm

Sa는 작은 값인 1185.648 mm 를 적용

S = 125.00 ≤ Sa (= 1185.648 mm) ----- ∴ O.K.

④ 하부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	98.870
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	450.0	350.0	100.0	158.660	64.770

전단설계시 단면의 유효높이 ds = 350.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03222 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1296.897 mm^2

사용철근비 : Puse = As / (B × D) = 0.00454

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 1296.897 mm^2 As(min) = 1225.000 mm^2

4/3×As(req) = 1729.196 mm^2 ※ As = 1296.897 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 193061507 N · mm

= 193.062 kN · m > 158.660 kN · m ----- ∴ O.K [사용률 = 1.217]

* 전단력 검토

$\phi v \cdot Vc = \phi v \cdot 1/6 \cdot \sqrt{fck} \cdot B \cdot d / 1000 =$ 271.579 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 98.87 \times 1000000 / [1588.8 \times (350 - 77.81/3)]$

= 192.028 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 350/(7 \times 1588.8)]}$

= 77.810 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 192.028) - 2.5 × 92 = 180.096 mm

300 x (210 / fs) = 300 × (210 / 192.028) = 328.077 mm

Sa는 작은 값인 180.096 mm 를 적용

S = 125.00 ≤ Sa (= 180.096 mm) ----- ∴ O.K.

⑤ 벽체 상단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	74.820
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	500.0	400.0	100.0	119.720	139.660

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 845.403 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 845.403 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 1127.204 mm^2 ※ As = 1127.204 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 119.720 kN · m ----- ∴ O.K [사용률 = 1.851]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

1/2 x Φv x Vc = 116.391 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 74.82 × 1000000 / [1588.8×(400 - 83.857/3)]

= 126.576 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 126.576) - 2.5 × 92 = 392.158 mm

300 x (210 / fs) = 300 × (210 / 126.576) = 497.726 mm

Sa는 작은 값인 392.158 mm 를 적용

S = 125.00 ≤ Sa (= 392.158 mm) ----- ∴ O.K.

⑥ 벽체 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	60.000
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	400.0	300.0	100.0	96.080	15.960

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.02719 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 911.343 mm^2

사용철근비 : Puse = As / (B × D) = 0.00530

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 911.343 mm^2 As(min) = 1050.000 mm^2

4/3×As(req) = 1215.124 mm^2 ※ As = 1050.000 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 164463107 N · mm

= 164.463 kN · m > 96.080 kN · m ----- ∴ O.K [사용률 = 1.712]

* 전단력 검토

$\phi v \cdot Vc = \phi v \cdot 1/6 \cdot \sqrt{fck} \cdot B \cdot d / 1000 =$ 232.782 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 60 \times 1000000 / [1588.8 \times (300 - 71.32/3)]$

= 136.715 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 300/(7 \times 1588.8)]}$

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 136.715) - 2.5 × 92 = 346.015 mm

300 x (210 / fs) = 300 × (210 / 136.715) = 460.812 mm

Sa는 작은 값인 346.015 mm 를 적용

S = 125.00 ≤ Sa (= 346.015 mm) ----- ∴ O.K.

⑦ 벽체 하단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	60.830
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	500.0	400.0	100.0	97.320	131.160

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ———————— (1)

$a = As \times fy / (0.85 \times fck \times b)$ ———————— (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 685.035 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 685.035 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 913.380 mm^2 ※ As = 913.380 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 97.320 kN · m ----- ∴ O.K [사용률 = 2.278]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

1/2 x Φv x Vc = 116.391 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 60.83 × 1000000 / [1588.8×(400 - 83.857/3)]

= 102.908 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 102.908) - 2.5 × 92 = 535.245 mm

300 x (210 / fs) = 300 × (210 / 102.908) = 612.196 mm

Sa는 작은 값인 535.245 mm 를 적용

S = 125.00 ≤ Sa (= 535.245 mm) ----- ∴ O.K.

⑤ 벽체 상단부 - Pmax 일 경우

설계축력	:	Pu	=	413.30	(kN) ,	설계모멘트	:	Mu	=	100.53	(kN · m)
설계전단력	:	Vu	=	139.66	(kN) ,	사용 모멘트	:	M	=	47.23	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	243.24 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

$\sum$ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 175.166 mm , a = k1 x c = 146.439 mm 사용

fs = 600 x (400.000 - 175.166) / 175.166 = 400 Mpa (fs ≤ fy)

fs' = 600 x (175.166 - 100.000) / 175.166 = 257.4682 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 146.439 x 1000 = 3672688.695 N

Cs = 794.400 x (257.468 - 0.836 x 30) = 184609.158 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 3672688.695 + 184609.158 - 635520.000 = 3221777.853 N

Mn' = 3672688.695 x (400.0 - 146.439 / 2) + 184609.158 x (400.0 - 100.0)

= 1255545899.918 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 389.704933 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 3221777.853

ΦPn = 2255244.497 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3221777.853 = 2255.244 kN ≥ Pu = 413.300 kN ------ O.K!!!

ΦMn = ΦPn x 243.237 = 548.560 kN.m ≥ Mu = 100.530 kN.m ------ O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 246526.206 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 47.23 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 79.901 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 79.901) - 2.5 × 92 = 755.599 mm

300 x (210 / fs) = 300 × (210 / 79.901) = 788.479 mm

Sa는 작은 값인 755.599 mm 를 적용

S = 125.00 ≤ Sa (= 755.599 mm) ------ ∴ O.K.

⑥ 벽체 상단부 - Mmax 일 경우

설계축력	:	Pu	=	380.55	(kN) ,	설계모멘트	:	Mu	=	119.72	(kN · m)
설계전단력	:	Vu	=	139.66	(kN) ,	사용 모멘트	:	M	=	74.82	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	314.60 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 120.914 mm , a = k1 x c = 101.084 mm 사용

fs = 600 x (400.000 - 120.914) / 120.914 = 400 Mpa (fs ≤ fy)

fs' = 600 x (120.914 - 100.000) / 120.914 = 103.7795 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 101.084 x 1000 = 2535189.328 N

Cs = 794.400 x (103.780 - 0.836 x 30) = 62518.919 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 2535189.328 + 62518.919 - 635520.000 = 1962188.247 N

Mn' = 2535189.328 x (400.0 - 101.084 / 2) + 62518.919 x (400.0 - 100.0)

= 904697736.220 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 461.064868 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 1962188.247

ΦPn = 1373531.773 < ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.720

ΦPn = 0.72 x 1962188.247 = 1412.776 kN ≥ Pu = 380.550 kN ------- O.K!!!

ΦMn = ΦPn x 314.597 = 444.455 kN.m ≥ Mu = 119.720 kN.m ------- O.K!!!

○ 전단력 검토

ϕVc = 0.85 × 1/6 × (1 + Pu / (14 x Ag)) x √fck × bo × d = 245437.119 N

여기서 , 1/2ϕVc< Vu ≤ ϕVc 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 74.82 × 1000000 / [1588.8×(400 - 83.857/3)]

= 126.576 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 126.576) - 2.5 × 92 = 392.158 mm

300 x (210 / fs) = 300 × (210 / 126.576) = 497.726 mm

Sa는 작은 값인 392.158 mm 를 적용

S = 125.00 ≤ Sa (= 392.158 mm) ------ ∴ O.K.

⑦ 벽체 중앙부 - Pmax 일 경우

설계축력	:	Pu	=	426.47	(kN) ,	설계모멘트	:	Mu	=	72.00	(kN · m)
설계전단력	:	Vu	=	41.90	(kN) ,	사용 모멘트	:	M	=	21.05	(kN.m)
부 재 높 이	:	H	=	400.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	300.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	168.83 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0060) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 400.00 x 1000.00 = 10032000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (10032000.00 x 200.0 + 635520.0 x 100.0 + 317760.0 x 300.0) / 10985280.000

= 197.107 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 180.000 mm, ab = k1 x cb = 150.480 mm

fs' = 600 x (180.000 - 100.0) / 180.0(= 266.6667 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 150.480 x 1000 = 3774038.400 N

Cs = As' x (fs' - 0.9 x fck) = 190391.200 N

Ts = As x fs = 635520.000 N

Pb = 3774038.400 + 190391.200 - 635520.000 = 3328909.600 N

Mb = 3774038.400x(300.0-150.480/2)+190391.200x(300.0-100.0)-3328909.600x(197.107-100.0)

= 563069348.351 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 169.145 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 180.195 mm , a = k1 x c = 150.643 mm 사용

fs = 600 x (300.000 - 180.195) / 180.195 = 398.9173 Mpa (fs ≤ fy)

fs' = 600 x (180.195 - 100.000) / 180.195 = 267.0276 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 150.643 x 1000 = 3778129.038 N

Cs = 794.400 x (267.028 - 0.836 x 30) = 192203.151 N

Ts = 1588.800 x 398.917 = 633799.782 N

Pn = 3778129.038 + 192203.151 - 633799.782 = 3336532.407 N

Mn' = 3778129.038 x (300.0 - 150.643 / 2) + 192203.151 x (300.0 - 100.0)

= 887304799.627 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 265.935221 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 8874006.720 N ≥ Pn = 3336532.407

ΦPn = 2335572.685 > ΦPb = 2330236.720 , 0.1 x fck x Ag = 1200000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3336532.407 = 2335.573 kN ≥ Pu = 426.470 kN ------- O.K!!!

ΦMn = ΦPn x 168.828 = 394.310 kN.m ≥ Mu = 72.000 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 250509.690 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 21.05 \times 1000000 / [1588.8 \times (300 - 71.32/3)]$

= 47.964 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 300/(7 \times 1588.8)]}$

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 47.964) - 2.5 × 92 = 1411.85 mm

300 x (210 / fs) = 300 × (210 / 47.964) = 1313.48 mm

Sa는 작은 값인 1313.48 mm 를 적용

S = 125.00 ≤ Sa (= 1313.479 mm) ------ ∴ O.K.

⑧ 벽체 중앙부 - Mmax 일 경우

설계축력	:	Pu	=	394.68	(kN) ,	설계모멘트	:	Mu	=	96.08	(kN · m)
설계전단력	:	Vu	=	15.96	(kN) ,	사용 모멘트	:	M	=	60.00	(kN.m)
부 재 높 이	:	H	=	400.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	300.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	243.44 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0060) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 400.00 x 1000.00 = 10032000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (10032000.00 x 200.0 + 635520.0 x 100.0 + 317760.0 x 300.0) / 10985280.000

= 197.107 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 180.000 mm, ab = k1 x cb = 150.480 mm

fs' = 600 x (180.000 - 100.0) / 180.0(= 266.6667 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 150.480 x 1000 = 3774038.400 N

Cs = As' x (fs' - 0.9 x fck) = 190391.200 N

Ts = As x fs = 635520.000 N

Pb = 3774038.400 + 190391.200 - 635520.000 = 3328909.600 N

Mb = 3774038.400x(300.0-150.480/2)+190391.200x(300.0-100.0)-3328909.600x(197.107-100.0)

= 563069348.351 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 169.145 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 114.055 mm , a = k1 x c = 95.350 mm 사용

fs = 600 x (300.000 - 114.055) / 114.055 = 400 Mpa (fs ≤ fy)

fs' = 600 x (114.055 - 100.000) / 114.055 = 73.93663 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 95.350 x 1000 = 2391371.208 N

Cs = 794.400 x (73.937 - 0.836 x 30) = 38811.706 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 2391371.208 + 38811.706 - 635520.000 = 1794662.914 N

Mn' = 2391371.208 x (300.0 - 95.350 / 2) + 38811.706 x (300.0 - 100.0)

= 611165405.095 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 340.545124 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 8874006.720 N ≥ Pn = 1794662.914

ΦPn = 1256264.040 > ΦPb = 2330236.720 , 0.1 x fck x Ag = 1200000.000

∴ Φ = 0.700

ΦPn = 0.70 x 1794662.914 = 1256.264 kN ≥ Pu = 394.680 kN ------- O.K!!!

ΦMn = ΦPn x 243.438 = 305.822 kN.m ≥ Mu = 96.080 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 249188.236 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 60 \times 1000000 / [1588.8 \times (300 - 71.32/3)]$

= 136.715 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 300/(7 \times 1588.8)]}$

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 136.715) - 2.5 × 92 = 346.02 mm

300 x (210 / fs) = 300 × (210 / 136.715) = 460.81 mm

Sa는 작은 값인 346.02 mm 를 적용

S = 125.00 ≤ Sa (= 346.015 mm) ----- ∴ O.K.

⑨ 벽체 하단부 - Pmax 일 경우

설계축력	:	Pu	=	443.48	(kN) ,	설계모멘트	:	Mu	=	84.12	(kN · m)
설계전단력	:	Vu	=	131.16	(kN) ,	사용 모멘트	:	M	=	33.42	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	189.68 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 244.057 mm , a = k1 x c = 204.032 mm 사용

fs = 600 x (400.000 - 244.057) / 244.057 = 383.3752 Mpa (fs ≤ fy)

fs' = 600 x (244.057 - 100.000) / 244.057 = 354.1562 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 204.032 x 1000 = 5117122.219 N

Cs = 794.400 x (354.156 - 0.836 x 30) = 261418.129 N

Ts = 1588.800 x 383.375 = 609106.553 N

Pn = 5117122.219 + 261418.129 - 609106.553 = 4769433.794 N

Mn' = 5117122.219 x (400.0 - 204.032 / 2) + 261418.129 x (400.0 - 100.0)

= 1603246020.727 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 336.149184 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} = 10914006.720 N ≥ Pn = 4769433.794

ΦPn = 3338603.656 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 4769433.794 = 3338.604 kN ≥ Pu = 443.480 kN ——— O.K!!!

ΦMn = ΦPn x 189.682 = 633.272 kN.m ≥ Mu = 84.120 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 247529.830 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 33.42 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 56.538 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 56.538) - 2.5 × 92 = 1162.87 mm

300 x (210 / fs) = 300 × (210 / 56.538) = 1114.30 mm

Sa는 작은 값인 1114.30 mm 를 적용

S = 125.00 ≤ Sa (= 1114.299 mm) ----- ∴ O.K.

⑩ 벽체 하단부 - Mmax 일 경우

설계축력	:	Pu	=	424.00	(kN) ,	설계모멘트	:	Mu	=	97.32	(kN · m)
설계전단력	:	Vu	=	131.16	(kN) ,	사용 모멘트	:	M	=	60.83	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	229.53 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 190.867 mm , a = k1 x c = 159.565 mm 사용

fs = 600 x (400.000 - 190.867) / 190.867 = 400 Mpa (fs ≤ fy)

fs' = 600 x (190.867 - 100.000) / 190.867 = 285.6452 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 159.565 x 1000 = 4001888.630 N

Cs = 794.400 x (285.645 - 0.836 x 30) = 206993.015 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 4001888.630 + 206993.015 - 635520.000 = 3573361.645 N

Mn' = 4001888.630 x (400.0 - 159.565 / 2) + 206993.015 x (400.0 - 100.0)

= 1343572802.047 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 375.995877 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 3573361.645

ΦPn = 2501353.151 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3573361.645 = 2501.353 kN ≥ Pu = 424.000 kN ------- O.K!!!

ΦMn = ΦPn x 229.528 = 574.131 kN.m ≥ Mu = 97.320 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 246882.030 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 60.83 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 102.908 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 102.908) - 2.5 × 92 = 535.245 mm

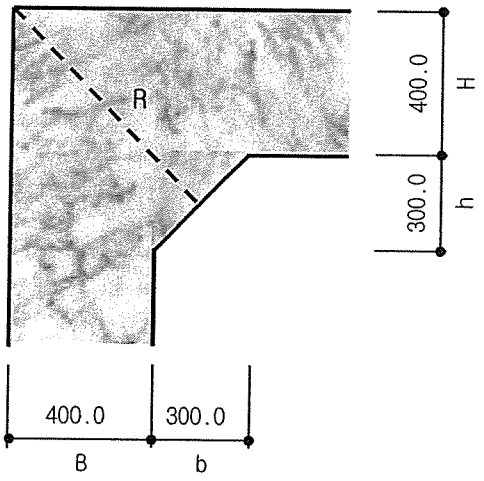
300 x (210 / fs) = 300 × (210 / 102.908) = 612.196 mm

Sa는 작은 값인 535.245 mm 를 적용

S = 125.00 ≤ Sa (= 535.245 mm) ----- ∴ O.K.

12. 우각부 검토

1) 상부 슬래브



CON'C 설계기준강도(fck) : 30.0 MPa

CON'C 허용휨인장응력(fta) = 0.13√fck Mpa

: 0.712 MPa

철근 항복강도(fy) : 400.0 MPa

철근 허용응력 : 180.0 MPa

사용 모멘트 Mo : 74.82 kN · m

$R = \sqrt{2} \times b / (b+h) \times [B + h + (H \times h/b)]$

$= 777.82$ mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 74820000}{777.82^2 \times 1000.0} = 0.618 \text{ MPa}$$

f_{tmax} = 0.618 MPa < f_{ta} = 0.712 MPa 이므로 보강철근 필요없음.

② 소요 철근량

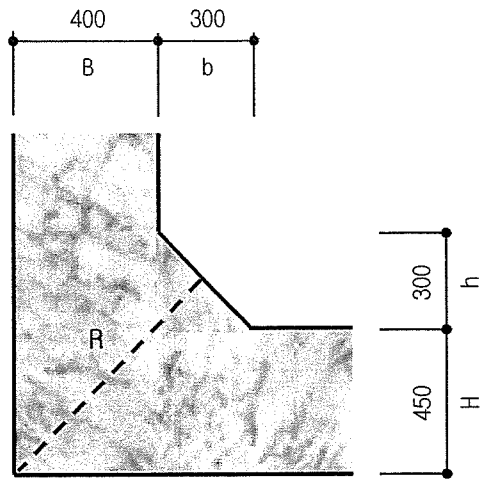
외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 0}{777.82 \times 180.0} = 0.00 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 0.00 - 794.4 = -794.40 ㎟

----- 우각부 보강철근 필요없음

2) 하부 슬래브



CON'C 설계기준강도(fck)	:	30.0	MPa
CON'C 허용휨인장응력(fta) = 0.13√fck Mpa			
	:	0.712	MPa
철근 항복강도(fy)	:	400.0	MPa
철근 허용응력	:	180.0	MPa
사용 모멘트 Mo	:	60.83	kN · m

R = √ (B2 + H2) = 602.08 mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 60830000}{602.08^2 \times 1000.0} = 0.839 \text{ MPa}$$

f_{tmax} = 0.839 MPa > f_{ta} = 0.712 MPa 이므로 보강철근 필요.

② 소요 철근량

외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 60830000}{602.08 \times 180.0} = 1122.59 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 1122.59 - 794.4 = 328.19 ㎟

----- 우각부 보강철근 필요

외측인장에 대한 보강 사용철근량(As)

As = H16 @ 250 - 1 단 = 794.40 ㎟

Asf = 328.19 ㎟ < As = 794.40 ㎟ ----- ∴ O.K.

13. 배력철근 검토

1) 구조상세 - 철도설계기준(노반편) p.5-19

다. 종방향으로 영향을 받는 경우로써 상부슬래브, 하부슬래브와 벽체에 있어서 종방향 최소철근량은 복토의 깊이가 3.0 m 이하인 경우에는 콘크리트 단면적의 0.4%, 복토가 3.0m 이상인 경우에는 복토 깊이가 30m인 경우의 사용량인 1.0%를 기준으로 선형변화량을 사용하되, 종방향 철근량은 주철근량 미만이어야 한다.

라. 단단한 지반 위에 놓인 경우와 말뚝기초로 지지되는 경우로써 종방향 부등침하가 우려되지 않은 경우에는 다.항의 기준을 적용하지 않는다. 따라서 어느 정도 견고한 지반위에 놓이는 일반적인 구교로써 적적한 신축이음매가 설치되어 상세한 종방향해석이 필요하지 않다고 판단되는 경우 종방향 철근량은 슬래브의 경우 콘크리트단면적의 0.25%, 벽체의 경우 0.3%를 적용한다.

마. 배력철근은 단위폭주변의 인장 주철근량의 1/5 이상으로 하여 종단방향에 계산외의 응력이 발생하는 것을 고려하여야 한다.

2) 배력철근의 최소 철근비

슬래브의 배력 철근비 = 0.25 %　　벽체의 배력 철근비 = 0.30 %

① 상부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 400.0 × 0.25	=	1000.00	㎟
사용철근 인장측 ; H 13 @ 150	=	844.67	㎟
압축측 ; H 13 @ 300	=	422.33	㎟
	∑ As =	1267.00	㎟

따라서, As = 1267.00 ㎟ > Asreq = 1000.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ----- ∴ O.K.

② 하부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 450.0 × 0.25	=	1125.00	㎟
사용철근 인장측 ; H 13 @ 150	=	844.67	㎟
압축측 ; H 13 @ 300	=	422.33	㎟
	∑ As =	1267.00	㎟

따라서, As = 1267.00 ㎟ > Asreq = 1125.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ----- ∴ O.K.

③ 벽체

배력철근 최소 철근비 (Asreq) = 1,000.0 × 400.0 × 0.30 = 1200.00 ㎟

사용철근 인장측 ; H 13 @ 150 = 844.67 ㎟

압축측 ; H 13 @ 300 = 422.33 ㎟

∑ As = 1267.00 ㎟

따라서, As = 1267.00 ㎟ > Asreq = 1200.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ----- ∴ O.K.

14. 사용성검토

1) 상부슬래브 최소 두께

1.2(L+3)/30 = 1.2 × (2.470 + 3) / 30 = 218.8 mm

상부슬래브 두께 = 400.0 mm

Tuse = 400.0 mm > Tmin = 218.8 mm ----- ∴ O.K.

2) 철근 피로검토

피로응력한계 : 사용하중하에서 활하중과 충격에 의해 야기되는 직선철근의 최대 인장응력과 최소 응력 상이의 범위는 다음 값을 초과할수 없다.

$f_f = 165 - 0.33fmin$

여기서, f_f : 응력범위(Mpa)

fmin : 최소응력 수준으로 인장은 정(+), 압축은 부(-)의 값(Mpa)

① 상부슬래브 단부

2.47 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 3.053 kN · m Mmin = -0.562 kN · m

- 사용철근량 = H16 × 8ea = 1588.800 ㎟

n = 7

p = As / bd = 1588.80 / (1000 × 400) = 0.00397

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00397 + \sqrt{\{ (7 \times 0.00397)^2 + 2 \times 7 \times 0.00397 \}}$

= 0.210

J = 1 - K / 3 = 1 - 0.210 / 3 = 0.930

$$fs\ max = \frac{M}{As \times j \times d} = \frac{3.053 \times 10^6}{1588.80 \times 0.930 \times 400} = 5.160 \text{ Mpa}$$

$$fs\ min = \frac{-0.562 \times 10^6}{1588.80 \times 0.930 \times 400} = -1 \text{ Mpa}$$

Δf = fs max - fs min = 6.111 Mpa

$f_f = 165 - 0.33fmin$

= 165 - 0.33 × -0.95 = 165.314 Mpa > 6.111 Mpa O.K.

② 상부슬래브 중앙부

2.47 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 9.123 kN · m Mmin = 8.451 kN · m

- 사용철근량 = H16 × 8ea = 1588.800 ㎟

n = 7

p = As / bd = 1588.80 / (1000 × 300) = 0.00530

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.0053 + \sqrt{\{ (7 \times 0.0053)^2 + 2 \times 7 \times 0.0053 \}}$

= 0.238

J = 1 - K / 3 = 1 - 0.238 / 3 = 0.921

$$fs\ max = \frac{M}{As \times j \times d} = \frac{9.123 \times 10^6}{1588.80 \times 0.921 \times 300} = 20.790\ Mpa$$

$$fs\ min = \frac{8.451 \times 10^6}{1588.80 \times 0.921 \times 300} = 19\ Mpa$$

Δf = fs max - fs min = 1.534 Mpa

$f_f = 165 - 0.33 fmin$

= 165 - 0.33 × 19.26 = 158.645 Mpa > 1.534 Mpa O.K.

15. 기초지지력 검토

1) 구체자중

-	2.800	x	0.450	x	24.500				=	30.870	kN/m
-	2.800	x	0.400	x	24.500				=	27.440	kN/m
-	2.000	x	0.400	x	24.500				=	19.600	kN/m
-	2.000	x	0.400	x	24.500				=	19.600	kN/m
-	0.300	x	0.300	x	1/2	x	4	x 24.500	=	4.410	kN/m
								∴ Total	=	101.920	kN/m

101.920 / 2.800 = 36.400 kN/m²

2) 상부연직하중

= 167.6 kN/m²

3) 활하중

= 21.019 kN/m²

4) 최대 지반 반력

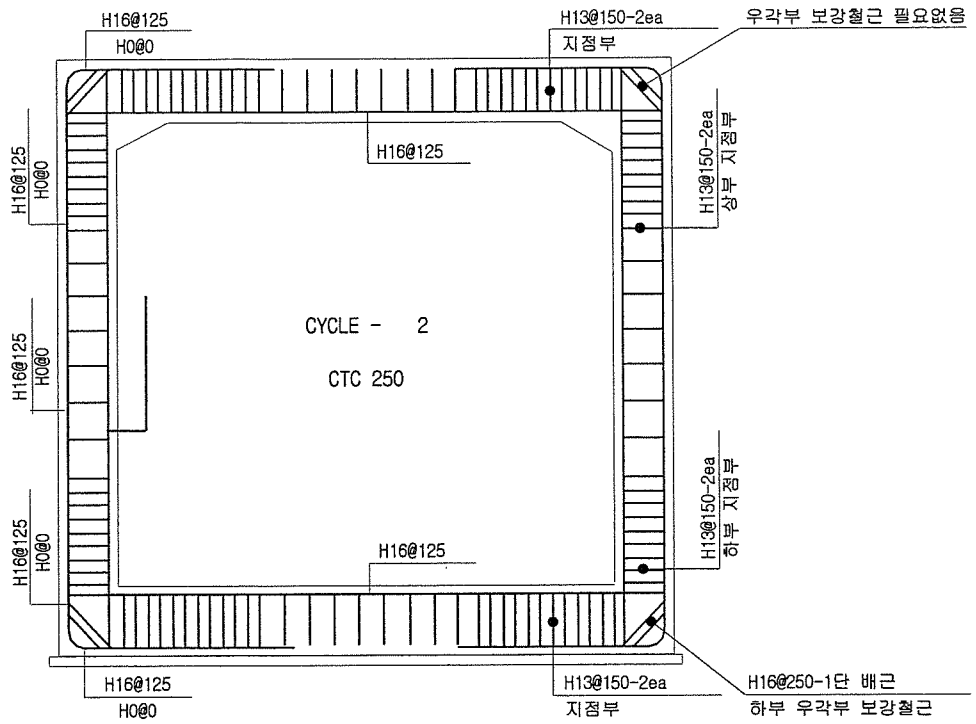
Qmax = 36.400 + 167.600 + 21.019

= 225.019 kN/m²

5) 지지력 검토

Qmax = 225.019 kN/m² < 300.00 kN/m² --- ∴ O.K.

16. 주철근 조립도



▶ 배력철근

- 상부 지점부 : H13, 인장측:150, 압축측:300
- 하부 지점부 : H13, 인장측:150, 압축측:300
- 벽체부 : H13, 인장측:150, 압축측:300

U-Type 개거 2.0x2.4

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6.1 부재력도

6.2 부재력 집계

7. 단면설계

7.1 하부슬래브

7.2 좌측벽체

7.3 우측벽체

7.4 배력철근

7.5 우각부

8. 사용성검토

9. 지지력 검토

■ 해석결과 요약

* 기초 검토

구분	q_{max}(kN/m^2)	Qu(kN)	qa(kN/m^2)	비 고
직접기초	34.840	2240.680	287.267	∴ O.K

* 휨 검토

구분		B(m)	H(m)	dc(m)	헌치(m)	Mu(kn.m)	ΦMn(kn.m)	BENDING Bar(mm)	휨검토		최소철근비 검토	주철근간격 검토
									판정	S.F		
하부슬래브	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		59.672	90.378	H 16 @ 150	O.K	1.515	O.K	O.K
좌측 벽체	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		26.358	46.427	H 16 @ 300	O.K	1.761	O.K	O.K
우측 벽체	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		26.383	46.427	H 16 @ 300	O.K	1.760	O.K	O.K

* 전단검토

구분		ΦVc	Vu	판정	전단철근			전단검토	
					사용철근	다리수	간격	판정	S.F
하부슬래브	단부	155.188	30.052	전단철근 불필요	H 0 × 0	@	0	O.K	-
	중앙부	-	-	-	H - × -	@	-	-	-
좌측 벽체	단부	155.188	84.550	전단철근 불필요	H 0 × 0	@	0	O.K	-
	중앙부	-	-	-	H - × -	@	-	-	-
우측 벽체	단부	155.188	84.550	전단철근 불필요	H 0 × 0	@	0	O.K	-
	중앙부	-	-	-	H - × -	@	-	-	-

1. 설계개요 및 조건

1.1 설계개요

• 구조해석 프로그램 : MIDAS CIVIL

1.2 설계방법

(1) 부재의 단면검토 : 강도설계법

(2) 사용성 검토 : 허용응력설계법

1.3 일반사항

(1) 사용재료의 강도

① 콘크리트의 압축강도 : f_{ck} = 30 MPa

② 철근의 항복강도 : f_y = 400 MPa

(2) 사용재료의 탄성계수

① 콘크리트의 탄성계수 : E_c = 27,537 MPa

② 철근의 탄성계수 : E_s = 200,000 MPa

(3) 토사 내부마찰각 : Φ = 35°

(4) 토압 : K_o = 0.426

(5) 사 각(Skew) : 71.00 °

1.4 설계하중

(1) 고정하중

재 료	단위중량(kN/m^3)	재 료	단위중량(kN/m^3)
철근콘크리트	24.5	아스팔트 포장	23.0
흙(지하수위 이상)	20.0	흙(지하수위 이하)	11.0
지하수	10.0		

(2) 상재 하중(kN/m^2)

q_L = 15.0 kN/m^2

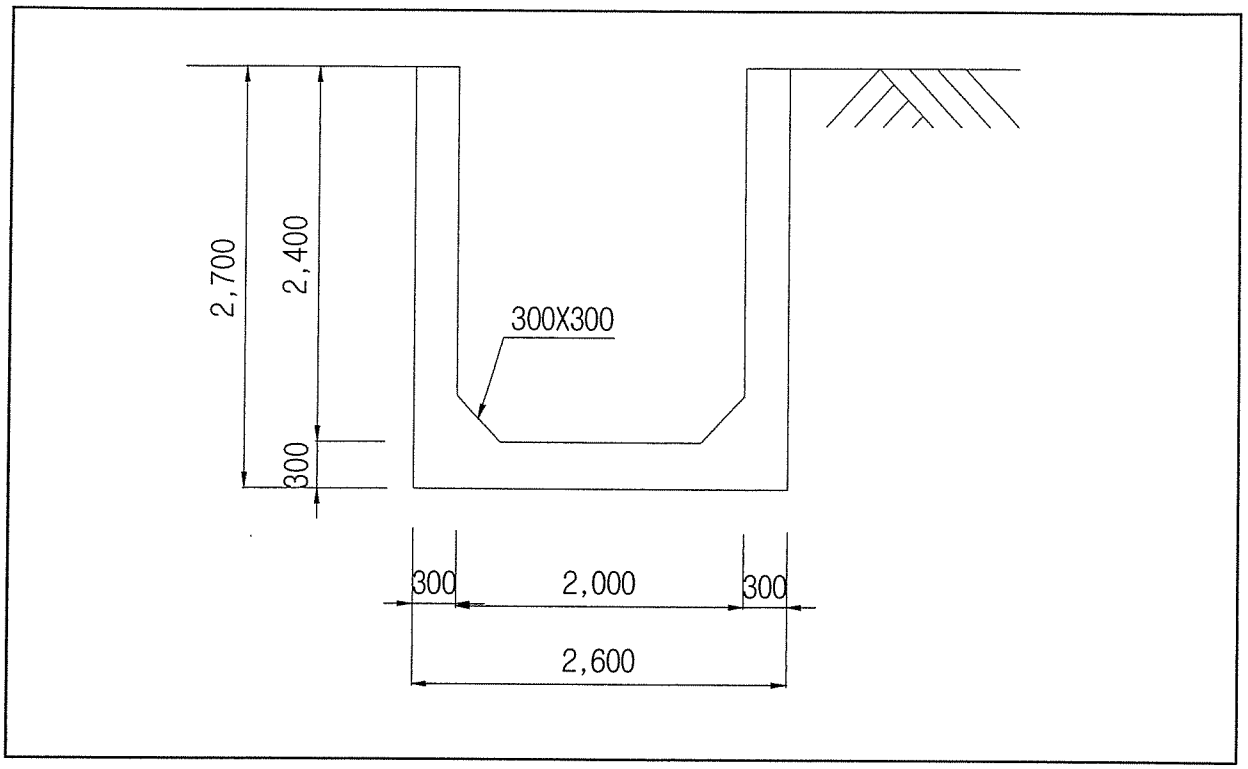
1.5 참고문헌

(1) 콘크리트 구조설계기준 (한국콘크리트 학회, 2012)

(2) 도로교 설계기준 (건설교통부, 2010)

(3) 철도설계기준 (노반편) (건설교통부 2013)

2. 단면가정

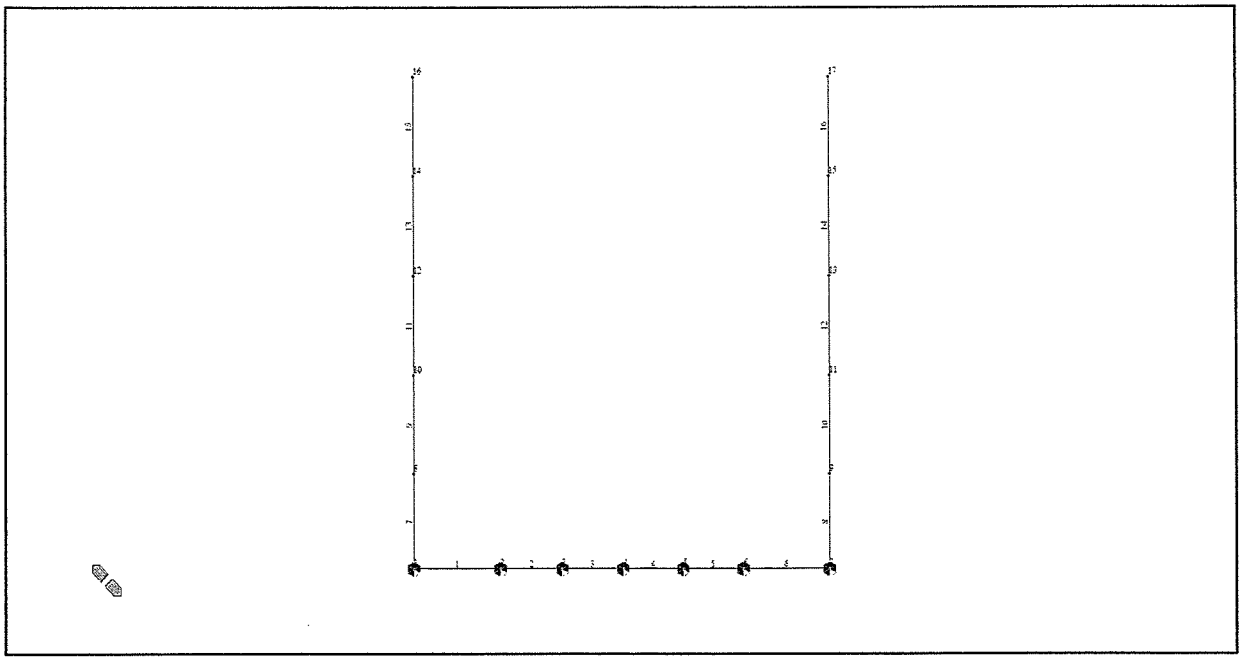


* N=15, Φ=35° 적용 함.

* 지하수위는 극한 지하수위(GL -1.0m) 로 적용 함.

3. 구조해석 모델링

3.1 해석모형



3.2 단면제원

구 분	폭(m)	높이(m)	C.T.C(m)	단면적(m^2)	단면2차모멘트(m^4)	비 고
1	1.00	0.30	-	0.300	0.002250	하부슬래브
2	1.00	0.30	-	0.300	0.002250	좌측벽체
3	1.00	0.30	-	0.300	0.002250	우측벽체

3.3 지반반력계수

$Kv = Kvo \times (Bv / 30)^n$ (n = -3/4)

$Kvo = 1/30 \times \alpha \times Eo$

Bv : 구조물의 환산재하폭

Eo = 2800 x N = 2800 × 9 = 25,200.000 kN/m^2

α = 1

Kvo = 1 × 1 / 0.3 × 25200 = 84000.000 kN/m^3

Bv = √ (2.600 × 1.000) = 1.612 m

∴ Kv = 84000.000 × (1.6 / 0.3) ^ (-3/4) = 23796.069 kN/m^3

절점번호	지반반력계수					비고
1,7	23796.069	×	0.3750	=	8923.526 kN/m^2	
2,6	23796.069	×	0.3750	=	8923.526 kN/m^2	
3,4,5	23796.069	×	0.4000	=	9518.428 kN/m^2	

※ 지반스프링은 압축력에만 저항하는 비선형 경계조건을 사용하여 부반력 발생시 자동제거함.

4. 하중산정

4.1 고정하중

(1) 구조물 자중 : 프로그램내 자동입력 ---------- LC 1

4.2 활하중에 의한 측압 ---------- LC 2

Lh = 0.426 × 15.000 = 6.390 kN/m^2

4.3 토압

(1) 지하수위 유 ---------- LC 3

Q_{N1L} = 1.000 × 20.000 × 0.426 = 8.520 kN/m^2

Q_{N1R} = 8.520 + 1.700 × 11.000 × 0.426 = 16.486 kN/m^2

(2) 지하수위 무 ---------- LC 4

Q_{N1L} = 2.700 × 20.000 × 0.426 = 23.004 kN/m^2

4.4 수압

(1) 측벽 수압 ---------- LC 5

1) 벽체

Q_{W1L} = 10.000 × 1.700 = 17.000 kN/m^2

4.5 온도하중 ---------- LC 6, LC 7

- 계절적 온도변화 ± 10°C를 프로그램내 SYSTEM TEMPERRATURE 기능을 이용하여 이상화 한다.

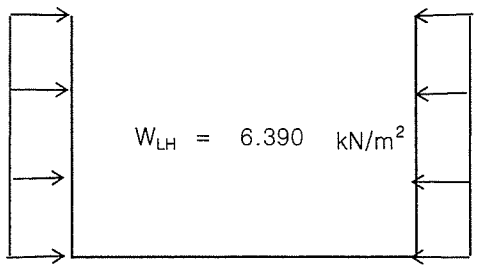
4.6 건조수축 ---------- LC 8

- 15^0c 의 온도하중으로 변환 설계
  - 건조수축계수 : $\varepsilon = 15 \times 10^{-5}$
  - 온도선팽창 계수 : $\alpha = 1.0 \times 10^{-5}$
  - $\triangle T = -\frac{\varepsilon}{\alpha} = 15\ °C$

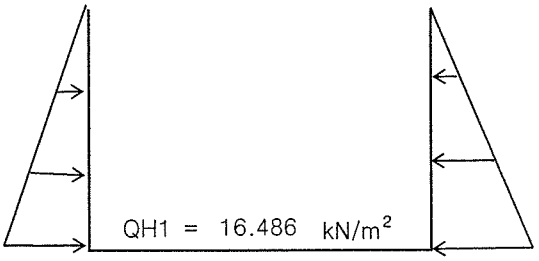
4.7 하중재하도

(1) LC 1 : 프로그램내 자동재하

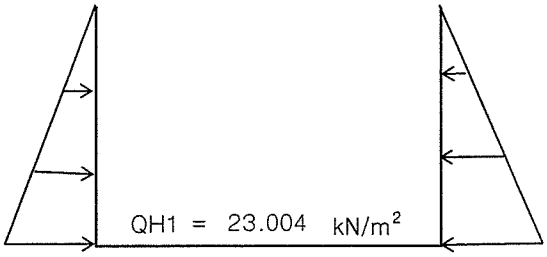
(2) LC 2



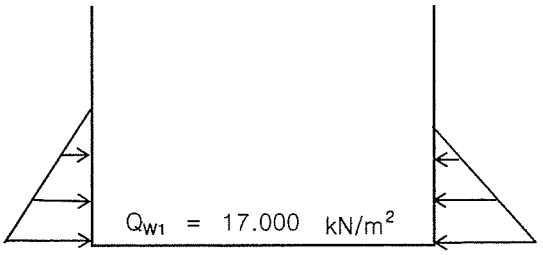
(3) LC 3



(4) LC 4



(5) LC 5



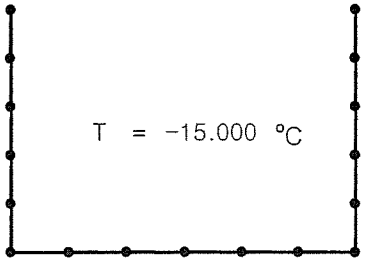
(6) LC 6

- 프래그램내 System Temperature 기능을 이용
10 °C 온도하중 재하

(7) LC 7

- 프래그램내 System Temperature 기능을 이용
-10 °C 온도하중 재하

(8) LC 8



5. 하중조합

5.1 계수하중

구분	고정하중 (D	활하중측압	수평토압		수압	온도하중		건조수축	비고
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	
CB1	1.35	1.85	1.60		1.60				계수하중
CB2	1.35	1.85		1.60					
CB3	1.35	1.85	0.80		0.80				
CB4	1.35	1.85		0.80					
CB5	1.60	1.60	1.60		1.60				
CB6	1.60	1.60		1.60					
CB7	1.60	1.60	0.80		0.80				
CB8	1.60	1.60		0.80					
CB9	1.35	1.40	1.60		1.60	1.35			
CB10	1.35	1.40		1.60		1.35			
CB11	1.35	1.40	0.80		0.80	1.35			
CB12	1.35	1.40		0.80		1.35			
CB13	1.35	1.40	1.60		1.60		1.35	1.35	
CB14	1.35	1.40		1.60			1.35	1.35	
CB15	1.35	1.40	0.80		0.80		1.35	1.35	
CB16	1.35	1.40		0.80			1.35	1.35	

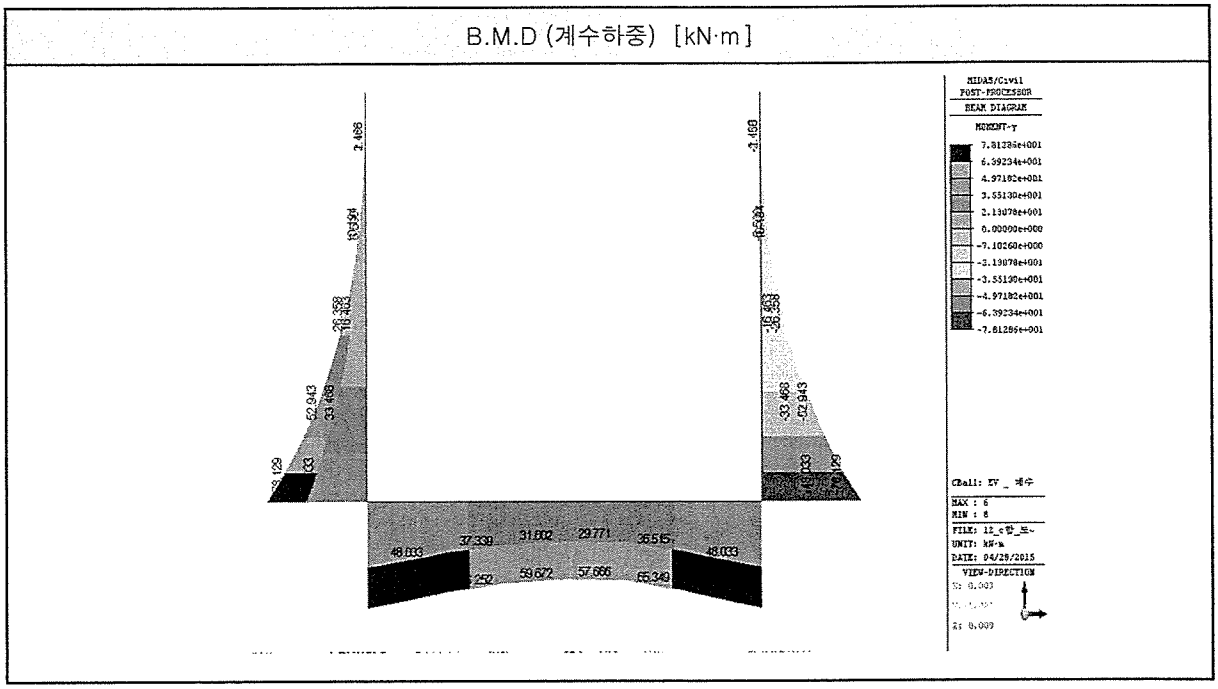
5.2 사용하중

구분	고정하중 (D	활하중측압	수평토압		수압	온도하중		건조수축	비고
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	
CB17	1.00	1.00	1.00		1.00				사용하중
CB18	1.00	1.00		1.00					
CB19	1.00	1.00	0.50		0.50				
CB20	1.00	1.00		0.50					
CB21	1.00	1.00	1.00		1.00	1.00			
CB22	1.00	1.00		1.00		1.00			
CB23	1.00	1.00	0.50		0.50	1.00			
CB24	1.00	1.00		0.50		1.00			
CB25	1.00	1.00	1.00		1.00		1.00	1.00	
CB26	1.00	1.00		1.00			1.00	1.00	
CB27	1.00	1.00	0.50		0.50		1.00	1.00	
CB28	1.00	1.00		0.50			1.00	1.00	
CB29	1.00		1.00		1.00				
CB30	1.00			1.00					

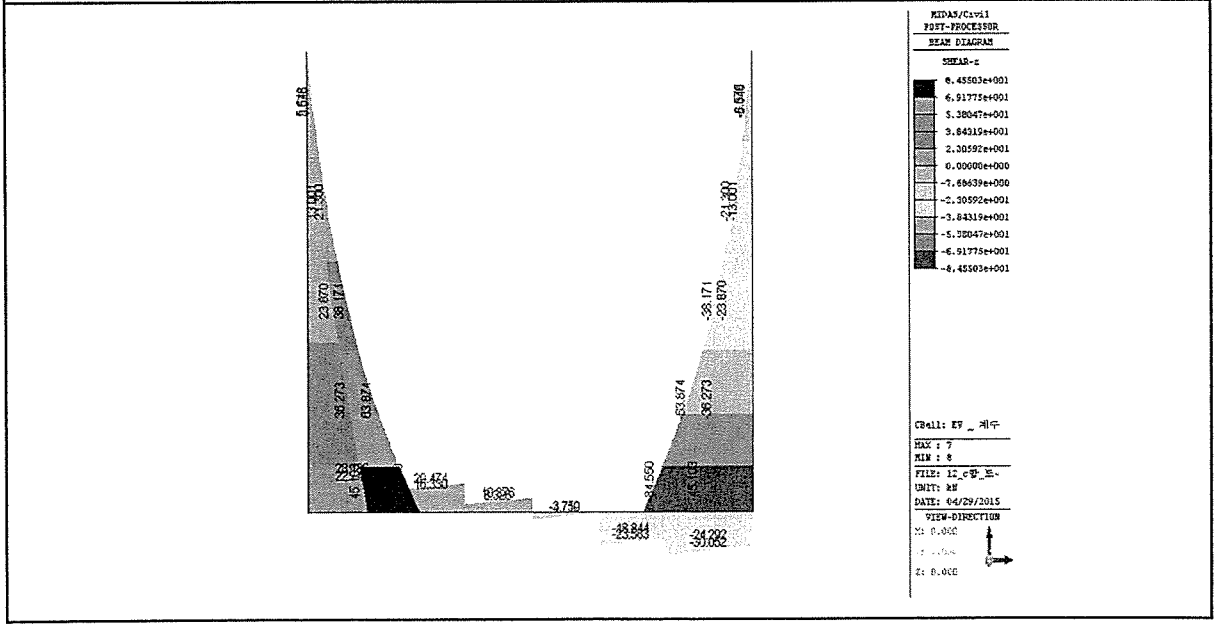
6. 구조해석 결과

6.1 부재력도 (ENVELOPE)

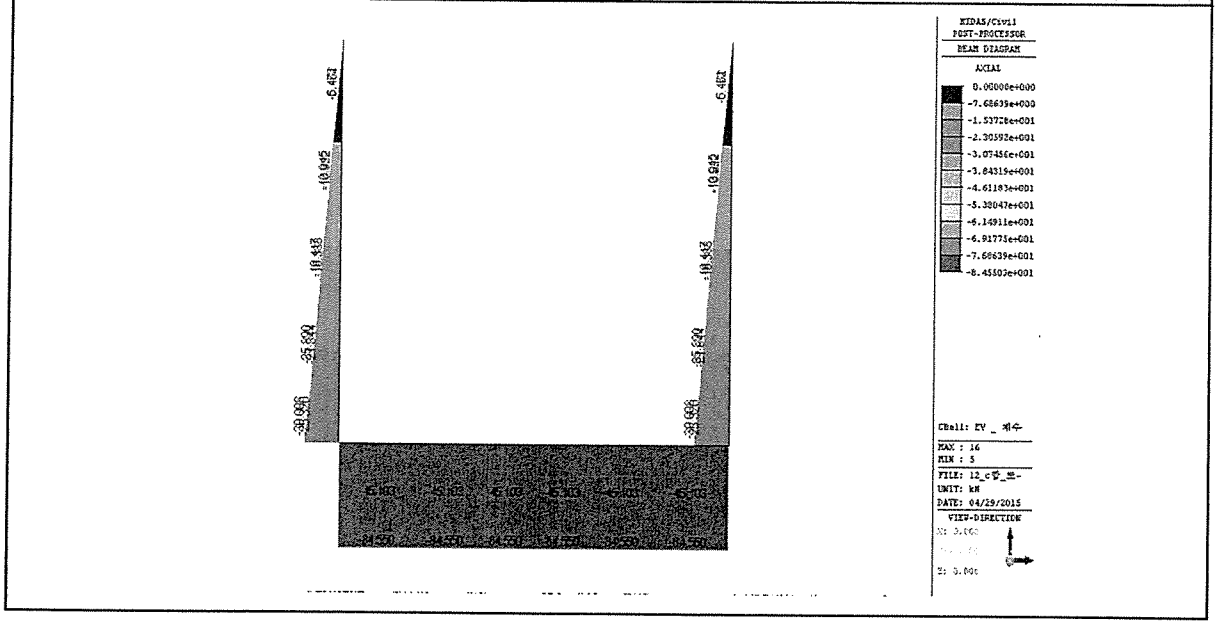
B.M.D (계수하중) [kN·m]



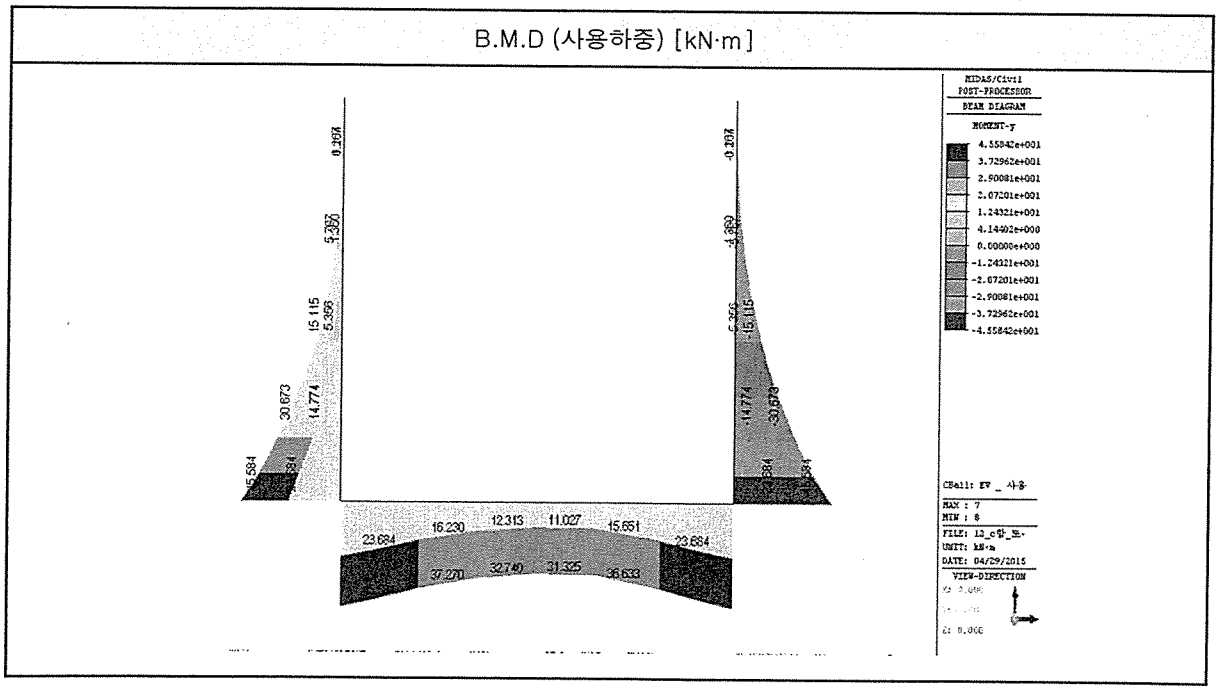
S.F.D (계수하중) [kN]



A.F.D (계수하중) [kN]



B.M.D (사용하중) [kN·m]



6.2 부재력 집계

구 분		단면제원		Mu[kN·m]	Vu[kN]	Mo[kN·m]	비고
		B (mm)	H (mm)				
하 부 슬래브	단 부	1,000	400	78.129	30.052	45.584	
	중앙부	1,000	300	59.672		32.740	
좌측벽체	단 부	1,000	400	78.129	84.550	45.584	
	중앙부	1,000	300	26.358		15.115	
우측벽체	단 부	1,000	400	78.129	84.550	45.584	
	중앙부	1,000	300	26.383		15.115	

7. 단면설계

7.1 하부슬래브

7.1.1 하부슬래브 단부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	78.129 kN.m	Vu	=	30.052 kN	Mo	=	45.584 kN.m	d (휨)	=	300 mm
B	=	1000 mm	H	=	400 mm	헌치	=	300 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근 1 단 배치			d_t	=	300 mm

Use A_s = 1단 1CYCL H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCL H @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00441]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1.min}$ = 1,050 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2.min}$ = 1,027 mm^2 $A_{s.min}$ = 1,050 mm^2

$A_{s.Req}$ = 738 mm^2 , 4/3 $A_{s.Req}$ = 984 mm^2

MIN ($A_{s.min}$, 4/3 $A_{s.req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a / 2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc = \phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 30.052 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1,000 / 7$ = 30,000 mm^2

$k = - np + \sqrt{[2np + (np)^2]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

= - 7 × 0.00441 + √ [2 × 0.031 + 0.031^2] = 0.22

$j = 1 - k / 3 = 1 - 0.22 / 3$ = 0.927

$fs = M / [As \cdot d \cdot j]$ = 123.801 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 406 mm

$s_2 = 300 (210 / fs)$ = 509 mm > s = 150 mm ∴ O.K

7.1.2 하부슬래브 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	59.672 kN.m	Vu	=	0.000 kN	Mo	=	32.740 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s = 1단 1CYCL H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCL H @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00662]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 - 25) / 25

= 0.02115 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.02115 - 0.002)$$

= 2.246 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,min}$ = 700 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,min}$ = 685 mm^2

$A_{s,min}$ = 700 mm^2

$A_{s,Req}$ = 858 mm^2 , 4/3 $A_{s,Req}$ = 1,143 mm^2

MIN ($A_{s,min}$, 4/3 $A_{s,req}$) = 700 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $M_d = \phi_f T (d - a / 2)$ = 0.900 × 529,600 × (200 - 21 / 2) / 10 E+6

= 90.378 kN.m > Mu = 59.672 kN.m ∴ O.K [S.F = 1.515]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

A = 2 × 100 × 1,000 / 7 = 30,000 mm^2

$k = -np + \sqrt{[2np + (np)^2]}$ [∵ n = Es / Ec = 7.3 ≒ 7]

= - 7 × 0.00662 + √ [2 × 0.046 + 0.046^2] = 0.261

j = 1 - k / 3 = 1 - 0.261 / 3 = 0.913

fs = M / [As·d·j] = 135.422 MPa

◈ 주철근 간격

Cc = d_t' - d_b/2 = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

s_1 = 375 (210 / fs) - 2.5 Cc = 351 mm > s = 150 mm ∴ O.K

s_2 = 300 (210 / fs) = 465 mm

7.2 좌측벽체

7.2.1 좌측벽체 단부

(1) 휨 검토

f_{ck} =	30 MPa	f_y =	400 MPa	d_t' =	100 mm	d' =	100 mm
Mu =	78.129 kN.m	Vu =	84.550 kN	Mo =	45.584 kN.m	d (휨) =	300 mm
B =	1000 mm	H =	400 mm	헌치 =	300 mm	d (전단) =	200 mm
ϕ_f =	0.900	ϕ_v =	0.85	주철근	1 단 배치	d_t =	300 mm

Use A_s = 1단 1CYCL H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCL H 0 @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00441]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)}(\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)}(0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,min}$ = 1,050 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,min}$ = 1,027 mm^2

$A_{s,min}$ = 1,050 mm^2

$A_{s,Req}$ = 738 mm^2 , $4/3\ A_{s,Req}$ = 984 mm^2

MIN ($A_{s.min}$, $4/3\ A_{s.req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc = \phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 84.550 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 7$ = 30,000 mm^2

$k = -np + \sqrt{[2np + (np)^2]}$ [∵ n = Es / Ec = 7.3 ≒ 7]

$= -7 \times 0.00441 + \sqrt{[2 \times 0.031 + 0.0309^2]}$ = 0.22

$j = 1 - k/3 = 1 - 0.22 / 3$ = 0.927

$fs = M / [As \cdot d \cdot j]$ = 123.801 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 406 mm > s = 150 mm ∴ O.K

$s_2 = 300 (210 / fs)$ = 509 mm

7.2.2 좌측벽체 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	26.358 kN.m	Vu	=	0.000 kN	Mo	=	15.115 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s = 1단 1CYCL H 16 @ 300 , 2CYCLI H 0 @ 0 = 662 mm^2

2단 1CYCL H @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 662 mm^2 [p = 0.00331]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 264,800 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 10 mm

▶ $c = a / \beta_1$ = 10 / 0.84 = 12 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 - 12) / 12

= 0.04530 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)}(\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)}(0.04530 - 0.002)$$

= 4.259 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1.\,min}$ = 700 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2.\,min}$ = 685 mm^2

$A_{s,\,min}$ = 700 mm^2

$A_{s.\,Req}$ = 371 mm^2 , $4/3\, A_{s,\,Req}$ = 495 mm^2

MIN ($A_{s.min}$, $4/3\, A_{s.req}$) = 495 mm^2 < Use As = 662 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 264,800 × (200 - 10 / 2) / 10 E+6

= 46.427 kN.m > Mu = 26.358 kN.m ∴ O.K [S.F = 1.761]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 3$ = 60,000 mm^2

$k = -np + \sqrt{[\,2np + (np)^2\,]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

$= -7 \times 0.00331 + \sqrt{[\,2 \times 0.023 + 0.0232^2\,]}$ = 0.193

$j = 1 - k / 3 = 1 - 0.193 / 3$ = 0.936

$fs = M / [As \cdot d \cdot j]$ = 121.966 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5\, Cc$ = 416 mm > s = 300 mm ∴ O.K

$s_2 = 300 (210 / fs)$ = 517 mm

7.3 우측벽체

7.3.1 우측벽체 단부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	78.129 kN.m	Vu	=	84.550 kN	Mo	=	45.584 kN.m	d (휨)	=	300 mm
B	=	1000 mm	H	=	400 mm	헌치	=	300 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	300 mm

Use A_s = 1단 1CYCLI H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCLI H @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00441]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,min}$ = 1,050 mm^2]

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,min}$ = 1,027 mm^2] $A_{s,min}$ = 1,050 mm^2

$A_{s,Req}$ = 738 mm^2 , 4/3 $A_{s,Req}$ = 984 mm^2

MIN ($A_{s,min}$, 4/3 $A_{s,req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc = \phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 84.550 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1,000 / 7$ = 30,000 mm^2

$k = - np + \sqrt{[2np + (np)^2]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

= - 7 × 0.00441 + √ [2 × 0.031 + 0.0309^2] = 0.22

$j = 1 - k / 3 = 1 - 0.22 / 3$ = 0.927

$fs = M / [As \cdot d \cdot j]$ = 123.801 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 406 mm

$s_2 = 300 (210 / fs)$ = 509 mm > s = 150 mm ∴ O.K

7.3.2 우측벽체 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	26.383 kN.m	Vu	=	0.000 kN	Mo	=	15.115 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s =	1단	1CYCLE H	16 @	300	,	2CYCLE H	0 @	0	=	662 mm^2
	2단	1CYCLE H	@		,	2CYCLE H	0 @	0	=	- mm^2
			TOTAL	=	662 mm^2	[p =	0.00331	]		

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 264,800 N

$C = 0.85 f_{ck} a b$ = 25,500 a $\quad C = T$; a = 10 mm

▶ $c = a / \beta_1$ = 10 / 0.84 = 12 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 - 12) / 12

= 0.04530 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.04530 - 0.002)$$

= 4.259 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,\,min}$ = 700 mm^2]

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,\,min}$ = 685 mm^2] $A_{s,\,min}$ = 700 mm^2

$A_{s,\,Req}$ = 372 mm^2 , 4/3 $A_{s,\,Req}$ = 496 mm^2

MIN ($A_{s,min}$, 4/3 $A_{s,req}$) = 496 mm^2 < Use As = 662 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a / 2)$ = 0.900 × 264,800 × (200 - 10 / 2) / 10 E+6

= 46.427 kN.m > Mu = 26.383 kN.m ∴ O.K [S.F = 1.760]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 3$ = 60,000 mm^2

$k = - np + \sqrt{[\,2np + (np)^2\,]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

$= - 7 \times 0.00331 + \sqrt{[\,2 \times 0.023 + 0.0232^2\,]}$ = 0.193

$j = 1 - k / 3 = 1 - 0.193 / 3$ = 0.936

$fs = M / [As \cdot d \cdot j]$ = 121.966 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 416 mm > s = 300 mm ∴ O.K

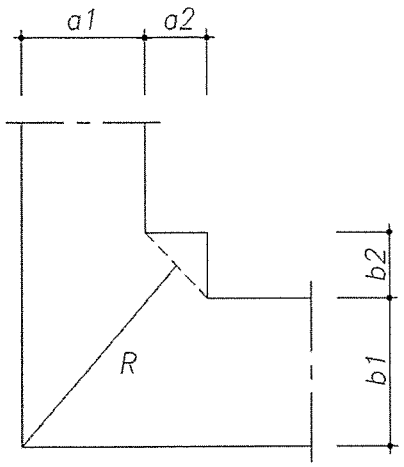
$s_2 = 300 (210 / fs)$ = 517 mm

7.4 온도 및 배력철근 설계

구 분		단면제원		사 용 주철근	소요 배력철근량 (mm^2)		사용 배력철근량 (mm^2)			판정
		B (mm)	H (mm)		주철근 20%	온도철근				
하 부 슬래브	단 부	1,000	300	H16@150	265	600	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@150	265	600	인장	H13@200=634	950	O.K
							압축	H13@400=317		
좌측 벽체	단부	1,000	300	H16@150	265	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@300	132	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
우측 벽체	단부	1,000	300	H16@150	265	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@300	132	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		

7.5 우각부 보강 설계

(1) 하부슬래브 (좌,우측)



f_{ck}	=	30	MPa
f_y	=	400	MPa
Mo	=	45.584	kN·m
a1	=	300	mm
a2	=	300	mm
b1	=	300	mm
b2	=	300	mm

$$R = \{(a2 \times b1 + b2 \times a1 + a2 \times b2) / (a2 + b2)\} \times \sqrt{2}$$

$$= 636 \quad mm$$

- 주철근 (절곡하여 보강철근으로 고려할 수 있는 주철근량)

As' = H 16 @ 300 = 662 mm^2

H 0 @ 0 = 0 mm^2

1) 최대인장응력, f_{tmax}

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 45.584 \times 10^6}{(636.396)^2 \times 1{,}000}$$

$$= 0.563 \text{ Mpa} > 0.08 \sqrt{fck} = 0.438 \text{ Mpa}$$ **보강철근 필요 !**

2) 보강철근량 산정, As

- 필요철근량

$$As = \frac{2 \times Mo}{R \times f_{sa}} - As'$$

$$= \frac{2 \times 45.584 \times 10^6}{636 \times 180} - 662$$

$$= 796 \ mm^2 - 662 \ mm^2$$

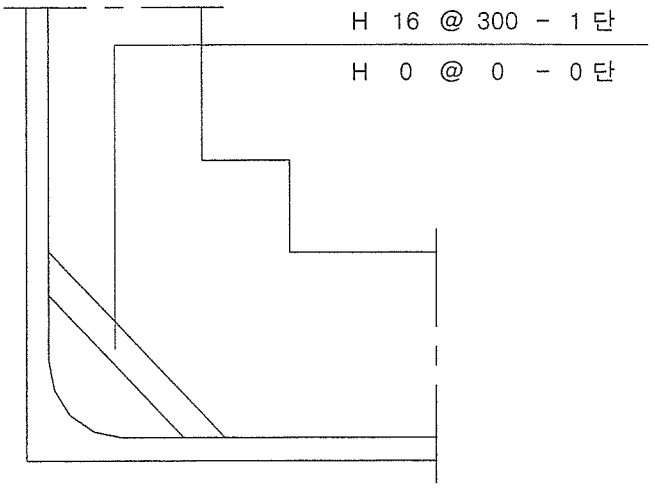
$$= 134 \ mm^2$$

- 사용철근량

As = H 16 @ 300 - 1 단

+ H 0 @ 0 - 0 단

= 662 mm^2 O.K



8. 사용성 검토

8.1 처짐 검토

1) 하부 슬래브 : 최소부재두께 적용

철근의 항복응력 fy = 400 MPa

부재의 지간길이 L = 2.300 m

슬래브 양단 연속의 경우

T = L / 28 = 0.082 m

(보정계수) FACTOR = 1.000

처짐계산을 하지않는 경우의 최소두께

T = 0.082m < H = 0.300m (처짐검토 생략)

9. 기초지반 지지력 검토

9.1 작용하중

9.1.1 구 체 자 중 (W1) :

(0.3 × 2.4 + 0.3 × 2 × 1 EA + 0.3 × 0.3 / 2
× 2 EA + 0.3 × 2.4) × 24.500 / 2.6 = 20.071 kN/m²

9.1.2 상재고정하중(W2)

(1) 상재토

되메움토 : 0.000 × 20.000 = 0.000 kN/m²

아스콘 : 0.000 × 23.000 = 0.000 kN/m²

9.1.3 활 하 중(L)

(1) 활 하 중 :

= 0.000 kN/m²

9.1.4 수로개거내의 물의자중(w3)

2.000 × 1.920 × 1.000 / 2.600 / 1.000 × 10.000 = 14.769 kN/m²

9.2 지지력 검토

9.2.1 최대지반반력 (qmax) = W1 + W2 + L + W3

20.071 + 0.000 + 0.000 + 14.769 = 34.840 kN/m²

9.2.2 허용지반반력 (qa)

- 정역학 공식에 의한 지반의 허용 연직 지지력 (Terzaghi식 사용)

Qu = A · [c · Nc + q · Nq + 0.5 · r1 · B · Nr]

Qu : 하중의 편심 및 경사가 없는 연속기초지반의 극한지지력 (kN)

· A : 재하면적 = 2.600 m²

· c : 지반의 점착력 = 0.000 kN/m²

· q : 상재하중, (q = r2 · Df) = 48.000 kN/m²

· r1 : 지지 지반의 흙의 단위중량 = 20.000 kN/m³

· r2 : 근입 지반의 흙의 단위중량 = 20.000 kN/m³

· B : 확대기초의 폭 = 2.600 m

· L : 확대기초의 길이 = 1.000 m

· Φ : 지반의 전단 저항각

Φ = √ (12 × N) + 15 = √ (12 × 15) + 15 = 28 °

· Nc = 25.100 , Nq = 12.700 , Nr = 9.700 (전단 저항각 28 ° 일때)

· Qu = 2.600 × [0.000 × 25.100 + 48.000 × 12.700 +
0.500 × 20.000 × 2.600 × 9.700] = 2240.680 kN

· Qa = 2240.680 / 3 = 746.893 kN

· qa = 746.893 / 2.600 = 287.267 kN/m²

* 평상시 최대 지반반력 (도.설.해 2008) = 400.000 kN/m²

∴ q_{max} = 34.840 kN/m² < q_a = 287.267 kN/m² ∴ O.K

C(함) 탑리제5

- 4.0 x 4.50 x 1
- 토피 = 1.2m 이하

1. 설 계 조 건
2. 단 면 가 정
3. 해석모델 및 단면제원
4. 하중산정
5. 하중재하도
6. 하중계수 및 하중조합
7. INPUT DATA
8. OUTPUT
9. 단면력요약
10. 단 면 력 도
11. 단 면 검 토
12. 우각부 검토
13. 배력철근 검토
14. 사용성 검토
15. 기초지지력 검토
16. 주철근조립도
17. 날개벽 설계

1. 설계 조건

1) 구조물명 : c (함)

2) 구조형식 : 철근 콘크리트 구조

3) 설계하중 : KRL2012 (복 선)

4) 재료중량

- 철근 콘크리트(γ_c)	=	24.5	kN/m^3
- 무근 콘크리트(γ_{con})	=	23.0	kN/m^3
- 뒷채움 토사(γ_t)	=	20.0	kN/m^3
- 뒷채움 토사(γ_{sub})	=	11.0	kN/m^3
- 지하수(γ_w)	=	10.0	kN/m^3

5) 사용재료의 성질

- 콘크리트 설계기준 강도(fck)	=	30.0	MPa
- 콘크리트 탄성계수(Ec)	=	27537	MPa
- 철근의 항복강도(fy)	=	400.0	MPa
- 철근의 탄성계수(Es)	=	200000	MPa

6) 토 사

- 흙의 내부마찰각 (ϕ)	=	35.0	°
- 정지 토압계수 (Ko)	=	0.426	

7) 기 초 형 식 : 직접기초

8) 사 각(Skew) : 90.00 ° 연 장 (L) : 16.00 m

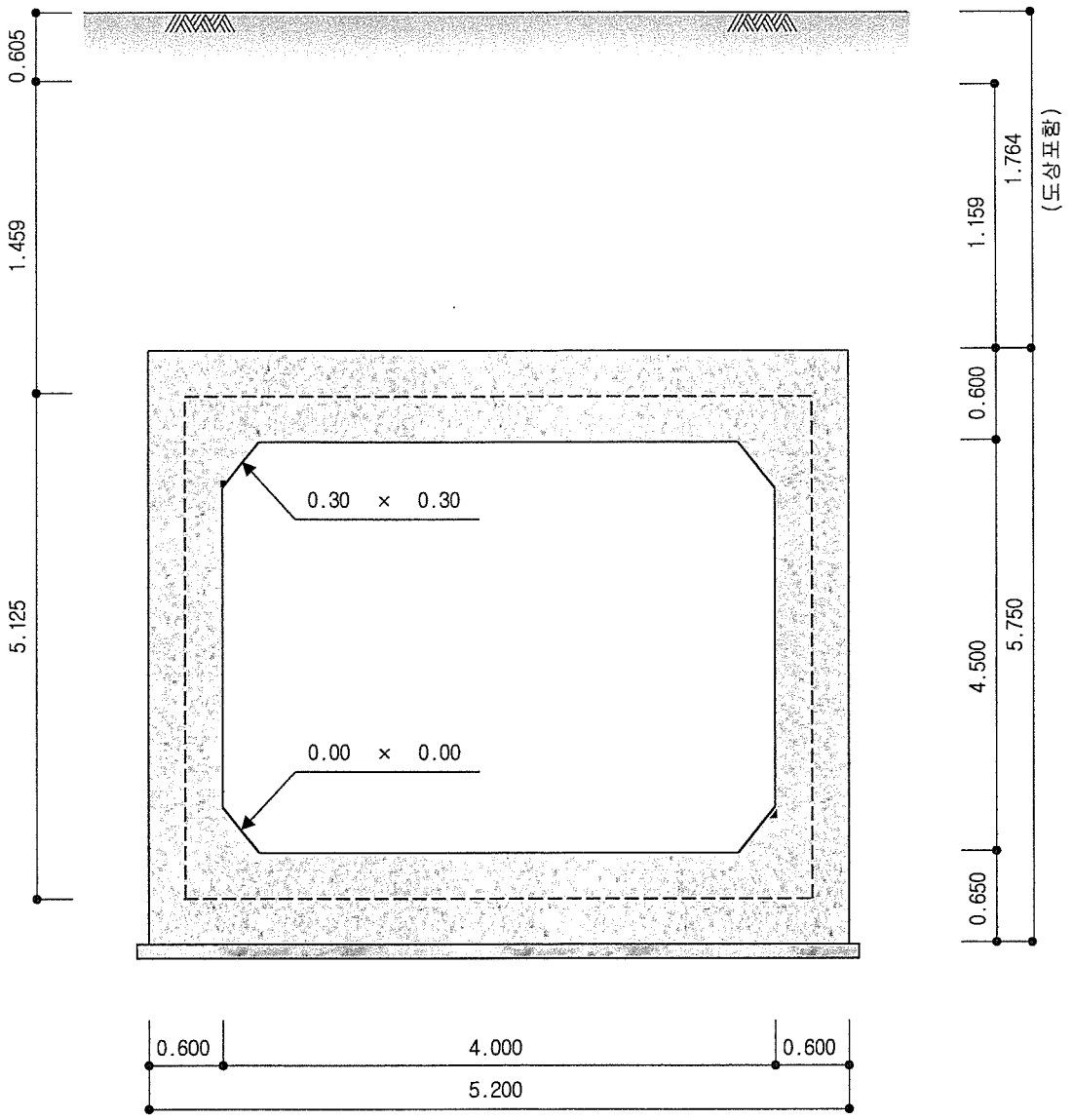
9) 설계방법

- 강도 설계법 : 부재 단면검토(슬래브, 벽체, 보, 기둥 등)
- 허용응력 설계법 : 사용성 검토(처짐, 균열, 우각부 검토)

10) 참고문헌

- 철도설계기준(노반편), 국토해양부, 2013
- 콘크리트 구조설계기준해설, 한국콘크리트 학회, 2012

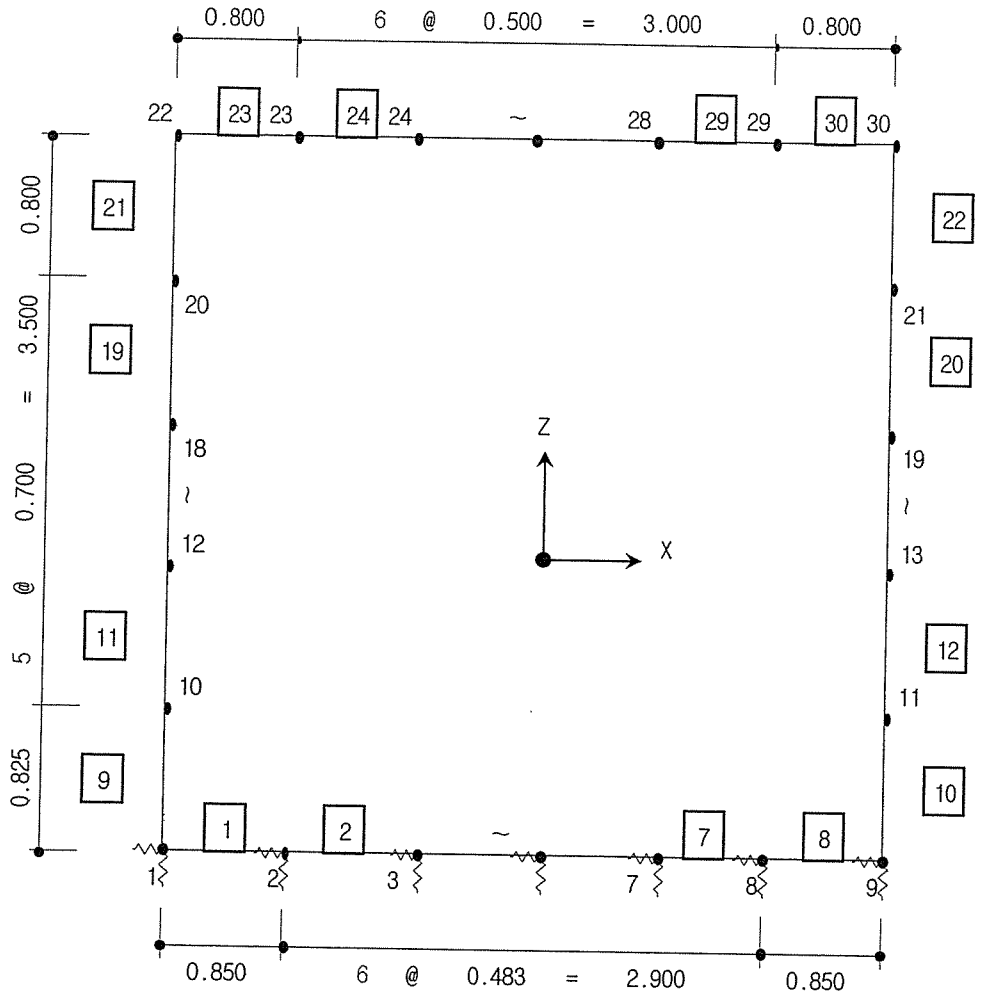
2. 단면 가정



※ 유효경간

Skew =	90.0	°				
Ln =	4.600	m				
Ls =	4.600	m				
Ls/B =	4.600	/	16.000	=	0.288	< 1.500
L =	4.600	m				

3. 해석모델 및 단면제원



1) 절점 좌표

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
1	0.000	0.000	0.000	13	4.600	0.000	1.525
2	0.850	0.000	0.000	14	0.000	0.000	2.225
3	1.333	0.000	0.000	15	4.600	0.000	2.225
4	1.817	0.000	0.000	16	0.000	0.000	2.925
5	2.300	0.000	0.000	17	4.600	0.000	2.925
6	2.783	0.000	0.000	18	0.000	0.000	3.625
7	3.267	0.000	0.000	19	4.600	0.000	3.625
8	3.750	0.000	0.000	20	0.000	0.000	4.325
9	4.600	0.000	0.000	21	4.600	0.000	4.325
10	0.000	0.000	0.825	22	0.000	0.000	5.125
11	4.600	0.000	0.825	23	0.800	0.000	5.125
12	0.000	0.000	1.525	24	1.300	0.000	5.125

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
25	1.800	0.000	5.125	28	3.300	0.000	5.125
26	2.300	0.000	5.125	29	3.800	0.000	5.125
27	2.800	0.000	5.125	30	4.600	0.000	5.125

2) 경계 조건

joint	spring계수 (kN/m²)		joint	spring계수 (kN/m²)	
	z방향(수직)	x방향(수평)		z방향(수직)	x방향(수평)
1 . 9	22705		3 ~ 7	15137	
2 . 8	20878				

3) 단면제원

Element	두께	폭	비 고
23 ~ 30	0.600	1.000	상부슬래브
1 ~ 8	0.650	1.000	하부슬래브
9 ~ 22	0.600	1.000	벽 체

4) 강역설정

(1) 강역설정기준(콘크리트구조설계기준 2012)

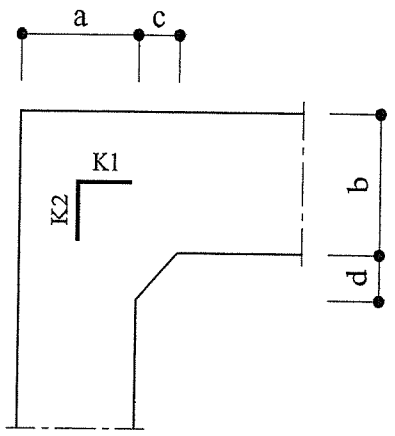
CASE 1 : 부재단부가 다른 부재와 접합할 때는 부재단에서 부재두께의 1/4 안쪽점에서 절점까지

CASE 2 : 부재가 그 축선에 대해 25° 이상 60° 미만인 경사진 헌치를 갖는 경우에는 부재두께가 1.5배가 되는 점에서 부터 절점까지

CASE 3 : 헌치의 경사가 60° 이상의 경우는 헌치의 시점에서 부재두께의 1/4 안쪽 점에서부터 절점까지

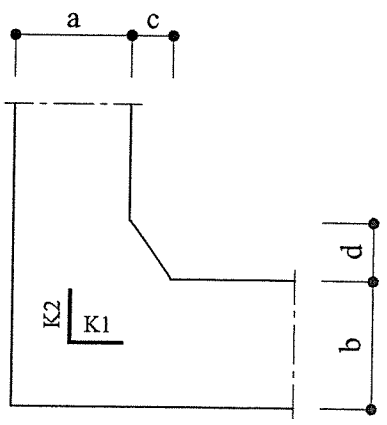
(2) 강역설정

- 절점 22 , 30



a =	600	mm	c =	300	mm
b =	600	mm	d =	300	mm
K1 =	300	mm	K2 =	300	mm

- 절점 1 , 9

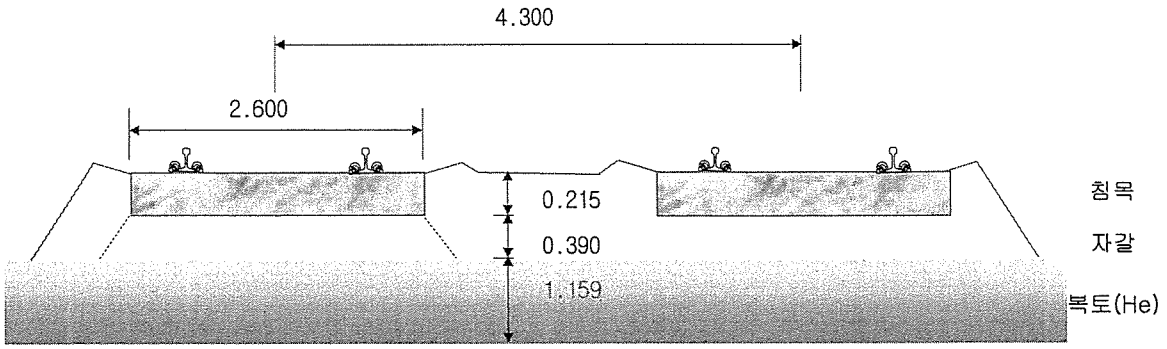


a =	600	mm	c =	0	mm
b =	650	mm	d =	0	mm
K1 =	138	mm	K2 =	175	mm

4. 하중산정

4.1 상시

1) 상부 고정하중(지하수 無)



① 하중 분포폭 산정 (b')

① He < 0.5m 경우 : b + d

b_1 = 2.600 + 0.390 = 2.990 m

② He ≥ 0.5m 경우 : c + b + (d + He)

b_2 = 4.300 + 2.600 + (0.390 + 1.159) = 14.590 m

여기서, He : 시공기면에서의 토피고(m)

a : 동륜간 축간거리(m) c : 복선선로 중심간격(m)

b : 침목길이(m) d : 침목하면의 도상두께(m)

H : 상부슬래브 두께

He ≥ 0.5 m

∴ b' = 14.590 m

② 구조물 자중 : 프로그램 상에서 Self Weight 기능을 이용하여 자동 고려

③ 궤도 중량

- 레일 : 레일당 1.5kN/m를 적용

q_1 = 4 × 1.500 / 14.590 = 0.411 kN/㎡

- 침목 : 고속철도용 5.0kN/m

q_2 = 5.000 × 2 / 14.590 = 0.685 kN/㎡

= 1.096 kN/㎡

④ 도상 (q_2)

TCL = 0.215 × 19.000 × 1.3 = 5.311 kN/㎡

HSB = 0.390 × 19.000 × 1.3 = 9.633 kN/㎡

= 14.944 kN/㎡

⑤ 복토하중 (q_3) = 20.000 × 1.159 = 23.180 kN/㎡

∴ $q_1 + q_2 + q_3$ = 1.096 + 14.944 + 23.180 = 39.220 kN/㎡

2) 활하중

① 활하중 산정 : KRL 2012

$$W_{HL} = \frac{2P}{a \times b'} = \frac{2\times(220+80x3)}{3.000 \times 14.590} = 21.019 \text{ kN/㎡}$$

∴ W = 21.019 kN/㎡

② 충격계수

1) 단선 (i_0) (철도설계기준 노반편(2013) p.5-7)

지 간 L (m)	0	5	10	20	30	40	50	70	100
충격계수 (i)	0.60	0.48	0.43	0.37	0.34	0.32	0.30	0.27	0.24

* 상기표에 없는 지간의 충격 계수는 보간법으로 구한다.

지 간 L (m) = 4.600 m

따라서 i_0 = 0.490 (보간법에 의하여 산정된 충격계수)

2) 구조물 상면의 복토높이에 따른 충격 계수

H ≥ 1.0일 경우 $i = io \cdot \{(2.5 - H)/1.5\}$

여기서, H ≤ 1.0 m 에서는 $i = i_o$

H ≥ 2.5 m 에서는 i = 0

따라서, 본 구조물의 H = 1.764 m i = 0.240

W_L = 21.019 ×(1 + 0.240) = 26.072 kN/㎡

③ 활하중에 의한 측압 (충격비고려)(철도설계기준 노반편(2013) p.5-6)

W_{LH} = 21.019 × 0.4 = 8.408 kN/㎡

3) 토 압

- 지하수가 없는 경우 작용 토압

q_1 = 0.426 ×(16.040 + 20.000 × 1.459) = 19.264 kN/㎡

q_2 = 19.264 + 0.426 ×(20.000 × 0.800) = 26.080 kN/㎡

q_3 = 26.080 + 0.426 ×(20.000 × 0.700) = 32.044 kN/㎡

q_4 = 32.044 + 0.426 ×(20.000 × 0.700) = 38.008 kN/㎡

q_5 = 38.008 + 0.426 ×(20.000 × 0.700) = 43.972 kN/㎡

q_6 = 43.972 + 0.426 ×(20.000 × 0.700) = 49.936 kN/㎡

q_7 = 49.936 + 0.426 ×(20.000 × 0.700) = 55.900 kN/㎡

q_8 = 55.900 + 0.426 ×(20.000 × 0.825) = 62.929 kN/㎡

- 시공중 편토압 산정 (지하수가 없는 경우 작용 토압)

q_1 = 0.426 × (0.000 + 20.000 × 0.300) = 2.556 kN/㎡

q_2 = 2.556 + 0.426 × (20.000 × 0.800) = 9.372 kN/㎡

q_3 = 9.372 + 0.426 × (20.000 × 0.700) = 15.336 kN/㎡

q_4 = 15.336 + 0.426 × (20.000 × 0.700) = 21.300 kN/㎡

q_5 = 21.300 + 0.426 × (20.000 × 0.700) = 27.264 kN/㎡

q_6 = 27.264 + 0.426 × (20.000 × 0.700) = 33.228 kN/㎡

q_7 = 33.228 + 0.426 × (20.000 × 0.700) = 39.192 kN/㎡

q_8 = 39.192 + 0.426 × (20.000 × 0.825) = 46.221 kN/㎡

4) 온도하중

토피가 1.0m 이상일 경우에는 온도변화를 고려치 않으며, 토피가 1.0m 이하일 경우에는 다음식을 따른다.

$t = a \times t_0$ = 0.000 × 15.0 = 0.000 ℃

t : 박스 구조물의 상부 슬래브에 작용하는 온도변화

a : 토피심도(m)에 따른 저감률 $a=1-h_0$ (h_0:토피심도)

t_0 : 지표면에서의 기본온도 변화

상부슬래브의 두께가 700mm 이상인 경우 $t_0 = \pm 10$℃

상부슬래브의 두께가 700mm 미만인 경우 $t_0 = \pm 15$℃

토피고 H > 1.0m 이므로 온도변화는 고려하지 않는다.

5) 건조수축

$$\Delta Tx = \frac{\varepsilon}{\alpha} = \frac{-0.00015}{0.00001} = -15\,^{\circ}C$$

6) 장대레일 하중

장대레일 종하중은 필요시에 고려하여야 하며, 1궤도당 10 kN/m로 하고 작용위치는 상부슬래브 축선으로 한다. (단, 토피가 1.0m 이상인 경우는 이를 무시한다.)

토피가 1.764 m 이므로 장대레일 하중을 무시한다.

H_r = 0.000 × 4 / 14.590 = 0.000 kN/㎡

7) 상시 지반반력 계수

지지 지반 N치 = 26

Eo = 2800 × N = 2800 × 26 = 72800

Kvo = 1 / 0.3 x α x Eo = 1 / 0.3 × 1 x 72800 = 242667

Bv = √ Av = √ (4.600 × 4.600) = 4.600

Kv = Kvo (Bv/0.3)^-3/4 = 31317 kN/㎡

31317 × (0.600 / 2 + 0.850 / 2) = 22705 kN/㎡ - 저판 단부 스프링

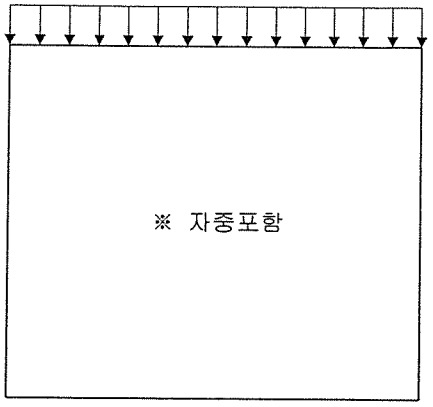
31317 × (0.850 / 2 + 0.483 / 2) = 20878 kN/㎡ - 저판 전단검토위치

31317 × (0.483 / 2 + 0.483 / 2) = 15137 kN/㎡ - 저판 중앙부 스프링

5. 하중재하도

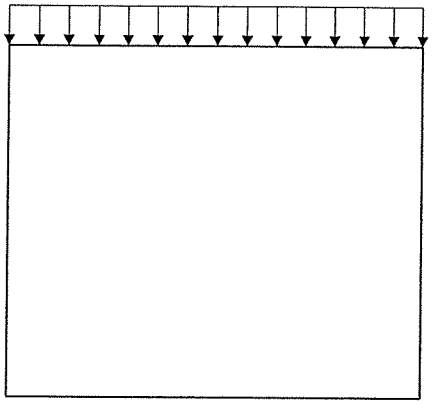
① 고정하중

W_D = 39.220 kN/㎡



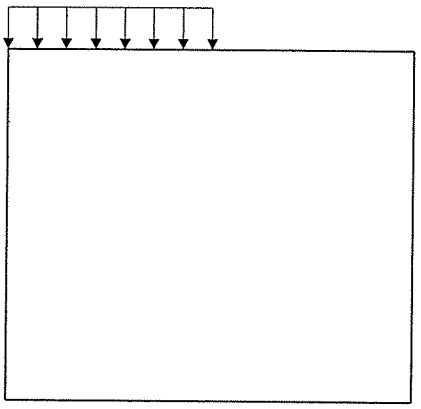
② 활하중(만재하)

W_L = 26.072 kN/㎡



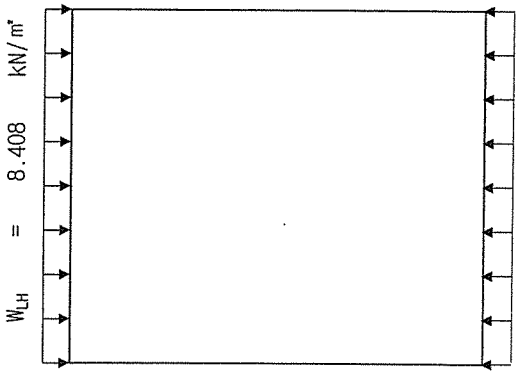
③ 활하중(편재하)

W_L = 26.072 kN/㎡



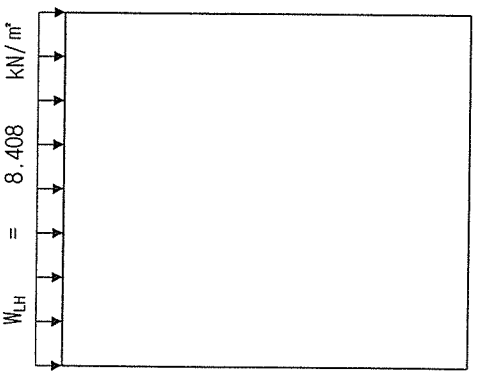
④ 활하중에 의한 측압(만재하)

W_{LH} = 8.408 kN/㎡

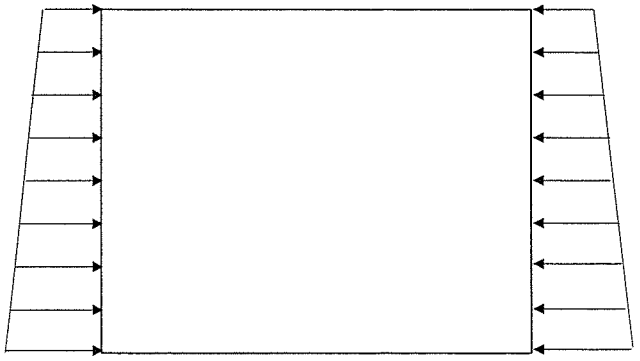


⑤ 활하중에 의한 측압(편재하)

W_{LH} = 8.408 kN/㎡



⑥ 수평토압(지하수 없는 경우)

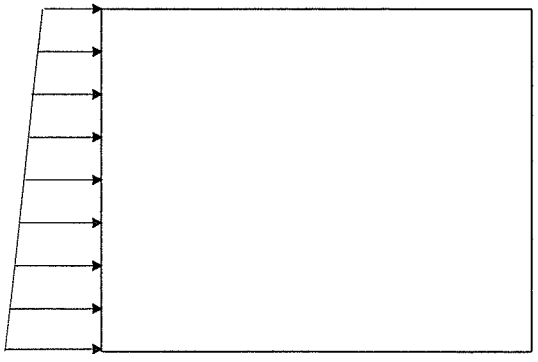


q_1 = 19.264 kN/㎡

q_7 = 62.929 kN/㎡

⑦ 편측토압(지하수 없는 경우)

q_1 = 2.556 kN/㎡



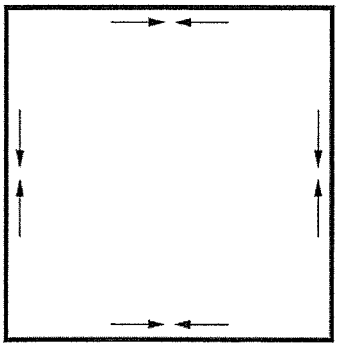
q_7 = 46.221 kN/㎡

⑧ 온도하중

△T = 0 °

⑨ 건조수축

△T = -15 °



⑩ 장대레일 종하중

Hr = 0.000 kN/m^2

6. 하중계수 및 하중조합

1) 극한하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
1	1.35	1.85		1.85		1.6						
2	1.35	1.85		1.85		0.6						
3	1.35		1.85		1.85	1.6						
4	1.35		1.85		1.85	0.6						
5	1.6	1.60		1.60		1.6						
6	1.6	1.60		1.60		0.6						
7	1.6		1.6		1.6	1.6						
8	1.6		1.6		1.6	0.6						
9	1.35	1.40		1.40		1.6		1.35		1.35		
10	1.35	1.40		1.40		0.6		1.35		1.35		
11	1.35	1.40		1.40		1.6			1.35	1.35	1.40	
12	1.35	1.40		1.40		0.6			1.35	1.35	1.40	
13	1.35		1.40		1.40	1.6		1.35		1.35		
14	1.35		1.40		1.40	0.6		1.35		1.35		
15	1.35		1.40		1.40	1.6			1.35	1.35	1.4	
16	1.35		1.40		1.40	0.6			1.35	1.35	1.4	
17	1.35		1.85		1.85		1.60					
18	1.35		1.85		1.85		0.60					
19	1.60		1.60		1.60		1.60					
20	1.60		1.60		1.60		0.60					

2) 사용하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
21	1.0	1.0		1.0		1.0						
22	1.0	1.0		1.0		0.5						
23	1.0		1.0		1.0	1.0						
24	1.0		1.0		1.0	0.5						
25	1.0	1.0		1.0		1.0		1.0			1.0	
26	1.0	1.0		1.0		0.5		1.0			1.0	
27	1.0	1.0		1.0		1.0			1.0	1.0	1.0	
28	1.0	1.0		1.0		0.5			1.0	1.0	1.0	
29	1.0		1.0		1.0	1.0		1.0			1.0	
30	1.0		1.0		1.0	0.5		1.0			1.0	
31	1.0		1.0		1.0	1.0			1.0	1.0	1.0	
32	1.0		1.0		1.0	0.5			1.0	1.0	1.0	
33	1.0					1.0						
34	1.0		1.0		1.0		1.0					
35	1.0		1.0		1.0		0.5					

7. INPUT DATA

```
*VERSION
   8.3.1

*UNIT    ; Unit System
; FORCE, LENGTH, HEAT, TEMPER
   KN   , M, J, C

*STRUCTYPE    ; Structure Type
; iSTYP, iMASS, iSMAS, bMASSOFFSET, bSELFWEIGHT, GRAV, TEMPER, bALIGNBEAM, bALIGNSLAB, bROTRIGID
     1, 1, 1, NO, YES, 9.806, 0, NO, NO, NO

*REBAR-MATL-CODE    ; Rebar Material Code
; CONC_CODE, CONC_MDB, SRC_CODE, SRC_MDB
 KS01-Civil(RC), SD300, KS01-Civil(RC), SD300

*NODE    ; Nodes
; iNO, X, Y, Z
     1, 0, 0, 0
     2, 0.85, 0, 0
     3, 1.742, 0, 0
     4, 2.633, 0, 0
     5, 3.525, 0, 0
     6, 4.417, 0, 0
     7, 5.308, 0, 0
     8, 6.2, 0, 0
     9, 7.05, 0, 0
    10, 0, 0, 0.825
    11, 7.05, 0, 0.825
    12, 0, 0, 1.525
    13, 7.05, 0, 1.525
    14, 0, 0, 2.225
    15, 7.05, 0, 2.225
    16, 0, 0, 2.925
    17, 7.05, 0, 2.925
    18, 0, 0, 3.625
    19, 7.05, 0, 3.625
    20, 0, 0, 4.325
    21, 7.05, 0, 4.325
    22, 0, 0, 5.125
    23, 0.8, 0, 5.125
    24, 1.708, 0, 5.125
    25, 2.617, 0, 5.125
    26, 3.525, 0, 5.125
    27, 4.433, 0, 5.125
    28, 5.342, 0, 5.125
    29, 6.25, 0, 5.125
    30, 7.05, 0, 5.125

*ELEMENT    ; Elements
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, iOPT(EXVAL2) ; Frame  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, EXVAL2, bLMT ; Comp/Tens Truss
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iSUB, iWID             ; Planar Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iN5, iN6, iN7, iN8     ; Solid  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, REF, RPX, RPY, RPZ, iSUB, EXVAL  ; Frame(Ref. Point)
     1, BEAM  ,    2,    2,    1,    2,  180
     2, BEAM  ,    2,    2,    2,    3,  180
     3, BEAM  ,    2,    2,    3,    4,  180
     4, BEAM  ,    2,    2,    4,    5,  180
     5, BEAM  ,    2,    2,    5,    6,  180
     6, BEAM  ,    2,    2,    6,    7,  180
     7, BEAM  ,    2,    2,    7,    8,  180
     8, BEAM  ,    2,    2,    8,    9,  180
     9, BEAM  ,    2,    3,    1,   10,  180
    10, BEAM  ,    2,    3,    9,   11,    0
    11, BEAM  ,    2,    3,   10,   12,  180
    12, BEAM  ,    2,    3,   11,   13,    0
    13, BEAM  ,    2,    3,   12,   14,  180
    14, BEAM  ,    2,    3,   13,   15,    0
    15, BEAM  ,    2,    3,   14,   16,  180
    16, BEAM  ,    2,    3,   15,   17,    0
    17, BEAM  ,    2,    3,   16,   18,  180
    18, BEAM  ,    2,    3,   17,   19,    0
    19, BEAM  ,    2,    3,   18,   20,  180
    20, BEAM  ,    2,    3,   19,   21,    0
    21, BEAM  ,    2,    3,   20,   22,  180
    22, BEAM  ,    2,    3,   21,   30,    0
    23, BEAM  ,    2,    1,   22,   23,    0
    24, BEAM  ,    2,    1,   23,   24,    0
    25, BEAM  ,    2,    1,   24,   25,    0
    26, BEAM  ,    2,    1,   25,   26,    0
    27, BEAM  ,    2,    1,   26,   27,    0
    28, BEAM  ,    2,    1,   27,   28,    0
    29, BEAM  ,    2,    1,   28,   29,    0
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```
    30, BEAM ,    2,     1,    29,    30,     0

*MATERIAL    ; Material
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA1]          ; STEEL, CONC, USER
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA2], [DATA2] ; SRC
; [DATA1] : 1, DB, NAME, CODE
; [DATA1] : 2, ELAST, POISN, THERMAL, DEN, MASS
; [DATA1] : 3, Ex, Ey, Ez, Tx, Ty, Tz, Sxy, Sxz, Syz, Pxy, Pxz, Pyz, DEN, MASS   ; Orthotropic
; [DATA2] : 1, DB, NAME, CODE or 2, ELAST, POISN, THERMAL, DEN, MASS
    1, USER , STEEL             , 0, 0, , C, NO, 0, 2, 2.0000e+008,   0.3, 1.1700e-005, 76.8196,     0
    2, USER , CONC              , 0, 0, , C, NO, 0, 2, 2.7537e+007,  0.18, 1.0000e-005,  24.5,     0

*MATL-COLOR
; iMAT, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
    1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
    2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5


*SECTION    ; Section
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL              ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF          ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE                ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                  ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1    ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                   ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                  ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2    ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                   ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       [SIZE-A]                                                              ; 3rd line
;       [SIZE-B]                                                              ; 4th line
;       [SIZE-C]                                                              ; 5th line
;       [SIZE-D]                                                              ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb                     ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                       ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                    ; 4th line
```

```
;       [SIZE-A]                                                                ; 5th line
;       [SIZE-B]                                                                ; 6th line
;       [SIZE-C]                                                                ; 7th line
;       [SIZE-D]                                                                ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]  : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB           , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.6, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB           , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.65, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL              , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.6, 1, 0, 0, 0, 0, 0, 0, 0, 0

*SECT-COLOR
; iSEC, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
   1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   3, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5

*DGN-SECT
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL             ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF         ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE               ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
```

```
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                   ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                 ; 2nd line
;       [SIZE-A]                                                            ; 3rd line
;       [SIZE-B]                                                            ; 4th line
;       [SIZE-C]                                                            ; 5th line
;       [SIZE-D]                                                            ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb                   ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                   ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                 ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                     ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                  ; 4th line
;       [SIZE-A]                                                            ; 5th line
;       [SIZE-B]                                                            ; 6th line
;       [SIZE-C]                                                            ; 7th line
;       [SIZE-D]                                                            ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]   : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.6, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.65, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.6, 1, 0, 0, 0, 0, 0, 0, 0, 0

*STLDCASE    ; Static Load Cases
; LCNAME, LCTYPE, DESC
  LC1  , USER,
  LC2  , USER,
  LC3  , USER,
  LC4  , USER,
  LC5  , USER,
  LC6  , USER,
  LC7  , USER,
  LC8  , USER,
  LC9  , USER,
  LC10 , USER,
  LC11 , USER,
  NCOMB1, USER,
  NCOMB2, USER,
  NCOMB3, USER,
  NCOMB4, USER,
  NCOMB5, USER,
  NCOMB6, USER,
  NCOMB7, USER,
  NCOMB8, USER,
  NCOMB9, USER,
  NCOMB10, USER,
  NCOMB11, USER,
  NCOMB12, USER,
  NCOMB13, USER,
  NCOMB14, USER,
  NCOMB15, USER,
  NCOMB16, USER,
  NCOMB17, USER,
  NCOMB18, USER,
  NCOMB19, USER,
  NCOMB20, USER,
  NCOMB21, USER,
  NCOMB22, USER,
  NCOMB23, USER,
  NCOMB24, USER,
  NCOMB25, USER,
  NCOMB26, USER,
  NCOMB27, USER,
  NCOMB28, USER,
  NCOMB29, USER,
  NCOMB30, USER,
  NCOMB31, USER,
  NCOMB32, USER,
  NCOMB33, USER,
  NCOMB34, USER,
  NCOMB35, USER,

*SPRING    ; Point Spring Supports
; NODE_LIST, Type, SDx, SDy, SDz, SRx, SRy, SRz, GROUP, FROMTYPE, EFFAREA, Kx, Ky, Kz
```

```
; NODE_LIST, Type, Direction, Vx, Vy, Vz, Stiffness, GROUP, FROMTYPE, EFFAREA
; NODE_LIST, Type, Multi-Linear Type, Direction, Vx, Vy, Vz, ax, ay, bx, by, cx, cy, dx, dy, ex, ey, fx, fy, GROUP, FROMTYPE, EFFAREA
   1, LINEAR, 1e+014, 0, 0, 0, 0, 0, NO, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0
   3to7, COMP  ,  5, 0, 0, 0, 14815, , 0, 0, 0, 0, 0, 0
   2 8, COMP  ,  5, 0, 0, 0, 14469, , 0, 0, 0, 0, 0, 0
   1 9, COMP  ,  5, 0, 0, 0, 12046, , 0, 0, 0, 0, 0, 0

*OFFSET    ; Beam End Offsets
; ELEM_LIST, TYPE, RGDXi, RGDYi, RGDZi, RGDXj, RGDYj, RGDZj, GROUP  ; TYPE=GLOBAL
; ELEM_LIST, TYPE, RGDi, RGDj, GROUP                                ; TYPE=ELEMENT
     1, ELEMENT, 0.1375, 0,
     8, ELEMENT, 0, 0.1375,
     9, ELEMENT, 0.175, 0,
    10, ELEMENT, 0.175, 0,
    21, ELEMENT, 0, 0.3,
    22, ELEMENT, 0, 0.3,
    23, ELEMENT, 0.3, 0,
    30, ELEMENT, 0, 0.3,

*USE-STLD, LC1

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC1] ------------------------

*USE-STLD, LC2

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC2] ------------------------

*USE-STLD, LC3

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC3] ------------------------

*USE-STLD, LC4

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
```

```
    13, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC4] ----------

*USE-STLD, LC5

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC5] ----------

*USE-STLD, LC6

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 58.251, 1, 51.222, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -58.251, 1, -51.222, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 51.222, 1, 45.258, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -51.222, 1, -45.258, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 45.258, 1, 39.294, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -45.258, 1, -39.294, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 39.294, 1, 33.33, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -39.294, 1, -33.33, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 33.33, 1, 27.366, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -33.33, 1, -27.366, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 27.366, 1, 21.402, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -27.366, 1, -21.402, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 21.402, 1, 14.586, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -21.402, 1, -14.586, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC6] ----------

*USE-STLD, LC7

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 46.221, 1, 39.192, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 39.192, 1, 33.228, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 33.228, 1, 27.264, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 27.264, 1, 21.3, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 21.3, 1, 15.336, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.336, 1, 9.372, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 9.372, 1, 2.556, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC7] ----------

*USE-STLD, LC8

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
    23, 5.85,
    24, 5.85,
    25, 5.85,
    26, 5.85,
    27, 5.85,
    28, 5.85,
    29, 5.85,
    30, 5.85,
```

```
; End of data for load case [LC8] ---------------------------

*USE-STLD. LC9

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. -5.85.
    24. -5.85.
    25. -5.85.
    26. -5.85.
    27. -5.85.
    28. -5.85.
    29. -5.85.
    30. -5.85.

; End of data for load case [LC9] ---------------------------

*USE-STLD. LC10

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
    30. -15.

; End of data for load case [LC10] ---------------------------

*USE-STLD. NCOMB1

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
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    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB1] ------------------------

*USE-STLD. NCOMB2

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB2] ------------------------

*USE-STLD. NCOMB3

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB3] ------------------------

*USE-STLD. NCOMB4

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB4] ------------------------

*USE-STLD. NCOMB5

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB5] ------------------------

*USE-STLD. NCOMB6

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
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    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB6] ------------------------

*USE-STLD. NCOMB7

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB7] ------------------------

*USE-STLD. NCOMB8

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
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; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB8] ------------------------

*USE-STLD. NCOMB9

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD     ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
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    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. 7.8975.
    24. 7.8975.
    25. 7.8975.
    26. 7.8975.
    27. 7.8975.
    28. 7.8975.
    29. 7.8975.
    30. 7.8975.

; End of data for load case [NCOMB9] ------------------------

*USE-STLD. NCOMB10

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. N(
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. N(
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. N(
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. N(
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. 7.8975.
    24. 7.8975.
    25. 7.8975.
    26. 7.8975.
    27. 7.8975.
    28. 7.8975.
    29. 7.8975.
    30. 7.8975.
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; End of data for load case [NCOMB10] ------------------------

*USE-STLD. NCOMB11

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. N(
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. N(
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. N(
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. N(
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. N(
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -28.1475.
    24. -28.1475.
    25. -28.1475.
    26. -28.1475.
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    27. -28.1475.
    28. -28.1475.
    29. -28.1475.
    30. -28.1475.

; End of data for load case [NCOMB11] ------------------------

*USE-STLD. NCOMB12

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
```

```
      23. -28.1475.
      24. -28.1475.
      25. -28.1475.
      26. -28.1475.
      27. -28.1475.
      28. -28.1475.
      29. -28.1475.
      30. -28.1475.

; End of data for load case [NCOMB12] ------------------------

*USE-STLD. NCOMB13

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. 7.8975.
    24. 7.8975.
    25. 7.8975.
    26. 7.8975.
    27. 7.8975.
    28. 7.8975.
    29. 7.8975.
    30. 7.8975.

; End of data for load case [NCOMB13] ------------------------

*USE-STLD. NCOMB14

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
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    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. 7.8975.
    24. 7.8975.
    25. 7.8975.
    26. 7.8975.
    27. 7.8975.
    28. 7.8975.
    29. 7.8975.
    30. 7.8975.

; End of data for load case [NCOMB14] ------------------------

*USE-STLD. NCOMB15

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
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      1. -20.25.
      2. -20.25.
      3. -20.25.
      4. -20.25.
      5. -20.25.
      6. -20.25.
      7. -20.25.
      8. -20.25.
      9. -20.25.
     10. -20.25.
     11. -20.25.
     12. -20.25.
     13. -20.25.
     14. -20.25.
     15. -20.25.
     16. -20.25.
     17. -20.25.
     18. -20.25.
     19. -20.25.
     20. -20.25.
     21. -20.25.
     22. -20.25.
     23. -28.1475.
     24. -28.1475.
     25. -28.1475.
     26. -28.1475.
     27. -28.1475.
     28. -28.1475.
     29. -28.1475.
     30. -28.1475.

; End of data for load case [NCOMB15] ------------------------

*USE-STLD. NCOMB16

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
      1. -20.25.
      2. -20.25.
      3. -20.25.
      4. -20.25.
      5. -20.25.
      6. -20.25.
      7. -20.25.
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     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -28.1475.
    24. -28.1475.
    25. -28.1475.
    26. -28.1475.
    27. -28.1475.
    28. -28.1475.
    29. -28.1475.
    30. -28.1475.

; End of data for load case 'NCOMB16' ------------------------

*USE-STLD. NCOMB17

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; 'VALUE'       : D1. P1. D2. P2. D3. P3. D4. P4
; 'ECCEN'       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; 'ADDITIONAL'  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.9536. 1. 62.7072. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7072. 1. 53.1648. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.1648. 1. 43.6224. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.6224. 1. 34.08. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.08. 1. 24.5376. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.5376. 1. 14.9952. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 14.9952. 1. 4.0896. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case 'NCOMB17' ------------------------

*USE-STLD. NCOMB18

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; 'VALUE'       : D1. P1. D2. P2. D3. P3. D4. P4
; 'ECCEN'       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; 'ADDITIONAL'  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7326. 1. 23.5152. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5152. 1. 19.9368. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.9368. 1. 16.3584. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.3584. 1. 12.78. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.78. 1. 9.2016. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
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     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.2016. 1. 5.6232. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.6232. 1. 1.5336. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. N(
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. N(
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. N(
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB18] ------------------------

*USE-STLD. NCOMB19

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.9536. 1. 62.7072. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7072. 1. 53.1648. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.1648. 1. 43.6224. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.6224. 1. 34.08. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.08. 1. 24.5376. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.5376. 1. 14.9952. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 14.9952. 1. 4.0896. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB19] ------------------------

*USE-STLD. NCOMB20

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7326. 1. 23.5152. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5152. 1. 19.9368. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.9368. 1. 16.3584. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.3584. 1. 12.78. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.78. 1. 9.2016. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.2016. 1. 5.6232. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.6232. 1. 1.5336. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. N(
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. N(
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB20] ------------------------

*USE-STLD. NCOMB21

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB21] ------------------------

*USE-STLD. NCOMB22

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
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    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB22] ------------------------

*USE-STLD. NCOMB23

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB23] ------------------------
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*USE-STLD. NCOMB24

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB24] ------------------------

*USE-STLD. NCOMB25

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
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     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     23. 5.85.
     24. 5.85.
     25. 5.85.
     26. 5.85.
     27. 5.85.
     28. 5.85.
     29. 5.85.
     30. 5.85.

; End of data for load case [NCOMB25] ------------------------

*USE-STLD. NCOMB26

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
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```
; ELEM LIST. TEMPER. GROUP
    23. 5.85.
    24. 5.85.
    25. 5.85.
    26. 5.85.
    27. 5.85.
    28. 5.85.
    29. 5.85.
    30. 5.85.

; End of data for load case [NCOMB26] ----------------------------

*USE-STLD. NCOMB27

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
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      18. -15.
      19. -15.
      20. -15.
      21. -15.
      22. -15.
      23. -20.85.
      24. -20.85.
      25. -20.85.
      26. -20.85.
      27. -20.85.
      28. -20.85.
      29. -20.85.
      30. -20.85.

; End of data for load case 'NCOMB27' ------------------------

*USE-STLD. NCOMB28

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; 'VALUE'        : D1. P1. D2. P2. D3. P3. D4. P4
; 'ECCEN'        : bECCEN. ECCDIR. I-END. J-END. bJ-END
; 'ADDITIONAL'   : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
      1. -15.
      2. -15.
      3. -15.
      4. -15.
      5. -15.
      6. -15.
      7. -15.
      8. -15.
      9. -15.
     10. -15.
     11. -15.
     12. -15.
     13. -15.
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    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -20.85.
    24. -20.85.
    25. -20.85.
    26. -20.85.
    27. -20.85.
    28. -20.85.
    29. -20.85.
    30. -20.85.

; End of data for load case 'NCOMB28' ------------------------

*USE-STLD. NCOMB29

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; 'VALUE'       : D1. P1. D2. P2. D3. P3. D4. P4
; 'ECCEN'       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; 'ADDITIONAL'  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. 5.85.
    24. 5.85.
    25. 5.85.
    26. 5.85.
    27. 5.85.
    28. 5.85.
    29. 5.85.
    30. 5.85.

; End of data for load case 'NCOMB29' ------------------------

*USE-STLD. NCOMB30

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; 'VALUE'       : D1. P1. D2. P2. D3. P3. D4. P4
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; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 29.1255, 1, 25.611, 0, 0, 0, 0,  , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -29.1255, 1, -25.611, 0, 0, 0, 0,  , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 25.611, 1, 22.629, 0, 0, 0, 0,  , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -25.611, 1, -22.629, 0, 0, 0, 0,  , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 22.629, 1, 19.647, 0, 0, 0, 0,  , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -22.629, 1, -19.647, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 19.647, 1, 16.665, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -19.647, 1, -16.665, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 16.665, 1, 13.683, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -16.665, 1, -13.683, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 13.683, 1, 10.701, 0, 0, 0, 0,  , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -13.683, 1, -10.701, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 10.701, 1, 7.293, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -10.701, 1, -7.293, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -29.302, 1, -29.302, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -29.302, 1, -29.302, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -29.302, 1, -29.302, 0, 0, 0, 0,  , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -29.302, 1, -29.302, 0, 0, 0, 0,  , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
    23, 5.85,
    24, 5.85,
    25, 5.85,
    26, 5.85,
    27, 5.85,
    28, 5.85,
    29, 5.85,
    30, 5.85,

; End of data for load case [NCOMB30] ------------------------

*USE-STLD, NCOMB31

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 58.251, 1, 51.222, 0, 0, 0, 0,  , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -58.251, 1, -51.222, 0, 0, 0, 0,  , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 51.222, 1, 45.258, 0, 0, 0, 0,  , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -51.222, 1, -45.258, 0, 0, 0, 0,  , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 45.258, 1, 39.294, 0, 0, 0, 0,  , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -45.258, 1, -39.294, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 39.294, 1, 33.33, 0, 0, 0, 0,  , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -39.294, 1, -33.33, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 33.33, 1, 27.366, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -33.33, 1, -27.366, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 27.366, 1, 21.402, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -27.366, 1, -21.402, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, 21.402, 1, 14.586, 0, 0, 0, 0,  , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1],    ,    , 0, -21.402, 1, -14.586, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -29.302, 1, -29.302, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -29.302, 1, -29.302, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -29.302, 1, -29.302, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],    ,    , 0, -28.24, 1, -28.24, 0, 0, 0, 0,  , NO, 0, 0, NO
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    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -20.85.
    24. -20.85.
    25. -20.85.
    26. -20.85.
    27. -20.85.
    28. -20.85.
    29. -20.85.
    30. -20.85.

; End of data for load case [NCOMB31] ------------------------

*USE-STLD. NCOMB32

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
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*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
      1. -15.
      2. -15.
      3. -15.
      4. -15.
      5. -15.
      6. -15.
      7. -15.
      8. -15.
      9. -15.
     10. -15.
     11. -15.
     12. -15.
     13. -15.
     14. -15.
     15. -15.
     16. -15.
     17. -15.
     18. -15.
     19. -15.
     20. -15.
     21. -15.
     22. -15.
     23. -20.85.
     24. -20.85.
     25. -20.85.
     26. -20.85.
     27. -20.85.
     28. -20.85.
     29. -20.85.
     30. -20.85.

; End of data for load case [NCOMB32] ------------------------

*USE-STLD. NCOMB33

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB33] ------------------------

*USE-STLD. NCOMB34

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.221. 1. 39.192. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.192. 1. 33.228. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
```

```
    13 BEAM    UNILOAD GX NO NO aDir[1]    0 33.228 1 27.264 0 0 0 0  NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1]    0 27.264 1 21.3 0 0 0 0  NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1]    0 21.3 1 15.336 0 0 0 0  NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1]    0 15.336 1 9.372 0 0 0 0  NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1]    0 9.372 1 2.556 0 0 0 0  NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1]    0 -29.302 1 -29.302 0 0 0 0  NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1]    0 -29.302 1 -29.302 0 0 0 0  NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1]    0 -29.302 1 -29.302 0 0 0 0  NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1]    0 -29.302 1 -29.302 0 0 0 0  NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    27 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    28 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    29 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    30 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO

; End of data for load case [NCOMB34] ------------------------

*USE-STLD NCOMB35

; *SELFWEIGHT X Y Z GROUP
*SELFWEIGHT 0 0 -1

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST CMD TYPE DIR bPROJ [ECCEN] [VALUE] GROUP
; ELEM LIST CMD TYPE TYPE DIR VX VY VZ bPROJ [ECCEN] [VALUE] GROUP
; [VALUE]       : D1 P1 D2 P2 D3 P3 D4 P4
; [ECCEN]       : bECCEN ECCDIR I-END J-END bJ-END
; [ADDITIONAL]  : bADDITIONAL ADDITIONAL I-END ADDITIONAL J-END bADDITIONAL J-END
     9 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
     9 BEAM    UNILOAD GX NO NO aDir[1]    0 23.1105 1 19.596 0 0 0 0  NO 0 0 NO
    11 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    11 BEAM    UNILOAD GX NO NO aDir[1]    0 19.596 1 16.614 0 0 0 0  NO 0 0 NO
    13 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    13 BEAM    UNILOAD GX NO NO aDir[1]    0 16.614 1 13.632 0 0 0 0  NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1]    0 13.632 1 10.65 0 0 0 0  NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1]    0 10.65 1 7.668 0 0 0 0  NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1]    0 7.668 1 4.686 0 0 0 0  NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1]    0 4.686 1 1.278 0 0 0 0  NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1]    0 -29.302 1 -29.302 0 0 0 0  NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1]    0 -29.302 1 -29.302 0 0 0 0  NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1]    0 -29.302 1 -29.302 0 0 0 0  NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1]    0 -29.302 1 -29.302 0 0 0 0  NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    27 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    28 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    29 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO
    30 BEAM    UNILOAD GZ NO NO aDir[1]    0 -28.24 1 -28.24 0 0 0 0  NO 0 0 NO

; End of data for load case [NCOMB35] ------------------------


*LOADCOMB    ; Combinations
; NAME=NAME KIND ACTIVE bES iTYPE DESC iSERV-TYPE nLCOMTYPE   ; line 1
;      ANAL1 LCNAME1 FACT1 ...                                ; from line 2
   NAME=COMB1 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.35 ST LC2 1.85 ST LC4 1.85 ST LC6 1.6
   NAME=COMB2 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.35 ST LC2 1.85 ST LC4 1.85 ST LC6 0.6
   NAME=COMB3 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.35 ST LC3 1.85 ST LC5 1.85 ST LC6 1.6
   NAME=COMB4 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.35 ST LC3 1.85 ST LC5 1.85 ST LC6 0.6
   NAME=COMB5 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.6 ST LC2 1.6 ST LC4 1.6 ST LC6 1.6
   NAME=COMB6 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.6 ST LC2 1.6 ST LC4 1.6 ST LC6 0.6
   NAME=COMB7 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.6 ST LC3 1.6 ST LC5 1.6 ST LC6 1.6
   NAME=COMB8 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.6 ST LC3 1.6 ST LC5 1.6 ST LC6 0.6
   NAME=COMB9 GEN INACTIVE 0 0 . 0 0
        ST LC1 1.35 ST LC2 1.4 ST LC4 1.4 ST LC6 1.6 ST LC8 1.35
        ST LC11 1.35
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NAME=COMB10. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
     ST. LC11. 1.35
NAME=COMB11. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
     ST. LC10. 1.35. ST. LC11. 1.4
NAME=COMB12. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
     ST. LC10. 1.35. ST. LC11. 1.4
NAME=COMB13. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
     ST. LC11. 1.35
NAME=COMB14. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
     ST. LC11. 1.35
NAME=COMB15. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
     ST. LC10. 1.35. ST. LC11. 1.4
NAME=COMB16. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
     ST. LC10. 1.35. ST. LC11. 1.4
NAME=COMB17. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 1.6
NAME=COMB18. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 0.6
NAME=COMB19. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 1.6
NAME=COMB20. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 0.6
NAME=COMB21. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1
NAME=COMB22. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5
NAME=COMB23. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1
NAME=COMB24. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5
NAME=COMB25. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB26. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB27. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB28. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB29. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB30. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB31. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB32. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB33. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC6. 1
NAME=COMB34. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 1
NAME=COMB35. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 0.5
NAME=USD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB1. 1. ST. NCOMB2. 1. ST. NCOMB3. 1. ST. NCOMB4. 1
     ST. NCOMB5. 1. ST. NCOMB6. 1. ST. NCOMB7. 1. ST. NCOMB8. 1
     ST. NCOMB9. 1. ST. NCOMB10. 1. ST. NCOMB11. 1. ST. NCOMB12. 1
     ST. NCOMB13. 1. ST. NCOMB14. 1. ST. NCOMB15. 1. ST. NCOMB16. 1
     ST. NCOMB17. 1. ST. NCOMB18. 1. ST. NCOMB19. 1. ST. NCOMB20. 1
NAME=WSD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB21. 1. ST. NCOMB22. 1. ST. NCOMB23. 1. ST. NCOMB24. 1
     ST. NCOMB25. 1. ST. NCOMB26. 1. ST. NCOMB27. 1. ST. NCOMB28. 1
     ST. NCOMB29. 1. ST. NCOMB30. 1. ST. NCOMB31. 1. ST. NCOMB32. 1
     ST. NCOMB33. 1. ST. NCOMB34. 1. ST. NCOMB35. 1
NAME=NCOMB1. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB1. 1
NAME=NCOMB2. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB2. 1
NAME=NCOMB3. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB3. 1
NAME=NCOMB4. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB4. 1
NAME=NCOMB5. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB5. 1
NAME=NCOMB6. CONC. STRENGTH. 0. 0. . 0. 0
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      ST. NCOMB6. 1
   NAME=NCOMB7. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB7. 1
   NAME=NCOMB8. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB8. 1
   NAME=NCOMB9. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB9. 1
   NAME=NCOMB10. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB10. 1
   NAME=NCOMB11. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB11. 1
   NAME=NCOMB12. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB12. 1
   NAME=NCOMB13. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB13. 1
   NAME=NCOMB14. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB14. 1
   NAME=NCOMB15. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB15. 1
   NAME=NCOMB16. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB16. 1
   NAME=NCOMB17. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB17. 1
   NAME=NCOMB18. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB18. 1
   NAME=NCOMB19. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB19. 1
   NAME=NCOMB20. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB20. 1
   NAME=NCOMB21. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB21. 1
   NAME=NCOMB22. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB22. 1
   NAME=NCOMB23. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB23. 1
   NAME=NCOMB24. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB24. 1
   NAME=NCOMB25. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB25. 1
   NAME=NCOMB26. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB26. 1
   NAME=NCOMB27. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB27. 1
   NAME=NCOMB28. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB28. 1
   NAME=NCOMB29. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB29. 1
   NAME=NCOMB30. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB30. 1
   NAME=NCOMB31. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB31. 1
   NAME=NCOMB32. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB32. 1
   NAME=NCOMB33. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB33. 1
   NAME=NCOMB34. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB34. 1
   NAME=NCOMB35. CONC. STRENGTH. 0. 0. . 0. 0
      ST. NCOMB35. 1

*LOADCONST    ; Load Constribution for Nonlinear Load Case
; NAME=STLDCASE. DESC                                          ; 1st line
;      LCNAME1. LCTYPE1. FACTOR1. LCNAME2. LCTYPE2. FACTOR2. ...   ; from line 2
   NAME=NCOMB1.
      LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 1.6
   NAME=NCOMB2.
      LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 0.6
   NAME=NCOMB3.
      LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 1.6
   NAME=NCOMB4.
      LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 0.6
   NAME=NCOMB5.
      LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 1.6
   NAME=NCOMB6.
      LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 0.6
   NAME=NCOMB7.
      LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 1.6
   NAME=NCOMB8.
      LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 0.6
   NAME=NCOMB9.
      LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
      LC11. ST. 1.35
   NAME=NCOMB10.
      LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
      LC11. ST. 1.35
   NAME=NCOMB11.
      LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
```

```
      LC10, ST, 1.35, LC11, ST, 1.4
 NAME=NCOMB12,
      LC1, ST, 1.35, LC2, ST, 1.4, LC4, ST, 1.4, LC6, ST, 0.6, LC9, ST, 1.35
      LC10, ST, 1.35, LC11, ST, 1.4
 NAME=NCOMB13,
      LC1, ST, 1.35, LC3, ST, 1.4, LC5, ST, 1.4, LC6, ST, 1.6, LC8, ST, 1.35
      LC11, ST, 1.35
 NAME=NCOMB14,
      LC1, ST, 1.35, LC3, ST, 1.4, LC5, ST, 1.4, LC6, ST, 0.6, LC8, ST, 1.35
      LC11, ST, 1.35
 NAME=NCOMB15,
      LC1, ST, 1.35, LC3, ST, 1.4, LC5, ST, 1.4, LC6, ST, 1.6, LC9, ST, 1.35
      LC10, ST, 1.35, LC11, ST, 1.4
 NAME=NCOMB16,
      LC1, ST, 1.35, LC3, ST, 1.4, LC5, ST, 1.4, LC6, ST, 0.6, LC9, ST, 1.35
      LC10, ST, 1.35, LC11, ST, 1.4
 NAME=NCOMB17,
      LC1, ST, 1.35, LC3, ST, 1.85, LC5, ST, 1.85, LC7, ST, 1.6
 NAME=NCOMB18,
      LC1, ST, 1.35, LC3, ST, 1.85, LC5, ST, 1.85, LC7, ST, 0.6
 NAME=NCOMB19,
      LC1, ST, 1.6, LC3, ST, 1.6, LC5, ST, 1.6, LC7, ST, 1.6
 NAME=NCOMB20,
      LC1, ST, 1.6, LC3, ST, 1.6, LC5, ST, 1.6, LC7, ST, 0.6
 NAME=NCOMB21,
      LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 1
 NAME=NCOMB22,
      LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5
 NAME=NCOMB23,
      LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1
 NAME=NCOMB24,
      LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5
 NAME=NCOMB25,
      LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 1, LC8, ST, 1, LC11, ST, 1
 NAME=NCOMB26,
      LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5, LC8, ST, 1
      LC11, ST, 1
 NAME=NCOMB27,
      LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 1, LC9, ST, 1, LC10, ST, 1
      LC11, ST, 1
 NAME=NCOMB28,
      LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5, LC9, ST, 1
      LC10, ST, 1, LC11, ST, 1
 NAME=NCOMB29,
      LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC8, ST, 1, LC11, ST, 1
 NAME=NCOMB30,
      LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC8, ST, 1
      LC11, ST, 1
 NAME=NCOMB31,
      LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC9, ST, 1, LC10, ST, 1
      LC11, ST, 1
 NAME=NCOMB32,
      LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC9, ST, 1
      LC10, ST, 1, LC11, ST, 1
 NAME=NCOMB33,
      LC1, ST, 1, LC6, ST, 1
 NAME=NCOMB34,
      LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 1
 NAME=NCOMB35,
      LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 0.5

*LC-COLOR    ; Diagram Color for Load Case
; ANAL, LCNAME, iR1(ALL), iG1(ALL), iB1(ALL), iR2(MIN), iG2(MIN), iB2(MIN), iR3(MAX), iG2(MAX), iB2(MAX)
 CB, COMB1, 0, 128, 255, 212, 160, 255, 192, 128, 0
 CB, COMB2, 192, 192, 192, 255, 128, 0, 85, 192, 0
 CB, COMB3, 85, 0, 192, 255, 255, 87, 192, 128, 0
 CB, COMB4, 255, 255, 87, 0, 192, 128, 255, 87, 87
 CB, COMB5, 85, 0, 192, 192, 192, 0, 255, 0, 192
 CB, COMB6, 0, 128, 57, 192, 72, 0, 93, 255, 87
 CB, COMB7, 0, 128, 255, 85, 192, 0, 255, 0, 192
 CB, COMB8, 255, 160, 255, 93, 255, 87, 0, 192, 192
 CB, COMB9, 0, 157, 192, 0, 128, 255, 255, 160, 255
 CB, COMB10, 192, 192, 0, 160, 192, 255, 148, 87, 255
 CB, COMB11, 0, 192, 192, 255, 255, 87, 255, 192, 87
 CB, COMB12, 192, 72, 0, 0, 157, 192, 192, 128, 0
 CB, COMB13, 255, 87, 128, 0, 128, 192, 192, 192, 0
 CB, COMB14, 255, 87, 87, 0, 128, 128, 148, 87, 255
 CB, COMB15, 163, 255, 160, 255, 160, 255, 255, 192, 160
 CB, COMB16, 210, 210, 210, 255, 0, 128, 0, 192, 192
 CB, COMB17, 192, 0, 128, 0, 192, 192, 255, 255, 255
 CB, COMB18, 0, 157, 192, 160, 192, 255, 255, 0, 128
 CB, COMB19, 0, 128, 128, 192, 128, 0, 192, 128, 0
 CB, COMB20, 255, 0, 192, 255, 192, 160, 148, 87, 255
 CB, COMB21, 255, 0, 128, 255, 87, 87, 255, 255, 87
 CB, COMB22, 255, 0, 192, 163, 255, 160, 93, 255, 87
 CB, COMB23, 78, 0, 255, 255, 255, 255, 0, 192, 128
 CB, COMB24, 255, 255, 87, 192, 128, 0, 0, 157, 192
```

CB. COMB25. 192. 128. 0. 0. 128. 255. 163. 160. 255
CB. COMB26. 0. 128. 128. 0. 128. 57. 255. 0. 128
CB. COMB27. 163. 160. 255. 0. 128. 192. 0. 128. 255
CB. COMB28. 255. 0. 128. 255. 192. 87. 160. 192. 255
CB. COMB29. 163. 160. 255. 192. 0. 192. 148. 87. 255
CB. COMB30. 255. 0. 128. 78. 0. 255. 0. 192. 192
CB. COMB31. 148. 87. 255. 192. 192. 0. 160. 192. 255
CB. COMB32. 163. 160. 255. 192. 192. 192. 192. 128. 0
CB. COMB33. 210. 210. 210. 255. 128. 0. 255. 192. 87
CB. COMB34. 148. 87. 255. 192. 192. 0. 255. 192. 160
CB. COMB35. 212. 160. 255. 163. 160. 255. 0. 192. 192
CB. USD. 0. 192. 128. 255. 128. 0. 0. 157. 192
CB. WSD. 0. 192. 128. 192. 192. 192. 192. 72. 0
ST. LC1. 255. 192. 87. 93. 255. 87. 0. 157. 192
ST. LC2. 128. 192. 0. 93. 255. 87. 0. 128. 128
ST. LC3. 0. 128. 255. 192. 192. 192. 210. 210. 210
ST. LC4. 85. 0. 192. 0. 128. 57. 255. 128. 0
ST. LC5. 0. 192. 192. 255. 192. 160. 192. 192. 0
ST. LC6. 255. 87. 128. 160. 192. 255. 93. 255. 87
ST. LC7. 255. 87. 128. 0. 128. 128. 148. 87. 255
ST. LC8. 0. 128. 57. 160. 255. 255. 192. 192. 0
ST. LC9. 255. 128. 0. 146. 0. 255. 0. 192. 192
ST. LC10. 255. 87. 87. 0. 192. 192. 163. 255. 160
ST. LC11. 192. 192. 0. 210. 210. 210. 255. 128. 0
CBC. NCOMB1. 128. 192. 0. 0. 192. 192. 85. 0. 192
CBC. NCOMB2. 255. 192. 87. 85. 192. 0. 0. 128. 57
CBC. NCOMB3. 128. 192. 0. 255. 160. 255. 255. 0. 192
CBC. NCOMB4. 93. 255. 87. 192. 72. 0. 192. 192. 0
CBC. NCOMB5. 210. 210. 210. 160. 192. 255. 192. 192. 192. 192
CBC. NCOMB6. 0. 128. 57. 0. 192. 128. 85. 192. 0
CBC. NCOMB7. 128. 192. 0. 192. 72. 0. 0. 192. 192
CBC. NCOMB8. 192. 0. 128. 255. 160. 255. 160. 255. 255
CBC. NCOMB9. 0. 128. 128. 192. 192. 192. 146. 0. 255
CBC. NCOMB10. 160. 192. 255. 160. 192. 255. 160. 255. 255
CBC. NCOMB11. 192. 72. 0. 255. 160. 255. 160. 192. 255
CBC. NCOMB12. 163. 255. 160. 210. 210. 210. 148. 87. 255
CBC. NCOMB13. 160. 192. 255. 85. 192. 0. 128. 192. 0
CBC. NCOMB14. 0. 128. 192. 0. 192. 128. 255. 255. 255
CBC. NCOMB15. 192. 128. 0. 85. 0. 192. 255. 0. 128
CBC. NCOMB16. 85. 192. 0. 163. 255. 160. 0. 157. 192
CBC. NCOMB17. 192. 192. 192. 163. 160. 255. 0. 192. 128
CBC. NCOMB18. 0. 128. 57. 163. 255. 160. 255. 160. 255
CBC. NCOMB19. 0. 192. 128. 255. 160. 255. 146. 0. 255
CBC. NCOMB20. 192. 72. 0. 85. 192. 0. 0. 192. 128
CBC. NCOMB21. 78. 0. 255. 212. 160. 255. 255. 255. 255
CBC. NCOMB22. 192. 0. 128. 255. 87. 128. 93. 255. 87
CBC. NCOMB23. 0. 157. 192. 0. 157. 192. 255. 87. 128
CBC. NCOMB24. 255. 0. 128. 148. 87. 255. 0. 128. 57
CBC. NCOMB25. 255. 128. 0. 85. 192. 0. 255. 0. 128
CBC. NCOMB26. 255. 255. 87. 255. 160. 255. 160. 192. 255
CBC. NCOMB27. 0. 192. 192. 192. 0. 128. 93. 255. 87
CBC. NCOMB28. 192. 128. 0. 255. 87. 128. 255. 160. 255
CBC. NCOMB29. 85. 192. 0. 192. 128. 0. 210. 210. 210
CBC. NCOMB30. 212. 160. 255. 255. 128. 0. 78. 0. 255
CBC. NCOMB31. 148. 87. 255. 255. 0. 128. 210. 210. 210
CBC. NCOMB32. 163. 255. 160. 85. 192. 0. 0. 128. 128
CBC. NCOMB33. 255. 0. 192. 163. 160. 255. 210. 210. 210
CBC. NCOMB34. 210. 210. 210. 192. 192. 192. 192. 72. 0
CBC. NCOMB35. 160. 192. 255. 0. 128. 128. 78. 0. 255
ST. NCOMB1. 160. 255. 255. 0. 157. 192. 255. 255. 87
ST. NCOMB2. 255. 255. 87. 255. 192. 87. 255. 87. 87
ST. NCOMB3. 255. 255. 255. 0. 192. 192. 0. 157. 192
ST. NCOMB4. 160. 255. 255. 0. 128. 128. 85. 0. 192
ST. NCOMB5. 148. 87. 255. 212. 160. 255. 93. 255. 87
ST. NCOMB6. 160. 192. 255. 212. 160. 255. 163. 255. 160
ST. NCOMB7. 255. 255. 255. 255. 255. 87. 85. 192. 0
ST. NCOMB8. 0. 192. 128. 255. 192. 160. 192. 192. 192
ST. NCOMB9. 255. 192. 87. 255. 192. 160. 0. 128. 255
ST. NCOMB10. 163. 160. 255. 160. 255. 255. 210. 210. 210
ST. NCOMB11. 163. 255. 160. 0. 128. 128. 255. 192. 160
ST. NCOMB12. 255. 87. 87. 0. 157. 192. 255. 0. 192
ST. NCOMB13. 163. 255. 160. 255. 0. 192. 192. 192. 192
ST. NCOMB14. 255. 0. 128. 0. 128. 57. 212. 160. 255
ST. NCOMB15. 255. 160. 255. 128. 192. 0. 192. 0. 192
ST. NCOMB16. 0. 128. 255. 255. 87. 87. 192. 72. 0
ST. NCOMB17. 0. 192. 192. 0. 192. 128. 146. 0. 255
ST. NCOMB18. 128. 192. 0. 255. 255. 87. 93. 255. 87
ST. NCOMB19. 0. 128. 255. 192. 128. 0. 160. 255. 255
ST. NCOMB20. 192. 128. 0. 0. 128. 255. 255. 255. 255
ST. NCOMB21. 0. 192. 128. 0. 128. 255. 255. 87. 128
ST. NCOMB22. 0. 128. 255. 85. 192. 0. 255. 255. 255
ST. NCOMB23. 212. 160. 255. 163. 160. 255. 0. 128. 57
ST. NCOMB24. 210. 210. 210. 78. 0. 255. 255. 160. 255
ST. NCOMB25. 0. 192. 192. 160. 192. 255. 0. 128. 192
ST. NCOMB26. 255. 192. 87. 192. 72. 0. 148. 87. 255
ST. NCOMB27. 128. 192. 0. 160. 192. 255. 192. 0. 128
ST. NCOMB28. 192. 0. 128. 192. 128. 0. 210. 210. 210

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 ST. NCOMB29. 192. 192. 0. 192. 0. 128. 192. 128. 0
 ST. NCOMB30. 255. 128. 0. 0. 192. 128. 163. 160. 255
 ST. NCOMB31. 128. 192. 0. 0. 192. 128. 163. 255. 160
 ST. NCOMB32. 212. 160. 255. 255. 0. 128. 192. 0. 128
 ST. NCOMB33. 255. 192. 87. 160. 192. 255. 255. 0. 192
 ST. NCOMB34. 160. 192. 255. 255. 255. 87. 192. 192. 192
 ST. NCOMB35. 212. 160. 255. 146. 0. 255. 0. 157. 192

*ANAL-CTRL
; bARDC. bANRC. iITER. TOL. bCSECF. bTRS. bCRBAR. bTPF. bCSO. bSCS. bCLATS
   YES. YES. 20. 0.001. YES. YES. YES. NO. NO. NO. NO


*ENDDATA
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5. LC9. ST. 1
        LC10. ST. 1. LC11. ST. 1
   NAME=NCOMB29.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1. LC8. ST. 1. LC11. ST. 1
   NAME=NCOMB30.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 0.5. LC8. ST. 1
        LC11. ST. 1
   NAME=NCOMB31.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1. LC9. ST. 1. LC10. ST. 1
        LC11. ST. 1
   NAME=NCOMB32.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 0.5. LC9. ST. 1
        LC10. ST. 1. LC11. ST. 1
   NAME=NCOMB33.
        LC1. ST. 1. LC6. ST. 1
   NAME=NCOMB34.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC7. ST. 1
   NAME=NCOMB35.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC7. ST. 0.5

*LC-COLOR    ; Diagram Color for Load Case
; ANAL. LCNAME. iR1(ALL). iG1(ALL). iB1(ALL). iR2(MIN). iG2(MIN). iB2(MIN). iR3(MAX). iG2(MAX). iB2(MAX)
 CB. COMB1. 255. 0. 128. 255. 0. 128. 148. 87. 255
 CB. COMB2. 160. 192. 255. 255. 192. 160. 0. 128. 192
 CB. COMB3. 146. 0. 255. 160. 192. 255. 192. 128. 0
 CB. COMB4. 85. 192. 0. 212. 160. 255. 128. 192. 0
 CB. COMB5. 192. 0. 128. 0. 128. 57. 212. 160. 255
 CB. COMB6. 0. 128. 192. 212. 160. 255. 212. 160. 255
 CB. COMB7. 255. 0. 128. 0. 192. 192. 160. 192. 255
 CB. COMB8. 255. 192. 87. 192. 0. 192. 212. 160. 255
 CB. COMB9. 163. 160. 255. 192. 128. 0. 78. 0. 255
 CB. COMB10. 0. 128. 192. 85. 192. 0. 85. 0. 192
 CB. COMB11. 160. 192. 255. 93. 255. 87. 0. 157. 192
 CB. COMB12. 192. 192. 0. 255. 160. 255. 148. 87. 255
 CB. COMB13. 255. 128. 0. 255. 192. 87. 192. 0. 128
 CB. COMB14. 0. 128. 57. 255. 0. 128. 212. 160. 255
 CB. COMB15. 0. 192. 192. 0. 192. 128. 192. 0. 128
 CB. COMB16. 0. 128. 128. 255. 255. 87. 255. 128. 0
 CB. COMB17. 85. 192. 0. 255. 0. 192. 163. 255. 160
 CB. COMB18. 0. 128. 192. 128. 192. 0. 128. 192. 0
 CB. COMB19. 163. 160. 255. 146. 0. 255. 255. 87. 128
 CB. COMB20. 163. 255. 160. 160. 192. 255. 192. 192. 192
 CB. COMB21. 160. 255. 255. 0. 192. 128. 128. 192. 0
 CB. COMB22. 163. 255. 160. 192. 192. 192. 160. 192. 255
 CB. COMB23. 255. 192. 87. 0. 128. 255. 255. 87. 87
 CB. COMB24. 93. 255. 87. 192. 192. 0. 146. 0. 255
 CB. COMB25. 255. 0. 192. 255. 0. 192. 192. 72. 0
 CB. COMB26. 0. 192. 128. 255. 255. 87. 0. 128. 57
 CB. COMB27. 0. 157. 192. 0. 128. 255. 255. 0. 128
 CB. COMB28. 255. 192. 160. 0. 157. 192. 0. 192. 192
 CB. COMB29. 255. 128. 0. 192. 192. 0. 0. 192. 128
 CB. COMB30. 255. 160. 255. 0. 157. 192. 255. 87. 87
 CB. COMB31. 0. 192. 192. 160. 192. 255. 148. 87. 255
 CB. COMB32. 255. 128. 0. 146. 0. 255. 255. 255. 255
 CB. COMB33. 0. 157. 192. 0. 128. 57. 192. 72. 0
 CB. COMB34. 163. 255. 160. 212. 160. 255. 128. 192. 0
 CB. COMB35. 93. 255. 87. 0. 192. 128. 85. 192. 0
 CB. USD. 192. 192. 192. 160. 192. 255. 255. 128. 0
 CB. WSD. 0. 128. 57. 163. 255. 160. 160. 255. 255
 ST. LC1. 255. 255. 255. 163. 160. 255. 0. 128. 255
 ST. LC2. 255. 192. 160. 255. 0. 128. 0. 192. 192
 ST. LC3. 146. 0. 255. 78. 0. 255. 255. 192. 87
 ST. LC4. 255. 192. 87. 255. 128. 0. 0. 192. 128
 ST. LC5. 192. 192. 0. 0. 157. 192. 163. 160. 255
 ST. LC6. 255. 87. 128. 255. 87. 128. 255. 87. 87
 ST. LC7. 0. 128. 192. 255. 160. 255. 0. 128. 57
 ST. LC8. 255. 255. 87. 255. 0. 128. 192. 0. 192
 ST. LC9. 160. 255. 255. 255. 0. 192. 163. 255. 160
 ST. LC10. 78. 0. 255. 163. 160. 255. 255. 160. 255
 ST. LC11. 128. 192. 0. 255. 87. 128. 192. 192. 0
 CBC. NCOMB1. 160. 255. 255. 255. 255. 87. 0. 192. 128
 CBC. NCOMB2. 255. 255. 87. 0. 128. 255. 0. 128. 192
 CBC. NCOMB3. 0. 128. 57. 163. 160. 255. 255. 255. 87
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CBC. NCOMB4. 93. 255. 87. 163. 160. 255. 146. 0. 255
CBC. NCOMB5. 163. 160. 255. 255. 192. 160. 78. 0. 255
CBC. NCOMB6. 0. 157. 192. 148. 87. 255. 192. 128. 0
CBC. NCOMB7. 85. 0. 192. 212. 160. 255. 128. 192. 0
CBC. NCOMB8. 192. 0. 128. 212. 160. 255. 0. 192. 128
CBC. NCOMB9. 255. 0. 128. 78. 0. 255. 160. 192. 255
CBC. NCOMB10. 255. 128. 0. 0. 128. 57. 255. 0. 128
CBC. NCOMB11. 163. 255. 160. 93. 255. 87. 255. 0. 192
CBC. NCOMB12. 212. 160. 255. 192. 0. 192. 0. 128. 255
CBC. NCOMB13. 255. 87. 128. 160. 192. 255. 146. 0. 255
CBC. NCOMB14. 192. 72. 0. 78. 0. 255. 255. 192. 160
CBC. NCOMB15. 85. 0. 192. 255. 255. 255. 78. 0. 255
CBC. NCOMB16. 212. 160. 255. 148. 87. 255. 128. 192. 0
CBC. NCOMB17. 0. 128. 192. 255. 87. 128. 0. 128. 128
CBC. NCOMB18. 0. 128. 255. 255. 0. 192. 255. 128. 0
CBC. NCOMB19. 128. 192. 0. 0. 128. 128. 85. 0. 192
CBC. NCOMB20. 255. 0. 192. 93. 255. 87. 255. 87. 87
CBC. NCOMB21. 255. 0. 128. 78. 0. 255. 148. 87. 255
CBC. NCOMB22. 192. 192. 0. 0. 128. 255. 85. 192. 0
CBC. NCOMB23. 163. 255. 160. 148. 87. 255. 192. 192. 192
CBC. NCOMB24. 192. 128. 0. 192. 192. 192. 192. 0. 128
CBC. NCOMB25. 192. 192. 192. 0. 192. 192. 0. 128. 255
CBC. NCOMB26. 255. 87. 128. 255. 87. 128. 128. 192. 0
CBC. NCOMB27. 255. 87. 128. 0. 128. 57. 255. 87. 128
CBC. NCOMB28. 85. 192. 0. 0. 128. 255. 210. 210. 210
CBC. NCOMB29. 163. 255. 160. 0. 192. 192. 192. 192. 0
CBC. NCOMB30. 93. 255. 87. 85. 192. 0. 255. 192. 160
CBC. NCOMB31. 146. 0. 255. 85. 192. 0. 255. 192. 160
CBC. NCOMB32. 146. 0. 255. 255. 192. 160. 78. 0. 255
CBC. NCOMB33. 255. 255. 255. 78. 0. 255. 163. 160. 255
CBC. NCOMB34. 163. 255. 160. 85. 192. 0. 255. 192. 87
CBC. NCOMB35. 163. 255. 160. 192. 128. 0. 255. 128. 0
ST. NCOMB1. 192. 192. 192. 160. 255. 255. 255. 192. 160
ST. NCOMB2. 0. 128. 128. 93. 255. 87. 192. 192. 192
ST. NCOMB3. 0. 128. 192. 212. 160. 255. 255. 160. 255
ST. NCOMB4. 255. 0. 192. 0. 128. 57. 255. 255. 255
ST. NCOMB5. 0. 192. 128. 0. 128. 192. 192. 0. 128
ST. NCOMB6. 192. 72. 0. 0. 128. 57. 85. 192. 0
ST. NCOMB7. 210. 210. 210. 192. 128. 0. 255. 0. 128
ST. NCOMB8. 255. 0. 128. 148. 87. 255. 0. 128. 57
ST. NCOMB9. 255. 192. 87. 0. 128. 255. 255. 192. 87
ST. NCOMB10. 192. 192. 192. 255. 160. 255. 128. 192. 0
ST. NCOMB11. 0. 192. 192. 146. 0. 255. 255. 255. 87
ST. NCOMB12. 255. 192. 160. 0. 157. 192. 255. 87. 87
ST. NCOMB13. 128. 192. 0. 85. 192. 0. 0. 192. 192
ST. NCOMB14. 255. 87. 87. 192. 128. 0. 192. 192. 192
ST. NCOMB15. 210. 210. 210. 160. 192. 255. 192. 128. 0
ST. NCOMB16. 78. 0. 255. 255. 128. 0. 78. 0. 255
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ST. NCOMB24. 148. 87. 255. 163. 160. 255. 255. 192. 87
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ST. NCOMB26. 192. 128. 0. 0. 128. 128. 0. 128. 57
ST. NCOMB27. 192. 0. 192. 0. 128. 255. 255. 192. 87
ST. NCOMB28. 0. 128. 128. 192. 192. 192. 85. 0. 192
ST. NCOMB29. 255. 192. 160. 0. 157. 192. 163. 255. 160
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ST. NCOMB31. 255. 87. 87. 85. 192. 0. 192. 72. 0
ST. NCOMB32. 160. 255. 255. 0. 157. 192. 192. 192. 192
ST. NCOMB33. 146. 0. 255. 255. 192. 87. 192. 72. 0
ST. NCOMB34. 255. 192. 87. 255. 128. 0. 255. 0. 192
ST. NCOMB35. 85. 192. 0. 210. 210. 210. 192. 192. 0

*ANAL-CTRL
; bARDC. bANRC. iITER. TOL. bCSECF. bTRS. bCRBAR. bTPF. bCSO. bSCS. bCLATS
   YES. YES. 20. 0.001. YES. YES. YES. NO. NO. NO. NO


*ENDDATA
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8.OUPUT

FRAME ELEMENT FORCES

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
1	USD(max)	I[1]	54.010	0.000	-238.480	0.00E+00	-122.070	0.000
1	USD(max)	1/4	54.010	0.000	-242.310	0.00E+00	-77.590	0.000
1	USD(max)	2/4	54.010	0.000	-246.140	0.00E+00	-30.850	0.000
1	USD(max)	3/4	54.010	0.000	-249.970	0.00E+00	23.010	0.000
1	USD(max)	J[2]	54.010	0.000	-253.800	0.00E+00	77.680	0.000
1	USD(min)	I[1]	-253.340	0.000	-308.500	0.00E+00	-287.420	0.000
1	USD(min)	1/4	-253.340	0.000	-313.040	0.00E+00	-237.090	0.000
1	USD(min)	2/4	-253.340	0.000	-317.570	0.00E+00	-186.080	0.000
1	USD(min)	3/4	-253.340	0.000	-322.110	0.00E+00	-134.390	0.000
1	USD(min)	J[2]	-253.340	0.000	-326.650	0.00E+00	-82.020	0.000
1	WSD(max)	I[1]	31.830	0.000	-146.140	0.00E+00	-93.370	0.000
1	WSD(max)	1/4	31.830	0.000	-148.970	0.00E+00	-60.640	0.000
1	WSD(max)	2/4	31.830	0.000	-151.810	0.00E+00	-27.410	0.000
1	WSD(max)	3/4	31.830	0.000	-154.650	0.00E+00	6.340	0.000
1	WSD(max)	J[2]	31.830	0.000	-157.480	0.00E+00	40.580	0.000
1	WSD(min)	I[1]	-155.370	0.000	-192.810	0.00E+00	-179.090	0.000
1	WSD(min)	1/4	-155.370	0.000	-195.650	0.00E+00	-144.490	0.000
1	WSD(min)	2/4	-155.370	0.000	-198.480	0.00E+00	-109.390	0.000
1	WSD(min)	3/4	-155.370	0.000	-201.320	0.00E+00	-73.780	0.000
1	WSD(min)	J[2]	-155.370	0.000	-204.160	0.00E+00	-37.670	0.000
2	USD(max)	I[2]	54.010	0.000	-155.380	0.00E+00	77.680	0.000
2	USD(max)	1/4	54.010	0.000	-157.980	0.00E+00	99.980	0.000
2	USD(max)	2/4	54.010	0.000	-160.590	0.00E+00	122.660	0.000
2	USD(max)	3/4	54.010	0.000	-163.200	0.00E+00	145.700	0.000
2	USD(max)	J[3]	54.010	0.000	-165.800	0.00E+00	169.130	0.000
2	USD(min)	I[2]	-253.340	0.000	-245.760	0.00E+00	-82.020	0.000
2	USD(min)	1/4	-253.340	0.000	-248.850	0.00E+00	-53.900	0.000
2	USD(min)	2/4	-253.340	0.000	-251.940	0.00E+00	-25.470	0.000
2	USD(min)	3/4	-253.340	0.000	-255.030	0.00E+00	3.280	0.000
2	USD(min)	J[3]	-253.340	0.000	-258.120	0.00E+00	32.340	0.000
2	WSD(max)	I[2]	31.830	0.000	-92.030	0.00E+00	40.580	0.000
2	WSD(max)	1/4	31.830	0.000	-93.960	0.00E+00	54.570	0.000
2	WSD(max)	2/4	31.830	0.000	-95.890	0.00E+00	68.790	0.000
2	WSD(max)	3/4	31.830	0.000	-97.830	0.00E+00	83.240	0.000
2	WSD(max)	J[3]	31.830	0.000	-99.760	0.00E+00	97.930	0.000
2	WSD(min)	I[2]	-155.370	0.000	-153.600	0.00E+00	-37.670	0.000
2	WSD(min)	1/4	-155.370	0.000	-155.530	0.00E+00	-18.930	0.000
2	WSD(min)	2/4	-155.370	0.000	-157.460	0.00E+00	0.050	0.000
2	WSD(min)	3/4	-155.370	0.000	-159.390	0.00E+00	19.260	0.000
2	WSD(min)	J[3]	-155.370	0.000	-161.320	0.00E+00	38.700	0.000
3	USD(max)	I[3]	54.010	0.000	-90.020	0.00E+00	169.130	0.000
3	USD(max)	1/4	54.010	0.000	-92.630	0.00E+00	182.120	0.000
3	USD(max)	2/4	54.010	0.000	-95.240	0.00E+00	195.480	0.000
3	USD(max)	3/4	54.010	0.000	-97.840	0.00E+00	209.220	0.000
3	USD(max)	J[4]	54.010	0.000	-100.450	0.00E+00	223.340	0.000
3	USD(min)	I[3]	-253.340	0.000	-193.290	0.00E+00	32.340	0.000
3	USD(min)	1/4	-253.340	0.000	-196.380	0.00E+00	48.350	0.000
3	USD(min)	2/4	-253.340	0.000	-199.470	0.00E+00	63.190	0.000
3	USD(min)	3/4	-253.340	0.000	-202.560	0.00E+00	77.980	0.000
3	USD(min)	J[4]	-253.340	0.000	-205.650	0.00E+00	92.080	0.000
3	WSD(max)	I[3]	31.830	0.000	-53.200	0.00E+00	97.930	0.000
3	WSD(max)	1/4	31.830	0.000	-55.130	0.00E+00	106.090	0.000
3	WSD(max)	2/4	31.830	0.000	-57.060	0.00E+00	114.470	0.000
3	WSD(max)	3/4	31.830	0.000	-58.990	0.00E+00	123.100	0.000
3	WSD(max)	J[4]	31.830	0.000	-60.930	0.00E+00	131.950	0.000
3	WSD(min)	I[3]	-155.370	0.000	-120.810	0.00E+00	38.700	0.000
3	WSD(min)	1/4	-155.370	0.000	-122.740	0.00E+00	49.220	0.000
3	WSD(min)	2/4	-155.370	0.000	-124.670	0.00E+00	59.040	0.000
3	WSD(min)	3/4	-155.370	0.000	-126.600	0.00E+00	68.290	0.000
3	WSD(min)	J[4]	-155.370	0.000	-128.530	0.00E+00	75.560	0.000
4	USD(max)	I[4]	54.010	0.000	-26.340	0.00E+00	223.340	0.000
4	USD(max)	1/4	54.010	0.000	-28.940	0.00E+00	227.260	0.000
4	USD(max)	2/4	54.010	0.000	-31.550	0.00E+00	231.560	0.000
4	USD(max)	3/4	54.010	0.000	-34.160	0.00E+00	236.240	0.000
4	USD(max)	J[5]	54.010	0.000	-36.760	0.00E+00	244.430	0.000
4	USD(min)	I[4]	-253.340	0.000	-136.060	0.00E+00	92.080	0.000
4	USD(min)	1/4	-253.340	0.000	-138.670	0.00E+00	98.290	0.000
4	USD(min)	2/4	-253.340	0.000	-141.280	0.00E+00	104.820	0.000
4	USD(min)	3/4	-253.340	0.000	-143.880	0.00E+00	111.660	0.000
4	USD(min)	J[5]	-253.340	0.000	-146.740	0.00E+00	118.810	0.000
4	WSD(max)	I[4]	31.830	0.000	-15.080	0.00E+00	131.950	0.000
4	WSD(max)	1/4	31.830	0.000	-17.010	0.00E+00	134.420	0.000
4	WSD(max)	2/4	31.830	0.000	-18.940	0.00E+00	137.120	0.000
4	WSD(max)	3/4	31.830	0.000	-20.870	0.00E+00	142.530	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
4	WSD(max)	J[5]	31.830	0.000	-22.800	0.00E+00	150.570	0.000
4	WSD(min)	I[4]	-155.370	0.000	-83.990	0.00E+00	75.560	0.000
4	WSD(min)	1/4	-155.370	0.000	-85.920	0.00E+00	77.510	0.000
4	WSD(min)	2/4	-155.370	0.000	-87.850	0.00E+00	79.690	0.000
4	WSD(min)	3/4	-155.370	0.000	-89.780	0.00E+00	82.100	0.000
4	WSD(min)	J[5]	-155.370	0.000	-91.710	0.00E+00	84.750	0.000
5	USD(max)	I[5]	54.010	0.000	44.030	0.00E+00	244.430	0.000
5	USD(max)	1/4	54.010	0.000	40.940	0.00E+00	247.020	0.000
5	USD(max)	2/4	54.010	0.000	37.850	0.00E+00	249.980	0.000
5	USD(max)	3/4	54.010	0.000	34.760	0.00E+00	253.320	0.000
5	USD(max)	J[6]	54.010	0.000	31.670	0.00E+00	262.860	0.000
5	USD(min)	I[5]	-253.340	0.000	-77.660	0.00E+00	118.810	0.000
5	USD(min)	1/4	-253.340	0.000	-80.270	0.00E+00	117.970	0.000
5	USD(min)	2/4	-253.340	0.000	-82.880	0.00E+00	117.440	0.000
5	USD(min)	3/4	-253.340	0.000	-85.480	0.00E+00	117.230	0.000
5	USD(min)	J[6]	-253.340	0.000	-88.090	0.00E+00	117.330	0.000
5	WSD(max)	I[5]	31.830	0.000	27.520	0.00E+00	150.570	0.000
5	WSD(max)	1/4	31.830	0.000	25.590	0.00E+00	152.920	0.000
5	WSD(max)	2/4	31.830	0.000	23.650	0.00E+00	155.500	0.000
5	WSD(max)	3/4	31.830	0.000	21.720	0.00E+00	158.320	0.000
5	WSD(max)	J[6]	31.830	0.000	19.790	0.00E+00	164.290	0.000
5	WSD(min)	I[5]	-155.370	0.000	-42.570	0.00E+00	84.750	0.000
5	WSD(min)	1/4	-155.370	0.000	-44.500	0.00E+00	82.100	0.000
5	WSD(min)	2/4	-155.370	0.000	-46.430	0.00E+00	79.690	0.000
5	WSD(min)	3/4	-155.370	0.000	-48.360	0.00E+00	77.510	0.000
5	WSD(min)	J[6]	-155.370	0.000	-50.290	0.00E+00	75.560	0.000
6	USD(max)	I[6]	54.010	0.000	120.260	0.00E+00	262.860	0.000
6	USD(max)	1/4	54.010	0.000	117.170	0.00E+00	262.220	0.000
6	USD(max)	2/4	54.010	0.000	114.080	0.00E+00	261.950	0.000
6	USD(max)	3/4	54.010	0.000	110.990	0.00E+00	262.050	0.000
6	USD(max)	J[7]	54.010	0.000	107.900	0.00E+00	262.530	0.000
6	USD(min)	I[6]	-253.340	0.000	-10.450	0.00E+00	117.330	0.000
6	USD(min)	1/4	-253.340	0.000	-13.060	0.00E+00	109.260	0.000
6	USD(min)	2/4	-253.340	0.000	-15.660	0.00E+00	98.670	0.000
6	USD(min)	3/4	-253.340	0.000	-18.270	0.00E+00	87.000	0.000
6	USD(min)	J[7]	-253.340	0.000	-20.880	0.00E+00	75.650	0.000
6	WSD(max)	I[6]	31.830	0.000	75.160	0.00E+00	164.290	0.000
6	WSD(max)	1/4	31.830	0.000	73.230	0.00E+00	163.890	0.000
6	WSD(max)	2/4	31.830	0.000	71.300	0.00E+00	163.720	0.000
6	WSD(max)	3/4	31.830	0.000	69.370	0.00E+00	163.780	0.000
6	WSD(max)	J[7]	31.830	0.000	67.440	0.00E+00	164.080	0.000
6	WSD(min)	I[6]	-155.370	0.000	4.290	0.00E+00	75.560	0.000
6	WSD(min)	1/4	-155.370	0.000	2.360	0.00E+00	68.290	0.000
6	WSD(min)	2/4	-155.370	0.000	0.430	0.00E+00	61.260	0.000
6	WSD(min)	3/4	-155.370	0.000	-1.500	0.00E+00	54.450	0.000
6	WSD(min)	J[7]	-155.370	0.000	-3.430	0.00E+00	47.890	0.000
7	USD(max)	I[7]	54.010	0.000	198.000	0.00E+00	262.530	0.000
7	USD(max)	1/4	54.010	0.000	194.910	0.00E+00	251.560	0.000
7	USD(max)	2/4	54.010	0.000	191.820	0.00E+00	240.950	0.000
7	USD(max)	3/4	54.010	0.000	188.730	0.00E+00	230.730	0.000
7	USD(max)	J[8]	54.010	0.000	185.640	0.00E+00	220.870	0.000
7	USD(min)	I[7]	-253.340	0.000	66.940	0.00E+00	75.650	0.000
7	USD(min)	1/4	-253.340	0.000	64.340	0.00E+00	55.310	0.000
7	USD(min)	2/4	-253.340	0.000	61.730	0.00E+00	35.280	0.000
7	USD(min)	3/4	-253.340	0.000	59.120	0.00E+00	15.570	0.000
7	USD(min)	J[8]	-253.340	0.000	56.520	0.00E+00	-3.820	0.000
7	WSD(max)	I[7]	31.830	0.000	123.750	0.00E+00	164.080	0.000
7	WSD(max)	1/4	31.830	0.000	121.820	0.00E+00	157.220	0.000
7	WSD(max)	2/4	31.830	0.000	119.890	0.00E+00	150.600	0.000
7	WSD(max)	3/4	31.830	0.000	117.960	0.00E+00	144.200	0.000
7	WSD(max)	J[8]	31.830	0.000	116.020	0.00E+00	138.050	0.000
7	WSD(min)	I[7]	-155.370	0.000	57.550	0.00E+00	47.890	0.000
7	WSD(min)	1/4	-155.370	0.000	55.610	0.00E+00	35.910	0.000
7	WSD(min)	2/4	-155.370	0.000	53.680	0.00E+00	24.160	0.000
7	WSD(min)	3/4	-155.370	0.000	51.750	0.00E+00	12.650	0.000
7	WSD(min)	J[8]	-155.370	0.000	49.820	0.00E+00	1.380	0.000
8	USD(max)	I[8]	54.010	0.000	312.610	0.00E+00	220.870	0.000
8	USD(max)	1/4	54.010	0.000	308.080	0.00E+00	180.270	0.000
8	USD(max)	2/4	54.010	0.000	303.540	0.00E+00	144.310	0.000
8	USD(max)	3/4	54.010	0.000	299.000	0.00E+00	111.580	0.000
8	USD(max)	J[9]	54.010	0.000	294.460	0.00E+00	79.520	0.000
8	USD(min)	I[8]	-253.340	0.000	193.360	0.00E+00	-3.820	0.000
8	USD(min)	1/4	-253.340	0.000	189.530	0.00E+00	-50.960	0.000
8	USD(min)	2/4	-253.340	0.000	185.700	0.00E+00	-100.180	0.000
8	USD(min)	3/4	-253.340	0.000	181.870	0.00E+00	-149.490	0.000
8	USD(min)	J[9]	-253.340	0.000	178.040	0.00E+00	-202.340	0.000
8	WSD(max)	I[8]	31.830	0.000	195.380	0.00E+00	138.050	0.000
8	WSD(max)	1/4	31.830	0.000	192.550	0.00E+00	112.670	0.000
8	WSD(max)	2/4	31.830	0.000	189.710	0.00E+00	87.800	0.000
8	WSD(max)	3/4	31.830	0.000	186.870	0.00E+00	63.430	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
8	WSD(max)	J[9]	31.830	0.000	184.040	0.00E+00	39.570	0.000
8	WSD(min)	I[8]	-155.370	0.000	143.880	0.00E+00	1.380	0.000
8	WSD(min)	1/4	-155.370	0.000	141.040	0.00E+00	-26.420	0.000
8	WSD(min)	2/4	-155.370	0.000	138.210	0.00E+00	-59.890	0.000
8	WSD(min)	3/4	-155.370	0.000	135.370	0.00E+00	-93.430	0.000
8	WSD(min)	J[9]	-155.370	0.000	132.530	0.00E+00	-126.470	0.000
9	USD(max)	I[1]	-328.720	0.000	-100.500	0.00E+00	-137.570	0.000
9	USD(max)	1/4	-324.630	0.000	-92.340	0.00E+00	-121.910	0.000
9	USD(max)	2/4	-320.530	0.000	-84.320	0.00E+00	-107.550	0.000
9	USD(max)	3/4	-316.440	0.000	-76.440	0.00E+00	-85.790	0.000
9	USD(max)	J[10]	-312.350	0.000	-68.690	0.00E+00	-59.670	0.000
9	USD(min)	I[1]	-434.180	0.000	-254.040	0.00E+00	-291.900	0.000
9	USD(min)	1/4	-429.330	0.000	-234.860	0.00E+00	-260.040	0.000
9	USD(min)	2/4	-424.480	0.000	-216.050	0.00E+00	-230.360	0.000
9	USD(min)	3/4	-419.630	0.000	-197.590	0.00E+00	-202.820	0.000
9	USD(min)	J[10]	-414.780	0.000	-179.500	0.00E+00	-177.340	0.000
9	WSD(max)	I[1]	-217.370	0.000	-78.700	0.00E+00	-103.550	0.000
9	WSD(max)	1/4	-214.340	0.000	-73.760	0.00E+00	-84.650	0.000
9	WSD(max)	2/4	-211.310	0.000	-67.610	0.00E+00	-66.980	0.000
9	WSD(max)	3/4	-208.280	0.000	-61.270	0.00E+00	-50.950	0.000
9	WSD(max)	J[10]	-205.240	0.000	-55.040	0.00E+00	-36.510	0.000
9	WSD(min)	I[1]	-271.360	0.000	-154.190	0.00E+00	-182.440	0.000
9	WSD(min)	1/4	-268.330	0.000	-142.420	0.00E+00	-162.520	0.000
9	WSD(min)	2/4	-265.300	0.000	-130.880	0.00E+00	-143.980	0.000
9	WSD(min)	3/4	-262.270	0.000	-119.560	0.00E+00	-126.760	0.000
9	WSD(min)	J[10]	-259.240	0.000	-108.460	0.00E+00	-110.840	0.000
10	USD(max)	I[9]	-324.100	0.000	54.010	0.00E+00	45.790	0.000
10	USD(max)	1/4	-320.010	0.000	54.010	0.00E+00	37.020	0.000
10	USD(max)	2/4	-315.920	0.000	54.010	0.00E+00	28.240	0.000
10	USD(max)	3/4	-311.820	0.000	54.010	0.00E+00	19.470	0.000
10	USD(max)	J[11]	-307.730	0.000	54.010	0.00E+00	10.690	0.000
10	USD(min)	I[9]	-434.180	0.000	-232.290	0.00E+00	-200.900	0.000
10	USD(min)	1/4	-429.330	0.000	-213.120	0.00E+00	-165.410	0.000
10	USD(min)	2/4	-424.480	0.000	-194.300	0.00E+00	-132.940	0.000
10	USD(min)	3/4	-419.630	0.000	-175.850	0.00E+00	-112.150	0.000
10	USD(min)	J[11]	-414.780	0.000	-157.750	0.00E+00	-99.900	0.000
10	WSD(max)	I[9]	-217.370	0.000	31.830	0.00E+00	15.930	0.000
10	WSD(max)	1/4	-214.340	0.000	31.830	0.00E+00	10.760	0.000
10	WSD(max)	2/4	-211.310	0.000	31.830	0.00E+00	5.590	0.000
10	WSD(max)	3/4	-208.280	0.000	31.830	0.00E+00	0.410	0.000
10	WSD(max)	J[11]	-205.240	0.000	31.830	0.00E+00	-4.760	0.000
10	WSD(min)	I[9]	-271.360	0.000	-142.440	0.00E+00	-125.570	0.000
10	WSD(min)	1/4	-268.330	0.000	-130.670	0.00E+00	-103.380	0.000
10	WSD(min)	2/4	-265.300	0.000	-119.120	0.00E+00	-83.090	0.000
10	WSD(min)	3/4	-262.270	0.000	-107.800	0.00E+00	-69.000	0.000
10	WSD(min)	J[11]	-259.240	0.000	-96.710	0.00E+00	-59.560	0.000
11	USD(max)	I[10]	-312.350	0.000	-68.690	0.00E+00	-59.670	0.000
11	USD(max)	1/4	-308.870	0.000	-60.490	0.00E+00	-34.680	0.000
11	USD(max)	2/4	-305.400	0.000	-52.450	0.00E+00	-12.880	0.000
11	USD(max)	3/4	-301.930	0.000	-44.570	0.00E+00	5.800	0.000
11	USD(max)	J[12]	-298.460	0.000	-36.840	0.00E+00	21.450	0.000
11	USD(min)	I[10]	-414.780	0.000	-179.500	0.00E+00	-177.340	0.000
11	USD(min)	1/4	-410.660	0.000	-160.420	0.00E+00	-152.150	0.000
11	USD(min)	2/4	-406.550	0.000	-141.750	0.00E+00	-129.220	0.000
11	USD(min)	3/4	-402.430	0.000	-123.500	0.00E+00	-113.550	0.000
11	USD(min)	J[12]	-398.310	0.000	-105.670	0.00E+00	-103.070	0.000
11	WSD(max)	I[10]	-205.240	0.000	-55.040	0.00E+00	-36.510	0.000
11	WSD(max)	1/4	-202.670	0.000	-48.450	0.00E+00	-22.720	0.000
11	WSD(max)	2/4	-200.100	0.000	-42.000	0.00E+00	-10.690	0.000
11	WSD(max)	3/4	-197.530	0.000	-35.680	0.00E+00	-0.380	0.000
11	WSD(max)	J[12]	-194.950	0.000	-29.480	0.00E+00	8.260	0.000
11	WSD(min)	I[10]	-259.240	0.000	-108.460	0.00E+00	-110.840	0.000
11	WSD(min)	1/4	-256.660	0.000	-96.760	0.00E+00	-95.090	0.000
11	WSD(min)	2/4	-254.090	0.000	-85.330	0.00E+00	-80.760	0.000
11	WSD(min)	3/4	-251.520	0.000	-74.150	0.00E+00	-70.340	0.000
11	WSD(min)	J[12]	-248.950	0.000	-63.240	0.00E+00	-62.770	0.000
12	USD(max)	I[11]	-307.730	0.000	54.010	0.00E+00	10.690	0.000
12	USD(max)	1/4	-304.260	0.000	54.010	0.00E+00	1.240	0.000
12	USD(max)	2/4	-300.780	0.000	54.010	0.00E+00	15.480	0.000
12	USD(max)	3/4	-297.310	0.000	54.010	0.00E+00	28.170	0.000
12	USD(max)	J[13]	-293.840	0.000	54.010	0.00E+00	38.180	0.000
12	USD(min)	I[11]	-414.780	0.000	-157.750	0.00E+00	-99.900	0.000
12	USD(min)	1/4	-410.660	0.000	-138.670	0.00E+00	-88.150	0.000
12	USD(min)	2/4	-406.550	0.000	-120.000	0.00E+00	-77.870	0.000
12	USD(min)	3/4	-402.430	0.000	-101.760	0.00E+00	-69.040	0.000
12	USD(min)	J[13]	-398.310	0.000	-83.920	0.00E+00	-69.820	0.000
12	WSD(max)	I[11]	-205.240	0.000	31.830	0.00E+00	-4.760	0.000
12	WSD(max)	1/4	-202.670	0.000	31.830	0.00E+00	-10.330	0.000
12	WSD(max)	2/4	-200.100	0.000	31.830	0.00E+00	-1.090	0.000
12	WSD(max)	3/4	-197.530	0.000	31.830	0.00E+00	7.170	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
12	WSD(max)	J[13]	-194.950	0.000	31.830	0.00E+00	13.770	0.000
12	WSD(min)	I[11]	-259.240	0.000	-96.710	0.00E+00	-59.560	0.000
12	WSD(min)	1/4	-256.660	0.000	-85.010	0.00E+00	-50.500	0.000
12	WSD(min)	2/4	-254.090	0.000	-73.570	0.00E+00	-42.590	0.000
12	WSD(min)	3/4	-251.520	0.000	-62.400	0.00E+00	-36.570	0.000
12	WSD(min)	J[13]	-248.950	0.000	-51.480	0.00E+00	-40.320	0.000
13	USD(max)	I[12]	-298.460	0.000	-36.840	0.00E+00	21.450	0.000
13	USD(max)	1/4	-294.980	0.000	-29.280	0.00E+00	34.120	0.000
13	USD(max)	2/4	-291.510	0.000	-21.860	0.00E+00	43.900	0.000
13	USD(max)	3/4	-288.040	0.000	-14.610	0.00E+00	51.660	0.000
13	USD(max)	J[14]	-284.560	0.000	-7.510	0.00E+00	59.050	0.000
13	USD(min)	I[12]	-398.310	0.000	-105.670	0.00E+00	-103.070	0.000
13	USD(min)	1/4	-394.200	0.000	-93.230	0.00E+00	-93.610	0.000
13	USD(min)	2/4	-390.080	0.000	-81.830	0.00E+00	-85.150	0.000
13	USD(min)	3/4	-385.970	0.000	-70.850	0.00E+00	-77.650	0.000
13	USD(min)	J[14]	-381.850	0.000	-60.280	0.00E+00	-71.100	0.000
13	WSD(max)	I[12]	-194.950	0.000	-29.480	0.00E+00	8.260	0.000
13	WSD(max)	1/4	-192.380	0.000	-23.420	0.00E+00	15.260	0.000
13	WSD(max)	2/4	-189.810	0.000	-17.490	0.00E+00	20.680	0.000
13	WSD(max)	3/4	-187.240	0.000	-11.690	0.00E+00	24.560	0.000
13	WSD(max)	J[14]	-184.660	0.000	-6.020	0.00E+00	27.640	0.000
13	WSD(min)	I[12]	-248.950	0.000	-63.240	0.00E+00	-62.770	0.000
13	WSD(min)	1/4	-246.370	0.000	-55.690	0.00E+00	-55.960	0.000
13	WSD(min)	2/4	-243.800	0.000	-48.800	0.00E+00	-49.900	0.000
13	WSD(min)	3/4	-241.230	0.000	-42.160	0.00E+00	-44.560	0.000
13	WSD(min)	J[14]	-238.660	0.000	-35.790	0.00E+00	-39.920	0.000
14	USD(max)	I[13]	-293.840	0.000	54.010	0.00E+00	38.180	0.000
14	USD(max)	1/4	-290.370	0.000	54.010	0.00E+00	45.580	0.000
14	USD(max)	2/4	-286.890	0.000	54.010	0.00E+00	50.450	0.000
14	USD(max)	3/4	-283.420	0.000	54.010	0.00E+00	53.130	0.000
14	USD(max)	J[15]	-279.950	0.000	54.010	0.00E+00	55.070	0.000
14	USD(min)	I[13]	-398.310	0.000	-83.920	0.00E+00	-69.820	0.000
14	USD(min)	1/4	-394.200	0.000	-66.510	0.00E+00	-75.090	0.000
14	USD(min)	2/4	-390.080	0.000	-49.510	0.00E+00	-80.360	0.000
14	USD(min)	3/4	-385.970	0.000	-32.940	0.00E+00	-85.640	0.000
14	USD(min)	J[15]	-381.850	0.000	-16.770	0.00E+00	-90.910	0.000
14	WSD(max)	I[13]	-194.950	0.000	31.830	0.00E+00	13.770	0.000
14	WSD(max)	1/4	-192.380	0.000	31.830	0.00E+00	18.730	0.000
14	WSD(max)	2/4	-189.810	0.000	31.830	0.00E+00	22.110	0.000
14	WSD(max)	3/4	-187.240	0.000	31.830	0.00E+00	24.560	0.000
14	WSD(max)	J[15]	-184.660	0.000	31.830	0.00E+00	26.950	0.000
14	WSD(min)	I[13]	-248.950	0.000	-51.480	0.00E+00	-40.320	0.000
14	WSD(min)	1/4	-246.370	0.000	-40.830	0.00E+00	-44.070	0.000
14	WSD(min)	2/4	-243.800	0.000	-30.440	0.00E+00	-47.820	0.000
14	WSD(min)	3/4	-241.230	0.000	-20.300	0.00E+00	-51.570	0.000
14	WSD(min)	J[15]	-238.660	0.000	-10.430	0.00E+00	-55.320	0.000
15	USD(max)	I[14]	-284.560	0.000	-7.510	0.00E+00	59.050	0.000
15	USD(max)	1/4	-281.090	0.000	-0.330	0.00E+00	64.410	0.000
15	USD(max)	2/4	-277.620	0.000	14.300	0.00E+00	67.050	0.000
15	USD(max)	3/4	-274.150	0.000	29.210	0.00E+00	67.040	0.000
15	USD(max)	J[16]	-270.670	0.000	43.700	0.00E+00	64.460	0.000
15	USD(min)	I[14]	-381.850	0.000	-60.280	0.00E+00	-71.100	0.000
15	USD(min)	1/4	-377.730	0.000	-50.140	0.00E+00	-65.450	0.000
15	USD(min)	2/4	-373.620	0.000	-40.410	0.00E+00	-60.700	0.000
15	USD(min)	3/4	-369.500	0.000	-31.100	0.00E+00	-56.800	0.000
15	USD(min)	J[16]	-365.390	0.000	-22.200	0.00E+00	-53.730	0.000
15	WSD(max)	I[14]	-184.660	0.000	-6.020	0.00E+00	27.640	0.000
15	WSD(max)	1/4	-182.090	0.000	-0.480	0.00E+00	30.680	0.000
15	WSD(max)	2/4	-179.520	0.000	8.530	0.00E+00	32.050	0.000
15	WSD(max)	3/4	-176.950	0.000	17.610	0.00E+00	31.820	0.000
15	WSD(max)	J[16]	-174.370	0.000	26.440	0.00E+00	30.020	0.000
15	WSD(min)	I[14]	-238.660	0.000	-35.790	0.00E+00	-39.920	0.000
15	WSD(min)	1/4	-236.080	0.000	-29.680	0.00E+00	-35.960	0.000
15	WSD(min)	2/4	-233.510	0.000	-23.830	0.00E+00	-32.640	0.000
15	WSD(min)	3/4	-230.940	0.000	-18.240	0.00E+00	-29.960	0.000
15	WSD(min)	J[16]	-228.370	0.000	-12.910	0.00E+00	-27.880	0.000
16	USD(max)	I[15]	-279.950	0.000	54.010	0.00E+00	55.070	0.000
16	USD(max)	1/4	-276.470	0.000	54.010	0.00E+00	56.610	0.000
16	USD(max)	2/4	-273.000	0.000	54.010	0.00E+00	55.540	0.000
16	USD(max)	3/4	-269.530	0.000	54.010	0.00E+00	51.940	0.000
16	USD(max)	J[17]	-266.060	0.000	56.170	0.00E+00	45.880	0.000
16	USD(min)	I[15]	-381.850	0.000	-16.770	0.00E+00	-90.910	0.000
16	USD(min)	1/4	-377.730	0.000	-1.320	0.00E+00	-96.180	0.000
16	USD(min)	2/4	-373.620	0.000	6.220	0.00E+00	-101.450	0.000
16	USD(min)	3/4	-369.500	0.000	12.850	0.00E+00	-106.730	0.000
16	USD(min)	J[17]	-365.390	0.000	19.330	0.00E+00	-114.570	0.000
16	WSD(max)	I[15]	-184.660	0.000	31.830	0.00E+00	26.950	0.000
16	WSD(max)	1/4	-182.090	0.000	31.830	0.00E+00	27.900	0.000
16	WSD(max)	2/4	-179.520	0.000	31.830	0.00E+00	27.440	0.000
16	WSD(max)	3/4	-176.950	0.000	31.830	0.00E+00	25.620	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
16	WSD(max)	J[17]	-174.370	0.000	33.180	0.00E+00	22.500	0.000
16	WSD(min)	I[15]	-238.660	0.000	-10.430	0.00E+00	-55.320	0.000
16	WSD(min)	1/4	-236.080	0.000	-1.340	0.00E+00	-59.070	0.000
16	WSD(min)	2/4	-233.510	0.000	4.940	0.00E+00	-62.820	0.000
16	WSD(min)	3/4	-230.940	0.000	10.220	0.00E+00	-66.570	0.000
16	WSD(min)	J[17]	-228.370	0.000	15.360	0.00E+00	-71.600	0.000
17	USD(max)	I[16]	-270.670	0.000	43.700	0.00E+00	64.460	0.000
17	USD(max)	1/4	-267.200	0.000	57.770	0.00E+00	59.380	0.000
17	USD(max)	2/4	-263.730	0.000	71.430	0.00E+00	51.880	0.000
17	USD(max)	3/4	-260.250	0.000	84.670	0.00E+00	42.020	0.000
17	USD(max)	J[18]	-256.780	0.000	97.490	0.00E+00	29.880	0.000
17	USD(min)	I[16]	-365.390	0.000	-22.200	0.00E+00	-53.730	0.000
17	USD(min)	1/4	-361.270	0.000	-13.720	0.00E+00	-54.150	0.000
17	USD(min)	2/4	-357.150	0.000	-7.150	0.00E+00	-59.400	0.000
17	USD(min)	3/4	-353.040	0.000	-2.590	0.00E+00	-65.760	0.000
17	USD(min)	J[18]	-348.920	0.000	1.820	0.00E+00	-73.220	0.000
17	WSD(max)	I[16]	-174.370	0.000	26.440	0.00E+00	30.020	0.000
17	WSD(max)	1/4	-171.800	0.000	35.010	0.00E+00	26.700	0.000
17	WSD(max)	2/4	-169.230	0.000	43.310	0.00E+00	21.900	0.000
17	WSD(max)	3/4	-166.660	0.000	51.360	0.00E+00	15.670	0.000
17	WSD(max)	J[18]	-164.080	0.000	59.140	0.00E+00	8.050	0.000
17	WSD(min)	I[16]	-228.370	0.000	-12.910	0.00E+00	-27.880	0.000
17	WSD(min)	1/4	-225.790	0.000	-7.840	0.00E+00	-26.380	0.000
17	WSD(min)	2/4	-223.220	0.000	-3.780	0.00E+00	-28.310	0.000
17	WSD(min)	3/4	-220.650	0.000	-0.770	0.00E+00	-33.150	0.000
17	WSD(min)	J[18]	-218.080	0.000	2.110	0.00E+00	-38.810	0.000
18	USD(max)	I[17]	-266.060	0.000	56.170	0.00E+00	45.880	0.000
18	USD(max)	1/4	-262.580	0.000	67.520	0.00E+00	37.450	0.000
18	USD(max)	2/4	-259.110	0.000	78.460	0.00E+00	26.700	0.000
18	USD(max)	3/4	-255.640	0.000	88.980	0.00E+00	13.710	0.000
18	USD(max)	J[19]	-252.160	0.000	99.070	0.00E+00	-1.440	0.000
18	USD(min)	I[17]	-365.390	0.000	19.330	0.00E+00	-114.570	0.000
18	USD(min)	1/4	-361.270	0.000	25.640	0.00E+00	-123.480	0.000
18	USD(min)	2/4	-357.150	0.000	30.130	0.00E+00	-132.390	0.000
18	USD(min)	3/4	-353.040	0.000	30.130	0.00E+00	-141.310	0.000
18	USD(min)	J[19]	-348.920	0.000	30.130	0.00E+00	-150.220	0.000
18	WSD(max)	I[17]	-174.370	0.000	33.180	0.00E+00	22.500	0.000
18	WSD(max)	1/4	-171.800	0.000	40.280	0.00E+00	18.110	0.000
18	WSD(max)	2/4	-169.230	0.000	47.110	0.00E+00	12.500	0.000
18	WSD(max)	3/4	-166.660	0.000	53.690	0.00E+00	5.720	0.000
18	WSD(max)	J[19]	-164.080	0.000	60.000	0.00E+00	-2.190	0.000
18	WSD(min)	I[17]	-228.370	0.000	15.360	0.00E+00	-71.600	0.000
18	WSD(min)	1/4	-225.790	0.000	20.380	0.00E+00	-77.180	0.000
18	WSD(min)	2/4	-223.220	0.000	21.430	0.00E+00	-82.750	0.000
18	WSD(min)	3/4	-220.650	0.000	21.430	0.00E+00	-88.320	0.000
18	WSD(min)	J[19]	-218.080	0.000	21.430	0.00E+00	-93.890	0.000
19	USD(max)	I[18]	-256.780	0.000	97.490	0.00E+00	29.880	0.000
19	USD(max)	1/4	-253.310	0.000	109.890	0.00E+00	15.530	0.000
19	USD(max)	2/4	-249.840	0.000	121.880	0.00E+00	6.900	0.000
19	USD(max)	3/4	-246.360	0.000	133.450	0.00E+00	2.450	0.000
19	USD(max)	J[20]	-242.890	0.000	144.600	0.00E+00	-3.010	0.000
19	USD(min)	I[18]	-348.920	0.000	1.820	0.00E+00	-73.220	0.000
19	USD(min)	1/4	-344.810	0.000	5.790	0.00E+00	-81.730	0.000
19	USD(min)	2/4	-340.690	0.000	9.520	0.00E+00	-91.280	0.000
19	USD(min)	3/4	-336.570	0.000	13.090	0.00E+00	-101.840	0.000
19	USD(min)	J[20]	-332.460	0.000	16.500	0.00E+00	-113.370	0.000
19	WSD(max)	I[18]	-164.080	0.000	59.140	0.00E+00	8.050	0.000
19	WSD(max)	1/4	-161.510	0.000	66.660	0.00E+00	-0.900	0.000
19	WSD(max)	2/4	-158.940	0.000	73.930	0.00E+00	-6.250	0.000
19	WSD(max)	3/4	-156.370	0.000	80.930	0.00E+00	-8.940	0.000
19	WSD(max)	J[20]	-153.790	0.000	87.670	0.00E+00	-12.220	0.000
19	WSD(min)	I[18]	-218.080	0.000	2.110	0.00E+00	-38.810	0.000
19	WSD(min)	1/4	-215.500	0.000	4.860	0.00E+00	-45.280	0.000
19	WSD(min)	2/4	-212.930	0.000	7.480	0.00E+00	-52.510	0.000
19	WSD(min)	3/4	-210.360	0.000	9.960	0.00E+00	-60.500	0.000
19	WSD(min)	J[20]	-207.790	0.000	12.320	0.00E+00	-69.220	0.000
20	USD(max)	I[19]	-252.160	0.000	99.070	0.00E+00	-1.440	0.000
20	USD(max)	1/4	-248.690	0.000	109.890	0.00E+00	-18.680	0.000
20	USD(max)	2/4	-245.220	0.000	121.880	0.00E+00	-37.940	0.000
20	USD(max)	3/4	-241.750	0.000	133.450	0.00E+00	-59.150	0.000
20	USD(max)	J[21]	-238.270	0.000	144.600	0.00E+00	-82.230	0.000
20	USD(min)	I[19]	-348.920	0.000	30.130	0.00E+00	-150.220	0.000
20	USD(min)	1/4	-344.810	0.000	30.130	0.00E+00	-159.130	0.000
20	USD(min)	2/4	-340.690	0.000	30.130	0.00E+00	-168.040	0.000
20	USD(min)	3/4	-336.570	0.000	30.130	0.00E+00	-176.960	0.000
20	USD(min)	J[21]	-332.460	0.000	30.130	0.00E+00	-185.870	0.000
20	WSD(max)	I[19]	-164.080	0.000	60.000	0.00E+00	-2.190	0.000
20	WSD(max)	1/4	-161.510	0.000	66.660	0.00E+00	-11.180	0.000
20	WSD(max)	2/4	-158.940	0.000	73.930	0.00E+00	-21.210	0.000
20	WSD(max)	3/4	-156.370	0.000	80.930	0.00E+00	-32.230	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
20	WSD(max)	J[21]	-153.790	0.000	87.670	0.00E+00	-44.190	0.000
20	WSD(min)	I[19]	-218.080	0.000	21.430	0.00E+00	-93.890	0.000
20	WSD(min)	1/4	-215.500	0.000	21.430	0.00E+00	-99.460	0.000
20	WSD(min)	2/4	-212.930	0.000	21.430	0.00E+00	-105.030	0.000
20	WSD(min)	3/4	-210.360	0.000	21.430	0.00E+00	-110.600	0.000
20	WSD(min)	J[21]	-207.790	0.000	21.430	0.00E+00	-116.170	0.000
21	USD(max)	I[20]	-242.890	0.000	144.600	0.00E+00	-3.010	0.000
21	USD(max)	1/4	-238.920	0.000	152.310	0.00E+00	-7.480	0.000
21	USD(max)	2/4	-234.950	0.000	159.810	0.00E+00	-12.410	0.000
21	USD(max)	3/4	-230.980	0.000	167.090	0.00E+00	-17.760	0.000
21	USD(max)	J[22]	-227.010	0.000	174.160	0.00E+00	-23.510	0.000
21	USD(min)	I[20]	-332.460	0.000	16.500	0.00E+00	-113.370	0.000
21	USD(min)	1/4	-327.750	0.000	18.850	0.00E+00	-122.200	0.000
21	USD(min)	2/4	-323.050	0.000	21.110	0.00E+00	-137.170	0.000
21	USD(min)	3/4	-318.350	0.000	23.300	0.00E+00	-156.980	0.000
21	USD(min)	J[22]	-313.640	0.000	25.400	0.00E+00	-177.650	0.000
21	WSD(max)	I[20]	-153.790	0.000	87.670	0.00E+00	-12.220	0.000
21	WSD(max)	1/4	-150.850	0.000	92.320	0.00E+00	-14.900	0.000
21	WSD(max)	2/4	-147.910	0.000	96.840	0.00E+00	-17.830	0.000
21	WSD(max)	3/4	-144.970	0.000	101.230	0.00E+00	-21.020	0.000
21	WSD(max)	J[22]	-142.030	0.000	105.480	0.00E+00	-24.430	0.000
21	WSD(min)	I[20]	-207.790	0.000	12.320	0.00E+00	-69.220	0.000
21	WSD(min)	1/4	-204.850	0.000	13.920	0.00E+00	-75.880	0.000
21	WSD(min)	2/4	-201.910	0.000	15.460	0.00E+00	-85.730	0.000
21	WSD(min)	3/4	-198.970	0.000	16.930	0.00E+00	-98.110	0.000
21	WSD(min)	J[22]	-196.030	0.000	18.330	0.00E+00	-111.030	0.000
22	USD(max)	I[21]	-238.270	0.000	144.600	0.00E+00	-82.230	0.000
22	USD(max)	1/4	-234.300	0.000	152.310	0.00E+00	-99.820	0.000
22	USD(max)	2/4	-230.330	0.000	159.810	0.00E+00	-112.630	0.000
22	USD(max)	3/4	-226.370	0.000	167.090	0.00E+00	-121.930	0.000
22	USD(max)	J[30]	-222.400	0.000	174.160	0.00E+00	-131.660	0.000
22	USD(min)	I[21]	-332.460	0.000	30.130	0.00E+00	-185.870	0.000
22	USD(min)	1/4	-327.750	0.000	30.130	0.00E+00	-192.230	0.000
22	USD(min)	2/4	-323.050	0.000	30.130	0.00E+00	-198.600	0.000
22	USD(min)	3/4	-318.350	0.000	30.130	0.00E+00	-204.970	0.000
22	USD(min)	J[30]	-313.640	0.000	30.130	0.00E+00	-211.330	0.000
22	WSD(max)	I[21]	-153.790	0.000	87.670	0.00E+00	-44.190	0.000
22	WSD(max)	1/4	-150.850	0.000	92.320	0.00E+00	-53.290	0.000
22	WSD(max)	2/4	-147.910	0.000	96.840	0.00E+00	-62.830	0.000
22	WSD(max)	3/4	-144.970	0.000	101.230	0.00E+00	-72.790	0.000
22	WSD(max)	J[30]	-142.030	0.000	105.480	0.00E+00	-83.170	0.000
22	WSD(min)	I[21]	-207.790	0.000	21.430	0.00E+00	-116.170	0.000
22	WSD(min)	1/4	-204.850	0.000	21.430	0.00E+00	-120.150	0.000
22	WSD(min)	2/4	-201.910	0.000	21.430	0.00E+00	-124.130	0.000
22	WSD(min)	3/4	-198.970	0.000	21.430	0.00E+00	-128.100	0.000
22	WSD(min)	J[30]	-196.030	0.000	21.430	0.00E+00	-132.080	0.000
23	USD(max)	I[22]	-30.130	0.000	-189.060	0.00E+00	23.650	0.000
23	USD(max)	1/4	-30.130	0.000	-173.240	0.00E+00	46.290	0.000
23	USD(max)	2/4	-30.130	0.000	-157.430	0.00E+00	66.960	0.000
23	USD(max)	3/4	-30.130	0.000	-141.610	0.00E+00	87.270	0.000
23	USD(max)	J[23]	-30.130	0.000	-125.800	0.00E+00	106.540	0.000
23	USD(min)	I[22]	-190.260	0.000	-272.820	0.00E+00	-143.270	0.000
23	USD(min)	1/4	-190.260	0.000	-255.810	0.00E+00	-112.550	0.000
23	USD(min)	2/4	-190.260	0.000	-238.800	0.00E+00	-83.800	0.000
23	USD(min)	3/4	-190.260	0.000	-221.790	0.00E+00	-57.040	0.000
23	USD(min)	J[23]	-190.260	0.000	-204.790	0.00E+00	-32.780	0.000
23	WSD(max)	I[22]	-21.430	0.000	-123.550	0.00E+00	10.440	0.000
23	WSD(max)	1/4	-21.430	0.000	-115.850	0.00E+00	26.470	0.000
23	WSD(max)	2/4	-21.430	0.000	-108.140	0.00E+00	41.170	0.000
23	WSD(max)	3/4	-21.430	0.000	-100.440	0.00E+00	54.540	0.000
23	WSD(max)	J[23]	-21.430	0.000	-91.030	0.00E+00	66.590	0.000
23	WSD(min)	I[22]	-115.150	0.000	-170.510	0.00E+00	-89.170	0.000
23	WSD(min)	1/4	-115.150	0.000	-159.880	0.00E+00	-68.520	0.000
23	WSD(min)	2/4	-115.150	0.000	-149.250	0.00E+00	-49.200	0.000
23	WSD(min)	3/4	-115.150	0.000	-138.620	0.00E+00	-31.200	0.000
23	WSD(min)	J[23]	-115.150	0.000	-127.990	0.00E+00	-15.720	0.000
24	USD(max)	I[23]	-30.130	0.000	-125.800	0.00E+00	106.540	0.000
24	USD(max)	1/4	-30.130	0.000	-109.920	0.00E+00	123.750	0.000
24	USD(max)	2/4	-30.130	0.000	-94.040	0.00E+00	138.810	0.000
24	USD(max)	3/4	-30.130	0.000	-78.160	0.00E+00	151.730	0.000
24	USD(max)	J[24]	-30.130	0.000	-62.280	0.00E+00	162.510	0.000
24	USD(min)	I[23]	-190.260	0.000	-204.790	0.00E+00	-32.780	0.000
24	USD(min)	1/4	-190.260	0.000	-187.710	0.00E+00	-11.790	0.000
24	USD(min)	2/4	-190.260	0.000	-170.630	0.00E+00	7.380	0.000
24	USD(min)	3/4	-190.260	0.000	-153.560	0.00E+00	24.720	0.000
24	USD(min)	J[24]	-190.260	0.000	-136.480	0.00E+00	40.230	0.000
24	WSD(max)	I[23]	-21.430	0.000	-91.030	0.00E+00	66.590	0.000
24	WSD(max)	1/4	-21.430	0.000	-80.350	0.00E+00	77.340	0.000
24	WSD(max)	2/4	-21.430	0.000	-69.680	0.00E+00	86.760	0.000
24	WSD(max)	3/4	-21.430	0.000	-59.010	0.00E+00	94.830	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
24	WSD(max)	J[24]	-21.430	0.000	-48.330	0.00E+00	101.570	0.000
24	WSD(min)	I[23]	-115.150	0.000	-127.990	0.00E+00	-15.720	0.000
24	WSD(min)	1/4	-115.150	0.000	-117.320	0.00E+00	-4.570	0.000
24	WSD(min)	2/4	-115.150	0.000	-106.650	0.00E+00	5.610	0.000
24	WSD(min)	3/4	-115.150	0.000	-95.970	0.00E+00	14.820	0.000
24	WSD(min)	J[24]	-115.150	0.000	-85.300	0.00E+00	23.070	0.000
25	USD(max)	I[24]	-30.130	0.000	-62.280	0.00E+00	162.510	0.000
25	USD(max)	1/4	-30.130	0.000	-46.440	0.00E+00	171.480	0.000
25	USD(max)	2/4	-30.130	0.000	-30.590	0.00E+00	179.850	0.000
25	USD(max)	3/4	-30.130	0.000	-14.740	0.00E+00	186.090	0.000
25	USD(max)	J[25]	-30.130	0.000	1.100	0.00E+00	190.190	0.000
25	USD(min)	I[24]	-190.260	0.000	-136.480	0.00E+00	40.230	0.000
25	USD(min)	1/4	-190.260	0.000	-119.440	0.00E+00	53.890	0.000
25	USD(min)	2/4	-190.260	0.000	-102.390	0.00E+00	65.730	0.000
25	USD(min)	3/4	-190.260	0.000	-85.350	0.00E+00	75.730	0.000
25	USD(min)	J[25]	-190.260	0.000	-68.310	0.00E+00	80.090	0.000
25	WSD(max)	I[24]	-21.430	0.000	-48.330	0.00E+00	101.570	0.000
25	WSD(max)	1/4	-21.430	0.000	-37.680	0.00E+00	107.130	0.000
25	WSD(max)	2/4	-21.430	0.000	-27.030	0.00E+00	112.130	0.000
25	WSD(max)	3/4	-21.430	0.000	-16.380	0.00E+00	115.790	0.000
25	WSD(max)	J[25]	-21.430	0.000	-5.730	0.00E+00	118.120	0.000
25	WSD(min)	I[24]	-115.150	0.000	-85.300	0.00E+00	23.070	0.000
25	WSD(min)	1/4	-115.150	0.000	-74.650	0.00E+00	30.320	0.000
25	WSD(min)	2/4	-115.150	0.000	-64.000	0.00E+00	36.610	0.000
25	WSD(min)	3/4	-115.150	0.000	-53.340	0.00E+00	41.940	0.000
25	WSD(min)	J[25]	-115.150	0.000	-42.690	0.00E+00	46.300	0.000
26	USD(max)	I[25]	-30.130	0.000	1.100	0.00E+00	190.190	0.000
26	USD(max)	1/4	-30.130	0.000	16.980	0.00E+00	192.160	0.000
26	USD(max)	2/4	-30.130	0.000	32.860	0.00E+00	191.990	0.000
26	USD(max)	3/4	-30.130	0.000	48.740	0.00E+00	189.670	0.000
26	USD(max)	J[26]	-30.130	0.000	64.620	0.00E+00	185.210	0.000
26	USD(min)	I[25]	-190.260	0.000	-68.310	0.00E+00	80.090	0.000
26	USD(min)	1/4	-190.260	0.000	-51.230	0.00E+00	82.640	0.000
26	USD(min)	2/4	-190.260	0.000	-34.150	0.00E+00	83.360	0.000
26	USD(min)	3/4	-190.260	0.000	-17.080	0.00E+00	82.250	0.000
26	USD(min)	J[26]	-190.260	0.000	0.000	0.00E+00	79.320	0.000
26	WSD(max)	I[25]	-21.430	0.000	-5.730	0.00E+00	118.120	0.000
26	WSD(max)	1/4	-21.430	0.000	4.950	0.00E+00	119.110	0.000
26	WSD(max)	2/4	-21.430	0.000	15.620	0.00E+00	118.770	0.000
26	WSD(max)	3/4	-21.430	0.000	26.290	0.00E+00	117.080	0.000
26	WSD(max)	J[26]	-21.430	0.000	36.970	0.00E+00	114.060	0.000
26	WSD(min)	I[25]	-115.150	0.000	-42.690	0.00E+00	46.300	0.000
26	WSD(min)	1/4	-115.150	0.000	-32.020	0.00E+00	49.690	0.000
26	WSD(min)	2/4	-115.150	0.000	-21.350	0.00E+00	52.120	0.000
26	WSD(min)	3/4	-115.150	0.000	-10.670	0.00E+00	53.580	0.000
26	WSD(min)	J[26]	-115.150	0.000	0.000	0.00E+00	54.060	0.000
27	USD(max)	I[26]	-30.130	0.000	64.620	0.00E+00	185.210	0.000
27	USD(max)	1/4	-30.130	0.000	75.060	0.00E+00	182.590	0.000
27	USD(max)	2/4	-30.130	0.000	85.500	0.00E+00	179.380	0.000
27	USD(max)	3/4	-30.130	0.000	96.260	0.00E+00	174.020	0.000
27	USD(max)	J[27]	-30.130	0.000	108.640	0.00E+00	166.520	0.000
27	USD(min)	I[26]	-190.260	0.000	0.000	0.00E+00	79.320	0.000
27	USD(min)	1/4	-190.260	0.000	14.560	0.00E+00	74.820	0.000
27	USD(min)	2/4	-190.260	0.000	29.110	0.00E+00	69.010	0.000
27	USD(min)	3/4	-190.260	0.000	43.670	0.00E+00	61.880	0.000
27	USD(min)	J[27]	-190.260	0.000	58.220	0.00E+00	53.450	0.000
27	WSD(max)	I[26]	-21.430	0.000	36.970	0.00E+00	114.060	0.000
27	WSD(max)	1/4	-21.430	0.000	44.700	0.00E+00	109.880	0.000
27	WSD(max)	2/4	-21.430	0.000	52.430	0.00E+00	105.510	0.000
27	WSD(max)	3/4	-21.430	0.000	60.170	0.00E+00	102.160	0.000
27	WSD(max)	J[27]	-21.430	0.000	67.900	0.00E+00	97.470	0.000
27	WSD(min)	I[26]	-115.150	0.000	0.000	0.00E+00	54.060	0.000
27	WSD(min)	1/4	-115.150	0.000	7.730	0.00E+00	53.580	0.000
27	WSD(min)	2/4	-115.150	0.000	15.470	0.00E+00	52.120	0.000
27	WSD(min)	3/4	-115.150	0.000	23.200	0.00E+00	49.690	0.000
27	WSD(min)	J[27]	-115.150	0.000	30.930	0.00E+00	46.300	0.000
28	USD(max)	I[27]	-30.130	0.000	108.640	0.00E+00	166.520	0.000
28	USD(max)	1/4	-30.130	0.000	120.990	0.00E+00	156.900	0.000
28	USD(max)	2/4	-30.130	0.000	133.340	0.00E+00	145.140	0.000
28	USD(max)	3/4	-30.130	0.000	145.680	0.00E+00	131.250	0.000
28	USD(max)	J[28]	-30.130	0.000	158.030	0.00E+00	115.220	0.000
28	USD(min)	I[27]	-190.260	0.000	58.220	0.00E+00	53.450	0.000
28	USD(min)	1/4	-190.260	0.000	72.750	0.00E+00	43.730	0.000
28	USD(min)	2/4	-190.260	0.000	87.280	0.00E+00	31.570	0.000
28	USD(min)	3/4	-190.260	0.000	101.800	0.00E+00	18.000	0.000
28	USD(min)	J[28]	-190.260	0.000	114.090	0.00E+00	3.130	0.000
28	WSD(max)	I[27]	-21.430	0.000	67.900	0.00E+00	97.470	0.000
28	WSD(max)	1/4	-21.430	0.000	75.620	0.00E+00	91.460	0.000
28	WSD(max)	2/4	-21.430	0.000	83.330	0.00E+00	84.110	0.000
28	WSD(max)	3/4	-21.430	0.000	91.050	0.00E+00	75.430	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
28	WSD(max)	J[28]	-21.430	0.000	98.770	0.00E+00	65.410	0.000
28	WSD(min)	I[27]	-115.150	0.000	30.930	0.00E+00	46.300	0.000
28	WSD(min)	1/4	-115.150	0.000	38.650	0.00E+00	41.940	0.000
28	WSD(min)	2/4	-115.150	0.000	46.370	0.00E+00	34.100	0.000
28	WSD(min)	3/4	-115.150	0.000	54.090	0.00E+00	25.070	0.000
28	WSD(min)	J[28]	-115.150	0.000	61.800	0.00E+00	15.070	0.000
29	USD(max)	I[28]	-30.130	0.000	158.030	0.00E+00	115.220	0.000
29	USD(max)	1/4	-30.130	0.000	170.410	0.00E+00	97.020	0.000
29	USD(max)	2/4	-30.130	0.000	182.780	0.00E+00	76.680	0.000
29	USD(max)	3/4	-30.130	0.000	195.150	0.00E+00	54.190	0.000
29	USD(max)	J[29]	-30.130	0.000	207.530	0.00E+00	29.560	0.000
29	USD(min)	I[28]	-190.260	0.000	114.090	0.00E+00	3.130	0.000
29	USD(min)	1/4	-190.260	0.000	124.530	0.00E+00	-13.080	0.000
29	USD(min)	2/4	-190.260	0.000	134.970	0.00E+00	-30.590	0.000
29	USD(min)	3/4	-190.260	0.000	145.410	0.00E+00	-49.420	0.000
29	USD(min)	J[29]	-190.260	0.000	155.850	0.00E+00	-69.560	0.000
29	WSD(max)	I[28]	-21.430	0.000	98.770	0.00E+00	65.410	0.000
29	WSD(max)	1/4	-21.430	0.000	106.500	0.00E+00	54.040	0.000
29	WSD(max)	2/4	-21.430	0.000	114.240	0.00E+00	41.320	0.000
29	WSD(max)	3/4	-21.430	0.000	121.970	0.00E+00	27.270	0.000
29	WSD(max)	J[29]	-21.430	0.000	129.700	0.00E+00	11.870	0.000
29	WSD(min)	I[28]	-115.150	0.000	61.800	0.00E+00	15.070	0.000
29	WSD(min)	1/4	-115.150	0.000	69.540	0.00E+00	4.080	0.000
29	WSD(min)	2/4	-115.150	0.000	77.270	0.00E+00	-7.880	0.000
29	WSD(min)	3/4	-115.150	0.000	85.000	0.00E+00	-20.810	0.000
29	WSD(min)	J[29]	-115.150	0.000	92.740	0.00E+00	-34.710	0.000
30	USD(max)	I[29]	-30.130	0.000	207.530	0.00E+00	29.560	0.000
30	USD(max)	1/4	-30.130	0.000	221.790	0.00E+00	2.900	0.000
30	USD(max)	2/4	-30.130	0.000	238.800	0.00E+00	-25.880	0.000
30	USD(max)	3/4	-30.130	0.000	255.810	0.00E+00	-53.560	0.000
30	USD(max)	J[30]	-30.130	0.000	272.820	0.00E+00	-81.720	0.000
30	USD(min)	I[29]	-190.260	0.000	155.850	0.00E+00	-69.560	0.000
30	USD(min)	1/4	-190.260	0.000	166.240	0.00E+00	-90.930	0.000
30	USD(min)	2/4	-190.260	0.000	176.640	0.00E+00	-113.590	0.000
30	USD(min)	3/4	-190.260	0.000	187.040	0.00E+00	-137.550	0.000
30	USD(min)	J[30]	-190.260	0.000	197.440	0.00E+00	-162.810	0.000
30	WSD(max)	I[29]	-21.430	0.000	129.700	0.00E+00	11.870	0.000
30	WSD(max)	1/4	-21.430	0.000	138.620	0.00E+00	-4.790	0.000
30	WSD(max)	2/4	-21.430	0.000	149.250	0.00E+00	-22.780	0.000
30	WSD(max)	3/4	-21.430	0.000	159.880	0.00E+00	-42.100	0.000
30	WSD(max)	J[30]	-21.430	0.000	170.510	0.00E+00	-62.750	0.000
30	WSD(min)	I[29]	-115.150	0.000	92.740	0.00E+00	-34.710	0.000
30	WSD(min)	1/4	-115.150	0.000	100.440	0.00E+00	-49.520	0.000
30	WSD(min)	2/4	-115.150	0.000	108.140	0.00E+00	-65.300	0.000
30	WSD(min)	3/4	-115.150	0.000	115.850	0.00E+00	-82.030	0.000
30	WSD(min)	J[30]	-115.150	0.000	123.550	0.00E+00	-99.730	0.000

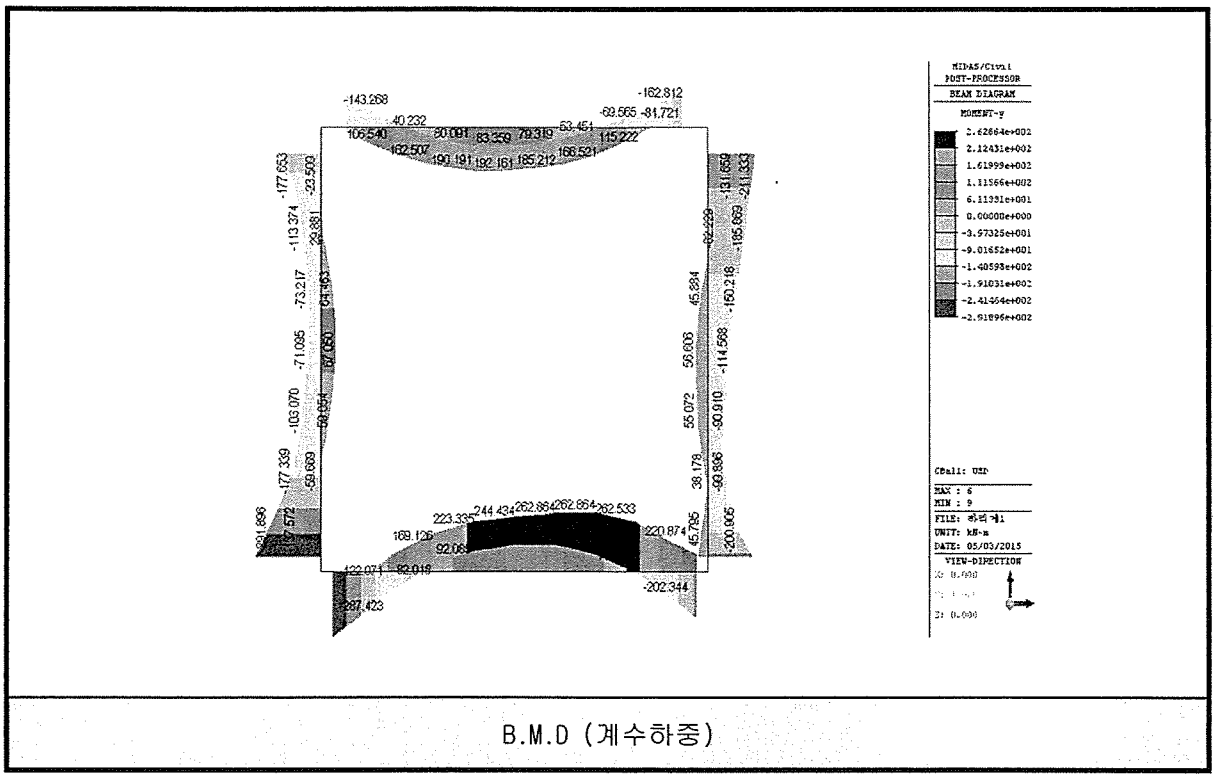
9. 단면력 요약

구분	위치	부재	극한하중			사용하중	비고
			Mu(kN · m)	Su(kN)	Pu(kN)	M(kN · m)	
상부슬래브	단부	23,30	-162.81	272.82	-	-99.73	
	중앙부	26,27	192.16	108.64	-	119.11	
벽체	상단부 (축력최대)	21.22	-100.25	174.16	-332.46	-12.22	
	상단부 (모멘트최대)	21,22	-211.33	174.16	-286.40	-132.08	
	중앙부 (축력최대)	15,16	40.02	56.17	-381.85	32.05	
	중앙부 (모멘트최대)	15,16	-114.57	-60.28	-338.14	-71.60	
	하단부 (축력최대)	9,10	-200.90	-254.04	-434.18	15.93	
	하단부 (모멘트최대)	9,10	-291.90	-254.04	-375.04	-182.44	
하부슬래브	단부	1,8	-287.42	326.65	-	-179.09	
	중앙부	4,5	262.86	146.74	-	164.29	

-'전단력과 사용하중 상태에서의 모멘트는 선택 부재에서의 최대값 적용

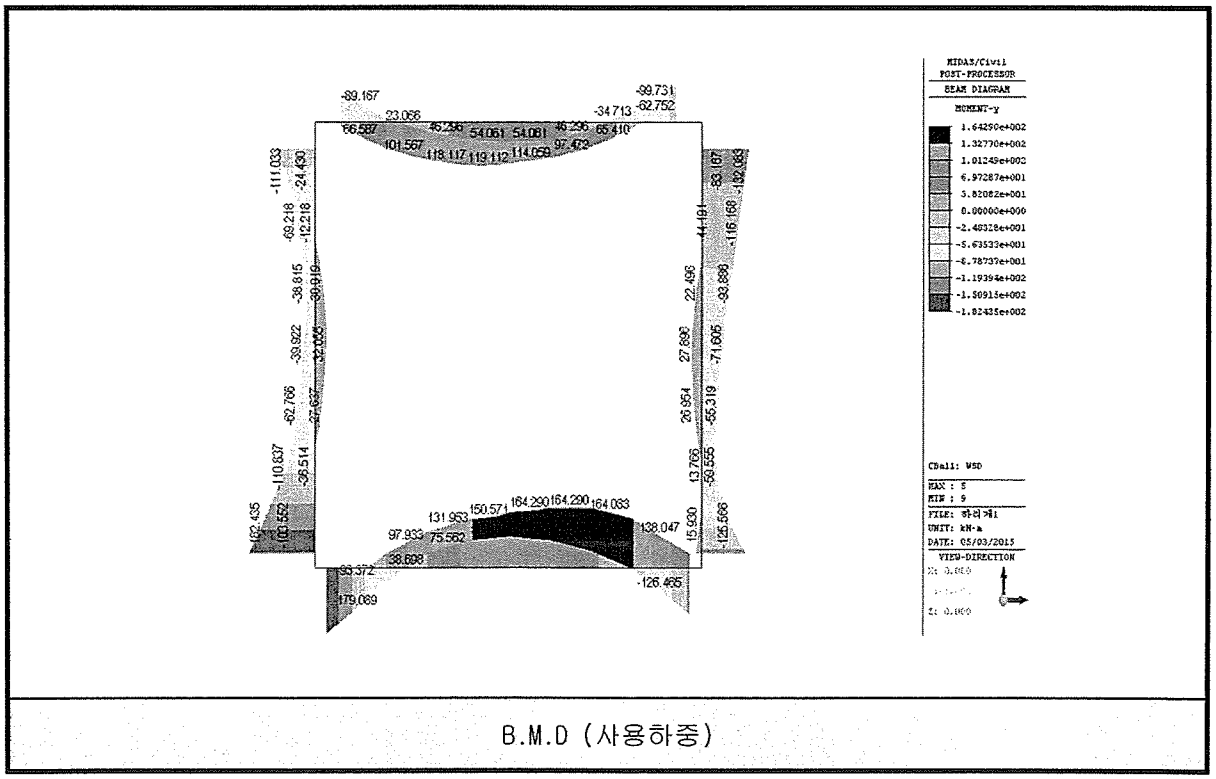
10. 단면력도

(1) 극한하중 모멘트도



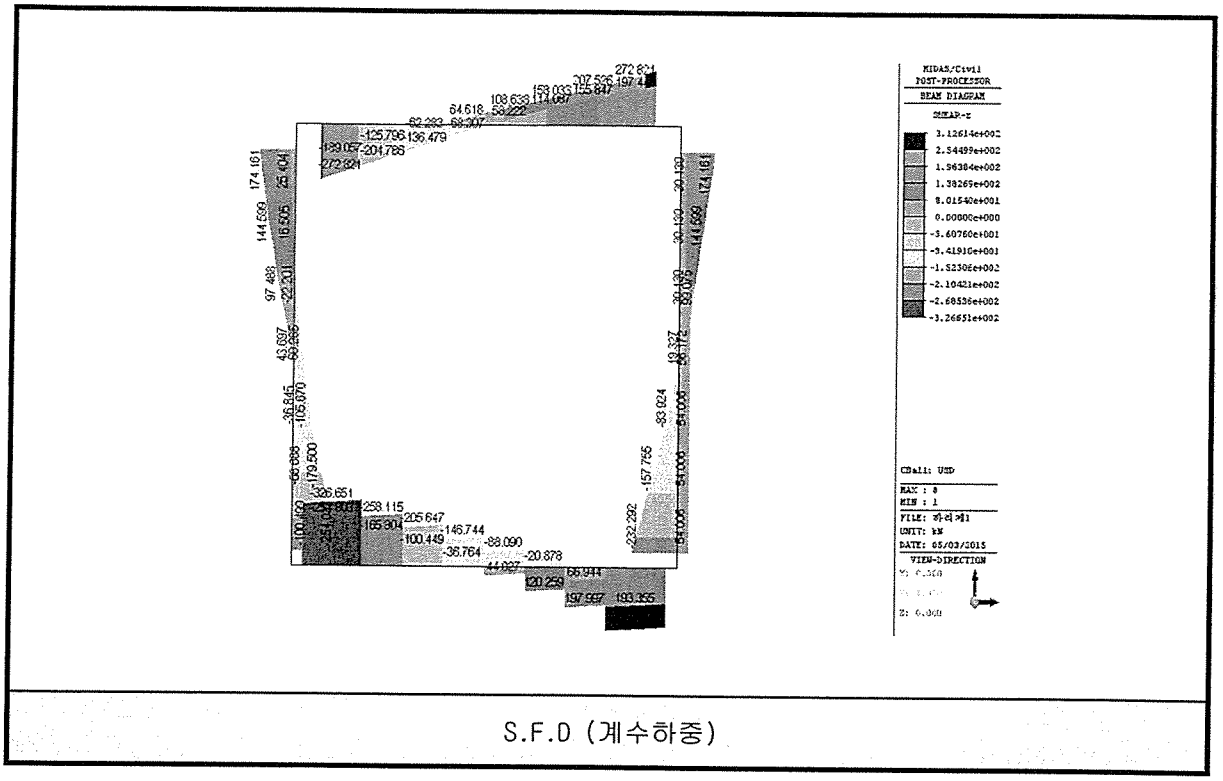
B.M.D (계수하중)

(2) 사용하중 모멘트도



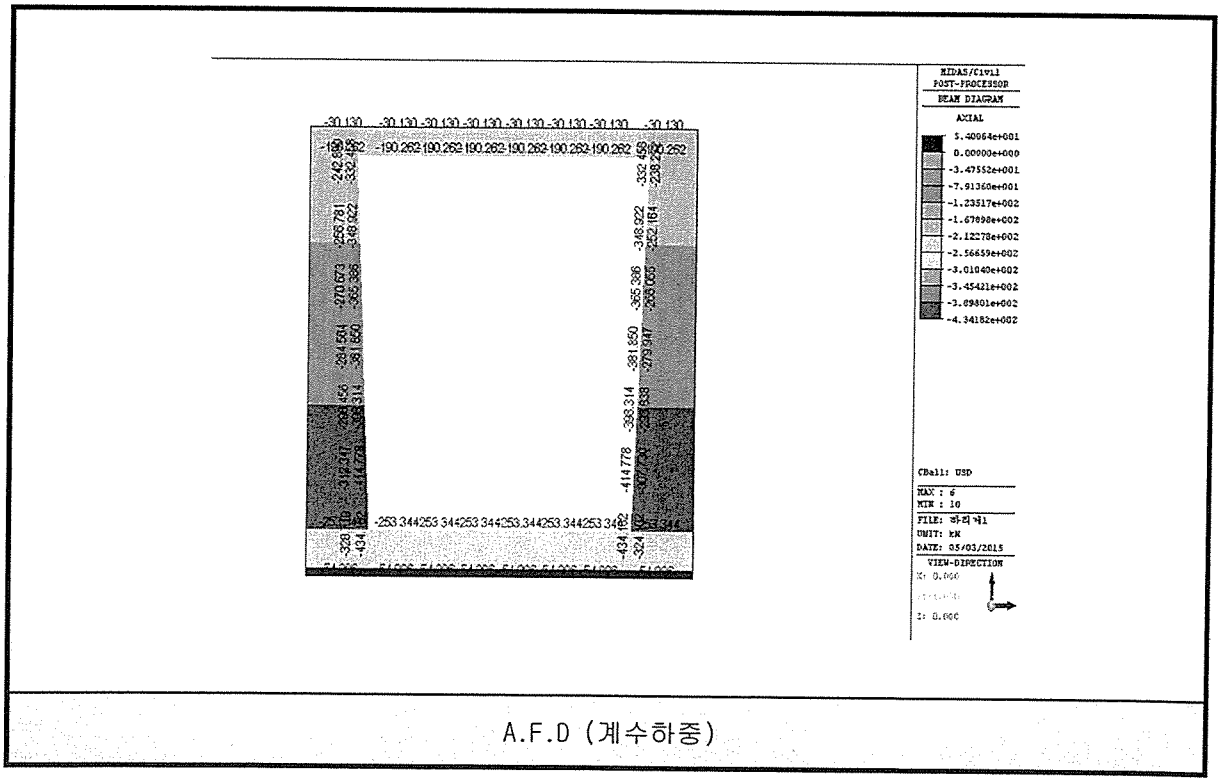
B.M.D (사용하중)

(3) 극한하중 전단력도



S.F.D (계수하중)

(4) 극한하중 축력도



A.F.D (계수하중)

11. 단면검토

① 상부 슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	99.730
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Su (kN)
1000.0	700.0	600.0	100.0	162.810	272.820

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03885 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 761.327 mm^2

사용철근비 : Puse = As / (B × D) = 0.00382

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 761.327 mm^2 As(min) = 2100.000 mm^2

4/3×As(req) = 1015.102 mm^2 ※ As = 1015.102 mm^2

사용철근량 = H19 × 8ea = 2292.000 mm^2 ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 480239230 N · mm

= 480.239 kN · m > 162.810 kN · m ----- ∴ O.K. [사용률 = 2.950]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

1/2 x Φv x Vc = 193.985 kN ≤ Vu ≤Φv x Vc ∴ 최소전단 철근을 배근하는것이 좋다.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 99.73 × 1000000 / [2292×(600 - 123.635/3)]

= 77.869 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×600/(7×2292)]

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 77.869) - 2.5 × 90.5 = 785.066 mm

300 x (210 / fs) = 300 × (210 / 77.869) = 809.052 mm

Sa는 작은 값인 785.066 mm 를 적용

S = 125.00 ≤ Sa (= 785.066 mm) ----- ∴ O.K.

② 상부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	119.110
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	600.0	500.0	100.0	192.160	108.640

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03188 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1086.058 mm^2

사용철근비 : Puse = As / (B × D) = 0.00458

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1086.058 mm^2 As(min) = 1750.000 mm^2

4/3×As(req) = 1448.077 mm^2 ※ As = 1448.077 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 397727230 N · mm

= 397.727 kN · m > 192.160 kN · m ----- ∴ O.K. [사용률 = 2.070]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 119.11 × 1000000 / [2292×(500 - 111.633/3)]

= 112.292 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×500/(7×2292)]

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 112.292) - 2.5 × 90.5 = 475.044 mm

300 x (210 / fs) = 300 × (210 / 112.292) = 561.035 mm

Sa는 작은 값인 475.044 mm 를 적용

S = 125.00 ≤ Sa (= 475.044 mm) ----- ∴ O.K.

③ 하부슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	179.090
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	650.0	550.0	100.0	287.420	326.650

전단설계시 단면의 유효높이 ds = 550.0 d1' = 100 d2' = 0

* 휨모멘트 검토

. 공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03537 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1482.978 mm^2

사용철근비 : Puse = As / (B × D) = 0.00417

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1482.978 mm^2 As(min) = 1925.000 mm^2

4/3×As(req) = 1977.304 mm^2 ※ As = 1925.000 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 438983230 N · mm

= 438.983 kN · m > 287.420 kN · m ----- ∴ O.K [사용률 = 1.527]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 426.767 kN

1/2 x Φv x Vc = 213.384 kN ≤ Vu ≤Φv x Vc ∴ 최소전단 철근을 배근하는것이 좋다.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 179.09 × 1000000 / [2292×(550 - 117.769/3)]

= 152.987 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×550/(7×2292)]

= 117.769 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 152.987) - 2.5 × 90.5 = 288.501 mm

300 x (210 / fs) = 300 × (210 / 152.987) = 411.801 mm

Sa는 작은 값인 288.501 mm 를 적용

S = 125.00 ≤ Sa (= 288.501 mm) ----- ∴ O.K.

④ 하부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	164.290
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	650.0	550.0	100.0	262.860	146.740

전단설계시 단면의 유효높이 ds = 550.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03537 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1353.708 mm^2

사용철근비 : Puse = As / (B × D) = 0.00417

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 1353.708 mm^2 As(min) = 1925.000 mm^2

4/3×As(req) = 1804.944 mm^2 ※ As = 1804.944 mm^2

사용철근량 = H19 × 8ea = 2292.000 mm^2 ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 438983230 N · mm

= 438.983 kN · m > 262.860 kN · m ----- ∴ O.K [사용률 = 1.670]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 426.767 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 164.29 × 1000000 / [2292×(550 - 117.769/3)]

= 140.344 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×550/(7×2292)]

= 117.769 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 140.344) - 2.5 × 90.5 = 334.872 mm

300 x (210 / fs) = 300 × (210 / 140.344) = 448.897 mm

Sa는 작은 값인 334.872 mm 를 적용

S = 125.00 ≤ Sa (= 334.872 mm) ----- ∴ O.K.

⑤ 벽체 상단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	132.080
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	700.0	600.0	100.0	211.330	174.160

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03885 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 991.223 mm^2

사용철근비 : Puse = As / (B × D) = 0.00382

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 991.223 mm^2 As(min) = 2100.000 mm^2

4/3×As(req) = 1321.631 mm^2 ※ As = 1321.631 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 480239230 N · mm

= 480.239 kN · m > 211.330 kN · m ----- ∴ O.K [사용률 = 2.272]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 132.08 × 1000000 / [2292×(600 - 123.635/3)]

= 103.128 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×600/(7×2292)]

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 103.128) - 2.5 × 90.5 = 537.367 mm

300 x (210 / fs) = 300 × (210 / 103.128) = 610.893 mm

Sa는 작은 값인 537.367 mm 를 적용

S = 125.00 ≤ Sa (= 537.367 mm) ----- ∴ O.K.

⑥ 벽체 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	71.600
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	600.0	500.0	100.0	114.570	60.280

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03188 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 642.985 mm^2

사용철근비 : Puse = As / (B × D) = 0.00458

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 642.985 mm^2 As(min) = 1750.000 mm^2

4/3×As(req) = 857.314 mm^2 ※ As = 857.314 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 397727230 N · mm

= 397.727 kN · m > 114.570 kN · m ----- ∴ O.K [사용률 = 3.471]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 71.6 × 1000000 / [2292×(500 - 111.633/3)]

= 67.502 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×500/(7×2292)]

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 67.502) - 2.5 × 90.5 = 940.386 mm

300 x (210 / fs) = 300 × (210 / 67.502) = 933.308 mm

Sa는 작은 값인 933.308 mm 를 적용

S = 125.00 ≤ Sa (= 933.308 mm) ----- ∴ O.K.

⑦ 벽체 하단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	182.440
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	600.0	500.0	100.0	291.900	254.040

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03188 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1665.161 mm^2

사용철근비 : Puse = As / (B × D) = 0.00458

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 1665.161 mm^2 As(min) = 1750.000 mm^2

4/3×As(req) = 2220.215 mm^2 ※ As = 1750.000 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 397727230 N · mm

= 397.727 kN · m > 291.900 kN · m ----- ∴ O.K [사용률 = 1.363]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

1/2 x Φv x Vc = 193.985 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 182.44 × 1000000 / [2292×(500 - 111.633/3)]

= 171.998 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×500/(7×2292)]

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 171.998) - 2.5 × 90.5 = 231.605 mm

300 x (210 / fs) = 300 × (210 / 171.998) = 366.284 mm

Sa는 작은 값인 231.605 mm 를 적용

S = 125.00 ≤ Sa (= 231.605 mm) ----- ∴ O.K.

⑤ 벽체 상단부 - Pmax 일 경우

설계축력	:	Pu	=	332.46	(kN) ,	설계모멘트	:	Mu	=	100.25	(kN·m)	
설계전단력	:	Vu	=	174.16	(kN) ,	사용 모멘트	:	M	=	12.22	(kN.m)	
부 재 높 이	:	H	=	700.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	600.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	301.54 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0049) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 700.00 x 1000.00 = 17556000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (17556000.00 x 350.0 + 916800.0 x 100.0 + 458400.0 x 600.0) / 18931200.000

= 343.947 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 360.000 mm, ab = k1 x cb = 300.960 mm

fs' = 600 x (360.000 - 100.0) / 360.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 300.960 x 1000 = 7548076.800 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 7548076.800 + 427458.000 - 916800.000 = 7058734.800 N

Mb = 7548076.800x(600.0-300.960/2)+427458.000x(600.0-100.0)-7058734.800x(343.947-100.0)

= 1884786827.089 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 267.015 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 308.279 mm , a = k1 x c = 257.721 mm 사용

fs = 600 x (600.000 - 308.279) / 308.279 = 400 Mpa (fs ≤ fy)

fs' = 600 x (308.279 - 100.000) / 308.279 = 400 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 257.721 x 1000 = 6463642.509 N

Cs = 1146.000 x (400.000 - 0.836 x 30) = 429658.320 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 6463642.509 + 429658.320 - 916800.000 = 5976500.829 N

Mn' = 6463642.509 x (600.0 - 257.721 / 2) + 429658.320 x (600.0 - 100.0)

= 3260106482.060 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 545.486536 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 15310024.800 N ≥ Pn = 5976500.829

ΦPn = 4183550.581 > ΦPb = 4941114.360 , 0.1 x fck x Ag = 2100000.000

∴ Φ = 0.700

ΦPn = 0.70 x 5976500.829 = 4183.551 kN ≥ Pu = 332.460 kN ------ O.K!!!

ΦMn = ΦPn x 301.540 = 1261.508 kN.m ≥ Mu = 100.250 kN.m ------ O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 401131.834 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 12.22 \times 1000000 / [2292 \times (600 - 123.635/3)]$

= 9.541 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 600/(7 \times 2292)]}$

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 9.541) - 2.5 × 90.5 = 8027.310 mm

300 x (210 / fs) = 300 × (210 / 9.541) = 6602.848 mm

Sa는 작은 값인 6602.848 mm 를 적용

S = 125.00 ≤ Sa (= 6602.848 mm) ------ ∴ O.K.

⑥ 벽체 상단부 - Mmax 일 경우

설계축력	:	Pu	=	286.40	(kN) ,	설계모멘트	:	Mu	=	211.33	(kN·m)	
설계전단력	:	Vu	=	174.16	(kN) ,	사용 모멘트	:	M	=	132.08	(kN.m)	
부 재 높 이	:	H	=	700.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	600.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	737.88 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0049) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 700.00 x 1000.00 = 17556000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (17556000.00 x 350.0 + 916800.0 x 100.0 + 458400.0 x 600.0) / 18931200.000

= 343.947 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 360.000 mm, ab = k1 x cb = 300.960 mm

fs' = 600 x (360.000 - 100.0) / 360.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 300.960 x 1000 = 7548076.800 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 7548076.800 + 427458.000 - 916800.000 = 7058734.800 N

Mb = 7548076.800x(600.0-300.960/2)+427458.000x(600.0-100.0)-7058734.800x(343.947-100.0)

= 1884786827.089 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 267.015 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 101.978 mm , a = k1 x c = 85.254 mm 사용

fs = 600 x (600.000 - 101.978) / 101.978 = 400 Mpa (fs ≤ fy)

fs' = 600 x (101.978 - 100.000) / 101.978 = 11.64029 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 85.254 x 1000 = 2138169.504 N

Cs = 1146.000 x (11.640 - 0.836 x 30) = (15401.913) N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 2138169.504 + -15401.913 - 916800.000 = 1205967.591 N

Mn' = 2138169.504 x (600.0 - 85.254 / 2) + -15401.913 x (600.0 - 100.0)

= 1184057029.308 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 981.830579 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 15310024.800 N ≥ Pn = 1205967.591

ΦPn = 844177.314 < ΦPb = 4941114.360 , 0.1 x fck x Ag = 2100000.000

∴ Φ = 0.790

ΦPn = 0.79 x 1205967.591 = 952.714 kN ≥ Pu = 286.400 kN ------- O.K!!!

ΦMn = ΦPn x 737.884 = 702.993 kN.m ≥ Mu = 211.330 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 399308.374 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 132.08 \times 1000000 / [2292 \times (600 - 123.635/3)]$

= 103.128 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 600/(7 \times 2292)]}$

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 103.128) - 2.5 × 90.5 = 537.367 mm

300 x (210 / fs) = 300 × (210 / 103.128) = 610.893 mm

Sa는 작은 값인 537.367 mm 를 적용

S = 125.00 ≤ Sa (= 537.367 mm) ------ ∴ O.K.

⑦ 벽체 중앙부 - Pmax 일 경우

설계축력	:	Pu	=	381.85	(kN) ,	설계모멘트	:	Mu	=	40.02	(kN · m)	
설계전단력	:	Vu	=	56.17	(kN) ,	사용 모멘트	:	M	=	32.05	(kN.m)	
부 재 높 이	:	H	=	600.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	500.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	104.81 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0057) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 600.00 x 1000.00 = 15048000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (15048000.00 x 300.0 + 916800.0 x 100.0 + 458400.0 x 500.0) / 16423200.000

= 294.418 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 300.000 mm, ab = k1 x cb = 250.800 mm

fs' = 600 x (300.000 - 100.0) / 300.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 250.800 x 1000 = 6290064.000 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 6290064.000 + 427458.000 - 916800.000 = 5800722.000 N

Mb = 6290064.000x(500.0-250.800/2)+427458.000x(500.0-100.0)-5800722.000x(294.418-100.0)

= 1399478417.013 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 241.259 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 491.933 mm , a = k1 x c = 411.256 mm 사용

fs = 600 x (500.000 - 491.933) / 491.933 = 9.839021 Mpa (fs ≤ fy)

fs' = 600 x (491.933 - 100.000) / 491.933 = 400 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 411.256 x 1000 = 10314302.276 N

Cs = 1146.000 x (400.000 - 0.836 x 30) = 429658.320 N

Ts = 2292.000 x 9.839 = 22551.036 N

Pn = 10314302.276 + 429658.320 - 22551.036 = 10721409.560 N

Mn' = 10314302.276 x (500.0 - 411.256 / 2) + 429658.320 x (500.0 - 100.0)

= 3208104748.259 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 299.223205 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 13270024.800 N ≥ Pn = 10721409.560

ΦPn = 7504986.692 > ΦPb = 4060505.400 , 0.1 x fck x Ag = 1800000.000

∴ Φ = 0.700

ΦPn = 0.70 x 10721409.560 = 7504.987 kN ≥ Pu = 381.850 kN ------ O.K!!!

ΦMn = ΦPn x 104.806 = 786.564 kN.m ≥ Mu = 40.020 kN.m ------ O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 405606.621 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 32.05 × 1000000 / [2292×(500 - 111.633/3)]

= 30.216 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2\times1000\times500/(7\times2292)]}$

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 30.216) - 2.5 × 90.5 = 2380.02 mm

300 x (210 / fs) = 300 × (210 / 30.216) = 2085.02 mm

Sa는 작은 값인 2085.02 mm 를 적용

S = 125.00 ≤ Sa (= 2085.02 mm) ----- ∴ O.K.

⑧ 벽체 중앙부 - Mmax 일 경우

설계축력	:	Pu	=	338.14	(kN) ,	설계모멘트	:	Mu	=	114.57	(kN · m)	
설계전단력	:	Vu	=	60.28	(kN) ,	사용 모멘트	:	M	=	71.60	(kN.m)	
부 재 높 이	:	H	=	600.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	500.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	338.82 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0057) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 600.00 x 1000.00 = 15048000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (15048000.00 x 300.0 + 916800.0 x 100.0 + 458400.0 x 500.0) / 16423200.000

= 294.418 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 300.000 mm, ab = k1 x cb = 250.800 mm

fs' = 600 x (300.000 - 100.0) / 300.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 250.800 x 1000 = 6290064.000 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 6290064.000 + 427458.000 - 916800.000 = 5800722.000 N

Mb = 6290064.000x(500.0-250.800/2)+427458.000x(500.0-100.0)-5800722.000x(294.418-100.0)

= 1399478417.013 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 241.259 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 190.115 mm , a = k1 x c = 158.936 mm 사용

fs = 600 x (500.000 - 190.115) / 190.115 = 400 Mpa (fs ≤ fy)

fs' = 600 x (190.115 - 100.000) / 190.115 = 284.4019 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 158.936 x 1000 = 3986122.585 N

Cs = 1146.000 x (284.402 - 0.836 x 30) = 297182.873 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 3986122.585 + 297182.873 - 916800.000 = 3366505.457 N

Mn' = 3986122.585 x (500.0 - 158.936 / 2) + 297182.873 x (500.0 - 100.0)

= 1795164639.545 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 533.241809 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 13270024.800 N ≥ Pn = 3366505.457

ΦPn = 2356553.820 > ΦPb = 4060505.400 , 0.1 x fck x Ag = 1800000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3366505.457 = 2356.554 kN ≥ Pu = 338.140 kN ——— O.K!!!

ΦMn = ΦPn x 338.824 = 798.457 kN.m ≥ Mu = 114.570 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 403587.791 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 71.6 \times 1000000 / [2292 \times (500 - 111.633/3)]$

= 67.502 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 500/(7 \times 2292)]}$

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 67.502) - 2.5 × 90.5 = 940.39 mm

300 x (210 / fs) = 300 × (210 / 67.502) = 933.31 mm

Sa는 작은 값인 933.31 mm 를 적용

S = 125.00 ≤ Sa (= 933.308 mm) ----- ∴ O.K.

⑨ 벽체 하단부 - Pmax 일 경우

설계축력	:	Pu	=	434.18	(kN) ,	설계모멘트	:	Mu	=	200.90	(kN · m)	
설계전단력	:	Vu	=	254.04	(kN) ,	사용 모멘트	:	M	=	15.93	(kN.m)	
부 재 높 이	:	H	=	600.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	500.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	462.71 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0057) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 600.00 x 1000.00 = 15048000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (15048000.00 x 300.0 + 916800.0 x 100.0 + 458400.0 x 500.0) / 16423200.000

= 294.418 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 300.000 mm, ab = k1 x cb = 250.800 mm

fs' = 600 x (300.000 - 100.0) / 300.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 250.800 x 1000 = 6290064.000 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 6290064.000 + 427458.000 - 916800.000 = 5800722.000 N

Mb = 6290064.000x(500.0-250.800/2)+427458.000x(500.0-100.0)-5800722.000x(294.418-100.0)

= 1399478417.013 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 241.259 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 128.889 mm , a = k1 x c = 107.751 mm 사용

fs = 600 x (500.000 - 128.889) / 128.889 = 400 Mpa (fs ≤ fy)

fs' = 600 x (128.889 - 100.000) / 128.889 = 134.4817 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 107.751 x 1000 = 2702391.810 N

Cs = 1146.000 x (134.482 - 0.836 x 30) = 125374.366 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 2702391.810 + 125374.366 - 916800.000 = 1910966.175 N

Mn' = 2702391.810 x (500.0 - 107.751 / 2) + 125374.366 x (500.0 - 100.0)

= 1255753117.299 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 657.128971 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 13270024.800 N ≥ Pn = 1910966.175

ΦPn = 1337676.323 < ΦPb = 4060505.400 , 0.1 x fck x Ag = 1800000.000

∴ Φ = 0.740

ΦPn = 0.74 x 1910966.175 = 1414.115 kN ≥ Pu = 434.180 kN ——— O.K!!!

ΦMn = ΦPn x 462.711 = 654.327 kN.m ≥ Mu = 200.900 kN.m ——— O.K!!!

○ 전단력 검토

ϕVc = 0.85 × 1/6 × (1 + Pu / (14 x Ag)) x √fck × bo × d = 408023.583 N

여기서 , 1/2ϕVc< Vu ≤ ϕVc 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 15.93 × 1000000 / [2292×(500 - 111.633/3)]

= 15.018 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×500/(7×2292)]

= 111.633 ㎜

사용철근량 = 2292.000 ㎟ (철근도심 : 100 ㎜)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 ㎜

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(㎜)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 15.018) - 2.5 × 90.5 = 5017.38 ㎜

300 x (210 / fs) = 300 × (210 / 15.018) = 4194.91 ㎜

Sa는 작은 값인 4194.91 ㎜ 를 적용

S = 125.00 ≤ Sa (= 4194.908 ㎜) ----- ∴ O.K.

⑩ 벽체 하단부 - Mmax 일 경우

설계축력	:	Pu	=	375.04	(kN) ,	설계모멘트	:	Mu	=	291.90	(kN · m)	
설계전단력	:	Vu	=	254.04	(kN) ,	사용 모멘트	:	M	=	182.44	(kN.m)	
부 재 높 이	:	H	=	600.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	500.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	778.32 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0057) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 600.00 x 1000.00 = 15048000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (15048000.00 x 300.0 + 916800.0 x 100.0 + 458400.0 x 500.0) / 16423200.000

= 294.418 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 300.000 mm, ab = k1 x cb = 250.800 mm

fs' = 600 x (300.000 - 100.0) / 300.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 250.800 x 1000 = 6290064.000 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 6290064.000 + 427458.000 - 916800.000 = 5800722.000 N

Mb = 6290064.000x(500.0-250.800/2)+427458.000x(500.0-100.0)-5800722.000x(294.418-100.0)

= 1399478417.013 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 241.259 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 83.875 mm , a = k1 x c = 70.119 mm 사용

fs = 600 x (500.000 - 83.875) / 83.875 = 400 Mpa (fs ≤ fy)

fs' = 600 x (83.875 - 100.000) / 83.875 = 23.25054 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 70.119 x 1000 = 1758592.238 N

Cs = 1146.000 x (23.251 - 0.836 x 30) = (2096.556) N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 1758592.238 + -2096.556 - 916800.000 = 839695.681 N

Mn' = 1758592.238 x (500.0 - 70.119 / 2) + -2096.556 x (500.0 - 100.0)

= 816801861.080 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 972.734633 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 13270024.800 N ≥ Pn = 839695.681

ΦPn = 587786.977 < ΦPb = 4060505.400 , 0.1 x fck x Ag = 1800000.000

∴ Φ = 0.800

ΦPn = 0.80 x 839695.681 = 671.757 kN ≥ Pu = 375.040 kN ------- O.K!!!

ΦMn = ΦPn x 778.317 = 522.840 kN.m ≥ Mu = 291.900 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 405292.088 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 182.44 \times 1000000 / [2292 \times (500 - 111.633/3)]$

= 171.998 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 500/(7 \times 2292)]}$

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 171.998) - 2.5 × 90.5 = 231.605 mm

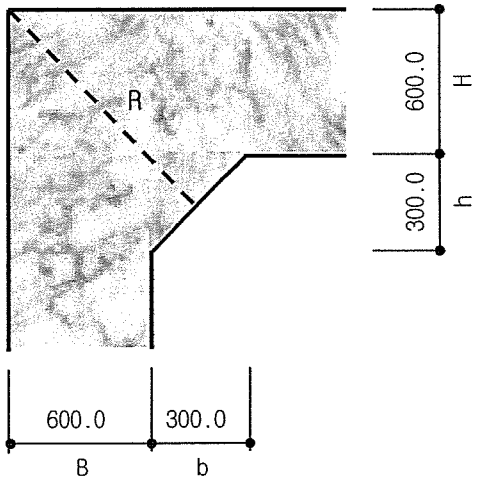
300 x (210 / fs) = 300 × (210 / 171.998) = 366.284 mm

Sa는 작은 값인 231.605 mm 를 적용

S = 125.00 ≤ Sa (= 231.605 mm) ----- ∴ O.K.

12. 우각부 검토

1) 상부 슬래브



CON'C 설계기준강도(fck)	:	30.0	MPa
CON'C 허용휨인장응력(fta) = 0.13√fck Mpa			
	:	0.712	MPa
철근 항복강도(fy)	:	400.0	MPa
철근 허용응력	:	180.0	MPa
사용 모멘트 Mo	:	132.08	kN·m

$R = \sqrt{2} \times b / (b+h) \times [B + h + (H \times h/b)]$

$= 1060.66$ mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 132080000}{1060.66^2 \times 1000.0} = 0.587 \text{ MPa}$$

$f_{tmax} =$ 0.587 MPa < $f_{ta} =$ 0.712 MPa 이므로 보강철근 필요없음.

② 소요 철근량

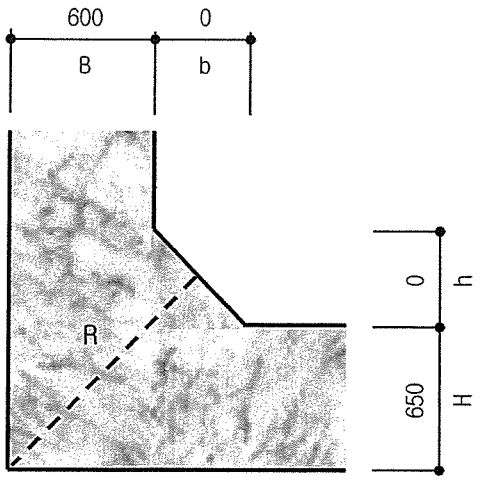
외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 0}{1060.66 \times 180.0} = 0.00 \text{ mm}^2$$

▶ 보강 As = Asf - 주철근사용 As = 0.00 - 1146 = -1146.00 mm²

----- 우각부 보강철근 필요없음

2) 하부 슬래브



CON'C 설계기준강도(fck)	:	30.0	MPa
CON'C 허용휨인장응력(fta) = 0.13√fck Mpa			
	:	0.712	MPa
철근 항복강도(fy)	:	400.0	MPa
철근 허용응력	:	180.0	MPa
사용 모멘트 Mo	:	182.44	kN · m

R = √ (B2 + H2) = 884.59 mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 182440000}{884.59^2 \times 1000.0} = 1.166 \text{ MPa}$$

f_{tmax} = 1.166 MPa > f_{ta} = 0.712 MPa 이므로 보강철근 필요.

② 소요 철근량

외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 182440000}{884.59 \times 180.0} = 2291.58 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 2291.58 - 1146 = 1145.58 ㎟

----- 우각부 보강철근 필요

외측인장에 대한 보강 사용철근량(As)

As = H19 @ 250 - 1 단 = 1146.00 ㎟

Asf = 1145.58 ㎟ < As = 1146.00 ㎟ ----- ∴ O.K.

13. 배력철근 검토

1) 구조상세 - 철도설계기준(노반편) p.5-19

다. 종방향으로 영향을 받는 경우로써 상부슬래브, 하부슬래브와 벽체에 있어서 종방향 최소철근량은 복토의 깊이가 3.0 m 이하인 경우에는 콘크리트 단면적의 0.4%, 복토가 3.0m 이상인 경우에는 복토 깊이가 30m인 경우의 사용량인 1.0%를 기준으로 선형변화량을 사용하되, 종방향 철근량은 주철근량 미만이어야 한다.

라. 단단한 지반 위에 놓인 경우와 말뚝기초로 지지되는 경우로써 종방향 부등침하가 우려되지 않은 경우에는 다.항의 기준을 적용하지 않는다. 따라서 어느 정도 견고한 지반위에 놓이는 일반적인 구교로써 적적한 신축이음매가 설치되어 상세한 종방향해석이 필요하지 않다고 판단되는 경우 종방향 철근량은 슬래브의 경우 콘크리트단면적의 0.25%, 벽체의 경우 0.3%를 적용한다.

마. 배력철근은 단위폭주변의 인장 주철근량의 1/5 이상으로 하여 종단방향에 계산외의 응력이 발생하는 것을 고려하여야 한다.

2) 배력철근의 최소 철근비

슬래브의 배력 철근비 = 0.25 %　　벽체의 배력 철근비 = 0.30 %

① 상부슬래브

배력철근 최소 철근비 (Asreq)	= 1,000.0 × 600.0 × 0.25				=	1500.00	㎟
사용철근 인장측 ;	H	16	@	150	=	1324.00	㎟
압축측 ;	H	16	@	300	=	662.00	㎟
					∑ As =	1986.00	㎟

따라서, As = 1986.00 ㎟ > Asreq = 1500.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ----- ∴ O.K.

② 하부슬래브

배력철근 최소 철근비 (Asreq)	= 1,000.0 × 650.0 × 0.25				=	1625.00	㎟
사용철근 인장측 ;	H	16	@	150	=	1324.00	㎟
압축측 ;	H	16	@	300	=	662.00	㎟
					∑ As =	1986.00	㎟

따라서, As = 1986.00 ㎟ > Asreq = 1625.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ----- ∴ O.K.

③ 벽체

배력철근 최소 철근비 (Asreq)	= 1,000.0 × 600.0 × 0.30				=	1800.00	㎟
사용철근 인장측 ;	H	16	@	150	=	1324.00	㎟
압축측 ;	H	16	@	300	=	662.00	㎟
					∑ As =	1986.00	㎟

따라서, As = 1986.00 ㎟ > Asreq = 1800.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ----- ∴ O.K.

14. 사용성검토

1) 상부슬래브 최소 두께

1.2(L+3)/30 = 1.2 × (4.600 + 3) / 30 = 304.0 mm

상부슬래브 두께 = 600.0 mm

Tuse = 600.0 mm > Tmin = 304.0 mm ------ ∴ O.K.

2) 철근 피로검토

피로응력한계 : 사용하중하에서 활하중과 충격에 의해 야기되는 직선철근의 최대 인장응력과 최소 응력 상이의 범위는 다음 값을 초과할수 없다.

$f_f = 165 - 0.33fmin$

여기서, f_f : 응력범위(Mpa)

fmin : 최소응력 수준으로 인장은 정(+), 압축은 부(-)의 값(Mpa)

① 상부슬래브 단부

4.6 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 0.371 kN · m Mmin = -10.879 kN · m

- 사용철근량 = H19 × 8ea = 2292.000 ㎟

n = 7

p = As / bd = 2292.00 / (1000 × 600) = 0.00382

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00382 + \sqrt{\{ (7 \times 0.00382)^2 + 2 \times 7 \times 0.00382 \}}$

= 0.206

J = 1 - K / 3 = 1 - 0.206 / 3 = 0.931

$$fs\ max = \frac{M}{As \times j \times d} = \frac{0.371 \times 10^6}{2292.00 \times 0.931 \times 600} = 0.290\ Mpa$$

$$fs\ min = \frac{-10.879 \times 10^6}{2292.00 \times 0.931 \times 600} = -8\ Mpa$$

Δf = fs max - fs min = 8.784 Mpa

$f_f = 165 - 0.33fmin$

= 165 - 0.33 × -8.49 = 167.803 Mpa > 8.784 Mpa O.K.

② 상부슬래브 중앙부

4.6 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 46.512 kN · m Mmin = 41.391 kN · m

- 사용철근량 = H19 × 8ea = 2292.000 ㎟

n = 7

p = As / bd = 2292.00 / (1000 × 500) = 0.00458

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00458 + \sqrt{\{ (7 \times 0.00458)^2 + 2 \times 7 \times 0.00458 \}}$

= 0.223

J = 1 - K / 3 = 1 - 0.223 / 3 = 0.926

$$fs\ max = \frac{M}{As \times j \times d} = \frac{46.512 \times 10^6}{2292.00 \times 0.926 \times 500} = 43.850\ Mpa$$

$$fs\ min = \frac{41.391 \times 10^6}{2292.00 \times 0.926 \times 500} = 39\ Mpa$$

Δf = fs max - fs min = 4.828 Mpa

$f_f = 165 - 0.33 fmin$

= 165 - 0.33 × 39.02 = 152.123 Mpa > 4.828 Mpa O.K.

15. 기초지지력 검토

1) 구체자중

-	5.200	x	0.650	x	24.500				=	82.810	kN/m
-	5.200	x	0.600	x	24.500				=	76.440	kN/m
-	4.500	x	0.600	x	24.500				=	66.150	kN/m
-	4.500	x	0.600	x	24.500				=	66.150	kN/m
-	0.300	x	0.300	x	1/2	x	2	x 24.500	=	2.205	kN/m
							∴ Total		=	293.755	kN/m

293.755 / 5.200 = 56.491 kN/m²

2) 상부연직하중

= 39.22 kN/m²

3) 활하중

= 21.019 kN/m²

4) 최대 지반 반력

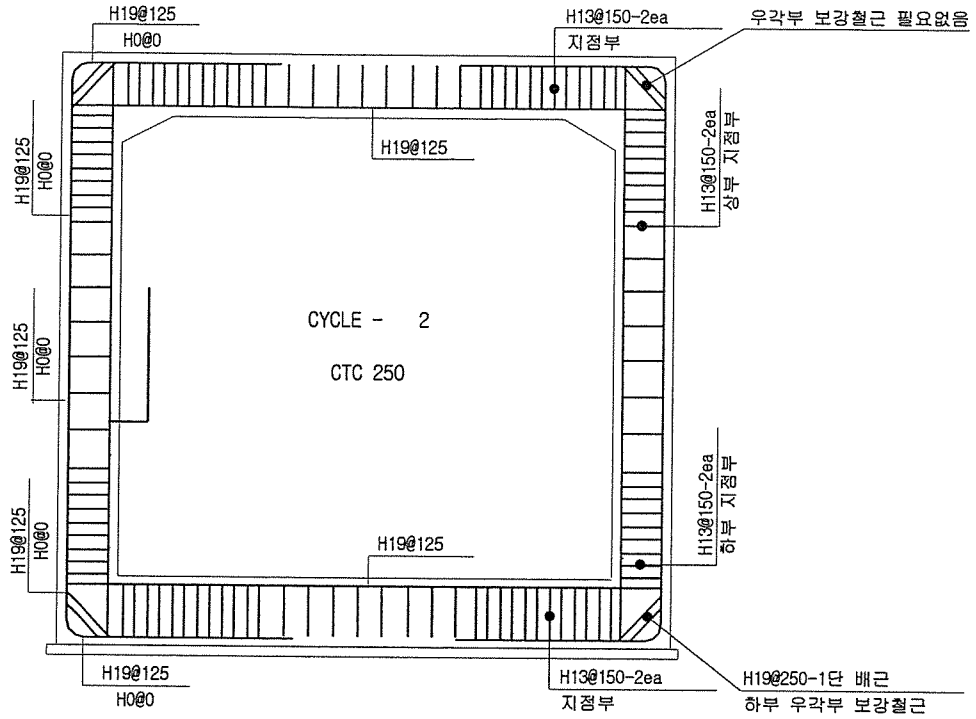
Qmax = 56.491 + 39.220 + 21.019

= 116.730 kN/m²

5) 지지력 검토

Qmax = 116.730 kN/m² < 300.00 kN/m² --- ∴ O.K.

16. 주철근 조립도



▶ 배력철근

- 상부 지점부 : H16, 인장측:150, 압축측:300
- 하부 지점부 : H16, 인장측:150, 압축측:300
- 벽체부 : H16, 인장측:150, 압축측:300

17.날개벽 설계

17.1 W1~W4

17.1.1 설 계 조 건

① 날개벽 형식 : 평 행 날 개 벽

② 단 위 중 량 : γ_t = 20.0 kN/㎥

③ 내부 마찰각 : ϕ = 35.0 °

④ 토 압 계 수 : K_o = (1 - sinϕ) × (1 + sinβ) = 0.634

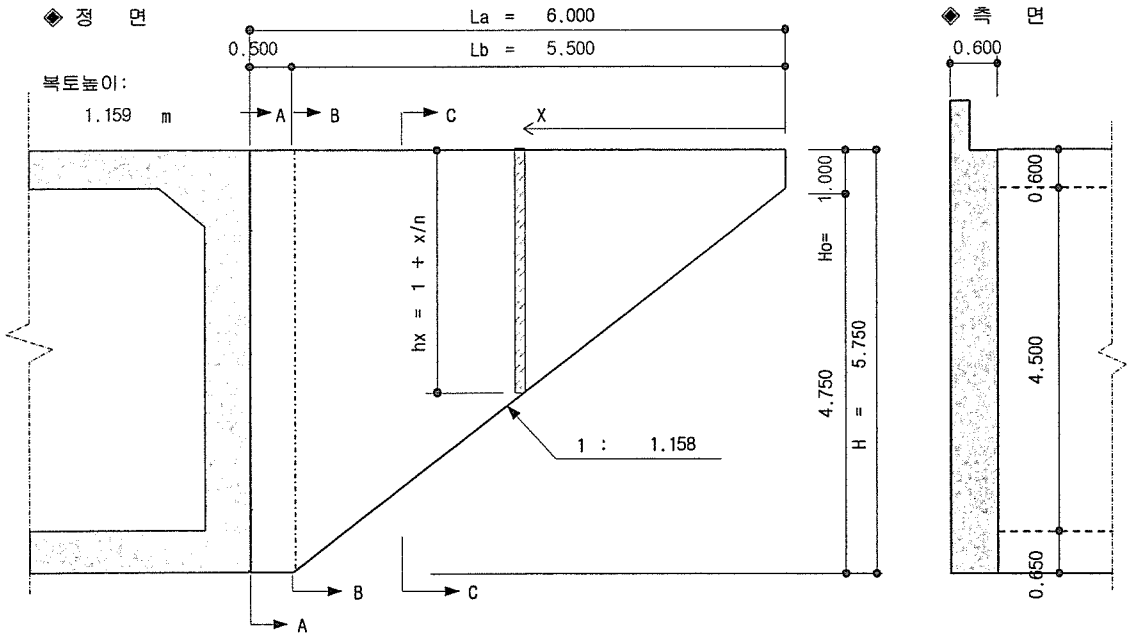
⑤ 면벽 기울기 : 1 : 1.158 (평균구배 적용)

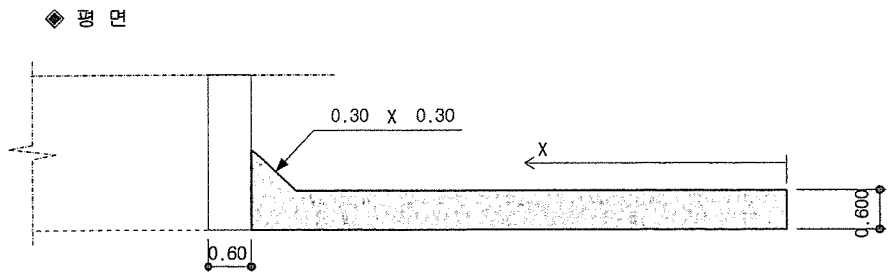
⑥ 콘크리트 강도 : f_{ck} = 30 MPa

⑦ 철근 항복응력 : f_y = 400 MPa

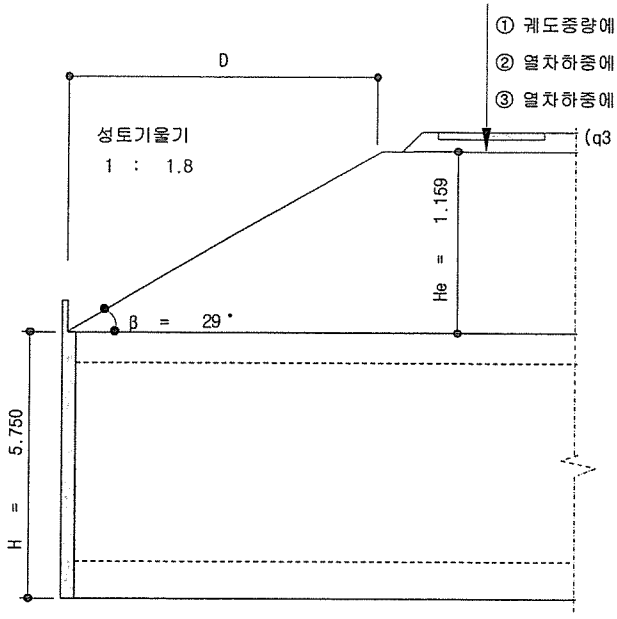
17.1.2 날개벽 단면

; 범용계산을 위하여 단면가정이 일반도와 상이할 수 있으나, 적용치수는 일반도와 같이 적용됨.





17.1.3 하 중 계 산 (상재하중 : q)



① 궤도중량에 의한 상재하중 (q_1 = 15.00 kN/㎡)
② 열차하중에 의한 상재하중 (q_2 = 35.00 kN/㎡)
③ 열차하중에 의한 상재하중 (q_3 = 80/B kN/㎡)
(q3 = 궤도가 근접해 있는 경우, 열차하중에 의한 상재하중)

1) 옹벽으로부터 궤도까지의 거리
- B = 2.100 > 2.00 ∴ q_3 = 0.00
- D = 1.159 × 1.8 = 2.086

2) 평행날개벽에 작용하는 상재하중(q)

① 기타 상재하중	=	15.000	kN/㎡
② 궤도중량에 의한 상재하중	=	35.000	kN/㎡
③ 열차하중에 의한 상재하중	=	0.000	kN/㎡

∴ TOTAL = 50.000 kN/㎡

17.1.4 설계단면력계산

1) 단 면 A-A [x = La = 6.000 m]

① Moment

$$-Ma = \frac{1}{2} Ko \cdot \gamma \left(\frac{x^4}{12n^2} + \frac{x^3 \cdot Ho}{3n} + \frac{x^2 \cdot Ho^2}{2} \right) + Ko \cdot q \left(\frac{x^3}{6n} + \frac{x^2 \cdot Ho}{2} \right)$$

$$= \frac{1}{2} \times 0.63 \times 20.0 \left(\frac{6.000^4}{12 \times 1.16^2} + \frac{6.000^3 \times 1.000}{3 \times 1.16} + \frac{6.000^2 \times 1.000^2}{2} \right)$$

$$+ 0.63 \times 50.00 \left(\frac{6.000^3}{6 \times 1.16} + \frac{6.000^2 \times 1.000}{2} \right) = 2575.245 \text{ kN} \cdot \text{m}$$

② Shear Force

$$-Sa = \frac{1}{2} Ko \cdot \gamma \left(\frac{x^3}{3n^2} + \frac{x^2 \cdot Ho}{n} + x \cdot Ho^2 \right) + Ko \cdot q \left(\frac{x^2}{2n} + x \cdot Ho \right)$$

$$= \frac{1}{2} \times 0.63 \times 20.0 \left(\frac{6.000^3}{3 \times 1.16^2} + \frac{6.000^2 \times 1.000}{1.158} + 6.000 \times 1.000^2 \right)$$

$$+ 0.63 \times 50.00 \left(\frac{6.000^2}{2 \times 1.16^2} + 6.000 \times 1.000 \right) = 1258.621 \text{ kN}$$

∴ USD : Ma = 1.6 × 2575.245 ÷ 5.750 × 1.2 = 859.908 kN · m/m
WSD : Ma = 1.0 × 2575.245 ÷ 5.750 × 1.2 = 537.442 kN · m/m
USD : Sa = 1.6 × 1258.621 ÷ 5.750 × 1.2 = 420.27 kN/m

적용위치(x)	La	Lb / 4				비 고
	6.000	5.500	4.125	2.750	1.375	
hx	5.750	5.750	4.600	3.400	2.200	[hx=Ho+x/n]
Moment	2575.245	1998.759	886.104	299.227	53.975	kN · m
Mx[USD]	859.908	667.412	369.852	140.813	39.255	kN · m/m
Mx[WSD]	537.442	417.132	231.158	88.008	24.534	kN · m/m
Shear Force	1258.6210	1051.185	593.641	282.32	92.635	kN
Sx[USD]	420.270	351.004	247.781	132.856	67.371	kN/m

2) 단 면 B-B [x = Lb = 5.500 m]
: 위의 표17-1 참조

3) 단 면 C-C [x = 4.125 m]
: 위의 표17-1 참조

17.1.5 단면설계(날개벽 단면A-A)

1) 단면계산 조건

- 단 면 폭 : b_w = 1000 mm
- 단 면 높 이 : h = 600 mm
- 헌 치 : H = 300 mm
- 유 효 높 이 : d_1 = 600 mm (단면계산시)
  d_2 = 500 mm (전단계산시)
- 피 복 두 께 : d_1' = 100 mm (인장1단)
- 피 복 두 께 : d_2' = 0 mm (인장2단)
- 계수 모멘트 : USD : Mu = 859.908 kN·m
  WSD : Ms = 537.442 kN·m
- 계수전단강도: USD : Vu = 420.270 kN

- 콘크리트 강도 : f_{ck} = 30.0 MPa
- 철근 항복응력 : f_y = 400 MPa
- 강도 감소계수 : ϕ = 0.9 (휨)
  ϕ = 0.85 (전단)

2) 단면 계산

(1) 철근량 산정

- 최소철근량(A_S) : (1.4 / fy · b · d) = 2100 ㎟
- 필요철근량(A_S) : $[d-\sqrt{(d^2-4Mu/1.7 \cdot fck \cdot b \cdot \Phi)}] / [2 \cdot fy / 1.7 \cdot fck \cdot b]$ = 4213 ㎟
- 최대철근량(A_S) : $0.75 \cdot 0.85 \cdot \beta \cdot fck \cdot 600 / [fy \cdot (600+fy)] \cdot b \cdot d$ = 14631 ㎟
- 4/3 (요구 철근량 (A_S)) = 5617.333 ㎟

(2) 사용 철근량 (A_S)

- 인장 철근량 : 1단 : H 29 @ 125 - 8 ea = 5139 ㎟
  2단 : H @ 0 - ea = 0 ㎟ ; Total: 5,139 ㎟

(3) 철근비검토

- 최소철근비: $\rho_{min} = 0.25 \times \sqrt{(f_{ck})}/f_y$ = 0.00342 < 1.4 / f_y = 0.00350
- 균형철근비: $\rho_b = 0.85 \times \beta_1 \times (f_{ck} / f_y) \times (600 / (600 + f_y))$ = 0.03198 (β_1= 0.836)

∴ ρ_{min} = 0.00350 < ρ = 0.00857 < ρ_{max} = 0.02283 == OK ==

(3) 단면 검토

- 등가응력 깊이 : a = As · fy / (0.85 · fck · b) = 80.61 mm
- 극한 모멘트 : Mu = 859.91 kN·m
- 공칭 모멘트 : Mn = As · fy (d-a/2) = 1150.55 kN·m
- 설계 모멘트 : Md = Φ · Mn = 1035.50 kN·m

∴ Md > Mu == OK ==

3) 전단 검토

- $Vc = 1/6 \times \sqrt{(f_{ck})} \times b_w \times d =$ 456.44 kN

- Φ · Vc	= 387.974 kN	- Req Vs	= (Vu - ϕVc) / ϕ	= 37.995	kN
- 0.5 · Φ · Vc	= 193.99 kN	- Vs	= Av · fy · d / s	= 337.867	kN
- Min Av	= 131.25 ㎟	- Max Vs	= 2/3 · √fck · bw · d	= 1825.742	kN

∴ Vu > Φ · Vc === 전단철근 필요 !!!

(1) 사용 전단철근

- 전단 철근 간격 : s = 150 mm
- 전단 철근 직경 : H 13 - 2.0
- 전단 철근 단면적 : Av = 253 ㎟

∴ Req'd Vs < Vs < Max. Vs == OK ==

(2) 단면력 검토 (shear force)

- 공칭 전단강도 : Vn = 794.307 kN
- 설계 전단강도 : Vd = 675.161 kN ∴ Vd > Vu == OK ==

4) 균열 검토

- 콘크리트 피복 두께 (dc) = 100 mm
- 인장철근 도심까지의 거리 (dc') = 100 mm
- d = 700 - 100 = 600 mm

- fs = M / {As (d - x/3)}
  = 537442435 ÷ (5139.2 × (600 - 175 ÷ 3)) = 193.1 N/㎟
- 철근 유효단면적 : A = 1000 × 100 × 2 ÷ 8 = 25000 ㎟
- 압축응력 깊이 : x = k · d = 175 mm
- 중 립 축 비 : k = $-np + \sqrt{(np)^2 + 2np}$ = 0.29155 (n = 7)
- 철 근 비 : p = As / [b · d]
  = 5139 ÷ (1000 × 600) = 0.00857
- 인장철근의 간격 검토

Cc = 100 - 29 / 2 = 85.5 mm

sa1 = 375 x (210 / fs) - 2.5 x Cc
= 375 x (210 / 193.1) - 2.5 x 86 = 194.2 mm

sa2 = 300 x (210 / fs)
= 300 x (210 / 193.1) = 326.3 mm

sa = Min (194.2 , 326.3) = 194.2 mm

s = 125 mm < sa = 194.2 mm == OK ==

5) 배력철근 계산

- 주철근량의 1/5 : A_{min1} = 1/5 × 5139.2 = 1028 ㎟
- 단면적의 0.30% : A_{min2} = 0.003 × Ag = 0.003 × 1000 600 = 1800 ㎟
- 배 력 철 근 량 : H 16 , 인장측 : 150 mm , 압축측 : 300 mm
  * 인장측 배력철근량 : 198.6 × (1000 ÷ 150) × 1 = 1390 ㎟
  * 압축측 배력철근량 : 198.6 × (1000 ÷ 300) = 596 ㎟
- 배 력 철 근 량 : 1986 ㎟ > 1800 ㎟ = Amin == O.K ==
- 인장측 배력철근량 : 1390 ㎟ < 5139 ㎟ = 인장측 주철근량 == O.K ==

17.1.6 단면설계(날개벽 단면B-B)

1) 단면계산 조건

- 단 면 폭 : b_w = 1000 mm
- 단 면 높 이 : h = 600 mm
- 유 효 높 이 : d_1 = 500 mm (단면계산시)
  d_2 = 500 mm (전단계산시)
- 피 복 두 께 : d_1' = 100 mm (인장1단)
- 피 복 두 께 : d_2' = 0 mm (인장2단)
- 계수 모멘트 : USD : Mu = 667.41 kN·m
  WSD : Ms = 417.13 kN·m
- 계수전단강도: USD : Vu = 351.00 kN
- 콘크리트 강도 : f_{ck} = 30.0 MPa
- 철근 항복응력 : f_y = 400 MPa
- 강도 감소계수 : ϕ = 0.9 (휨)
  ϕ = 0.85 (전단)

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2) 단면 계산

(1) 철근량 산정

- 최소철근량(A_S) : (1.4 / fy·b·d) = 1750 ㎟
- 필요철근량(A_S) : $[d-\sqrt{(d^2-4Mu/1.7 \cdot fck \cdot b \cdot \Phi)}] / [2 \cdot fy / 1.7 \cdot fck \cdot b]$ = 3953 ㎟
- 최대철근량(A_S) : $0.75 \cdot 0.85 \cdot \beta \cdot fck \cdot 600 / [fy \cdot (600+fy)] \cdot b \cdot d$ = 12192 ㎟
- 4/3 (요구 철근량 (A_S)) = 5270.667 ㎟

(2) 사용 철근량 (A_S)

- 인장 철근량 : 1단 : H 29 @ 125 - 8 ea = 5139 ㎟
  2단 : H 0 @ 0 - 0 ea = 0 ㎟ ; Total: 5,139 ㎟

(3) 철근비검토

- 최소철근비: $\rho_{min} = 0.25 \times \sqrt{(f_{ck})}/f_y$ = 0.00342 < 1.4 / f_y = 0.00350
- 균형철근비: $\rho_b = 0.85 \times \beta_1 \times (f_{ck} / f_y) \times (600 / (600 + f_y))$ = 0.03198 (β_1= 0.836)

∴ ρ_{min} = 0.00350 < ρ = 0.01028 < ρ_{max} = 0.02283 == OK ==

(3) 단면 검토

- 등가응력 깊이 : a = As·fy / (0.85·fck·b) = 80.61 mm
- 극한 모멘트 : Mu = 667.41 kN·m
- 공칭 모멘트 : Mn = As·fy (d-a/2) = 944.99 kN·m
- 설계 모멘트 : Md = Φ· Mn = 850.49 kN·m

∴ Md > Mu == OK ==

3) 전단 검토

- Vc = $1/6 \times \sqrt{(f_{ck})} \times b_w \times d$ = 456.44 kN
- Φ·Vc = 387.974 kN

∴ Vu < Φ·Vc === 전단철근 불필요 !!!

4) 균열 검토

- 콘크리트 피복 두께 (dc) = 100 mm
- 인장철근 도심까지의 거리 (dc') = 100 mm
- d = 600 - 100 = 500 mm

- fs = M / {As (d - x/3)}
  = 417132313 ÷ (5139.2 × (500 - 157 ÷ 3)) = 181.3 N/㎟
- 철근 유효단면적 : A = 1000 × 100 × 2 ÷ 8 = 25000 ㎟
- 압축응력 깊이 : x = k · d = 157 mm
- 중 립 축 비 : k = -np + √ ((np)² + 2np) = 0.31417 (n = 7)
- 철 근 비 : p = As / [b · d]
  = 5139 ÷ (1000 × 500) = 0.01028
- 인장철근의 간격 검토

Cc = 100 - 29 / 2 = 85.5 mm

sa1 = 375 x (210 / fs) - 2.5 x Cc
= 375 x (210 / 181.3) - 2.5 x 86 = 220.6 mm
sa2 = 300 x (210 / fs)
= 300 x (210 / 181.3) = 347.4 mm

sa = Min (220.6 , 347.4) = 220.6 mm
s = 125 mm < sa = 220.6 mm == OK ==

5) 배력철근 계산

- 주철근량의 1/5 : A_{min1} = 1/5 × 5139.2 = 1028 ㎟
- 단면적의 0.30% : A_{min2} = 0.003 × Ag = 0.003 × 1000 × 600 = 1800 ㎟
- 배 력 철 근 량 : H 16 , 인장측 : 150 mm , 압축측 : 300 mm
  * 인장측 배력철근량 : 198.6 × (1000 ÷ 150) × 1 = 1390 ㎟
  * 압축측 배력철근량 : 198.6 × (1000 ÷ 300) = 596 ㎟
- 배 력 철 근 량 : 1986 ㎟ > 1800 ㎟ = Amin == 0.K ==
- 인장측 배력철근량 : 1390 ㎟ < 5139 ㎟ = 인장측 주철근량 == 0.K ==

17.1.7 단면설계(날개벽 단면C-C)

1) 단면계산 조건

- 단 면 폭 : b_w = 1000 mm
- 단 면 높 이 : h = 600 mm
- 유 효 높 이 : d_1 = 500 mm (단면계산시)
  d_2 = 500 mm (전단계산시)
- 피 복 두 께 : d_1' = 100 mm (인장1단)
- 피 복 두 께 : d_2' = 0 mm (인장2단)
- 계수 모멘트 : USD : Mu = 369.85 kN · m
  WSD : Ms = 231.16 kN · m
- 계수전단강도: USD : Vu = 247.78 kN

- 콘크리트 강도 : f_{ck} = 30.0 MPa
- 철근 항복응력 : f_y = 400 MPa
- 강도 감소계수 : ϕ = 0.9 (휨)
  ϕ = 0.85 (전단)

2) 단면 계산

(1) 철근량 산정

- 최소철근량(A_S) : (1.4 / fy · b · d) = 1750 ㎟
- 필요철근량(A_S) : [d-√(d^2-4Mu/1.7 · fck · b · Φ)] / [2 · fy / 1.7 · fck · b] = 2126 ㎟
- 최대철근량(A_S) : 0.75 · 0.85 · β · fck · 600 / [fy · (600+fy)] · b · d = 12192 ㎟
- 4/3 (요구 철근량 (A_S)) = 2834.667 ㎟

(2) 사용 철근량 (A_S)

- 인장 철근량 : 1단 : H 29 @ 125 - 8 ea = 5139 ㎟
  2단 : H @ 0 - ea = 0 ㎟ ; Total: 5,139 ㎟

(3) 철근비검토

- 최소철근비: $\rho_{min} = 0.25 \times \sqrt{(f_{ck})}/f_y$ = 0.00342 < 1.4 / f_y = 0.00350
- 균형철근비: $\rho_b = 0.85 \times \beta_1 \times (f_{ck} / f_y) \times (600 / (600 + f_y))$ = 0.03198 (β_1= 0.836)

∴ ρ_{min} = 0.00350 < ρ = 0.01028 < ρ_{max} = 0.02283 == OK ==

(3) 단면 검토

- 등가응력 깊이 : a = As · fy / (0.85 · fck · b) = 80.61 mm
- 극한 모멘트 : Mu = 369.85 kN · m
- 공칭 모멘트 : Mn = As · fy (d-a/2) = 944.99 kN · m
- 설계 모멘트 : Md = Φ · Mn = 850.49 kN · m

∴ Md > Mu == OK ==

3) 전단 검토

- Vc = 1/6 × √(f_{ck}) × b_w × d = 456.44 kN
- Φ · Vc = 387.974 kN

∴ Vu < Φ · Vc === 전단철근 불필요 !!!

4) 균열 검토

- 콘크리트 피복 두께 (dc) = 100 mm
- 인장철근 도심까지의 거리 (dc') = 100 mm
- d = 600 - 100 = 500 mm

- fs = M / {As (d - x/3)}
  = 231157565 ÷ (5139.2 × (500 - 157 ÷ 3)) = 100.5 N/㎟
- 철근 유효단면적 : A = 1000 × 100 × 2 ÷ 8 = 25000 ㎟
- 압축응력 깊이 : x = k · d = 157 mm
- 중 립 축 비 : k = -np + √ ($(np)^2$ + 2np) = 0.31417 (n = 7)
- 철 근 비 : p = As / [b · d]
  = 5139 ÷ (1000 × 500) = 0.01028
- 인장철근의 간격 검토

  Cc = 100 - 29 / 2 = 86 mm

  sa1 = 375 x (210 / fs) - 2.5 x Cc
  = 375 x (210 / 100.5) - 2.5 x 86 = 570.0 mm

  sa2 = 300 x (210 / fs)
  = 300 x (210 / 100.5) = 627.0 mm

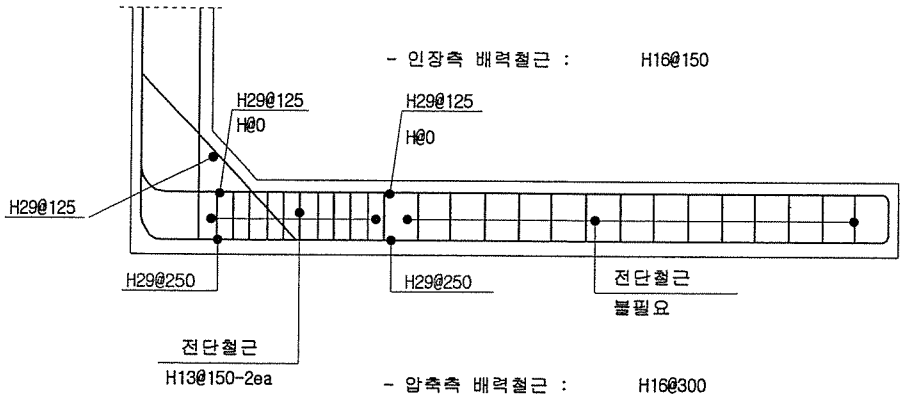
  sa = Min (570.0 , 627.0) = 570.0 mm

  s = 125 mm < sa = 570.0 mm == OK ==

5) 배력철근 계산

- 주철근량의 1/5 : A_{min1} = 1/5 × 5139.2 = 1028 ㎟
- 단면적의 0.30% : A_{min2} = 0.003 × Ag = 0.003 × 1000 × 600 = 1800 ㎟
- 배 력 철 근 량 : H 16 , 인장측 : 150 mm , 압축측 : 300 mm
  - * 인장측 배력철근량 : 198.6 × (1000 ÷ 150) × 1 = 2582 ㎟
  - * 압축측 배력철근량 : 198.6 × (1000 ÷ 300) = 596 ㎟
- 배 력 철 근 량 : 3178 ㎟ > 1800 ㎟ = Amin == O.K ==
- 인장측 배력철근량 : 1800 ㎟ < 5139 ㎟ = 인장측 주철근량 == O.K ==

17.1.8 날개벽 주철근조립도



C(함) 탑리제6

- 2.0 x 2.00 x 1
- 토피 = 7.2m 이하

1. 설 계 조 건
2. 단 면 가 정
3. 해석모델 및 단면제원
4. 하중산정
5. 하중재하도
6. 하중계수 및 하중조합
7. INPUT DATA
8. OUTPUT
9. 단면력요약
10. 단 면 력 도
11. 단 면 검 토
12. 우각부 검토
13. 배력철근 검토
14. 사용성 검토
15. 기초지지력 검토
16. 주철근조립도
17. 날개벽 설계

1. 설계 조건

1) 구조물명 : c (함)

2) 구조형식 : 철근 콘크리트 구조

3) 설계하중 : KRL2012 (복 선)

4) 재료중량

- 철근 콘크리트(γ_c)	=	24.5	kN/m^3
- 무근 콘크리트(γ_{con})	=	23.0	kN/m^3
- 뒷채움 토사(γ_t)	=	20.0	kN/m^3
- 뒷채움 토사(γ_{sub})	=	11.0	kN/m^3
- 지하수(γ_w)	=	10.0	kN/m^3

5) 사용재료의 성질

- 콘크리트 설계기준 강도(fck)	=	30.0	MPa
- 콘크리트 탄성계수(Ec)	=	27537	MPa
- 철근의 항복강도(fy)	=	400.0	MPa
- 철근의 탄성계수(Es)	=	200000	MPa

6) 토 사

- 흙의 내부마찰각 (ϕ)	=	35.0	°
- 정지 토압계수 (Ko)	=	0.426	

7) 기 초 형 식 : 직접기초

8) 사 각(Skew) : 62.00 ° 연 장 (L) : 20.00 m

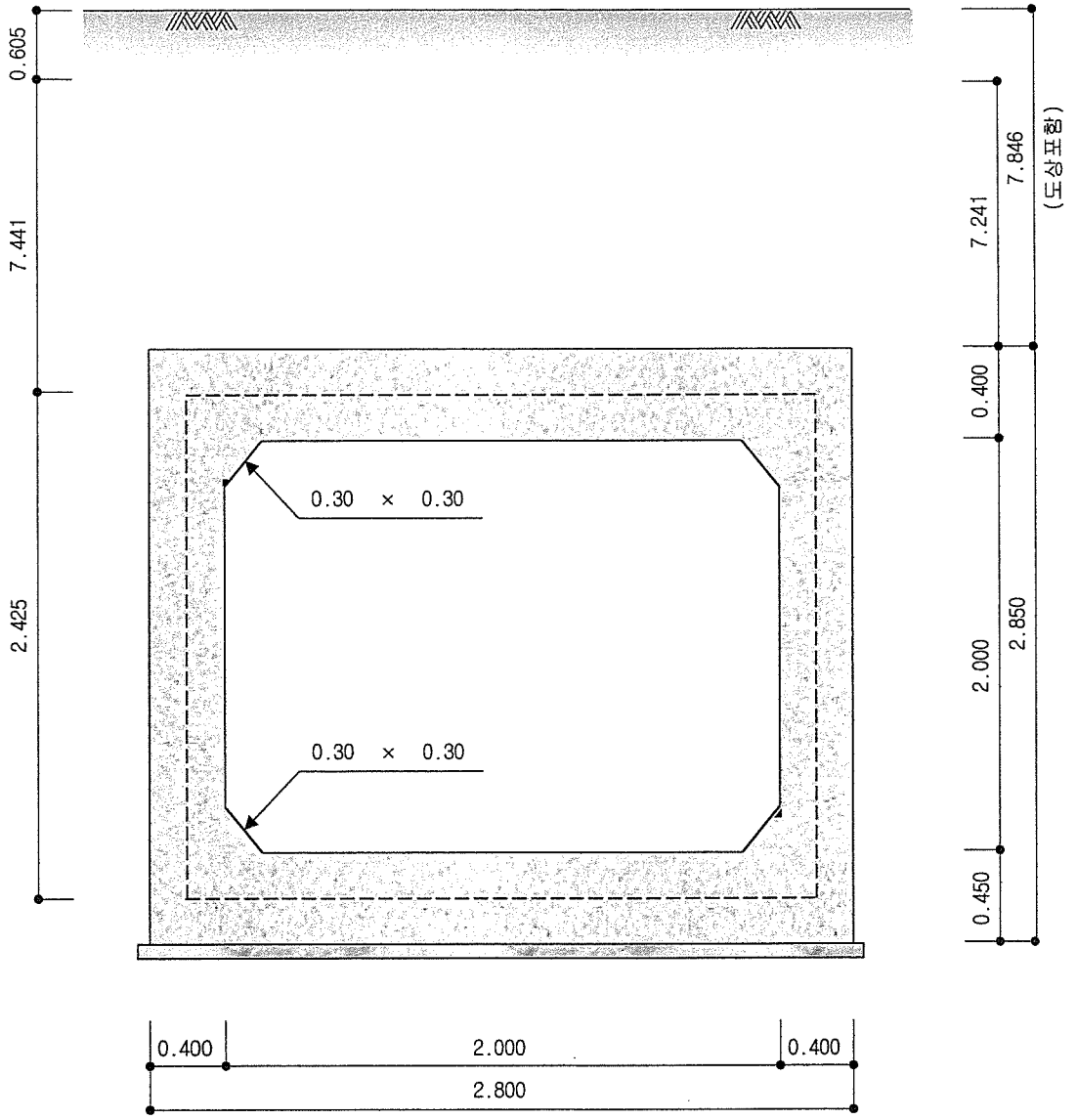
9) 설계방법

- 강도 설계법 : 부재 단면검토(슬래브, 벽체, 보, 기둥 등)
- 허용응력 설계법 : 사용성 검토(처짐, 균열, 우각부 검토)

10) 참고문헌

- 철도설계기준(노반편), 국토해양부, 2013
- 콘크리트 구조설계기준해설, 한국콘크리트 학회, 2012

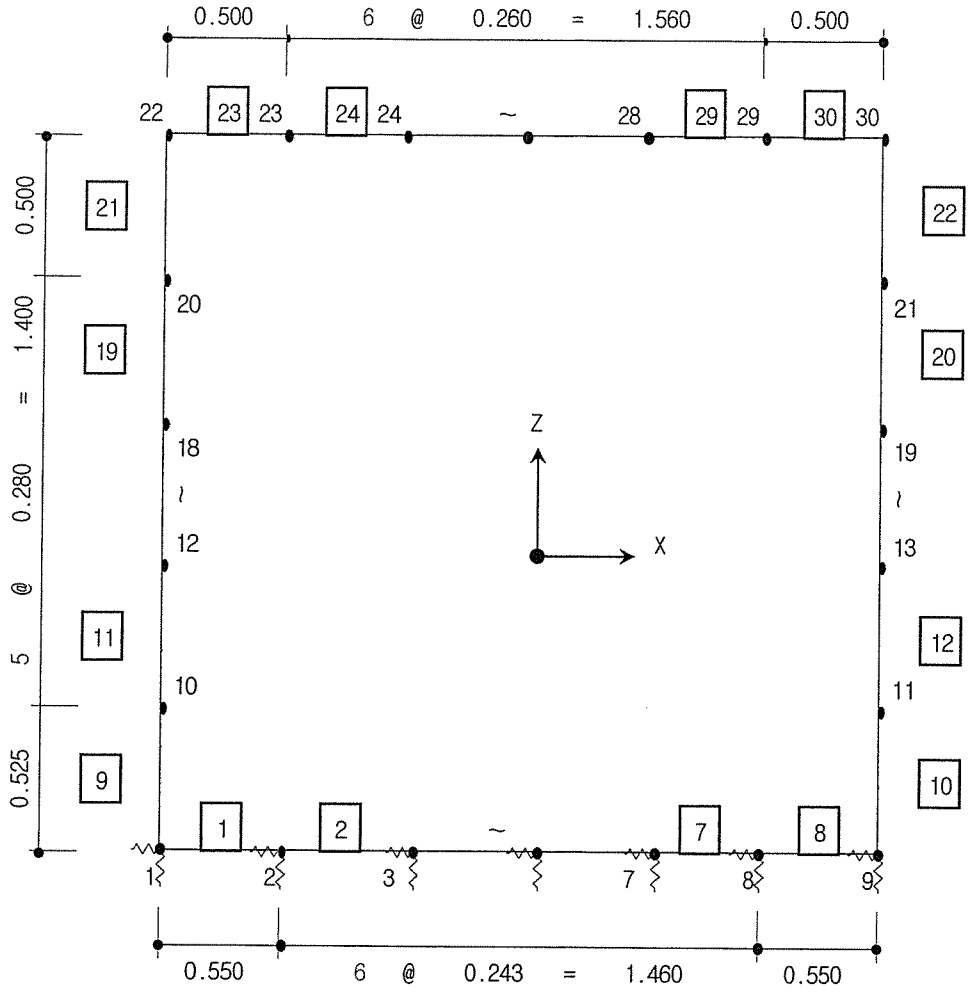
2. 단면 가정



※ 유효경간

Skew =	62.0	°					
Ln =	2.400	m					
Ls =	2.718	m					
Ls/B =	2.718	/	20.000	=	0.136	<	1.500
L =	2.560	m					

3. 해석모델 및 단면제원



1) 절점 좌표

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
1	0.000	0.000	0.000	13	2.560	0.000	0.805
2	0.550	0.000	0.000	14	0.000	0.000	1.085
3	0.793	0.000	0.000	15	2.560	0.000	1.085
4	1.037	0.000	0.000	16	0.000	0.000	1.365
5	1.280	0.000	0.000	17	2.560	0.000	1.365
6	1.523	0.000	0.000	18	0.000	0.000	1.645
7	1.767	0.000	0.000	19	2.560	0.000	1.645
8	2.010	0.000	0.000	20	0.000	0.000	1.925
9	2.560	0.000	0.000	21	2.560	0.000	1.925
10	0.000	0.000	0.525	22	0.000	0.000	2.425
11	2.560	0.000	0.525	23	0.500	0.000	2.425
12	0.000	0.000	0.805	24	0.760	0.000	2.425

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
25	1.020	0.000	2.425	28	1.800	0.000	2.425
26	1.280	0.000	2.425	29	2.060	0.000	2.425
27	1.540	0.000	2.425	30	2.560	0.000	2.425

2) 경계 조건

joint	spring계수 (kN/m²)		joint	spring계수 (kN/m²)	
	z방향(수직)	x방향(수평)		z방향(수직)	x방향(수평)
1 . 9	6216		3 ~ 7	3184	
2 . 8	5191				

3) 단면제원

Element	두께	폭	비 고
23 ~ 30	0.400	1.000	상부슬래브
1 ~ 8	0.450	1.000	하부슬래브
9 ~ 22	0.400	1.000	벽 체

4) 강역설정

(1) 강역설정기준(콘크리트구조설계기준 2012)

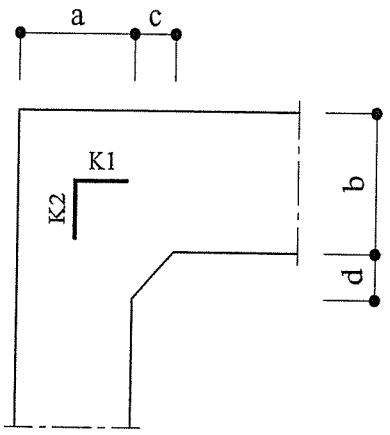
CASE 1 : 부재단부가 다른 부재와 접합할 때는 부재단에서 부재두께의 1/4 안쪽정에서 절정까지

CASE 2 : 부재가 그 축선에 대해 25° 이상 60° 미만인 경사진 헌치를 갖는 경우에는 부재두께가 1.5배가 되는 점에서 부터 절정까지

CASE 3 : 헌치의 경사가 60° 이상의 경우는 헌치의 시점에서 부재두께의 1/4 안쪽 점에서부터 절정까지

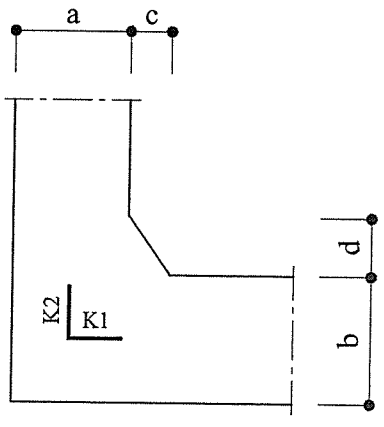
(2) 강역설정

- 절점 22 , 30



a =	400	mm	c =	300	mm
b =	400	mm	d =	300	mm
K1 =	300	mm	K2 =	300	mm

- 절점 1 , 9

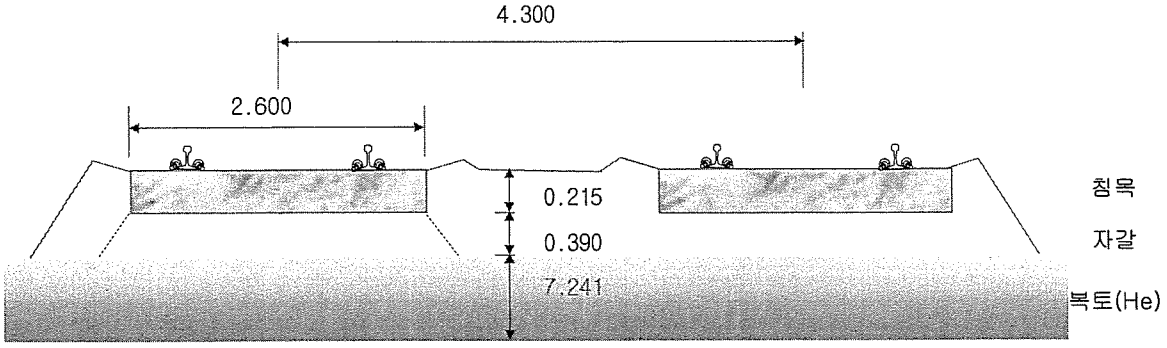


a =	400	mm	c =	300	mm
b =	450	mm	d =	300	mm
K1 =	275	mm	K2 =	325	mm

4. 하중산정

4.1 상시

1) 상부 고정하중(지하수 無)



① 하중 분포폭 산정 (b')

① He < 0.5m 경우 : b + d

b_1 = 2.600 + 0.390 = 2.990 m

② He ≥ 0.5m 경우 : c + b + (d + He)

b_2 = 4.300 + 2.600 + (0.390 + 7.241) = 14.590 m

여기서, He : 시공기면에서의 토피고(m)

a : 동륜간 축간거리(m) c : 복선선로 중심간격(m)

b : 침목길이(m) d : 침목하면의 도상두께(m)

H : 상부슬래브 두께

He ≥ 0.5 m

∴ b' = 14.590 m

② 구조물 자중 : 프로그램 상에서 Self Weight 기능을 이용하여 자동 고려

③ 궤도 중량

- 레일 : 레일당 1.5kN/m를 적용

q_1 = 4 × 1.500 / 14.590 = 0.411 kN/㎡

- 침목 : 고속철도용 5.0kN/m

q_2 = 5.000 × 2 / 14.590 = 0.685 kN/㎡

= 1.096 kN/㎡

④ 도상 (q_2)

TCL = 0.215 × 19.000 × 1.3 = 5.311 kN/㎡

HSB = 0.390 × 19.000 × 1.3 = 9.633 kN/㎡

= 14.944 kN/㎡

⑤ 복토하중 (q_3) = 20.000 × 7.241 = 144.820 kN/㎡

∴ $q_1 + q_2 + q_3$ = 1.096 + 14.944 + 144.820 = 160.860 kN/㎡

2) 활하중

① 활하중 산정 : KRL 2012

$$W_{HL} = \frac{2P}{a \times b'} = \frac{2\times(220+80x3)}{3.000 \times 14.590} = 21.019 \text{ kN/㎡}$$

∴ W = 21.019 kN/㎡

② 충격계수

1) 단선 (i_0) (철도설계기준 노반편(2013) p.5-7)

지 간 L (m)	0	5	10	20	30	40	50	70	100
충격계수 (i)	0.60	0.48	0.43	0.37	0.34	0.32	0.30	0.27	0.24

* 상기표에 없는 지간의 충격 계수는 보간법으로 구한다.

지 간 L (m) = 2.560 m

따라서 i_0 = 0.539 (보간법에 의하여 산정된 충격계수)

2) 구조물 상면의 복토높이에 따른 충격 계수

H ≥ 1.0일 경우 $i = io \cdot \{(2.5 - H)/1.5\}$

여기서, H ≤ 1.0 m 에서는 $i = i_o$

H ≥ 2.5 m 에서는 i = 0

따라서, 본 구조물의 H = 7.846 m i = 0.000

W_L = 21.019 ×(1 + 0.000) = 21.019 kN/㎡

③ 활하중에 의한 측압 (충격비고려)(철도설계기준 노반편(2013) p.5-6)

W_{LH} = 21.019 × 0.4 = 8.408 kN/㎡

3) 토 압

- 지하수가 없는 경우 작용 토압

q_1 = 0.426 ×(16.040 + 20.000 × 7.441) = 70.230 kN/㎡

q_2 = 70.230 + 0.426 ×(20.000 × 0.500) = 74.490 kN/㎡

q_3 = 74.490 + 0.426 ×(20.000 × 0.280) = 76.876 kN/㎡

q_4 = 76.876 + 0.426 ×(20.000 × 0.280) = 79.262 kN/㎡

q_5 = 79.262 + 0.426 ×(20.000 × 0.280) = 81.648 kN/㎡

q_6 = 81.648 + 0.426 ×(20.000 × 0.280) = 84.034 kN/㎡

q_7 = 84.034 + 0.426 ×(20.000 × 0.280) = 86.420 kN/㎡

q_8 = 86.420 + 0.426 ×(20.000 × 0.525) = 90.893 kN/㎡

- 시공중 편토압 산정 (지하수가 없는 경우 작용 토압)

q_1 = 0.426 × (0.000 + 20.000 × 0.200) = 1.704 kN/㎡

q_2 = 1.704 + 0.426 × (20.000 × 0.500) = 5.964 kN/㎡

q_3 = 5.964 + 0.426 × (20.000 × 0.280) = 8.350 kN/㎡

q_4 = 8.350 + 0.426 × (20.000 × 0.280) = 10.736 kN/㎡

q_5 = 10.736 + 0.426 × (20.000 × 0.280) = 13.122 kN/㎡

q_6 = 13.122 + 0.426 × (20.000 × 0.280) = 15.508 kN/㎡

q_7 = 15.508 + 0.426 × (20.000 × 0.280) = 17.894 kN/㎡

q_8 = 17.894 + 0.426 × (20.000 × 0.525) = 22.367 kN/㎡

4) 온도하중

토피가 1.0m 이상일 경우에는 온도변화를 고려치 않으며, 토피가 1.0m 이하일 경우에는 다음식을 따른다.

$t = a \times t_0$ = 0.000 × 15.0 = 0.000 ℃

t : 박스 구조물의 상부 슬래브에 작용하는 온도변화

a : 토피심도(m)에 따른 저감률 $a=1-h_0$ (h_0:토피심도)

t_0 : 지표면에서의 기본온도 변화

상부슬래브의 두께가 700mm 이상인 경우 $t_0 = \pm 10$℃

상부슬래브의 두께가 700mm 미만인 경우 $t_0 = \pm 15$℃

토피고 H > 1.0m 이므로 온도변화는 고려하지 않는다.

5) 건조수축

$$\Delta Tx = \frac{\varepsilon}{\alpha} = \frac{-0.00015}{0.00001} = -15\,^{\circ}C$$

6) 장대레일 하중

장대레일 종하중은 필요시에 고려하여야 하며, 1궤도당 10 kN/m로 하고 작용위치는 상부슬래브 축선으로 한다. (단, 토피가 1.0m 이상인 경우는 이를 무시한다.)

토피가 7.846 m 이므로 장대레일 하중을 무시한다.

H_r = 0.000 × 4 / 14.590 = 0.000 kN/㎡

7) 상시 지반반력 계수

지지 지반 N치 = 7

Eo = 2800 × N = 2800 × 7 = 19600

Kvo = 1 / 0.3 x α x Eo = 1 / 0.3 × 1 x 19600 = 65333

Bv = √ Av = √ (2.560 × 2.560) = 2.560

Kv = Kvo (Bv/0.3)^-3/4 = 13086 kN/㎡

13086 × (0.400 / 2 + 0.550 / 2) = 6216 kN/m² - 저판 단부 스프링

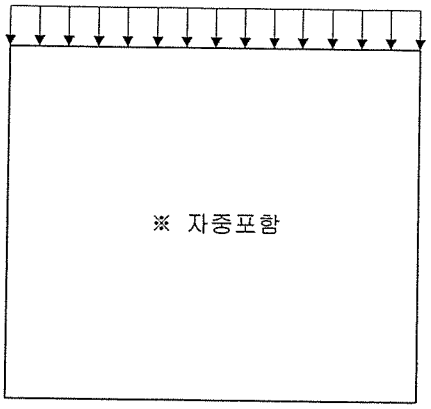
13086 × (0.550 / 2 + 0.243 / 2) = 5191 kN/m² - 저판 전단검토위치

13086 × (0.243 / 2 + 0.243 / 2) = 3184 kN/m² - 저판 중앙부 스프링

5. 하중재하도

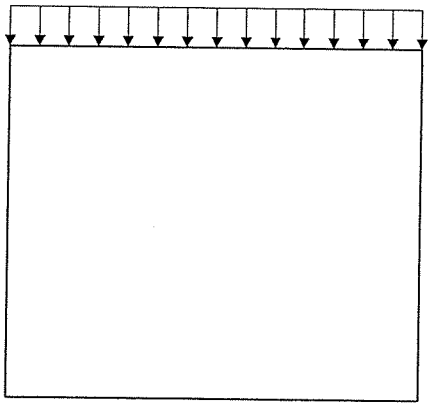
① 고정하중

W_D = 160.860 kN/m²



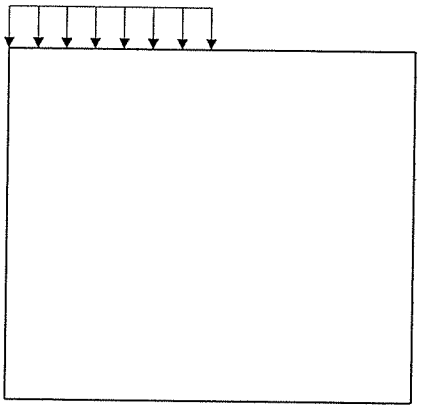
② 활하중(만재하)

W_L = 21.019 kN/m²



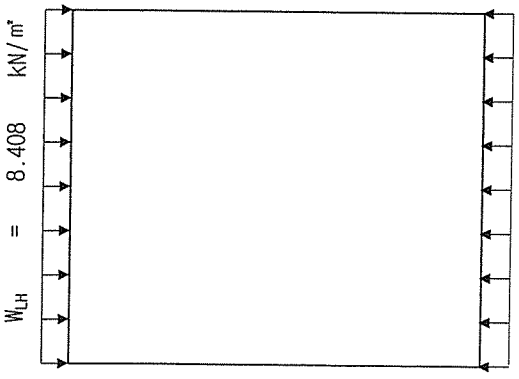
③ 활하중(편재하)

W_L = 21.019 kN/m²



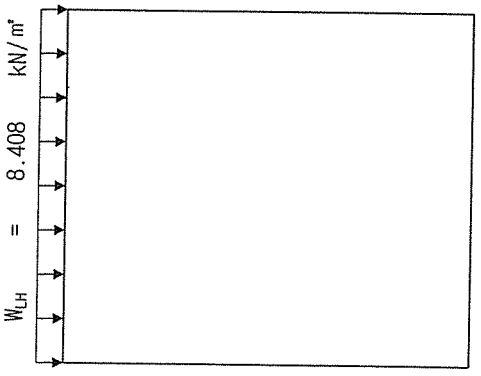
④ 활하중에 의한 측압(만재하)

W_{LH} = 8.408 kN/m²

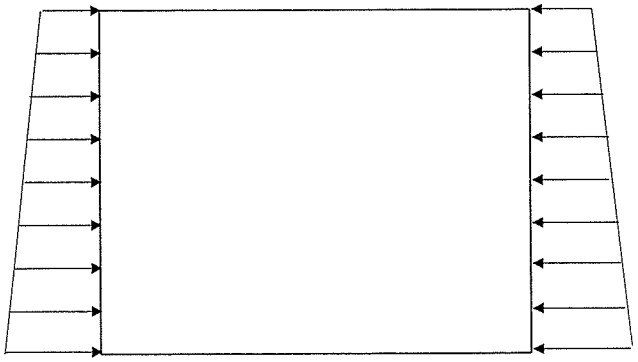


⑤ 활하중에 의한 측압(편재하)

W_{LH} = 8.408 kN/m²



⑥ 수평토압(지하수 없는 경우)

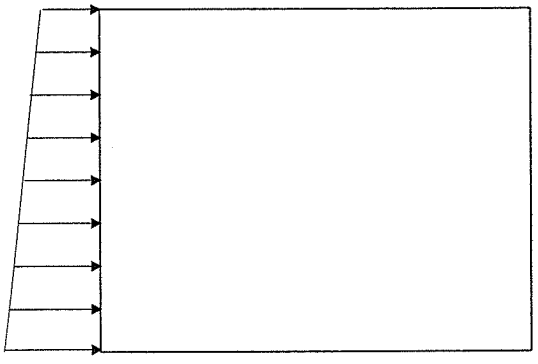


q_1 = 70.230 kN/㎡

q_7 = 90.893 kN/㎡

⑦ 편측토압(지하수 없는 경우)

q_1 = 1.704 kN/㎡



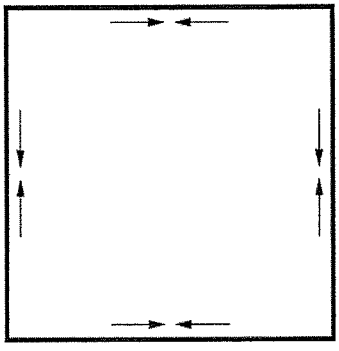
q_7 = 22.367 kN/㎡

⑧ 온도하중

△T = 0 °

⑨ 건조수축

△T = -15 °



⑩ 장대레일 종하중

Hr = 0.000 kN/m²

6. 하중계수 및 하중조합

1) 극한하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
1	1.35	1.85		1.85		1.6						
2	1.35	1.85		1.85		0.6						
3	1.35		1.85		1.85	1.6						
4	1.35		1.85		1.85	0.6						
5	1.6	1.60		1.60		1.6						
6	1.6	1.60		1.60		0.6						
7	1.6		1.6		1.6	1.6						
8	1.6		1.6		1.6	0.6						
9	1.35	1.40		1.40		1.6		1.35		1.35		
10	1.35	1.40		1.40		0.6		1.35		1.35		
11	1.35	1.40		1.40		1.6			1.35	1.35	1.40	
12	1.35	1.40		1.40		0.6			1.35	1.35	1.40	
13	1.35		1.40		1.40	1.6		1.35		1.35		
14	1.35		1.40		1.40	0.6		1.35		1.35		
15	1.35		1.40		1.40	1.6			1.35	1.35	1.4	
16	1.35		1.40		1.40	0.6			1.35	1.35	1.4	
17	1.35		1.85		1.85		1.60					
18	1.35		1.85		1.85		0.60					
19	1.60		1.60		1.60		1.60					
20	1.60		1.60		1.60		0.60					

2) 사용하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
21	1.0	1.0		1.0		1.0						
22	1.0	1.0		1.0		0.5						
23	1.0		1.0		1.0	1.0						
24	1.0		1.0		1.0	0.5						
25	1.0	1.0		1.0		1.0		1.0			1.0	
26	1.0	1.0		1.0		0.5		1.0			1.0	
27	1.0	1.0		1.0		1.0			1.0	1.0	1.0	
28	1.0	1.0		1.0		0.5			1.0	1.0	1.0	
29	1.0		1.0		1.0	1.0		1.0			1.0	
30	1.0		1.0		1.0	0.5		1.0			1.0	
31	1.0		1.0		1.0	1.0			1.0	1.0	1.0	
32	1.0		1.0		1.0	0.5			1.0	1.0	1.0	
33	1.0					1.0						
34	1.0		1.0		1.0		1.0					
35	1.0		1.0		1.0		0.5					

7. INPUT DATA

```
*VERSION
   8.3.1

*UNIT    ; Unit System
; FORCE, LENGTH, HEAT, TEMPER
   KN   , M, J, C

*STRUCTYPE    ; Structure Type
; iSTYP, iMASS, iSMAS, bMASSOFFSET, bSELFWEIGHT, GRAV, TEMPER, bALIGNBEAM, bALIGNSLAB, bROTRIGID
     1, 1, 1, NO, YES, 9.806, 0, NO, NO, NO

*REBAR-MATL-CODE    ; Rebar Material Code
; CONC_CODE, CONC_MDB, SRC_CODE, SRC_MDB
 KS01-Civil(RC), SD300, KS01-Civil(RC), SD300

*NODE    ; Nodes
; iNO, X, Y, Z
     1, 0, 0, 0
     2, 0.55, 0, 0
     3, 0.772, 0, 0
     4, 0.993, 0, 0
     5, 1.215, 0, 0
     6, 1.437, 0, 0
     7, 1.658, 0, 0
     8, 1.88, 0, 0
     9, 2.43, 0, 0
    10, 0, 0, 0.525
    11, 2.43, 0, 0.525
    12, 0, 0, 0.805
    13, 2.43, 0, 0.805
    14, 0, 0, 1.085
    15, 2.43, 0, 1.085
    16, 0, 0, 1.365
    17, 2.43, 0, 1.365
    18, 0, 0, 1.645
    19, 2.43, 0, 1.645
    20, 0, 0, 1.925
    21, 2.43, 0, 1.925
    22, 0, 0, 2.425
    23, 0.5, 0, 2.425
    24, 0.738, 0, 2.425
    25, 0.977, 0, 2.425
    26, 1.215, 0, 2.425
    27, 1.453, 0, 2.425
    28, 1.692, 0, 2.425
    29, 1.93, 0, 2.425
    30, 2.43, 0, 2.425

*ELEMENT    ; Elements
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, iOPT(EXVAL2) ; Frame  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, EXVAL2, bLMT ; Comp/Tens Truss
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iSUB, iWID             ; Planar Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iN5, iN6, iN7, iN8     ; Solid  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, REF, RPX, RPY, RPZ, iSUB, EXVAL  ; Frame(Ref. Point)
     1, BEAM  ,    2,    2,    1,    2,   180
     2, BEAM  ,    2,    2,    2,    3,   180
     3, BEAM  ,    2,    2,    3,    4,   180
     4, BEAM  ,    2,    2,    4,    5,   180
     5, BEAM  ,    2,    2,    5,    6,   180
     6, BEAM  ,    2,    2,    6,    7,   180
     7, BEAM  ,    2,    2,    7,    8,   180
     8, BEAM  ,    2,    2,    8,    9,   180
     9, BEAM  ,    2,    3,    1,   10,   180
    10, BEAM  ,    2,    3,    9,   11,     0
    11, BEAM  ,    2,    3,   10,   12,   180
    12, BEAM  ,    2,    3,   11,   13,     0
    13, BEAM  ,    2,    3,   12,   14,   180
    14, BEAM  ,    2,    3,   13,   15,     0
    15, BEAM  ,    2,    3,   14,   16,   180
    16, BEAM  ,    2,    3,   15,   17,     0
    17, BEAM  ,    2,    3,   16,   18,   180
    18, BEAM  ,    2,    3,   17,   19,     0
    19, BEAM  ,    2,    3,   18,   20,   180
    20, BEAM  ,    2,    3,   19,   21,     0
    21, BEAM  ,    2,    3,   20,   22,   180
    22, BEAM  ,    2,    3,   21,   30,     0
    23, BEAM  ,    2,    1,   22,   23,     0
    24, BEAM  ,    2,    1,   23,   24,     0
    25, BEAM  ,    2,    1,   24,   25,     0
    26, BEAM  ,    2,    1,   25,   26,     0
    27, BEAM  ,    2,    1,   26,   27,     0
    28, BEAM  ,    2,    1,   27,   28,     0
    29, BEAM  ,    2,    1,   28,   29,     0
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    30, BEAM  ,    2,     1,    29,    30,     0

*MATERIAL    ; Material
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA1]          ; STEEL, CONC, USER
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA2], [DATA2] ; SRC
; [DATA1] : 1, DB, NAME, CODE
; [DATA1] : 2, ELAST, POISN, THERMAL, DEN, MASS
; [DATA1] : 3, Ex, Ey, Ez, Tx, Ty, Tz, Sxy, Sxz, Syz, Pxy, Pxz, Pyz, DEN, MASS   ; Orthotropic
; [DATA2] : 1, DB, NAME, CODE or 2, ELAST, POISN, THERMAL, DEN, MASS
    1, USER , STEEL              , 0, 0, , C, NO, 0, 2, 2.0000e+008,   0.3, 1.1700e-005, 76.8196,     0
    2, USER , CONC               , 0, 0, , C, NO, 0, 2, 2.7537e+007,  0.18, 1.0000e-005,  24.5,     0

*MATL-COLOR
; iMAT, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
    1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
    2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5


*SECTION    ; Section
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL              ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF         ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE                ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       [SIZE-A]                                                              ; 3rd line
;       [SIZE-B]                                                              ; 4th line
;       [SIZE-C]                                                              ; 5th line
;       [SIZE-D]                                                              ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb                     ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                       ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                    ; 4th line
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;       [SIZE-A]                                                                ; 5th line
;       [SIZE-B]                                                                ; 6th line
;       [SIZE-C]                                                                ; 7th line
;       [SIZE-D]                                                                ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]  : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.45, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0

*SECT-COLOR
; iSEC, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
   1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   3, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5

*DGN-SECT
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL             ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF         ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE                ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
```

```
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                  ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                               ; 2nd line
;       [SIZE-A]                                                          ; 3rd line
;       [SIZE-B]                                                          ; 4th line
;       [SIZE-C]                                                          ; 5th line
;       [SIZE-D]                                                          ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb                 ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                  ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                               ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                   ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                ; 4th line
;       [SIZE-A]                                                          ; 5th line
;       [SIZE-B]                                                          ; 6th line
;       [SIZE-C]                                                          ; 7th line
;       [SIZE-D]                                                          ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]   : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.45, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0


*STLDCASE    ; Static Load Cases
; LCNAME, LCTYPE, DESC
  LC1  , USER,
  LC2  , USER,
  LC3  , USER,
  LC4  , USER,
  LC5  , USER,
  LC6  , USER,
  LC7  , USER,
  LC8  , USER,
  LC9  , USER,
  LC10 , USER,
  LC11 , USER,
  NCOMB1, USER,
  NCOMB2, USER,
  NCOMB3, USER,
  NCOMB4, USER,
  NCOMB5, USER,
  NCOMB6, USER,
  NCOMB7, USER,
  NCOMB8, USER,
  NCOMB9, USER,
  NCOMB10, USER,
  NCOMB11, USER,
  NCOMB12, USER,
  NCOMB13, USER,
  NCOMB14, USER,
  NCOMB15, USER,
  NCOMB16, USER,
  NCOMB17, USER,
  NCOMB18, USER,
  NCOMB19, USER,
  NCOMB20, USER,
  NCOMB21, USER,
  NCOMB22, USER,
  NCOMB23, USER,
  NCOMB24, USER,
  NCOMB25, USER,
  NCOMB26, USER,
  NCOMB27, USER,
  NCOMB28, USER,
  NCOMB29, USER,
  NCOMB30, USER,
  NCOMB31, USER,
  NCOMB32, USER,
  NCOMB33, USER,
  NCOMB34, USER,
  NCOMB35, USER,


*SPRING    ; Point Spring Supports
; NODE_LIST, Type, SDx, SDy, SDz, SRx, SRy, SRz, GROUP, FROMTYPE, EFFAREA, Kx, Ky, Kz
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; NODE_LIST, Type, Direction, Vx, Vy, Vz, Stiffness, GROUP, FROMTYPE, EFFAREA
; NODE_LIST, Type, Multi-Linear Type, Direction, Vx, Vy, Vz, ax, ay, bx, by, cx, cy, dx, dy, ex, ey, fx, fy, GROUP, FROMTYPE, EFFAREA
   1, LINEAR, 1e+010, 0, 0, 0, 0, 0, NO, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0
   2 8, COMP  ,  5, 0, 0, 0, 12000, , 0, 0, 0, 0, 0
   3to7, COMP  ,  5, 0, 0, 0, 6894, , 0, 0, 0, 0, 0
   9, COMP  ,  5, 0, 0, 0, 14774, , 0, 0, 0, 0, 0

*OFFSET    ; Beam End Offsets
; ELEM_LIST, TYPE, RGDXi, RGDYi, RGDZi, RGDXj, RGDYj, RGDZj, GROUP  ; TYPE=GLOBAL
; ELEM_LIST, TYPE, RGDi, RGDj, GROUP                                ; TYPE=ELEMENT
     1, ELEMENT, 0.275, 0,
     8, ELEMENT, 0, 0.275,
     9, ELEMENT, 0.325, 0,
    10, ELEMENT, 0.325, 0,
    21, ELEMENT, 0, 0.3,
    22, ELEMENT, 0, 0.3,
    23, ELEMENT, 0.3, 0,
    30, ELEMENT, 0, 0.3,

*USE-STLD, LC1

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -88.785, 1, -88.785, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC1] ------------------------

*USE-STLD, LC2

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC2] ------------------------

*USE-STLD, LC3

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC3] ------------------------

*USE-STLD, LC4

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
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    13. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    14. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    16. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    20. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    22. BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC4] ----------------------

*USE-STLD, LC5

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    13. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC5] ----------------------

*USE-STLD, LC6

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 60.189, 1, 55.716, 0, 0, 0, 0, , NO, 0, 0, NO
    10. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -60.189, 1, -55.716, 0, 0, 0, 0, , NO, 0, 0, NO
    11. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 55.716, 1, 53.33, 0, 0, 0, 0, , NO, 0, 0, NO
    12. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -55.716, 1, -53.33, 0, 0, 0, 0, , NO, 0, 0, NO
    13. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 53.33, 1, 50.944, 0, 0, 0, 0, , NO, 0, 0, NO
    14. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -53.33, 1, -50.944, 0, 0, 0, 0, , NO, 0, 0, NO
    15. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 50.944, 1, 48.558, 0, 0, 0, 0, , NO, 0, 0, NO
    16. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -50.944, 1, -48.558, 0, 0, 0, 0, , NO, 0, 0, NO
    17. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 48.558, 1, 46.172, 0, 0, 0, 0, , NO, 0, 0, NO
    18. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -48.558, 1, -46.172, 0, 0, 0, 0, , NO, 0, 0, NO
    19. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 46.172, 1, 43.786, 0, 0, 0, 0, , NO, 0, 0, NO
    20. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -46.172, 1, -43.786, 0, 0, 0, 0, , NO, 0, 0, NO
    21. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 43.786, 1, 39.526, 0, 0, 0, 0, , NO, 0, 0, NO
    22. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -43.786, 1, -39.526, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC6] ----------------------

*USE-STLD, LC7

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 22.367, 1, 17.894, 0, 0, 0, 0, , NO, 0, 0, NO
    11. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 17.894, 1, 15.508, 0, 0, 0, 0, , NO, 0, 0, NO
    13. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.508, 1, 13.122, 0, 0, 0, 0, , NO, 0, 0, NO
    15. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.122, 1, 10.736, 0, 0, 0, 0, , NO, 0, 0, NO
    17. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 10.736, 1, 8.35, 0, 0, 0, 0, , NO, 0, 0, NO
    19. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.35, 1, 5.964, 0, 0, 0, 0, , NO, 0, 0, NO
    21. BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 5.964, 1, 1.704, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC7] ----------------------

*USE-STLD, LC10

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
     1, -15.
     2, -15.
     3, -15.
     4, -15.
     5, -15.
     6, -15.
     7, -15.
     8, -15.
     9, -15.
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    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
    30. -15.

; End of data for load case [LC10] ------------------------

*USE-STLD. NCOMB1

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB1] ------------------------

*USE-STLD. NCOMB2

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB2] ----------------------

*USE-STLD. NCOMB3

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB3] ------------------------

*USE-STLD. NCOMB4

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB4] ------------------------

*USE-STLD. NCOMB5

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
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    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB5] ------------------------

*USE-STLD. NCOMB6

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB6] ------------------------

*USE-STLD. NCOMB7

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB7] ------------------------

*USE-STLD. NCOMB8

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
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     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB8] ------------------------

*USE-STLD. NCOMB9

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. N(
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. N(
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. N(
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. N(
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. N(
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB9] ------------------------

*USE-STLD. NCOMB10

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. N(
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
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    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB10] ----------------------------

*USE-STLD. NCOMB11

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
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    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB11] ------------------------

*USE-STLD. NCOMB12

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
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    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB12] ------------------------

*USE-STLD. NCOMB13

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
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    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB13] ------------------------

*USE-STLD. NCOMB14

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB14] ------------------------

*USE-STLD. NCOMB15

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 96.3024. 1. 89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -96.3024. 1. -89.1456. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 89.1456. 1. 85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -89.1456. 1. -85.328. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 85.328. 1. 81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -85.328. 1. -81.5104. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.5104. 1. 77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.5104. 1. -77.6928. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 77.6928. 1. 73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -77.6928. 1. -73.8752. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.8752. 1. 70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.8752. 1. -70.0576. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 70.0576. 1. 63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -70.0576. 1. -63.2416. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB15] ------------------------

*USE-STLD. NCOMB16

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.1134. 1. 33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.1134. 1. -33.4296. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.4296. 1. 31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.4296. 1. -31.998. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 31.998. 1. 30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -31.998. 1. -30.5664. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.5664. 1. 29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.5664. 1. -29.1348. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1348. 1. 27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1348. 1. -27.7032. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7032. 1. 26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.7032. 1. -26.2716. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2716. 1. 23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2716. 1. -23.7156. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
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    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB16] ------------------------

*USE-STLD. NCOMB17

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 35.7872. 1. 28.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 28.6304. 1. 24.8128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.8128. 1. 20.9952. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.9952. 1. 17.1776. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.1776. 1. 13.36. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.36. 1. 9.5424. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.5424. 1. 2.7264. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB17] ------------------------

*USE-STLD. NCOMB18

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
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; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4202. 1. 10.7364. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.7364. 1. 9.3048. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.3048. 1. 7.8732. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.8732. 1. 6.4416. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.4416. 1. 5.01. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.01. 1. 3.5784. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 3.5784. 1. 1.0224. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -119.86. 1. -119.86. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB18] ----------------------------

*USE-STLD. NCOMB19

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 35.7872. 1. 28.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 28.6304. 1. 24.8128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.8128. 1. 20.9952. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.9952. 1. 17.1776. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.1776. 1. 13.36. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.36. 1. 9.5424. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.5424. 1. 2.7264. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB19] ----------------------------

*USE-STLD. NCOMB20

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4202. 1. 10.7364. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.7364. 1. 9.3048. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
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    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.3048. 1. 7.8732. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.8732. 1. 6.4416. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.4416. 1. 5.01. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.01. 1. 3.5784. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 3.5784. 1. 1.0224. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -142.056. 1. -142.056. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB20] ------------------------

*USE-STLD. NCOMB21

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB21] ------------------------

*USE-STLD. NCOMB22

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB22] ------------------------

*USE-STLD. NCOMB23

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
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     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB23] ------------------------

*USE-STLD. NCOMB24

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB24] ------------------------

*USE-STLD. NCOMB25

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
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    16 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1]    0 48.558 1 46.172 0 0 0 0  NO 0 0 NO
    18 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    18 BEAM    UNILOAD GX NO NO aDir[1]    0 -48.558 1 -46.172 0 0 0 0  NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1]    0 46.172 1 43.786 0 0 0 0  NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    20 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    20 BEAM    UNILOAD GX NO NO aDir[1]    0 -46.172 1 -43.786 0 0 0 0  NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1]    0 43.786 1 39.526 0 0 0 0  NO 0 0 NO
    22 BEAM    UNILOAD GX NO NO aDir[1]    0 -43.786 1 -39.526 0 0 0 0  NO 0 0 NO
    22 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    27 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    27 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    28 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    28 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    29 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    29 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    30 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    30 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO

; End of data for load case [NCOMB25] ------------------------

*USE-STLD, NCOMB26

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
     9 BEAM    UNILOAD GX NO NO aDir[1]    0 30.0945 1 27.858 0 0 0 0  NO 0 0 NO
    10 BEAM    UNILOAD GX NO NO aDir[1]    0 -30.0945 1 -27.858 0 0 0 0  NO 0 0 NO
    10 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    11 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    11 BEAM    UNILOAD GX NO NO aDir[1]    0 27.858 1 26.665 0 0 0 0  NO 0 0 NO
    12 BEAM    UNILOAD GX NO NO aDir[1]    0 -27.858 1 -26.665 0 0 0 0  NO 0 0 NO
    12 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    13 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    13 BEAM    UNILOAD GX NO NO aDir[1]    0 26.665 1 25.472 0 0 0 0  NO 0 0 NO
    14 BEAM    UNILOAD GX NO NO aDir[1]    0 -26.665 1 -25.472 0 0 0 0  NO 0 0 NO
    14 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1]    0 25.472 1 24.279 0 0 0 0  NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    16 BEAM    UNILOAD GX NO NO aDir[1]    0 -25.472 1 -24.279 0 0 0 0  NO 0 0 NO
    16 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1]    0 24.279 1 23.086 0 0 0 0  NO 0 0 NO
    18 BEAM    UNILOAD GX NO NO aDir[1]    0 -24.279 1 -23.086 0 0 0 0  NO 0 0 NO
    18 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1]    0 23.086 1 21.893 0 0 0 0  NO 0 0 NO
    20 BEAM    UNILOAD GX NO NO aDir[1]    0 -23.086 1 -21.893 0 0 0 0  NO 0 0 NO
    20 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1]    0 8.408 1 8.408 0 0 0 0  NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1]    0 21.893 1 19.763 0 0 0 0  NO 0 0 NO
    22 BEAM    UNILOAD GX NO NO aDir[1]    0 -21.893 1 -19.763 0 0 0 0  NO 0 0 NO
    22 BEAM    UNILOAD GX NO NO aDir[1]    0 -8.408 1 -8.408 0 0 0 0  NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    27 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    27 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    28 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    28 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    29 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
    29 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    30 BEAM    UNILOAD GZ NO NO aDir[1]    0 -21.019 1 -21.019 0 0 0 0  NO 0 0 NO
    30 BEAM    UNILOAD GZ NO NO aDir[1]    0 -88.785 1 -88.785 0 0 0 0  NO 0 0 NO
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; End of data for load case [NCOMB26] ------------------------

*USE-STLD. NCOMB27

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
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    27. -15.
    28. -15.
    29. -15.
    30. -15.

; End of data for load case [NCOMB27] ------------------------

*USE-STLD. NCOMB28

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
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     23. -15.
     24. -15.
     25. -15.
     26. -15.
     27. -15.
     28. -15.
     29. -15.
     30. -15.

; End of data for load case [NCOMB28] ------------------------

*USE-STLD. NCOMB29

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB29] ------------------------

*USE-STLD. NCOMB30

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
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    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB30] ------------------------

*USE-STLD. NCOMB31

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
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     23. -15.
     24. -15.
     25. -15.
     26. -15.
     27. -15.
     28. -15.
     29. -15.
     30. -15.

; End of data for load case [NCOMB31] ------------------------

*USE-STLD. NCOMB32

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.0945. 1. 27.858. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.0945. 1. -27.858. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.858. 1. 26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.858. 1. -26.665. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.665. 1. 25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.665. 1. -25.472. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.472. 1. 24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.472. 1. -24.279. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.279. 1. 23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.279. 1. -23.086. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.086. 1. 21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.086. 1. -21.893. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.893. 1. 19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.893. 1. -19.763. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
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    30. -15.

; End of data for load case [NCOMB32] ------------------------

*USE-STLD. NCOMB33

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 60.189. 1. 55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -60.189. 1. -55.716. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.716. 1. 53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.716. 1. -53.33. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.33. 1. 50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.33. 1. -50.944. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.944. 1. 48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.944. 1. -48.558. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.558. 1. 46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.558. 1. -46.172. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.172. 1. 43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.172. 1. -43.786. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.786. 1. 39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.786. 1. -39.526. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB33] ------------------------

*USE-STLD. NCOMB34

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.367. 1. 17.894. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.894. 1. 15.508. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.508. 1. 13.122. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.122. 1. 10.736. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.736. 1. 8.35. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.35. 1. 5.964. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.964. 1. 1.704. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB34] ------------------------

*USE-STLD. NCOMB35

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
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; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.1835. 1. 8.947. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.947. 1. 7.754. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.754. 1. 6.561. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.561. 1. 5.368. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.368. 1. 4.175. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 4.175. 1. 2.982. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 2.982. 1. 0.852. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -88.785. 1. -88.785. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB35] ----------------------------


*LOADCOMB    ; Combinations
; NAME=NAME. KIND. ACTIVE. bES. iTYPE. DESC. iSERV-TYPE. nLCOMTYPE   ; line 1
;       ANAL1. LCNAME1. FACT1. ...                                  ; from line 2
  NAME=COMB1. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 1.6
  NAME=COMB2. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 0.6
  NAME=COMB3. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 1.6
  NAME=COMB4. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 0.6
  NAME=COMB5. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 1.6
  NAME=COMB6. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 0.6
  NAME=COMB7. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 1.6
  NAME=COMB8. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 0.6
  NAME=COMB9. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
       ST. LC11. 1.35
  NAME=COMB10. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
       ST. LC11. 1.35
  NAME=COMB11. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
       ST. LC10. 1.35. ST. LC11. 1.4
  NAME=COMB12. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
       ST. LC10. 1.35. ST. LC11. 1.4
  NAME=COMB13. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
       ST. LC11. 1.35
  NAME=COMB14. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
       ST. LC11. 1.35
  NAME=COMB15. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
       ST. LC10. 1.35. ST. LC11. 1.4
  NAME=COMB16. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
       ST. LC10. 1.35. ST. LC11. 1.4
  NAME=COMB17. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 1.6
  NAME=COMB18. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 0.6
  NAME=COMB19. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 1.6
  NAME=COMB20. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 0.6
  NAME=COMB21. GEN. INACTIVE. 0. 0. . 0. 0
       ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1
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NAME=COMB22. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5
NAME=COMB23. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1
NAME=COMB24. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5
NAME=COMB25. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB26. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB27. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB28. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB29. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB30. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB31. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB32. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB33. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC6. 1
NAME=COMB34. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 1
NAME=COMB35. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 0.5
NAME=USD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB1. 1. ST. NCOMB2. 1. ST. NCOMB3. 1. ST. NCOMB4. 1
     ST. NCOMB5. 1. ST. NCOMB6. 1. ST. NCOMB7. 1. ST. NCOMB8. 1
     ST. NCOMB9. 1. ST. NCOMB10. 1. ST. NCOMB11. 1. ST. NCOMB12. 1
     ST. NCOMB13. 1. ST. NCOMB14. 1. ST. NCOMB15. 1. ST. NCOMB16. 1
     ST. NCOMB17. 1. ST. NCOMB18. 1. ST. NCOMB19. 1. ST. NCOMB20. 1
NAME=WSD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB21. 1. ST. NCOMB22. 1. ST. NCOMB23. 1. ST. NCOMB24. 1
     ST. NCOMB25. 1. ST. NCOMB26. 1. ST. NCOMB27. 1. ST. NCOMB28. 1
     ST. NCOMB29. 1. ST. NCOMB30. 1. ST. NCOMB31. 1. ST. NCOMB32. 1
     ST. NCOMB33. 1. ST. NCOMB34. 1. ST. NCOMB35. 1
NAME=NCOMB1. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB1. 1
NAME=NCOMB2. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB2. 1
NAME=NCOMB3. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB3. 1
NAME=NCOMB4. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB4. 1
NAME=NCOMB5. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB5. 1
NAME=NCOMB6. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB6. 1
NAME=NCOMB7. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB7. 1
NAME=NCOMB8. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB8. 1
NAME=NCOMB9. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB9. 1
NAME=NCOMB10. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB10. 1
NAME=NCOMB11. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB11. 1
NAME=NCOMB12. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB12. 1
NAME=NCOMB13. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB13. 1
NAME=NCOMB14. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB14. 1
NAME=NCOMB15. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB15. 1
NAME=NCOMB16. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB16. 1
NAME=NCOMB17. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB17. 1
NAME=NCOMB18. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB18. 1
NAME=NCOMB19. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB19. 1
NAME=NCOMB20. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB20. 1
NAME=NCOMB21. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB21. 1
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   NAME=NCOMB22. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB22. 1
   NAME=NCOMB23. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB23. 1
   NAME=NCOMB24. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB24. 1
   NAME=NCOMB25. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB25. 1
   NAME=NCOMB26. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB26. 1
   NAME=NCOMB27. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB27. 1
   NAME=NCOMB28. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB28. 1
   NAME=NCOMB29. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB29. 1
   NAME=NCOMB30. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB30. 1
   NAME=NCOMB31. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB31. 1
   NAME=NCOMB32. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB32. 1
   NAME=NCOMB33. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB33. 1
   NAME=NCOMB34. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB34. 1
   NAME=NCOMB35. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB35. 1

*LOADCONST    ; Load Constribution for Nonlinear Load Case
; NAME=STLDCASE. DESC                                          ; 1st line
;      LCNAME1. LCTYPE1. FACTOR1. LCNAME2. LCTYPE2. FACTOR2. ...   ; from line 2
   NAME=NCOMB1.
         LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 1.6
   NAME=NCOMB2.
         LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 0.6
   NAME=NCOMB3.
         LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 1.6
   NAME=NCOMB4.
         LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 0.6
   NAME=NCOMB5.
         LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 1.6
   NAME=NCOMB6.
         LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 0.6
   NAME=NCOMB7.
         LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 1.6
   NAME=NCOMB8.
         LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 0.6
   NAME=NCOMB9.
         LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
         LC11. ST. 1.35
   NAME=NCOMB10.
         LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
         LC11. ST. 1.35
   NAME=NCOMB11.
         LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
         LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB12.
         LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC9. ST. 1.35
         LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB13.
         LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
         LC11. ST. 1.35
   NAME=NCOMB14.
         LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
         LC11. ST. 1.35
   NAME=NCOMB15.
         LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
         LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB16.
         LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 0.6. LC9. ST. 1.35
         LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB17.
         LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC7. ST. 1.6
   NAME=NCOMB18.
         LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC7. ST. 0.6
   NAME=NCOMB19.
         LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC7. ST. 1.6
   NAME=NCOMB20.
         LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC7. ST. 0.6
   NAME=NCOMB21.
         LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 1
   NAME=NCOMB22.
         LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5
   NAME=NCOMB23.
         LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1
   NAME=NCOMB24.
```

```
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 0.5
    NAME=NCOMB25.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 1. LC8. ST. 1. LC11. ST. 1
    NAME=NCOMB26.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5. LC8. ST. 1
        LC11. ST. 1
    NAME=NCOMB27.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 1. LC9. ST. 1. LC10. ST. 1
        LC11. ST. 1
    NAME=NCOMB28.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5. LC9. ST. 1
        LC10. ST. 1. LC11. ST. 1
    NAME=NCOMB29.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1. LC8. ST. 1. LC11. ST. 1
    NAME=NCOMB30.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 0.5. LC8. ST. 1
        LC11. ST. 1
    NAME=NCOMB31.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1. LC9. ST. 1. LC10. ST. 1
        LC11. ST. 1
    NAME=NCOMB32.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 0.5. LC9. ST. 1
        LC10. ST. 1. LC11. ST. 1
    NAME=NCOMB33.
        LC1. ST. 1. LC6. ST. 1
    NAME=NCOMB34.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC7. ST. 1
    NAME=NCOMB35.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC7. ST. 0.5

*LC-COLOR     ; Diagram Color for Load Case
; ANAL. LCNAME. iR1(ALL). iG1(ALL). iB1(ALL). iR2(MIN). iG2(MIN). iB2(MIN). iR3(MAX). iG2(MAX). iB2(MAX)
 CB. COMB1. 160. 255. 255. 255. 87. 87. 192. 192. 0
 CB. COMB2. 192. 192. 0. 0. 128. 128. 0. 192. 192
 CB. COMB3. 192. 72. 0. 85. 0. 192. 160. 192. 255
 CB. COMB4. 192. 128. 0. 212. 160. 255. 93. 255. 87
 CB. COMB5. 255. 192. 87. 85. 192. 0. 192. 192. 192
 CB. COMB6. 192. 192. 192. 192. 0. 192. 160. 255. 255
 CB. COMB7. 255. 87. 128. 93. 255. 87. 0. 192. 128
 CB. COMB8. 210. 210. 210. 0. 128. 255. 85. 0. 192
 CB. COMB9. 163. 255. 160. 192. 128. 0. 148. 87. 255
 CB. COMB10. 0. 128. 255. 0. 128. 255. 85. 192. 0
 CB. COMB11. 93. 255. 87. 192. 0. 192. 192. 128. 0
 CB. COMB12. 85. 192. 0. 255. 87. 128. 192. 72. 0
 CB. COMB13. 0. 157. 192. 0. 128. 57. 0. 192. 128
 CB. COMB14. 0. 192. 128. 255. 0. 192. 0. 192. 128
 CB. COMB15. 0. 128. 255. 163. 160. 255. 192. 192. 0
 CB. COMB16. 0. 128. 255. 85. 0. 192. 148. 87. 255
 CB. COMB17. 163. 255. 160. 160. 255. 255. 128. 192. 0
 CB. COMB18. 0. 128. 192. 192. 0. 192. 163. 160. 255
 CB. COMB19. 0. 128. 192. 255. 160. 255. 255. 160. 255
 CB. COMB20. 0. 128. 128. 0. 128. 57. 255. 87. 128
 CB. COMB21. 255. 255. 87. 192. 192. 192. 212. 160. 255
 CB. COMB22. 0. 192. 192. 163. 160. 255. 163. 255. 160
 CB. COMB23. 255. 87. 128. 192. 72. 0. 192. 128. 0
 CB. COMB24. 0. 192. 192. 192. 128. 0. 0. 128. 57
 CB. COMB25. 148. 87. 255. 212. 160. 255. 128. 192. 0
 CB. COMB26. 0. 192. 128. 210. 210. 210. 0. 128. 255
 CB. COMB27. 255. 0. 192. 192. 0. 192. 0. 192. 192
 CB. COMB28. 160. 192. 255. 192. 72. 0. 85. 0. 192
 CB. COMB29. 78. 0. 255. 210. 210. 210. 255. 87. 128
 CB. COMB30. 0. 128. 57. 255. 160. 255. 148. 87. 255
 CB. COMB31. 0. 192. 128. 85. 192. 0. 0. 157. 192
 CB. COMB32. 160. 255. 255. 146. 0. 255. 255. 87. 87
 CB. COMB33. 160. 192. 255. 0. 128. 192. 212. 160. 255
 CB. COMB34. 148. 87. 255. 0. 157. 192. 163. 160. 255
 CB. COMB35. 163. 160. 255. 255. 192. 160. 146. 0. 255
 CB. USD. 255. 192. 160. 255. 255. 87. 255. 160. 255
 CB. WSD. 128. 192. 0. 163. 255. 160. 160. 255. 255
 ST. LC1. 146. 0. 255. 255. 128. 0. 255. 192. 160
 ST. LC2. 85. 0. 192. 192. 72. 0. 148. 87. 255
 ST. LC3. 192. 128. 0. 85. 192. 0. 255. 255. 255
 ST. LC4. 0. 192. 192. 163. 255. 160. 255. 255. 87
 ST. LC5. 85. 192. 0. 255. 255. 87. 192. 128. 0
 ST. LC6. 255. 255. 255. 0. 128. 255. 163. 160. 255
 ST. LC7. 0. 128. 255. 192. 128. 0. 255. 0. 128
 ST. LC8. 255. 192. 160. 85. 192. 0. 255. 0. 192
 ST. LC9. 255. 160. 255. 93. 255. 87. 0. 192. 192
 ST. LC10. 148. 87. 255. 78. 0. 255. 255. 160. 255
 ST. LC11. 78. 0. 255. 163. 255. 160. 255. 192. 87
 CBC. NCOMB1. 163. 255. 160. 146. 0. 255. 85. 192. 0
 CBC. NCOMB2. 255. 255. 255. 163. 255. 160. 255. 128. 0
 CBC. NCOMB3. 163. 255. 160. 85. 0. 192. 192. 72. 0
 CBC. NCOMB4. 148. 87. 255. 255. 128. 0. 0. 157. 192
 CBC. NCOMB5. 0. 128. 128. 148. 87. 255. 210. 210. 210
 CBC. NCOMB6. 255. 128. 0. 255. 255. 255. 128. 192. 0
 CBC. NCOMB7. 255. 255. 87. 192. 192. 192. 0. 128. 255
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CBC. NCOMB8. 255. 0. 192. 0. 192. 192. 192. 128. 0
CBC. NCOMB9. 148. 87. 255. 0. 128. 255. 0. 128. 128
CBC. NCOMB10. 192. 72. 0. 160. 192. 255. 0. 128. 128
CBC. NCOMB11. 255. 192. 87. 0. 128. 255. 148. 87. 255
CBC. NCOMB12. 192. 0. 128. 163. 160. 255. 192. 0. 128
CBC. NCOMB13. 0. 128. 255. 255. 0. 192. 160. 255. 255
CBC. NCOMB14. 192. 128. 0. 0. 128. 128. 192. 72. 0
CBC. NCOMB15. 212. 160. 255. 0. 128. 57. 0. 192. 192
CBC. NCOMB16. 255. 87. 87. 212. 160. 255. 0. 128. 57
CBC. NCOMB17. 255. 160. 255. 0. 128. 128. 163. 255. 160
CBC. NCOMB18. 192. 192. 192. 255. 160. 255. 192. 0. 128
CBC. NCOMB19. 78. 0. 255. 192. 0. 192. 192. 0. 128
CBC. NCOMB20. 0. 192. 192. 255. 87. 128. 255. 255. 255
CBC. NCOMB21. 0. 128. 57. 163. 255. 160. 160. 255. 255
CBC. NCOMB22. 255. 255. 255. 192. 128. 0. 0. 192. 192
CBC. NCOMB23. 85. 192. 0. 255. 0. 128. 255. 0. 192
CBC. NCOMB24. 160. 192. 255. 78. 0. 255. 192. 72. 0
CBC. NCOMB25. 212. 160. 255. 192. 128. 0. 93. 255. 87
CBC. NCOMB26. 255. 0. 192. 212. 160. 255. 128. 192. 0
CBC. NCOMB27. 255. 160. 255. 146. 0. 255. 160. 192. 255
CBC. NCOMB28. 148. 87. 255. 255. 255. 255. 146. 0. 255
CBC. NCOMB29. 192. 128. 0. 255. 128. 0. 192. 128. 0
CBC. NCOMB30. 255. 87. 87. 255. 128. 0. 255. 255. 87
CBC. NCOMB31. 255. 0. 128. 160. 255. 255. 255. 192. 160
CBC. NCOMB32. 146. 0. 255. 0. 192. 192. 255. 160. 255
CBC. NCOMB33. 255. 160. 255. 255. 192. 160. 0. 192. 192
CBC. NCOMB34. 255. 255. 87. 210. 210. 210. 78. 0. 255
CBC. NCOMB35. 0. 192. 192. 212. 160. 255. 192. 192. 0
ST. NCOMB1. 93. 255. 87. 210. 210. 210. 163. 255. 160
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8.OUPUT

FRAME ELEMENT FORCES

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
1	USD(max)	I[1]	31.650	0.000	-249.900	0.00E+00	-17.430	0.000
1	USD(max)	1/4	31.650	0.000	-250.930	0.00E+00	3.070	0.000
1	USD(max)	2/4	31.650	0.000	-251.950	0.00E+00	23.660	0.000
1	USD(max)	3/4	31.650	0.000	-252.970	0.00E+00	44.330	0.000
1	USD(max)	J[2]	31.650	0.000	-254.000	0.00E+00	65.090	0.000
1	USD(min)	I[1]	-172.190	0.000	-302.090	0.00E+00	-59.220	0.000
1	USD(min)	1/4	-172.190	0.000	-303.300	0.00E+00	-41.500	0.000
1	USD(min)	2/4	-172.190	0.000	-304.510	0.00E+00	-23.710	0.000
1	USD(min)	3/4	-172.190	0.000	-305.730	0.00E+00	-5.850	0.000
1	USD(min)	J[2]	-172.190	0.000	-306.940	0.00E+00	12.080	0.000
1	WSD(max)	I[1]	19.780	0.000	-169.310	0.00E+00	-12.200	0.000
1	WSD(max)	1/4	19.780	0.000	-170.070	0.00E+00	0.650	0.000
1	WSD(max)	2/4	19.780	0.000	-170.820	0.00E+00	13.560	0.000
1	WSD(max)	3/4	19.780	0.000	-171.580	0.00E+00	26.520	0.000
1	WSD(max)	J[2]	19.780	0.000	-172.340	0.00E+00	39.530	0.000
1	WSD(min)	I[1]	-104.760	0.000	-188.800	0.00E+00	-35.470	0.000
1	WSD(min)	1/4	-104.760	0.000	-189.560	0.00E+00	-22.750	0.000
1	WSD(min)	2/4	-104.760	0.000	-190.320	0.00E+00	-9.970	0.000
1	WSD(min)	3/4	-104.760	0.000	-191.080	0.00E+00	2.870	0.000
1	WSD(min)	J[2]	-104.760	0.000	-191.840	0.00E+00	15.750	0.000
2	USD(max)	I[2]	31.650	0.000	-154.170	0.00E+00	65.090	0.000
2	USD(max)	1/4	31.650	0.000	-155.130	0.00E+00	77.210	0.000
2	USD(max)	2/4	31.650	0.000	-156.090	0.00E+00	89.400	0.000
2	USD(max)	3/4	31.650	0.000	-157.040	0.00E+00	101.660	0.000
2	USD(max)	J[3]	31.650	0.000	-158.000	0.00E+00	114.000	0.000
2	USD(min)	I[2]	-172.190	0.000	-195.870	0.00E+00	12.080	0.000
2	USD(min)	1/4	-172.190	0.000	-197.010	0.00E+00	22.490	0.000
2	USD(min)	2/4	-172.190	0.000	-198.140	0.00E+00	32.960	0.000
2	USD(min)	3/4	-172.190	0.000	-199.270	0.00E+00	43.500	0.000
2	USD(min)	J[3]	-172.190	0.000	-200.410	0.00E+00	54.090	0.000
2	WSD(max)	I[2]	19.780	0.000	-102.320	0.00E+00	39.530	0.000
2	WSD(max)	1/4	19.780	0.000	-103.030	0.00E+00	47.160	0.000
2	WSD(max)	2/4	19.780	0.000	-103.740	0.00E+00	54.850	0.000
2	WSD(max)	3/4	19.780	0.000	-104.450	0.00E+00	62.570	0.000
2	WSD(max)	J[3]	19.780	0.000	-105.160	0.00E+00	70.350	0.000
2	WSD(min)	I[2]	-104.760	0.000	-122.420	0.00E+00	15.750	0.000
2	WSD(min)	1/4	-104.760	0.000	-123.130	0.00E+00	23.160	0.000
2	WSD(min)	2/4	-104.760	0.000	-123.840	0.00E+00	30.610	0.000
2	WSD(min)	3/4	-104.760	0.000	-124.550	0.00E+00	38.110	0.000
2	WSD(min)	J[3]	-104.760	0.000	-125.250	0.00E+00	45.650	0.000
3	USD(max)	I[3]	31.650	0.000	-91.610	0.00E+00	114.000	0.000
3	USD(max)	1/4	31.650	0.000	-92.570	0.00E+00	121.680	0.000
3	USD(max)	2/4	31.650	0.000	-93.520	0.00E+00	129.430	0.000
3	USD(max)	3/4	31.650	0.000	-94.470	0.00E+00	137.250	0.000
3	USD(max)	J[4]	31.650	0.000	-95.420	0.00E+00	145.150	0.000
3	USD(min)	I[3]	-172.190	0.000	-128.650	0.00E+00	54.090	0.000
3	USD(min)	1/4	-172.190	0.000	-129.780	0.00E+00	60.630	0.000
3	USD(min)	2/4	-172.190	0.000	-130.910	0.00E+00	67.040	0.000
3	USD(min)	3/4	-172.190	0.000	-132.040	0.00E+00	73.400	0.000
3	USD(min)	J[4]	-172.190	0.000	-133.170	0.00E+00	79.820	0.000
3	WSD(max)	I[3]	19.780	0.000	-60.760	0.00E+00	70.350	0.000
3	WSD(max)	1/4	19.780	0.000	-61.460	0.00E+00	75.220	0.000
3	WSD(max)	2/4	19.780	0.000	-62.170	0.00E+00	80.140	0.000
3	WSD(max)	3/4	19.780	0.000	-62.870	0.00E+00	85.100	0.000
3	WSD(max)	J[4]	19.780	0.000	-63.580	0.00E+00	90.110	0.000
3	WSD(min)	I[3]	-104.760	0.000	-80.410	0.00E+00	45.650	0.000
3	WSD(min)	1/4	-104.760	0.000	-81.110	0.00E+00	50.240	0.000
3	WSD(min)	2/4	-104.760	0.000	-81.820	0.00E+00	54.450	0.000
3	WSD(min)	3/4	-104.760	0.000	-82.530	0.00E+00	58.450	0.000
3	WSD(min)	J[4]	-104.760	0.000	-83.230	0.00E+00	62.490	0.000
4	USD(max)	I[4]	31.650	0.000	-29.230	0.00E+00	145.150	0.000
4	USD(max)	1/4	31.650	0.000	-30.190	0.00E+00	148.420	0.000
4	USD(max)	2/4	31.650	0.000	-31.150	0.00E+00	151.760	0.000
4	USD(max)	3/4	31.650	0.000	-32.100	0.00E+00	155.170	0.000
4	USD(max)	J[5]	31.650	0.000	-33.060	0.00E+00	158.660	0.000
4	USD(min)	I[4]	-172.190	0.000	-60.230	0.00E+00	79.820	0.000
4	USD(min)	1/4	-172.190	0.000	-61.370	0.00E+00	82.290	0.000
4	USD(min)	2/4	-172.190	0.000	-62.500	0.00E+00	84.820	0.000
4	USD(min)	3/4	-172.190	0.000	-63.640	0.00E+00	87.410	0.000
4	USD(min)	J[5]	-172.190	0.000	-64.770	0.00E+00	90.070	0.000
4	WSD(max)	I[4]	19.780	0.000	-19.290	0.00E+00	90.110	0.000
4	WSD(max)	1/4	19.780	0.000	-20.000	0.00E+00	92.230	0.000
4	WSD(max)	2/4	19.780	0.000	-20.710	0.00E+00	94.400	0.000
4	WSD(max)	3/4	19.780	0.000	-21.420	0.00E+00	96.610	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
4	WSD(max)	J[5]	19.780	0.000	-22.130	0.00E+00	98.870	0.000
4	WSD(min)	I[4]	-104.760	0.000	-37.650	0.00E+00	62.490	0.000
4	WSD(min)	1/4	-104.760	0.000	-38.360	0.00E+00	63.760	0.000
4	WSD(min)	2/4	-104.760	0.000	-39.060	0.00E+00	65.060	0.000
4	WSD(min)	3/4	-104.760	0.000	-39.770	0.00E+00	66.420	0.000
4	WSD(min)	J[5]	-104.760	0.000	-40.480	0.00E+00	67.820	0.000
5	USD(max)	I[5]	31.650	0.000	39.120	0.00E+00	158.660	0.000
5	USD(max)	1/4	31.650	0.000	37.980	0.00E+00	157.450	0.000
5	USD(max)	2/4	31.650	0.000	36.850	0.00E+00	156.310	0.000
5	USD(max)	3/4	31.650	0.000	35.720	0.00E+00	155.240	0.000
5	USD(max)	J[6]	31.650	0.000	34.580	0.00E+00	154.490	0.000
5	USD(min)	I[5]	-172.190	0.000	2.460	0.00E+00	90.070	0.000
5	USD(min)	1/4	-172.190	0.000	1.500	0.00E+00	88.730	0.000
5	USD(min)	2/4	-172.190	0.000	0.540	0.00E+00	87.460	0.000
5	USD(min)	3/4	-172.190	0.000	-0.410	0.00E+00	86.250	0.000
5	USD(min)	J[6]	-172.190	0.000	-1.370	0.00E+00	85.100	0.000
5	WSD(max)	I[5]	19.780	0.000	24.450	0.00E+00	98.870	0.000
5	WSD(max)	1/4	19.780	0.000	23.740	0.00E+00	98.190	0.000
5	WSD(max)	2/4	19.780	0.000	23.030	0.00E+00	97.560	0.000
5	WSD(max)	3/4	19.780	0.000	22.320	0.00E+00	96.970	0.000
5	WSD(max)	J[6]	19.780	0.000	21.610	0.00E+00	96.560	0.000
5	WSD(min)	I[5]	-104.760	0.000	5.940	0.00E+00	67.820	0.000
5	WSD(min)	1/4	-104.760	0.000	5.240	0.00E+00	66.420	0.000
5	WSD(min)	2/4	-104.760	0.000	4.530	0.00E+00	65.060	0.000
5	WSD(min)	3/4	-104.760	0.000	3.820	0.00E+00	63.760	0.000
5	WSD(min)	J[6]	-104.760	0.000	3.110	0.00E+00	62.490	0.000
6	USD(max)	I[6]	31.650	0.000	112.890	0.00E+00	154.490	0.000
6	USD(max)	1/4	31.650	0.000	111.760	0.00E+00	149.360	0.000
6	USD(max)	2/4	31.650	0.000	110.630	0.00E+00	144.300	0.000
6	USD(max)	3/4	31.650	0.000	109.500	0.00E+00	139.310	0.000
6	USD(max)	J[7]	31.650	0.000	108.370	0.00E+00	134.390	0.000
6	USD(min)	I[6]	-172.190	0.000	64.020	0.00E+00	85.100	0.000
6	USD(min)	1/4	-172.190	0.000	63.060	0.00E+00	79.960	0.000
6	USD(min)	2/4	-172.190	0.000	62.110	0.00E+00	74.880	0.000
6	USD(min)	3/4	-172.190	0.000	61.160	0.00E+00	69.710	0.000
6	USD(min)	J[7]	-172.190	0.000	60.210	0.00E+00	63.800	0.000
6	WSD(max)	I[6]	19.780	0.000	70.550	0.00E+00	96.560	0.000
6	WSD(max)	1/4	19.780	0.000	69.850	0.00E+00	93.350	0.000
6	WSD(max)	2/4	19.780	0.000	69.140	0.00E+00	90.190	0.000
6	WSD(max)	3/4	19.780	0.000	68.440	0.00E+00	87.070	0.000
6	WSD(max)	J[7]	19.780	0.000	67.730	0.00E+00	83.990	0.000
6	WSD(min)	I[6]	-104.760	0.000	50.480	0.00E+00	62.490	0.000
6	WSD(min)	1/4	-104.760	0.000	49.780	0.00E+00	58.450	0.000
6	WSD(min)	2/4	-104.760	0.000	49.070	0.00E+00	54.450	0.000
6	WSD(min)	3/4	-104.760	0.000	48.370	0.00E+00	50.490	0.000
6	WSD(min)	J[7]	-104.760	0.000	47.660	0.00E+00	46.580	0.000
7	USD(max)	I[7]	31.650	0.000	186.870	0.00E+00	134.390	0.000
7	USD(max)	1/4	31.650	0.000	185.730	0.00E+00	124.550	0.000
7	USD(max)	2/4	31.650	0.000	184.600	0.00E+00	114.780	0.000
7	USD(max)	3/4	31.650	0.000	183.470	0.00E+00	105.090	0.000
7	USD(max)	J[8]	31.650	0.000	182.330	0.00E+00	95.470	0.000
7	USD(min)	I[7]	-172.190	0.000	127.280	0.00E+00	63.800	0.000
7	USD(min)	1/4	-172.190	0.000	126.320	0.00E+00	53.660	0.000
7	USD(min)	2/4	-172.190	0.000	125.370	0.00E+00	43.580	0.000
7	USD(min)	3/4	-172.190	0.000	124.410	0.00E+00	33.560	0.000
7	USD(min)	J[8]	-172.190	0.000	123.450	0.00E+00	23.600	0.000
7	WSD(max)	I[7]	19.780	0.000	116.790	0.00E+00	83.990	0.000
7	WSD(max)	1/4	19.780	0.000	116.080	0.00E+00	77.840	0.000
7	WSD(max)	2/4	19.780	0.000	115.370	0.00E+00	71.740	0.000
7	WSD(max)	3/4	19.780	0.000	114.670	0.00E+00	65.680	0.000
7	WSD(max)	J[8]	19.780	0.000	113.960	0.00E+00	59.670	0.000
7	WSD(min)	I[7]	-104.760	0.000	96.080	0.00E+00	46.580	0.000
7	WSD(min)	1/4	-104.760	0.000	95.370	0.00E+00	39.850	0.000
7	WSD(min)	2/4	-104.760	0.000	94.660	0.00E+00	33.160	0.000
7	WSD(min)	3/4	-104.760	0.000	93.960	0.00E+00	26.510	0.000
7	WSD(min)	J[8]	-104.760	0.000	93.250	0.00E+00	19.920	0.000
8	USD(max)	I[8]	31.650	0.000	306.130	0.00E+00	95.470	0.000
8	USD(max)	1/4	31.650	0.000	304.920	0.00E+00	76.680	0.000
8	USD(max)	2/4	31.650	0.000	303.710	0.00E+00	57.980	0.000
8	USD(max)	3/4	31.650	0.000	302.500	0.00E+00	39.370	0.000
8	USD(max)	J[9]	31.650	0.000	301.280	0.00E+00	21.920	0.000
8	USD(min)	I[8]	-172.190	0.000	231.710	0.00E+00	23.600	0.000
8	USD(min)	1/4	-172.190	0.000	230.690	0.00E+00	5.810	0.000
8	USD(min)	2/4	-172.190	0.000	229.670	0.00E+00	-11.920	0.000
8	USD(min)	3/4	-172.190	0.000	228.640	0.00E+00	-30.110	0.000
8	USD(min)	J[9]	-172.190	0.000	227.620	0.00E+00	-48.280	0.000
8	WSD(max)	I[8]	19.780	0.000	191.330	0.00E+00	59.670	0.000
8	WSD(max)	1/4	19.780	0.000	190.580	0.00E+00	47.930	0.000
8	WSD(max)	2/4	19.780	0.000	189.820	0.00E+00	36.240	0.000
8	WSD(max)	3/4	19.780	0.000	189.060	0.00E+00	24.600	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
8	WSD(max)	J[9]	19.780	0.000	188.300	0.00E+00	13.020	0.000
8	WSD(min)	I[8]	-104.760	0.000	171.130	0.00E+00	19.920	0.000
8	WSD(min)	1/4	-104.760	0.000	170.380	0.00E+00	8.100	0.000
8	WSD(min)	2/4	-104.760	0.000	169.620	0.00E+00	-3.670	0.000
8	WSD(min)	3/4	-104.760	0.000	168.860	0.00E+00	-16.590	0.000
8	WSD(min)	J[9]	-104.760	0.000	168.100	0.00E+00	-29.560	0.000
9	USD(max)	I[1]	-362.020	0.000	-14.850	0.00E+00	-70.380	0.000
9	USD(max)	1/4	-360.280	0.000	-13.590	0.00E+00	-64.680	0.000
9	USD(max)	2/4	-358.550	0.000	-12.350	0.00E+00	-59.370	0.000
9	USD(max)	3/4	-356.810	0.000	-11.120	0.00E+00	-54.430	0.000
9	USD(max)	J[10]	-355.070	0.000	-9.910	0.00E+00	-49.880	0.000
9	USD(min)	I[1]	-443.480	0.000	-131.160	0.00E+00	-97.320	0.000
9	USD(min)	1/4	-441.430	0.000	-123.340	0.00E+00	-95.760	0.000
9	USD(min)	2/4	-439.370	0.000	-115.550	0.00E+00	-94.310	0.000
9	USD(min)	3/4	-437.310	0.000	-107.800	0.00E+00	-92.960	0.000
9	USD(min)	J[10]	-435.250	0.000	-100.080	0.00E+00	-91.720	0.000
9	WSD(max)	I[1]	-249.430	0.000	-11.470	0.00E+00	-46.830	0.000
9	WSD(max)	1/4	-248.150	0.000	-10.570	0.00E+00	-43.610	0.000
9	WSD(max)	2/4	-246.860	0.000	-9.670	0.00E+00	-40.610	0.000
9	WSD(max)	3/4	-245.570	0.000	-8.790	0.00E+00	-37.830	0.000
9	WSD(max)	J[10]	-244.290	0.000	-7.920	0.00E+00	-35.260	0.000
9	WSD(min)	I[1]	-277.180	0.000	-78.650	0.00E+00	-60.830	0.000
9	WSD(min)	1/4	-275.890	0.000	-73.820	0.00E+00	-59.850	0.000
9	WSD(min)	2/4	-274.600	0.000	-69.020	0.00E+00	-58.940	0.000
9	WSD(min)	3/4	-273.320	0.000	-64.240	0.00E+00	-58.100	0.000
9	WSD(min)	J[10]	-272.030	0.000	-59.480	0.00E+00	-57.330	0.000
10	USD(max)	I[9]	-350.290	0.000	31.650	0.00E+00	-50.100	0.000
10	USD(max)	1/4	-348.560	0.000	31.650	0.00E+00	-51.640	0.000
10	USD(max)	2/4	-346.820	0.000	31.650	0.00E+00	-48.390	0.000
10	USD(max)	3/4	-345.080	0.000	31.650	0.00E+00	-44.350	0.000
10	USD(max)	J[11]	-343.350	0.000	31.650	0.00E+00	-40.650	0.000
10	USD(min)	I[9]	-443.480	0.000	-120.520	0.00E+00	-84.120	0.000
10	USD(min)	1/4	-441.430	0.000	-112.700	0.00E+00	-82.170	0.000
10	USD(min)	2/4	-439.370	0.000	-104.910	0.00E+00	-80.380	0.000
10	USD(min)	3/4	-437.310	0.000	-97.160	0.00E+00	-78.760	0.000
10	USD(min)	J[11]	-435.250	0.000	-89.440	0.00E+00	-77.300	0.000
10	WSD(max)	I[9]	-249.430	0.000	19.780	0.00E+00	-39.220	0.000
10	WSD(max)	1/4	-248.150	0.000	19.780	0.00E+00	-40.210	0.000
10	WSD(max)	2/4	-246.860	0.000	19.780	0.00E+00	-38.210	0.000
10	WSD(max)	3/4	-245.570	0.000	19.780	0.00E+00	-35.710	0.000
10	WSD(max)	J[11]	-244.290	0.000	19.780	0.00E+00	-33.420	0.000
10	WSD(min)	I[9]	-277.180	0.000	-72.890	0.00E+00	-52.470	0.000
10	WSD(min)	1/4	-275.890	0.000	-68.070	0.00E+00	-50.790	0.000
10	WSD(min)	2/4	-274.600	0.000	-63.270	0.00E+00	-49.240	0.000
10	WSD(min)	3/4	-273.320	0.000	-58.490	0.00E+00	-47.830	0.000
10	WSD(min)	J[11]	-272.030	0.000	-53.730	0.00E+00	-46.540	0.000
11	USD(max)	I[10]	-355.070	0.000	-9.910	0.00E+00	-49.880	0.000
11	USD(max)	1/4	-354.150	0.000	-8.230	0.00E+00	-44.130	0.000
11	USD(max)	2/4	-353.220	0.000	-6.570	0.00E+00	-39.110	0.000
11	USD(max)	3/4	-352.290	0.000	-4.940	0.00E+00	-34.820	0.000
11	USD(max)	J[12]	-351.370	0.000	-3.330	0.00E+00	-31.250	0.000
11	USD(min)	I[10]	-435.250	0.000	-100.080	0.00E+00	-91.720	0.000
11	USD(min)	1/4	-434.150	0.000	-89.330	0.00E+00	-90.170	0.000
11	USD(min)	2/4	-433.060	0.000	-78.650	0.00E+00	-88.810	0.000
11	USD(min)	3/4	-431.960	0.000	-68.040	0.00E+00	-88.410	0.000
11	USD(min)	J[12]	-430.860	0.000	-57.490	0.00E+00	-88.120	0.000
11	WSD(max)	I[10]	-244.290	0.000	-7.920	0.00E+00	-35.260	0.000
11	WSD(max)	1/4	-243.600	0.000	-6.710	0.00E+00	-32.030	0.000
11	WSD(max)	2/4	-242.920	0.000	-5.530	0.00E+00	-29.220	0.000
11	WSD(max)	3/4	-242.230	0.000	-4.370	0.00E+00	-26.830	0.000
11	WSD(max)	J[12]	-241.540	0.000	-3.220	0.00E+00	-24.860	0.000
11	WSD(min)	I[10]	-272.030	0.000	-59.480	0.00E+00	-57.330	0.000
11	WSD(min)	1/4	-271.350	0.000	-52.860	0.00E+00	-56.350	0.000
11	WSD(min)	2/4	-270.660	0.000	-46.270	0.00E+00	-55.510	0.000
11	WSD(min)	3/4	-269.970	0.000	-39.730	0.00E+00	-55.160	0.000
11	WSD(min)	J[12]	-269.290	0.000	-33.230	0.00E+00	-54.890	0.000
12	USD(max)	I[11]	-343.350	0.000	31.650	0.00E+00	-40.650	0.000
12	USD(max)	1/4	-342.420	0.000	31.650	0.00E+00	-36.050	0.000
12	USD(max)	2/4	-341.490	0.000	31.650	0.00E+00	-32.120	0.000
12	USD(max)	3/4	-340.570	0.000	31.650	0.00E+00	-28.870	0.000
12	USD(max)	J[13]	-339.640	0.000	31.650	0.00E+00	-26.280	0.000
12	USD(min)	I[11]	-435.250	0.000	-89.440	0.00E+00	-77.300	0.000
12	USD(min)	1/4	-434.150	0.000	-78.690	0.00E+00	-75.540	0.000
12	USD(min)	2/4	-433.060	0.000	-68.010	0.00E+00	-77.310	0.000
12	USD(min)	3/4	-431.960	0.000	-57.400	0.00E+00	-79.180	0.000
12	USD(min)	J[13]	-430.860	0.000	-46.850	0.00E+00	-81.060	0.000
12	WSD(max)	I[11]	-244.290	0.000	19.780	0.00E+00	-33.420	0.000
12	WSD(max)	1/4	-243.600	0.000	19.780	0.00E+00	-30.590	0.000
12	WSD(max)	2/4	-242.920	0.000	19.780	0.00E+00	-28.180	0.000
12	WSD(max)	3/4	-242.230	0.000	19.780	0.00E+00	-26.180	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN·m)	Moment-y (kN·m)	Moment-z (kN·m)
12	WSD(max)	J[13]	-241.540	0.000	19.780	0.00E+00	-24.600	0.000
12	WSD(min)	I[11]	-272.030	0.000	-53.730	0.00E+00	-46.540	0.000
12	WSD(min)	1/4	-271.350	0.000	-47.110	0.00E+00	-46.630	0.000
12	WSD(min)	2/4	-270.660	0.000	-40.520	0.00E+00	-47.840	0.000
12	WSD(min)	3/4	-269.970	0.000	-33.980	0.00E+00	-49.060	0.000
12	WSD(min)	J[13]	-269.290	0.000	-27.480	0.00E+00	-50.270	0.000
13	USD(max)	I[12]	-351.370	0.000	-3.330	0.00E+00	-31.250	0.000
13	USD(max)	1/4	-350.440	0.000	-1.750	0.00E+00	-28.270	0.000
13	USD(max)	2/4	-349.520	0.000	-0.200	0.00E+00	-25.560	0.000
13	USD(max)	3/4	-348.590	0.000	3.910	0.00E+00	-23.570	0.000
13	USD(max)	J[14]	-347.660	0.000	8.300	0.00E+00	-22.280	0.000
13	USD(min)	I[12]	-430.860	0.000	-57.490	0.00E+00	-88.120	0.000
13	USD(min)	1/4	-429.760	0.000	-47.010	0.00E+00	-87.940	0.000
13	USD(min)	2/4	-428.670	0.000	-36.590	0.00E+00	-87.870	0.000
13	USD(min)	3/4	-427.570	0.000	-26.240	0.00E+00	-87.910	0.000
13	USD(min)	J[14]	-426.470	0.000	-15.960	0.00E+00	-88.060	0.000
13	WSD(max)	I[12]	-241.540	0.000	-3.220	0.00E+00	-24.860	0.000
13	WSD(max)	1/4	-240.860	0.000	-2.100	0.00E+00	-23.300	0.000
13	WSD(max)	2/4	-240.170	0.000	-1.000	0.00E+00	-22.140	0.000
13	WSD(max)	3/4	-239.490	0.000	0.310	0.00E+00	-21.400	0.000
13	WSD(max)	J[14]	-238.800	0.000	3.770	0.00E+00	-21.050	0.000
13	WSD(min)	I[12]	-269.290	0.000	-33.230	0.00E+00	-54.890	0.000
13	WSD(min)	1/4	-268.600	0.000	-26.770	0.00E+00	-54.710	0.000
13	WSD(min)	2/4	-267.920	0.000	-20.350	0.00E+00	-54.600	0.000
13	WSD(min)	3/4	-267.230	0.000	-13.980	0.00E+00	-54.570	0.000
13	WSD(min)	J[14]	-266.540	0.000	-7.640	0.00E+00	-54.610	0.000
14	USD(max)	I[13]	-339.640	0.000	31.650	0.00E+00	-26.280	0.000
14	USD(max)	1/4	-338.720	0.000	31.650	0.00E+00	-24.280	0.000
14	USD(max)	2/4	-337.790	0.000	31.650	0.00E+00	-22.830	0.000
14	USD(max)	3/4	-336.860	0.000	31.650	0.00E+00	-22.030	0.000
14	USD(max)	J[15]	-335.940	0.000	31.650	0.00E+00	-21.870	0.000
14	USD(min)	I[13]	-430.860	0.000	-46.850	0.00E+00	-81.060	0.000
14	USD(min)	1/4	-429.760	0.000	-36.370	0.00E+00	-82.940	0.000
14	USD(min)	2/4	-428.670	0.000	-25.950	0.00E+00	-84.820	0.000
14	USD(min)	3/4	-427.570	0.000	-15.600	0.00E+00	-86.690	0.000
14	USD(min)	J[15]	-426.470	0.000	-5.380	0.00E+00	-88.570	0.000
14	WSD(max)	I[13]	-241.540	0.000	19.780	0.00E+00	-24.600	0.000
14	WSD(max)	1/4	-240.860	0.000	19.780	0.00E+00	-23.300	0.000
14	WSD(max)	2/4	-240.170	0.000	19.780	0.00E+00	-22.140	0.000
14	WSD(max)	3/4	-239.490	0.000	19.780	0.00E+00	-21.400	0.000
14	WSD(max)	J[15]	-238.800	0.000	19.780	0.00E+00	-21.050	0.000
14	WSD(min)	I[13]	-269.290	0.000	-27.480	0.00E+00	-50.270	0.000
14	WSD(min)	1/4	-268.600	0.000	-21.020	0.00E+00	-51.490	0.000
14	WSD(min)	2/4	-267.920	0.000	-14.600	0.00E+00	-52.700	0.000
14	WSD(min)	3/4	-267.230	0.000	-8.230	0.00E+00	-53.920	0.000
14	WSD(min)	J[15]	-266.540	0.000	-2.030	0.00E+00	-55.140	0.000
15	USD(max)	I[14]	-347.660	0.000	8.300	0.00E+00	-22.280	0.000
15	USD(max)	1/4	-346.740	0.000	12.670	0.00E+00	-21.690	0.000
15	USD(max)	2/4	-345.810	0.000	17.040	0.00E+00	-21.790	0.000
15	USD(max)	3/4	-344.890	0.000	26.970	0.00E+00	-22.580	0.000
15	USD(max)	J[16]	-343.960	0.000	36.840	0.00E+00	-24.060	0.000
15	USD(min)	I[14]	-426.470	0.000	-15.960	0.00E+00	-88.060	0.000
15	USD(min)	1/4	-425.370	0.000	-5.750	0.00E+00	-88.310	0.000
15	USD(min)	2/4	-424.280	0.000	-1.020	0.00E+00	-88.660	0.000
15	USD(min)	3/4	-423.180	0.000	1.370	0.00E+00	-89.120	0.000
15	USD(min)	J[16]	-422.080	0.000	3.700	0.00E+00	-89.670	0.000
15	WSD(max)	I[14]	-238.800	0.000	3.770	0.00E+00	-21.050	0.000
15	WSD(max)	1/4	-238.110	0.000	7.210	0.00E+00	-21.110	0.000
15	WSD(max)	2/4	-237.430	0.000	10.650	0.00E+00	-21.570	0.000
15	WSD(max)	3/4	-236.740	0.000	16.860	0.00E+00	-22.420	0.000
15	WSD(max)	J[16]	-236.060	0.000	23.020	0.00E+00	-23.660	0.000
15	WSD(min)	I[14]	-266.540	0.000	-7.640	0.00E+00	-54.610	0.000
15	WSD(min)	1/4	-265.860	0.000	-1.350	0.00E+00	-54.730	0.000
15	WSD(min)	2/4	-265.170	0.000	1.510	0.00E+00	-54.910	0.000
15	WSD(min)	3/4	-264.490	0.000	2.910	0.00E+00	-55.170	0.000
15	WSD(min)	J[16]	-263.800	0.000	4.280	0.00E+00	-55.500	0.000
16	USD(max)	I[15]	-335.940	0.000	31.650	0.00E+00	-21.870	0.000
16	USD(max)	1/4	-335.010	0.000	31.650	0.00E+00	-22.350	0.000
16	USD(max)	2/4	-334.090	0.000	31.650	0.00E+00	-23.470	0.000
16	USD(max)	3/4	-333.160	0.000	32.970	0.00E+00	-25.220	0.000
16	USD(max)	J[17]	-332.230	0.000	41.900	0.00E+00	-27.600	0.000
16	USD(min)	I[15]	-426.470	0.000	-5.380	0.00E+00	-88.570	0.000
16	USD(min)	1/4	-425.370	0.000	4.570	0.00E+00	-90.450	0.000
16	USD(min)	2/4	-424.280	0.000	14.420	0.00E+00	-92.330	0.000
16	USD(min)	3/4	-423.180	0.000	18.610	0.00E+00	-94.200	0.000
16	USD(min)	J[17]	-422.080	0.000	22.780	0.00E+00	-96.080	0.000
16	WSD(max)	I[15]	-238.800	0.000	19.780	0.00E+00	-21.050	0.000
16	WSD(max)	1/4	-238.110	0.000	19.780	0.00E+00	-21.110	0.000
16	WSD(max)	2/4	-237.430	0.000	19.780	0.00E+00	-21.570	0.000
16	WSD(max)	3/4	-236.740	0.000	20.610	0.00E+00	-22.420	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
16	WSD(max)	J[17]	-236.060	0.000	26.190	0.00E+00	-23.660	0.000
16	WSD(min)	I[15]	-266.540	0.000	-2.030	0.00E+00	-55.140	0.000
16	WSD(min)	1/4	-265.860	0.000	3.680	0.00E+00	-56.350	0.000
16	WSD(min)	2/4	-265.170	0.000	9.340	0.00E+00	-57.570	0.000
16	WSD(min)	3/4	-264.490	0.000	14.030	0.00E+00	-58.780	0.000
16	WSD(min)	J[17]	-263.800	0.000	17.370	0.00E+00	-60.000	0.000
17	USD(max)	I[16]	-343.960	0.000	36.840	0.00E+00	-24.060	0.000
17	USD(max)	1/4	-343.030	0.000	46.640	0.00E+00	-26.220	0.000
17	USD(max)	2/4	-342.110	0.000	56.370	0.00E+00	-29.050	0.000
17	USD(max)	3/4	-341.180	0.000	66.040	0.00E+00	-32.490	0.000
17	USD(max)	J[18]	-340.250	0.000	75.640	0.00E+00	-36.620	0.000
17	USD(min)	I[16]	-422.080	0.000	3.700	0.00E+00	-89.670	0.000
17	USD(min)	1/4	-420.980	0.000	5.950	0.00E+00	-90.320	0.000
17	USD(min)	2/4	-419.890	0.000	8.150	0.00E+00	-91.070	0.000
17	USD(min)	3/4	-418.790	0.000	9.970	0.00E+00	-91.910	0.000
17	USD(min)	J[18]	-417.690	0.000	11.420	0.00E+00	-92.840	0.000
17	WSD(max)	I[16]	-236.060	0.000	23.020	0.00E+00	-23.660	0.000
17	WSD(max)	1/4	-235.370	0.000	29.150	0.00E+00	-25.290	0.000
17	WSD(max)	2/4	-234.680	0.000	35.230	0.00E+00	-27.310	0.000
17	WSD(max)	3/4	-234.000	0.000	41.270	0.00E+00	-29.590	0.000
17	WSD(max)	J[18]	-233.310	0.000	47.270	0.00E+00	-32.280	0.000
17	WSD(min)	I[16]	-263.800	0.000	4.280	0.00E+00	-55.500	0.000
17	WSD(min)	1/4	-263.110	0.000	5.590	0.00E+00	-55.890	0.000
17	WSD(min)	2/4	-262.430	0.000	6.870	0.00E+00	-56.350	0.000
17	WSD(min)	3/4	-261.740	0.000	7.960	0.00E+00	-56.880	0.000
17	WSD(min)	J[18]	-261.060	0.000	8.850	0.00E+00	-57.470	0.000
18	USD(max)	I[17]	-332.230	0.000	41.900	0.00E+00	-27.600	0.000
18	USD(max)	1/4	-331.310	0.000	50.760	0.00E+00	-30.600	0.000
18	USD(max)	2/4	-330.380	0.000	59.550	0.00E+00	-34.220	0.000
18	USD(max)	3/4	-329.450	0.000	68.270	0.00E+00	-38.320	0.000
18	USD(max)	J[19]	-328.530	0.000	76.930	0.00E+00	-43.050	0.000
18	USD(min)	I[17]	-422.080	0.000	22.780	0.00E+00	-96.080	0.000
18	USD(min)	1/4	-420.980	0.000	25.910	0.00E+00	-97.960	0.000
18	USD(min)	2/4	-419.890	0.000	25.910	0.00E+00	-100.100	0.000
18	USD(min)	3/4	-418.790	0.000	25.910	0.00E+00	-102.310	0.000
18	USD(min)	J[19]	-417.690	0.000	25.910	0.00E+00	-104.530	0.000
18	WSD(max)	I[17]	-236.060	0.000	26.190	0.00E+00	-23.660	0.000
18	WSD(max)	1/4	-235.370	0.000	31.720	0.00E+00	-25.290	0.000
18	WSD(max)	2/4	-234.680	0.000	37.220	0.00E+00	-27.310	0.000
18	WSD(max)	3/4	-234.000	0.000	42.670	0.00E+00	-29.710	0.000
18	WSD(max)	J[19]	-233.310	0.000	48.080	0.00E+00	-32.490	0.000
18	WSD(min)	I[17]	-263.800	0.000	17.370	0.00E+00	-60.000	0.000
18	WSD(min)	1/4	-263.110	0.000	17.370	0.00E+00	-61.210	0.000
18	WSD(min)	2/4	-262.430	0.000	17.370	0.00E+00	-62.560	0.000
18	WSD(min)	3/4	-261.740	0.000	17.370	0.00E+00	-63.940	0.000
18	WSD(min)	J[19]	-261.060	0.000	17.370	0.00E+00	-65.330	0.000
19	USD(max)	I[18]	-340.250	0.000	75.640	0.00E+00	-36.620	0.000
19	USD(max)	1/4	-339.330	0.000	85.170	0.00E+00	-41.440	0.000
19	USD(max)	2/4	-338.400	0.000	94.640	0.00E+00	-46.920	0.000
19	USD(max)	3/4	-337.480	0.000	104.030	0.00E+00	-53.080	0.000
19	USD(max)	J[20]	-336.550	0.000	113.370	0.00E+00	-59.900	0.000
19	USD(min)	I[18]	-417.690	0.000	11.420	0.00E+00	-92.840	0.000
19	USD(min)	1/4	-416.590	0.000	12.850	0.00E+00	-93.860	0.000
19	USD(min)	2/4	-415.490	0.000	14.250	0.00E+00	-94.980	0.000
19	USD(min)	3/4	-414.400	0.000	15.630	0.00E+00	-96.540	0.000
19	USD(min)	J[20]	-413.300	0.000	16.980	0.00E+00	-100.530	0.000
19	WSD(max)	I[18]	-233.310	0.000	47.270	0.00E+00	-32.280	0.000
19	WSD(max)	1/4	-232.630	0.000	53.230	0.00E+00	-35.400	0.000
19	WSD(max)	2/4	-231.940	0.000	59.150	0.00E+00	-38.930	0.000
19	WSD(max)	3/4	-231.250	0.000	65.020	0.00E+00	-42.870	0.000
19	WSD(max)	J[20]	-230.570	0.000	70.850	0.00E+00	-47.230	0.000
19	WSD(min)	I[18]	-261.060	0.000	8.850	0.00E+00	-57.470	0.000
19	WSD(min)	1/4	-260.370	0.000	9.720	0.00E+00	-58.120	0.000
19	WSD(min)	2/4	-259.680	0.000	10.570	0.00E+00	-58.830	0.000
19	WSD(min)	3/4	-259.000	0.000	11.400	0.00E+00	-59.600	0.000
19	WSD(min)	J[20]	-258.310	0.000	12.210	0.00E+00	-60.930	0.000
20	USD(max)	I[19]	-328.530	0.000	76.930	0.00E+00	-43.050	0.000
20	USD(max)	1/4	-327.600	0.000	85.520	0.00E+00	-48.440	0.000
20	USD(max)	2/4	-326.680	0.000	94.640	0.00E+00	-54.490	0.000
20	USD(max)	3/4	-325.750	0.000	104.030	0.00E+00	-61.200	0.000
20	USD(max)	J[21]	-324.820	0.000	113.370	0.00E+00	-68.550	0.000
20	USD(min)	I[19]	-417.690	0.000	25.910	0.00E+00	-104.530	0.000
20	USD(min)	1/4	-416.590	0.000	25.910	0.00E+00	-106.740	0.000
20	USD(min)	2/4	-415.490	0.000	25.910	0.00E+00	-108.960	0.000
20	USD(min)	3/4	-414.400	0.000	25.910	0.00E+00	-111.170	0.000
20	USD(min)	J[21]	-413.300	0.000	25.910	0.00E+00	-113.390	0.000
20	WSD(max)	I[19]	-233.310	0.000	48.080	0.00E+00	-32.490	0.000
20	WSD(max)	1/4	-232.630	0.000	53.450	0.00E+00	-35.650	0.000
20	WSD(max)	2/4	-231.940	0.000	59.150	0.00E+00	-39.180	0.000
20	WSD(max)	3/4	-231.250	0.000	65.020	0.00E+00	-43.090	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN・m)	Moment-y (kN・m)	Moment-z (kN・m)
20	WSD(max)	J[21]	-230.570	0.000	70.850	0.00E+00	-47.360	0.000
20	WSD(min)	I[19]	-261.060	0.000	17.370	0.00E+00	-65.330	0.000
20	WSD(min)	1/4	-260.370	0.000	17.370	0.00E+00	-66.710	0.000
20	WSD(min)	2/4	-259.680	0.000	17.370	0.00E+00	-68.100	0.000
20	WSD(min)	3/4	-259.000	0.000	17.370	0.00E+00	-69.480	0.000
20	WSD(min)	J[21]	-258.310	0.000	17.370	0.00E+00	-70.870	0.000
21	USD(max)	I[20]	-336.550	0.000	113.370	0.00E+00	-59.900	0.000
21	USD(max)	1/4	-334.900	0.000	119.990	0.00E+00	-65.180	0.000
21	USD(max)	2/4	-333.240	0.000	126.580	0.00E+00	-70.770	0.000
21	USD(max)	3/4	-331.590	0.000	133.140	0.00E+00	-76.660	0.000
21	USD(max)	J[22]	-329.940	0.000	139.660	0.00E+00	-82.350	0.000
21	USD(min)	I[20]	-413.300	0.000	16.980	0.00E+00	-100.530	0.000
21	USD(min)	1/4	-411.340	0.000	17.930	0.00E+00	-103.550	0.000
21	USD(min)	2/4	-409.380	0.000	18.870	0.00E+00	-106.720	0.000
21	USD(min)	3/4	-407.420	0.000	19.790	0.00E+00	-110.030	0.000
21	USD(min)	J[22]	-405.460	0.000	20.710	0.00E+00	-113.490	0.000
21	WSD(max)	I[20]	-230.570	0.000	70.850	0.00E+00	-47.230	0.000
21	WSD(max)	1/4	-229.340	0.000	75.000	0.00E+00	-50.590	0.000
21	WSD(max)	2/4	-228.120	0.000	79.110	0.00E+00	-54.100	0.000
21	WSD(max)	3/4	-226.890	0.000	83.210	0.00E+00	-57.750	0.000
21	WSD(max)	J[22]	-225.670	0.000	87.290	0.00E+00	-61.480	0.000
21	WSD(min)	I[20]	-258.310	0.000	12.210	0.00E+00	-60.930	0.000
21	WSD(min)	1/4	-257.090	0.000	12.770	0.00E+00	-63.180	0.000
21	WSD(min)	2/4	-255.860	0.000	13.320	0.00E+00	-65.530	0.000
21	WSD(min)	3/4	-254.640	0.000	13.870	0.00E+00	-68.000	0.000
21	WSD(min)	J[22]	-253.410	0.000	14.400	0.00E+00	-70.580	0.000
22	USD(max)	I[21]	-324.820	0.000	113.370	0.00E+00	-68.550	0.000
22	USD(max)	1/4	-323.170	0.000	119.990	0.00E+00	-74.170	0.000
22	USD(max)	2/4	-321.520	0.000	126.580	0.00E+00	-79.990	0.000
22	USD(max)	3/4	-319.860	0.000	133.140	0.00E+00	-86.100	0.000
22	USD(max)	J[30]	-318.210	0.000	139.660	0.00E+00	-92.500	0.000
22	USD(min)	I[21]	-413.300	0.000	25.910	0.00E+00	-113.390	0.000
22	USD(min)	1/4	-411.340	0.000	25.910	0.00E+00	-114.970	0.000
22	USD(min)	2/4	-409.380	0.000	25.910	0.00E+00	-116.550	0.000
22	USD(min)	3/4	-407.420	0.000	25.910	0.00E+00	-118.140	0.000
22	USD(min)	J[30]	-405.460	0.000	25.910	0.00E+00	-119.720	0.000
22	WSD(max)	I[21]	-230.570	0.000	70.850	0.00E+00	-47.360	0.000
22	WSD(max)	1/4	-229.340	0.000	75.000	0.00E+00	-50.640	0.000
22	WSD(max)	2/4	-228.120	0.000	79.110	0.00E+00	-54.100	0.000
22	WSD(max)	3/4	-226.890	0.000	83.210	0.00E+00	-57.750	0.000
22	WSD(max)	J[30]	-225.670	0.000	87.290	0.00E+00	-61.570	0.000
22	WSD(min)	I[21]	-258.310	0.000	17.370	0.00E+00	-70.870	0.000
22	WSD(min)	1/4	-257.090	0.000	17.370	0.00E+00	-71.860	0.000
22	WSD(min)	2/4	-255.860	0.000	17.370	0.00E+00	-72.850	0.000
22	WSD(min)	3/4	-254.640	0.000	17.370	0.00E+00	-73.830	0.000
22	WSD(min)	J[30]	-253.410	0.000	17.370	0.00E+00	-74.820	0.000
23	USD(max)	I[22]	-25.910	0.000	-251.870	0.00E+00	-2.600	0.000
23	USD(max)	1/4	-25.910	0.000	-238.860	0.00E+00	9.720	0.000
23	USD(max)	2/4	-25.910	0.000	-225.850	0.00E+00	22.750	0.000
23	USD(max)	3/4	-25.910	0.000	-212.720	0.00E+00	35.520	0.000
23	USD(max)	J[23]	-25.910	0.000	-199.230	0.00E+00	47.520	0.000
23	USD(min)	I[22]	-178.610	0.000	-313.310	0.00E+00	-50.560	0.000
23	USD(min)	1/4	-178.610	0.000	-297.950	0.00E+00	-36.170	0.000
23	USD(min)	2/4	-178.610	0.000	-282.590	0.00E+00	-23.430	0.000
23	USD(min)	3/4	-178.610	0.000	-267.230	0.00E+00	-11.360	0.000
23	USD(min)	J[23]	-178.610	0.000	-251.880	0.00E+00	-0.240	0.000
23	WSD(max)	I[22]	-17.370	0.000	-174.380	0.00E+00	-3.190	0.000
23	WSD(max)	1/4	-17.370	0.000	-165.830	0.00E+00	5.760	0.000
23	WSD(max)	2/4	-17.370	0.000	-157.280	0.00E+00	14.220	0.000
23	WSD(max)	3/4	-17.370	0.000	-148.740	0.00E+00	22.200	0.000
23	WSD(max)	J[23]	-17.370	0.000	-140.190	0.00E+00	29.700	0.000
23	WSD(min)	I[22]	-111.300	0.000	-195.820	0.00E+00	-31.600	0.000
23	WSD(min)	1/4	-111.300	0.000	-186.220	0.00E+00	-22.050	0.000
23	WSD(min)	2/4	-111.300	0.000	-176.620	0.00E+00	-12.980	0.000
23	WSD(min)	3/4	-111.300	0.000	-167.020	0.00E+00	-4.390	0.000
23	WSD(min)	J[23]	-111.300	0.000	-157.420	0.00E+00	3.120	0.000
24	USD(max)	I[23]	-25.910	0.000	-199.230	0.00E+00	47.520	0.000
24	USD(max)	1/4	-25.910	0.000	-180.830	0.00E+00	62.670	0.000
24	USD(max)	2/4	-25.910	0.000	-162.420	0.00E+00	76.380	0.000
24	USD(max)	3/4	-25.910	0.000	-144.010	0.00E+00	88.670	0.000
24	USD(max)	J[24]	-25.910	0.000	-125.610	0.00E+00	99.560	0.000
24	USD(min)	I[23]	-178.610	0.000	-251.880	0.00E+00	-0.240	0.000
24	USD(min)	1/4	-178.610	0.000	-230.910	0.00E+00	13.720	0.000
24	USD(min)	2/4	-178.610	0.000	-209.950	0.00E+00	26.460	0.000
24	USD(min)	3/4	-178.610	0.000	-188.980	0.00E+00	38.000	0.000
24	USD(min)	J[24]	-178.610	0.000	-168.020	0.00E+00	48.320	0.000
24	WSD(max)	I[23]	-17.370	0.000	-140.190	0.00E+00	29.700	0.000
24	WSD(max)	1/4	-17.370	0.000	-128.520	0.00E+00	39.170	0.000
24	WSD(max)	2/4	-17.370	0.000	-116.850	0.00E+00	47.740	0.000
24	WSD(max)	3/4	-17.370	0.000	-105.180	0.00E+00	55.420	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
24	WSD(max)	J[24]	-17.370	0.000	-92.830	0.00E+00	62.220	0.000
24	WSD(min)	I[23]	-111.300	0.000	-157.420	0.00E+00	3.120	0.000
24	WSD(min)	1/4	-111.300	0.000	-144.320	0.00E+00	12.290	0.000
24	WSD(min)	2/4	-111.300	0.000	-131.220	0.00E+00	20.670	0.000
24	WSD(min)	3/4	-111.300	0.000	-118.120	0.00E+00	28.240	0.000
24	WSD(min)	J[24]	-111.300	0.000	-105.010	0.00E+00	35.020	0.000
25	USD(max)	I[24]	-25.910	0.000	-125.610	0.00E+00	99.560	0.000
25	USD(max)	1/4	-25.910	0.000	-107.130	0.00E+00	109.180	0.000
25	USD(max)	2/4	-25.910	0.000	-88.660	0.00E+00	117.370	0.000
25	USD(max)	3/4	-25.910	0.000	-70.190	0.00E+00	124.110	0.000
25	USD(max)	J[25]	-25.910	0.000	-51.720	0.00E+00	129.410	0.000
25	USD(min)	I[24]	-178.610	0.000	-168.020	0.00E+00	48.320	0.000
25	USD(min)	1/4	-178.610	0.000	-146.980	0.00E+00	57.460	0.000
25	USD(min)	2/4	-178.610	0.000	-125.940	0.00E+00	65.380	0.000
25	USD(min)	3/4	-178.610	0.000	-104.900	0.00E+00	71.420	0.000
25	USD(min)	J[25]	-178.610	0.000	-83.860	0.00E+00	75.970	0.000
25	WSD(max)	I[24]	-17.370	0.000	-92.830	0.00E+00	62.220	0.000
25	WSD(max)	1/4	-17.370	0.000	-79.680	0.00E+00	68.210	0.000
25	WSD(max)	2/4	-17.370	0.000	-66.530	0.00E+00	73.310	0.000
25	WSD(max)	3/4	-17.370	0.000	-53.380	0.00E+00	77.500	0.000
25	WSD(max)	J[25]	-17.370	0.000	-40.230	0.00E+00	80.790	0.000
25	WSD(min)	I[24]	-111.300	0.000	-105.010	0.00E+00	35.020	0.000
25	WSD(min)	1/4	-111.300	0.000	-91.860	0.00E+00	41.030	0.000
25	WSD(min)	2/4	-111.300	0.000	-78.710	0.00E+00	46.230	0.000
25	WSD(min)	3/4	-111.300	0.000	-65.560	0.00E+00	50.630	0.000
25	WSD(min)	J[25]	-111.300	0.000	-52.410	0.00E+00	54.230	0.000
26	USD(max)	I[25]	-25.910	0.000	-51.720	0.00E+00	129.410	0.000
26	USD(max)	1/4	-25.910	0.000	-33.310	0.00E+00	133.260	0.000
26	USD(max)	2/4	-25.910	0.000	-14.900	0.00E+00	135.680	0.000
26	USD(max)	3/4	-25.910	0.000	3.500	0.00E+00	136.660	0.000
26	USD(max)	J[26]	-25.910	0.000	21.910	0.00E+00	136.220	0.000
26	USD(min)	I[25]	-178.610	0.000	-83.860	0.00E+00	75.970	0.000
26	USD(min)	1/4	-178.610	0.000	-62.890	0.00E+00	79.280	0.000
26	USD(min)	2/4	-178.610	0.000	-41.930	0.00E+00	81.390	0.000
26	USD(min)	3/4	-178.610	0.000	-20.960	0.00E+00	82.280	0.000
26	USD(min)	J[26]	-178.610	0.000	0.000	0.00E+00	81.960	0.000
26	WSD(max)	I[25]	-17.370	0.000	-40.230	0.00E+00	80.790	0.000
26	WSD(max)	1/4	-17.370	0.000	-27.130	0.00E+00	83.180	0.000
26	WSD(max)	2/4	-17.370	0.000	-14.030	0.00E+00	84.660	0.000
26	WSD(max)	3/4	-17.370	0.000	-0.920	0.00E+00	85.260	0.000
26	WSD(max)	J[26]	-17.370	0.000	12.180	0.00E+00	84.960	0.000
26	WSD(min)	I[25]	-111.300	0.000	-52.410	0.00E+00	54.230	0.000
26	WSD(min)	1/4	-111.300	0.000	-39.310	0.00E+00	57.020	0.000
26	WSD(min)	2/4	-111.300	0.000	-26.210	0.00E+00	59.010	0.000
26	WSD(min)	3/4	-111.300	0.000	-13.100	0.00E+00	60.200	0.000
26	WSD(min)	J[26]	-111.300	0.000	0.000	0.00E+00	60.600	0.000
27	USD(max)	I[26]	-25.910	0.000	21.910	0.00E+00	136.220	0.000
27	USD(max)	1/4	-25.910	0.000	38.160	0.00E+00	134.420	0.000
27	USD(max)	2/4	-25.910	0.000	56.820	0.00E+00	131.350	0.000
27	USD(max)	3/4	-25.910	0.000	75.490	0.00E+00	127.010	0.000
27	USD(max)	J[27]	-25.910	0.000	94.160	0.00E+00	121.390	0.000
27	USD(min)	I[26]	-178.610	0.000	0.000	0.00E+00	81.960	0.000
27	USD(min)	1/4	-178.610	0.000	17.760	0.00E+00	80.500	0.000
27	USD(min)	2/4	-178.610	0.000	35.520	0.00E+00	77.960	0.000
27	USD(min)	3/4	-178.610	0.000	53.280	0.00E+00	74.350	0.000
27	USD(min)	J[27]	-178.610	0.000	71.040	0.00E+00	69.660	0.000
27	WSD(max)	I[26]	-17.370	0.000	12.180	0.00E+00	84.960	0.000
27	WSD(max)	1/4	-17.370	0.000	23.850	0.00E+00	83.820	0.000
27	WSD(max)	2/4	-17.370	0.000	35.510	0.00E+00	81.880	0.000
27	WSD(max)	3/4	-17.370	0.000	47.180	0.00E+00	79.140	0.000
27	WSD(max)	J[27]	-17.370	0.000	58.850	0.00E+00	75.610	0.000
27	WSD(min)	I[26]	-111.300	0.000	0.000	0.00E+00	60.600	0.000
27	WSD(min)	1/4	-111.300	0.000	11.670	0.00E+00	60.200	0.000
27	WSD(min)	2/4	-111.300	0.000	23.340	0.00E+00	59.010	0.000
27	WSD(min)	3/4	-111.300	0.000	35.000	0.00E+00	57.020	0.000
27	WSD(min)	J[27]	-111.300	0.000	46.670	0.00E+00	54.230	0.000
28	USD(max)	I[27]	-25.910	0.000	94.160	0.00E+00	121.390	0.000
28	USD(max)	1/4	-25.910	0.000	112.900	0.00E+00	114.470	0.000
28	USD(max)	2/4	-25.910	0.000	131.640	0.00E+00	106.260	0.000
28	USD(max)	3/4	-25.910	0.000	150.370	0.00E+00	96.770	0.000
28	USD(max)	J[28]	-25.910	0.000	169.110	0.00E+00	86.000	0.000
28	USD(min)	I[27]	-178.610	0.000	71.040	0.00E+00	69.660	0.000
28	USD(min)	1/4	-178.610	0.000	88.870	0.00E+00	63.870	0.000
28	USD(min)	2/4	-178.610	0.000	106.690	0.00E+00	56.970	0.000
28	USD(min)	3/4	-178.610	0.000	123.990	0.00E+00	48.720	0.000
28	USD(min)	J[28]	-178.610	0.000	139.800	0.00E+00	39.380	0.000
28	WSD(max)	I[27]	-17.370	0.000	58.850	0.00E+00	75.610	0.000
28	WSD(max)	1/4	-17.370	0.000	70.560	0.00E+00	71.260	0.000
28	WSD(max)	2/4	-17.370	0.000	82.270	0.00E+00	66.110	0.000
28	WSD(max)	3/4	-17.370	0.000	93.980	0.00E+00	60.160	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
28	WSD(max)	J[28]	-17.370	0.000	105.690	0.00E+00	53.400	0.000
28	WSD(min)	I[27]	-111.300	0.000	46.670	0.00E+00	54.230	0.000
28	WSD(min)	1/4	-111.300	0.000	58.380	0.00E+00	50.630	0.000
28	WSD(min)	2/4	-111.300	0.000	70.090	0.00E+00	46.150	0.000
28	WSD(min)	3/4	-111.300	0.000	81.800	0.00E+00	40.280	0.000
28	WSD(min)	J[28]	-111.300	0.000	93.520	0.00E+00	33.620	0.000
29	USD(max)	I[28]	-25.910	0.000	169.110	0.00E+00	86.000	0.000
29	USD(max)	1/4	-25.910	0.000	188.980	0.00E+00	73.990	0.000
29	USD(max)	2/4	-25.910	0.000	209.950	0.00E+00	60.710	0.000
29	USD(max)	3/4	-25.910	0.000	230.910	0.00E+00	46.150	0.000
29	USD(max)	J[29]	-25.910	0.000	251.880	0.00E+00	30.320	0.000
29	USD(min)	I[28]	-178.610	0.000	139.800	0.00E+00	39.380	0.000
29	USD(min)	1/4	-178.610	0.000	155.560	0.00E+00	29.010	0.000
29	USD(min)	2/4	-178.610	0.000	171.310	0.00E+00	17.550	0.000
29	USD(min)	3/4	-178.610	0.000	187.060	0.00E+00	5.030	0.000
29	USD(min)	J[29]	-178.610	0.000	202.810	0.00E+00	-8.570	0.000
29	WSD(max)	I[28]	-17.370	0.000	105.690	0.00E+00	53.400	0.000
29	WSD(max)	1/4	-17.370	0.000	118.120	0.00E+00	45.880	0.000
29	WSD(max)	2/4	-17.370	0.000	131.220	0.00E+00	37.560	0.000
29	WSD(max)	3/4	-17.370	0.000	144.320	0.00E+00	28.440	0.000
29	WSD(max)	J[29]	-17.370	0.000	157.420	0.00E+00	18.520	0.000
29	WSD(min)	I[28]	-111.300	0.000	93.520	0.00E+00	33.620	0.000
29	WSD(min)	1/4	-111.300	0.000	105.180	0.00E+00	26.170	0.000
29	WSD(min)	2/4	-111.300	0.000	116.850	0.00E+00	17.940	0.000
29	WSD(min)	3/4	-111.300	0.000	128.520	0.00E+00	8.900	0.000
29	WSD(min)	J[29]	-111.300	0.000	140.190	0.00E+00	-0.930	0.000
30	USD(max)	I[29]	-25.910	0.000	251.880	0.00E+00	30.320	0.000
30	USD(max)	1/4	-25.910	0.000	267.230	0.00E+00	17.920	0.000
30	USD(max)	2/4	-25.910	0.000	282.590	0.00E+00	4.830	0.000
30	USD(max)	3/4	-25.910	0.000	297.950	0.00E+00	-8.950	0.000
30	USD(max)	J[30]	-25.910	0.000	313.310	0.00E+00	-23.110	0.000
30	USD(min)	I[29]	-178.610	0.000	202.810	0.00E+00	-8.570	0.000
30	USD(min)	1/4	-178.610	0.000	214.350	0.00E+00	-19.220	0.000
30	USD(min)	2/4	-178.610	0.000	225.890	0.00E+00	-30.440	0.000
30	USD(min)	3/4	-178.610	0.000	237.430	0.00E+00	-42.250	0.000
30	USD(min)	J[30]	-178.610	0.000	248.970	0.00E+00	-54.920	0.000
30	WSD(max)	I[29]	-17.370	0.000	157.420	0.00E+00	18.520	0.000
30	WSD(max)	1/4	-17.370	0.000	167.020	0.00E+00	10.750	0.000
30	WSD(max)	2/4	-17.370	0.000	176.620	0.00E+00	2.550	0.000
30	WSD(max)	3/4	-17.370	0.000	186.220	0.00E+00	-6.070	0.000
30	WSD(max)	J[30]	-17.370	0.000	195.820	0.00E+00	-15.120	0.000
30	WSD(min)	I[29]	-111.300	0.000	140.190	0.00E+00	-0.930	0.000
30	WSD(min)	1/4	-111.300	0.000	148.740	0.00E+00	-8.640	0.000
30	WSD(min)	2/4	-111.300	0.000	157.280	0.00E+00	-16.770	0.000
30	WSD(min)	3/4	-111.300	0.000	165.830	0.00E+00	-25.330	0.000
30	WSD(min)	J[30]	-111.300	0.000	174.380	0.00E+00	-34.320	0.000

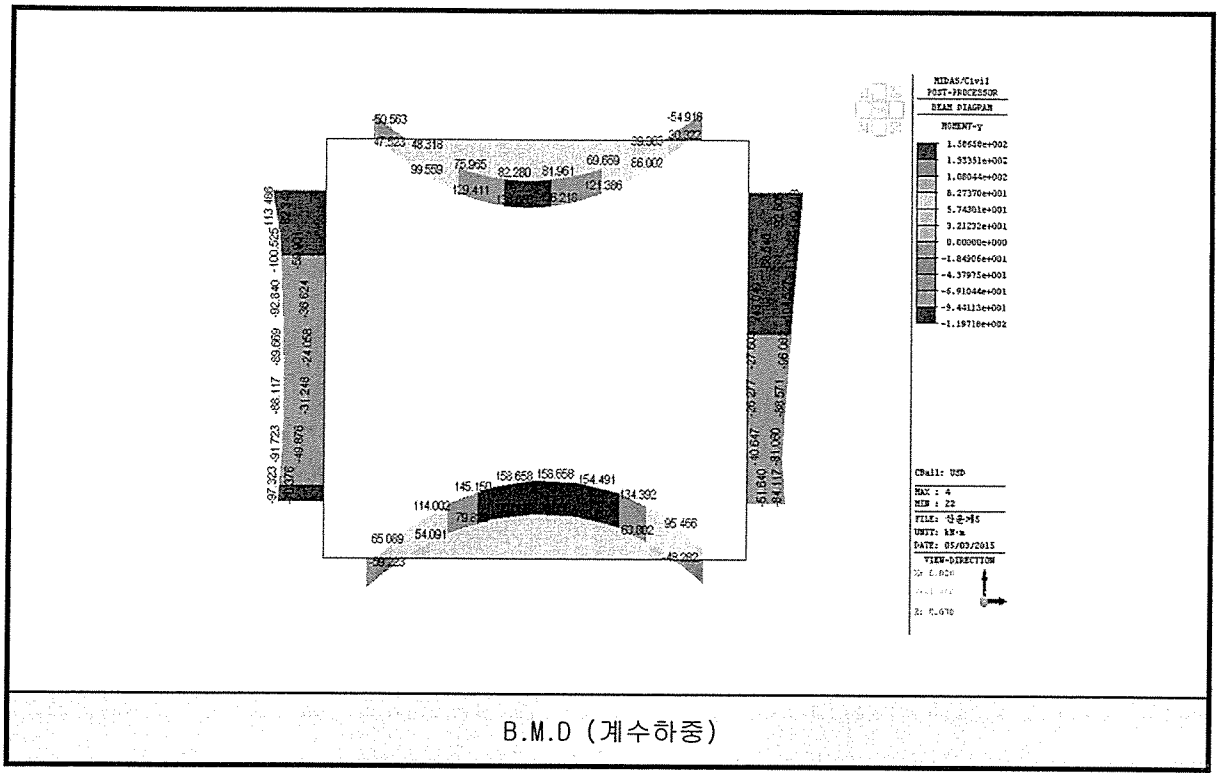
9. 단면력 요약

구분	위치	부재	극한하중			사용하중	비고
			Mu(kN · m)	Su(kN)	Pu(kN)	M(kN · m)	
상부슬래브	단부	23,30	-54.92	313.31	-	-34.32	
	중앙부	26,27	136.66	94.16	-	85.26	
벽체	상단부 (축력최대)	21.22	-100.53	139.66	-413.30	-47.23	
	상단부 (모멘트최대)	21,22	-119.72	139.66	-380.55	-74.82	
	중앙부 (축력최대)	15,16	-72.00	41.90	-426.47	-21.05	
	중앙부 (모멘트최대)	15,16	-96.08	-15.96	-394.68	-60.00	
	하단부 (축력최대)	9,10	-84.12	-131.16	-443.48	-33.42	
	하단부 (모멘트최대)	9,10	-97.32	-131.16	-424.00	-60.83	
하부슬래브	단부	1,8	-59.22	306.94	-	-35.47	
	중앙부	4,5	158.66	64.77	-	98.87	

-'전단력과 사용하중 상태에서의 모멘트는 선택 부재에서의 최대값 적용

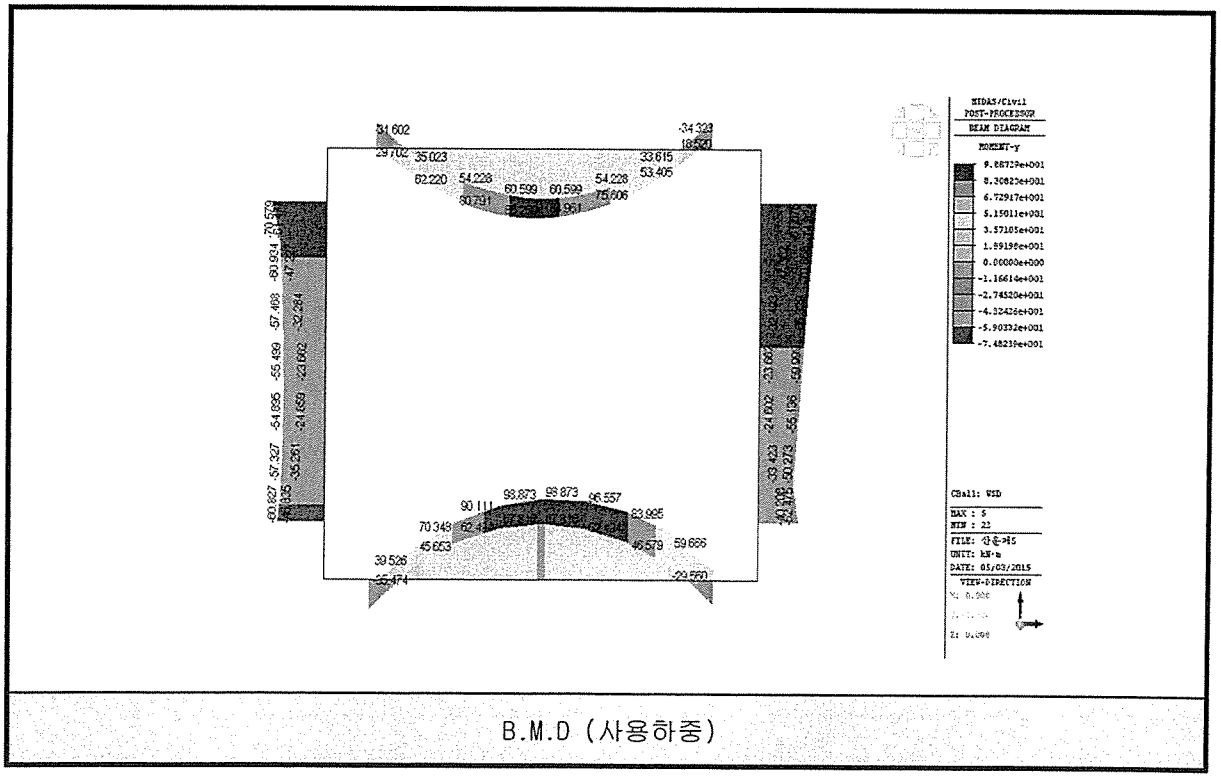
10. 단면력도

(1) 극한하중 모멘트도



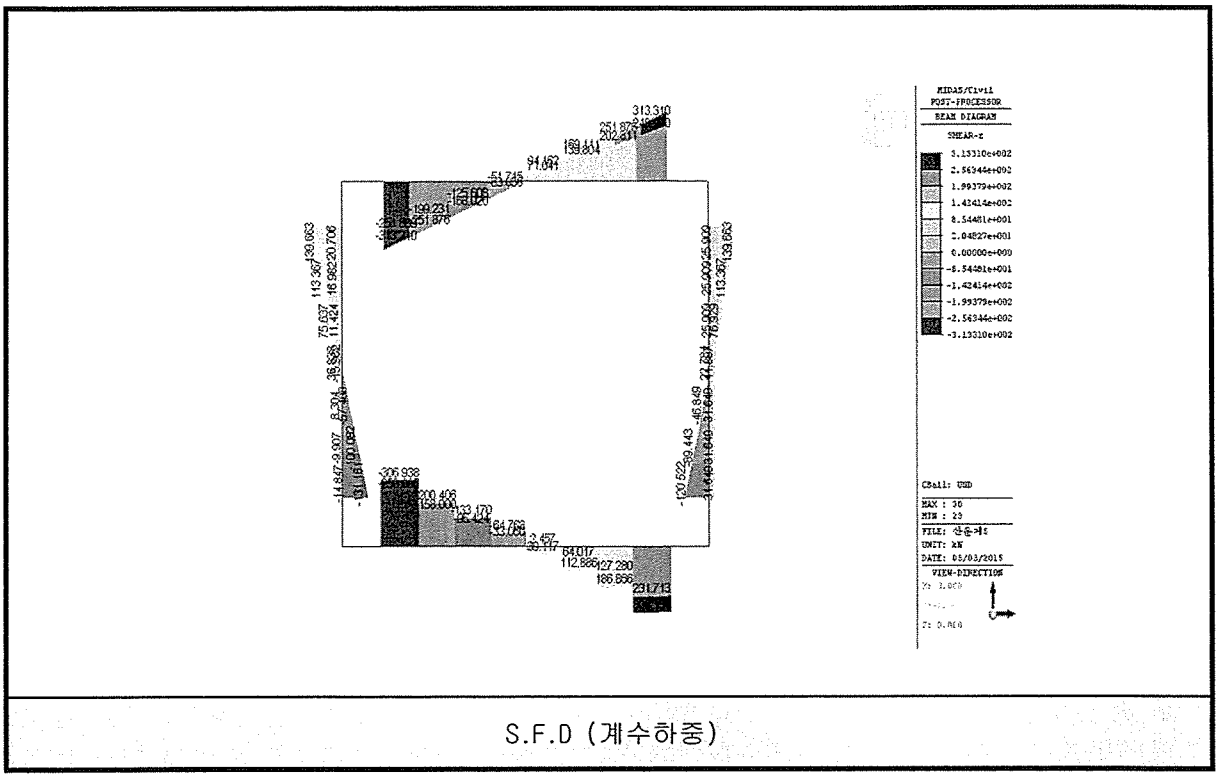
B.M.D (계수하중)

(2) 사용하중 모멘트도



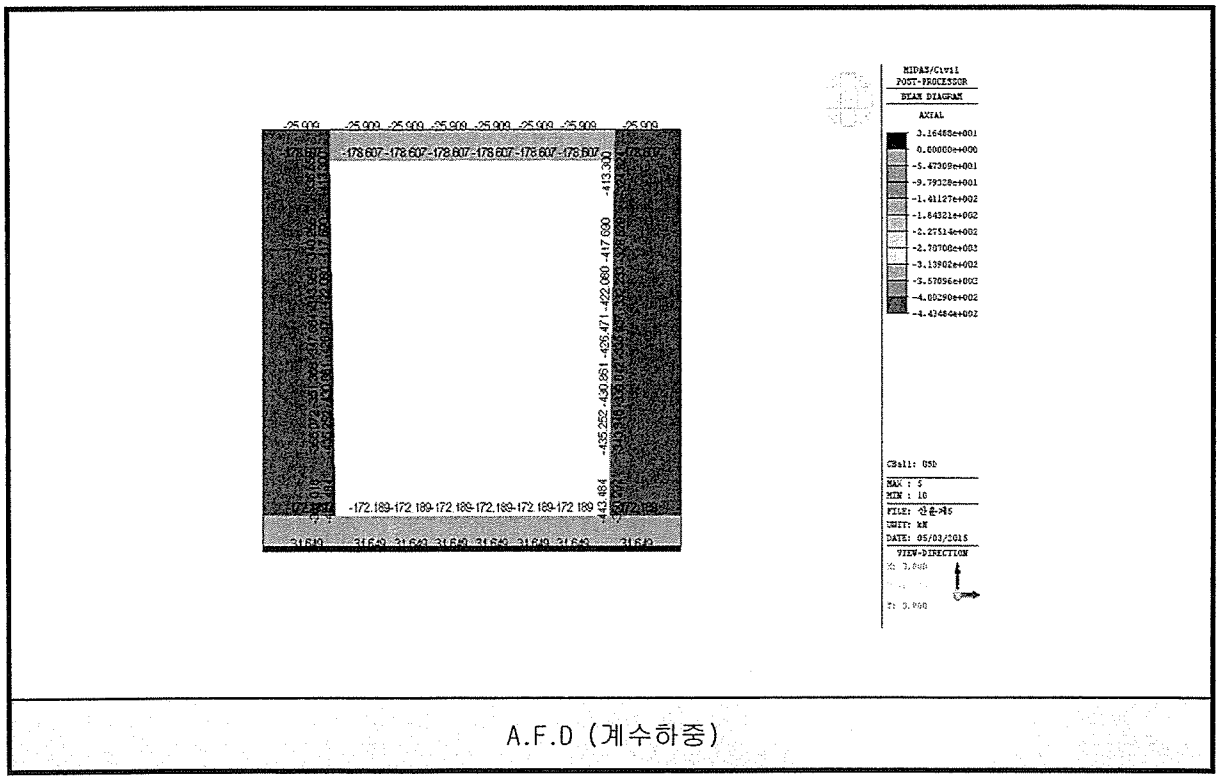
B.M.D (사용하중)

(3) 극한하중 전단력도



S.F.D (계수하중)

(4) 극한하중 축력도



A.F.D (계수하중)

11. 단면검토

① 상부 슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	34.320
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Su (kN)
1000.0	500.0	400.0	100.0	54.920	313.310

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 384.284 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 384.284 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 512.379 mm^2 ※ As = 512.379 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 54.920 kN · m ----- ∴ O.K. [사용률 = 4.036]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

Vu > Φv x Vc ∴ 전단철근보강이 필요하다.

Req Av = (313.3 - 232.782)×10³ ×150.0 / (400.0×300.0×0.85)

= 118.423 ㎟

Use Av = 253.400 ㎟ (H13×2 EA, 간격 s = 150.0 mm)

Øv · As = Øv · Av · fy · D / (s × B) = 172.312 kN

s = 150.0 mm ≥ Min (600, 0.5D) = 150.0 mm ----- ∴ O.K.

Øv · Vn = Øv · Vc + Øv · Vs = 405.094 kN > Vu ----- ∴ O.K.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 34.32 × 1000000 / [1588.8×(400 - 83.857/3)]

= 58.060 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 58.06) - 2.5 × 92 = 1126.348 mm

300 x (210 / fs) = 300 × (210 / 58.06) = 1085.078 mm

Sa는 작은 값인 1085.078 mm 를 적용

S = 125.00 ≤ Sa (= 1085.078 mm) ----- ∴ O.K.

② 상부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	85.260
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	400.0	300.0	100.0	136.660	94.160

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.02719 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1310.253 mm^2

사용철근비 : Puse = As / (B × D) = 0.00530

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1310.253 mm^2 As(min) = 1050.000 mm^2

4/3×As(req) = 1747.004 mm^2 ※ As = 1310.253 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 164463107 N · mm

= 164.463 kN · m > 136.660 kN · m ----- ∴ O.K. [사용률 = 1.203]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 85.26 × 1000000 / [1588.8×(300 - 71.32/3)]

= 194.272 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×300/(7×1588.8)]

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 194.272) - 2.5 × 92 = 175.359 mm

300 x (210 / fs) = 300 × (210 / 194.272) = 324.287 mm

Sa는 작은 값인 175.359 mm 를 적용

S = 125.00 ≤ Sa (= 175.359 mm) ----- ∴ O.K.

③ 하부슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	35.470
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	550.0	450.0	100.0	59.220	306.940

전단설계시 단면의 유효높이 ds = 350.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.04229 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 367.915 mm^2

사용철근비 : Puse = As / (B × D) = 0.00353

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 367.915 mm^2 As(min) = 1575.000 mm^2

4/3×As(req) = 490.553 mm^2 ※ As = 490.553 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 250258307 N · mm

= 250.258 kN · m > 59.220 kN · m ----- ∴ O.K [사용률 = 4.226]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 271.579 kN

Vu > Φv x Vc ∴ 전단철근보강이 필요하다.

Req Av = (306.9 - 271.579)×10³ ×150.0 / (400.0×350.0×0.85)

= 44.573 ㎟

Use Av = 253.400 ㎟ (H13×2 EA, 간격 s = 150.0 mm)

Øv · As = Øv · Av · fy · D / (s × B) = 201.031 kN

s = 150.0 mm < Min (600, 0.5D) = 175.0 mm ----- ∴ O.K

Øv · Vn = Øv · Vc + Øv · Vs = 472.610 kN > Vu ----- ∴ O.K

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 35.47 × 1000000 / [1588.8×(450 - 89.542/3)]

= 53.136 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×450/(7×1588.8)]

= 89.542 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 53.136) - 2.5 × 92 = 1252.060 mm

300 x (210 / fs) = 300 × (210 / 53.136) = 1185.648 mm

Sa는 작은 값인 1185.648 mm 를 적용

S = 125.00 ≤ Sa (= 1185.648 mm) ----- ∴ O.K.

④ 하부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	98.870
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	450.0	350.0	100.0	158.660	64.770

전단설계시 단면의 유효높이 ds = 350.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03222 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1296.897 mm^2

사용철근비 : Puse = As / (B × D) = 0.00454

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 1296.897 mm^2 As(min) = 1225.000 mm^2

4/3×As(req) = 1729.196 mm^2 ※ As = 1296.897 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 193061507 N · mm

= 193.062 kN · m > 158.660 kN · m ----- ∴ O.K [사용률 = 1.217]

* 전단력 검토

$\phi v \cdot Vc = \phi v \cdot 1/6 \cdot \sqrt{fck} \cdot B \cdot d / 1000 =$ 271.579 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 98.87 \times 1000000 / [1588.8 \times (350 - 77.81/3)]$

= 192.028 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 350/(7 \times 1588.8)]}$

= 77.810 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 192.028) - 2.5 × 92 = 180.096 mm

300 x (210 / fs) = 300 × (210 / 192.028) = 328.077 mm

Sa는 작은 값인 180.096 mm 를 적용

S = 125.00 ≤ Sa (= 180.096 mm) ----- ∴ O.K.

⑤ 벽체 상단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	74.820
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	500.0	400.0	100.0	119.720	139.660

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2 \times 0.85 \times fck \times b} \times As^2 - fy \times d \times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 845.403 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 845.403 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 1127.204 mm^2 ※ As = 1127.204 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 119.720 kN · m ----- ∴ O.K [사용률 = 1.851]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

1/2 x Φv x Vc = 116.391 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 74.82 × 1000000 / [1588.8×(400 - 83.857/3)]

= 126.576 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 ㎜

사용철근량 = 1588.800 $㎜^2$ (철근도심 : 100 ㎜)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 ㎜

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(㎜)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 126.576) - 2.5 × 92 = 392.158 ㎜

300 x (210 / fs) = 300 × (210 / 126.576) = 497.726 ㎜

Sa는 작은 값인 392.158 ㎜ 를 적용

S = 125.00 ≤ Sa (= 392.158 ㎜) ----- ∴ O.K.

⑥ 벽체 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	60.000
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	400.0	300.0	100.0	96.080	15.960

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.02719 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 911.343 mm^2

사용철근비 : Puse = As / (B × D) = 0.00530

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 911.343 mm^2 As(min) = 1050.000 mm^2

4/3×As(req) = 1215.124 mm^2 ※ As = 1050.000 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 164463107 N · mm

= 164.463 kN · m > 96.080 kN · m ----- ∴ O.K [사용률 = 1.712]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 60 × 1000000 / [1588.8×(300 - 71.32/3)]

= 136.715 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×300/(7×1588.8)]

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 136.715) - 2.5 × 92 = 346.015 mm

300 x (210 / fs) = 300 × (210 / 136.715) = 460.812 mm

Sa는 작은 값인 346.015 mm 를 적용

S = 125.00 ≤ Sa (= 346.015 mm) ----- ∴ O.K.

⑦ 벽체 하단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	60.830
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	500.0	400.0	100.0	97.320	131.160

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 685.035 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 685.035 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 913.380 mm^2 ※ As = 913.380 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 97.320 kN · m ------ ∴ O.K [사용률 = 2.278]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

1/2 x Φv x Vc = 116.391 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 60.83 × 1000000 / [1588.8×(400 - 83.857/3)]

= 102.908 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 102.908) - 2.5 × 92 = 535.245 mm

300 x (210 / fs) = 300 × (210 / 102.908) = 612.196 mm

Sa는 작은 값인 535.245 mm 를 적용

S = 125.00 ≤ Sa (= 535.245 mm) ----- ∴ O.K.

⑤ 벽체 상단부 - Pmax 일 경우

설계축력	:	Pu	=	413.30	(kN) ,	설계모멘트	:	Mu	=	100.53	(kN · m)
설계전단력	:	Vu	=	139.66	(kN) ,	사용 모멘트	:	M	=	47.23	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	243.24 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 175.166 mm , a = k1 x c = 146.439 mm 사용

fs = 600 x (400.000 - 175.166) / 175.166 = 400 Mpa (fs ≤ fy)

fs' = 600 x (175.166 - 100.000) / 175.166 = 257.4682 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 146.439 x 1000 = 3672688.695 N

Cs = 794.400 x (257.468 - 0.836 x 30) = 184609.158 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 3672688.695 + 184609.158 - 635520.000 = 3221777.853 N

Mn' = 3672688.695 x (400.0 - 146.439 / 2) + 184609.158 x (400.0 - 100.0)

= 1255545899.918 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 389.704933 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 3221777.853

ΦPn = 2255244.497 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3221777.853 = 2255.244 kN ≥ Pu = 413.300 kN ------ O.K!!!

ΦMn = ΦPn x 243.237 = 548.560 kN.m ≥ Mu = 100.530 kN.m ------ O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 246526.206 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 47.23 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 79.901 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 79.901) - 2.5 × 92 = 755.599 mm

300 x (210 / fs) = 300 × (210 / 79.901) = 788.479 mm

Sa는 작은 값인 755.599 mm 를 적용

S = 125.00 ≤ Sa (= 755.599 mm) ----- ∴ O.K.

⑥ 벽체 상단부 - Mmax 일 경우

설계축력	:	Pu	=	380.55	(kN) ,	설계모멘트	:	Mu	=	119.72	(kN · m)
설계전단력	:	Vu	=	139.66	(kN) ,	사용 모멘트	:	M	=	74.82	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	314.60 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 120.914 mm , a = k1 x c = 101.084 mm 사용

fs = 600 x (400.000 - 120.914) / 120.914 = 400 Mpa (fs ≤ fy)

fs' = 600 x (120.914 - 100.000) / 120.914 = 103.7795 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 101.084 x 1000 = 2535189.328 N

Cs = 794.400 x (103.780 - 0.836 x 30) = 62518.919 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 2535189.328 + 62518.919 - 635520.000 = 1962188.247 N

Mn' = 2535189.328 x (400.0 - 101.084 / 2) + 62518.919 x (400.0 - 100.0)

= 904697736.220 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 461.064868 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 1962188.247

ΦPn = 1373531.773 < ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.720

ΦPn = 0.72 x 1962188.247 = 1412.776 kN ≥ Pu = 380.550 kN ------- O.K!!!

ΦMn = ΦPn x 314.597 = 444.455 kN.m ≥ Mu = 119.720 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 245437.119 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 74.82 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 126.576 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 126.576) - 2.5 × 92 = 392.158 mm

300 x (210 / fs) = 300 × (210 / 126.576) = 497.726 mm

Sa는 작은 값인 392.158 mm 를 적용

S = 125.00 ≤ Sa (= 392.158 mm) ----- ∴ O.K.

⑦ 벽체 중앙부 - Pmax 일 경우

설계축력	:	Pu	=	426.47	(kN) ,	설계모멘트	:	Mu	=	72.00	(kN·m)	
설계전단력	:	Vu	=	41.90	(kN) ,	사용 모멘트	:	M	=	21.05	(kN.m)	
부 재 높 이	:	H	=	400.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	300.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e	=	168.83 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0060) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 400.00 x 1000.00 = 10032000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (10032000.00 x 200.0 + 635520.0 x 100.0 + 317760.0 x 300.0) / 10985280.000

= 197.107 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 180.000 mm, ab = k1 x cb = 150.480 mm

fs' = 600 x (180.000 - 100.0) / 180.0(= 266.6667 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 150.480 x 1000 = 3774038.400 N

Cs = As' x (fs' - 0.9 x fck) = 190391.200 N

Ts = As x fs = 635520.000 N

Pb = 3774038.400 + 190391.200 - 635520.000 = 3328909.600 N

Mb = 3774038.400x(300.0-150.480/2)+190391.200x(300.0-100.0)-3328909.600x(197.107-100.0)

= 563069348.351 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 169.145 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 180.195 mm , a = k1 x c = 150.643 mm 사용

fs = 600 x (300.000 - 180.195) / 180.195 = 398.9173 Mpa (fs ≤ fy)

fs' = 600 x (180.195 - 100.000) / 180.195 = 267.0276 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 150.643 x 1000 = 3778129.038 N

Cs = 794.400 x (267.028 - 0.836 x 30) = 192203.151 N

Ts = 1588.800 x 398.917 = 633799.782 N

Pn = 3778129.038 + 192203.151 - 633799.782 = 3336532.407 N

Mn' = 3778129.038 x (300.0 - 150.643 / 2) + 192203.151 x (300.0 - 100.0)

= 887304799.627 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 265.935221 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 8874006.720 N ≥ Pn = 3336532.407

ΦPn = 2335572.685 > ΦPb = 2330236.720 , 0.1 x fck x Ag = 1200000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3336532.407 = 2335.573 kN ≥ Pu = 426.470 kN ------- O.K!!!

ΦMn = ΦPn x 168.828 = 394.310 kN.m ≥ Mu = 72.000 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 250509.690 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 21.05 × 1000000 / [1588.8×(300 - 71.32/3)]

= 47.964 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2\times1000\times300/(7\times1588.8)]}$

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 47.964) - 2.5 × 92 = 1411.85 mm

300 x (210 / fs) = 300 × (210 / 47.964) = 1313.48 mm

Sa는 작은 값인 1313.48 mm 를 적용

S = 125.00 ≤ Sa (= 1313.479 mm) ----- ∴ O.K.

⑧ 벽체 중앙부 - Mmax 일 경우

설계축력	:	Pu	=	394.68	(kN) ,	설계모멘트	:	Mu	=	96.08	(kN · m)
설계전단력	:	Vu	=	15.96	(kN) ,	사용 모멘트	:	M	=	60.00	(kN.m)
부 재 높 이	:	H	=	400.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	300.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	243.44 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

$\sum$ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0060) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 400.00 x 1000.00 = 10032000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (10032000.00 x 200.0 + 635520.0 x 100.0 + 317760.0 x 300.0) / 10985280.000

= 197.107 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 180.000 mm, ab = k1 x cb = 150.480 mm

fs' = 600 x (180.000 - 100.0) / 180.0(= 266.6667 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 150.480 x 1000 = 3774038.400 N

Cs = As' x (fs' - 0.9 x fck) = 190391.200 N

Ts = As x fs = 635520.000 N

Pb = 3774038.400 + 190391.200 - 635520.000 = 3328909.600 N

Mb = 3774038.400x(300.0-150.480/2)+190391.200x(300.0-100.0)-3328909.600x(197.107-100.0)

= 563069348.351 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 169.145 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 114.055 mm , a = k1 x c = 95.350 mm 사용

fs = 600 x (300.000 - 114.055) / 114.055 = 400 Mpa (fs ≤ fy)

fs' = 600 x (114.055 - 100.000) / 114.055 = 73.93663 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 95.350 x 1000 = 2391371.208 N

Cs = 794.400 x (73.937 - 0.836 x 30) = 38811.706 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 2391371.208 + 38811.706 - 635520.000 = 1794662.914 N

Mn' = 2391371.208 x (300.0 - 95.350 / 2) + 38811.706 x (300.0 - 100.0)

= 611165405.095 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 340.545124 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 8874006.720 N ≥ Pn = 1794662.914

ΦPn = 1256264.040 > ΦPb = 2330236.720 , 0.1 x fck x Ag = 1200000.000

∴ Φ = 0.700

ΦPn = 0.70 x 1794662.914 = 1256.264 kN ≥ Pu = 394.680 kN ------ O.K!!!

ΦMn = ΦPn x 243.438 = 305.822 kN.m ≥ Mu = 96.080 kN.m ------ O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 249188.236 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 60 × 1000000 / [1588.8×(300 - 71.32/3)]

= 136.715 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2\times1000\times300/(7\times1588.8)]}$

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 136.715) - 2.5 × 92 = 346.02 mm

300 x (210 / fs) = 300 × (210 / 136.715) = 460.81 mm

Sa는 작은 값인 346.02 mm 를 적용

S = 125.00 ≤ Sa (= 346.015 mm) ----- ∴ O.K.

⑨ 벽체 하단부 - Pmax 일 경우

설계축력	:	Pu	=	443.48	(kN) ,	설계모멘트	:	Mu	=	84.12	(kN · m)
설계전단력	:	Vu	=	131.16	(kN) ,	사용 모멘트	:	M	=	33.42	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	189.68 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 244.057 mm , a = k1 x c = 204.032 mm 사용

fs = 600 x (400.000 - 244.057) / 244.057 = 383.3752 Mpa (fs ≤ fy)

fs' = 600 x (244.057 - 100.000) / 244.057 = 354.1562 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 204.032 x 1000 = 5117122.219 N

Cs = 794.400 x (354.156 - 0.836 x 30) = 261418.129 N

Ts = 1588.800 x 383.375 = 609106.553 N

Pn = 5117122.219 + 261418.129 - 609106.553 = 4769433.794 N

Mn' = 5117122.219 x (400.0 - 204.032 / 2) + 261418.129 x (400.0 - 100.0)

= 1603246020.727 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 336.149184 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 4769433.794

ΦPn = 3338603.656 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 4769433.794 = 3338.604 kN ≥ Pu = 443.480 kN ——— O.K!!!

ΦMn = ΦPn x 189.682 = 633.272 kN.m ≥ Mu = 84.120 kN.m ——— O.K!!!

○ 전단력 검토

ϕVc = 0.85 × 1/6 × (1 + Pu / (14 x Ag)) x √fck × bo × d = 247529.830 N

여기서 , 1/2ϕVc< Vu ≤ ϕVc 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 33.42 × 1000000 / [1588.8×(400 - 83.857/3)]

= 56.538 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 ㎜

사용철근량 = 1588.800 ㎟ (철근도심 : 100 ㎜)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 ㎜

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(㎜)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 56.538) - 2.5 × 92 = 1162.87 ㎜

300 x (210 / fs) = 300 × (210 / 56.538) = 1114.30 ㎜

Sa는 작은 값인 1114.30 ㎜ 를 적용

S = 125.00 ≤ Sa (= 1114.299 ㎜) ----- ∴ O.K.

⑩ 벽체 하단부 - Mmax 일 경우

설계축력	:	Pu	=	424.00	(kN) ,	설계모멘트	:	Mu	=	97.32	(kN·m)
설계전단력	:	Vu	=	131.16	(kN) ,	사용 모멘트	:	M	=	60.83	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck}	= 30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	= 0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc	= 0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e	= 229.53 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 190.867 mm , a = k1 x c = 159.565 mm 사용

fs = 600 x (400.000 - 190.867) / 190.867 = 400 Mpa (fs ≤ fy)

fs' = 600 x (190.867 - 100.000) / 190.867 = 285.6452 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 159.565 x 1000 = 4001888.630 N

Cs = 794.400 x (285.645 - 0.836 x 30) = 206993.015 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 4001888.630 + 206993.015 - 635520.000 = 3573361.645 N

Mn' = 4001888.630 x (400.0 - 159.565 / 2) + 206993.015 x (400.0 - 100.0)

= 1343572802.047 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 375.995877 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 3573361.645

ΦPn = 2501353.151 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3573361.645 = 2501.353 kN ≥ Pu = 424.000 kN ------- O.K!!!

ΦMn = ΦPn x 229.528 = 574.131 kN.m ≥ Mu = 97.320 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 246882.030 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토) -

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 60.83 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 102.908 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 ㎜

사용철근량 = 1588.800 $㎜^2$ (철근도심 : 100 ㎜)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 ㎜

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(㎜)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 102.908) - 2.5 × 92 = 535.245 ㎜

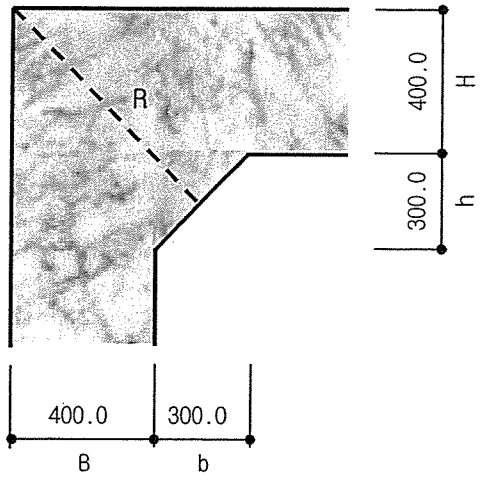
300 x (210 / fs) = 300 × (210 / 102.908) = 612.196 ㎜

Sa는 작은 값인 535.245 ㎜ 를 적용

S = 125.00 ≤ Sa (= 535.245 ㎜) ------ ∴ O.K.

12. 우각부 검토

1) 상부 슬래브



CON'C 설계기준강도(fck)	:	30.0	MPa
CON'C 허용휨인장응력(fta) = 0.13√fck Mpa			
	:	0.712	MPa
철근 항복강도(fy)	:	400.0	MPa
철근 허용응력	:	180.0	MPa
사용 모멘트 Mo	:	74.82	kN · m

$R = \sqrt{2} \times b / (b+h) \times [B + h + (H \times h/b)]$

$= 777.82$ mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 74820000}{777.82^2 \times 1000.0} = 0.618 \text{ MPa}$$

$f_{tmax} =$ 0.618 MPa < $f_{ta} =$ 0.712 MPa 이므로 보강철근 필요없음.

② 소요 철근량

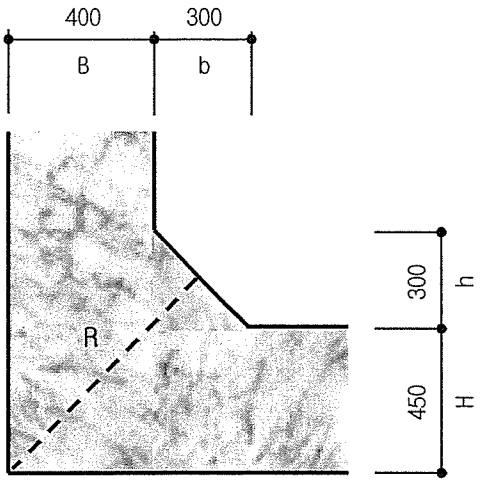
외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 0}{777.82 \times 180.0} = 0.00 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 0.00 - 794.4 = -794.40 ㎟

----- 우각부 보강철근 필요없음

2) 하부 슬래브



CON'C 설계기준강도(fck)	:	30.0	MPa
CON'C 허용휨인장응력(fta) = 0.13√fck Mpa			
	:	0.712	MPa
철근 항복강도(fy)	:	400.0	MPa
철근 허용응력	:	180.0	MPa
사용 모멘트 Mo	:	60.83	kN · m

R = √ (B2 + H2) = 602.08 mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 60830000}{602.08^2 \times 1000.0} = 0.839 \text{ MPa}$$

f_{tmax} = 0.839 MPa > f_{ta} = 0.712 MPa 이므로 보강철근 필요.

② 소요 철근량

외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 60830000}{602.08 \times 180.0} = 1122.59 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 1122.59 - 794.4 = 328.19 ㎟

------ 우각부 보강철근 필요

외측인장에 대한 보강 사용철근량(As)

As = H16 @ 250 - 1 단 = 794.40 ㎟

Asf = 328.19 ㎟ < As = 794.40 ㎟ ------ ∴ O.K.

13. 배력철근 검토

1) 구조상세 - 철도설계기준(노반편) p.5-19

다. 종방향으로 영향을 받는 경우로써 상부슬래브, 하부슬래브와 벽체에 있어서 종방향 최소철근량은 복토의 깊이가 3.0 m 이하인 경우에는 콘크리트 단면적의 0.4%, 복토가 3.0m 이상인 경우에는 복토 깊이가 30m인 경우의 사용량인 1.0%를 기준으로 선형변화량을 사용하되, 종방향 철근량은 주철근량 미만이어야 한다.

라. 단단한 지반 위에 놓인 경우와 말뚝기초로 지지되는 경우로써 종방향 부등침하가 우려되지 않은 경우에는 다.항의 기준을 적용하지 않는다. 따라서 어느 정도 견고한 지반위에 놓이는 일반적인 구교로써 적적한 신축이음매가 설치되어 상세한 종방향해석이 필요하지 않다고 판단되는 경우 종방향 철근량은 슬래브의 경우 콘크리트단면적의 0.25%, 벽체의 경우 0.3%를 적용한다.

마. 배력철근은 단위폭주변의 인장 주철근량의 1/5 이상으로 하여 종단방향에 계산외의 응력이 발생하는 것을 고려하여야 한다.

2) 배력철근의 최소 철근비

슬래브의 배력 철근비 = 0.25 %　　벽체의 배력 철근비 = 0.30 %

① 상부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 400.0 × 0.25	=	1000.00	㎟
사용철근 인장측 ; H 13 @ 150	=	844.67	㎟
압축측 ; H 13 @ 300	=	422.33	㎟
	∑ As =	1267.00	㎟

따라서, As = 1267.00 ㎟ > Asreq = 1000.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ----- ∴ O.K.

② 하부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 450.0 × 0.25	=	1125.00	㎟
사용철근 인장측 ; H 13 @ 150	=	844.67	㎟
압축측 ; H 13 @ 300	=	422.33	㎟
	∑ As =	1267.00	㎟

따라서, As = 1267.00 ㎟ > Asreq = 1125.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ----- ∴ O.K.

③ 벽체

배력철근 최소 철근비 (Asreq) = 1,000.0 × 400.0 × 0.30 = 1200.00 ㎟

사용철근 인장측 ; H 13 @ 150 = 844.67 ㎟

압축측 ; H 13 @ 300 = 422.33 ㎟

∑ As = 1267.00 ㎟

따라서, As = 1267.00 ㎟ > Asreq = 1200.00 ㎟ ------ ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ------ ∴ O.K.

14. 사용성검토

1) 상부슬래브 최소 두께

1.2(L+3)/30 = 1.2 × (2.560 + 3) / 30 = 222.4 mm

상부슬래브 두께 = 400.0 mm

Tuse = 400.0 mm > Tmin = 222.4 mm ----- ∴ O.K.

2) 철근 피로검토

피로응력한계 : 사용하중하에서 활하중과 충격에 의해 야기되는 직선철근의 최대 인장응력과 최소 응력 상이의 범위는 다음 값을 초과할수 없다.

$f_f = 165 - 0.33fmin$

여기서, f_f : 응력범위(Mpa)

fmin : 최소응력 수준으로 인장은 정(+), 압축은 부(-)의 값(Mpa)

① 상부슬래브 단부

2.56 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 3.053 kN · m Mmin = -0.562 kN · m

- 사용철근량 = H16 × 8ea = 1588.800 ㎟

n = 7

p = As / bd = 1588.80 / (1000 × 400) = 0.00397

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00397 + \sqrt{\{ (7 \times 0.00397)^2 + 2 \times 7 \times 0.00397 \}}$

= 0.210

J = 1 - K / 3 = 1 - 0.210 / 3 = 0.930

$$fs\ max = \frac{M}{As \times j \times d} = \frac{3.053 \times 10^6}{1588.80 \times 0.930 \times 400} = 5.160 \text{ Mpa}$$

$$fs\ min = \frac{-0.562 \times 10^6}{1588.80 \times 0.930 \times 400} = -1 \text{ Mpa}$$

Δf = fs max - fs min = 6.111 Mpa

$f_f = 165 - 0.33fmin$

= 165 - 0.33 × -0.95 = 165.314 Mpa > 6.111 Mpa O.K.

② 상부슬래브 중앙부

2.56 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 9.123 kN · m Mmin = 8.451 kN · m

- 사용철근량 = H16 × 8ea = 1588.800 ㎟

n = 7

p = As / bd = 1588.80 / (1000 × 300) = 0.00530

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.0053 + \sqrt{\{ (7 \times 0.0053)^2 + 2 \times 7 \times 0.0053 \}}$

= 0.238

J = 1 - K / 3 = 1 - 0.238 / 3 = 0.921

$$fs\ max = \frac{M}{As \times j \times d} = \frac{9.123 \times 10^6}{1588.80 \times 0.921 \times 300} = 20.790\ Mpa$$

$$fs\ min = \frac{8.451 \times 10^6}{1588.80 \times 0.921 \times 300} = 19\ Mpa$$

Δf = fs max - fs min = 1.534 Mpa

$f_f = 165 - 0.33 fmin$

= 165 - 0.33 × 19.26 = 158.645 Mpa > 1.534 Mpa O.K.

15. 기초지지력 검토

1) 구체자중

-	2.800	x	0.450	x	24.500				=	30.870	kN/m
-	2.800	x	0.400	x	24.500				=	27.440	kN/m
-	2.000	x	0.400	x	24.500				=	19.600	kN/m
-	2.000	x	0.400	x	24.500				=	19.600	kN/m
-	0.300	x	0.300	x	1/2	x	4	x 24.500	=	4.410	kN/m
								∴ Total	=	101.920	kN/m

101.920 / 2.800 = 36.400 kN/m²

2) 상부연직하중

= 160.86 kN/m²

3) 활하중

= 21.019 kN/m²

4) 최대 지반 반력

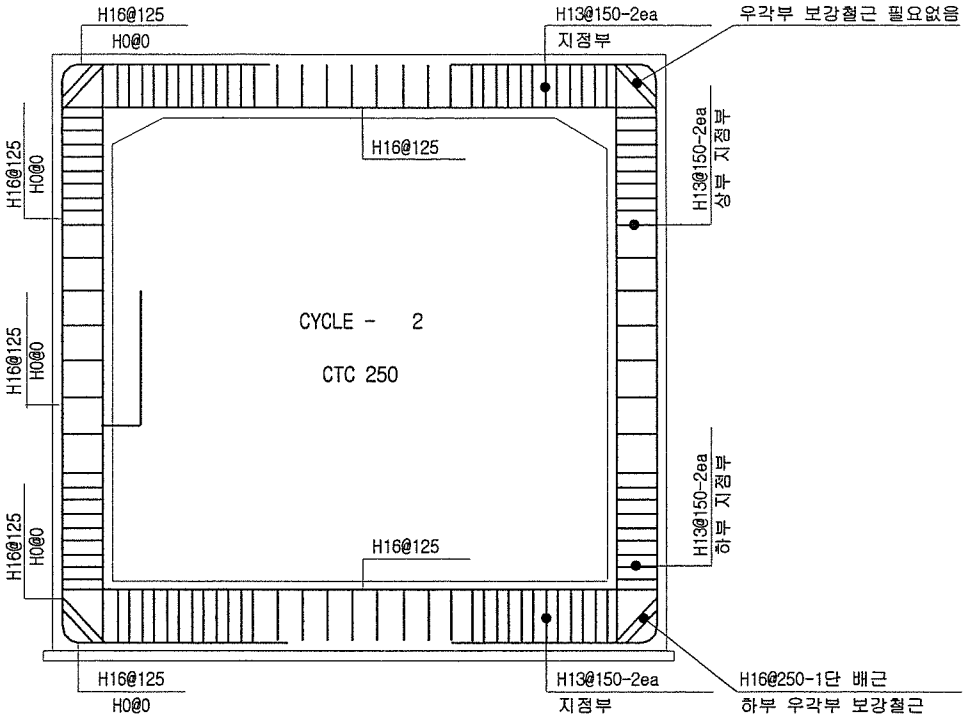
Qmax = 36.400 + 160.860 + 21.019

= 218.279 kN/m²

5) 지지력 검토

Qmax = 218.279 kN/m² < 300.00 kN/m² --- ∴ O.K.

16. 주철근 조립도



▶ 배력철근

- 상부 지정부 : H13, 인장측:150, 압축측:300
- 하부 지정부 : H13, 인장측:150, 압축측:300
- 벽체부 : H13, 인장측:150, 압축측:300

U-Type 개거 2.0x2.4

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■ 해석결과 요약

* 기초 검토

구분	q_{max}(kN/m^2)	Qu(kN)	qa(kN/m^2)	비 고
직접기초	34.840	2240.680	287.267	∴ O.K

* 휨 검토

구분		B(m)	H(m)	dc(m)	헌치(m)	Mu(kn.m)	ΦMn(kn.m)	BENDING Bar(mm)	휨검토		최소철근비 검토	주철근간격 검토
									판정	S.F		
하부슬래브	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		59.672	90.378	H 16 @ 150	O.K	1.515	O.K	O.K
좌측 벽체	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		26.358	46.427	H 16 @ 300	O.K	1.761	O.K	O.K
우측 벽체	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		26.383	46.427	H 16 @ 300	O.K	1.760	O.K	O.K

* 전단검토

구분		ΦVc	Vu	판정	전단철근				전단검토	
					사용철근		다리수	간격	판정	S.F
하부슬래브	단부	155.188	30.052	전단철근 불필요	H 0	× 0	@	0	O.K	-
	중앙부	-	-	-	H -	× -	@	-	-	-
좌측 벽체	단부	155.188	84.550	전단철근 불필요	H 0	× 0	@	0	O.K	-
	중앙부	-	-	-	H -	× -	@	-	-	-
우측 벽체	단부	155.188	84.550	전단철근 불필요	H 0	× 0	@	0	O.K	-
	중앙부	-	-	-	H -	× -	@	-	-	-

1. 설계개요 및 조건

1.1 설계개요

• 구조해석 프로그램 : MIDAS CIVIL

1.2 설계방법

(1) 부재의 단면검토 : 강도설계법

(2) 사용성 검토 : 허용응력설계법

1.3 일반사항

(1) 사용재료의 강도

① 콘크리트의 압축강도 : f_{ck} = 30 MPa

② 철근의 항복강도 : f_y = 400 MPa

(2) 사용재료의 탄성계수

① 콘크리트의 탄성계수 : E_c = 27,537 MPa

② 철근의 탄성계수 : E_s = 200,000 MPa

(3) 토사 내부마찰각 : Φ = 35°

(4) 토압 : K_o = 0.426

(5) 사 각(Skew) : 71.00 °

1.4 설계하중

(1) 고정하중

재 료	단위중량(kN/m^3)	재 료	단위중량(kN/m^3)
철근콘크리트	24.5	아스팔트 포장	23.0
흙(지하수위 이상)	20.0	흙(지하수위 이하)	11.0
지하수	10.0		

(2) 상재 하중(kN/m^2)

q_L = 15.0 kN/m^2

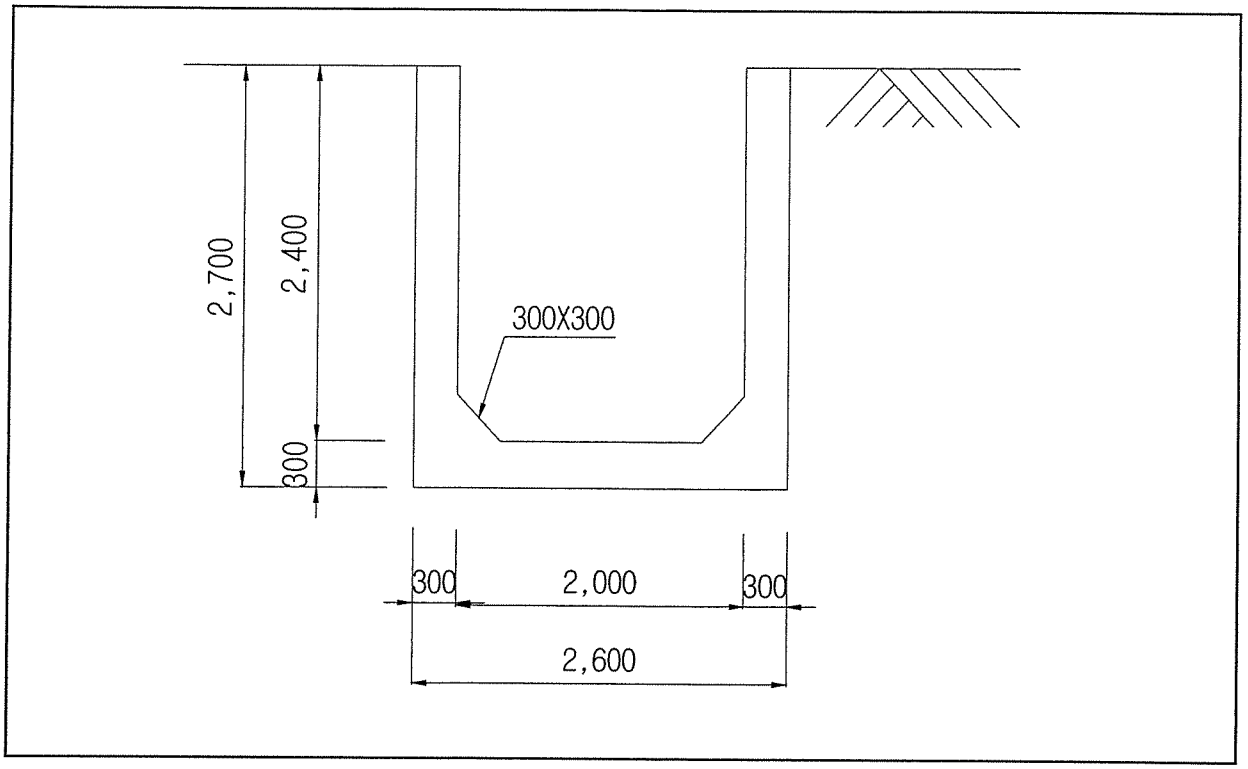
1.5 참고문헌

(1) 콘크리트 구조설계기준 (한국콘크리트 학회, 2012)

(2) 도로교 설계기준 (건설교통부, 2010)

(3) 철도설계기준 (노반편) (건설교통부 2013)

2. 단면가정

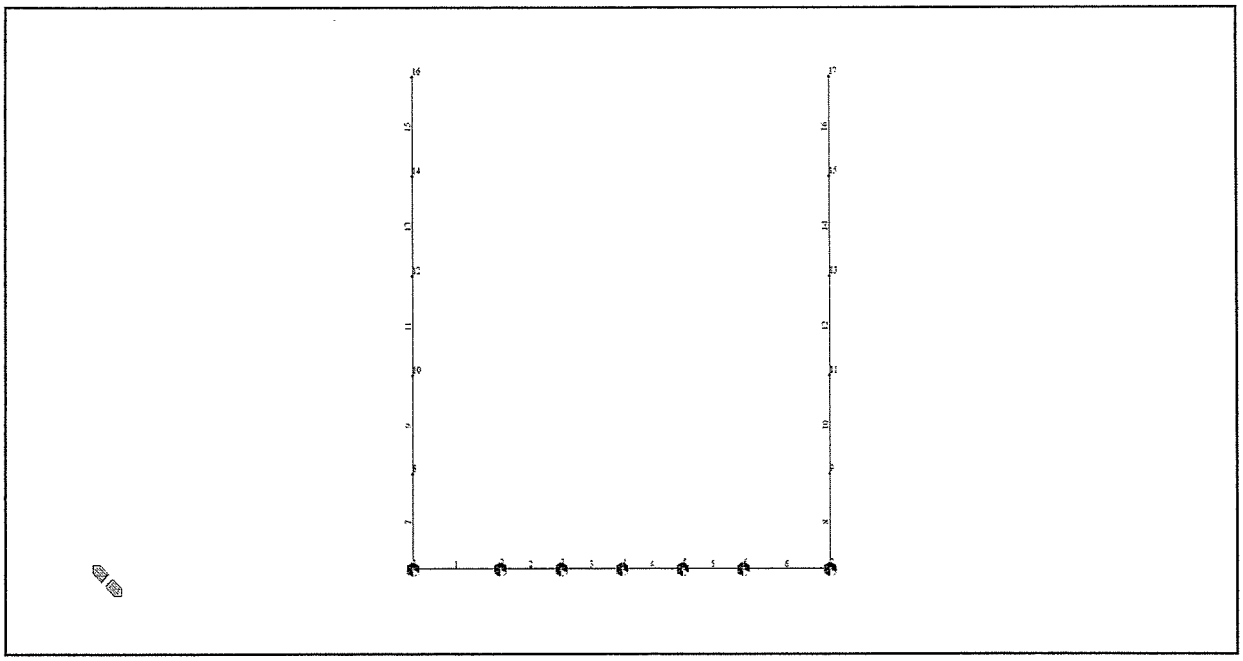


* N=15, Φ=35° 적용 함.

* 지하수위는 극한 지하수위(GL -1.0m) 로 적용 함.

3. 구조해석 모델링

3.1 해석모형



3.2 단면제원

구 분	폭(m)	높이(m)	C.T.C(m)	단면적(m^2)	단면2차모멘트(m^4)	비 고
1	1.00	0.30	-	0.300	0.002250	하부슬래브
2	1.00	0.30	-	0.300	0.002250	좌측벽체
3	1.00	0.30	-	0.300	0.002250	우측벽체

3.3 지반반력계수

$Kv = Kvo \times (Bv / 30)^n$ (n = -3/4)

$Kvo = 1/30 \times \alpha \times Eo$

Bv : 구조물의 환산재하폭

Eo = 2800 x N = 2800 × 9 = 25,200.000 kN/m^2

α = 1

Kvo = 1 × 1 / 0.3 × 25200 = 84000.000 kN/m^3

Bv = √ (2.600 × 1.000) = 1.612 m

∴ Kv = 84000.000 × (1.6 / 0.3) ^ (-3/4) = 23796.069 kN/m^3

절점번호	지반반력계수					비고
1,7	23796.069	×	0.3750	=	8923.526 kN/m^2	
2,6	23796.069	×	0.3750	=	8923.526 kN/m^2	
3,4,5	23796.069	×	0.4000	=	9518.428 kN/m^2	

※ 지반스프링은 압축력에만 저항하는 비선형 경계조건을 사용하여 부반력 발생시 자동제거함.

4. 하중산정

4.1 고정하중

(1) 구조물 자중 : 프로그램내 자동입력 ---------- LC 1

4.2 활하중에 의한 측압 ---------- LC 2

Lh = 0.426 × 15.000 = 6.390 kN/m^2

4.3 토압

(1) 지하수위 유 ---------- LC 3

Q_{N1L} = 1.000 × 20.000 × 0.426 = 8.520 kN/m^2

Q_{N1R} = 8.520 + 1.700 × 11.000 × 0.426 = 16.486 kN/m^2

(2) 지하수위 무 ---------- LC 4

Q_{N1L} = 2.700 × 20.000 × 0.426 = 23.004 kN/m^2

4.4 수압

(1) 측벽 수압 ---------- LC 5

1) 벽체

Q_{W1L} = 10.000 × 1.700 = 17.000 kN/m^2

4.5 온도하중 ---------- LC 6, LC 7

- 계절적 온도변화 ± 10°C를 프로그램내 SYSTEM TEMPERRATURE 기능을 이용하여 이상화 한다.

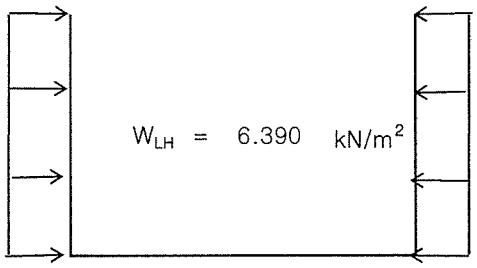
4.6 건조수축 ---------- LC 8

- 15^0c 의 온도하중으로 변환 설계
  - 건조수축계수 : $\varepsilon = 15 \times 10^{-5}$
  - 온도선팽찰 계수 : $\alpha = 1.0 \times 10^{-5}$
  - $\Delta T = -\frac{\varepsilon}{\alpha} = 15\ °C$

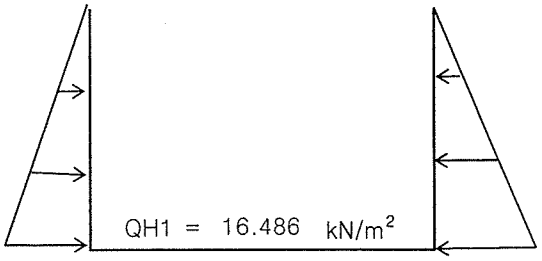
4.7 하중재하도

(1) LC 1 : 프로그램내 자동재하

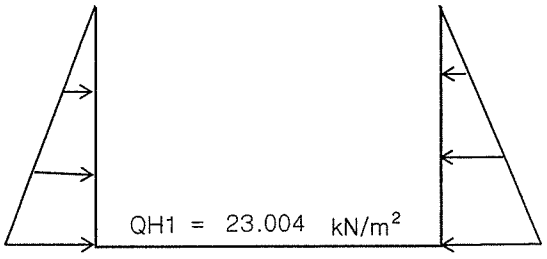
(2) LC 2



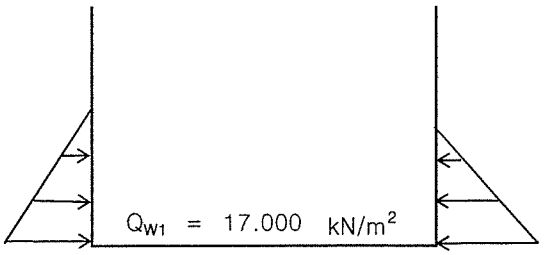
(3) LC 3



(4) LC 4



(5) LC 5



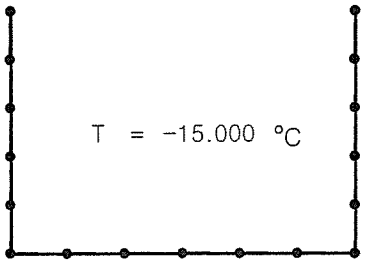
(6) LC 6

- 프래그램내 System Temperature 기능을 이용
10 °C 온도하중 재하

(7) LC 7

- 프래그램내 System Temperature 기능을 이용
-10 °C 온도하중 재하

(8) LC 8



5. 하중조합

5.1 계수하중

구분	고정하중 (D	활하중측압	수평토압		수압	온도하중		건조수축	비고
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	
CB1	1.35	1.85	1.60		1.60				계수하중
CB2	1.35	1.85		1.60					
CB3	1.35	1.85	0.80		0.80				
CB4	1.35	1.85		0.80					
CB5	1.60	1.60	1.60		1.60				
CB6	1.60	1.60		1.60					
CB7	1.60	1.60	0.80		0.80				
CB8	1.60	1.60		0.80					
CB9	1.35	1.40	1.60		1.60	1.35			
CB10	1.35	1.40		1.60		1.35			
CB11	1.35	1.40	0.80		0.80	1.35			
CB12	1.35	1.40		0.80		1.35			
CB13	1.35	1.40	1.60		1.60		1.35	1.35	
CB14	1.35	1.40		1.60			1.35	1.35	
CB15	1.35	1.40	0.80		0.80		1.35	1.35	
CB16	1.35	1.40		0.80			1.35	1.35	

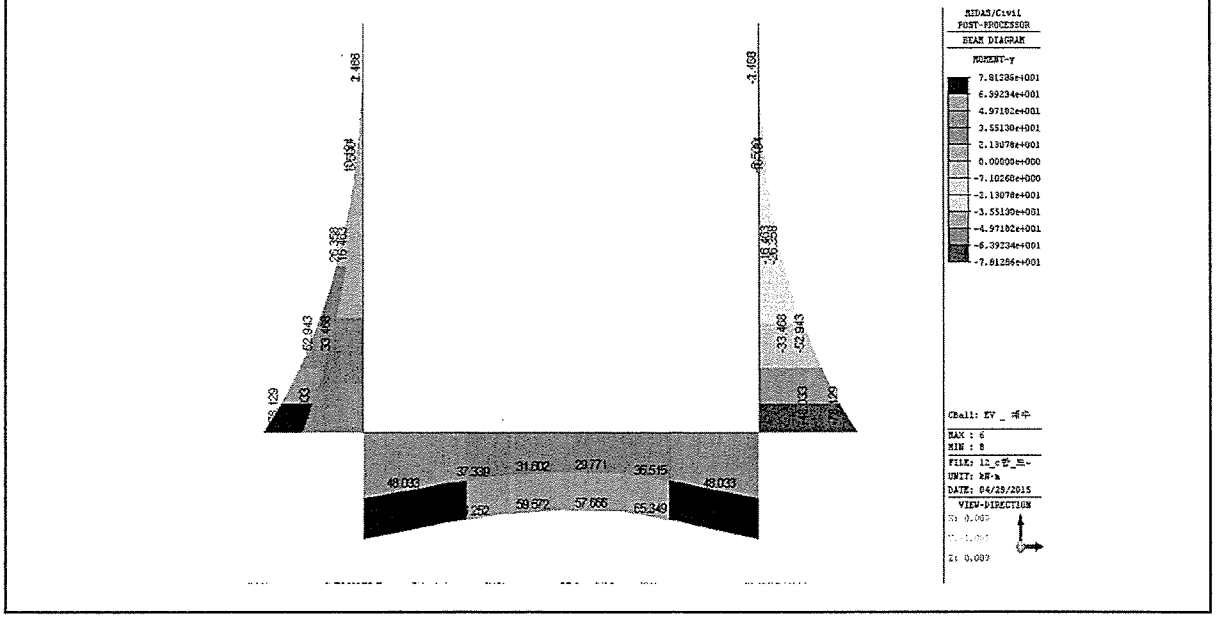
5.2 사용하중

구분	고정하중 (D	활하중측압	수평토압		수압	온도하중		건조수축	비고
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	
CB17	1.00	1.00	1.00		1.00				사용하중
CB18	1.00	1.00		1.00					
CB19	1.00	1.00	0.50		0.50				
CB20	1.00	1.00		0.50					
CB21	1.00	1.00	1.00		1.00	1.00			
CB22	1.00	1.00		1.00		1.00			
CB23	1.00	1.00	0.50		0.50	1.00			
CB24	1.00	1.00		0.50		1.00			
CB25	1.00	1.00	1.00		1.00		1.00	1.00	
CB26	1.00	1.00		1.00			1.00	1.00	
CB27	1.00	1.00	0.50		0.50		1.00	1.00	
CB28	1.00	1.00		0.50			1.00	1.00	
CB29	1.00		1.00		1.00				
CB30	1.00			1.00					

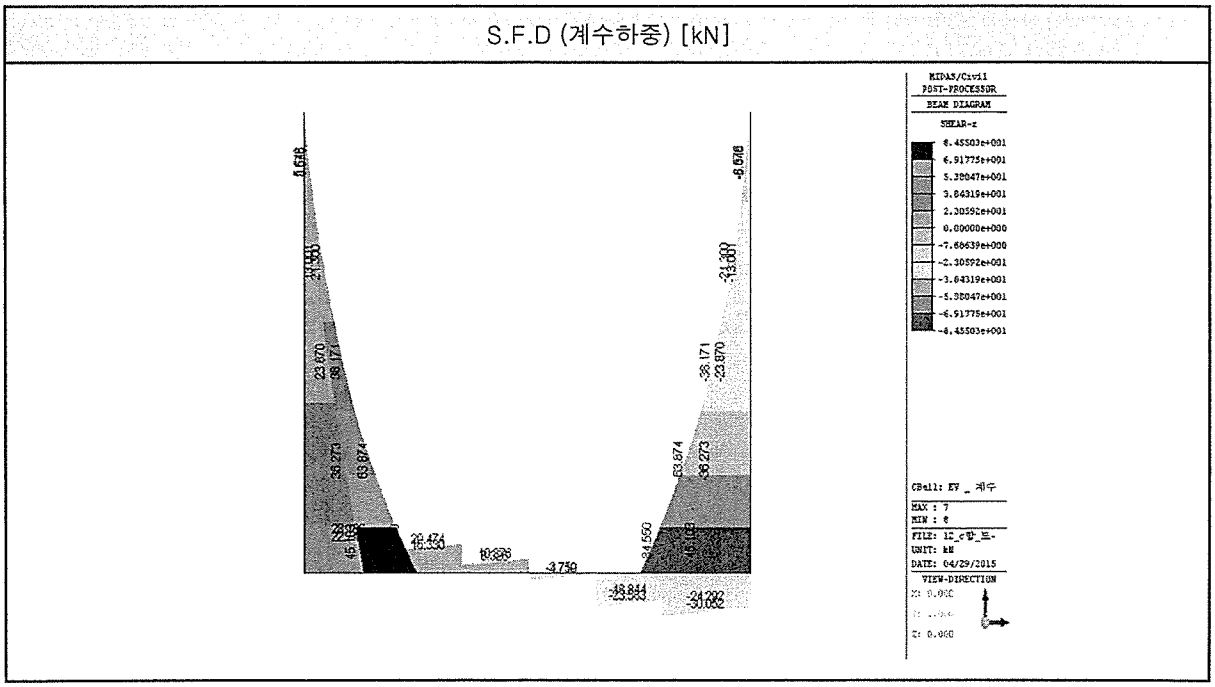
6. 구조해석 결과

6.1 부재력도 (ENVELOPE)

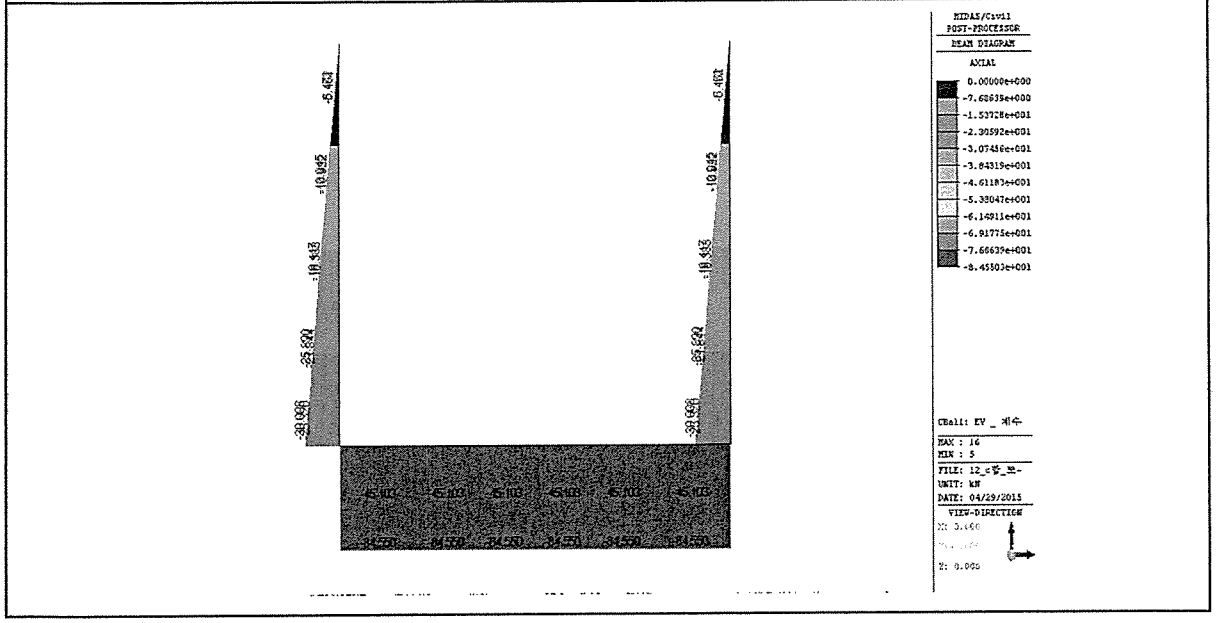
B.M.D (계수하중) [kN·m]



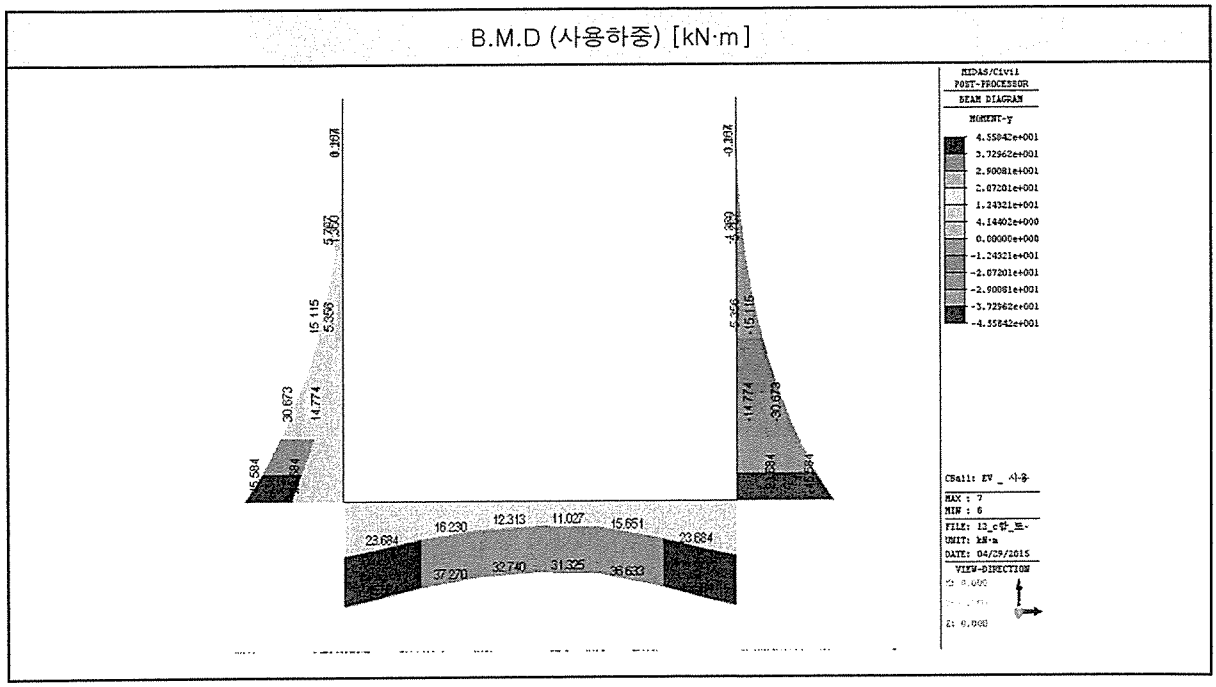
S.F.D (계수하중) [kN]



A.F.D (계수하중) [kN]



B.M.D (사용하중) [kN·m]



6.2 부재력 집계

구 분		단면제원		Mu[kN·m]	Vu[kN]	Mo[kN·m]	비고
		B (mm)	H (mm)				
하 부 슬래브	단 부	1,000	400	78.129	30.052	45.584	
	중앙부	1,000	300	59.672		32.740	
좌측벽체	단 부	1,000	400	78.129	84.550	45.584	
	중앙부	1,000	300	26.358		15.115	
우측벽체	단 부	1,000	400	78.129	84.550	45.584	
	중앙부	1,000	300	26.383		15.115	

7. 단면설계

7.1 하부슬래브

7.1.1 하부슬래브 단부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	78.129 kN.m	Vu	=	30.052 kN	Mo	=	45.584 kN.m	d (휨)	=	300 mm
B	=	1000 mm	H	=	400 mm	헌치	=	300 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	300 mm

Use A_s = 1단 1CYCL H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCL H @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00441]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,\,min}$ = 1,050 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,\,min}$ = 1,027 mm^2

$A_{s,\,min}$ = 1,050 mm^2

$A_{s,\,Req}$ = 738 mm^2 , 4/3 $A_{s,\,Req}$ = 984 mm^2

MIN ($A_{s,min}$, 4/3 $A_{s,req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a / 2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc = \phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 30.052 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 7$ = 30,000 mm^2

$k = - np + \sqrt{[\,2np + (np)^2\,]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

$= - 7 \times 0.00441 + \sqrt{[\,2 \times 0.031 + 0.031^2\,]}$ = 0.22

$j = 1 - k / 3 = 1 - 0.22 / 3$ = 0.927

$fs = M / [As \cdot d \cdot j]$ = 123.801 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 406 mm

$s_2 = 300 (210 / fs)$ = 509 mm > s = 150 mm ∴ O.K

7.1.2 하부슬래브 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	59.672 kN.m	Vu	=	0.000 kN	Mo	=	32.740 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s =	1단	1CYCL H	16 @	150	,	2CYCLI H	0 @	0	=	1,324 mm^2
	2단	1CYCL H	@		,	2CYCLI H	0 @	0	=	- mm^2
			TOTAL	=	1,324 mm^2	[	p =	0.00662	]	

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $\quad C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 - 25) / 25

= 0.02115 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.02115 - 0.002)$$

= 2.246 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,\,min}$ = 700 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,\,min}$ = 685 mm^2

$A_{s,\,min}$ = 700 mm^2

$A_{s,\,Req}$ = 858 mm^2 , $4/3\, A_{s,\,Req}$ = 1,143 mm^2

MIN ($A_{s,min}$, $4/3\, A_{s,req}$) = 700 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 529,600 × (200 - 21 / 2) / 10 E+6

= 90.378 kN.m > Mu = 59.672 kN.m ∴ O.K [S.F = 1.515]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 7$ = 30,000 mm^2

$k = - np + \sqrt{[\,2np + (np)^2\,]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

$= - 7 \times 0.00662 + \sqrt{[\,2 \times 0.046 + 0.046^2\,]}$ = 0.261

$j = 1 - k / 3 = 1 - 0.261 / 3$ = 0.913

$fs = M / [As \cdot d \cdot j]$ = 135.422 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5\, Cc$ = 351 mm > s = 150 mm ∴ O.K

$s_2 = 300 (210 / fs)$ = 465 mm

7.2 좌측벽체

7.2.1 좌측벽체 단부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	78.129 kN.m	Vu	=	84.550 kN	Mo	=	45.584 kN.m	d (휨)	=	300 mm
B	=	1000 mm	H	=	400 mm	헌치	=	300 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	300 mm

Use A_s = 1단 1CYCL H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCL H 0 @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00441]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1.\,min}$ = 1,050 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2.\,min}$ = 1,027 mm^2

$A_{s,\,min}$ = 1,050 mm^2

$A_{s.\,Req}$ = 738 mm^2 , 4/3 $A_{s,\,Req}$ = 984 mm^2

MIN ($A_{s.min}$, 4/3 $A_{s.req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a / 2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc = \phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 84.550 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

A = 2 × 100 × 1,000 / 7 = 30,000 mm^2

k = - np + √ [2 np + (np)²] [∵ n = Es / Ec = 7.3 ≒ 7]

= - 7 × 0.00441 + √ [2 × 0.031 + 0.0309 ²] = 0.22

j = 1 - k / 3 = 1 - 0.22 / 3 = 0.927

fs = M / [As·d·j] = 123.801 MPa

◈ 주철근 간격

Cc = $d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

s_1 = 375 (210 / fs) - 2.5 Cc = 406 mm

s_2 = 300 (210 / fs) = 509 mm > s = 150 mm ∴ O.K

7.2.2 좌측벽체 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	26.358 kN.m	Vu	=	0.000 kN	Mo	=	15.115 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s =	1단	1CYCLI H	16 @	300	,	2CYCLI H	0 @	0	=	662 mm^2
	2단	1CYCLI H	@		,	2CYCLI H	0 @	0	=	- mm^2
			TOTAL =	662 mm^2		[p =	0.00331	]		

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 264,800 N

$C = 0.85 f_{ck} a b$ = 25,500 a $\quad C = T$; a = 10 mm

▶ $c = a / \beta_1$ = 10 / 0.84 = 12 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 - 12) / 12

= 0.04530 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)}(\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)}(0.04530 - 0.002)$$

= 4.259 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,\,min}$ = 700 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,\,min}$ = 685 mm^2

$A_{s,\,min}$ = 700 mm^2

$A_{s,\,Req}$ = 371 mm^2 , $4/3\, A_{s,\,Req}$ = 495 mm^2

MIN ($A_{s.min}$, $4/3\, A_{s.req}$) = 495 mm^2 < Use As = 662 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 264,800 × (200 - 10 / 2) / 10 E+6

= 46.427 kN.m > Mu = 26.358 kN.m ∴ O.K [S.F = 1.761]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 3$ = 60,000 mm^2

$k = -np + \sqrt{[\,2np + (np)^2\,]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

$= -7 \times 0.00331 + \sqrt{[\,2 \times 0.023 + 0.0232^2\,]}$ = 0.193

$j = 1 - k / 3 = 1 - 0.193 / 3$ = 0.936

$fs = M / [As \cdot d \cdot j]$ = 121.966 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5\, Cc$ = 416 mm > s = 300 mm ∴ O.K

$s_2 = 300 (210 / fs)$ = 517 mm

7.3 우측벽체

7.3.1 우측벽체 단부

(1) 휨 검토

f_{ck} =	30 MPa	f_y =	400 MPa	d_t' =	100 mm	d' =	100 mm
Mu =	78.129 kN.m	Vu =	84.550 kN	Mo =	45.584 kN.m	d (휨) =	300 mm
B =	1000 mm	H =	400 mm	헌치 =	300 mm	d (전단) =	200 mm
ϕ_f =	0.900	ϕ_v =	0.85	주철근	1 단 배치	d_t =	300 mm

Use A_s = 1단 1CYCl H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCl H @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00441]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1.\,min}$ = 1,050 mm^2]

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2.\,min}$ = 1,027 mm^2] $A_{s,\,min}$ = 1,050 mm^2

$A_{s.\,Req}$ = 738 mm^2 , $4/3\, A_{s,\,Req}$ = 984 mm^2

MIN ($A_{s.min}$, $4/3\, A_{s.req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc$ = $\phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 84.550 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 7$ = 30,000 mm^2

$k = - np + \sqrt{[\, 2np + (np)^2 \,]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

= - 7 × 0.00441 + √ [2 × 0.031 + 0.0309^2] = 0.22

$j = 1 - k / 3$ = 1 - 0.22 / 3 = 0.927

$fs = M / [As \cdot d \cdot j]$ = 123.801 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5\, Cc$ = 406 mm > s = 150 mm ∴ O.K

$s_2 = 300 (210 / fs)$ = 509 mm

7.3.2 우측벽체 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	26.383 kN.m	Vu	=	0.000 kN	Mo	=	15.115 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s =	1단	1CYCL H	16 @	300	,	2CYCLE H	0 @	0	=	662 mm^2
	2단	1CYCL H	@		,	2CYCLE H	0 @	0	=	- mm^2
			TOTAL	=	662 mm^2	[p =	0.00331	]		

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 264,800 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 10 mm

▶ $c = a / \beta_1$ = 10 / 0.84 = 12 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 - 12) / 12

= 0.04530 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)}(\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)}(0.04530 - 0.002)$$

= 4.259 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1.min}$ = 700 mm^2]

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2.min}$ = 685 mm^2] $A_{s,min}$ = 700 mm^2

$A_{s.Req}$ = 372 mm^2 , $4/3\ A_{s,Req}$ = 496 mm^2

MIN ($A_{s.min}$, $4/3\ A_{s.req}$) = 496 mm^2 < Use As = 662 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 264,800 × (200 - 10 / 2) / 10 E+6

= 46.427 kN.m > Mu = 26.383 kN.m ∴ O.K [S.F = 1.760]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 3$ = 60,000 mm^2

$k = -np + \sqrt{[2np + (np)^2]}$ [∵ n = Es / Ec = 7.3 ≒ 7]

= - 7 × 0.00331 + √ [2 × 0.023 + 0.0232^2] = 0.193

$j = 1 - k / 3 = 1 - 0.193 / 3$ = 0.936

$fs = M / [As \cdot d \cdot j]$ = 121.966 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 416 mm

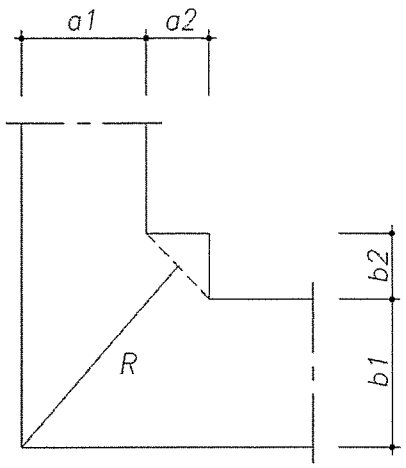
$s_2 = 300 (210 / fs)$ = 517 mm > s = 300 mm ∴ O.K

7.4 온도 및 배력철근 설계

구 분		단면제원		사 용 주철근	소요 배력철근량 (mm^2)		사용 배력철근량 (mm^2)			판정
		B (mm)	H (mm)		주철근 20%	온도철근				
하 부 슬래브	단 부	1,000	300	H16@150	265	600	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@150	265	600	인장	H13@200=634	950	O.K
							압축	H13@400=317		
좌측 벽체	단부	1,000	300	H16@150	265	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@300	132	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
우측 벽체	단부	1,000	300	H16@150	265	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@300	132	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		

7.5 우각부 보강 설계

(1) 하부슬래브 (좌,우측)



f_{ck}	=	30	MPa
f_y	=	400	MPa
Mo	=	45.584	kN·m
a1	=	300	mm
a2	=	300	mm
b1	=	300	mm
b2	=	300	mm

$$R = \{(a2 \times b1 + b2 \times a1 + a2 \times b2) / (a2 + b2)\} \times \sqrt{2}$$

$$= 636 \quad mm$$

- 주철근 (절곡하여 보강철근으로 고려할 수 있는 주철근량)

As' = H 16 @ 300 = 662 mm^2

H 0 @ 0 = 0 mm^2

1) 최대인장응력, f_{tmax}

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 45.584 \times 10^6}{(636.396)^2 \times 1{,}000}$$

$$= 0.563 \text{ Mpa} > 0.08 \sqrt{fck} = 0.438 \text{ Mpa}$$ 보강철근 필요 !

2) 보강철근량 산정, As

- 필요철근량

$$As = \frac{2 \times Mo}{R \times f_{sa}} - As'$$

$$= \frac{2 \times 45.584 \times 10^6}{636 \times 180} - 662$$

$$= 796 \ mm^2 - 662 \ mm^2$$

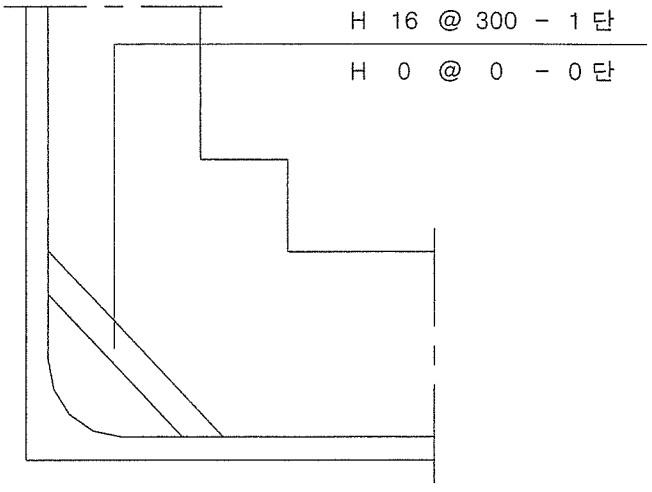
$$= 134 \ mm^2$$

- 사용철근량

As = H 16 @ 300 - 1 단

+ H 0 @ 0 - 0 단

= 662 mm^2 O.K



8. 사용성 검토

8.1 처짐 검토

1) 하부 슬래브 : 최소부재두께 적용

철근의 항복응력 fy = 400 MPa

부재의 지간길이 L = 2.300 m

슬래브 양단 연속의 경우

T = L / 28 = 0.082 m

(보정계수) FACTOR = 1.000

처짐계산을 하지않는 경우의 최소두께

T = 0.082m < H = 0.300m (처짐검토 생략)

9. 기초지반 지지력 검토

9.1 작용하중

9.1.1 구 체 자 중 (W1) :

(0.3 × 2.4 + 0.3 × 2 × 1 EA + 0.3 × 0.3 / 2
× 2 EA + 0.3 × 2.4) × 24.500 / 2.6 = 20.071 kN/m²

9.1.2 상재고정하중(W2)

(1) 상재토

되메움토 : 0.000 × 20.000 = 0.000 kN/m²

아스콘 : 0.000 × 23.000 = 0.000 kN/m²

9.1.3 활 하 중(L)

(1) 활 하 중 :

= 0.000 kN/m²

9.1.4 수로개거내의 물의자중(w3)

2.000 × 1.920 × 1.000 / 2.600 / 1.000 × 10.000 = 14.769 kN/m²

9.2 지지력 검토

9.2.1 최대지반반력 (qmax) : W1 + W2 + L + W3

20.071 + 0.000 + 0.000 + 14.769 = 34.840 kN/m²

9.2.2 허용지반반력 (qa)

- 정역학 공식에 의한 지반의 허용 연직 지지력 (Terzaghi식 사용)

Qu = A · [c · Nc + q · Nq + 0.5 · r1 · B · Nr]

Qu : 하중의 편심 및 경사가 없는 연속기초지반의 극한지지력 (kN)

· A : 재하면적 = 2.600 m²

· c : 지반의 점착력 = 0.000 kN/m²

· q : 상재하중, (q = r2 · Df) = 48.000 kN/m²

· r1 : 지지 지반의 흙의 단위중량 = 20.000 kN/m³

· r2 : 근입 지반의 흙의 단위중량 = 20.000 kN/m³

· B : 확대기초의 폭 = 2.600 m

· L : 확대기초의 길이 = 1.000 m

· Φ : 지반의 전단 저항각

Φ = √ (12 × N) + 15 = √ (12 × 15) + 15 = 28 °

· Nc = 25.100 , Nq = 12.700 , Nr = 9.700 (전단 저항각 28 ° 일때)

· Qu = 2.600 × [0.000 × 25.100 + 48.000 × 12.700 +
0.500 × 20.000 × 2.600 × 9.700] = 2240.680 kN

· Qa = 2240.680 / 3 = 746.893 kN

· qa = 746.893 / 2.600 = 287.267 kN/m²

* 평상시 최대 지반반력 (도.설.해 2008) = 400.000 kN/m²

∴ q_{max} = 34.840 kN/m² < q_a = 287.267 kN/m² ∴ O.K

C(함) 탑리제7

- 4.0 x 4.50 x 1
- 토피 = 3.2m 이하

1. 설 계 조 건
2. 단 면 가 정
3. 해석모델 및 단면제원
4. 하중산정
5. 하중재하도
6. 하중계수 및 하중조합
7. INPUT DATA
8. OUTPUT
9. 단면력요약
10. 단 면 력 도
11. 단 면 검 토
12. 우각부 검토
13. 배력철근 검토
14. 사용성 검토
15. 기초지지력 검토
16. 주철근조립도
17. 날개벽 설계

1. 설계 조건

1) 구조물명 : c (함)

2) 구조형식 : 철근 콘크리트 구조

3) 설계하중 : KRL2012 (복 선)

4) 재료중량

- 철근 콘크리트(γ_c)	=	24.5	kN/m^3
- 무근 콘크리트(γ_{con})	=	23.0	kN/m^3
- 뒷채움 토사(γ_t)	=	20.0	kN/m^3
- 뒷채움 토사(γ_{sub})	=	11.0	kN/m^3
- 지하수(γ_w)	=	10.0	kN/m^3

5) 사용재료의 성질

- 콘크리트 설계기준 강도(fck)	=	30.0	MPa
- 콘크리트 탄성계수(Ec)	=	27537	MPa
- 철근의 항복강도(fy)	=	400.0	MPa
- 철근의 탄성계수(Es)	=	200000	MPa

6) 토 사

- 흙의 내부마찰각 (ϕ)	=	35.0	°
- 정지 토압계수 (Ko)	=	0.426	

7) 기 초 형 식 : 직접기초

8) 사 각(Skew) : 90.00 ° 연 장 (L) : 43.00 m

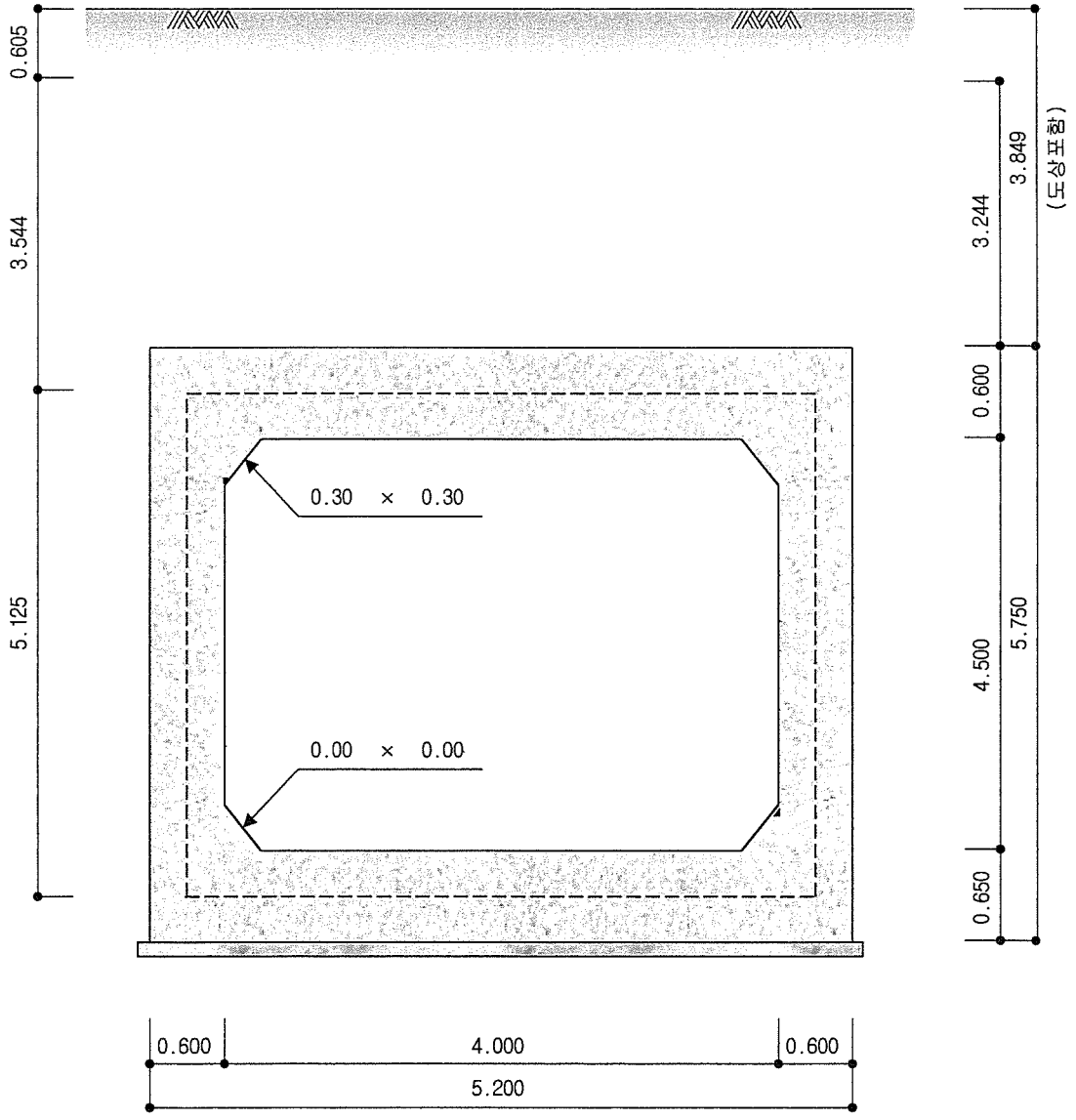
9) 설계방법

- 강도 설계법 : 부재 단면검토(슬래브, 벽체, 보, 기둥 등)
- 허용응력 설계법 : 사용성 검토(처짐, 균열, 우각부 검토)

10) 참고문헌

- 철도설계기준(노반편), 국토해양부, 2013
- 콘크리트 구조설계기준해설, 한국콘크리트 학회, 2012

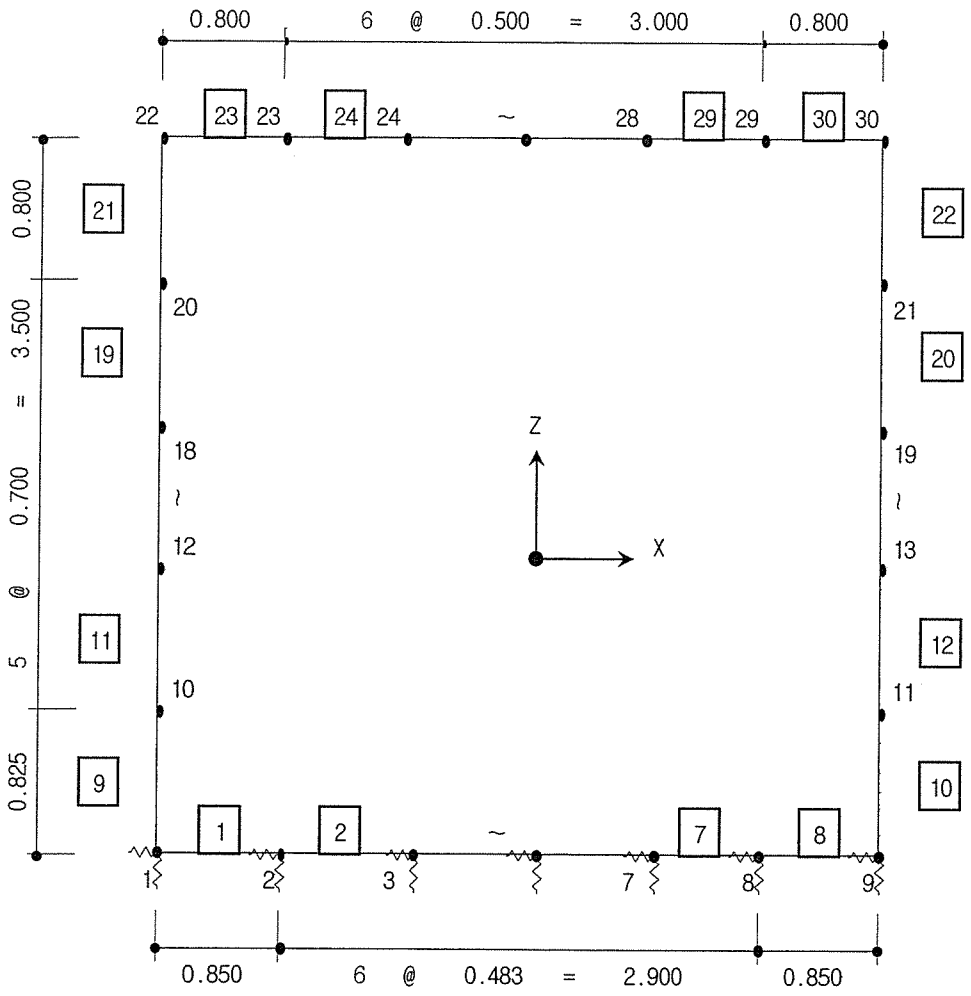
2. 단면 가정



※ 유효경간

Skew =	90.0	°					
Ln =	4.600	m					
Ls =	4.600	m					
Ls/B =	4.600	/	18.000	=	0.256	<	1.500
L =	4.600	m					

3. 해석모델 및 단면제원



1) 절점 좌표

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
1	0.000	0.000	0.000	13	4.600	0.000	1.525
2	0.850	0.000	0.000	14	0.000	0.000	2.225
3	1.333	0.000	0.000	15	4.600	0.000	2.225
4	1.817	0.000	0.000	16	0.000	0.000	2.925
5	2.300	0.000	0.000	17	4.600	0.000	2.925
6	2.783	0.000	0.000	18	0.000	0.000	3.625
7	3.267	0.000	0.000	19	4.600	0.000	3.625
8	3.750	0.000	0.000	20	0.000	0.000	4.325
9	4.600	0.000	0.000	21	4.600	0.000	4.325
10	0.000	0.000	0.825	22	0.000	0.000	5.125
11	4.600	0.000	0.825	23	0.800	0.000	5.125
12	0.000	0.000	1.525	24	1.300	0.000	5.125

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
25	1.800	0.000	5.125	28	3.300	0.000	5.125
26	2.300	0.000	5.125	29	3.800	0.000	5.125
27	2.800	0.000	5.125	30	4.600	0.000	5.125

2) 경계 조건

joint	spring계수 (kN/m²)		joint	spring계수 (kN/m²)	
	z방향(수직)	x방향(수평)		z방향(수직)	x방향(수평)
1 . 9	43663		3 ~ 7	29109	
2 . 8	40150				

3) 단면제원

Element	두께	폭	비 고
23 ~ 30	0.600	1.000	상부슬래브
1 ~ 8	0.650	1.000	하부슬래브
9 ~ 22	0.600	1.000	벽 체

4) 강역설정

(1) 강역설정기준(콘크리트구조설계기준 2012)

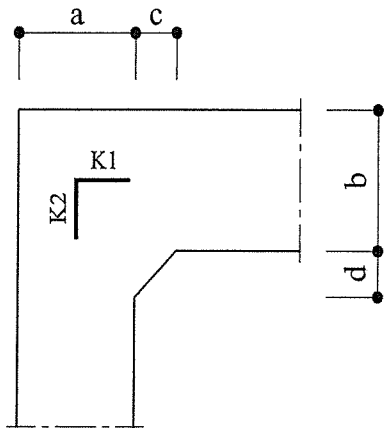
CASE 1 : 부재단부가 다른 부재와 접합할 때는 부재단에서 부재두께의 1/4 안쪽점에서 절점까지

CASE 2 : 부재가 그 축선에 대해 25° 이상 60° 미만인 경사진 헌치를 갖는 경우에는 부재두께가 1.5배가 되는 점에서 부터 절점까지

CASE 3 : 헌치의 경사가 60° 이상의 경우는 헌치의 시점에서 부재두께의 1/4 안쪽 점에서부터 절점까지

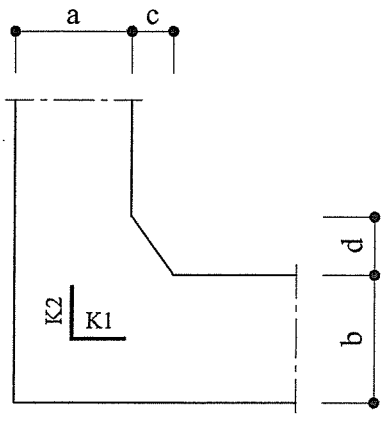
(2) 강역설정

- 절점 22 , 30



a =	600	mm	c =	300	mm
b =	600	mm	d =	300	mm
K1 =	300	mm	K2 =	300	mm

- 절점 1 , 9

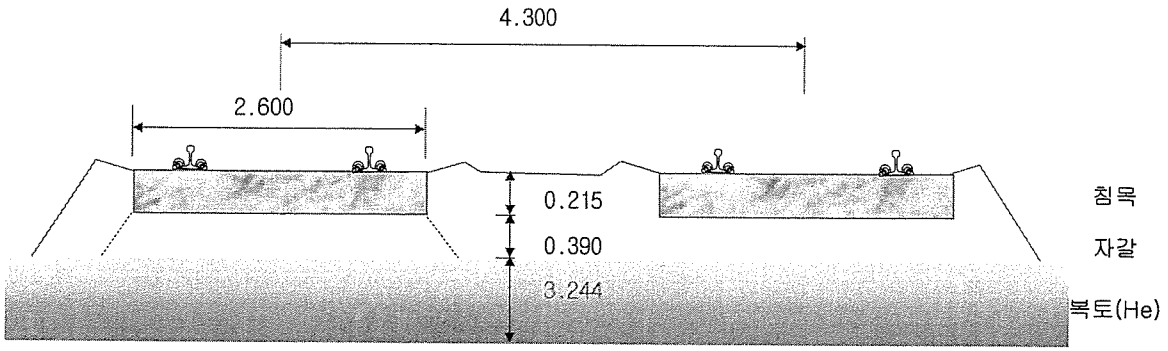


a =	600	mm	c =	0	mm
b =	650	mm	d =	0	mm
K1 =	138	mm	K2 =	175	mm

4. 하중산정

4.1 상시

1) 상부 고정하중(지하수 無)



① 하중 분포폭 산정 (b')

① He < 0.5m 경우 : b + d

b_1 = 2.600 + 0.390 = 2.990 m

② He ≥ 0.5m 경우 : c + b + (d + He)

b_2 = 4.300 + 2.600 + (0.390 + 3.244) = 14.590 m

여기서, He : 시공기면에서의 토피고(m)

a : 동륜간 축간거리(m) c : 복선선로 중심간격(m)

b : 침목길이(m) d : 침목하면의 도상두께(m)

H : 상부슬래브 두께

He ≥ 0.5 m

∴ b' = 14.590 m

② 구조물 자중 : 프로그램 상에서 Self Weight 기능을 이용하여 자동 고려

③ 궤도 중량

- 레일 : 레일당 1.5kN/m를 적용

q_1 = 4 × 1.500 / 14.590 = 0.411 kN/㎡

- 침목 : 고속철도용 5.0kN/m

q_2 = 5.000 × 2 / 14.590 = 0.685 kN/㎡

= 1.096 kN/㎡

④ 도상 (q_2)

TCL = 0.215 × 19.000 × 1.3 = 5.311 kN/㎡

HSB = 0.390 × 19.000 × 1.3 = 9.633 kN/㎡

= 14.944 kN/㎡

⑤ 복토하중 (q_3) = 20.000 × 3.244 = 64.880 kN/㎡

∴ $q_1 + q_2 + q_3$ = 1.096 + 14.944 + 64.880 = 80.920 kN/㎡

2) 활하중

① 활하중 산정 : KRL 2012

$$W_{HL} = \frac{2P}{a \times b'} = \frac{2\times(220+80x3)}{3.000 \times 14.590} = 21.019 \text{ kN/㎡}$$

∴ W = 21.019 kN/㎡

② 충격계수

1) 단선 (i_0) (철도설계기준 노반편(2013) p.5-7)

지 간 L (m)	0	5	10	20	30	40	50	70	100
충격계수 (i)	0.60	0.48	0.43	0.37	0.34	0.32	0.30	0.27	0.24

* 상기표에 없는 지간의 충격 계수는 보간법으로 구한다.

지 간 L (m) = 4.600 m

따라서 i_0 = 0.490 (보간법에 의하여 산정된 충격계수)

2) 구조물 상면의 복토높이에 따른 충격 계수

H ≥ 1.0일 경우 $i = io \cdot \{(2.5 - H)/1.5\}$

여기서, H ≤ 1.0 m 에서는 $i = i_o$

H ≥ 2.5 m 에서는 i = 0

따라서, 본 구조물의 H = 3.849 m i = 0.000

W_L = 21.019 ×(1 + 0.000) = 21.019 kN/㎡

③ 활하중에 의한 측압 (충격비고려)(철도설계기준 노반편(2013) p.5-6)

W_{LH} = 21.019 × 0.4 = 8.408 kN/㎡

3) 토 압

- 지하수가 없는 경우 작용 토압

q_1 = 0.426 ×(16.040 + 20.000 × 3.544) = 37.028 kN/㎡

q_2 = 37.028 + 0.426 ×(20.000 × 0.800) = 43.844 kN/㎡

q_3 = 43.844 + 0.426 ×(20.000 × 0.700) = 49.808 kN/㎡

q_4 = 49.808 + 0.426 ×(20.000 × 0.700) = 55.772 kN/㎡

q_5 = 55.772 + 0.426 ×(20.000 × 0.700) = 61.736 kN/㎡

q_6 = 61.736 + 0.426 ×(20.000 × 0.700) = 67.700 kN/㎡

q_7 = 67.700 + 0.426 ×(20.000 × 0.700) = 73.664 kN/㎡

q_8 = 73.664 + 0.426 ×(20.000 × 0.825) = 80.693 kN/㎡

- 시공중 편토압 산정 (지하수가 없는 경우 작용 토압)

q_1 = 0.426 × (0.000 + 20.000 × 0.300) = 2.556 kN/㎡

q_2 = 2.556 + 0.426 × (20.000 × 0.800) = 9.372 kN/㎡

q_3 = 9.372 + 0.426 × (20.000 × 0.700) = 15.336 kN/㎡

q_4 = 15.336 + 0.426 × (20.000 × 0.700) = 21.300 kN/㎡

q_5 = 21.300 + 0.426 × (20.000 × 0.700) = 27.264 kN/㎡

q_6 = 27.264 + 0.426 × (20.000 × 0.700) = 33.228 kN/㎡

q_7 = 33.228 + 0.426 × (20.000 × 0.700) = 39.192 kN/㎡

q_8 = 39.192 + 0.426 × (20.000 × 0.825) = 46.221 kN/㎡

4) 온도하중

토피가 1.0m 이상일 경우에는 온도변화를 고려치 않으며, 토피가 1.0m 이하일 경우에는 다음식을 따른다.

$t = a \times t_0$ = 0.000 × 15.0 = 0.000 ℃

t : 박스 구조물의 상부 슬래브에 작용하는 온도변화

a : 토피심도(m)에 따른 저감률 $a=1-h_0$ (h_0:토피심도)

t_0 : 지표면에서의 기본온도 변화

상부슬래브의 두께가 700mm 이상인 경우 $t_0 = \pm 10$℃

상부슬래브의 두께가 700mm 미만인 경우 $t_0 = \pm 15$℃

토피고 H > 1.0m 이므로 온도변화는 고려하지 않는다.

5) 건조수축

$$\Delta Tx = \frac{\varepsilon}{\alpha} = \frac{-0.00015}{0.00001} = -15\ ^{\circ}C$$

6) 장대레일 하중

장대레일 종하중은 필요시에 고려하여야 하며, 1궤도당 10 kN/m로 하고 작용위치는 상부슬래브 축선으로 한다. (단, 토피가 1.0m 이상인 경우는 이를 무시한다.)

토피가 3.849 m 이므로 장대레일 하중을 무시한다.

H_r = 0.000 × 4 / 14.590 = 0.000 kN/㎡

7) 상시 지반반력 계수

지지 지반 N치 = 50

Eo = 2800 × N = 2800 × 50 = 140000

Kvo = 1 / 0.3 x α x Eo = 1 / 0.3 × 1 x 140000 = 466667

Bv = √ Av = √ (4.600 × 4.600) = 4.600

Kv = Kvo (Bv/0.3)^-3/4 = 60225 kN/㎡

60225 × (0.600 / 2 + 0.850 / 2) = 43663 kN/㎡ - 저판 단부 스프링

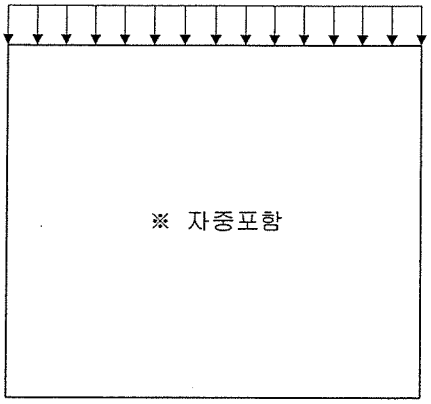
60225 × (0.850 / 2 + 0.483 / 2) = 40150 kN/㎡ - 저판 전단검토위치

60225 × (0.483 / 2 + 0.483 / 2) = 29109 kN/㎡ - 저판 중앙부 스프링

5. 하중재하도

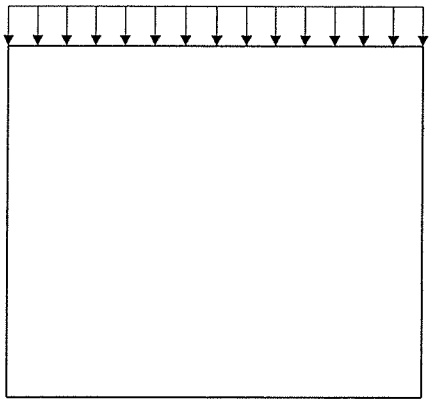
① 고정하중

W_D = 80.920 kN/㎡



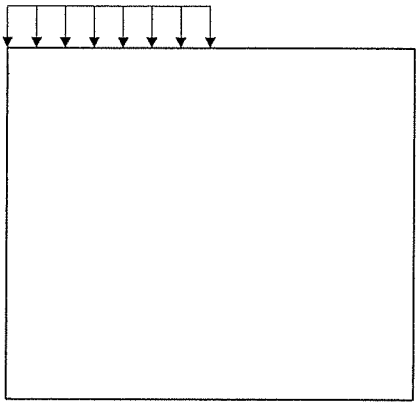
② 활하중(만재하)

W_L = 21.019 kN/㎡



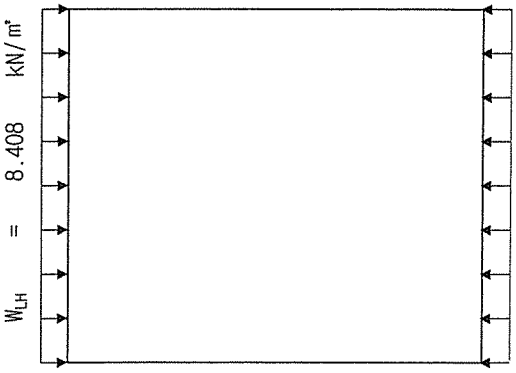
③ 활하중(편재하)

W_L = 21.019 kN/㎡



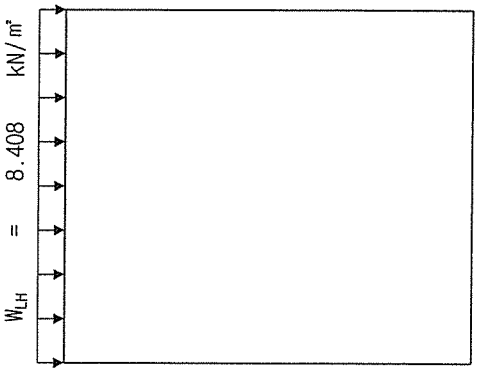
④ 활하중에 의한 측압(만재하)

W_{LH} = 8.408 kN/㎡

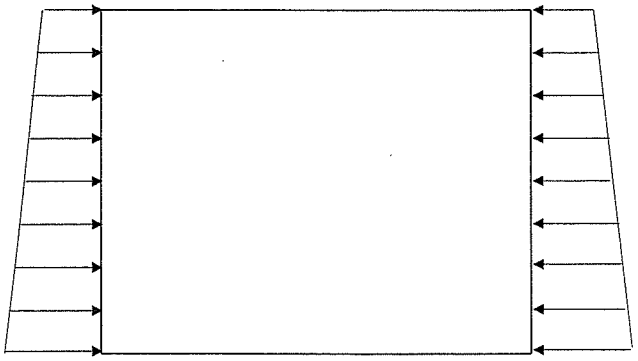


⑤ 활하중에 의한 측압(편재하)

W_{LH} = 8.408 kN/㎡



⑥ 수평토압(지하수 없는 경우)

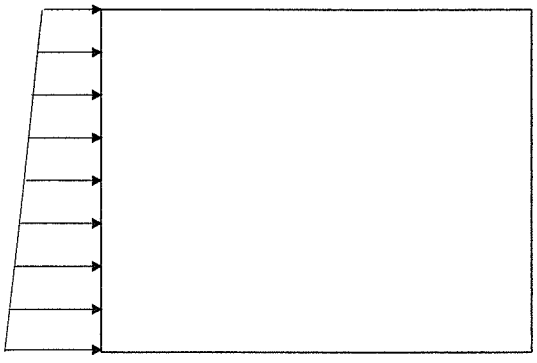


q_1 = 37.028 kN/㎡

q_7 = 80.693 kN/㎡

⑦ 편측토압(지하수 없는 경우)

q_1 = 2.556 kN/㎡



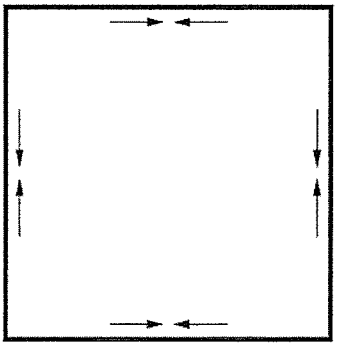
q_7 = 46.221 kN/㎡

⑧ 온도하중

△T = 0 °

⑨ 건조수축

△T = -15 °



⑩ 장대레일 종하중

Hr = 0.000 kN/m^2

6. 하중계수 및 하중조합

1) 극한하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
1	1.35	1.85		1.85		1.6						
2	1.35	1.85		1.85		0.6						
3	1.35		1.85		1.85	1.6						
4	1.35		1.85		1.85	0.6						
5	1.6	1.60		1.60		1.6						
6	1.6	1.60		1.60		0.6						
7	1.6		1.6		1.6	1.6						
8	1.6		1.6		1.6	0.6						
9	1.35	1.40		1.40		1.6		1.35		1.35		
10	1.35	1.40		1.40		0.6		1.35		1.35		
11	1.35	1.40		1.40		1.6			1.35	1.35	1.40	
12	1.35	1.40		1.40		0.6			1.35	1.35	1.40	
13	1.35		1.40		1.40	1.6		1.35		1.35		
14	1.35		1.40		1.40	0.6		1.35		1.35		
15	1.35		1.40		1.40	1.6			1.35	1.35	1.4	
16	1.35		1.40		1.40	0.6			1.35	1.35	1.4	
17	1.35		1.85		1.85		1.60					
18	1.35		1.85		1.85		0.60					
19	1.60		1.60		1.60		1.60					
20	1.60		1.60		1.60		0.60					

2) 사용하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
21	1.0	1.0		1.0		1.0						
22	1.0	1.0		1.0		0.5						
23	1.0		1.0		1.0	1.0						
24	1.0		1.0		1.0	0.5						
25	1.0	1.0		1.0		1.0		1.0			1.0	
26	1.0	1.0		1.0		0.5		1.0			1.0	
27	1.0	1.0		1.0		1.0			1.0	1.0	1.0	
28	1.0	1.0		1.0		0.5			1.0	1.0	1.0	
29	1.0		1.0		1.0	1.0		1.0			1.0	
30	1.0		1.0		1.0	0.5		1.0			1.0	
31	1.0		1.0		1.0	1.0			1.0	1.0	1.0	
32	1.0		1.0		1.0	0.5			1.0	1.0	1.0	
33	1.0					1.0						
34	1.0		1.0		1.0		1.0					
35	1.0		1.0		1.0		0.5					

7. INPUT DATA

```
*VERSION
   8.3.1

*UNIT    ; Unit System
; FORCE, LENGTH, HEAT, TEMPER
   KN   , M, J, C

*STRUCTYPE    ; Structure Type
; iSTYP, iMASS, iSMAS, bMASSOFFSET, bSELFWEIGHT, GRAV, TEMPER, bALIGNBEAM, bALIGNSLAB, bROTRIGID
     1, 1, 1, NO, YES, 9.806, 0, NO, NO, NO

*REBAR-MATL-CODE    ; Rebar Material Code
; CONC_CODE, CONC_MDB, SRC_CODE, SRC_MDB
 KS01-Civil(RC), SD300, KS01-Civil(RC), SD300

*NODE    ; Nodes
; iNO, X, Y, Z
     1, 0, 0, 0
     2, 0.85, 0, 0
     3, 1.742, 0, 0
     4, 2.633, 0, 0
     5, 3.525, 0, 0
     6, 4.417, 0, 0
     7, 5.308, 0, 0
     8, 6.2, 0, 0
     9, 7.05, 0, 0
    10, 0, 0, 0.825
    11, 7.05, 0, 0.825
    12, 0, 0, 1.525
    13, 7.05, 0, 1.525
    14, 0, 0, 2.225
    15, 7.05, 0, 2.225
    16, 0, 0, 2.925
    17, 7.05, 0, 2.925
    18, 0, 0, 3.625
    19, 7.05, 0, 3.625
    20, 0, 0, 4.325
    21, 7.05, 0, 4.325
    22, 0, 0, 5.125
    23, 0.8, 0, 5.125
    24, 1.708, 0, 5.125
    25, 2.617, 0, 5.125
    26, 3.525, 0, 5.125
    27, 4.433, 0, 5.125
    28, 5.342, 0, 5.125
    29, 6.25, 0, 5.125
    30, 7.05, 0, 5.125

*ELEMENT    ; Elements
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, iOPT(EXVAL2) ; Frame  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, EXVAL2, bLMT ; Comp/Tens Truss
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iSUB, iWID             ; Planar Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iN5, iN6, iN7, iN8     ; Solid  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, REF, RPX, RPY, RPZ, iSUB, EXVAL  ; Frame(Ref. Point)
     1, BEAM  ,    2,    2,    1,    2,   180
     2, BEAM  ,    2,    2,    2,    3,   180
     3, BEAM  ,    2,    2,    3,    4,   180
     4, BEAM  ,    2,    2,    4,    5,   180
     5, BEAM  ,    2,    2,    5,    6,   180
     6, BEAM  ,    2,    2,    6,    7,   180
     7, BEAM  ,    2,    2,    7,    8,   180
     8, BEAM  ,    2,    2,    8,    9,   180
     9, BEAM  ,    2,    3,    1,   10,   180
    10, BEAM  ,    2,    3,    9,   11,     0
    11, BEAM  ,    2,    3,   10,   12,   180
    12, BEAM  ,    2,    3,   11,   13,     0
    13, BEAM  ,    2,    3,   12,   14,   180
    14, BEAM  ,    2,    3,   13,   15,     0
    15, BEAM  ,    2,    3,   14,   16,   180
    16, BEAM  ,    2,    3,   15,   17,     0
    17, BEAM  ,    2,    3,   16,   18,   180
    18, BEAM  ,    2,    3,   17,   19,     0
    19, BEAM  ,    2,    3,   18,   20,   180
    20, BEAM  ,    2,    3,   19,   21,     0
    21, BEAM  ,    2,    3,   20,   22,   180
    22, BEAM  ,    2,    3,   21,   30,     0
    23, BEAM  ,    2,    1,   22,   23,     0
    24, BEAM  ,    2,    1,   23,   24,     0
    25, BEAM  ,    2,    1,   24,   25,     0
    26, BEAM  ,    2,    1,   25,   26,     0
    27, BEAM  ,    2,    1,   26,   27,     0
    28, BEAM  ,    2,    1,   27,   28,     0
    29, BEAM  ,    2,    1,   28,   29,     0
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    30, BEAM  ,    2,     1,    29,    30,     0

*MATERIAL    ; Material
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA1]          ; STEEL, CONC, USER
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA2], [DATA2] ; SRC
; [DATA1] : 1, DB, NAME, CODE
; [DATA1] : 2, ELAST, POISN, THERMAL, DEN, MASS
; [DATA1] : 3, Ex, Ey, Ez, Tx, Ty, Tz, Sxy, Sxz, Syz, Pxy, Pxz, Pyz, DEN, MASS   ; Orthotropic
; [DATA2] : 1, DB, NAME, CODE or 2, ELAST, POISN, THERMAL, DEN, MASS
    1, USER , STEEL              , 0, 0, , C, NO, 0, 2, 2.0000e+008,   0.3, 1.1700e-005, 76.8196,     0
    2, USER , CONC               , 0, 0, , C, NO, 0, 2, 2.7537e+007,  0.18, 1.0000e-005,  24.5,     0

*MATL-COLOR
; iMAT, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
    1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
    2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5


*SECTION    ; Section
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL              ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF          ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2         ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE                ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       [SIZE-A]                                                              ; 3rd line
;       [SIZE-B]                                                              ; 4th line
;       [SIZE-C]                                                              ; 5th line
;       [SIZE-D]                                                              ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb                     ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                       ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                    ; 4th line
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```
;       [SIZE-A]                                                                ; 5th line
;       [SIZE-B]                                                                ; 6th line
;       [SIZE-C]                                                                ; 7th line
;       [SIZE-D]                                                                ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]  : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.6, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.65, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.6, 1, 0, 0, 0, 0, 0, 0, 0, 0

*SECT-COLOR
; iSEC, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
   1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   3, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5

*DGN-SECT
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL             ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF         ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE               ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
```

```
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                   ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                 ; 2nd line
;       [SIZE-A]                                                            ; 3rd line
;       [SIZE-B]                                                            ; 4th line
;       [SIZE-C]                                                            ; 5th line
;       [SIZE-D]                                                            ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb                   ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                   ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                 ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                     ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                  ; 4th line
;       [SIZE-A]                                                            ; 5th line
;       [SIZE-B]                                                            ; 6th line
;       [SIZE-C]                                                            ; 7th line
;       [SIZE-D]                                                            ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]  : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.6, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.65, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.6, 1, 0, 0, 0, 0, 0, 0, 0, 0


*STLDCASE    ; Static Load Cases
; LCNAME, LCTYPE, DESC
   LC1  , USER,
   LC2  , USER,
   LC3  , USER,
   LC4  , USER,
   LC5  , USER,
   LC6  , USER,
   LC7  , USER,
   LC8  , USER,
   LC9  , USER,
   LC10 , USER,
   LC11 , USER,
   NCOMB1, USER,
   NCOMB2, USER,
   NCOMB3, USER,
   NCOMB4, USER,
   NCOMB5, USER,
   NCOMB6, USER,
   NCOMB7, USER,
   NCOMB8, USER,
   NCOMB9, USER,
   NCOMB10, USER,
   NCOMB11, USER,
   NCOMB12, USER,
   NCOMB13, USER,
   NCOMB14, USER,
   NCOMB15, USER,
   NCOMB16, USER,
   NCOMB17, USER,
   NCOMB18, USER,
   NCOMB19, USER,
   NCOMB20, USER,
   NCOMB21, USER,
   NCOMB22, USER,
   NCOMB23, USER,
   NCOMB24, USER,
   NCOMB25, USER,
   NCOMB26, USER,
   NCOMB27, USER,
   NCOMB28, USER,
   NCOMB29, USER,
   NCOMB30, USER,
   NCOMB31, USER,
   NCOMB32, USER,
   NCOMB33, USER,
   NCOMB34, USER,
   NCOMB35, USER,


*SPRING    ; Point Spring Supports
; NODE_LIST, Type, SDx, SDy, SDz, SRx, SRy, SRz, GROUP, FROMTYPE, EFFAREA, Kx, Ky, Kz
```

```
; NODE_LIST, Type, Direction, Vx, Vy, Vz, Stiffness, GROUP, FROMTYPE, EFFAREA
; NODE_LIST, Type, Multi-Linear Type, Direction, Vx, Vy, Vz, ax, ay, bx, by, cx, cy, dx, dy, ex, ey, fx, fy, GROUP, FROMTYPE, EFFAREA
   1, LINEAR, 1e+014, 0, 0, 0, 0, 0, NO, 0, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0
   3to7, COMP  ,  5, 0, 0, 0, 14815, , 0, 0, 0, 0, 0
   2 8, COMP  ,  5, 0, 0, 0, 14469, , 0, 0, 0, 0, 0
   1 9, COMP  ,  5, 0, 0, 0, 12046, , 0, 0, 0, 0, 0

*OFFSET    ; Beam End Offsets
; ELEM_LIST, TYPE, RGDXi, RGDYi, RGDZi, RGDXj, RGDYj, RGDZj, GROUP  ; TYPE=GLOBAL
; ELEM_LIST, TYPE, RGDi, RGDj, GROUP                                ; TYPE=ELEMENT
     1, ELEMENT, 0.1375, 0,
     8, ELEMENT, 0, 0.1375,
     9, ELEMENT, 0.175, 0,
    10, ELEMENT, 0.175, 0,
    21, ELEMENT, 0, 0.3,
    22, ELEMENT, 0, 0.3,
    23, ELEMENT, 0.3, 0,
    30, ELEMENT, 0, 0.3,

*USE-STLD, LC1

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC1] ------------------------

*USE-STLD, LC2

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC2] ------------------------

*USE-STLD, LC3

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC3] ------------------------

*USE-STLD, LC4

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
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    13, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC4] ----------

*USE-STLD, LC5

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC5] ----------

*USE-STLD, LC6

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 58.251, 1, 51.222, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -58.251, 1, -51.222, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 51.222, 1, 45.258, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -51.222, 1, -45.258, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 45.258, 1, 39.294, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -45.258, 1, -39.294, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 39.294, 1, 33.33, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -39.294, 1, -33.33, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 33.33, 1, 27.366, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -33.33, 1, -27.366, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 27.366, 1, 21.402, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -27.366, 1, -21.402, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 21.402, 1, 14.586, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -21.402, 1, -14.586, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC6] ----------

*USE-STLD, LC7

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 46.221, 1, 39.192, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 39.192, 1, 33.228, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 33.228, 1, 27.264, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 27.264, 1, 21.3, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 21.3, 1, 15.336, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.336, 1, 9.372, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 9.372, 1, 2.556, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC7] ----------

*USE-STLD, LC8

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
    23, 5.85,
    24, 5.85,
    25, 5.85,
    26, 5.85,
    27, 5.85,
    28, 5.85,
    29, 5.85,
    30, 5.85,
```

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; End of data for load case [LC8] ------------------------

*USE-STLD. LC9

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. -5.85.
    24. -5.85.
    25. -5.85.
    26. -5.85.
    27. -5.85.
    28. -5.85.
    29. -5.85.
    30. -5.85.

; End of data for load case [LC9] ------------------------

*USE-STLD. LC10

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
    30. -15.

; End of data for load case [LC10] ------------------------

*USE-STLD. NCOMB1

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
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    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB1] ------------------------

*USE-STLD. NCOMB2

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB2] ------------------------

*USE-STLD. NCOMB3

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB3] ------------------------

*USE-STLD. NCOMB4

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB4] ------------------------

*USE-STLD. NCOMB5

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB5] ------------------------

*USE-STLD. NCOMB6

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
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    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB6] ------------------------

*USE-STLD. NCOMB7

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB7] ------------------------

*USE-STLD. NCOMB8

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
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; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB8] ------------------------

*USE-STLD. NCOMB9

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
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    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
    23, 7.8975,
    24, 7.8975,
    25, 7.8975,
    26, 7.8975,
    27, 7.8975,
    28, 7.8975,
    29, 7.8975,
    30, 7.8975,

; End of data for load case [NCOMB9] ------------------------

*USE-STLD, NCOMB10

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1.35,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 34.9506, 1, 30.7332, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -34.9506, 1, -30.7332, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -11.7712, 1, -11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 30.7332, 1, 27.1548, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -11.7712, 1, -11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -30.7332, 1, -27.1548, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 27.1548, 1, 23.5764, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -11.7712, 1, -11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -27.1548, 1, -23.5764, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 23.5764, 1, 19.998, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -11.7712, 1, -11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -23.5764, 1, -19.998, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 19.998, 1, 16.4196, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -11.7712, 1, -11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -19.998, 1, -16.4196, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 16.4196, 1, 12.8412, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -16.4196, 1, -12.8412, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -11.7712, 1, -11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 12.8412, 1, 8.7516, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -12.8412, 1, -8.7516, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -11.7712, 1, -11.7712, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.124, 1, -38.124, 0, 0, 0, 0, , NO, 0, 0, NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
    23, 7.8975,
    24, 7.8975,
    25, 7.8975,
    26, 7.8975,
    27, 7.8975,
    28, 7.8975,
    29, 7.8975,
    30, 7.8975,
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; End of data for load case [NCOMB10] ------------------------

*USE-STLD. NCOMB11

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. N(
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. N(
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. N(
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. N(
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. N(
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. N(

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -28.1475.
    24. -28.1475.
    25. -28.1475.
    26. -28.1475.
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    27. -28.1475.
    28. -28.1475.
    29. -28.1475.
    30. -28.1475.

; End of data for load case [NCOMB11] ------------------------

*USE-STLD. NCOMB12

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
```

```
     23. -28.1475.
     24. -28.1475.
     25. -28.1475.
     26. -28.1475.
     27. -28.1475.
     28. -28.1475.
     29. -28.1475.
     30. -28.1475.

; End of data for load case [NCOMB12] ------------------------

*USE-STLD. NCOMB13

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 93.2016. 1. 81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -93.2016. 1. -81.9552. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 81.9552. 1. 72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -81.9552. 1. -72.4128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 72.4128. 1. 62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -72.4128. 1. -62.8704. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.8704. 1. 53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.8704. 1. -53.328. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.328. 1. 43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.328. 1. -43.7856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.7856. 1. 34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.7856. 1. -34.2432. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.2432. 1. 23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.2432. 1. -23.3376. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. 7.8975.
    24. 7.8975.
    25. 7.8975.
    26. 7.8975.
    27. 7.8975.
    28. 7.8975.
    29. 7.8975.
    30. 7.8975.

; End of data for load case [NCOMB13] ------------------------

*USE-STLD. NCOMB14

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
```

```
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 27.1548, 1, 23.5764, 0, 0, 0, 0,  , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -27.1548, 1, -23.5764, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 23.5764, 1, 19.998, 0, 0, 0, 0,  , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -23.5764, 1, -19.998, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 19.998, 1, 16.4196, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -19.998, 1, -16.4196, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 16.4196, 1, 12.8412, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -16.4196, 1, -12.8412, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 12.8412, 1, 8.7516, 0, 0, 0, 0,  , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -12.8412, 1, -8.7516, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0,  , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
    23, 7.8975,
    24, 7.8975,
    25, 7.8975,
    26, 7.8975,
    27, 7.8975,
    28, 7.8975,
    29, 7.8975,
    30, 7.8975,

; End of data for load case [NCOMB14] ------------------------

*USE-STLD, NCOMB15

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1.35,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 93.2016, 1, 81.9552, 0, 0, 0, 0,  , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -93.2016, 1, -81.9552, 0, 0, 0, 0,  , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 81.9552, 1, 72.4128, 0, 0, 0, 0,  , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -81.9552, 1, -72.4128, 0, 0, 0, 0,  , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 72.4128, 1, 62.8704, 0, 0, 0, 0,  , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -72.4128, 1, -62.8704, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 62.8704, 1, 53.328, 0, 0, 0, 0,  , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -62.8704, 1, -53.328, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 53.328, 1, 43.7856, 0, 0, 0, 0,  , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -53.328, 1, -43.7856, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 43.7856, 1, 34.2432, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -43.7856, 1, -34.2432, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 11.7712, 1, 11.7712, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, 34.2432, 1, 23.3376, 0, 0, 0, 0,  , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1],   ,   ,   , 0, -34.2432, 1, -23.3376, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0,  , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -41.0228, 1, -41.0228, 0, 0, 0, 0,  , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],   ,   ,   , 0, -38.124, 1, -38.124, 0, 0, 0, 0,  , NO, 0, 0, NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
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```
      1. -20.25.
      2. -20.25.
      3. -20.25.
      4. -20.25.
      5. -20.25.
      6. -20.25.
      7. -20.25.
      8. -20.25.
      9. -20.25.
     10. -20.25.
     11. -20.25.
     12. -20.25.
     13. -20.25.
     14. -20.25.
     15. -20.25.
     16. -20.25.
     17. -20.25.
     18. -20.25.
     19. -20.25.
     20. -20.25.
     21. -20.25.
     22. -20.25.
     23. -28.1475.
     24. -28.1475.
     25. -28.1475.
     26. -28.1475.
     27. -28.1475.
     28. -28.1475.
     29. -28.1475.
     30. -28.1475.

; End of data for load case [NCOMB15] ------------------------

*USE-STLD. NCOMB16

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.9506. 1. 30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.9506. 1. -30.7332. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.7332. 1. 27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.7332. 1. -27.1548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.1548. 1. 23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.1548. 1. -23.5764. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5764. 1. 19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.5764. 1. -19.998. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.998. 1. 16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.998. 1. -16.4196. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.4196. 1. 12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.4196. 1. -12.8412. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.8412. 1. 8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -12.8412. 1. -8.7516. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -41.0228. 1. -41.0228. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
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     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -28.1475.
    24. -28.1475.
    25. -28.1475.
    26. -28.1475.
    27. -28.1475.
    28. -28.1475.
    29. -28.1475.
    30. -28.1475.

; End of data for load case 'NCOMB16' ------------------------

*USE-STLD. NCOMB17

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; 'VALUE'       : D1. P1. D2. P2. D3. P3. D4. P4
; 'ECCEN'       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; 'ADDITIONAL'  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.9536. 1. 62.7072. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7072. 1. 53.1648. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.1648. 1. 43.6224. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.6224. 1. 34.08. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.08. 1. 24.5376. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.5376. 1. 14.9952. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 14.9952. 1. 4.0896. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case 'NCOMB17' ------------------------

*USE-STLD. NCOMB18

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. 'ECCEN'. 'VALUE'. GROUP
; 'VALUE'       : D1. P1. D2. P2. D3. P3. D4. P4
; 'ECCEN'       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; 'ADDITIONAL'  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7326. 1. 23.5152. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5152. 1. 19.9368. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.9368. 1. 16.3584. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.3584. 1. 12.78. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.78. 1. 9.2016. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
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     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.2016. 1. 5.6232. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.6232. 1. 1.5336. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -54.2087. 1. -54.2087. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.124. 1. -38.124. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB18] ------------------------

*USE-STLD. NCOMB19

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.9536. 1. 62.7072. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7072. 1. 53.1648. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.1648. 1. 43.6224. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.6224. 1. 34.08. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.08. 1. 24.5376. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.5376. 1. 14.9952. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 14.9952. 1. 4.0896. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB19] ------------------------

*USE-STLD. NCOMB20

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.7326. 1. 23.5152. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.5152. 1. 19.9368. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.9368. 1. 16.3584. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.3584. 1. 12.78. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 12.78. 1. 9.2016. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.2016. 1. 5.6232. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.6232. 1. 1.5336. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -46.8832. 1. -46.8832. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -45.184. 1. -45.184. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB20] ------------------------

*USE-STLD. NCOMB21

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB21] ------------------------

*USE-STLD. NCOMB22

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
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    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB22] ------------------------

*USE-STLD. NCOMB23

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB23] ------------------------
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*USE-STLD. NCOMB24

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB24] ------------------------

*USE-STLD. NCOMB25

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
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     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     23. 5.85.
     24. 5.85.
     25. 5.85.
     26. 5.85.
     27. 5.85.
     28. 5.85.
     29. 5.85.
     30. 5.85.

; End of data for load case [NCOMB25] ------------------------

*USE-STLD. NCOMB26

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
```

```
; ELEM LIST, TEMPER, GROUP
    23, 5.85,
    24, 5.85,
    25, 5.85,
    26, 5.85,
    27, 5.85,
    28, 5.85,
    29, 5.85,
    30, 5.85,

; End of data for load case [NCOMB26] ------------------------

*USE-STLD, NCOMB27

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 58.251, 1, 51.222, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -58.251, 1, -51.222, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 51.222, 1, 45.258, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -51.222, 1, -45.258, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 45.258, 1, 39.294, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -45.258, 1, -39.294, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 39.294, 1, 33.33, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -39.294, 1, -33.33, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 33.33, 1, 27.366, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -33.33, 1, -27.366, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 27.366, 1, 21.402, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -27.366, 1, -21.402, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 21.402, 1, 14.586, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -21.402, 1, -14.586, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -29.302, 1, -29.302, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
     1, -15,
     2, -15,
     3, -15,
     4, -15,
     5, -15,
     6, -15,
     7, -15,
     8, -15,
     9, -15,
    10, -15,
    11, -15,
    12, -15,
    13, -15,
    14, -15,
    15, -15,
    16, -15,
    17, -15,
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     18. -15.
     19. -15.
     20. -15.
     21. -15.
     22. -15.
     23. -20.85.
     24. -20.85.
     25. -20.85.
     26. -20.85.
     27. -20.85.
     28. -20.85.
     29. -20.85.
     30. -20.85.

; End of data for load case [NCOMB27] ------------------------

*USE-STLD. NCOMB28

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
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    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -20.85.
    24. -20.85.
    25. -20.85.
    26. -20.85.
    27. -20.85.
    28. -20.85.
    29. -20.85.
    30. -20.85.

; End of data for load case [NCOMB28] ------------------------

*USE-STLD. NCOMB29

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM   . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. 5.85.
    24. 5.85.
    25. 5.85.
    26. 5.85.
    27. 5.85.
    28. 5.85.
    29. 5.85.
    30. 5.85.

; End of data for load case [NCOMB29] ------------------------

*USE-STLD. NCOMB30

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
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; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
    23. 5.85.
    24. 5.85.
    25. 5.85.
    26. 5.85.
    27. 5.85.
    28. 5.85.
    29. 5.85.
    30. 5.85.

; End of data for load case [NCOMB30] ------------------------

*USE-STLD. NCOMB31

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.251. 1. 51.222. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.251. 1. -51.222. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.222. 1. 45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.222. 1. -45.258. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 45.258. 1. 39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -45.258. 1. -39.294. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 39.294. 1. 33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -39.294. 1. -33.33. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.33. 1. 27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -33.33. 1. -27.366. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.366. 1. 21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.366. 1. -21.402. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.402. 1. 14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.402. 1. -14.586. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
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    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -20.85.
    24. -20.85.
    25. -20.85.
    26. -20.85.
    27. -20.85.
    28. -20.85.
    29. -20.85.
    30. -20.85.

; End of data for load case [NCOMB31] ------------------------

*USE-STLD. NCOMB32

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 29.1255. 1. 25.611. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -29.1255. 1. -25.611. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.611. 1. 22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.611. 1. -22.629. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.629. 1. 19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -22.629. 1. -19.647. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.647. 1. 16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.647. 1. -16.665. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.665. 1. 13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -16.665. 1. -13.683. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.683. 1. 10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.683. 1. -10.701. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.701. 1. 7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -10.701. 1. -7.293. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
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*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
      1, -15,
      2, -15,
      3, -15,
      4, -15,
      5, -15,
      6, -15,
      7, -15,
      8, -15,
      9, -15,
     10, -15,
     11, -15,
     12, -15,
     13, -15,
     14, -15,
     15, -15,
     16, -15,
     17, -15,
     18, -15,
     19, -15,
     20, -15,
     21, -15,
     22, -15,
     23, -20.85,
     24, -20.85,
     25, -20.85,
     26, -20.85,
     27, -20.85,
     28, -20.85,
     29, -20.85,
     30, -20.85,

; End of data for load case 'NCOMB32' ------------------------

*USE-STLD, NCOMB33

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, 'ECCEN', 'VALUE', GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, 'ECCEN', 'VALUE', GROUP
; 'VALUE'       : D1, P1, D2, P2, D3, P3, D4, P4
; 'ECCEN'       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; 'ADDITIONAL'  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 58.251, 1, 51.222, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -58.251, 1, -51.222, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 51.222, 1, 45.258, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -51.222, 1, -45.258, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 45.258, 1, 39.294, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -45.258, 1, -39.294, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 39.294, 1, 33.33, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -39.294, 1, -33.33, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 33.33, 1, 27.366, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -33.33, 1, -27.366, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 27.366, 1, 21.402, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -27.366, 1, -21.402, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 21.402, 1, 14.586, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -21.402, 1, -14.586, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -28.24, 1, -28.24, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case 'NCOMB33' ------------------------

*USE-STLD, NCOMB34

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, 'ECCEN', 'VALUE', GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, 'ECCEN', 'VALUE', GROUP
; 'VALUE'       : D1, P1, D2, P2, D3, P3, D4, P4
; 'ECCEN'       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; 'ADDITIONAL'  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 46.221, 1, 39.192, 0, 0, 0, 0, , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 39.192, 1, 33.228, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
```

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    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 33.228. 1. 27.264. 0. 0. 0. 0. . NO. 0. 0. NO
    15.. BEAM   . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.264. 1. 21.3. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.3. 1. 15.336. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.336. 1. 9.372. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.372. 1. 2.556. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB34] ------------------------

*USE-STLD. NCOMB35

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.1105. 1. 19.596. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.596. 1. 16.614. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 16.614. 1. 13.632. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.632. 1. 10.65. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.65. 1. 7.668. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.668. 1. 4.686. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 4.686. 1. 1.278. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.302. 1. -29.302. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -28.24. 1. -28.24. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB35] ------------------------


*LOADCOMB    ; Combinations
; NAME=NAME. KIND. ACTIVE. bES. iTYPE. DESC. iSERV-TYPE. nLCOMTYPE   ; line 1
;       ANAL1. LCNAME1. FACT1. ...                                  ; from line 2
   NAME=COMB1. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 1.6
   NAME=COMB2. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 0.6
   NAME=COMB3. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 1.6
   NAME=COMB4. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 0.6
   NAME=COMB5. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 1.6
   NAME=COMB6. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 0.6
   NAME=COMB7. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 1.6
   NAME=COMB8. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 0.6
   NAME=COMB9. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
        ST. LC11. 1.35
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NAME=COMB10. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
     ST. LC11. 1.35
NAME=COMB11. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
     ST. LC10. 1.35. ST. LC11. 1.4
NAME=COMB12. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
     ST. LC10. 1.35. ST. LC11. 1.4
NAME=COMB13. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
     ST. LC11. 1.35
NAME=COMB14. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
     ST. LC11. 1.35
NAME=COMB15. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
     ST. LC10. 1.35. ST. LC11. 1.4
NAME=COMB16. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
     ST. LC10. 1.35. ST. LC11. 1.4
NAME=COMB17. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 1.6
NAME=COMB18. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 0.6
NAME=COMB19. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 1.6
NAME=COMB20. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 0.6
NAME=COMB21. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1
NAME=COMB22. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5
NAME=COMB23. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1
NAME=COMB24. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5
NAME=COMB25. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB26. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB27. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB28. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB29. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB30. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB31. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB32. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB33. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC6. 1
NAME=COMB34. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 1
NAME=COMB35. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 0.5
NAME=USD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB1. 1. ST. NCOMB2. 1. ST. NCOMB3. 1. ST. NCOMB4. 1
     ST. NCOMB5. 1. ST. NCOMB6. 1. ST. NCOMB7. 1. ST. NCOMB8. 1
     ST. NCOMB9. 1. ST. NCOMB10. 1. ST. NCOMB11. 1. ST. NCOMB12. 1
     ST. NCOMB13. 1. ST. NCOMB14. 1. ST. NCOMB15. 1. ST. NCOMB16. 1
     ST. NCOMB17. 1. ST. NCOMB18. 1. ST. NCOMB19. 1. ST. NCOMB20. 1
NAME=WSD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB21. 1. ST. NCOMB22. 1. ST. NCOMB23. 1. ST. NCOMB24. 1
     ST. NCOMB25. 1. ST. NCOMB26. 1. ST. NCOMB27. 1. ST. NCOMB28. 1
     ST. NCOMB29. 1. ST. NCOMB30. 1. ST. NCOMB31. 1. ST. NCOMB32. 1
     ST. NCOMB33. 1. ST. NCOMB34. 1. ST. NCOMB35. 1
NAME=NCOMB1. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB1. 1
NAME=NCOMB2. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB2. 1
NAME=NCOMB3. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB3. 1
NAME=NCOMB4. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB4. 1
NAME=NCOMB5. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB5. 1
NAME=NCOMB6. CONC. STRENGTH. 0. 0. . 0. 0
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        ST, NCOMB6, 1
    NAME=NCOMB7, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB7, 1
    NAME=NCOMB8, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB8, 1
    NAME=NCOMB9, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB9, 1
    NAME=NCOMB10, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB10, 1
    NAME=NCOMB11, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB11, 1
    NAME=NCOMB12, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB12, 1
    NAME=NCOMB13, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB13, 1
    NAME=NCOMB14, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB14, 1
    NAME=NCOMB15, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB15, 1
    NAME=NCOMB16, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB16, 1
    NAME=NCOMB17, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB17, 1
    NAME=NCOMB18, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB18, 1
    NAME=NCOMB19, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB19, 1
    NAME=NCOMB20, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB20, 1
    NAME=NCOMB21, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB21, 1
    NAME=NCOMB22, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB22, 1
    NAME=NCOMB23, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB23, 1
    NAME=NCOMB24, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB24, 1
    NAME=NCOMB25, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB25, 1
    NAME=NCOMB26, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB26, 1
    NAME=NCOMB27, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB27, 1
    NAME=NCOMB28, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB28, 1
    NAME=NCOMB29, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB29, 1
    NAME=NCOMB30, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB30, 1
    NAME=NCOMB31, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB31, 1
    NAME=NCOMB32, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB32, 1
    NAME=NCOMB33, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB33, 1
    NAME=NCOMB34, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB34, 1
    NAME=NCOMB35, CONC, STRENGTH, 0, 0, , 0, 0
        ST, NCOMB35, 1

*LOADCONST    ; Load Constribution for Nonlinear Load Case
; NAME=STLDCASE, DESC                                          ; 1st line
;       LCNAME1, LCTYPE1, FACTOR1, LCNAME2, LCTYPE2, FACTOR2, ...   ; from line 2
    NAME=NCOMB1,
        LC1, ST, 1.35, LC2, ST, 1.85, LC4, ST, 1.85, LC6, ST, 1.6
    NAME=NCOMB2,
        LC1, ST, 1.35, LC2, ST, 1.85, LC4, ST, 1.85, LC6, ST, 0.6
    NAME=NCOMB3,
        LC1, ST, 1.35, LC3, ST, 1.85, LC5, ST, 1.85, LC6, ST, 1.6
    NAME=NCOMB4,
        LC1, ST, 1.35, LC3, ST, 1.85, LC5, ST, 1.85, LC6, ST, 0.6
    NAME=NCOMB5,
        LC1, ST, 1.6, LC2, ST, 1.6, LC4, ST, 1.6, LC6, ST, 1.6
    NAME=NCOMB6,
        LC1, ST, 1.6, LC2, ST, 1.6, LC4, ST, 1.6, LC6, ST, 0.6
    NAME=NCOMB7,
        LC1, ST, 1.6, LC3, ST, 1.6, LC5, ST, 1.6, LC6, ST, 1.6
    NAME=NCOMB8,
        LC1, ST, 1.6, LC3, ST, 1.6, LC5, ST, 1.6, LC6, ST, 0.6
    NAME=NCOMB9,
        LC1, ST, 1.35, LC2, ST, 1.4, LC4, ST, 1.4, LC6, ST, 1.6, LC8, ST, 1.35
        LC11, ST, 1.35
    NAME=NCOMB10,
        LC1, ST, 1.35, LC2, ST, 1.4, LC4, ST, 1.4, LC6, ST, 0.6, LC8, ST, 1.35
        LC11, ST, 1.35
    NAME=NCOMB11,
        LC1, ST, 1.35, LC2, ST, 1.4, LC4, ST, 1.4, LC6, ST, 1.6, LC9, ST, 1.35
```

```
        LC10, ST, 1.35, LC11, ST, 1.4
    NAME=NCOMB12,
        LC1, ST, 1.35, LC2, ST, 1.4, LC4, ST, 1.4, LC6, ST, 0.6, LC9, ST, 1.35
        LC10, ST, 1.35, LC11, ST, 1.4
    NAME=NCOMB13,
        LC1, ST, 1.35, LC3, ST, 1.4, LC5, ST, 1.4, LC6, ST, 1.6, LC8, ST, 1.35
        LC11, ST, 1.35
    NAME=NCOMB14,
        LC1, ST, 1.35, LC3, ST, 1.4, LC5, ST, 1.4, LC6, ST, 0.6, LC8, ST, 1.35
        LC11, ST, 1.35
    NAME=NCOMB15,
        LC1, ST, 1.35, LC3, ST, 1.4, LC5, ST, 1.4, LC6, ST, 1.6, LC9, ST, 1.35
        LC10, ST, 1.35, LC11, ST, 1.4
    NAME=NCOMB16,
        LC1, ST, 1.35, LC3, ST, 1.4, LC5, ST, 1.4, LC6, ST, 0.6, LC9, ST, 1.35
        LC10, ST, 1.35, LC11, ST, 1.4
    NAME=NCOMB17,
        LC1, ST, 1.35, LC3, ST, 1.85, LC5, ST, 1.85, LC7, ST, 1.6
    NAME=NCOMB18,
        LC1, ST, 1.35, LC3, ST, 1.85, LC5, ST, 1.85, LC7, ST, 0.6
    NAME=NCOMB19,
        LC1, ST, 1.6, LC3, ST, 1.6, LC5, ST, 1.6, LC7, ST, 1.6
    NAME=NCOMB20,
        LC1, ST, 1.6, LC3, ST, 1.6, LC5, ST, 1.6, LC7, ST, 0.6
    NAME=NCOMB21,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 1
    NAME=NCOMB22,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5
    NAME=NCOMB23,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1
    NAME=NCOMB24,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5
    NAME=NCOMB25,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 1, LC8, ST, 1, LC11, ST, 1
    NAME=NCOMB26,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5, LC8, ST, 1
        LC11, ST, 1
    NAME=NCOMB27,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 1, LC9, ST, 1, LC10, ST, 1
        LC11, ST, 1
    NAME=NCOMB28,
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5, LC9, ST, 1
        LC10, ST, 1, LC11, ST, 1
    NAME=NCOMB29,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC8, ST, 1, LC11, ST, 1
    NAME=NCOMB30,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC8, ST, 1
        LC11, ST, 1
    NAME=NCOMB31,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC9, ST, 1, LC10, ST, 1
        LC11, ST, 1
    NAME=NCOMB32,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC9, ST, 1
        LC10, ST, 1, LC11, ST, 1
    NAME=NCOMB33,
        LC1, ST, 1, LC6, ST, 1
    NAME=NCOMB34,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 1
    NAME=NCOMB35,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 0.5

*LC-COLOR    ; Diagram Color for Load Case
; ANAL, LCNAME, iR1(ALL), iG1(ALL), iB1(ALL), iR2(MIN), iG2(MIN), iB2(MIN), iR3(MAX), iG2(MAX), iB2(MAX)
 CB, COMB1, 0, 128, 255, 212, 160, 255, 192, 128, 0
 CB, COMB2, 192, 192, 192, 255, 128, 0, 85, 192, 0
 CB, COMB3, 85, 0, 192, 255, 255, 87, 192, 128, 0
 CB, COMB4, 255, 255, 87, 0, 192, 128, 255, 87, 87
 CB, COMB5, 85, 0, 192, 192, 192, 0, 255, 0, 192
 CB, COMB6, 0, 128, 57, 192, 72, 0, 93, 255, 87
 CB, COMB7, 0, 128, 255, 85, 192, 0, 255, 0, 192
 CB, COMB8, 255, 160, 255, 93, 255, 87, 0, 192, 192
 CB, COMB9, 0, 157, 192, 0, 128, 255, 255, 160, 255
 CB, COMB10, 192, 192, 0, 160, 192, 255, 148, 87, 255
 CB, COMB11, 0, 192, 192, 255, 255, 87, 255, 192, 87
 CB, COMB12, 192, 72, 0, 0, 157, 192, 192, 128, 0
 CB, COMB13, 255, 87, 128, 0, 128, 192, 192, 192, 0
 CB, COMB14, 255, 87, 87, 0, 128, 128, 148, 87, 255
 CB, COMB15, 163, 255, 160, 255, 160, 255, 255, 192, 160
 CB, COMB16, 210, 210, 210, 255, 0, 128, 0, 192, 192
 CB, COMB17, 192, 0, 128, 0, 192, 192, 255, 255, 255
 CB, COMB18, 0, 157, 192, 160, 192, 255, 255, 0, 128
 CB, COMB19, 0, 128, 128, 192, 128, 0, 192, 128, 0
 CB, COMB20, 255, 0, 192, 255, 192, 160, 148, 87, 255
 CB, COMB21, 255, 0, 128, 255, 87, 87, 255, 255, 87
 CB, COMB22, 255, 0, 192, 163, 255, 160, 93, 255, 87
 CB, COMB23, 78, 0, 255, 255, 255, 255, 0, 192, 128
 CB, COMB24, 255, 255, 87, 192, 128, 0, 0, 157, 192
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CB. COMB25. 192. 128. 0. 0. 128. 255. 163. 160. 255
CB. COMB26. 0. 128. 128. 0. 128. 57. 255. 0. 128
CB. COMB27. 163. 160. 255. 0. 128. 192. 0. 128. 255
CB. COMB28. 255. 0. 128. 255. 192. 87. 160. 192. 255
CB. COMB29. 163. 160. 255. 192. 0. 192. 148. 87. 255
CB. COMB30. 255. 0. 128. 78. 0. 255. 0. 192. 192
CB. COMB31. 148. 87. 255. 192. 192. 0. 160. 192. 255
CB. COMB32. 163. 160. 255. 192. 192. 192. 192. 128. 0
CB. COMB33. 210. 210. 210. 255. 128. 0. 255. 192. 87
CB. COMB34. 148. 87. 255. 192. 192. 0. 255. 192. 160
CB. COMB35. 212. 160. 255. 163. 160. 255. 0. 192. 192
CB. USD. 0. 192. 128. 255. 128. 0. 0. 157. 192
CB. WSD. 0. 192. 128. 192. 192. 192. 192. 72. 0
ST. LC1. 255. 192. 87. 93. 255. 87. 0. 157. 192
ST. LC2. 128. 192. 0. 93. 255. 87. 0. 128. 128
ST. LC3. 0. 128. 255. 192. 192. 192. 210. 210. 210
ST. LC4. 85. 0. 192. 0. 128. 57. 255. 128. 0
ST. LC5. 0. 192. 192. 255. 192. 160. 192. 192. 0
ST. LC6. 255. 87. 128. 160. 192. 255. 93. 255. 87
ST. LC7. 255. 87. 128. 0. 128. 128. 148. 87. 255
ST. LC8. 0. 128. 57. 160. 255. 255. 192. 192. 0
ST. LC9. 255. 128. 0. 146. 0. 255. 0. 192. 192
ST. LC10. 255. 87. 87. 0. 192. 192. 163. 255. 160
ST. LC11. 192. 192. 0. 210. 210. 210. 255. 128. 0
CBC. NCOMB1. 128. 192. 0. 0. 192. 192. 85. 0. 192
CBC. NCOMB2. 255. 192. 87. 85. 192. 0. 0. 128. 57
CBC. NCOMB3. 128. 192. 0. 255. 160. 255. 255. 0. 192
CBC. NCOMB4. 93. 255. 87. 192. 72. 0. 192. 192. 0
CBC. NCOMB5. 210. 210. 210. 160. 192. 255. 192. 192. 192
CBC. NCOMB6. 0. 128. 57. 0. 192. 128. 85. 192. 0
CBC. NCOMB7. 128. 192. 0. 192. 72. 0. 0. 192. 192
CBC. NCOMB8. 192. 0. 128. 255. 160. 255. 160. 255. 255
CBC. NCOMB9. 0. 128. 128. 192. 192. 192. 146. 0. 255
CBC. NCOMB10. 160. 192. 255. 160. 192. 255. 160. 255. 255
CBC. NCOMB11. 192. 72. 0. 255. 160. 255. 160. 192. 255
CBC. NCOMB12. 163. 255. 160. 210. 210. 210. 148. 87. 255
CBC. NCOMB13. 160. 192. 255. 85. 192. 0. 128. 192. 0
CBC. NCOMB14. 0. 128. 192. 0. 192. 128. 255. 255. 255
CBC. NCOMB15. 192. 128. 0. 85. 0. 192. 255. 0. 128
CBC. NCOMB16. 85. 192. 0. 163. 255. 160. 0. 157. 192
CBC. NCOMB17. 192. 192. 192. 163. 160. 255. 0. 192. 128
CBC. NCOMB18. 0. 128. 57. 163. 255. 160. 255. 160. 255
CBC. NCOMB19. 0. 192. 128. 255. 160. 255. 146. 0. 255
CBC. NCOMB20. 192. 72. 0. 85. 192. 0. 0. 192. 128
CBC. NCOMB21. 78. 0. 255. 212. 160. 255. 255. 255. 255
CBC. NCOMB22. 192. 0. 128. 255. 87. 128. 93. 255. 87
CBC. NCOMB23. 0. 157. 192. 0. 157. 192. 255. 87. 128
CBC. NCOMB24. 255. 0. 128. 148. 87. 255. 0. 128. 57
CBC. NCOMB25. 255. 128. 0. 85. 192. 0. 255. 0. 128
CBC. NCOMB26. 255. 255. 87. 255. 160. 255. 160. 192. 255
CBC. NCOMB27. 0. 192. 192. 192. 0. 128. 93. 255. 87
CBC. NCOMB28. 192. 128. 0. 255. 87. 128. 255. 160. 255
CBC. NCOMB29. 85. 192. 0. 192. 128. 0. 210. 210. 210
CBC. NCOMB30. 212. 160. 255. 255. 128. 0. 78. 0. 255
CBC. NCOMB31. 148. 87. 255. 255. 0. 128. 210. 210. 210
CBC. NCOMB32. 163. 255. 160. 85. 192. 0. 0. 128. 128
CBC. NCOMB33. 255. 0. 192. 163. 160. 255. 210. 210. 210
CBC. NCOMB34. 210. 210. 210. 192. 192. 192. 192. 72. 0
CBC. NCOMB35. 160. 192. 255. 0. 128. 128. 78. 0. 255
ST. NCOMB1. 160. 255. 255. 0. 157. 192. 255. 255. 87
ST. NCOMB2. 255. 255. 87. 255. 192. 87. 255. 87. 87
ST. NCOMB3. 255. 255. 255. 0. 192. 192. 0. 157. 192
ST. NCOMB4. 160. 255. 255. 0. 128. 128. 85. 0. 192
ST. NCOMB5. 148. 87. 255. 212. 160. 255. 93. 255. 87
ST. NCOMB6. 160. 192. 255. 212. 160. 255. 163. 255. 160
ST. NCOMB7. 255. 255. 255. 255. 255. 87. 85. 192. 0
ST. NCOMB8. 0. 192. 128. 255. 192. 160. 192. 192. 192
ST. NCOMB9. 255. 192. 87. 255. 192. 160. 0. 128. 255
ST. NCOMB10. 163. 160. 255. 160. 255. 255. 210. 210. 210
ST. NCOMB11. 163. 255. 160. 0. 128. 128. 255. 192. 160
ST. NCOMB12. 255. 87. 87. 0. 157. 192. 255. 0. 192
ST. NCOMB13. 163. 255. 160. 255. 0. 192. 192. 192. 192
ST. NCOMB14. 255. 0. 128. 0. 128. 57. 212. 160. 255
ST. NCOMB15. 255. 160. 255. 128. 192. 0. 192. 0. 192
ST. NCOMB16. 0. 128. 255. 255. 87. 87. 192. 72. 0
ST. NCOMB17. 0. 192. 192. 0. 192. 128. 146. 0. 255
ST. NCOMB18. 128. 192. 0. 255. 255. 87. 93. 255. 87
ST. NCOMB19. 0. 128. 255. 192. 128. 0. 160. 255. 255
ST. NCOMB20. 192. 128. 0. 0. 128. 255. 255. 255. 255
ST. NCOMB21. 0. 192. 128. 0. 128. 255. 255. 87. 128
ST. NCOMB22. 0. 128. 255. 85. 192. 0. 255. 255. 255
ST. NCOMB23. 212. 160. 255. 163. 160. 255. 0. 128. 57
ST. NCOMB24. 210. 210. 210. 78. 0. 255. 255. 160. 255
ST. NCOMB25. 0. 192. 192. 160. 192. 255. 0. 128. 192
ST. NCOMB26. 255. 192. 87. 192. 72. 0. 148. 87. 255
ST. NCOMB27. 128. 192. 0. 160. 192. 255. 192. 0. 128
ST. NCOMB28. 192. 0. 128. 192. 128. 0. 210. 210. 210

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 ST, NCOMB29, 192, 192, 0, 192, 0, 128, 192, 128, 0
 ST, NCOMB30, 255, 128, 0, 0, 192, 128, 163, 160, 255
 ST, NCOMB31, 128, 192, 0, 0, 192, 128, 163, 255, 160
 ST, NCOMB32, 212, 160, 255, 255, 0, 128, 192, 0, 128
 ST, NCOMB33, 255, 192, 87, 160, 192, 255, 255, 0, 192
 ST, NCOMB34, 160, 192, 255, 255, 255, 87, 192, 192, 192
 ST, NCOMB35, 212, 160, 255, 146, 0, 255, 0, 157, 192

*ANAL-CTRL
; bARDC, bANRC, iITER, TOL, bCSECF, bTRS, bCRBAR, bTPF, bCSO, bSCS, bCLATS
   YES, YES, 20, 0.001, YES, YES, YES, NO, NO, NO, NO


*ENDDATA
        LC1, ST, 1, LC2, ST, 1, LC4, ST, 1, LC6, ST, 0.5, LC9, ST, 1
        LC10, ST, 1, LC11, ST, 1
   NAME=NCOMB29,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC8, ST, 1, LC11, ST, 1
   NAME=NCOMB30,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC8, ST, 1
        LC11, ST, 1
   NAME=NCOMB31,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC9, ST, 1, LC10, ST, 1
        LC11, ST, 1
   NAME=NCOMB32,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC9, ST, 1
        LC10, ST, 1, LC11, ST, 1
   NAME=NCOMB33,
        LC1, ST, 1, LC6, ST, 1
   NAME=NCOMB34,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 1
   NAME=NCOMB35,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 0.5

*LC-COLOR    ; Diagram Color for Load Case
; ANAL, LCNAME, iR1(ALL), iG1(ALL), iB1(ALL), iR2(MIN), iG2(MIN), iB2(MIN), iR3(MAX), iG2(MAX), iB2(MAX)
 CB, COMB1, 255, 0, 128, 255, 0, 128, 148, 87, 255
 CB, COMB2, 160, 192, 255, 255, 192, 160, 0, 128, 192
 CB, COMB3, 146, 0, 255, 160, 192, 255, 192, 128, 0
 CB, COMB4, 85, 192, 0, 212, 160, 255, 128, 192, 0
 CB, COMB5, 192, 0, 128, 0, 128, 57, 212, 160, 255
 CB, COMB6, 0, 128, 192, 212, 160, 255, 212, 160, 255
 CB, COMB7, 255, 0, 128, 0, 192, 192, 160, 192, 255
 CB, COMB8, 255, 192, 87, 192, 0, 192, 212, 160, 255
 CB, COMB9, 163, 160, 255, 192, 128, 0, 78, 0, 255
 CB, COMB10, 0, 128, 192, 85, 192, 0, 85, 0, 192
 CB, COMB11, 160, 192, 255, 93, 255, 87, 0, 157, 192
 CB, COMB12, 192, 192, 0, 255, 160, 255, 148, 87, 255
 CB, COMB13, 255, 128, 0, 255, 192, 87, 192, 0, 128
 CB, COMB14, 0, 128, 57, 255, 0, 128, 212, 160, 255
 CB, COMB15, 0, 192, 192, 0, 192, 128, 192, 0, 128
 CB, COMB16, 0, 128, 128, 255, 255, 87, 255, 128, 0
 CB, COMB17, 85, 192, 0, 255, 0, 192, 163, 255, 160
 CB, COMB18, 0, 128, 192, 128, 192, 0, 128, 192, 0
 CB, COMB19, 163, 160, 255, 146, 0, 255, 255, 87, 128
 CB, COMB20, 163, 255, 160, 160, 192, 255, 192, 192, 192
 CB, COMB21, 160, 255, 255, 0, 192, 128, 128, 192, 0
 CB, COMB22, 163, 255, 160, 192, 192, 192, 160, 192, 255
 CB, COMB23, 255, 192, 87, 0, 128, 255, 255, 87, 87
 CB, COMB24, 93, 255, 87, 192, 192, 0, 146, 0, 255
 CB, COMB25, 255, 0, 192, 255, 0, 192, 192, 72, 0
 CB, COMB26, 0, 192, 128, 255, 255, 87, 0, 128, 57
 CB, COMB27, 0, 157, 192, 0, 128, 255, 255, 0, 128
 CB, COMB28, 255, 192, 160, 0, 157, 192, 0, 192, 192
 CB, COMB29, 255, 128, 0, 192, 192, 0, 0, 192, 128
 CB, COMB30, 255, 160, 255, 0, 157, 192, 255, 87, 87
 CB, COMB31, 0, 192, 192, 160, 192, 255, 148, 87, 255
 CB, COMB32, 255, 128, 0, 146, 0, 255, 255, 255, 255
 CB, COMB33, 0, 157, 192, 0, 128, 57, 192, 72, 0
 CB, COMB34, 163, 255, 160, 212, 160, 255, 128, 192, 0
 CB, COMB35, 93, 255, 87, 0, 192, 128, 85, 192, 0
 CB, USD, 192, 192, 192, 160, 192, 255, 255, 128, 0
 CB, WSD, 0, 128, 57, 163, 255, 160, 160, 255, 255
 ST, LC1, 255, 255, 255, 163, 160, 255, 0, 128, 255
 ST, LC2, 255, 192, 160, 255, 0, 128, 0, 192, 192
 ST, LC3, 146, 0, 255, 78, 0, 255, 255, 192, 87
 ST, LC4, 255, 192, 87, 255, 128, 0, 0, 192, 128
 ST, LC5, 192, 192, 0, 0, 157, 192, 163, 160, 255
 ST, LC6, 255, 87, 128, 255, 87, 128, 255, 87, 87
 ST, LC7, 0, 128, 192, 255, 160, 255, 0, 128, 57
 ST, LC8, 255, 255, 87, 255, 0, 128, 192, 0, 192
 ST, LC9, 160, 255, 255, 255, 0, 192, 163, 255, 160
 ST, LC10, 78, 0, 255, 163, 160, 255, 255, 160, 255
 ST, LC11, 128, 192, 0, 255, 87, 128, 192, 192, 0
 CBC, NCOMB1, 160, 255, 255, 255, 255, 87, 0, 192, 128
 CBC, NCOMB2, 255, 255, 87, 0, 128, 255, 0, 128, 192
 CBC, NCOMB3, 0, 128, 57, 163, 160, 255, 255, 255, 87
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CBC. NCOMB4. 93. 255. 87. 163. 160. 255. 146. 0. 255
CBC. NCOMB5. 163. 160. 255. 255. 192. 160. 78. 0. 255
CBC. NCOMB6. 0. 157. 192. 148. 87. 255. 192. 128. 0
CBC. NCOMB7. 85. 0. 192. 212. 160. 255. 128. 192. 0
CBC. NCOMB8. 192. 0. 128. 212. 160. 255. 0. 192. 128
CBC. NCOMB9. 255. 0. 128. 78. 0. 255. 160. 192. 255
CBC. NCOMB10. 255. 128. 0. 0. 128. 57. 255. 0. 128
CBC. NCOMB11. 163. 255. 160. 93. 255. 87. 255. 0. 192
CBC. NCOMB12. 212. 160. 255. 192. 0. 192. 0. 128. 255
CBC. NCOMB13. 255. 87. 128. 160. 192. 255. 146. 0. 255
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ST. NCOMB33. 146. 0. 255. 255. 192. 87. 192. 72. 0
ST. NCOMB34. 255. 192. 87. 255. 128. 0. 255. 0. 192
ST. NCOMB35. 85. 192. 0. 210. 210. 210. 192. 192. 0

*ANAL-CTRL
; bARDC. bANRC. iITER. TOL. bCSECF. bTRS. bCRBAR. bTPF. bCSO. bSCS. bCLATS
   YES. YES. 20. 0.001. YES. YES. YES. NO. NO. NO. NO

*ENDDATA
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8.OUPUT

FRAME ELEMENT FORCES

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
1	USD(max)	I[1]	59.430	0.000	-300.470	0.00E+00	-143.640	0.000
1	USD(max)	1/4	59.430	0.000	-304.300	0.00E+00	-88.650	0.000
1	USD(max)	2/4	59.430	0.000	-308.130	0.00E+00	-29.160	0.000
1	USD(max)	3/4	59.430	0.000	-311.960	0.00E+00	37.110	0.000
1	USD(max)	J[2]	59.430	0.000	-315.790	0.00E+00	104.200	0.000
1	USD(min)	I[1]	-308.910	0.000	-381.240	0.00E+00	-297.670	0.000
1	USD(min)	1/4	-308.910	0.000	-385.770	0.00E+00	-235.460	0.000
1	USD(min)	2/4	-308.910	0.000	-390.310	0.00E+00	-173.670	0.000
1	USD(min)	3/4	-308.910	0.000	-394.850	0.00E+00	-111.880	0.000
1	USD(min)	J[2]	-308.910	0.000	-399.390	0.00E+00	-52.190	0.000
1	WSD(max)	I[1]	35.900	0.000	-197.410	0.00E+00	-110.640	0.000
1	WSD(max)	1/4	35.900	0.000	-200.250	0.00E+00	-70.040	0.000
1	WSD(max)	2/4	35.900	0.000	-203.090	0.00E+00	-28.940	0.000
1	WSD(max)	3/4	35.900	0.000	-205.920	0.00E+00	12.670	0.000
1	WSD(max)	J[2]	35.900	0.000	-208.760	0.00E+00	54.780	0.000
1	WSD(min)	I[1]	-189.420	0.000	-238.270	0.00E+00	-186.040	0.000
1	WSD(min)	1/4	-189.420	0.000	-241.110	0.00E+00	-143.350	0.000
1	WSD(min)	2/4	-189.420	0.000	-243.950	0.00E+00	-100.150	0.000
1	WSD(min)	3/4	-189.420	0.000	-246.780	0.00E+00	-56.860	0.000
1	WSD(min)	J[2]	-189.420	0.000	-249.620	0.00E+00	-14.820	0.000
2	USD(max)	I[2]	59.430	0.000	-188.880	0.00E+00	104.200	0.000
2	USD(max)	1/4	59.430	0.000	-191.470	0.00E+00	131.160	0.000
2	USD(max)	2/4	59.430	0.000	-194.070	0.00E+00	158.500	0.000
2	USD(max)	3/4	59.430	0.000	-196.660	0.00E+00	186.200	0.000
2	USD(max)	J[3]	59.430	0.000	-199.260	0.00E+00	214.280	0.000
2	USD(min)	I[2]	-308.910	0.000	-286.680	0.00E+00	-52.190	0.000
2	USD(min)	1/4	-308.910	0.000	-289.760	0.00E+00	-25.860	0.000
2	USD(min)	2/4	-308.910	0.000	-292.830	0.00E+00	0.780	0.000
2	USD(min)	3/4	-308.910	0.000	-295.910	0.00E+00	27.740	0.000
2	USD(min)	J[3]	-308.910	0.000	-298.990	0.00E+00	55.010	0.000
2	WSD(max)	I[2]	35.900	0.000	-122.820	0.00E+00	54.780	0.000
2	WSD(max)	1/4	35.900	0.000	-124.750	0.00E+00	71.750	0.000
2	WSD(max)	2/4	35.900	0.000	-126.670	0.00E+00	88.950	0.000
2	WSD(max)	3/4	35.900	0.000	-128.590	0.00E+00	106.390	0.000
2	WSD(max)	J[3]	35.900	0.000	-130.520	0.00E+00	124.050	0.000
2	WSD(min)	I[2]	-189.420	0.000	-179.180	0.00E+00	-14.820	0.000
2	WSD(min)	1/4	-189.420	0.000	-181.100	0.00E+00	3.330	0.000
2	WSD(min)	2/4	-189.420	0.000	-183.020	0.00E+00	21.700	0.000
2	WSD(min)	3/4	-189.420	0.000	-184.940	0.00E+00	40.310	0.000
2	WSD(min)	J[3]	-189.420	0.000	-186.870	0.00E+00	59.150	0.000
3	USD(max)	I[3]	59.430	0.000	-108.590	0.00E+00	214.280	0.000
3	USD(max)	1/4	59.430	0.000	-111.190	0.00E+00	229.870	0.000
3	USD(max)	2/4	59.430	0.000	-113.790	0.00E+00	245.840	0.000
3	USD(max)	3/4	59.430	0.000	-116.390	0.00E+00	262.190	0.000
3	USD(max)	J[4]	59.430	0.000	-118.990	0.00E+00	278.900	0.000
3	USD(min)	I[3]	-308.910	0.000	-215.370	0.00E+00	55.010	0.000
3	USD(min)	1/4	-308.910	0.000	-218.450	0.00E+00	72.290	0.000
3	USD(min)	2/4	-308.910	0.000	-221.530	0.00E+00	89.880	0.000
3	USD(min)	3/4	-308.910	0.000	-224.610	0.00E+00	107.790	0.000
3	USD(min)	J[4]	-308.910	0.000	-227.700	0.00E+00	125.370	0.000
3	WSD(max)	I[3]	35.900	0.000	-70.890	0.00E+00	124.050	0.000
3	WSD(max)	1/4	35.900	0.000	-72.820	0.00E+00	133.890	0.000
3	WSD(max)	2/4	35.900	0.000	-74.750	0.00E+00	143.950	0.000
3	WSD(max)	3/4	35.900	0.000	-76.670	0.00E+00	154.250	0.000
3	WSD(max)	J[4]	35.900	0.000	-78.600	0.00E+00	164.780	0.000
3	WSD(min)	I[3]	-189.420	0.000	-134.600	0.00E+00	59.150	0.000
3	WSD(min)	1/4	-189.420	0.000	-136.530	0.00E+00	70.750	0.000
3	WSD(min)	2/4	-189.420	0.000	-138.460	0.00E+00	82.580	0.000
3	WSD(min)	3/4	-189.420	0.000	-140.380	0.00E+00	94.640	0.000
3	WSD(min)	J[4]	-189.420	0.000	-142.310	0.00E+00	105.530	0.000
4	USD(max)	I[4]	59.430	0.000	-32.280	0.00E+00	278.900	0.000
4	USD(max)	1/4	59.430	0.000	-34.880	0.00E+00	283.650	0.000
4	USD(max)	2/4	59.430	0.000	-37.470	0.00E+00	292.170	0.000
4	USD(max)	3/4	59.430	0.000	-40.070	0.00E+00	304.260	0.000
4	USD(max)	J[5]	59.430	0.000	-42.670	0.00E+00	316.720	0.000
4	USD(min)	I[4]	-308.910	0.000	-141.230	0.00E+00	125.370	0.000
4	USD(min)	1/4	-308.910	0.000	-143.830	0.00E+00	132.500	0.000
4	USD(min)	2/4	-308.910	0.000	-146.910	0.00E+00	139.930	0.000
4	USD(min)	3/4	-308.910	0.000	-149.990	0.00E+00	147.680	0.000
4	USD(min)	J[5]	-308.910	0.000	-153.060	0.00E+00	155.750	0.000
4	WSD(max)	I[4]	35.900	0.000	-20.850	0.00E+00	164.780	0.000
4	WSD(max)	1/4	35.900	0.000	-22.770	0.00E+00	171.010	0.000
4	WSD(max)	2/4	35.900	0.000	-24.700	0.00E+00	179.060	0.000
4	WSD(max)	3/4	35.900	0.000	-26.620	0.00E+00	187.350	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN・m)	Moment-y (kN・m)	Moment-z (kN・m)
4	WSD(max)	J[5]	35.900	0.000	-28.540	0.00E+00	195.860	0.000
4	WSD(min)	I[4]	-189.420	0.000	-87.970	0.00E+00	105.530	0.000
4	WSD(min)	1/4	-189.420	0.000	-89.900	0.00E+00	108.170	0.000
4	WSD(min)	2/4	-189.420	0.000	-91.820	0.00E+00	111.030	0.000
4	WSD(min)	3/4	-189.420	0.000	-93.740	0.00E+00	114.130	0.000
4	WSD(min)	J[5]	-189.420	0.000	-95.660	0.00E+00	117.460	0.000
5	USD(max)	I[5]	59.430	0.000	52.090	0.00E+00	316.720	0.000
5	USD(max)	1/4	59.430	0.000	49.020	0.00E+00	318.440	0.000
5	USD(max)	2/4	59.430	0.000	45.940	0.00E+00	320.540	0.000
5	USD(max)	3/4	59.430	0.000	42.860	0.00E+00	323.540	0.000
5	USD(max)	J[6]	59.430	0.000	39.790	0.00E+00	332.120	0.000
5	USD(min)	I[5]	-308.910	0.000	-71.060	0.00E+00	155.750	0.000
5	USD(min)	1/4	-308.910	0.000	-73.660	0.00E+00	154.020	0.000
5	USD(min)	2/4	-308.910	0.000	-76.260	0.00E+00	152.610	0.000
5	USD(min)	3/4	-308.910	0.000	-78.850	0.00E+00	151.500	0.000
5	USD(min)	J[6]	-308.910	0.000	-81.450	0.00E+00	150.720	0.000
5	WSD(max)	I[5]	35.900	0.000	32.560	0.00E+00	195.860	0.000
5	WSD(max)	1/4	35.900	0.000	30.640	0.00E+00	197.660	0.000
5	WSD(max)	2/4	35.900	0.000	28.710	0.00E+00	199.690	0.000
5	WSD(max)	3/4	35.900	0.000	26.790	0.00E+00	202.210	0.000
5	WSD(max)	J[6]	35.900	0.000	24.870	0.00E+00	207.570	0.000
5	WSD(min)	I[5]	-189.420	0.000	-37.650	0.00E+00	117.460	0.000
5	WSD(min)	1/4	-189.420	0.000	-39.570	0.00E+00	114.130	0.000
5	WSD(min)	2/4	-189.420	0.000	-41.500	0.00E+00	111.030	0.000
5	WSD(min)	3/4	-189.420	0.000	-43.420	0.00E+00	108.170	0.000
5	WSD(min)	J[6]	-189.420	0.000	-45.340	0.00E+00	105.530	0.000
6	USD(max)	I[6]	59.430	0.000	145.250	0.00E+00	332.120	0.000
6	USD(max)	1/4	59.430	0.000	142.160	0.00E+00	328.730	0.000
6	USD(max)	2/4	59.430	0.000	139.080	0.00E+00	325.730	0.000
6	USD(max)	3/4	59.430	0.000	136.000	0.00E+00	323.090	0.000
6	USD(max)	J[7]	59.430	0.000	132.910	0.00E+00	320.830	0.000
6	USD(min)	I[6]	-308.910	0.000	8.280	0.00E+00	150.720	0.000
6	USD(min)	1/4	-308.910	0.000	5.680	0.00E+00	138.050	0.000
6	USD(min)	2/4	-308.910	0.000	3.070	0.00E+00	123.450	0.000
6	USD(min)	3/4	-308.910	0.000	0.470	0.00E+00	109.170	0.000
6	USD(min)	J[7]	-308.910	0.000	-2.130	0.00E+00	95.200	0.000
6	WSD(max)	I[6]	35.900	0.000	90.780	0.00E+00	207.570	0.000
6	WSD(max)	1/4	35.900	0.000	88.850	0.00E+00	205.460	0.000
6	WSD(max)	2/4	35.900	0.000	86.920	0.00E+00	203.580	0.000
6	WSD(max)	3/4	35.900	0.000	85.000	0.00E+00	201.930	0.000
6	WSD(max)	J[7]	35.900	0.000	83.070	0.00E+00	200.520	0.000
6	WSD(min)	I[6]	-189.420	0.000	18.430	0.00E+00	105.530	0.000
6	WSD(min)	1/4	-189.420	0.000	16.500	0.00E+00	96.140	0.000
6	WSD(min)	2/4	-189.420	0.000	14.580	0.00E+00	86.980	0.000
6	WSD(min)	3/4	-189.420	0.000	12.650	0.00E+00	78.050	0.000
6	WSD(min)	J[7]	-189.420	0.000	10.720	0.00E+00	69.350	0.000
7	USD(max)	I[7]	59.430	0.000	241.960	0.00E+00	320.830	0.000
7	USD(max)	1/4	59.430	0.000	238.880	0.00E+00	305.060	0.000
7	USD(max)	2/4	59.430	0.000	235.800	0.00E+00	289.660	0.000
7	USD(max)	3/4	59.430	0.000	232.730	0.00E+00	274.630	0.000
7	USD(max)	J[8]	59.430	0.000	229.650	0.00E+00	259.980	0.000
7	USD(min)	I[7]	-308.910	0.000	100.050	0.00E+00	95.200	0.000
7	USD(min)	1/4	-308.910	0.000	97.450	0.00E+00	70.340	0.000
7	USD(min)	2/4	-308.910	0.000	94.860	0.00E+00	45.800	0.000
7	USD(min)	3/4	-308.910	0.000	92.260	0.00E+00	21.570	0.000
7	USD(min)	J[8]	-308.910	0.000	89.660	0.00E+00	-2.350	0.000
7	WSD(max)	I[7]	35.900	0.000	151.220	0.00E+00	200.520	0.000
7	WSD(max)	1/4	35.900	0.000	149.300	0.00E+00	190.660	0.000
7	WSD(max)	2/4	35.900	0.000	147.380	0.00E+00	181.040	0.000
7	WSD(max)	3/4	35.900	0.000	145.450	0.00E+00	171.650	0.000
7	WSD(max)	J[8]	35.900	0.000	143.530	0.00E+00	162.490	0.000
7	WSD(min)	I[7]	-189.420	0.000	82.590	0.00E+00	69.350	0.000
7	WSD(min)	1/4	-189.420	0.000	80.660	0.00E+00	53.710	0.000
7	WSD(min)	2/4	-189.420	0.000	78.740	0.00E+00	38.300	0.000
7	WSD(min)	3/4	-189.420	0.000	76.820	0.00E+00	23.120	0.000
7	WSD(min)	J[8]	-189.420	0.000	74.890	0.00E+00	8.170	0.000
8	USD(max)	I[8]	59.430	0.000	387.170	0.00E+00	259.980	0.000
8	USD(max)	1/4	59.430	0.000	382.640	0.00E+00	206.730	0.000
8	USD(max)	2/4	59.430	0.000	378.100	0.00E+00	155.760	0.000
8	USD(max)	3/4	59.430	0.000	373.560	0.00E+00	112.540	0.000
8	USD(max)	J[9]	59.430	0.000	369.020	0.00E+00	70.000	0.000
8	USD(min)	I[8]	-308.910	0.000	252.210	0.00E+00	-2.350	0.000
8	USD(min)	1/4	-308.910	0.000	248.380	0.00E+00	-61.180	0.000
8	USD(min)	2/4	-308.910	0.000	244.550	0.00E+00	-121.670	0.000
8	USD(min)	3/4	-308.910	0.000	240.720	0.00E+00	-181.830	0.000
8	USD(min)	J[9]	-308.910	0.000	236.890	0.00E+00	-247.970	0.000
8	WSD(max)	I[8]	35.900	0.000	241.980	0.00E+00	162.490	0.000
8	WSD(max)	1/4	35.900	0.000	239.150	0.00E+00	129.210	0.000
8	WSD(max)	2/4	35.900	0.000	236.310	0.00E+00	96.430	0.000
8	WSD(max)	3/4	35.900	0.000	233.470	0.00E+00	64.170	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN・m)	Moment-y (kN・m)	Moment-z (kN・m)
8	WSD(max)	J[9]	35.900	0.000	230.640	0.00E+00	32.400	0.000
8	WSD(min)	I[8]	-189.420	0.000	188.250	0.00E+00	8.170	0.000
8	WSD(min)	1/4	-189.420	0.000	185.410	0.00E+00	-29.460	0.000
8	WSD(min)	2/4	-189.420	0.000	182.570	0.00E+00	-71.800	0.000
8	WSD(min)	3/4	-189.420	0.000	179.740	0.00E+00	-113.640	0.000
8	WSD(min)	J[9]	-189.420	0.000	176.900	0.00E+00	-154.980	0.000
9	USD(max)	I[1]	-425.920	0.000	-100.050	0.00E+00	-164.350	0.000
9	USD(max)	1/4	-421.820	0.000	-93.570	0.00E+00	-146.230	0.000
9	USD(max)	2/4	-417.730	0.000	-87.230	0.00E+00	-129.660	0.000
9	USD(max)	3/4	-413.640	0.000	-81.020	0.00E+00	-106.930	0.000
9	USD(max)	J[10]	-409.540	0.000	-74.940	0.00E+00	-74.590	0.000
9	USD(min)	I[1]	-549.770	0.000	-305.450	0.00E+00	-314.160	0.000
9	USD(min)	1/4	-544.920	0.000	-282.510	0.00E+00	-283.360	0.000
9	USD(min)	2/4	-540.070	0.000	-259.930	0.00E+00	-254.740	0.000
9	USD(min)	3/4	-535.220	0.000	-237.710	0.00E+00	-228.250	0.000
9	USD(min)	J[10]	-530.370	0.000	-215.850	0.00E+00	-203.830	0.000
9	WSD(max)	I[1]	-295.260	0.000	-74.580	0.00E+00	-124.390	0.000
9	WSD(max)	1/4	-292.230	0.000	-69.630	0.00E+00	-109.690	0.000
9	WSD(max)	2/4	-289.200	0.000	-64.800	0.00E+00	-88.610	0.000
9	WSD(max)	3/4	-286.170	0.000	-60.080	0.00E+00	-68.430	0.000
9	WSD(max)	J[10]	-283.140	0.000	-55.470	0.00E+00	-50.240	0.000
9	WSD(min)	I[1]	-343.610	0.000	-185.650	0.00E+00	-196.350	0.000
9	WSD(min)	1/4	-340.580	0.000	-171.530	0.00E+00	-177.100	0.000
9	WSD(min)	2/4	-337.540	0.000	-157.630	0.00E+00	-159.210	0.000
9	WSD(min)	3/4	-334.510	0.000	-143.950	0.00E+00	-142.660	0.000
9	WSD(min)	J[10]	-331.480	0.000	-130.510	0.00E+00	-127.390	0.000
10	USD(max)	I[9]	-427.370	0.000	59.430	0.00E+00	27.230	0.000
10	USD(max)	1/4	-423.270	0.000	59.430	0.00E+00	17.570	0.000
10	USD(max)	2/4	-419.180	0.000	59.430	0.00E+00	7.910	0.000
10	USD(max)	3/4	-415.090	0.000	59.430	0.00E+00	-1.750	0.000
10	USD(max)	J[11]	-410.990	0.000	59.430	0.00E+00	-11.400	0.000
10	USD(min)	I[9]	-549.770	0.000	-283.800	0.00E+00	-247.600	0.000
10	USD(min)	1/4	-544.920	0.000	-260.860	0.00E+00	-204.210	0.000
10	USD(min)	2/4	-540.070	0.000	-238.280	0.00E+00	-164.470	0.000
10	USD(min)	3/4	-535.220	0.000	-216.060	0.00E+00	-135.980	0.000
10	USD(min)	J[11]	-530.370	0.000	-194.200	0.00E+00	-122.130	0.000
10	WSD(max)	I[9]	-295.260	0.000	35.900	0.00E+00	1.950	0.000
10	WSD(max)	1/4	-292.230	0.000	35.900	0.00E+00	-3.880	0.000
10	WSD(max)	2/4	-289.200	0.000	35.900	0.00E+00	-9.720	0.000
10	WSD(max)	3/4	-286.170	0.000	35.900	0.00E+00	-15.550	0.000
10	WSD(max)	J[11]	-283.140	0.000	35.900	0.00E+00	-21.380	0.000
10	WSD(min)	I[9]	-343.610	0.000	-173.950	0.00E+00	-154.750	0.000
10	WSD(min)	1/4	-340.580	0.000	-159.830	0.00E+00	-127.630	0.000
10	WSD(min)	2/4	-337.540	0.000	-145.930	0.00E+00	-102.790	0.000
10	WSD(min)	3/4	-334.510	0.000	-132.260	0.00E+00	-84.030	0.000
10	WSD(min)	J[11]	-331.480	0.000	-118.810	0.00E+00	-73.020	0.000
11	USD(max)	I[10]	-409.540	0.000	-74.940	0.00E+00	-74.590	0.000
11	USD(max)	1/4	-406.070	0.000	-68.550	0.00E+00	-43.590	0.000
11	USD(max)	2/4	-402.600	0.000	-59.580	0.00E+00	-16.490	0.000
11	USD(max)	3/4	-399.120	0.000	-50.170	0.00E+00	6.790	0.000
11	USD(max)	J[12]	-395.650	0.000	-40.930	0.00E+00	26.320	0.000
11	USD(min)	I[10]	-530.370	0.000	-215.850	0.00E+00	-203.830	0.000
11	USD(min)	1/4	-526.250	0.000	-192.710	0.00E+00	-179.780	0.000
11	USD(min)	2/4	-522.140	0.000	-169.980	0.00E+00	-157.990	0.000
11	USD(min)	3/4	-518.020	0.000	-147.680	0.00E+00	-143.020	0.000
11	USD(min)	J[12]	-513.900	0.000	-125.790	0.00E+00	-133.700	0.000
11	WSD(max)	I[10]	-283.140	0.000	-55.470	0.00E+00	-50.240	0.000
11	WSD(max)	1/4	-280.560	0.000	-50.640	0.00E+00	-32.810	0.000
11	WSD(max)	2/4	-277.990	0.000	-45.930	0.00E+00	-17.600	0.000
11	WSD(max)	3/4	-275.420	0.000	-40.860	0.00E+00	-4.550	0.000
11	WSD(max)	J[12]	-272.850	0.000	-33.400	0.00E+00	6.380	0.000
11	WSD(min)	I[10]	-331.480	0.000	-130.510	0.00E+00	-127.390	0.000
11	WSD(min)	1/4	-328.910	0.000	-116.270	0.00E+00	-112.360	0.000
11	WSD(min)	2/4	-326.330	0.000	-102.300	0.00E+00	-98.740	0.000
11	WSD(min)	3/4	-323.760	0.000	-88.590	0.00E+00	-88.810	0.000
11	WSD(min)	J[12]	-321.190	0.000	-75.140	0.00E+00	-81.960	0.000
12	USD(max)	I[11]	-410.990	0.000	59.430	0.00E+00	-11.400	0.000
12	USD(max)	1/4	-407.520	0.000	59.430	0.00E+00	-10.010	0.000
12	USD(max)	2/4	-404.050	0.000	59.430	0.00E+00	10.730	0.000
12	USD(max)	3/4	-400.580	0.000	59.430	0.00E+00	28.010	0.000
12	USD(max)	J[13]	-397.100	0.000	59.430	0.00E+00	41.890	0.000
12	USD(min)	I[11]	-530.370	0.000	-194.200	0.00E+00	-122.130	0.000
12	USD(min)	1/4	-526.250	0.000	-171.060	0.00E+00	-108.910	0.000
12	USD(min)	2/4	-522.140	0.000	-148.340	0.00E+00	-97.440	0.000
12	USD(min)	3/4	-518.020	0.000	-126.040	0.00E+00	-94.260	0.000
12	USD(min)	J[13]	-513.900	0.000	-104.150	0.00E+00	-100.690	0.000
12	WSD(max)	I[11]	-283.140	0.000	35.900	0.00E+00	-21.380	0.000
12	WSD(max)	1/4	-280.560	0.000	35.900	0.00E+00	-20.290	0.000
12	WSD(max)	2/4	-277.990	0.000	35.900	0.00E+00	-7.110	0.000
12	WSD(max)	3/4	-275.420	0.000	35.900	0.00E+00	3.900	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
12	WSD(max)	J[13]	-272.850	0.000	35.900	0.00E+00	12.800	0.000
12	WSD(min)	I[11]	-331.480	0.000	-118.810	0.00E+00	-73.020	0.000
12	WSD(min)	1/4	-328.910	0.000	-104.570	0.00E+00	-62.510	0.000
12	WSD(min)	2/4	-326.330	0.000	-90.600	0.00E+00	-53.360	0.000
12	WSD(min)	3/4	-323.760	0.000	-76.890	0.00E+00	-55.180	0.000
12	WSD(min)	J[13]	-321.190	0.000	-63.440	0.00E+00	-59.650	0.000
13	USD(max)	I[12]	-395.650	0.000	-40.930	0.00E+00	26.320	0.000
13	USD(max)	1/4	-392.180	0.000	-31.830	0.00E+00	42.170	0.000
13	USD(max)	2/4	-388.710	0.000	-22.800	0.00E+00	54.420	0.000
13	USD(max)	3/4	-385.230	0.000	-13.730	0.00E+00	63.140	0.000
13	USD(max)	J[14]	-381.760	0.000	-4.820	0.00E+00	71.560	0.000
13	USD(min)	I[12]	-513.900	0.000	-125.790	0.00E+00	-133.700	0.000
13	USD(min)	1/4	-509.790	0.000	-104.320	0.00E+00	-125.400	0.000
13	USD(min)	2/4	-505.670	0.000	-83.270	0.00E+00	-118.100	0.000
13	USD(min)	3/4	-501.560	0.000	-65.420	0.00E+00	-111.760	0.000
13	USD(min)	J[14]	-497.440	0.000	-54.860	0.00E+00	-106.370	0.000
13	WSD(max)	I[12]	-272.850	0.000	-33.400	0.00E+00	6.380	0.000
13	WSD(max)	1/4	-270.270	0.000	-26.070	0.00E+00	15.230	0.000
13	WSD(max)	2/4	-267.700	0.000	-18.870	0.00E+00	22.060	0.000
13	WSD(max)	3/4	-265.130	0.000	-11.800	0.00E+00	26.910	0.000
13	WSD(max)	J[14]	-262.560	0.000	-4.860	0.00E+00	31.660	0.000
13	WSD(min)	I[12]	-321.190	0.000	-75.140	0.00E+00	-81.960	0.000
13	WSD(min)	1/4	-318.620	0.000	-61.950	0.00E+00	-75.880	0.000
13	WSD(min)	2/4	-316.040	0.000	-49.030	0.00E+00	-70.540	0.000
13	WSD(min)	3/4	-313.470	0.000	-38.100	0.00E+00	-65.930	0.000
13	WSD(min)	J[14]	-310.900	0.000	-31.730	0.00E+00	-62.010	0.000
14	USD(max)	I[13]	-397.100	0.000	59.430	0.00E+00	41.890	0.000
14	USD(max)	1/4	-393.630	0.000	59.430	0.00E+00	52.460	0.000
14	USD(max)	2/4	-390.160	0.000	59.430	0.00E+00	59.780	0.000
14	USD(max)	3/4	-386.680	0.000	59.430	0.00E+00	63.940	0.000
14	USD(max)	J[15]	-383.210	0.000	59.430	0.00E+00	68.470	0.000
14	USD(min)	I[13]	-513.900	0.000	-104.150	0.00E+00	-100.690	0.000
14	USD(min)	1/4	-509.790	0.000	-82.680	0.00E+00	-107.130	0.000
14	USD(min)	2/4	-505.670	0.000	-61.630	0.00E+00	-113.560	0.000
14	USD(min)	3/4	-501.560	0.000	-41.000	0.00E+00	-119.990	0.000
14	USD(min)	J[15]	-497.440	0.000	-20.780	0.00E+00	-126.430	0.000
14	WSD(max)	I[13]	-272.850	0.000	35.900	0.00E+00	12.800	0.000
14	WSD(max)	1/4	-270.270	0.000	35.900	0.00E+00	19.630	0.000
14	WSD(max)	2/4	-267.700	0.000	35.900	0.00E+00	24.420	0.000
14	WSD(max)	3/4	-265.130	0.000	35.900	0.00E+00	27.240	0.000
14	WSD(max)	J[15]	-262.560	0.000	35.900	0.00E+00	30.000	0.000
14	WSD(min)	I[13]	-321.190	0.000	-63.440	0.00E+00	-59.650	0.000
14	WSD(min)	1/4	-318.620	0.000	-50.250	0.00E+00	-64.120	0.000
14	WSD(min)	2/4	-316.040	0.000	-37.330	0.00E+00	-68.590	0.000
14	WSD(min)	3/4	-313.470	0.000	-24.660	0.00E+00	-73.070	0.000
14	WSD(min)	J[15]	-310.900	0.000	-12.260	0.00E+00	-77.540	0.000
15	USD(max)	I[14]	-381.760	0.000	-4.820	0.00E+00	71.560	0.000
15	USD(max)	1/4	-378.290	0.000	3.940	0.00E+00	77.240	0.000
15	USD(max)	2/4	-374.810	0.000	18.840	0.00E+00	79.500	0.000
15	USD(max)	3/4	-371.340	0.000	37.430	0.00E+00	78.400	0.000
15	USD(max)	J[16]	-367.870	0.000	55.910	0.00E+00	74.020	0.000
15	USD(min)	I[14]	-497.440	0.000	-54.860	0.00E+00	-106.370	0.000
15	USD(min)	1/4	-493.320	0.000	-44.710	0.00E+00	-101.880	0.000
15	USD(min)	2/4	-489.210	0.000	-34.980	0.00E+00	-98.290	0.000
15	USD(min)	3/4	-485.090	0.000	-25.670	0.00E+00	-95.550	0.000
15	USD(min)	J[16]	-480.980	0.000	-16.770	0.00E+00	-93.640	0.000
15	WSD(max)	I[14]	-262.560	0.000	-4.860	0.00E+00	31.660	0.000
15	WSD(max)	1/4	-259.980	0.000	1.950	0.00E+00	34.790	0.000
15	WSD(max)	2/4	-257.410	0.000	11.770	0.00E+00	35.810	0.000
15	WSD(max)	3/4	-254.840	0.000	23.400	0.00E+00	34.780	0.000
15	WSD(max)	J[16]	-252.270	0.000	34.760	0.00E+00	31.730	0.000
15	WSD(min)	I[14]	-310.900	0.000	-31.730	0.00E+00	-62.010	0.000
15	WSD(min)	1/4	-308.330	0.000	-25.610	0.00E+00	-58.760	0.000
15	WSD(min)	2/4	-305.750	0.000	-19.760	0.00E+00	-56.170	0.000
15	WSD(min)	3/4	-303.180	0.000	-14.170	0.00E+00	-54.210	0.000
15	WSD(min)	J[16]	-300.610	0.000	-8.840	0.00E+00	-52.850	0.000
16	USD(max)	I[15]	-383.210	0.000	59.430	0.00E+00	68.470	0.000
16	USD(max)	1/4	-379.740	0.000	59.430	0.00E+00	70.370	0.000
16	USD(max)	2/4	-376.270	0.000	59.430	0.00E+00	68.840	0.000
16	USD(max)	3/4	-372.790	0.000	59.430	0.00E+00	64.140	0.000
16	USD(max)	J[17]	-369.320	0.000	68.490	0.00E+00	56.300	0.000
16	USD(min)	I[15]	-497.440	0.000	-20.780	0.00E+00	-126.430	0.000
16	USD(min)	1/4	-493.320	0.000	-1.160	0.00E+00	-132.860	0.000
16	USD(min)	2/4	-489.210	0.000	11.270	0.00E+00	-139.290	0.000
16	USD(min)	3/4	-485.090	0.000	19.420	0.00E+00	-145.720	0.000
16	USD(min)	J[17]	-480.980	0.000	27.410	0.00E+00	-154.820	0.000
16	WSD(max)	I[15]	-262.560	0.000	35.900	0.00E+00	30.000	0.000
16	WSD(max)	1/4	-259.980	0.000	35.900	0.00E+00	31.070	0.000
16	WSD(max)	2/4	-257.410	0.000	35.900	0.00E+00	30.050	0.000
16	WSD(max)	3/4	-254.840	0.000	35.900	0.00E+00	27.390	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
16	WSD(max)	J[17]	-252.270	0.000	41.560	0.00E+00	23.010	0.000
16	WSD(min)	I[15]	-310.900	0.000	-12.260	0.00E+00	-77.540	0.000
16	WSD(min)	1/4	-308.330	0.000	-0.510	0.00E+00	-82.010	0.000
16	WSD(min)	2/4	-305.750	0.000	8.630	0.00E+00	-86.490	0.000
16	WSD(min)	3/4	-303.180	0.000	15.170	0.00E+00	-90.960	0.000
16	WSD(min)	J[17]	-300.610	0.000	21.590	0.00E+00	-96.760	0.000
17	USD(max)	I[16]	-367.870	0.000	55.910	0.00E+00	74.020	0.000
17	USD(max)	1/4	-364.400	0.000	74.040	0.00E+00	66.430	0.000
17	USD(max)	2/4	-360.920	0.000	91.760	0.00E+00	55.700	0.000
17	USD(max)	3/4	-357.450	0.000	109.050	0.00E+00	41.910	0.000
17	USD(max)	J[18]	-353.980	0.000	125.930	0.00E+00	25.130	0.000
17	USD(min)	I[16]	-480.980	0.000	-16.770	0.00E+00	-93.640	0.000
17	USD(min)	1/4	-476.860	0.000	-8.300	0.00E+00	-92.540	0.000
17	USD(min)	2/4	-472.740	0.000	-1.600	0.00E+00	-92.210	0.000
17	USD(min)	3/4	-468.630	0.000	2.970	0.00E+00	-93.980	0.000
17	USD(min)	J[18]	-464.510	0.000	7.380	0.00E+00	-103.970	0.000
17	WSD(max)	I[16]	-252.270	0.000	34.760	0.00E+00	31.730	0.000
17	WSD(max)	1/4	-249.690	0.000	45.860	0.00E+00	26.720	0.000
17	WSD(max)	2/4	-247.120	0.000	56.700	0.00E+00	19.790	0.000
17	WSD(max)	3/4	-244.550	0.000	67.280	0.00E+00	10.990	0.000
17	WSD(max)	J[18]	-241.980	0.000	77.600	0.00E+00	0.350	0.000
17	WSD(min)	I[16]	-300.610	0.000	-8.840	0.00E+00	-52.850	0.000
17	WSD(min)	1/4	-298.040	0.000	-3.770	0.00E+00	-52.080	0.000
17	WSD(min)	2/4	-295.460	0.000	0.350	0.00E+00	-51.870	0.000
17	WSD(min)	3/4	-292.890	0.000	3.360	0.00E+00	-52.200	0.000
17	WSD(min)	J[18]	-290.320	0.000	6.240	0.00E+00	-55.520	0.000
18	USD(max)	I[17]	-369.320	0.000	68.490	0.00E+00	56.300	0.000
18	USD(max)	1/4	-365.850	0.000	83.900	0.00E+00	45.360	0.000
18	USD(max)	2/4	-362.370	0.000	98.890	0.00E+00	31.390	0.000
18	USD(max)	3/4	-358.900	0.000	113.460	0.00E+00	14.490	0.000
18	USD(max)	J[19]	-355.430	0.000	127.620	0.00E+00	-5.300	0.000
18	USD(min)	I[17]	-480.980	0.000	27.410	0.00E+00	-154.820	0.000
18	USD(min)	1/4	-476.860	0.000	35.250	0.00E+00	-164.870	0.000
18	USD(min)	2/4	-472.740	0.000	36.760	0.00E+00	-174.930	0.000
18	USD(min)	3/4	-468.630	0.000	36.760	0.00E+00	-184.980	0.000
18	USD(min)	J[19]	-464.510	0.000	36.760	0.00E+00	-195.030	0.000
18	WSD(max)	I[17]	-252.270	0.000	41.560	0.00E+00	23.010	0.000
18	WSD(max)	1/4	-249.690	0.000	51.190	0.00E+00	16.920	0.000
18	WSD(max)	2/4	-247.120	0.000	60.560	0.00E+00	9.170	0.000
18	WSD(max)	3/4	-244.550	0.000	69.660	0.00E+00	-0.190	0.000
18	WSD(max)	J[19]	-241.980	0.000	78.510	0.00E+00	-11.130	0.000
18	WSD(min)	I[17]	-300.610	0.000	21.590	0.00E+00	-96.760	0.000
18	WSD(min)	1/4	-298.040	0.000	25.560	0.00E+00	-103.050	0.000
18	WSD(min)	2/4	-295.460	0.000	25.560	0.00E+00	-109.330	0.000
18	WSD(min)	3/4	-292.890	0.000	25.560	0.00E+00	-115.610	0.000
18	WSD(min)	J[19]	-290.320	0.000	25.560	0.00E+00	-121.890	0.000
19	USD(max)	I[18]	-353.980	0.000	125.930	0.00E+00	25.130	0.000
19	USD(max)	1/4	-350.500	0.000	142.390	0.00E+00	5.440	0.000
19	USD(max)	2/4	-347.030	0.000	158.430	0.00E+00	-17.100	0.000
19	USD(max)	3/4	-343.560	0.000	174.050	0.00E+00	-37.540	0.000
19	USD(max)	J[20]	-340.090	0.000	189.260	0.00E+00	-43.940	0.000
19	USD(min)	I[18]	-464.510	0.000	7.380	0.00E+00	-103.970	0.000
19	USD(min)	1/4	-460.400	0.000	11.630	0.00E+00	-115.280	0.000
19	USD(min)	2/4	-456.280	0.000	15.730	0.00E+00	-127.890	0.000
19	USD(min)	3/4	-452.160	0.000	19.670	0.00E+00	-141.770	0.000
19	USD(min)	J[20]	-448.050	0.000	23.130	0.00E+00	-156.900	0.000
19	WSD(max)	I[18]	-241.980	0.000	77.600	0.00E+00	0.350	0.000
19	WSD(max)	1/4	-239.400	0.000	87.650	0.00E+00	-12.060	0.000
19	WSD(max)	2/4	-236.830	0.000	97.450	0.00E+00	-26.220	0.000
19	WSD(max)	3/4	-234.260	0.000	106.990	0.00E+00	-39.010	0.000
19	WSD(max)	J[20]	-231.690	0.000	116.260	0.00E+00	-43.000	0.000
19	WSD(min)	I[18]	-290.320	0.000	6.240	0.00E+00	-55.520	0.000
19	WSD(min)	1/4	-287.750	0.000	8.990	0.00E+00	-64.070	0.000
19	WSD(min)	2/4	-285.170	0.000	11.600	0.00E+00	-73.620	0.000
19	WSD(min)	3/4	-282.600	0.000	14.090	0.00E+00	-84.130	0.000
19	WSD(min)	J[20]	-280.030	0.000	16.450	0.00E+00	-95.610	0.000
20	USD(max)	I[19]	-355.430	0.000	127.620	0.00E+00	-5.300	0.000
20	USD(max)	1/4	-351.960	0.000	142.390	0.00E+00	-27.880	0.000
20	USD(max)	2/4	-348.480	0.000	158.430	0.00E+00	-53.190	0.000
20	USD(max)	3/4	-345.010	0.000	174.050	0.00E+00	-81.160	0.000
20	USD(max)	J[21]	-341.540	0.000	189.260	0.00E+00	-111.700	0.000
20	USD(min)	I[19]	-464.510	0.000	36.760	0.00E+00	-195.030	0.000
20	USD(min)	1/4	-460.400	0.000	36.760	0.00E+00	-205.080	0.000
20	USD(min)	2/4	-456.280	0.000	36.760	0.00E+00	-215.130	0.000
20	USD(min)	3/4	-452.160	0.000	36.760	0.00E+00	-225.180	0.000
20	USD(min)	J[21]	-448.050	0.000	36.760	0.00E+00	-235.230	0.000
20	WSD(max)	I[19]	-241.980	0.000	78.510	0.00E+00	-11.130	0.000
20	WSD(max)	1/4	-239.400	0.000	87.650	0.00E+00	-23.590	0.000
20	WSD(max)	2/4	-236.830	0.000	97.450	0.00E+00	-37.530	0.000
20	WSD(max)	3/4	-234.260	0.000	106.990	0.00E+00	-52.910	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
20	WSD(max)	J[21]	-231.690	0.000	116.260	0.00E+00	-69.670	0.000
20	WSD(min)	I[19]	-290.320	0.000	25.560	0.00E+00	-121.890	0.000
20	WSD(min)	1/4	-287.750	0.000	25.560	0.00E+00	-128.170	0.000
20	WSD(min)	2/4	-285.170	0.000	25.560	0.00E+00	-134.460	0.000
20	WSD(min)	3/4	-282.600	0.000	25.560	0.00E+00	-140.740	0.000
20	WSD(min)	J[21]	-280.030	0.000	25.560	0.00E+00	-147.020	0.000
21	USD(max)	I[20]	-340.090	0.000	189.260	0.00E+00	-43.940	0.000
21	USD(max)	1/4	-336.120	0.000	199.870	0.00E+00	-49.100	0.000
21	USD(max)	2/4	-332.150	0.000	210.260	0.00E+00	-54.700	0.000
21	USD(max)	3/4	-328.180	0.000	220.440	0.00E+00	-60.730	0.000
21	USD(max)	J[22]	-324.210	0.000	230.410	0.00E+00	-67.160	0.000
21	USD(min)	I[20]	-448.050	0.000	23.130	0.00E+00	-156.900	0.000
21	USD(min)	1/4	-443.340	0.000	25.480	0.00E+00	-168.450	0.000
21	USD(min)	2/4	-438.640	0.000	27.740	0.00E+00	-186.340	0.000
21	USD(min)	3/4	-433.940	0.000	29.930	0.00E+00	-212.770	0.000
21	USD(min)	J[22]	-429.230	0.000	32.030	0.00E+00	-240.430	0.000
21	WSD(max)	I[20]	-231.690	0.000	116.260	0.00E+00	-43.000	0.000
21	WSD(max)	1/4	-228.750	0.000	122.730	0.00E+00	-46.190	0.000
21	WSD(max)	2/4	-225.810	0.000	129.060	0.00E+00	-49.640	0.000
21	WSD(max)	3/4	-222.870	0.000	135.260	0.00E+00	-53.330	0.000
21	WSD(max)	J[22]	-219.930	0.000	141.320	0.00E+00	-57.250	0.000
21	WSD(min)	I[20]	-280.030	0.000	16.450	0.00E+00	-95.610	0.000
21	WSD(min)	1/4	-277.090	0.000	18.050	0.00E+00	-104.370	0.000
21	WSD(min)	2/4	-274.150	0.000	19.590	0.00E+00	-116.460	0.000
21	WSD(min)	3/4	-271.210	0.000	21.060	0.00E+00	-132.980	0.000
21	WSD(min)	J[22]	-268.270	0.000	22.460	0.00E+00	-150.270	0.000
22	USD(max)	I[21]	-341.540	0.000	189.260	0.00E+00	-111.700	0.000
22	USD(max)	1/4	-337.570	0.000	199.870	0.00E+00	-135.060	0.000
22	USD(max)	2/4	-333.600	0.000	210.260	0.00E+00	-153.960	0.000
22	USD(max)	3/4	-329.630	0.000	220.440	0.00E+00	-166.130	0.000
22	USD(max)	J[30]	-325.660	0.000	230.410	0.00E+00	-178.870	0.000
22	USD(min)	I[21]	-448.050	0.000	36.760	0.00E+00	-235.230	0.000
22	USD(min)	1/4	-443.340	0.000	36.760	0.00E+00	-242.410	0.000
22	USD(min)	2/4	-438.640	0.000	36.760	0.00E+00	-249.590	0.000
22	USD(min)	3/4	-433.940	0.000	36.760	0.00E+00	-256.770	0.000
22	USD(min)	J[30]	-429.230	0.000	36.760	0.00E+00	-263.950	0.000
22	WSD(max)	I[21]	-231.690	0.000	116.260	0.00E+00	-69.670	0.000
22	WSD(max)	1/4	-228.750	0.000	122.730	0.00E+00	-82.470	0.000
22	WSD(max)	2/4	-225.810	0.000	129.060	0.00E+00	-95.940	0.000
22	WSD(max)	3/4	-222.870	0.000	135.260	0.00E+00	-110.060	0.000
22	WSD(max)	J[30]	-219.930	0.000	141.320	0.00E+00	-124.810	0.000
22	WSD(min)	I[21]	-280.030	0.000	25.560	0.00E+00	-147.020	0.000
22	WSD(min)	1/4	-277.090	0.000	25.560	0.00E+00	-151.510	0.000
22	WSD(min)	2/4	-274.150	0.000	25.560	0.00E+00	-155.990	0.000
22	WSD(min)	3/4	-271.210	0.000	25.560	0.00E+00	-160.480	0.000
22	WSD(min)	J[30]	-268.270	0.000	25.560	0.00E+00	-164.970	0.000
23	USD(max)	I[22]	-36.760	0.000	-273.820	0.00E+00	5.660	0.000
23	USD(max)	1/4	-36.760	0.000	-252.820	0.00E+00	38.580	0.000
23	USD(max)	2/4	-36.760	0.000	-231.830	0.00E+00	68.870	0.000
23	USD(max)	3/4	-36.760	0.000	-210.830	0.00E+00	100.770	0.000
23	USD(max)	J[23]	-36.760	0.000	-189.830	0.00E+00	130.100	0.000
23	USD(min)	I[22]	-253.460	0.000	-373.240	0.00E+00	-191.290	0.000
23	USD(min)	1/4	-253.460	0.000	-349.920	0.00E+00	-147.600	0.000
23	USD(min)	2/4	-253.460	0.000	-326.590	0.00E+00	-109.550	0.000
23	USD(min)	3/4	-253.460	0.000	-303.260	0.00E+00	-74.110	0.000
23	USD(min)	J[23]	-253.460	0.000	-279.930	0.00E+00	-41.310	0.000
23	WSD(max)	I[22]	-25.560	0.000	-191.240	0.00E+00	-2.940	0.000
23	WSD(max)	1/4	-25.560	0.000	-179.290	0.00E+00	20.860	0.000
23	WSD(max)	2/4	-25.560	0.000	-167.340	0.00E+00	42.830	0.000
23	WSD(max)	3/4	-25.560	0.000	-153.920	0.00E+00	62.980	0.000
23	WSD(max)	J[23]	-25.560	0.000	-139.340	0.00E+00	81.310	0.000
23	WSD(min)	I[22]	-155.340	0.000	-233.280	0.00E+00	-119.550	0.000
23	WSD(min)	1/4	-155.340	0.000	-218.700	0.00E+00	-91.310	0.000
23	WSD(min)	2/4	-155.340	0.000	-204.120	0.00E+00	-64.880	0.000
23	WSD(min)	3/4	-155.340	0.000	-189.540	0.00E+00	-40.280	0.000
23	WSD(min)	J[23]	-155.340	0.000	-174.960	0.00E+00	-17.500	0.000
24	USD(max)	I[23]	-36.760	0.000	-189.830	0.00E+00	130.100	0.000
24	USD(max)	1/4	-36.760	0.000	-168.840	0.00E+00	156.510	0.000
24	USD(max)	2/4	-36.760	0.000	-147.840	0.00E+00	180.000	0.000
24	USD(max)	3/4	-36.760	0.000	-126.840	0.00E+00	200.580	0.000
24	USD(max)	J[24]	-36.760	0.000	-105.850	0.00E+00	218.240	0.000
24	USD(min)	I[23]	-253.460	0.000	-279.930	0.00E+00	-41.310	0.000
24	USD(min)	1/4	-253.460	0.000	-256.610	0.00E+00	-12.770	0.000
24	USD(min)	2/4	-253.460	0.000	-233.280	0.00E+00	13.240	0.000
24	USD(min)	3/4	-253.460	0.000	-209.950	0.00E+00	36.770	0.000
24	USD(min)	J[24]	-253.460	0.000	-186.620	0.00E+00	57.820	0.000
24	WSD(max)	I[23]	-25.560	0.000	-139.340	0.00E+00	81.310	0.000
24	WSD(max)	1/4	-25.560	0.000	-124.760	0.00E+00	97.820	0.000
24	WSD(max)	2/4	-25.560	0.000	-110.180	0.00E+00	112.500	0.000
24	WSD(max)	3/4	-25.560	0.000	-95.600	0.00E+00	125.360	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
24	WSD(max)	J[24]	-25.560	0.000	-81.020	0.00E+00	136.400	0.000
24	WSD(min)	I[23]	-155.340	0.000	-174.960	0.00E+00	-17.500	0.000
24	WSD(min)	1/4	-155.340	0.000	-160.380	0.00E+00	-0.190	0.000
24	WSD(min)	2/4	-155.340	0.000	-145.800	0.00E+00	15.500	0.000
24	WSD(min)	3/4	-155.340	0.000	-131.220	0.00E+00	29.690	0.000
24	WSD(min)	J[24]	-155.340	0.000	-116.640	0.00E+00	42.390	0.000
25	USD(max)	I[24]	-36.760	0.000	-105.850	0.00E+00	218.240	0.000
25	USD(max)	1/4	-36.760	0.000	-84.850	0.00E+00	233.270	0.000
25	USD(max)	2/4	-36.760	0.000	-63.850	0.00E+00	246.990	0.000
25	USD(max)	3/4	-36.760	0.000	-42.860	0.00E+00	257.790	0.000
25	USD(max)	J[25]	-36.760	0.000	-21.860	0.00E+00	265.670	0.000
25	USD(min)	I[24]	-253.460	0.000	-186.620	0.00E+00	57.820	0.000
25	USD(min)	1/4	-253.460	0.000	-163.290	0.00E+00	76.390	0.000
25	USD(min)	2/4	-253.460	0.000	-139.970	0.00E+00	92.490	0.000
25	USD(min)	3/4	-253.460	0.000	-116.640	0.00E+00	106.120	0.000
25	USD(min)	J[25]	-253.460	0.000	-93.310	0.00E+00	115.320	0.000
25	WSD(max)	I[24]	-25.560	0.000	-81.020	0.00E+00	136.400	0.000
25	WSD(max)	1/4	-25.560	0.000	-66.440	0.00E+00	145.760	0.000
25	WSD(max)	2/4	-25.560	0.000	-51.860	0.00E+00	154.100	0.000
25	WSD(max)	3/4	-25.560	0.000	-37.280	0.00E+00	160.610	0.000
25	WSD(max)	J[25]	-25.560	0.000	-22.700	0.00E+00	165.300	0.000
25	WSD(min)	I[24]	-155.340	0.000	-116.640	0.00E+00	42.390	0.000
25	WSD(min)	1/4	-155.340	0.000	-102.060	0.00E+00	53.590	0.000
25	WSD(min)	2/4	-155.340	0.000	-87.480	0.00E+00	63.310	0.000
25	WSD(min)	3/4	-155.340	0.000	-72.900	0.00E+00	71.520	0.000
25	WSD(min)	J[25]	-155.340	0.000	-58.320	0.00E+00	78.250	0.000
26	USD(max)	I[25]	-36.760	0.000	-21.860	0.00E+00	265.670	0.000
26	USD(max)	1/4	-36.760	0.000	-0.860	0.00E+00	270.640	0.000
26	USD(max)	2/4	-36.760	0.000	20.130	0.00E+00	272.690	0.000
26	USD(max)	3/4	-36.760	0.000	41.130	0.00E+00	271.820	0.000
26	USD(max)	J[26]	-36.760	0.000	62.130	0.00E+00	268.040	0.000
26	USD(min)	I[25]	-253.460	0.000	-93.310	0.00E+00	115.320	0.000
26	USD(min)	1/4	-253.460	0.000	-69.980	0.00E+00	120.390	0.000
26	USD(min)	2/4	-253.460	0.000	-46.660	0.00E+00	122.990	0.000
26	USD(min)	3/4	-253.460	0.000	-23.330	0.00E+00	123.110	0.000
26	USD(min)	J[26]	-253.460	0.000	0.000	0.00E+00	120.750	0.000
26	WSD(max)	I[25]	-25.560	0.000	-22.700	0.00E+00	165.300	0.000
26	WSD(max)	1/4	-25.560	0.000	-8.120	0.00E+00	168.170	0.000
26	WSD(max)	2/4	-25.560	0.000	6.460	0.00E+00	169.220	0.000
26	WSD(max)	3/4	-25.560	0.000	21.040	0.00E+00	168.440	0.000
26	WSD(max)	J[26]	-25.560	0.000	35.620	0.00E+00	165.840	0.000
26	WSD(min)	I[25]	-155.340	0.000	-58.320	0.00E+00	78.250	0.000
26	WSD(min)	1/4	-155.340	0.000	-43.740	0.00E+00	83.480	0.000
26	WSD(min)	2/4	-155.340	0.000	-29.160	0.00E+00	87.210	0.000
26	WSD(min)	3/4	-155.340	0.000	-14.580	0.00E+00	89.450	0.000
26	WSD(min)	J[26]	-155.340	0.000	0.000	0.00E+00	90.200	0.000
27	USD(max)	I[26]	-36.760	0.000	62.130	0.00E+00	268.040	0.000
27	USD(max)	1/4	-36.760	0.000	78.260	0.00E+00	261.610	0.000
27	USD(max)	2/4	-36.760	0.000	95.240	0.00E+00	252.780	0.000
27	USD(max)	3/4	-36.760	0.000	114.360	0.00E+00	241.560	0.000
27	USD(max)	J[27]	-36.760	0.000	133.490	0.00E+00	229.140	0.000
27	USD(min)	I[26]	-253.460	0.000	0.000	0.00E+00	120.750	0.000
27	USD(min)	1/4	-253.460	0.000	19.810	0.00E+00	116.150	0.000
27	USD(min)	2/4	-253.460	0.000	39.630	0.00E+00	109.530	0.000
27	USD(min)	3/4	-253.460	0.000	59.440	0.00E+00	100.890	0.000
27	USD(min)	J[27]	-253.460	0.000	79.260	0.00E+00	90.240	0.000
27	WSD(max)	I[26]	-25.560	0.000	35.620	0.00E+00	165.840	0.000
27	WSD(max)	1/4	-25.560	0.000	47.570	0.00E+00	161.580	0.000
27	WSD(max)	2/4	-25.560	0.000	59.520	0.00E+00	155.830	0.000
27	WSD(max)	3/4	-25.560	0.000	71.480	0.00E+00	148.590	0.000
27	WSD(max)	J[27]	-25.560	0.000	83.430	0.00E+00	139.850	0.000
27	WSD(min)	I[26]	-155.340	0.000	0.000	0.00E+00	90.200	0.000
27	WSD(min)	1/4	-155.340	0.000	11.950	0.00E+00	89.450	0.000
27	WSD(min)	2/4	-155.340	0.000	23.900	0.00E+00	87.210	0.000
27	WSD(min)	3/4	-155.340	0.000	35.860	0.00E+00	83.480	0.000
27	WSD(min)	J[27]	-155.340	0.000	47.810	0.00E+00	78.250	0.000
28	USD(max)	I[27]	-36.760	0.000	133.490	0.00E+00	229.140	0.000
28	USD(max)	1/4	-36.760	0.000	152.610	0.00E+00	216.020	0.000
28	USD(max)	2/4	-36.760	0.000	171.730	0.00E+00	199.980	0.000
28	USD(max)	3/4	-36.760	0.000	190.860	0.00E+00	181.030	0.000
28	USD(max)	J[28]	-36.760	0.000	209.980	0.00E+00	159.160	0.000
28	USD(min)	I[27]	-253.460	0.000	79.260	0.00E+00	90.240	0.000
28	USD(min)	1/4	-253.460	0.000	99.070	0.00E+00	77.130	0.000
28	USD(min)	2/4	-253.460	0.000	118.890	0.00E+00	61.290	0.000
28	USD(min)	3/4	-253.460	0.000	138.700	0.00E+00	43.420	0.000
28	USD(min)	J[28]	-253.460	0.000	157.850	0.00E+00	23.550	0.000
28	WSD(max)	I[27]	-25.560	0.000	83.430	0.00E+00	139.850	0.000
28	WSD(max)	1/4	-25.560	0.000	95.380	0.00E+00	129.610	0.000
28	WSD(max)	2/4	-25.560	0.000	107.330	0.00E+00	117.890	0.000
28	WSD(max)	3/4	-25.560	0.000	119.290	0.00E+00	104.670	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
28	WSD(max)	J[28]	-25.560	0.000	131.240	0.00E+00	90.660	0.000
28	WSD(min)	I[27]	-155.340	0.000	47.810	0.00E+00	78.250	0.000
28	WSD(min)	1/4	-155.340	0.000	59.760	0.00E+00	70.550	0.000
28	WSD(min)	2/4	-155.340	0.000	71.710	0.00E+00	59.770	0.000
28	WSD(min)	3/4	-155.340	0.000	83.670	0.00E+00	47.490	0.000
28	WSD(min)	J[28]	-155.340	0.000	95.620	0.00E+00	33.710	0.000
29	USD(max)	I[28]	-36.760	0.000	209.980	0.00E+00	159.160	0.000
29	USD(max)	1/4	-36.760	0.000	229.110	0.00E+00	134.370	0.000
29	USD(max)	2/4	-36.760	0.000	248.230	0.00E+00	106.670	0.000
29	USD(max)	3/4	-36.760	0.000	267.350	0.00E+00	76.050	0.000
29	USD(max)	J[29]	-36.760	0.000	286.480	0.00E+00	42.520	0.000
29	USD(min)	I[28]	-253.460	0.000	157.850	0.00E+00	23.550	0.000
29	USD(min)	1/4	-253.460	0.000	173.980	0.00E+00	1.650	0.000
29	USD(min)	2/4	-253.460	0.000	190.120	0.00E+00	-22.260	0.000
29	USD(min)	3/4	-253.460	0.000	206.260	0.00E+00	-48.190	0.000
29	USD(min)	J[29]	-253.460	0.000	222.390	0.00E+00	-76.140	0.000
29	WSD(max)	I[28]	-25.560	0.000	131.240	0.00E+00	90.660	0.000
29	WSD(max)	1/4	-25.560	0.000	143.190	0.00E+00	75.170	0.000
29	WSD(max)	2/4	-25.560	0.000	155.140	0.00E+00	57.860	0.000
29	WSD(max)	3/4	-25.560	0.000	167.100	0.00E+00	38.720	0.000
29	WSD(max)	J[29]	-25.560	0.000	179.050	0.00E+00	17.760	0.000
29	WSD(min)	I[28]	-155.340	0.000	95.620	0.00E+00	33.710	0.000
29	WSD(min)	1/4	-155.340	0.000	107.570	0.00E+00	18.450	0.000
29	WSD(min)	2/4	-155.340	0.000	119.530	0.00E+00	1.680	0.000
29	WSD(min)	3/4	-155.340	0.000	131.480	0.00E+00	-16.570	0.000
29	WSD(min)	J[29]	-155.340	0.000	143.430	0.00E+00	-36.320	0.000
30	USD(max)	I[29]	-36.760	0.000	286.480	0.00E+00	42.520	0.000
30	USD(max)	1/4	-36.760	0.000	305.600	0.00E+00	6.070	0.000
30	USD(max)	2/4	-36.760	0.000	326.590	0.00E+00	-33.300	0.000
30	USD(max)	3/4	-36.760	0.000	349.920	0.00E+00	-71.050	0.000
30	USD(max)	J[30]	-36.760	0.000	373.240	0.00E+00	-109.440	0.000
30	USD(min)	I[29]	-253.460	0.000	222.390	0.00E+00	-76.140	0.000
30	USD(min)	1/4	-253.460	0.000	238.530	0.00E+00	-106.100	0.000
30	USD(min)	2/4	-253.460	0.000	254.660	0.00E+00	-138.080	0.000
30	USD(min)	3/4	-253.460	0.000	270.800	0.00E+00	-172.080	0.000
30	USD(min)	J[30]	-253.460	0.000	286.930	0.00E+00	-208.420	0.000
30	WSD(max)	I[29]	-25.560	0.000	179.050	0.00E+00	17.760	0.000
30	WSD(max)	1/4	-25.560	0.000	191.000	0.00E+00	-5.020	0.000
30	WSD(max)	2/4	-25.560	0.000	204.120	0.00E+00	-29.620	0.000
30	WSD(max)	3/4	-25.560	0.000	218.700	0.00E+00	-54.890	0.000
30	WSD(max)	J[30]	-25.560	0.000	233.280	0.00E+00	-81.560	0.000
30	WSD(min)	I[29]	-155.340	0.000	143.430	0.00E+00	-36.320	0.000
30	WSD(min)	1/4	-155.340	0.000	155.380	0.00E+00	-57.570	0.000
30	WSD(min)	2/4	-155.340	0.000	167.340	0.00E+00	-80.300	0.000
30	WSD(min)	3/4	-155.340	0.000	179.290	0.00E+00	-104.530	0.000
30	WSD(min)	J[30]	-155.340	0.000	191.240	0.00E+00	-130.260	0.000

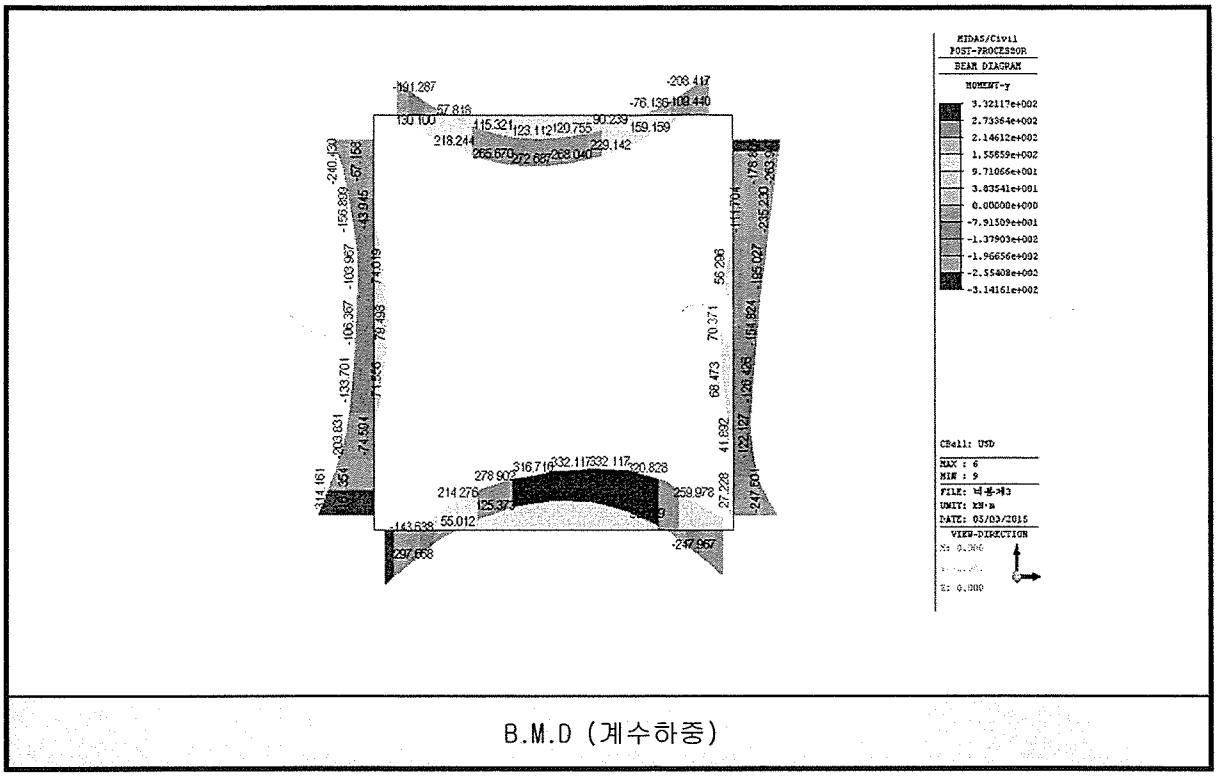
9. 단면력 요약

구분	위치	부재	극한하중			사용하중	비고
			Mu(kN · m)	Su(kN)	Pu(kN)	M(kN · m)	
상부슬래브	단부	23,30	-208.42	373.24	-	-130.26	
	중앙부	26,27	272.69	133.49	-	169.22	
벽체	상단부 (축력최대)	21,22	-137.26	230.41	-448.05	-43.00	
	상단부 (모멘트최대)	21,22	-263.95	230.41	-408.87	-164.97	
	중앙부 (축력최대)	15,16	47.99	68.49	-497.44	35.81	
	중앙부 (모멘트최대)	15,16	-154.82	-54.86	-460.62	-96.76	
	하단부 (축력최대)	9,10	-247.60	-305.45	-549.77	1.95	
	하단부 (모멘트최대)	9,10	-314.16	-305.45	-492.78	-196.35	
하부슬래브	단부	1,8	-297.67	399.39	-	-186.04	
	중앙부	4,5	332.12	153.06	-	207.57	

-'전단력과 사용하중 상태에서의 모멘트는 선택 부재에서의 최대값 적용

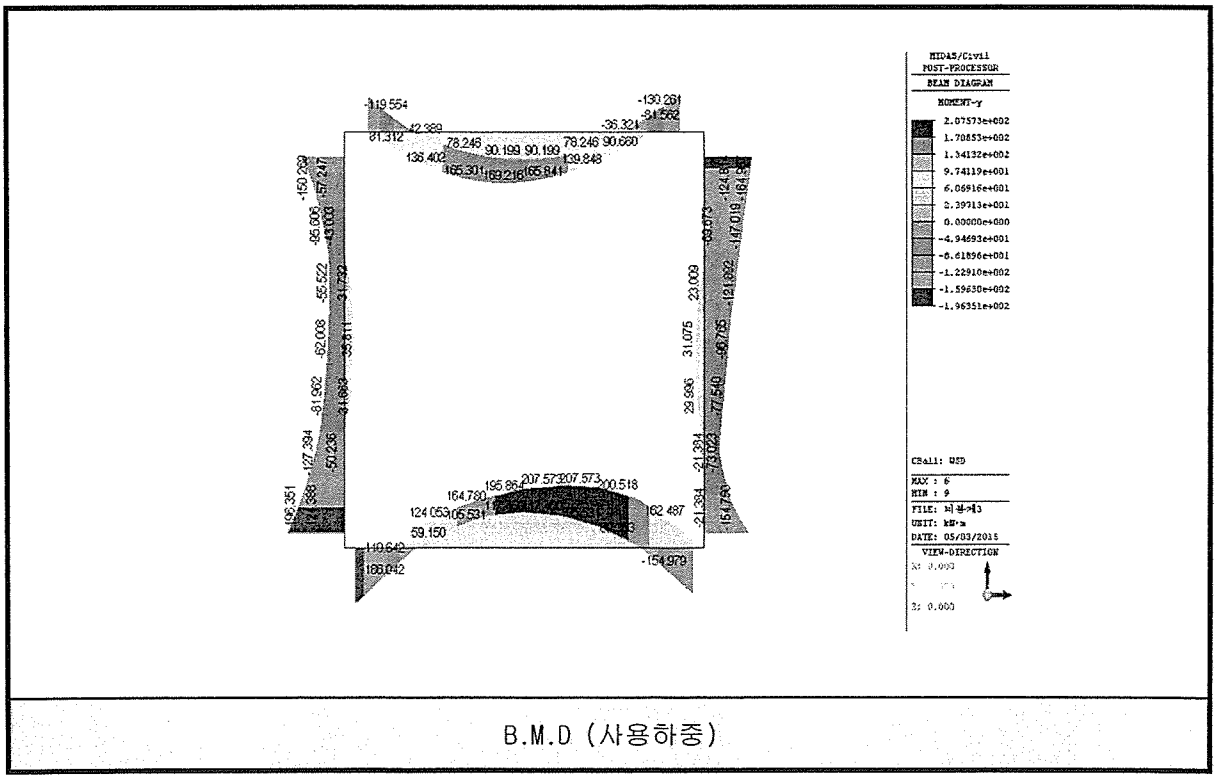
10. 단면력도

(1) 극한하중 모멘트도



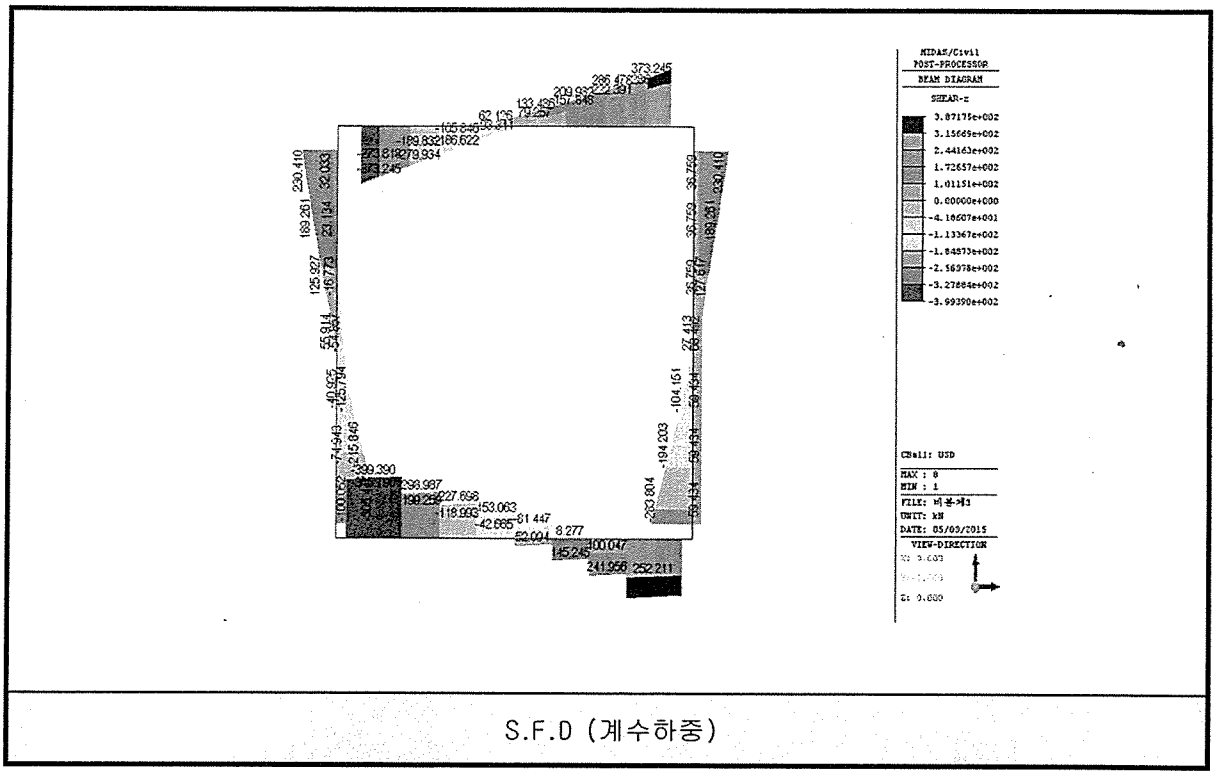
B.M.D (계수하중)

(2) 사용하중 모멘트도



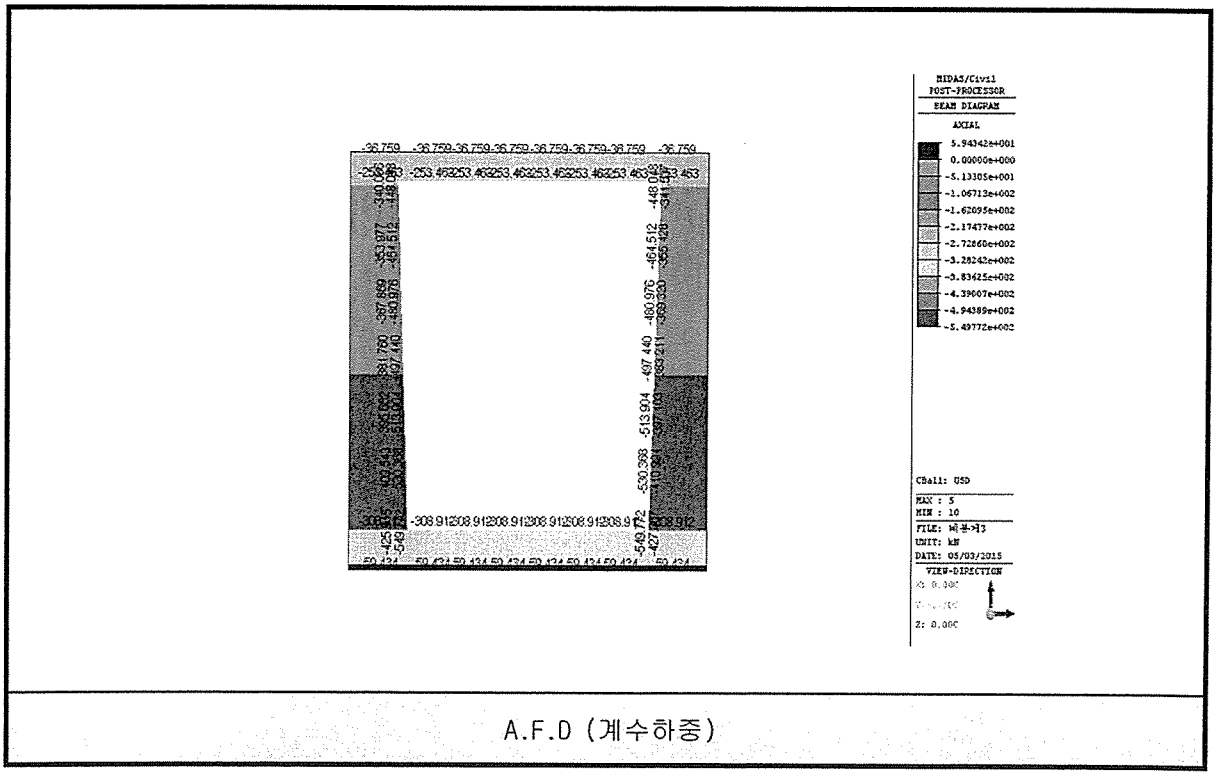
B.M.D (사용하중)

(3) 극한하중 전단력도



S.F.D (계수하중)

(4) 극한하중 축력도



A.F.D (계수하중)

11. 단면검토

① 상부 슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	130.260
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Su (kN)
1000.0	700.0	600.0	100.0	208.420	373.240

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03885 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 977.395 mm^2

사용철근비 : Puse = As / (B × D) = 0.00382

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 977.395 mm^2 As(min) = 2100.000 mm^2

4/3×As(req) = 1303.193 mm^2 ※ As = 1303.193 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 480239230 N · mm

= 480.239 kN · m > 208.420 kN · m ----- ∴ O.K. [사용률 = 2.304]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

1/2 x Φv x Vc = 193.985 kN ≤ Vu ≤Φv x Vc ∴ 최소전단 철근을 배근하는것이 좋다.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 130.26 × 1000000 / [2292×(600 - 123.635/3)]

= 101.707 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×600/(7×2292)]

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 101.707) - 2.5 × 90.5 = 548.036 mm

300 x (210 / fs) = 300 × (210 / 101.707) = 619.429 mm

Sa는 작은 값인 548.036 mm 를 적용

S = 125.00 ≤ Sa (= 548.036 mm) ------ ∴ O.K.

② 상부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	169.220
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	600.0	500.0	100.0	272.690	133.490

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03188 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1552.765 mm^2

사용철근비 : Puse = As / (B × D) = 0.00458

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 1552.765 mm^2 As(min) = 1750.000 mm^2

4/3×As(req) = 2070.354 mm^2 ※ As = 1750.000 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 397727230 N · mm

= 397.727 kN · m > 272.690 kN · m ----- ∴ O.K. [사용률 = 1.459]

* 전단력 검토

$\phi v \cdot Vc = \phi v \cdot 1/6 \cdot \sqrt{fck} \cdot B \cdot d / 1000 =$ 387.970 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 169.22 \times 1000000 / [2292 \times (500 - 111.633/3)]$

$= 159.534$ Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 500/(7 \times 2292)]}$

$= 111.633$ mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 159.534) - 2.5 × 90.5 = 267.374 mm

300 x (210 / fs) = 300 × (210 / 159.534) = 394.899 mm

Sa는 작은 값인 267.374 mm 를 적용

S = 125.00 ≤ Sa (= 267.374 mm) ----- ∴ O.K.

③ 하부슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	186.040
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	650.0	550.0	100.0	297.670	399.390

전단설계시 단면의 유효높이 ds = 550.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03537 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1537.075 mm^2

사용철근비 : Puse = As / (B × D) = 0.00417

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 1537.075 mm^2 As(min) = 1925.000 mm^2

4/3×As(req) = 2049.433 mm^2 ※ As = 1925.000 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 438983230 N · mm

= 438.983 kN · m > 297.670 kN · m ----- ∴ O.K [사용률 = 1.475]

* 전단력 검토

$\varnothing v \cdot Vc = \varnothing v \cdot 1/6 \cdot \sqrt{fck} \cdot B \cdot d / 1000 =$ 426.767 kN

1/2 x Φv x Vc = 213.384 kN ≤ Vu ≤Φv x Vc ∴ 최소전단 철근을 배근하는것이 좋다.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 186.04 \times 1000000 / [2292 \times (550 - 117.769/3)]$

= 158.924 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 550/(7 \times 2292)]}$

= 117.769 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 158.924) - 2.5 × 90.5 = 269.271 mm

300 x (210 / fs) = 300 × (210 / 158.924) = 396.417 mm

Sa는 작은 값인 269.271 mm 를 적용

S = 125.00 ≤ Sa (= 269.271 mm) ----- ∴ O.K.

④ 하부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	207.570
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	650.0	550.0	100.0	332.120	153.060

전단설계시 단면의 유효높이 ds = 550.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03537 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1719.539 mm^2

사용철근비 : Puse = As / (B × D) = 0.00417

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 1719.539 mm^2 As(min) = 1925.000 mm^2

4/3×As(req) = 2292.718 mm^2 ※ As = 1925.000 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 438983230 N · mm

= 438.983 kN · m > 332.120 kN · m ----- ∴ O.K [사용률 = 1.322]

* 전단력 검토

$\phi v \cdot Vc = \phi v \cdot 1/6 \cdot \sqrt{fck} \cdot B \cdot d / 1000 =$ 426.767 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 207.57 \times 1000000 / [2292 \times (550 - 117.769/3)]$

= 177.316 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 550/(7 \times 2292)]}$

= 117.769 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 177.316) - 2.5 × 90.5 = 217.873 mm

300 x (210 / fs) = 300 × (210 / 177.316) = 355.299 mm

Sa는 작은 값인 217.873 mm 를 적용

S = 125.00 ≤ Sa (= 217.873 mm) ----- ∴ O.K.

⑤ 벽체 상단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	164.970
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	700.0	600.0	100.0	263.950	230.410

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03885 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1242.160 mm^2

사용철근비 : Puse = As / (B × D) = 0.00382

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1242.160 mm^2 As(min) = 2100.000 mm^2

4/3×As(req) = 1656.214 mm^2 ※ As = 1656.214 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 480239230 N · mm

= 480.239 kN · m > 263.950 kN · m ----- ∴ O.K [사용률 = 1.819]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

1/2 x Φv x Vc = 193.985 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 164.97 × 1000000 / [2292×(600 - 123.635/3)]

= 128.808 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×600/(7×2292)]

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 128.808) - 2.5 × 90.5 = 385.125 mm

300 x (210 / fs) = 300 × (210 / 128.808) = 489.100 mm

Sa는 작은 값인 385.125 mm 를 적용

S = 125.00 ≤ Sa (= 385.125 mm) ----- ∴ O.K.

⑥ 벽체 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	96.760
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	600.0	500.0	100.0	154.820	54.860

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03188 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 872.040 mm^2

사용철근비 : Puse = As / (B × D) = 0.00458

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 872.040 mm^2 As(min) = 1750.000 mm^2

4/3×As(req) = 1162.720 mm^2 ※ As = 1162.720 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 397727230 N · mm

= 397.727 kN · m > 154.820 kN · m ----- ∴ O.K [사용률 = 2.569]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 96.76 × 1000000 / [2292×(500 - 111.633/3)]

= 91.222 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×500/(7×2292)]

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 91.222) - 2.5 × 90.5 = 637.031 mm

300 x (210 / fs) = 300 × (210 / 91.222) = 690.625 mm

Sa는 작은 값인 637.031 mm 를 적용

S = 125.00 ≤ Sa (= 637.031 mm) ----- ∴ O.K.

⑦ 벽체 하단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	196.350
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	600.0	500.0	100.0	314.160	305.450

전단설계시 단면의 유효높이 ds = 500.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03188 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1795.927 mm^2

사용철근비 : Puse = As / (B × D) = 0.00458

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 1795.927 mm^2 As(min) = 1750.000 mm^2

4/3×As(req) = 2394.570 mm^2 ※ As = 1795.927 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 397727230 N · mm

= 397.727 kN · m > 314.160 kN · m ----- ∴ O.K [사용률 = 1.266]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 387.970 kN

1/2 x Φv x Vc = 193.985 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 196.35 × 1000000 / [2292×(500 - 111.633/3)]

= 185.111 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×500/(7×2292)]

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 185.111) - 2.5 × 90.5 = 199.169 mm

300 x (210 / fs) = 300 × (210 / 185.111) = 340.336 mm

Sa는 작은 값인 199.169 mm 를 적용

S = 125.00 ≤ Sa (= 199.169 mm) ----- ∴ O.K.

⑤ 벽체 상단부 - Pmax 일 경우

설계축력	:	Pu	=	448.05	(kN) ,	설계모멘트	:	Mu	=	137.26	(kN · m)	
설계전단력	:	Vu	=	230.41	(kN) ,	사용 모멘트	:	M	=	43.00	(kN.m)	
부 재 높 이	:	H	=	700.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	600.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	306.35 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0049) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 700.00 x 1000.00 = 17556000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (17556000.00 x 350.0 + 916800.0 x 100.0 + 458400.0 x 600.0) / 18931200.000

= 343.947 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 360.000 mm, ab = k1 x cb = 300.960 mm

fs' = 600 x (360.000 - 100.0) / 360.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 300.960 x 1000 = 7548076.800 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 7548076.800 + 427458.000 - 916800.000 = 7058734.800 N

Mb = 7548076.800x(600.0-300.960/2)+427458.000x(600.0-100.0)-7058734.800x(343.947-100.0)

= 1884786827.089 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 267.015 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 301.598 mm , a = k1 x c = 252.136 mm 사용

fs = 600 x (600.000 - 301.598) / 301.598 = 400 Mpa (fs ≤ fy)

fs' = 600 x (301.598 - 100.000) / 301.598 = 400 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 252.136 x 1000 = 6323575.364 N

Cs = 1146.000 x (400.000 - 0.836 x 30) = 429658.320 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 6323575.364 + 429658.320 - 916800.000 = 5836433.684 N

Mn' = 6323575.364 x (600.0 - 252.136 / 2) + 429658.320 x (600.0 - 100.0)

= 3211773314.228 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 550.296239 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 15310024.800 N ≥ Pn = 5836433.684

ΦPn = 4085503.579 > ΦPb = 4941114.360 , 0.1 x fck x Ag = 2100000.000

∴ Φ = 0.700

ΦPn = 0.70 x 5836433.684 = 4085.504 kN ≥ Pu = 448.050 kN ——— O.K!!!

ΦMn = ΦPn x 306.350 = 1251.593 kN.m ≥ Mu = 137.260 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 405707.902 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 43 \times 1000000 / [2292 \times (600 - 123.635/3)]$

= 33.574 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 600/(7 \times 2292)]}$

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 33.574) - 2.5 × 90.5 = 2119.297 mm

300 x (210 / fs) = 300 × (210 / 33.574) = 1876.437 mm

Sa는 작은 값인 1876.437 mm 를 적용

S = 125.00 ≤ Sa (= 1876.437 mm) ------ ∴ O.K.

⑥ 벽체 상단부 - Mmax 일 경우

설계축력	:	Pu	=	408.87	(kN) ,	설계모멘트	:	Mu	=	263.95	(kN · m)	
설계전단력	:	Vu	=	230.41	(kN) ,	사용 모멘트	:	M	=	164.97	(kN.m)	
부 재 높 이	:	H	=	700.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	600.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	645.56 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0049) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 700.00 x 1000.00 = 17556000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (17556000.00 x 350.0 + 916800.0 x 100.0 + 458400.0 x 600.0) / 18931200.000

= 343.947 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 360.000 mm, ab = k1 x cb = 300.960 mm

fs' = 600 x (360.000 - 100.0) / 360.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 300.960 x 1000 = 7548076.800 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 7548076.800 + 427458.000 - 916800.000 = 7058734.800 N

Mb = 7548076.800x(600.0-300.960/2)+427458.000x(600.0-100.0)-7058734.800x(343.947-100.0)

= 1884786827.089 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 267.015 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 112.809 mm , a = k1 x c = 94.308 mm 사용

fs = 600 x (600.000 - 112.809) / 112.809 = 400 Mpa (fs ≤ fy)

fs' = 600 x (112.809 - 100.000) / 112.809 = 68.12552 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 94.308 x 1000 = 2365243.750 N

Cs = 1146.000 x (68.126 - 0.836 x 30) = 49330.161 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 2365243.750 + 49330.161 - 916800.000 = 1497773.911 N

Mn' = 2365243.750 x (600.0 - 94.308 / 2) + 49330.161 x (600.0 - 100.0)

= 1332280668.724 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 889.506214 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 15310024.800 N ≥ Pn = 1497773.911

ΦPn = 1048441.738 < ΦPb = 4941114.360 , 0.1 x fck x Ag = 2100000.000

∴ Φ = 0.770

ΦPn = 0.77 x 1497773.911 = 1153.286 kN ≥ Pu = 408.870 kN ——— O.K!!!

ΦMn = ΦPn x 645.560 = 744.515 kN.m ≥ Mu = 263.950 kN.m ——— O.K!!!

○ 전단력 검토

ϕVc = 0.85 × 1/6 × (1 + Pu / (14 x Ag)) x √fck × bo × d = 404156.814 N

여기서 , 1/2ϕVc< Vu ≤ ϕVc 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 164.97 \times 1000000 / [2292 \times (600 - 123.635/3)]$

$= 128.808$ Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 600/(7 \times 2292)]}$

$= 123.635$ mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 128.808) - 2.5 × 90.5 = 385.125 mm

300 x (210 / fs) = 300 × (210 / 128.808) = 489.100 mm

Sa는 작은 값인 385.125 mm 를 적용

S = 125.00 ≤ Sa (= 385.125 mm) ------ ∴ O.K.

⑦ 벽체 중앙부 - Pmax 일 경우

설계축력	:	Pu	=	497.44	(kN) ,	설계모멘트	:	Mu	=	47.99	(kN · m)		
설계전단력	:	Vu	=	68.49	(kN) ,	사용 모멘트	:	M	=	35.81	(kN.m)		
부 재 높 이	:	H	=	600.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30	MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85	
유효높이(휨)	:	d	=	500.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70	
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	96.47	(mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0057) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 600.00 x 1000.00 = 15048000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (15048000.00 x 300.0 + 916800.0 x 100.0 + 458400.0 x 500.0) / 16423200.000

= 294.418 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 300.000 mm, ab = k1 x cb = 250.800 mm

fs' = 600 x (300.000 - 100.0) / 300.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 250.800 x 1000 = 6290064.000 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 6290064.000 + 427458.000 - 916800.000 = 5800722.000 N

Mb = 6290064.000x(500.0-250.800/2)+427458.000x(500.0-100.0)-5800722.000x(294.418-100.0)

= 1399478417.013 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 241.259 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 509.151 mm , a = k1 x c = 425.650 mm 사용

fs = 600 x (500.000 - 509.151) / 509.151 = -10.7842 Mpa (fs ≤ fy)

fs' = 600 x (509.151 - 100.000) / 509.151 = 400 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 425.650 x 1000 = 10675314.209 N

Cs = 1146.000 x (400.000 - 0.836 x 30) = 429658.320 N

Ts = 2292.000 x -10.784 = -24717.344 N

Pn = 10675314.209 + 429658.320 - -24717.344 = 11129689.873 N

Mn' = 10675314.209 x (500.0 - 425.650 / 2) + 429658.320 x (500.0 - 100.0)

= 3237544087.582 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 290.891600 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 13270024.800 N ≥ Pn = 11129689.873

ΦPn = 7790782.911 > ΦPb = 4060505.400 , 0.1 x fck x Ag = 1800000.000

∴ Φ = 0.700

ΦPn = 0.70 x 11129689.873 = 7790.783 kN ≥ Pu = 497.440 kN ------- O.K!!!

ΦMn = ΦPn x 96.474 = 751.608 kN.m ≥ Mu = 47.990 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 410945.367 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 35.81 \times 1000000 / [2292 \times (500 - 111.633/3)]$

= 33.760 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 500/(7 \times 2292)]}$

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 33.76) - 2.5 × 90.5 = 2106.37 mm

300 x (210 / fs) = 300 × (210 / 33.76) = 1866.10 mm

Sa는 작은 값인 1866.10 mm 를 적용

S = 125.00 ≤ Sa (= 1866.096 mm) ------ ∴ O.K.

⑧ 벽체 중앙부 - Mmax 일 경우

설계축력	:	Pu	=	460.62	(kN) ,	설계모멘트	:	Mu	=	154.82	(kN · m)		
설계전단력	:	Vu	=	54.86	(kN) ,	사용 모멘트	:	M	=	96.76	(kN.m)		
부 재 높 이	:	H	=	600.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30	MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85	
유효높이(휨)	:	d	=	500.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70	
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	336.11	(mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0057) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 600.00 x 1000.00 = 15048000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (15048000.00 x 300.0 + 916800.0 x 100.0 + 458400.0 x 500.0) / 16423200.000

= 294.418 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 300.000 mm, ab = k1 x cb = 250.800 mm

fs' = 600 x (300.000 - 100.0) / 300.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 250.800 x 1000 = 6290064.000 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 6290064.000 + 427458.000 - 916800.000 = 5800722.000 N

Mb = 6290064.000x(500.0-250.800/2)+427458.000x(500.0-100.0)-5800722.000x(294.418-100.0)

= 1399478417.013 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 241.259 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 192.270 mm , a = k1 x c = 160.738 mm 사용

fs = 600 x (500.000 - 192.270) / 192.270 = 400 Mpa (fs ≤ fy)

fs' = 600 x (192.270 - 100.000) / 192.270 = 287.9388 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 160.738 x 1000 = 4031302.018 N

Cs = 1146.000 x (287.939 - 0.836 x 30) = 301236.226 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 4031302.018 + 301236.226 - 916800.000 = 3415738.244 N

Mn' = 4031302.018 x (500.0 - 160.738 / 2) + 301236.226 x (500.0 - 100.0)

= 1812154351.758 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 530.529850 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 13270024.800 N ≥ Pn = 3415738.244

ΦPn = 2391016.771 > ΦPb = 4060505.400 , 0.1 x fck x Ag = 1800000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3415738.244 = 2391.017 kN ≥ Pu = 460.620 kN ——— O.K!!!

ΦMn = ΦPn x 336.112 = 803.650 kN.m ≥ Mu = 154.820 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 409244.765 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 96.76 \times 1000000 / [2292 \times (500 - 111.633/3)]$

= 91.222 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 500/(7 \times 2292)]}$

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 91.222) - 2.5 × 90.5 = 637.03 mm

300 x (210 / fs) = 300 × (210 / 91.222) = 690.63 mm

Sa는 작은 값인 637.03 mm 를 적용

S = 125.00 ≤ Sa (= 637.031 mm) ------ ∴ O.K.

⑨ 벽체 하단부 - Pmax 일 경우

설계축력	:	Pu	=	549.77	(kN) ,	설계모멘트	:	Mu	=	247.60	(kN·m)	
설계전단력	:	Vu	=	305.45	(kN) ,	사용 모멘트	:	M	=	1.95	(kN.m)	
부 재 높 이	:	H	=	600.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	500.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	=	450.37 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0057) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 600.00 x 1000.00 = 15048000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (15048000.00 x 300.0 + 916800.0 x 100.0 + 458400.0 x 500.0) / 16423200.000

= 294.418 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 300.000 mm, ab = k1 x cb = 250.800 mm

fs' = 600 x (300.000 - 100.0) / 300.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 250.800 x 1000 = 6290064.000 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 6290064.000 + 427458.000 - 916800.000 = 5800722.000 N

Mb = 6290064.000x(500.0-250.800/2)+427458.000x(500.0-100.0)-5800722.000x(294.418-100.0)

= 1399478417.013 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 241.259 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 132.625 mm , a = k1 x c = 110.874 mm 사용

fs = 600 x (500.000 - 132.625) / 132.625 = 400 Mpa (fs ≤ fy)

fs' = 600 x (132.625 - 100.000) / 132.625 = 147.5956 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 110.874 x 1000 = 2780726.170 N

Cs = 1146.000 x (147.596 - 0.836 x 30) = 140402.859 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 2780726.170 + 140402.859 - 916800.000 = 2004329.029 N

Mn' = 2780726.170 x (500.0 - 110.874 / 2) + 140402.859 x (500.0 - 100.0)

= 1292368765.342 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 644.787808 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 13270024.800 N ≥ Pn = 2004329.029

ΦPn = 1403030.320 < ΦPb = 4060505.400 , 0.1 x fck x Ag = 1800000.000

∴ Φ = 0.730

ΦPn = 0.73 x 2004329.029 = 1463.160 kN ≥ Pu = 549.770 kN ——— O.K!!!

ΦMn = ΦPn x 450.370 = 658.964 kN.m ≥ Mu = 247.600 kN.m ——— O.K!!!

○ 전단력 검토

ϕVc = 0.85 × 1/6 × (1 + Pu / (14 x Ag)) x √fck × bo × d = 413362.329 N

여기서 , 1/2ϕVc< Vu ≤ ϕVc 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎟

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎟ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 1.95 × 1000000 / [2292×(500 - 111.633/3)]

= 1.838 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×500/(7×2292)]

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 1.838) - 2.5 × 90.5 = ######## mm

300 x (210 / fs) = 300 × (210 / 1.838) = ######## mm

Sa는 작은 값인 ######## mm 를 적용

S = 125.00 ≤ Sa (= 34269.17 mm) ----- ∴ O.K.

⑩ 벽체 하단부 - Mmax 일 경우

설계축력	:	Pu	=	492.78	(kN) ,	설계모멘트	:	Mu	=	314.16	(kN · m)
설계전단력	:	Vu	=	305.45	(kN) ,	사용 모멘트	:	M	=	196.35	(kN.m)
부 재 높 이	:	H	=	600.0	(mm) ,	f_y	=	400	MPa	f_{ck}	= 30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	= 0.85
유효높이(휨)	:	d	=	500.0	(mm) ,	d'	=	100	(mm),	ϕc	= 0.70
유효높이(전단)	:	d	=	500.0	(mm) ,	k_1	=	0.836	,	e	= 637.53 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0057) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 600.00 x 1000.00 = 15048000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (15048000.00 x 300.0 + 916800.0 x 100.0 + 458400.0 x 500.0) / 16423200.000

= 294.418 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 300.000 mm, ab = k1 x cb = 250.800 mm

fs' = 600 x (300.000 - 100.0) / 300.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 250.800 x 1000 = 6290064.000 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 6290064.000 + 427458.000 - 916800.000 = 5800722.000 N

Mb = 6290064.000x(500.0-250.800/2)+427458.000x(500.0-100.0)-5800722.000x(294.418-100.0)

= 1399478417.013 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 241.259 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 98.935 mm , a = k1 x c = 82.709 mm 사용

fs = 600 x (500.000 - 98.935) / 98.935 = 400 Mpa (fs ≤ fy)

fs' = 600 x (98.935 - 100.000) / 98.935 = 1.593944 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 82.709 x 1000 = 2074348.628 N

Cs = 1146.000 x (1.594 - 0.836 x 30) = (26915.020) N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 2074348.628 + -26915.020 - 916800.000 = 1130633.608 N

Mn' = 2074348.628 x (500.0 - 82.709 / 2) + -26915.020 x (500.0 - 100.0)

= 940624370.063 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 831.943527 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 13270024.800 N ≥ Pn = 1130633.608

ΦPn = 791443.526 < ΦPb = 4060505.400 , 0.1 x fck x Ag = 1800000.000

∴ Φ = 0.780

ΦPn = 0.78 x 1130633.608 = 881.894 kN ≥ Pu = 492.780 kN ------- O.K!!!

ΦMn = ΦPn x 637.526 = 562.230 kN.m ≥ Mu = 314.160 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 410730.136 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 cm^2 O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 196.35 \times 1000000 / [2292 \times (500 - 111.633/3)]$

= 185.111 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 500/(7 \times 2292)]}$

= 111.633 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 185.111) - 2.5 × 90.5 = 199.169 mm

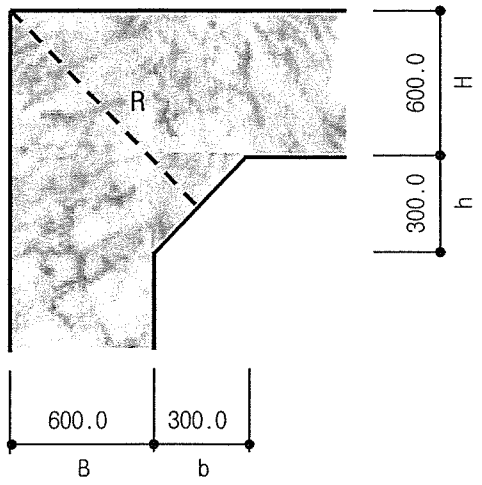
300 x (210 / fs) = 300 × (210 / 185.111) = 340.336 mm

Sa는 작은 값인 199.169 mm 를 적용

S = 125.00 ≤ Sa (= 199.169 mm) ----- ∴ O.K.

12. 우각부 검토

1) 상부 슬래브



CON'C 설계기준강도(fck) : 30.0 MPa

CON'C 허용휨인장응력(fta) = 0.13√fck Mpa : 0.712 MPa

철근 항복강도(fy) : 400.0 MPa

철근 허용응력 : 180.0 MPa

사용 모멘트 Mo : 164.97 kN·m

$R = \sqrt{2} \times b / (b+h) \times [B + h + (H \times h/b)]$

$= 1060.66$ mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 164970000}{1060.66^2 \times 1000.0} = 0.733 \text{ MPa}$$

f_{tmax} = 0.733 MPa > f_{ta} = 0.712 MPa 이므로 보강철근 필요.

② 소요 철근량

외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 164970000}{1060.66 \times 180.0} = 1728.17 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 1728.17 - 1146 = 582.17 ㎟

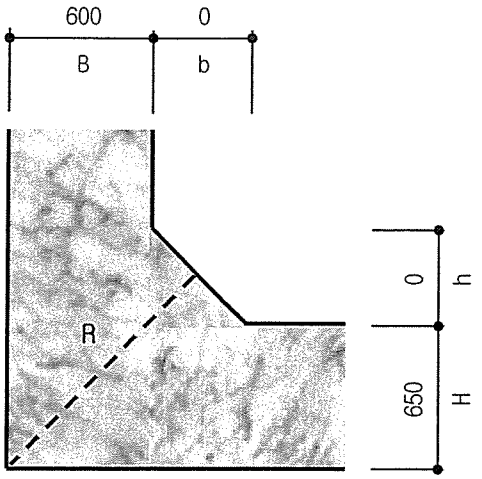
----- 우각부 보강철근 필요

외측인장에 대한 보강 사용철근량(As)

As = H16 @ 250 - 1 단 = 794.40 ㎟

보강 As = 582.17 ㎟ < As = 794.40 ㎟ ----- ∴ O.K.

2) 하부 슬래브



CON'C 설계기준강도(fck)	:	30.0	MPa
CON'C 허용휨인장응력(fta) = 0.13√fck Mpa			
	:	0.712	MPa
철근 항복강도(fy)	:	400.0	MPa
철근 허용응력	:	180.0	MPa
사용 모멘트 Mo	:	196.35	kN · m

R = √ (B2 + H2) = 884.59 mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 196350000}{884.59^2 \times 1000.0} = 1.255 \text{ MPa}$$

f_{tmax} = 1.255 MPa > f_{ta} = 0.712 MPa 이므로 보강철근 필요.

② 소요 철근량

외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 196350000}{884.59 \times 180.0} = 2466.30 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 2466.30 - 1146 = 1320.30 ㎟

------ 우각부 보강철근 필요

외측인장에 대한 보강 사용철근량(As)

As = H22 @ 250 - 1 단 = 1548.40 ㎟

Asf = 1320.30 ㎟ < As = 1548.40 ㎟ ----- ∴ O.K.

13. 배력철근 검토

1) 구조상세 - 철도설계기준(노반편) p.5-19

다. 종방향으로 영향을 받는 경우로써 상부슬래브, 하부슬래브와 벽체에 있어서 종방향 최소철근량은 복토의 깊이가 3.0 m 이하인 경우에는 콘크리트 단면적의 0.4%, 복토가 3.0m 이상인 경우에는 복토 깊이가 30m인 경우의 사용량인 1.0%를 기준으로 선형변화량을 사용하되, 종방향 철근량은 주철근량 미만이어야 한다.

라. 단단한 지반 위에 놓인 경우와 말뚝기초로 지지되는 경우로써 종방향 부등침하가 우려되지 않은 경우에는 다.항의 기준을 적용하지 않는다. 따라서 어느 정도 견고한 지반위에 놓이는 일반적인 구교로써 적적한 신축이음매가 설치되어 상세한 종방향해석이 필요하지 않다고 판단되는 경우 종방향 철근량은 슬래브의 경우 콘크리트단면적의 0.25%, 벽체의 경우 0.3%를 적용한다.

마. 배력철근은 단위폭주변의 인장 주철근량의 1/5 이상으로 하여 종단방향에 계산외의 응력이 발생하는 것을 고려하여야 한다.

2) 배력철근의 최소 철근비

슬래브의 배력 철근비 = 0.25 %　　벽체의 배력 철근비 = 0.30 %

① 상부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 600.0 × 0.25 = 1500.00 ㎟

사용철근 인장측 ; H 16 @ 150 = 1324.00 ㎟

압축측 ; H 16 @ 300 = 662.00 ㎟

∑ As = 1986.00 ㎟

따라서, As = 1986.00 ㎟ > Asreq = 1500.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ------ ∴ O.K.

② 하부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 650.0 × 0.25 = 1625.00 ㎟

사용철근 인장측 ; H 16 @ 150 = 1324.00 ㎟

압축측 ; H 16 @ 300 = 662.00 ㎟

∑ As = 1986.00 ㎟

따라서, As = 1986.00 ㎟ > Asreq = 1625.00 ㎟ ------ ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ------ ∴ O.K.

③ 벽체

배력철근 최소 철근비 (Asreq) = 1,000.0 × 600.0 × 0.30 = 1800.00 ㎟

사용철근 인장측 ; H 16 @ 150 = 1324.00 ㎟

압축측 ; H 16 @ 300 = 662.00 ㎟

∑ As = 1986.00 ㎟

따라서, As = 1986.00 ㎟ > Asreq = 1800.00 ㎟ ------ ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ------ ∴ O.K.

14. 사용성검토

1) 상부슬래브 최소 두께

1.2(L+3)/30 = 1.2 × (4.600 + 3) / 30 = 304.0 mm

상부슬래브 두께 = 600.0 mm

Tuse = 600.0 mm > Tmin = 304.0 mm ----- ∴ O.K.

2) 철근 피로검토

피로응력한계 : 사용하중하에서 활하중과 충격에 의해 야기되는 직선철근의 최대 인장응력과 최소 응력 상이의 범위는 다음 값을 초과할수 없다.

$f_f = 165 - 0.33fmin$

여기서, f_f : 응력범위(Mpa)

fmin : 최소응력 수준으로 인장은 정(+), 압축은 부(-)의 값(Mpa)

① 상부슬래브 단부

4.6 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 0.371 kN · m Mmin = -10.879 kN · m

- 사용철근량 = H19 × 8ea = 2292.000 ㎟

n = 7

p = As / bd = 2292.00 / (1000 × 600) = 0.00382

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00382 + \sqrt{\{ (7 \times 0.00382)^2 + 2 \times 7 \times 0.00382 \}}$

= 0.206

J = 1 - K / 3 = 1 - 0.206 / 3 = 0.931

$$fs\ max = \frac{M}{As \times j \times d} = \frac{0.371 \times 10^6}{2292.00 \times 0.931 \times 600} = 0.290 \text{ Mpa}$$

$$fs\ min = \frac{-10.879 \times 10^6}{2292.00 \times 0.931 \times 600} = -8 \text{ Mpa}$$

Δf = fs max - fs min = 8.784 Mpa

$f_f = 165 - 0.33fmin$

= 165 - 0.33 × -8.49 = 167.803 Mpa > 8.784 Mpa O.K.

② 상부슬래브 중앙부

4.6 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 46.512 kN · m Mmin = 41.391 kN · m

- 사용철근량 = H19 × 8ea = 2292.000 ㎟

n = 7

p = As / bd = 2292.00 / (1000 × 500) = 0.00458

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00458 + \sqrt{\{ (7 \times 0.00458)^2 + 2 \times 7 \times 0.00458 \}}$

= 0.223

J = 1 - K / 3 = 1 - 0.223 / 3 = 0.926

$$fs\ max = \frac{M}{As \times j \times d} = \frac{46.512 \times 10^6}{2292.00 \times 0.926 \times 500} = 43.850\ Mpa$$

$$fs\ min = \frac{41.391 \times 10^6}{2292.00 \times 0.926 \times 500} = 39\ Mpa$$

Δf = fs max - fs min = 4.828 Mpa

f_f = 165 - 0.33fmin

= 165 - 0.33 × 39.02 = 152.123 Mpa > 4.828 Mpa O.K.

15. 기초지지력 검토

1) 구체자중

-	5.200	x	0.650	x	24.500				=	82.810	kN/m
-	5.200	x	0.600	x	24.500				=	76.440	kN/m
-	4.500	x	0.600	x	24.500				=	66.150	kN/m
-	4.500	x	0.600	x	24.500				=	66.150	kN/m
-	0.300	x	0.300	x	1/2	x	2	x 24.500	=	2.205	kN/m
								∴ Total	=	293.755	kN/m

293.755 / 5.200 = 56.491 kN/m²

2) 상부연직하중

= 80.92 kN/m²

3) 활하중

= 21.019 kN/m²

4) 최대 지반 반력

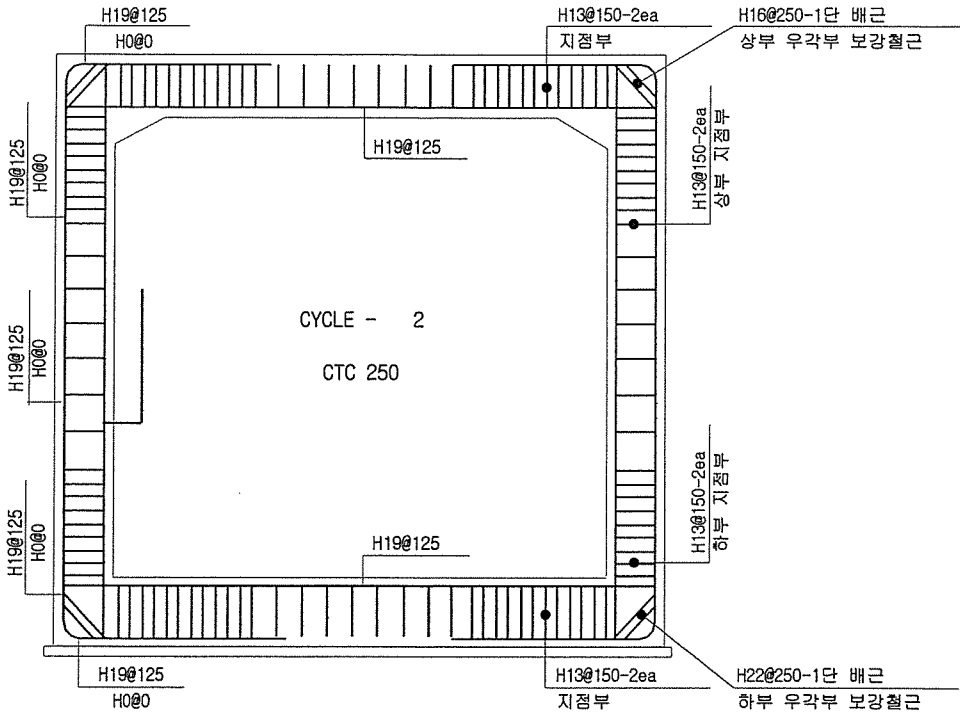
Qmax = 56.491 + 80.920 + 21.019

= 158.430 kN/m²

5) 지지력 검토

Qmax = 158.430 kN/m² < 300.00 kN/m² --- ∴ O.K.

16. 주철근 조립도



▶ 배력철근

- 상부 지점부 : H16, 인장측:150, 압축측:300
- 하부 지점부 : H16, 인장측:150, 압축측:300
- 벽체부 : H16, 인장측:150, 압축측:300

17.날개벽 설계

17.1 W1~W4

17.1.1 설 계 조 건

① 날개벽 형식 : 평 행 날 개 벽

② 단 위 중 량 : γ_t = 20.0 kN/㎥

③ 내부 마찰각 : ϕ = 35.0 °

④ 토 압 계 수 : K_o = (1 - sinϕ) × (1 + sinβ) = 0.634

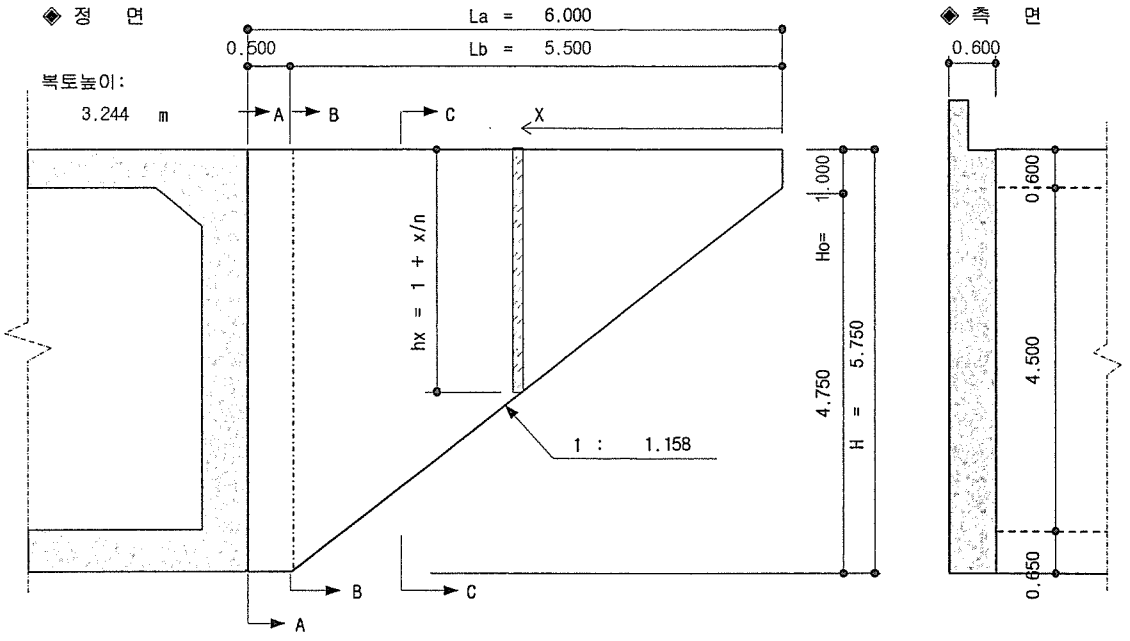
⑤ 면벽 기울기 : 1 : 1.158 (평균구배 적용)

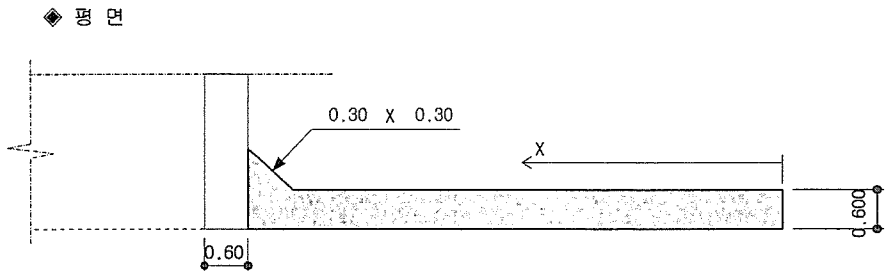
⑥ 콘크리트 강도 : f_{ck} = 30 MPa

⑦ 철근 항복응력 : f_y = 400 MPa

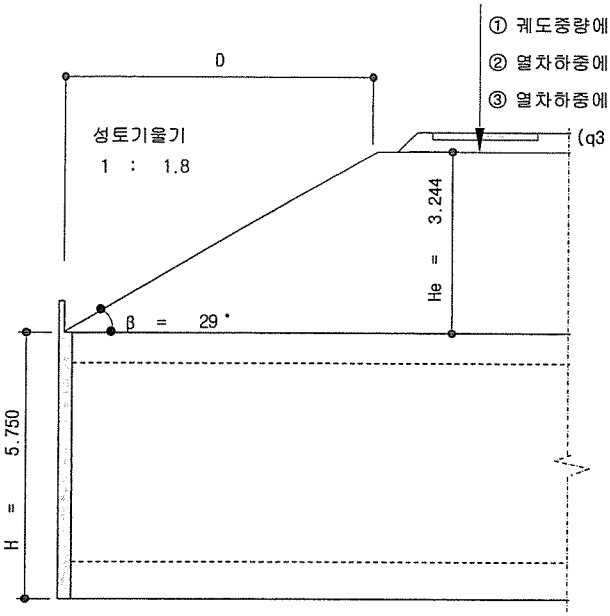
17.1.2 날개벽 단면

; 범용계산을 위하여 단면가정이 일반도와 상이할 수 있으나, 적용치수는 일반도와 같이 적용됨.





17.1.3 하 중 계 산 (상재하중 : q)



① 궤도중량에 의한 상재하중 (q_1 = 15.00 kN/㎡)
② 열차하중에 의한 상재하중 (q_2 = 35.00 kN/㎡)
③ 열차하중에 의한 상재하중 (q_3 = 80/B kN/㎡)
(q3 = 궤도가 근접해 있는 경우, 열차하중에 의한 상재하중)

1) 옹벽으로부터 궤도까지의 거리
- B = 2.100 > 2.00 ∴ q_3 = 0.00
- D = 3.244 × 1.8 = 5.839

2) 평행날개벽에 작용하는 상재하중(q)

① 기타 상재하중	=	15.000	kN/㎡
② 궤도중량에 의한 상재하중	=	35.000	kN/㎡
③ 열차하중에 의한 상재하중	=	0.000	kN/㎡

∴ TOTAL = 50.000 kN/㎡

17.1.4 설계단면력계산

1) 단 면 A-A [x = La = 6.000 m]

① Moment

$$-Ma = \frac{1}{2}Ko \cdot \gamma \left(\frac{x^4}{12n^2} + \frac{x^3 \cdot Ho}{3n} + \frac{x^2 \cdot Ho^2}{2} \right) + Ko \cdot q \left(\frac{x^3}{6n} + \frac{x^2 \cdot Ho}{2} \right)$$

$$= \frac{1}{2} \times 0.63 \times 20.0 \left(\frac{6.000^4}{12 \times 1.16^2} + \frac{6.000^3 \times 1.000}{3 \times 1.16} + \frac{6.000^2 \times 1.000^2}{2} \right)$$

$$+ 0.63 \times 50.00 \left(\frac{6.000^3}{6 \times 1.16} + \frac{6.000^2 \times 1.000}{2} \right) = 2575.245 \text{ kN} \cdot \text{m}$$

② Shear Force

$$-Sa = \frac{1}{2}Ko \cdot \gamma \left(\frac{x^3}{3n^2} + \frac{x^2 \cdot Ho}{n} + x \cdot Ho^2 \right) + Ko \cdot q \left(\frac{x^2}{2n} + x \cdot Ho \right)$$

$$= \frac{1}{2} \times 0.63 \times 20.0 \left(\frac{6.000^3}{3 \times 1.16^2} + \frac{6.000^2 \times 1.000}{1.158} + 6.000 \times 1.000^2 \right)$$

$$+ 0.63 \times 50.00 \left(\frac{6.000^2}{2 \times 1.16^2} + 6.000 \times 1.000 \right) = 1258.621 \text{ kN}$$

∴ USD : Ma = 1.6 × 2575.245 ÷ 5.750 × 1.2 = 859.908 kN · m/m
WSD : Ma = 1.0 × 2575.245 ÷ 5.750 × 1.2 = 537.442 kN · m/m
USD : Sa = 1.6 × 1258.621 ÷ 5.750 × 1.2 = 420.27 kN/m

적용위치(x)	La	Lb / 4				비 고
	6.000	5.500	4.125	2.750	1.375	
hx	5.750	5.750	4.600	3.400	2.200	[hx=Ho+x/n]
Moment	2575.245	1998.759	886.104	299.227	53.975	kN · m
Mx[USD]	859.908	667.412	369.852	140.813	39.255	kN · m/m
Mx[WSD]	537.442	417.132	231.158	88.008	24.534	kN · m/m
Shear Force	1258.6210	1051.185	593.641	282.32	92.635	kN
Sx[USD]	420.270	351.004	247.781	132.856	67.371	kN/m

2) 단 면 B-B [x = Lb = 5.500 m]
: 위의 표17-1 참조

3) 단 면 C-C [x = 4.125 m]
: 위의 표17-1 참조

17.1.5 단면설계(날개벽 단면A-A)

1) 단면계산 조건

- 단 면 폭 : b_w = 1000 mm
- 단 면 높 이 : h = 600 mm
- 헌 치 : H = 300 mm
- 유 효 높 이 : d_1 = 600 mm (단면계산시)
  d_2 = 500 mm (전단계산시)
- 피 복 두 께 : d_1' = 100 mm (인장1단)
- 피 복 두 께 : d_2' = 0 mm (인장2단)
- 계수 모멘트 : USD : Mu = 859.908 kN·m
  WSD : Ms = 537.442 kN·m
- 계수전단강도: USD : Vu = 420.270 kN

- 콘크리트 강도 : f_{ck} = 30.0 MPa
- 철근 항복응력 : f_y = 400 MPa
- 강도 감소계수 : ϕ = 0.9 (휨)
  ϕ = 0.85 (전단)

2) 단면 계산

(1) 철근량 산정

- 최소철근량(A_S) : (1.4 / fy · b · d) = 2100 ㎟
- 필요철근량(A_S) : $[d-\sqrt{(d^2-4Mu/1.7 \cdot fck \cdot b \cdot \Phi)}] / [2 \cdot fy / 1.7 \cdot fck \cdot b]$ = 4213 ㎟
- 최대철근량(A_S) : $0.75 \cdot 0.85 \cdot \beta \cdot fck \cdot 600 / [fy \cdot (600+fy)] \cdot b \cdot d$ = 14631 ㎟
- 4/3 (요구 철근량 (A_S)) = 5617.333 ㎟

(2) 사용 철근량 (A_S)

- 인장 철근량 : 1단 : H 29 @ 125 - 8 ea = 5139 ㎟
  2단 : H @ 0 - ea = 0 ㎟ ; Total: 5,139 ㎟

(3) 철근비검토

- 최소철근비: $\rho_{min} = 0.25 \times \sqrt{(f_{ck})}/f_y$ = 0.00342 < 1.4 / f_y = 0.00350
- 균형철근비: $\rho_b = 0.85 \times \beta_1 \times (f_{ck} / f_y) \times (600 / (600 + f_y))$ = 0.03198 (β_1= 0.836)

∴ ρ_{min} = 0.00350 < ρ = 0.00857 < ρ_{max} = 0.02283 == OK ==

(3) 단면 검토

- 등가응력 깊이 : a = As · fy / (0.85 · fck · b) = 80.61 mm
- 극한 모멘트 : Mu = 859.91 kN·m
- 공칭 모멘트 : Mn = As · fy (d-a/2) = 1150.55 kN·m
- 설계 모멘트 : Md = Φ · Mn = 1035.50 kN·m

∴ Md > Mu == OK ==

3) 전단 검토

- Vc = $1/6 \times \sqrt{f_{ck}} \times b_w \times d$ = 456.44 kN

- Φ · Vc	= 387.974 kN	- Req Vs	= (Vu - ϕVc) / ϕ	= 37.995	kN
- 0.5 · Φ · Vc	= 193.99 kN	- Vs	= Av · fy · d / s	= 337.867	kN
- Min Av	= 131.25 ㎟	- Max Vs	= 2/3 · √fck · bw · d	= 1825.742	kN

∴ Vu > Φ · Vc === 전단철근 필요 !!!

(1) 사용 전단철근

- 전단 철근 간격 : s = 150 mm
- 전단 철근 직경 : H 13 - 2.0
- 전단 철근 단면적 : Av = 253 ㎟

∴ Req'd Vs < Vs < Max. Vs == OK ==

(2) 단면력 검토 (shear force)

- 공칭 전단강도 : Vn = 794.307 kN
- 설계 전단강도 : Vd = 675.161 kN ∴ Vd > Vu == OK ==

4) 균열 검토

- 콘크리트 피복 두께 (dc) = 100 mm
- 인장철근 도심까지의 거리 (dc') = 100 mm
- d = 700 - 100 = 600 mm

- fs = M / {As (d - x/3)}
  = 537442435 ÷ (5139.2 × (600 - 175 ÷ 3)) = 193.1 N/㎟
- 철근 유효단면적 : A = 1000 × 100 × 2 ÷ 8 = 25000 ㎟
- 압축응력 깊이 : x = k · d = 175 mm
- 중 립 축 비 : k = $-np + \sqrt{(np)^2 + 2np}$ = 0.29155 (n = 7)
- 철 근 비 : p = As / [b · d]
  = 5139 ÷ (1000 × 600) = 0.00857
- 인장철근의 간격 검토

Cc = 100 - 29 / 2 = 85.5 mm

sa1 = 375 x (210 / fs) - 2.5 x Cc
= 375 x (210 / 193.1) - 2.5 x 86 = 194.2 mm

sa2 = 300 x (210 / fs)
= 300 x (210 / 193.1) = 326.3 mm

sa = Min (194.2 , 326.3) = 194.2 mm

s = 125 mm < sa = 194.2 mm == OK ==

5) 배력철근 계산

- 주철근량의 1/5 : A_{min1} = 1/5 × 5139.2 = 1028 ㎟
- 단면적의 0.30% : A_{min2} = 0.003 × Ag = 0.003 × 1000 600 = 1800 ㎟
- 배 력 철 근 량 : H 16 , 인장측 : 150 mm , 압축측 : 300 mm
  * 인장측 배력철근량 : 198.6 × (1000 ÷ 150) × 1 = 1390 ㎟
  * 압축측 배력철근량 : 198.6 × (1000 ÷ 300) = 596 ㎟
- 배 력 철 근 량 : 1986 ㎟ > 1800 ㎟ = Amin == O.K ==
- 인장측 배력철근량 : 1390 ㎟ < 5139 ㎟ = 인장측 주철근량 == O.K ==

17.1.6 단면설계(날개벽 단면B-B)

1) 단면계산 조건

- 단 면 폭 : b_w = 1000 mm
- 단 면 높 이 : h = 600 mm
- 유 효 높 이 : d_1 = 500 mm (단면계산시)
  d_2 = 500 mm (전단계산시)
- 피 복 두 께 : d_1' = 100 mm (인장1단)
- 피 복 두 께 : d_2' = 0 mm (인장2단)
- 계수 모멘트 : USD : Mu = 667.41 kN·m
  WSD : Ms = 417.13 kN·m
- 계수전단강도: USD : Vu = 351.00 kN

- 콘크리트 강도 : f_{ck} = 30.0 MPa
- 철근 항복응력 : f_y = 400 MPa
- 강도 감소계수 : ϕ = 0.9 (휨)
  ϕ = 0.85 (전단)

---

2) 단면 계산

(1) 철근량 산정

- 최소철근량(A_S) : (1.4 / fy·b·d) = 1750 ㎟
- 필요철근량(A_S) : $[d-\sqrt{(d^2-4Mu/1.7\cdot fck\cdot b\cdot \Phi)}] / [2\cdot fy / 1.7\cdot fck\cdot b]$ = 3953 ㎟
- 최대철근량(A_S) : $0.75\cdot 0.85\cdot \beta\cdot fck\cdot 600 / [fy\cdot (600+fy)]\cdot b\cdot d$ = 12192 ㎟
- 4/3 (요구 철근량 (A_S)) = 5270.667 ㎟

(2) 사용 철근량 (A_S)

- 인장 철근량 : 1단 : H 29 @ 125 - 8 ea = 5139 ㎟
  2단 : H 0 @ 0 - 0 ea = 0 ㎟ ; Total: 5,139 ㎟

(3) 철근비검토

- 최소철근비: $\rho_{min} = 0.25\times\sqrt{(f_{ck})}/f_y$ = 0.00342 < 1.4 / f_y = 0.00350
- 균형철근비: $\rho_b = 0.85\times\beta_1\times(f_{ck}/f_y)\times(600/(600+f_y))$ = 0.03198 (β_1= 0.836)

∴ ρ_{min} = 0.00350 < ρ = 0.01028 < ρ_{max} = 0.02283 == OK ==

(3) 단면 검토

- 등가응력 깊이 : a = As·fy / (0.85·fck·b) = 80.61 mm
- 극한 모멘트 : Mu = 667.41 kN·m
- 공칭 모멘트 : Mn = As·fy (d-a/2) = 944.99 kN·m
- 설계 모멘트 : Md = Φ· Mn = 850.49 kN·m

∴ Md > Mu == OK ==

3) 전단 검토

- Vc = $1/6\times\sqrt{(f_{ck})}\times b_w\times d$ = 456.44 kN
- Φ·Vc = 387.974 kN

∴ Vu < Φ·Vc === 전단철근 불필요 !!!

4) 균열 검토

- 콘크리트 피복 두께 (dc) = 100 mm
- 인장철근 도심까지의 거리 (dc') = 100 mm
- d = 600 - 100 = 500 mm

- fs = M / {As (d - x/3)}
  = 417132313 ÷ (5139.2 × (500 - 157 ÷ 3)) = 181.3 N/㎟
- 철근 유효단면적 : A = 1000 × 100 × 2 ÷ 8 = 25000 ㎟
- 압축응력 깊이 : x = k · d = 157 mm
- 중 립 축 비 : k = -np + √ ((np)² + 2np) = 0.31417 (n = 7)
- 철 근 비 : p = As / [b · d]
  = 5139 ÷ (1000 × 500) = 0.01028
- 인장철근의 간격 검토

Cc = 100 - 29 / 2 = 85.5 mm

sa1 = 375 x (210 / fs) - 2.5 x Cc
= 375 x (210 / 181.3) - 2.5 x 86 = 220.6 mm
sa2 = 300 x (210 / fs)
= 300 x (210 / 181.3) = 347.4 mm

sa = Min (220.6 , 347.4) = 220.6 mm
s = 125 mm < sa = 220.6 mm == OK ==

5) 배력철근 계산

- 주철근량의 1/5 : A_{min1} = 1/5 × 5139.2 = 1028 ㎟
- 단면적의 0.30% : A_{min2} = 0.003 × Ag = 0.003 × 1000 × 600 = 1800 ㎟
- 배 력 철 근 량 : H 16 , 인장측 : 150 mm , 압축측 : 300 mm
  * 인장측 배력철근량 : 198.6 × (1000 ÷ 150) × 1 = 1390 ㎟
  * 압축측 배력철근량 : 198.6 × (1000 ÷ 300) = 596 ㎟
- 배 력 철 근 량 : 1986 ㎟ > 1800 ㎟ = Amin == 0.K ==
- 인장측 배력철근량 : 1390 ㎟ < 5139 ㎟ = 인장측 주철근량 == 0.K ==

17.1.7 단면설계(날개벽 단면C-C)

1) 단면계산 조건

- 단 면 폭 : b_w = 1000 mm
- 단 면 높 이 : h = 600 mm
- 유 효 높 이 : d_1 = 500 mm (단면계산시)
  d_2 = 500 mm (전단계산시)
- 피 복 두 께 : d_1' = 100 mm (인장1단)
- 피 복 두 께 : d_2' = 0 mm (인장2단)
- 계수 모멘트 : USD : Mu = 369.85 kN · m
  WSD : Ms = 231.16 kN · m
- 계수전단강도: USD : Vu = 247.78 kN

- 콘크리트 강도 : f_{ck} = 30.0 MPa
- 철근 항복응력 : f_y = 400 MPa
- 강도 감소계수 : ϕ = 0.9 (휨)
  ϕ = 0.85 (전단)

2) 단면 계산

(1) 철근량 산정

- 최소철근량(A_S) : (1.4 / fy · b · d) = 1750 ㎟
- 필요철근량(A_S) : $[d-\sqrt{(d^2-4Mu/1.7 \cdot fck \cdot b \cdot \Phi)}] / [2 \cdot fy / 1.7 \cdot fck \cdot b]$ = 2126 ㎟
- 최대철근량(A_S) : $0.75 \cdot 0.85 \cdot \beta \cdot fck \cdot 600 / [fy \cdot (600+fy)] \cdot b \cdot d$ = 12192 ㎟
- 4/3 (요구 철근량 (A_S)) = 2834.667 ㎟

(2) 사용 철근량 (A_S)

- 인장 철근량 : 1단 : H 29 @ 125 - 8 ea = 5139 ㎟
  2단 : H @ 0 - ea = 0 ㎟ ; Total: 5,139 ㎟

(3) 철근비검토

- 최소철근비: $\rho_{min} = 0.25 \times \sqrt{(f_{ck})}/f_y$ = 0.00342 < 1.4 / f_y = 0.00350
- 균형철근비: $\rho_b = 0.85 \times \beta_1 \times (f_{ck} / f_y) \times (600 / (600 + f_y))$ = 0.03198 (β_1= 0.836)

∴ ρ_{min} = 0.00350 < ρ = 0.01028 < ρ_{max} = 0.02283 == OK ==

(3) 단면 검토

- 등가응력 깊이 : a = As · fy / (0.85 · fck · b) = 80.61 mm
- 극한 모멘트 : Mu = 369.85 kN · m
- 공칭 모멘트 : Mn = As · fy (d-a/2) = 944.99 kN · m
- 설계 모멘트 : Md = Φ · Mn = 850.49 kN · m

∴ Md > Mu == OK ==

3) 전단 검토

- Vc = $1/6 \times \sqrt{(f_{ck})} \times b_w \times d$ = 456.44 kN
- Φ · Vc = 387.974 kN

∴ Vu < Φ · Vc === 전단철근 불필요 !!!

4) 균열 검토

- 콘크리트 피복 두께 (dc) = 100 mm
- 인장철근 도심까지의 거리 (dc') = 100 mm
- d = 600 - 100 = 500 mm

- fs = M / {As (d - x/3)}
  = 231157565 ÷ (5139.2 × (500 - 157 ÷ 3)) = 100.5 N/㎟
- 철근 유효단면적 : A = 1000 × 100 × 2 ÷ 8 = 25000 ㎟
- 압축응력 깊이 : x = k · d = 157 mm
- 중 립 축 비 : k = $-np + \sqrt{(np)^2 + 2np}$ = 0.31417 (n = 7)
- 철 근 비 : p = As / [b · d]
  = 5139 ÷ (1000 × 500) = 0.01028
- 인장철근의 간격 검토

  Cc = 100 - 29 / 2 = 86 mm

  sa1 = 375 x (210 / fs) - 2.5 x Cc
  = 375 x (210 / 100.5) - 2.5 x 86 = 570.0 mm

  sa2 = 300 x (210 / fs)
  = 300 x (210 / 100.5) = 627.0 mm

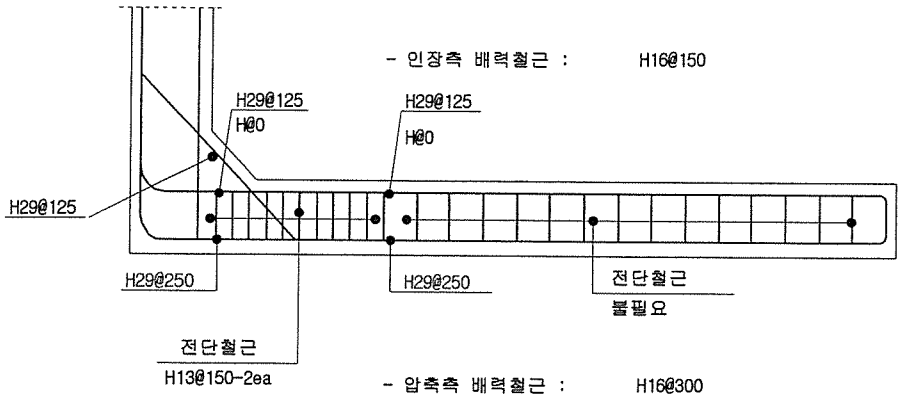
  sa = Min (570.0 , 627.0) = 570.0 mm

  s = 125 mm < sa = 570.0 mm == OK ==

5) 배력철근 계산

- 주철근량의 1/5 : A_{min1} = 1/5 × 5139.2 = 1028 ㎟
- 단면적의 0.30% : A_{min2} = 0.003 × Ag = 0.003 × 1000 × 600 = 1800 ㎟
- 배 력 철 근 량 : H 16 , 인장측 : 150 mm , 압축측 : 300 mm
  - * 인장측 배력철근량 : 198.6 × (1000 ÷ 150) × 1 = 2582 ㎟
  - * 압축측 배력철근량 : 198.6 × (1000 ÷ 300) = 596 ㎟
- 배 력 철 근 량 : 3178 ㎟ > 1800 ㎟ = Amin == O.K ==
- 인장측 배력철근량 : 1800 ㎟ < 5139 ㎟ = 인장측 주철근량 == O.K ==

17.1.8 날개벽 주철근조립도



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C(함) 산운제1

- 2.0 x 2.00 x 1
- 토피 = 9.7m 이하

1. 설 계 조 건
2. 단 면 가 정
3. 해석모델 및 단면제원
4. 하중산정
5. 하중재하도
6. 하중계수 및 하중조합
7. INPUT DATA
8. OUTPUT
9. 단면력요약
10. 단 면 력 도
11. 단 면 검 토
12. 우각부 검토
13. 배력철근 검토
14. 사용성 검토
15. 기초지지력 검토
16. 주철근조립도
17. 날개벽 설계

1. 설계 조건

1) 구조물명 : c (함)

2) 구조형식 : 철근 콘크리트 구조

3) 설계하중 : KRL2012 (복 선)

4) 재료중량

- 철근 콘크리트(γ_c)	=	24.5	kN/m^3
- 무근 콘크리트(γ_{con})	=	23.0	kN/m^3
- 뒷채움 토사(γ_t)	=	20.0	kN/m^3
- 뒷채움 토사(γ_{sub})	=	11.0	kN/m^3
- 지하수(γ_w)	=	10.0	kN/m^3

5) 사용재료의 성질

- 콘크리트 설계기준 강도(fck)	=	30.0	MPa
- 콘크리트 탄성계수(Ec)	=	27537	MPa
- 철근의 항복강도(fy)	=	400.0	MPa
- 철근의 탄성계수(Es)	=	200000	MPa

6) 토 사

- 흙의 내부마찰각 (ϕ)	=	35.0	°
- 정지 토압계수 (Ko)	=	0.426	

7) 기 초 형 식 : 직접기초

8) 사 각(Skew) : 70.00 ° 연 장 (L) : 42.00 m

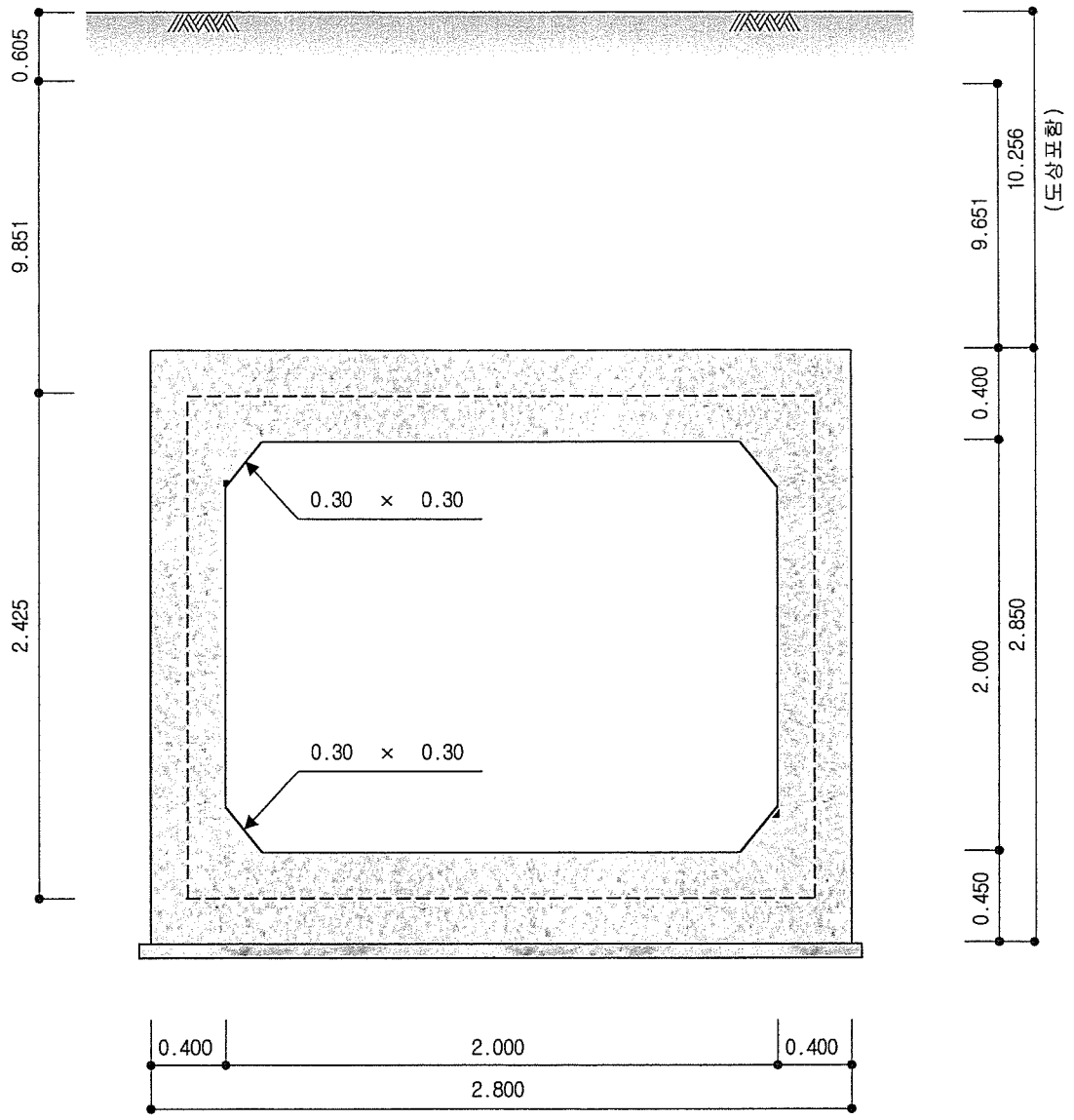
9) 설계방법

- 강도 설계법 : 부재 단면검토(슬래브, 벽체, 보, 기둥 등)
- 허용응력 설계법 : 사용성 검토(처짐, 균열, 우각부 검토)

10) 참고문헌

- 철도설계기준(노반편), 국토해양부, 2013
- 콘크리트 구조설계기준해설, 한국콘크리트 학회, 2012

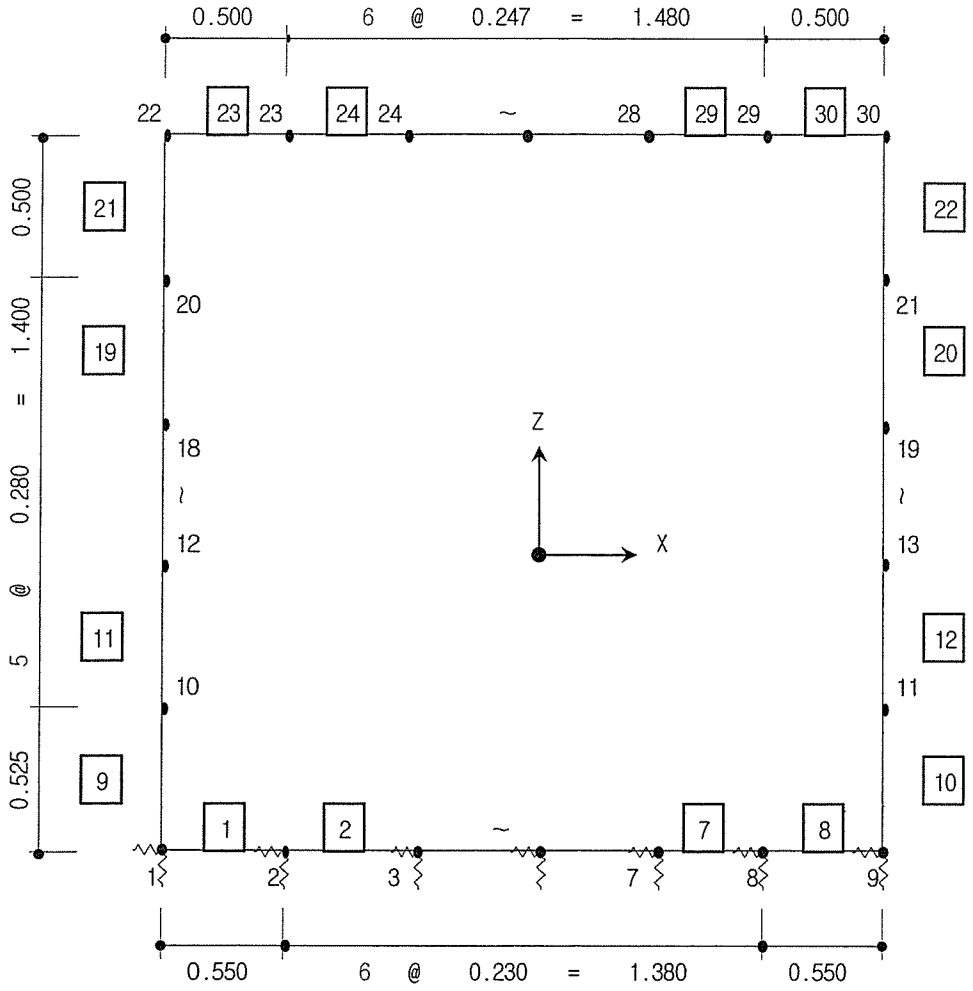
2. 단면 가정



※ 유효경간

Skew =	70.0	°					
Ln =	2.400	m					
Ls =	2.554	m					
Ls/B =	2.554	/	18.000	=	0.142	<	1.500
L =	2.480	m					

3. 해석모델 및 단면제원



1) 절점 좌표

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
1	0.000	0.000	0.000	13	2.480	0.000	0.805
2	0.550	0.000	0.000	14	0.000	0.000	1.085
3	0.780	0.000	0.000	15	2.480	0.000	1.085
4	1.010	0.000	0.000	16	0.000	0.000	1.365
5	1.240	0.000	0.000	17	2.480	0.000	1.365
6	1.470	0.000	0.000	18	0.000	0.000	1.645
7	1.700	0.000	0.000	19	2.480	0.000	1.645
8	1.930	0.000	0.000	20	0.000	0.000	1.925
9	2.480	0.000	0.000	21	2.480	0.000	1.925
10	0.000	0.000	0.525	22	0.000	0.000	2.425
11	2.480	0.000	0.525	23	0.500	0.000	2.425
12	0.000	0.000	0.805	24	0.747	0.000	2.425

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
25	0.993	0.000	2.425	28	1.733	0.000	2.425
26	1.240	0.000	2.425	29	1.980	0.000	2.425
27	1.487	0.000	2.425	30	2.480	0.000	2.425

2) 경계 조건

joint	spring계수 (kN/m²)		joint	spring계수 (kN/m²)	
	z방향(수직)	x방향(수평)		z방향(수직)	x방향(수평)
1 . 9	5456		3 ~ 7	2642	
2 . 8	4480				

3) 단면제원

Element	두께	폭	비 고
23 ~ 30	0.400	1.000	상부슬래브
1 ~ 8	0.450	1.000	하부슬래브
9 ~ 22	0.400	1.000	벽 체

4) 강역설정

(1) 강역설정기준(콘크리트구조설계기준 2012)

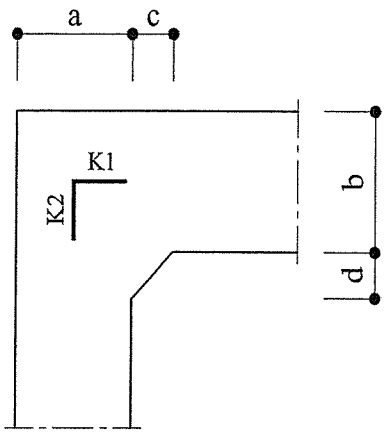
CASE 1 : 부재단부가 다른 부재와 접합할 때는 부재단에서 부재두께의 1/4 안쪽점에서 절점까지

CASE 2 : 부재가 그 축선에 대해 25° 이상 60° 미만인 경사진 헌치를 갖는 경우에는 부재두께가 1.5배가 되는 점에서 부터 절점까지

CASE 3 : 헌치의 경사가 60° 이상의 경우는 헌치의 시점에서 부재두께의 1/4 안쪽 점에서부터 절점까지

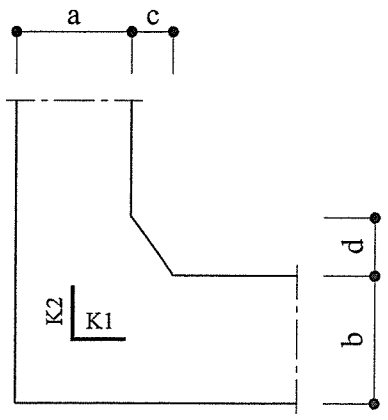
(2) 강역설정

- 절점 22 , 30



a =	400	mm	c =	300	mm
b =	400	mm	d =	300	mm
K1 =	300	mm	K2 =	300	mm

- 절점 1 , 9

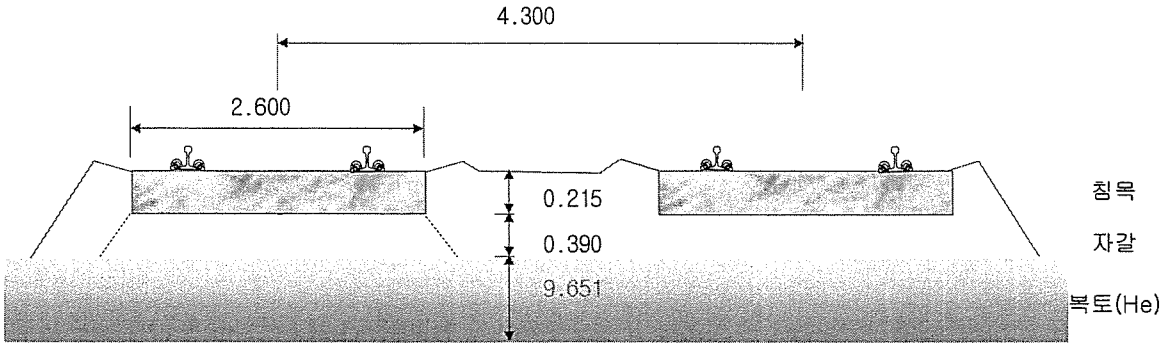


a =	400	mm	c =	300	mm
b =	450	mm	d =	300	mm
K1 =	275	mm	K2 =	325	mm

4. 하중산정

4.1 상시

1) 상부 고정하중(지하수 無)



① 하중 분포폭 산정 (b')

① He < 0.5m 경우 : b + d

b_1 = 2.600 + 0.390 = 2.990 m

② He ≥ 0.5m 경우 : c + b + (d + He)

b_2 = 4.300 + 2.600 + (0.390 + 9.651) = 14.590 m

여기서, He : 시공기면에서의 토피고(m)

a : 동륜간 축간거리(m) c : 복선선로 중심간격(m)

b : 침목길이(m) d : 침목하면의 도상두께(m)

H : 상부슬래브 두께

He ≥ 0.5 m

∴ b' = 14.590 m

② 구조물 자중 : 프로그램 상에서 Self Weight 기능을 이용하여 자동 고려

③ 궤도 중량

- 레일 : 레일당 1.5kN/m를 적용

q_1 = 4 × 1.500 / 14.590 = 0.411 kN/㎡

- 침목 : 고속철도용 5.0kN/m

q_2 = 5.000 × 2 / 14.590 = 0.685 kN/㎡

= 1.096 kN/㎡

④ 도상 (q_2)

TCL = 0.215 × 19.000 × 1.3 = 5.311 kN/㎡

HSB = 0.390 × 19.000 × 1.3 = 9.633 kN/㎡

= 14.944 kN/㎡

⑤ 복토하중 (q_3) = 20.000 × 9.651 = 193.020 kN/㎡

∴ $q_1 + q_2 + q_3$ = 1.096 + 14.944 + 193.020 = 209.060 kN/㎡

2) 활하중

① 활하중 산정 : KRL 2012

$$W_{HL} = \frac{2P}{a \times b'} = \frac{2\times(220+80x3)}{3.000 \times 14.590} = 21.019 \text{ kN/㎡}$$

∴ W = 21.019 kN/㎡

② 충격계수

1) 단선 (i_0) (철도설계기준 노반편(2013) p.5-7)

지 간 L (m)	0	5	10	20	30	40	50	70	100
충격계수 (i)	0.60	0.48	0.43	0.37	0.34	0.32	0.30	0.27	0.24

* 상기표에 없는 지간의 충격 계수는 보간법으로 구한다.

지 간 L (m) = 2.480 m

따라서 i_0 = 0.540 (보간법에 의하여 산정된 충격계수)

2) 구조물 상면의 복토높이에 따른 충격 계수

H ≥ 1.0일 경우 $i = i_0 \cdot \{(2.5 - H)/1.5\}$

여기서, H ≤ 1.0 m 에서는 $i = i_0$

H ≥ 2.5 m 에서는 i = 0

따라서, 본 구조물의 H = 10.256 m i = 0.000

W_L = 21.019 ×(1 + 0.000) = 21.019 kN/㎡

③ 활하중에 의한 측압 (충격비고려)(철도설계기준 노반편(2013) p.5-6)

W_{LH} = 21.019 × 0.4 = 8.408 kN/㎡

3) 토 압

- 지하수가 없는 경우 작용 토압

q_1 = 0.426 ×(16.040 + 20.000 × 9.851) = 90.764 kN/㎡

q_2 = 90.764 + 0.426 ×(20.000 × 0.500) = 95.024 kN/㎡

q_3 = 95.024 + 0.426 ×(20.000 × 0.280) = 97.410 kN/㎡

q_4 = 97.410 + 0.426 ×(20.000 × 0.280) = 99.796 kN/㎡

q_5 = 99.796 + 0.426 ×(20.000 × 0.280) = 102.182 kN/㎡

q_6 = 102.182 + 0.426 ×(20.000 × 0.280) = 104.568 kN/㎡

q_7 = 104.568 + 0.426 ×(20.000 × 0.280) = 106.954 kN/㎡

q_8 = 106.954 + 0.426 ×(20.000 × 0.525) = 111.427 kN/㎡

- 시공중 편토압 산정 (지하수가 없는 경우 작용 토압)

q_1 = 0.426 × (0.000 + 20.000 × 0.200) = 1.704 kN/㎡

q_2 = 1.704 + 0.426 × (20.000 × 0.500) = 5.964 kN/㎡

q_3 = 5.964 + 0.426 × (20.000 × 0.280) = 8.350 kN/㎡

q_4 = 8.350 + 0.426 × (20.000 × 0.280) = 10.736 kN/㎡

q_5 = 10.736 + 0.426 × (20.000 × 0.280) = 13.122 kN/㎡

q_6 = 13.122 + 0.426 × (20.000 × 0.280) = 15.508 kN/㎡

q_7 = 15.508 + 0.426 × (20.000 × 0.280) = 17.894 kN/㎡

q_8 = 17.894 + 0.426 × (20.000 × 0.525) = 22.367 kN/㎡

4) 온도하중

토피가 1.0m 이상일 경우에는 온도변화를 고려치 않으며, 토피가 1.0m 이하일 경우에는 다음식을 따른다.

$t = a \times t_0$ = 0.000 × 15.0 = 0.000 ℃

t : 박스 구조물의 상부 슬래브에 작용하는 온도변화

a : 토피심도(m)에 따른 저감률 $a=1-h_0$ (h_0:토피심도)

t_0 : 지표면에서의 기본온도 변화

상부슬래브의 두께가 700mm 이상인 경우 $t_0 = \pm 10$℃

상부슬래브의 두께가 700mm 미만인 경우 $t_0 = \pm 15$℃

토피고 H > 1.0m 이므로 온도변화는 고려하지 않는다.

5) 건조수축

$$\Delta Tx = \frac{\varepsilon}{\alpha} = \frac{-0.00015}{0.00001} = -15\,^{\circ}C$$

6) 장대레일 하중

장대레일 종하중은 필요시에 고려하여야 하며, 1궤도당 10 kN/m로 하고 작용위치는 상부슬래브 축선으로 한다. (단, 토피가 1.0m 이상인 경우는 이를 무시한다.)

토피가 10.256 m 이므로 장대레일 하중을 무시한다.

H_r = 0.000 × 4 / 14.590 = 0.000 kN/㎡

7) 상시 지반반력 계수

지지 지반 N치 = 6

Eo = 2800 × N = 2800 × 6 = 16800

Kvo = 1 / 0.3 x α x Eo = 1 / 0.3 × 1 x 16800 = 56000

Bv = √ Av = √ (2.480 × 2.480) = 2.480

Kv = Kvo (Bv/0.3)^-3/4 = 11487 kN/㎡

11487 × (0.400 / 2 + 0.550 / 2) = 5456 kN/m² - 저판 단부 스프링

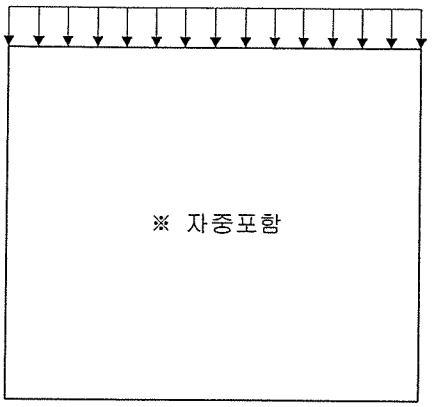
11487 × (0.550 / 2 + 0.230 / 2) = 4480 kN/m² - 저판 전단검토위치

11487 × (0.230 / 2 + 0.230 / 2) = 2642 kN/m² - 저판 중앙부 스프링

5. 하중재하도

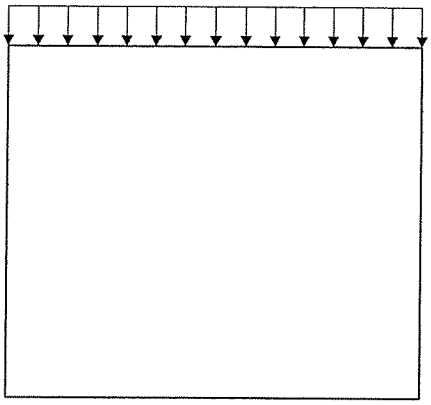
① 고정하중

W_D = 209.060 kN/㎡



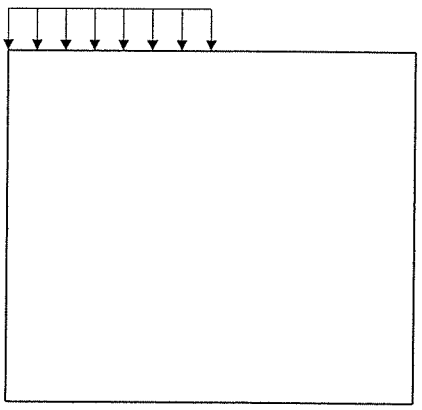
② 활하중(만재하)

W_L = 21.019 kN/㎡

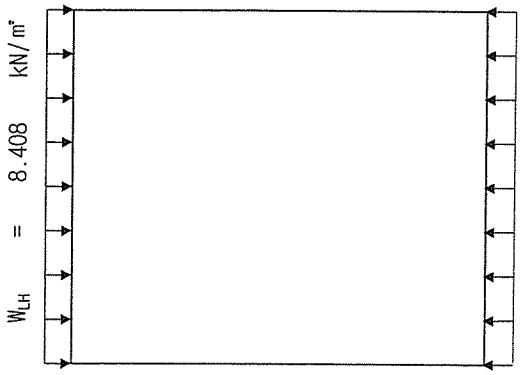


③ 활하중(편재하)

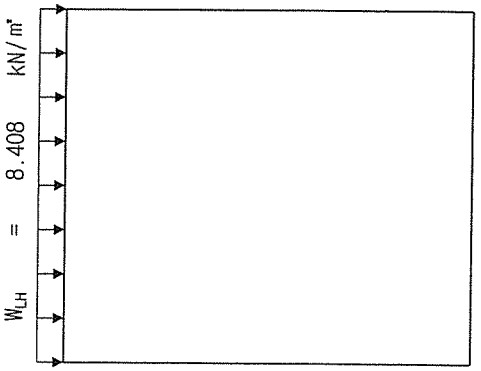
W_L = 21.019 kN/㎡



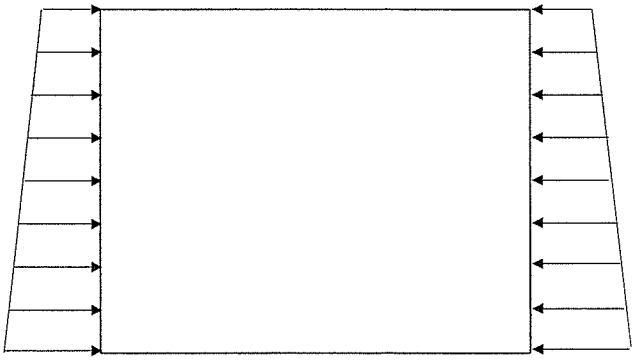
④ 활하중에 의한 측압(만재하)



⑤ 활하중에 의한 측압(편재하)



⑥ 수평토압(지하수 없는 경우)

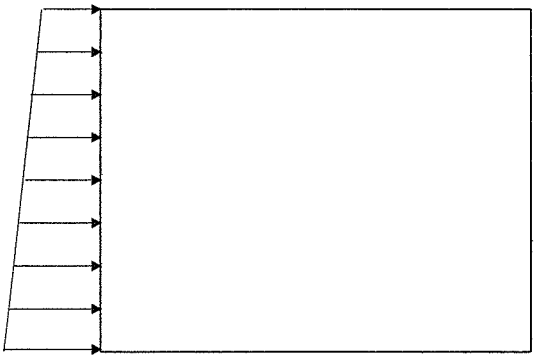


q_1 = 90.764 kN/㎡

q_7 = 111.427 kN/㎡

⑦ 편측토압(지하수 없는 경우)

q_1 = 1.704 kN/㎡



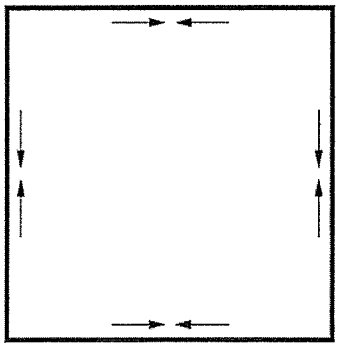
q_7 = 22.367 kN/㎡

⑧ 온도하중

△T = 0 °

⑨ 건조수축

△T = -15 °



⑩ 장대레일 종하중

Hr = 0.000 kN/m²

6. 하중계수 및 하중조합

1) 극한하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
1	1.35	1.85		1.85		1.6						
2	1.35	1.85		1.85		0.6						
3	1.35		1.85		1.85	1.6						
4	1.35		1.85		1.85	0.6						
5	1.6	1.60		1.60		1.6						
6	1.6	1.60		1.60		0.6						
7	1.6		1.6		1.6	1.6						
8	1.6		1.6		1.6	0.6						
9	1.35	1.40		1.40		1.6		1.35		1.35		
10	1.35	1.40		1.40		0.6		1.35		1.35		
11	1.35	1.40		1.40		1.6			1.35	1.35	1.40	
12	1.35	1.40		1.40		0.6			1.35	1.35	1.40	
13	1.35		1.40		1.40	1.6		1.35		1.35		
14	1.35		1.40		1.40	0.6		1.35		1.35		
15	1.35		1.40		1.40	1.6			1.35	1.35	1.4	
16	1.35		1.40		1.40	0.6			1.35	1.35	1.4	
17	1.35		1.85		1.85		1.60					
18	1.35		1.85		1.85		0.60					
19	1.60		1.60		1.60		1.60					
20	1.60		1.60		1.60		0.60					

2) 사용하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
21	1.0	1.0		1.0		1.0						
22	1.0	1.0		1.0		0.5						
23	1.0		1.0		1.0	1.0						
24	1.0		1.0		1.0	0.5						
25	1.0	1.0		1.0		1.0		1.0			1.0	
26	1.0	1.0		1.0		0.5		1.0			1.0	
27	1.0	1.0		1.0		1.0			1.0	1.0	1.0	
28	1.0	1.0		1.0		0.5			1.0	1.0	1.0	
29	1.0		1.0		1.0	1.0		1.0			1.0	
30	1.0		1.0		1.0	0.5		1.0			1.0	
31	1.0		1.0		1.0	1.0			1.0	1.0	1.0	
32	1.0		1.0		1.0	0.5			1.0	1.0	1.0	
33	1.0					1.0						
34	1.0		1.0		1.0		1.0					
35	1.0		1.0		1.0		0.5					

7. INPUT DATA

```
*VERSION
   8.3.1

*UNIT    ; Unit System
; FORCE, LENGTH, HEAT, TEMPER
   KN   , M, J, C

*STRUCTYPE    ; Structure Type
; iSTYP, iMASS, iSMAS, bMASSOFFSET, bSELFWEIGHT, GRAV, TEMPER, bALIGNBEAM, bALIGNSLAB, bROTRIGID
     1, 1, 1, NO, YES, 9.806, 0, NO, NO, NO

*REBAR-MATL-CODE    ; Rebar Material Code
; CONC_CODE, CONC_MDB, SRC_CODE, SRC_MDB
 KS01-Civil(RC), SD300, KS01-Civil(RC), SD300

*NODE    ; Nodes
; iNO, X, Y, Z
     1, 0, 0, 0
     2, 0.55, 0, 0
     3, 0.78, 0, 0
     4, 1.01, 0, 0
     5, 1.24, 0, 0
     6, 1.47, 0, 0
     7, 1.7, 0, 0
     8, 1.93, 0, 0
     9, 2.48, 0, 0
    10, 0, 0, 0.525
    11, 2.48, 0, 0.525
    12, 0, 0, 0.805
    13, 2.48, 0, 0.805
    14, 0, 0, 1.085
    15, 2.48, 0, 1.085
    16, 0, 0, 1.365
    17, 2.48, 0, 1.365
    18, 0, 0, 1.645
    19, 2.48, 0, 1.645
    20, 0, 0, 1.925
    21, 2.48, 0, 1.925
    22, 0, 0, 2.425
    23, 0.5, 0, 2.425
    24, 0.747, 0, 2.425
    25, 0.993, 0, 2.425
    26, 1.24, 0, 2.425
    27, 1.487, 0, 2.425
    28, 1.733, 0, 2.425
    29, 1.98, 0, 2.425
    30, 2.48, 0, 2.425

*ELEMENT    ; Elements
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, iOPT(EXVAL2) ; Frame  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, EXVAL2, bLMT ; Comp/Tens Truss
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iSUB, iWID             ; Planar Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iN5, iN6, iN7, iN8     ; Solid  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, REF, RPX, RPY, RPZ, iSUB, EXVAL  ; Frame(Ref. Point)
     1, BEAM  ,    2,    2,    1,    2,  180
     2, BEAM  ,    2,    2,    2,    3,  180
     3, BEAM  ,    2,    2,    3,    4,  180
     4, BEAM  ,    2,    2,    4,    5,  180
     5, BEAM  ,    2,    2,    5,    6,  180
     6, BEAM  ,    2,    2,    6,    7,  180
     7, BEAM  ,    2,    2,    7,    8,  180
     8, BEAM  ,    2,    2,    8,    9,  180
     9, BEAM  ,    2,    3,    1,   10,  180
    10, BEAM  ,    2,    3,    9,   11,    0
    11, BEAM  ,    2,    3,   10,   12,  180
    12, BEAM  ,    2,    3,   11,   13,    0
    13, BEAM  ,    2,    3,   12,   14,  180
    14, BEAM  ,    2,    3,   13,   15,    0
    15, BEAM  ,    2,    3,   14,   16,  180
    16, BEAM  ,    2,    3,   15,   17,    0
    17, BEAM  ,    2,    3,   16,   18,  180
    18, BEAM  ,    2,    3,   17,   19,    0
    19, BEAM  ,    2,    3,   18,   20,  180
    20, BEAM  ,    2,    3,   19,   21,    0
    21, BEAM  ,    2,    3,   20,   22,  180
    22, BEAM  ,    2,    3,   21,   30,    0
    23, BEAM  ,    2,    1,   22,   23,    0
    24, BEAM  ,    2,    1,   23,   24,    0
    25, BEAM  ,    2,    1,   24,   25,    0
    26, BEAM  ,    2,    1,   25,   26,    0
    27, BEAM  ,    2,    1,   26,   27,    0
    28, BEAM  ,    2,    1,   27,   28,    0
    29, BEAM  ,    2,    1,   28,   29,    0
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   30, BEAM  ,    2,     1,    29,    30,     0

*MATERIAL    ; Material
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA1]          ; STEEL, CONC, USER
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA2], [DATA2] ; SRC
; [DATA1] : 1, DB, NAME, CODE
; [DATA1] : 2, ELAST, POISN, THERMAL, DEN, MASS
; [DATA1] : 3, Ex, Ey, Ez, Tx, Ty, Tz, Sxy, Sxz, Syz, Pxy, Pxz, Pyz, DEN, MASS   ; Orthotropic
; [DATA2] : 1, DB, NAME, CODE or 2, ELAST, POISN, THERMAL, DEN, MASS
   1, USER , STEEL             , 0, 0, , C, NO, 0, 2, 2.0000e+008,   0.3, 1.1700e-005, 76.8196,     0
   2, USER , CONC              , 0, 0, , C, NO, 0, 2, 2.7537e+007,  0.18, 1.0000e-005,  24.5,     0

*MATL-COLOR
; iMAT, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
   1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5


*SECTION    ; Section
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL              ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF          ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2         ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE                ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       [SIZE-A]                                                              ; 3rd line
;       [SIZE-B]                                                              ; 4th line
;       [SIZE-C]                                                              ; 5th line
;       [SIZE-D]                                                              ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb                     ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                       ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                    ; 4th line
```

```
;       [SIZE-A]                                                                ; 5th line
;       [SIZE-B]                                                                ; 6th line
;       [SIZE-C]                                                                ; 7th line
;       [SIZE-D]                                                                ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]  : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.45, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0

*SECT-COLOR
; iSEC, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
   1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   3, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5

*DGN-SECT
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                     ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL               ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                           ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz                 ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                                ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF           ; 1st line - SRC
;       D1, D2, [SRC]                                                           ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2          ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE                 ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                        ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                          ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                  ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                     ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1       ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                      ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                  ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                     ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2       ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                      ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                     ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                  ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                         ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]         ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                              ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                              ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                              ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                              ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                              ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                              ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                              ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                              ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S         ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i                 ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i                 ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                               ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb, bSYM, SW_i, SW_i         ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                     ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                              ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                              ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                              ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                              ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                              ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                              ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                              ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                              ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                              ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                        ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                        ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                       ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                       ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                               ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh         ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                       ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                                 ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh         ; 3rd line
```

```
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                  ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                ; 2nd line
;       [SIZE-A]                                                           ; 3rd line
;       [SIZE-B]                                                           ; 4th line
;       [SIZE-C]                                                           ; 5th line
;       [SIZE-D]                                                           ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb                  ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                  ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                    ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                 ; 4th line
;       [SIZE-A]                                                           ; 5th line
;       [SIZE-B]                                                           ; 6th line
;       [SIZE-C]                                                           ; 7th line
;       [SIZE-D]                                                           ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]   : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.45, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0


*STLDCASE    ; Static Load Cases
; LCNAME, LCTYPE, DESC
   LC1  , USER,
   LC2  , USER,
   LC3  , USER,
   LC4  , USER,
   LC5  , USER,
   LC6  , USER,
   LC7  , USER,
   LC8  , USER,
   LC9  , USER,
   LC10 , USER,
   LC11 , USER,
   NCOMB1, USER,
   NCOMB2, USER,
   NCOMB3, USER,
   NCOMB4, USER,
   NCOMB5, USER,
   NCOMB6, USER,
   NCOMB7, USER,
   NCOMB8, USER,
   NCOMB9, USER,
   NCOMB10, USER,
   NCOMB11, USER,
   NCOMB12, USER,
   NCOMB13, USER,
   NCOMB14, USER,
   NCOMB15, USER,
   NCOMB16, USER,
   NCOMB17, USER,
   NCOMB18, USER,
   NCOMB19, USER,
   NCOMB20, USER,
   NCOMB21, USER,
   NCOMB22, USER,
   NCOMB23, USER,
   NCOMB24, USER,
   NCOMB25, USER,
   NCOMB26, USER,
   NCOMB27, USER,
   NCOMB28, USER,
   NCOMB29, USER,
   NCOMB30, USER,
   NCOMB31, USER,
   NCOMB32, USER,
   NCOMB33, USER,
   NCOMB34, USER,
   NCOMB35, USER,


*SPRING    ; Point Spring Supports
; NODE_LIST, Type, SDx, SDy, SDz, SRx, SRy, SRz, GROUP, FROMTYPE, EFFAREA, Kx, Ky, Kz
```

```
; NODE_LIST, Type, Direction, Vx, Vy, Vz, Stiffness, GROUP, FROMTYPE, EFFAREA
; NODE_LIST, Type, Multi-Linear Type, Direction, Vx, Vy, Vz, ax, ay, bx, by, cx, cy, dx, dy, ex, ey, fx, fy, GROUP, FROMTYPE, EFFAREA
   2 8, COMP  ,  5, 0, 0, 0, 4480, , 0, 0, 0, 0, 0
   3to7, COMP  ,  5, 0, 0, 0, 2642, , 0, 0, 0, 0, 0~
   1, LINEAR, 1e+014, 0, 0, 0, 0, 0, NO, 0, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0
   1 9, COMP  ,  5, 0, 0, 0, 5456, , 0, 0, 0, 0, 0

*OFFSET    ; Beam End Offsets
; ELEM_LIST, TYPE, RGDXi, RGDYi, RGDZi, RGDXi, RGDYi, RGDZi, GROUP  ; TYPE=GLOBAL
; ELEM_LIST, TYPE, RGDi, RGDi, GROUP                                ; TYPE=ELEMENT
     1, ELEMENT, 0.275, 0,
     8, ELEMENT, 0, 0.275,
     9, ELEMENT, 0.325, 0,
    10, ELEMENT, 0.325, 0,
    21, ELEMENT, 0, 0.3,
    22, ELEMENT, 0, 0.3,
    23, ELEMENT, 0.3, 0,
    30, ELEMENT, 0, 0.3,

*USE-STLD, LC1

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC1] ----------

*USE-STLD, LC2

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC2] ----------

*USE-STLD, LC3

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC3] ----------

*USE-STLD, LC4

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
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    13, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC4] ----------

*USE-STLD, LC5

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC5] ----------

*USE-STLD, LC6

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 111.427, 1, 106.954, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -111.427, 1, -106.954, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 106.954, 1, 104.568, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -106.954, 1, -104.568, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 104.568, 1, 102.182, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -104.568, 1, -102.182, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 102.182, 1, 99.796, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -102.182, 1, -99.796, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 99.796, 1, 97.41, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -99.796, 1, -97.41, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 97.41, 1, 95.024, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -97.41, 1, -95.024, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 95.024, 1, 90.764, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -95.024, 1, -90.764, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC6] ----------

*USE-STLD, LC7

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 22.367, 1, 17.894, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 17.894, 1, 15.508, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.508, 1, 13.122, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.122, 1, 10.736, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 10.736, 1, 8.35, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.35, 1, 5.964, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 5.964, 1, 1.704, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC7] ----------

*USE-STLD, LC10

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
     1, -15.
     2, -15.
     3, -15.
     4, -15.
     5, -15.
     6, -15.
     7, -15.
     8, -15.
     9, -15.
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    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
    30. -15.

; End of data for load case [LC10] ------------------------

*USE-STLD. NCOMB1

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 178.283. 1. 171.126. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -178.283. 1. -171.126. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 171.126. 1. 167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -171.126. 1. -167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 167.309. 1. 163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -167.309. 1. -163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 163.491. 1. 159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -163.491. 1. -159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 159.674. 1. 155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -159.674. 1. -155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 155.856. 1. 152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -155.856. 1. -152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 152.038. 1. 145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -152.038. 1. -145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB1] ------------------------

*USE-STLD. NCOMB2

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 66.8562, 1, 64.1724, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -15.5548, 1, -15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -66.8562, 1, -64.1724, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 64.1724, 1, 62.7408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -64.1724, 1, -62.7408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -15.5548, 1, -15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 62.7408, 1, 61.3092, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -15.5548, 1, -15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -62.7408, 1, -61.3092, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 61.3092, 1, 59.8776, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -61.3092, 1, -59.8776, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -15.5548, 1, -15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 59.8776, 1, 58.446, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -59.8776, 1, -58.446, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -15.5548, 1, -15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 58.446, 1, 57.0144, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -58.446, 1, -57.0144, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -15.5548, 1, -15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 57.0144, 1, 54.4584, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -15.5548, 1, -15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -57.0144, 1, -54.4584, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [NCOMB2] ----------------------

*USE-STLD, NCOMB3

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1.35,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 178.283, 1, 171.126, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -178.283, 1, -171.126, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 171.126, 1, 167.309, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -171.126, 1, -167.309, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 167.309, 1, 163.491, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -167.309, 1, -163.491, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 163.491, 1, 159.674, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -163.491, 1, -159.674, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 159.674, 1, 155.856, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -159.674, 1, -155.856, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 155.856, 1, 152.038, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -155.856, 1, -152.038, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 152.038, 1, 145.222, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.5548, 1, 15.5548, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -152.038, 1, -145.222, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -282.231, 1, -282.231, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -38.8851, 1, -38.8851, 0, 0, 0, 0, , NO, 0, 0, NO
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    24 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1] 0 -38.8851 1 -38.8851 0 0 0 0 NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1] 0 -38.8851 1 -38.8851 0 0 0 0 NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1] 0 -38.8851 1 -38.8851 0 0 0 0 NO 0 0 NO
    27 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    28 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    29 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    30 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO

; End of data for load case [NCOMB3] ------------------------

*USE-STLD NCOMB4

; *SELFWEIGHT X Y Z GROUP
*SELFWEIGHT 0 0 -1.35

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST CMD TYPE DIR bPROJ [ECCEN] [VALUE] GROUP
; ELEM LIST CMD TYPE TYPE DIR VX VY VZ bPROJ [ECCEN] [VALUE] GROUP
; [VALUE]       : D1 P1 D2 P2 D3 P3 D4 P4
; [ECCEN]       : bECCEN ECCDIR I-END J-END bJ-END
; [ADDITIONAL]  : bADDITIONAL ADDITIONAL I-END ADDITIONAL J-END bADDITIONAL J-END
     9 BEAM    UNILOAD GX NO NO aDir[1] 0 15.5548 1 15.5548 0 0 0 0 NO 0 0 NO
     9 BEAM    UNILOAD GX NO NO aDir[1] 0 66.8562 1 64.1724 0 0 0 0 NO 0 0 NO
    10 BEAM    UNILOAD GX NO NO aDir[1] 0 -66.8562 1 -64.1724 0 0 0 0 NO 0 0 NO
    11 BEAM    UNILOAD GX NO NO aDir[1] 0 64.1724 1 62.7408 0 0 0 0 NO 0 0 NO
    11 BEAM    UNILOAD GX NO NO aDir[1] 0 15.5548 1 15.5548 0 0 0 0 NO 0 0 NO
    12 BEAM    UNILOAD GX NO NO aDir[1] 0 -64.1724 1 -62.7408 0 0 0 0 NO 0 0 NO
    13 BEAM    UNILOAD GX NO NO aDir[1] 0 62.7408 1 61.3092 0 0 0 0 NO 0 0 NO
    13 BEAM    UNILOAD GX NO NO aDir[1] 0 15.5548 1 15.5548 0 0 0 0 NO 0 0 NO
    14 BEAM    UNILOAD GX NO NO aDir[1] 0 -62.7408 1 -61.3092 0 0 0 0 NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1] 0 61.3092 1 59.8776 0 0 0 0 NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1] 0 15.5548 1 15.5548 0 0 0 0 NO 0 0 NO
    16 BEAM    UNILOAD GX NO NO aDir[1] 0 -61.3092 1 -59.8776 0 0 0 0 NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1] 0 15.5548 1 15.5548 0 0 0 0 NO 0 0 NO
    17 BEAM    UNILOAD GX NO NO aDir[1] 0 59.8776 1 58.446 0 0 0 0 NO 0 0 NO
    18 BEAM    UNILOAD GX NO NO aDir[1] 0 -59.8776 1 -58.446 0 0 0 0 NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1] 0 58.446 1 57.0144 0 0 0 0 NO 0 0 NO
    19 BEAM    UNILOAD GX NO NO aDir[1] 0 15.5548 1 15.5548 0 0 0 0 NO 0 0 NO
    20 BEAM    UNILOAD GX NO NO aDir[1] 0 -58.446 1 -57.0144 0 0 0 0 NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1] 0 15.5548 1 15.5548 0 0 0 0 NO 0 0 NO
    21 BEAM    UNILOAD GX NO NO aDir[1] 0 57.0144 1 54.4584 0 0 0 0 NO 0 0 NO
    22 BEAM    UNILOAD GX NO NO aDir[1] 0 -57.0144 1 -54.4584 0 0 0 0 NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    23 BEAM    UNILOAD GZ NO NO aDir[1] 0 -38.8851 1 -38.8851 0 0 0 0 NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1] 0 -38.8851 1 -38.8851 0 0 0 0 NO 0 0 NO
    24 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1] 0 -38.8851 1 -38.8851 0 0 0 0 NO 0 0 NO
    25 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1] 0 -38.8851 1 -38.8851 0 0 0 0 NO 0 0 NO
    26 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    27 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    28 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    29 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO
    30 BEAM    UNILOAD GZ NO NO aDir[1] 0 -282.231 1 -282.231 0 0 0 0 NO 0 0 NO

; End of data for load case [NCOMB4] ------------------------

*USE-STLD NCOMB5

; *SELFWEIGHT X Y Z GROUP
*SELFWEIGHT 0 0 -1.6

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST CMD TYPE DIR bPROJ [ECCEN] [VALUE] GROUP
; ELEM LIST CMD TYPE TYPE DIR VX VY VZ bPROJ [ECCEN] [VALUE] GROUP
; [VALUE]       : D1 P1 D2 P2 D3 P3 D4 P4
; [ECCEN]       : bECCEN ECCDIR I-END J-END bJ-END
; [ADDITIONAL]  : bADDITIONAL ADDITIONAL I-END ADDITIONAL J-END bADDITIONAL J-END
     9 BEAM    UNILOAD GX NO NO aDir[1] 0 13.4528 1 13.4528 0 0 0 0 NO 0 0 NO
     9 BEAM    UNILOAD GX NO NO aDir[1] 0 178.283 1 171.126 0 0 0 0 NO 0 0 NO
    10 BEAM    UNILOAD GX NO NO aDir[1] 0 -178.283 1 -171.126 0 0 0 0 NO 0 0 NO
    10 BEAM    UNILOAD GX NO NO aDir[1] 0 -13.4528 1 -13.4528 0 0 0 0 NO 0 0 NO
    11 BEAM    UNILOAD GX NO NO aDir[1] 0 171.126 1 167.309 0 0 0 0 NO 0 0 NO
    11 BEAM    UNILOAD GX NO NO aDir[1] 0 13.4528 1 13.4528 0 0 0 0 NO 0 0 NO
    12 BEAM    UNILOAD GX NO NO aDir[1] 0 -13.4528 1 -13.4528 0 0 0 0 NO 0 0 NO
    12 BEAM    UNILOAD GX NO NO aDir[1] 0 -171.126 1 -167.309 0 0 0 0 NO 0 0 NO
    13 BEAM    UNILOAD GX NO NO aDir[1] 0 167.309 1 163.491 0 0 0 0 NO 0 0 NO
    13 BEAM    UNILOAD GX NO NO aDir[1] 0 13.4528 1 13.4528 0 0 0 0 NO 0 0 NO
    14 BEAM    UNILOAD GX NO NO aDir[1] 0 -167.309 1 -163.491 0 0 0 0 NO 0 0 NO
    14 BEAM    UNILOAD GX NO NO aDir[1] 0 -13.4528 1 -13.4528 0 0 0 0 NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1] 0 163.491 1 159.674 0 0 0 0 NO 0 0 NO
    15 BEAM    UNILOAD GX NO NO aDir[1] 0 13.4528 1 13.4528 0 0 0 0 NO 0 0 NO
    16 BEAM    UNILOAD GX NO NO aDir[1] 0 -163.491 1 -159.674 0 0 0 0 NO 0 0 NO
    16 BEAM    UNILOAD GX NO NO aDir[1] 0 -13.4528 1 -13.4528 0 0 0 0 NO 0 0 NO
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    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 159.674. 1. 155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -159.674. 1. -155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 155.856. 1. 152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -155.856. 1. -152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 152.038. 1. 145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -152.038. 1. -145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB5] ----------

*USE-STLD. NCOMB6

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.8562. 1. 64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.8562. 1. -64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 64.1724. 1. 62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -64.1724. 1. -62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7408. 1. 61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.7408. 1. -61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 61.3092. 1. 59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -61.3092. 1. -59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 59.8776. 1. 58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -59.8776. 1. -58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.446. 1. 57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.446. 1. -57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 57.0144. 1. 54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -57.0144. 1. -54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB6] ------------------------

*USE-STLD. NCOMB7

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 178.283. 1. 171.126. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -178.283. 1. -171.126. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 171.126. 1. 167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -171.126. 1. -167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 167.309. 1. 163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -167.309. 1. -163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 163.491. 1. 159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -163.491. 1. -159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 159.674. 1. 155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -159.674. 1. -155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 155.856. 1. 152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -155.856. 1. -152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 152.038. 1. 145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -152.038. 1. -145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB7] ------------------------

*USE-STLD. NCOMB8

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.8562. 1. 64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.8562. 1. -64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 64.1724. 1. 62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -64.1724. 1. -62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7408. 1. 61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.7408. 1. -61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 61.3092. 1. 59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -61.3092. 1. -59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 59.8776. 1. 58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -59.8776. 1. -58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.446. 1. 57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.446. 1. -57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 57.0144. 1. 54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -57.0144. 1. -54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
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     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB8] ----------------------------

*USE-STLD. NCOMB9

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 178.283. 1. 171.126. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -178.283. 1. -171.126. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 171.126. 1. 167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -171.126. 1. -167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 167.309. 1. 163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -167.309. 1. -163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 163.491. 1. 159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -163.491. 1. -159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 159.674. 1. 155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -159.674. 1. -155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 155.856. 1. 152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -155.856. 1. -152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 152.038. 1. 145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -152.038. 1. -145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB9] ----------------------------

*USE-STLD. NCOMB10

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.8562. 1. 64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.8562. 1. -64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 64.1724. 1. 62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -64.1724. 1. -62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
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    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7408. 1. 61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.7408. 1. -61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 61.3092. 1. 59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -61.3092. 1. -59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 59.8776. 1. 58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -59.8776. 1. -58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.446. 1. 57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.446. 1. -57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 57.0144. 1. 54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -57.0144. 1. -54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB10] ----------------------

*USE-STLD. NCOMB11

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 178.283. 1. 171.126. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -178.283. 1. -171.126. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 171.126. 1. 167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -171.126. 1. -167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 167.309. 1. 163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -167.309. 1. -163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 163.491. 1. 159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -163.491. 1. -159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 159.674. 1. 155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -159.674. 1. -155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 155.856. 1. 152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -155.856. 1. -152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 152.038. 1. 145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -152.038. 1. -145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
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    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB11] ------------------------

*USE-STLD. NCOMB12

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.8562. 1. 64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.8562. 1. -64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 64.1724. 1. 62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -64.1724. 1. -62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7408. 1. 61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.7408. 1. -61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 61.3092. 1. 59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -61.3092. 1. -59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 59.8776. 1. 58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -59.8776. 1. -58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.446. 1. 57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.446. 1. -57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 57.0144. 1. 54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -57.0144. 1. -54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
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    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
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    12. -20.25.
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    17. -20.25.
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    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB12] ------------------------

*USE-STLD. NCOMB13

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 178.283. 1. 171.126. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -178.283. 1. -171.126. 0. 0. 0. 0. . NO. 0. 0. N(
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 171.126. 1. 167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -171.126. 1. -167.309. 0. 0. 0. 0. . NO. 0. 0. N(
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 167.309. 1. 163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -167.309. 1. -163.491. 0. 0. 0. 0. . NO. 0. 0. N(
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 163.491. 1. 159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -163.491. 1. -159.674. 0. 0. 0. 0. . NO. 0. 0. N(
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 159.674. 1. 155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -159.674. 1. -155.856. 0. 0. 0. 0. . NO. 0. 0. N(
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 155.856. 1. 152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -155.856. 1. -152.038. 0. 0. 0. 0. . NO. 0. 0. N(
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 152.038. 1. 145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -152.038. 1. -145.222. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
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    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB13] ------------------------

*USE-STLD. NCOMB14

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.8562. 1. 64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.8562. 1. -64.1724. 0. 0. 0. 0. . NO. 0. 0. N(
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 64.1724. 1. 62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -64.1724. 1. -62.7408. 0. 0. 0. 0. . NO. 0. 0. N(
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7408. 1. 61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.7408. 1. -61.3092. 0. 0. 0. 0. . NO. 0. 0. N(
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 61.3092. 1. 59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -61.3092. 1. -59.8776. 0. 0. 0. 0. . NO. 0. 0. N(
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 59.8776. 1. 58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -59.8776. 1. -58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.446. 1. 57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.446. 1. -57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 57.0144. 1. 54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -57.0144. 1. -54.4584. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB14] ------------------------

*USE-STLD. NCOMB15

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 178.283. 1. 171.126. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -178.283. 1. -171.126. 0. 0. 0. 0. . NO. 0. 0. N(
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 171.126. 1. 167.309. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -171.126. 1. -167.309. 0. 0. 0. 0. . NO. 0. 0. N(
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 167.309. 1. 163.491. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -167.309. 1. -163.491. 0. 0. 0. 0. . NO. 0. 0. N(
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 163.491. 1. 159.674. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -163.491. 1. -159.674. 0. 0. 0. 0. . NO. 0. 0. N(
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 159.674. 1. 155.856. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -159.674. 1. -155.856. 0. 0. 0. 0. . NO. 0. 0. N(
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 155.856. 1. 152.038. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -155.856. 1. -152.038. 0. 0. 0. 0. . NO. 0. 0. N(
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 152.038. 1. 145.222. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -152.038. 1. -145.222. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. N(
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB15] ------------------------

*USE-STLD. NCOMB16

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.8562. 1. 64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.8562. 1. -64.1724. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 64.1724. 1. 62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -64.1724. 1. -62.7408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.7408. 1. 61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.7408. 1. -61.3092. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 61.3092. 1. 59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -61.3092. 1. -59.8776. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 59.8776. 1. 58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -59.8776. 1. -58.446. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.446. 1. 57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.446. 1. -57.0144. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 57.0144. 1. 54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -57.0144. 1. -54.4584. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
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     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
      1. -20.25.
      2. -20.25.
      3. -20.25.
      4. -20.25.
      5. -20.25.
      6. -20.25.
      7. -20.25.
      8. -20.25.
      9. -20.25.
     10. -20.25.
     11. -20.25.
     12. -20.25.
     13. -20.25.
     14. -20.25.
     15. -20.25.
     16. -20.25.
     17. -20.25.
     18. -20.25.
     19. -20.25.
     20. -20.25.
     21. -20.25.
     22. -20.25.
     23. -20.25.
     24. -20.25.
     25. -20.25.
     26. -20.25.
     27. -20.25.
     28. -20.25.
     29. -20.25.
     30. -20.25.

; End of data for load case [NCOMB16] ------------------------

*USE-STLD. NCOMB17

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 35.7872. 1. 28.6304. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 28.6304. 1. 24.8128. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.8128. 1. 20.9952. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.9952. 1. 17.1776. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.1776. 1. 13.36. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.36. 1. 9.5424. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.5424. 1. 2.7264. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB17] ------------------------

*USE-STLD. NCOMB18

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
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; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4202. 1. 10.7364. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.7364. 1. 9.3048. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.3048. 1. 7.8732. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.8732. 1. 6.4416. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.4416. 1. 5.01. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.01. 1. 3.5784. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 3.5784. 1. 1.0224. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -282.231. 1. -282.231. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB18] ------------------------

*USE-STLD. NCOMB19

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 35.7872. 1. 28.6304. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 28.6304. 1. 24.8128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.8128. 1. 20.9952. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.9952. 1. 17.1776. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.1776. 1. 13.36. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.36. 1. 9.5424. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.5424. 1. 2.7264. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB19] ------------------------

*USE-STLD. NCOMB20

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4202. 1. 10.7364. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.7364. 1. 9.3048. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
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    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.3048. 1. 7.8732. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.8732. 1. 6.4416. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.4416. 1. 5.01. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.01. 1. 3.5784. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 3.5784. 1. 1.0224. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -334.496. 1. -334.496. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB20] ------------------------

*USE-STLD. NCOMB21

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 111.427. 1. 106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -111.427. 1. -106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 106.954. 1. 104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -106.954. 1. -104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 104.568. 1. 102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -104.568. 1. -102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 102.182. 1. 99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -102.182. 1. -99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 99.796. 1. 97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -99.796. 1. -97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 97.41. 1. 95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -97.41. 1. -95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 95.024. 1. 90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -95.024. 1. -90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB21] ------------------------

*USE-STLD. NCOMB22

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.7135. 1. 53.477. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.7135. 1. -53.477. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.477. 1. 52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.477. 1. -52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 52.284. 1. 51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -52.284. 1. -51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.091. 1. 49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.091. 1. -49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 49.898. 1. 48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -49.898. 1. -48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.705. 1. 47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.705. 1. -47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 47.512. 1. 45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -47.512. 1. -45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB22] ------------------------

*USE-STLD. NCOMB23

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 111.427. 1. 106.954. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -111.427. 1. -106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 106.954. 1. 104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -106.954. 1. -104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 104.568. 1. 102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -104.568. 1. -102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 102.182. 1. 99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -102.182. 1. -99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 99.796. 1. 97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -99.796. 1. -97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 97.41. 1. 95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -97.41. 1. -95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 95.024. 1. 90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -95.024. 1. -90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
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    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB23] ------------------------

*USE-STLD. NCOMB24

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.7135. 1. 53.477. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.7135. 1. -53.477. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.477. 1. 52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.477. 1. -52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 52.284. 1. 51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -52.284. 1. -51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.091. 1. 49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.091. 1. -49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 49.898. 1. 48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -49.898. 1. -48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.705. 1. 47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.705. 1. -47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 47.512. 1. 45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -47.512. 1. -45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB24] ------------------------

*USE-STLD. NCOMB25

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 111.427. 1. 106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -111.427. 1. -106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 106.954. 1. 104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -106.954. 1. -104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 104.568. 1. 102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -104.568. 1. -102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 102.182. 1. 99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -102.182. 1. -99.796. 0. 0. 0. 0. . NO. 0. 0. NO
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    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 99.796. 1. 97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -99.796. 1. -97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 97.41. 1. 95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -97.41. 1. -95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 95.024. 1. 90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -95.024. 1. -90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB25] ------------------------

*USE-STLD. NCOMB26

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.7135. 1. 53.477. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.7135. 1. -53.477. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.477. 1. 52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.477. 1. -52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 52.284. 1. 51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -52.284. 1. -51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.091. 1. 49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.091. 1. -49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 49.898. 1. 48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -49.898. 1. -48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.705. 1. 47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.705. 1. -47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 47.512. 1. 45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -47.512. 1. -45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB26] ------------------------

*USE-STLD, NCOMB27

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 111.427, 1, 106.954, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -111.427, 1, -106.954, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 106.954, 1, 104.568, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -106.954, 1, -104.568, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 104.568, 1, 102.182, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -104.568, 1, -102.182, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 102.182, 1, 99.796, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -102.182, 1, -99.796, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 99.796, 1, 97.41, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -99.796, 1, -97.41, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 97.41, 1, 95.024, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -97.41, 1, -95.024, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 95.024, 1, 90.764, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -95.024, 1, -90.764, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -209.06, 1, -209.06, 0, 0, 0, 0, , NO, 0, 0, NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
     1, -15,
     2, -15,
     3, -15,
     4, -15,
     5, -15,
     6, -15,
     7, -15,
     8, -15,
     9, -15,
    10, -15,
    11, -15,
    12, -15,
    13, -15,
    14, -15,
    15, -15,
    16, -15,
    17, -15,
    18, -15,
    19, -15,
    20, -15,
    21, -15,
    22, -15,
    23, -15,
    24, -15,
    25, -15,
    26, -15,
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    27, -15.
    28, -15.
    29, -15.
    30, -15.

; End of data for load case [NCOMB27] ------------------------

*USE-STLD, NCOMB28

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 55.7135, 1, 53.477, 0, 0, 0, 0,  , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -8.408, 1, -8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -55.7135, 1, -53.477, 0, 0, 0, 0,  , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 53.477, 1, 52.284, 0, 0, 0, 0,  , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -8.408, 1, -8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -53.477, 1, -52.284, 0, 0, 0, 0,  , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 52.284, 1, 51.091, 0, 0, 0, 0,  , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -52.284, 1, -51.091, 0, 0, 0, 0,  , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -8.408, 1, -8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 51.091, 1, 49.898, 0, 0, 0, 0,  , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -8.408, 1, -8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -51.091, 1, -49.898, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 49.898, 1, 48.705, 0, 0, 0, 0,  , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -49.898, 1, -48.705, 0, 0, 0, 0,  , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -8.408, 1, -8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 48.705, 1, 47.512, 0, 0, 0, 0,  , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -48.705, 1, -47.512, 0, 0, 0, 0,  , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -8.408, 1, -8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 8.408, 1, 8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, 47.512, 1, 45.382, 0, 0, 0, 0,  , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -8.408, 1, -8.408, 0, 0, 0, 0,  , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1],  ,  ,  , 0, -47.512, 1, -45.382, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -209.06, 1, -209.06, 0, 0, 0, 0,  , NO, 0, 0, NO
    23, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -21.019, 1, -21.019, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -21.019, 1, -21.019, 0, 0, 0, 0,  , NO, 0, 0, NO
    24, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -209.06, 1, -209.06, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -209.06, 1, -209.06, 0, 0, 0, 0,  , NO, 0, 0, NO
    25, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -21.019, 1, -21.019, 0, 0, 0, 0,  , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -21.019, 1, -21.019, 0, 0, 0, 0,  , NO, 0, 0, NO
    26, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -209.06, 1, -209.06, 0, 0, 0, 0,  , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -21.019, 1, -21.019, 0, 0, 0, 0,  , NO, 0, 0, NO
    27, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -209.06, 1, -209.06, 0, 0, 0, 0,  , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -209.06, 1, -209.06, 0, 0, 0, 0,  , NO, 0, 0, NO
    28, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -21.019, 1, -21.019, 0, 0, 0, 0,  , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -209.06, 1, -209.06, 0, 0, 0, 0,  , NO, 0, 0, NO
    29, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -21.019, 1, -21.019, 0, 0, 0, 0,  , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -209.06, 1, -209.06, 0, 0, 0, 0,  , NO, 0, 0, NO
    30, BEAM    , UNILOAD, GZ, NO , NO, aDir[1],  ,  ,  , 0, -21.019, 1, -21.019, 0, 0, 0, 0,  , NO, 0, 0, NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
     1, -15.
     2, -15.
     3, -15.
     4, -15.
     5, -15.
     6, -15.
     7, -15.
     8, -15.
     9, -15.
    10, -15.
    11, -15.
    12, -15.
    13, -15.
    14, -15.
    15, -15.
    16, -15.
    17, -15.
    18, -15.
    19, -15.
    20, -15.
    21, -15.
    22, -15.
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     23. -15.
     24. -15.
     25. -15.
     26. -15.
     27. -15.
     28. -15.
     29. -15.
     30. -15.

; End of data for load case [NCOMB28] ------------------------

*USE-STLD. NCOMB29

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 111.427. 1. 106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -111.427. 1. -106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 106.954. 1. 104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -106.954. 1. -104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 104.568. 1. 102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -104.568. 1. -102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 102.182. 1. 99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -102.182. 1. -99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 99.796. 1. 97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -99.796. 1. -97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 97.41. 1. 95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -97.41. 1. -95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 95.024. 1. 90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -95.024. 1. -90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB29] ------------------------

*USE-STLD. NCOMB30

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.7135. 1. 53.477. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.7135. 1. -53.477. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.477. 1. 52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.477. 1. -52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 52.284. 1. 51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -52.284. 1. -51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.091. 1. 49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.091. 1. -49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 49.898. 1. 48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -49.898. 1. -48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.705. 1. 47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.705. 1. -47.512. 0. 0. 0. 0. . NO. 0. 0. NO
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    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 47.512. 1. 45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -47.512. 1. -45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB30] ----------------------

*USE-STLD. NCOMB31

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 111.427. 1. 106.954. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -111.427. 1. -106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 106.954. 1. 104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -106.954. 1. -104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 104.568. 1. 102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -104.568. 1. -102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 102.182. 1. 99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -102.182. 1. -99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 99.796. 1. 97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -99.796. 1. -97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 97.41. 1. 95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -97.41. 1. -95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 95.024. 1. 90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -95.024. 1. -90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
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     23. -15.
     24. -15.
     25. -15.
     26. -15.
     27. -15.
     28. -15.
     29. -15.
     30. -15.

; End of data for load case [NCOMB31] ------------------------

*USE-STLD. NCOMB32

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 55.7135. 1. 53.477. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -55.7135. 1. -53.477. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 53.477. 1. 52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -53.477. 1. -52.284. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 52.284. 1. 51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -52.284. 1. -51.091. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 51.091. 1. 49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -51.091. 1. -49.898. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 49.898. 1. 48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -49.898. 1. -48.705. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 48.705. 1. 47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -48.705. 1. -47.512. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 47.512. 1. 45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -47.512. 1. -45.382. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
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    30. -15.

; End of data for load case [NCOMB32] ------------------------

*USE-STLD. NCOMB33

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 111.427. 1. 106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -111.427. 1. -106.954. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 106.954. 1. 104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -106.954. 1. -104.568. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 104.568. 1. 102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -104.568. 1. -102.182. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 102.182. 1. 99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -102.182. 1. -99.796. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 99.796. 1. 97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -99.796. 1. -97.41. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 97.41. 1. 95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -97.41. 1. -95.024. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 95.024. 1. 90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -95.024. 1. -90.764. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB33] ------------------------

*USE-STLD. NCOMB34

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.367. 1. 17.894. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.894. 1. 15.508. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.508. 1. 13.122. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.122. 1. 10.736. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.736. 1. 8.35. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.35. 1. 5.964. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.964. 1. 1.704. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB34] ------------------------

*USE-STLD. NCOMB35

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
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; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.1835. 1. 8.947. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.947. 1. 7.754. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.754. 1. 6.561. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.561. 1. 5.368. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.368. 1. 4.175. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 4.175. 1. 2.982. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 2.982. 1. 0.852. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -209.06. 1. -209.06. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB35] ----------------------------


*LOADCOMB    ; Combinations
; NAME=NAME. KIND. ACTIVE. bES. iTYPE. DESC. iSERV-TYPE. nLCOMTYPE   ; line 1
;       ANAL1. LCNAME1. FACT1. ...                                  ; from line 2
   NAME=COMB1. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 1.6
   NAME=COMB2. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 0.6
   NAME=COMB3. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 1.6
   NAME=COMB4. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 0.6
   NAME=COMB5. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 1.6
   NAME=COMB6. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 0.6
   NAME=COMB7. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 1.6
   NAME=COMB8. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 0.6
   NAME=COMB9. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
        ST. LC11. 1.35
   NAME=COMB10. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
        ST. LC11. 1.35
   NAME=COMB11. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
        ST. LC10. 1.35. ST. LC11. 1.4
   NAME=COMB12. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
        ST. LC10. 1.35. ST. LC11. 1.4
   NAME=COMB13. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
        ST. LC11. 1.35
   NAME=COMB14. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
        ST. LC11. 1.35
   NAME=COMB15. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
        ST. LC10. 1.35. ST. LC11. 1.4
   NAME=COMB16. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
        ST. LC10. 1.35. ST. LC11. 1.4
   NAME=COMB17. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 1.6
   NAME=COMB18. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 0.6
   NAME=COMB19. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 1.6
   NAME=COMB20. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 0.6
   NAME=COMB21. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1
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NAME=COMB22. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5
NAME=COMB23. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1
NAME=COMB24. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5
NAME=COMB25. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB26. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB27. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB28. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB29. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB30. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB31. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB32. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB33. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC6. 1
NAME=COMB34. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 1
NAME=COMB35. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 0.5
NAME=USD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB1. 1. ST. NCOMB2. 1. ST. NCOMB3. 1. ST. NCOMB4. 1
     ST. NCOMB5. 1. ST. NCOMB6. 1. ST. NCOMB7. 1. ST. NCOMB8. 1
     ST. NCOMB9. 1. ST. NCOMB10. 1. ST. NCOMB11. 1. ST. NCOMB12. 1
     ST. NCOMB13. 1. ST. NCOMB14. 1. ST. NCOMB15. 1. ST. NCOMB16. 1
     ST. NCOMB17. 1. ST. NCOMB18. 1. ST. NCOMB19. 1. ST. NCOMB20. 1
NAME=WSD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB21. 1. ST. NCOMB22. 1. ST. NCOMB23. 1. ST. NCOMB24. 1
     ST. NCOMB25. 1. ST. NCOMB26. 1. ST. NCOMB27. 1. ST. NCOMB28. 1
     ST. NCOMB29. 1. ST. NCOMB30. 1. ST. NCOMB31. 1. ST. NCOMB32. 1
     ST. NCOMB33. 1. ST. NCOMB34. 1. ST. NCOMB35. 1
NAME=NCOMB1. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB1. 1
NAME=NCOMB2. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB2. 1
NAME=NCOMB3. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB3. 1
NAME=NCOMB4. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB4. 1
NAME=NCOMB5. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB5. 1
NAME=NCOMB6. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB6. 1
NAME=NCOMB7. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB7. 1
NAME=NCOMB8. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB8. 1
NAME=NCOMB9. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB9. 1
NAME=NCOMB10. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB10. 1
NAME=NCOMB11. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB11. 1
NAME=NCOMB12. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB12. 1
NAME=NCOMB13. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB13. 1
NAME=NCOMB14. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB14. 1
NAME=NCOMB15. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB15. 1
NAME=NCOMB16. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB16. 1
NAME=NCOMB17. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB17. 1
NAME=NCOMB18. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB18. 1
NAME=NCOMB19. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB19. 1
NAME=NCOMB20. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB20. 1
NAME=NCOMB21. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB21. 1
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   NAME=NCOMB22. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB22. 1
   NAME=NCOMB23. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB23. 1
   NAME=NCOMB24. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB24. 1
   NAME=NCOMB25. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB25. 1
   NAME=NCOMB26. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB26. 1
   NAME=NCOMB27. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB27. 1
   NAME=NCOMB28. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB28. 1
   NAME=NCOMB29. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB29. 1
   NAME=NCOMB30. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB30. 1
   NAME=NCOMB31. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB31. 1
   NAME=NCOMB32. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB32. 1
   NAME=NCOMB33. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB33. 1
   NAME=NCOMB34. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB34. 1
   NAME=NCOMB35. CONC. STRENGTH. 0. 0. . 0. 0
         ST. NCOMB35. 1

*LOADCONST    ; Load Constribution for Nonlinear Load Case
; NAME=STLDCASE. DESC                                          ; 1st line
;      LCNAME1. LCTYPE1. FACTOR1. LCNAME2. LCTYPE2. FACTOR2. ...   ; from line 2
   NAME=NCOMB1.
         LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 1.6
   NAME=NCOMB2.
         LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 0.6
   NAME=NCOMB3.
         LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 1.6
   NAME=NCOMB4.
         LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 0.6
   NAME=NCOMB5.
         LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 1.6
   NAME=NCOMB6.
         LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 0.6
   NAME=NCOMB7.
         LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 1.6
   NAME=NCOMB8.
         LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 0.6
   NAME=NCOMB9.
         LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
         LC11. ST. 1.35
   NAME=NCOMB10.
         LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
         LC11. ST. 1.35
   NAME=NCOMB11.
         LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
         LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB12.
         LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC9. ST. 1.35
         LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB13.
         LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
         LC11. ST. 1.35
   NAME=NCOMB14.
         LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
         LC11. ST. 1.35
   NAME=NCOMB15.
         LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
         LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB16.
         LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 0.6. LC9. ST. 1.35
         LC10. ST. 1.35. LC11. ST. 1.4
   NAME=NCOMB17.
         LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC7. ST. 1.6
   NAME=NCOMB18.
         LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC7. ST. 0.6
   NAME=NCOMB19.
         LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC7. ST. 1.6
   NAME=NCOMB20.
         LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC7. ST. 0.6
   NAME=NCOMB21.
         LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 1
   NAME=NCOMB22.
         LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5
   NAME=NCOMB23.
         LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1
   NAME=NCOMB24.
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    NAME=NCOMB26,
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        LC11, ST, 1
    NAME=NCOMB27,
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        LC11, ST, 1
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        LC10, ST, 1, LC11, ST, 1
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    NAME=NCOMB30,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC8, ST, 1
        LC11, ST, 1
    NAME=NCOMB31,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 1, LC9, ST, 1, LC10, ST, 1
        LC11, ST, 1
    NAME=NCOMB32,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC6, ST, 0.5, LC9, ST, 1
        LC10, ST, 1, LC11, ST, 1
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        LC1, ST, 1, LC6, ST, 1
    NAME=NCOMB34,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 1
    NAME=NCOMB35,
        LC1, ST, 1, LC3, ST, 1, LC5, ST, 1, LC7, ST, 0.5

*LC-COLOR    ; Diagram Color for Load Case
; ANAL, LCNAME, iR1(ALL), iG1(ALL), iB1(ALL), iR2(MIN), iG2(MIN), iB2(MIN), iR3(MAX), iG2(MAX), iB2(MAX)
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 CB, COMB2, 192, 72, 0, 0, 128, 128, 93, 255, 87
 CB, COMB3, 255, 87, 128, 255, 192, 87, 160, 255, 255
 CB, COMB4, 255, 160, 255, 255, 192, 87, 163, 160, 255
 CB, COMB5, 0, 192, 192, 85, 0, 192, 85, 192, 0
 CB, COMB6, 0, 128, 255, 160, 255, 255, 192, 72, 0
 CB, COMB7, 255, 192, 160, 192, 0, 128, 192, 192, 192
 CB, COMB8, 255, 87, 128, 160, 255, 255, 192, 128, 0
 CB, COMB9, 255, 160, 255, 192, 0, 128, 255, 192, 87
 CB, COMB10, 163, 160, 255, 255, 255, 87, 255, 192, 160
 CB, COMB11, 192, 0, 128, 255, 192, 160, 255, 160, 255
 CB, COMB12, 255, 128, 0, 192, 0, 128, 210, 210, 210
 CB, COMB13, 192, 192, 192, 85, 192, 0, 212, 160, 255
 CB, COMB14, 255, 192, 160, 0, 157, 192, 255, 192, 87
 CB, COMB15, 0, 157, 192, 192, 192, 192, 160, 255, 255
 CB, COMB16, 0, 128, 128, 160, 255, 255, 255, 87, 87
 CB, COMB17, 255, 0, 192, 78, 0, 255, 255, 128, 0
 CB, COMB18, 85, 192, 0, 255, 192, 160, 255, 192, 87
 CB, COMB19, 160, 255, 255, 255, 128, 0, 0, 192, 192
 CB, COMB20, 192, 192, 0, 160, 255, 255, 255, 87, 87
 CB, COMB21, 192, 192, 192, 192, 192, 192, 85, 0, 192
 CB, COMB22, 255, 192, 87, 192, 128, 0, 212, 160, 255
 CB, COMB23, 255, 255, 255, 0, 128, 128, 192, 128, 0
 CB, COMB24, 192, 192, 0, 85, 0, 192, 255, 0, 192
 CB, COMB25, 128, 192, 0, 210, 210, 210, 255, 255, 255
 CB, COMB26, 192, 0, 192, 148, 87, 255, 0, 192, 128
 CB, COMB27, 93, 255, 87, 255, 255, 255, 192, 0, 192
 CB, COMB28, 192, 128, 0, 255, 255, 87, 255, 192, 160
 CB, COMB29, 255, 192, 160, 212, 160, 255, 192, 192, 0
 CB, COMB30, 255, 255, 87, 163, 160, 255, 148, 87, 255
 CB, COMB31, 192, 192, 0, 255, 87, 128, 0, 192, 192
 CB, COMB32, 128, 192, 0, 85, 192, 0, 192, 128, 0
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 CB, COMB34, 192, 0, 192, 255, 87, 128, 212, 160, 255
 CB, COMB35, 255, 160, 255, 85, 192, 0, 255, 255, 87
 CB, USD, 255, 192, 87, 163, 255, 160, 192, 128, 0
 CB, WSD, 212, 160, 255, 255, 0, 192, 93, 255, 87
 ST, LC1, 212, 160, 255, 210, 210, 210, 212, 160, 255
 ST, LC2, 212, 160, 255, 0, 128, 57, 255, 255, 87
 ST, LC3, 210, 210, 210, 212, 160, 255, 146, 0, 255
 ST, LC4, 0, 128, 57, 128, 192, 0, 0, 157, 192
 ST, LC5, 128, 192, 0, 148, 87, 255, 160, 255, 255
 ST, LC6, 192, 0, 192, 255, 160, 255, 163, 160, 255
 ST, LC7, 192, 192, 192, 0, 128, 255, 255, 160, 255
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 ST, LC11, 255, 255, 87, 255, 0, 128, 210, 210, 210
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 CBC, NCOMB2, 78, 0, 255, 192, 0, 192, 255, 160, 255
 CBC, NCOMB3, 163, 255, 160, 78, 0, 255, 85, 0, 192
 CBC, NCOMB4, 0, 192, 128, 85, 0, 192, 212, 160, 255
 CBC, NCOMB5, 0, 128, 255, 255, 87, 87, 0, 192, 128
 CBC, NCOMB6, 78, 0, 255, 0, 128, 128, 93, 255, 87
 CBC, NCOMB7, 160, 192, 255, 160, 255, 255, 210, 210, 210
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   CBC. NCOMB8. 192. 72. 0. 192. 0. 192. 192. 72. 0
   CBC. NCOMB9. 148. 87. 255. 212. 160. 255. 210. 210. 210
   CBC. NCOMB10. 0. 128. 57. 192. 72. 0. 255. 0. 128
   CBC. NCOMB11. 0. 128. 192. 212. 160. 255. 255. 255. 87
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   CBC. NCOMB13. 255. 160. 255. 255. 0. 128. 0. 128. 128
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   CBC. NCOMB15. 255. 255. 87. 192. 192. 192. 192. 0. 192
   CBC. NCOMB16. 0. 128. 128. 255. 255. 255. 163. 255. 160
   CBC. NCOMB17. 163. 255. 160. 160. 192. 255. 163. 255. 160
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   CBC. NCOMB19. 0. 128. 255. 0. 128. 192. 0. 157. 192
   CBC. NCOMB20. 192. 0. 192. 255. 128. 0. 255. 87. 87
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   CBC. NCOMB24. 192. 128. 0. 160. 255. 255. 78. 0. 255
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   CBC. NCOMB28. 0. 192. 128. 255. 87. 128. 0. 128. 192
   CBC. NCOMB29. 255. 255. 255. 192. 128. 0. 192. 0. 192
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   CBC. NCOMB31. 85. 0. 192. 255. 160. 255. 148. 87. 255
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   CBC. NCOMB33. 192. 192. 0. 85. 192. 0. 163. 160. 255
   CBC. NCOMB34. 255. 192. 87. 255. 87. 128. 0. 128. 128
   CBC. NCOMB35. 0. 128. 192. 192. 128. 0. 192. 0. 192
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   ST. NCOMB2. 78. 0. 255. 255. 192. 160. 0. 157. 192
   ST. NCOMB3. 255. 192. 87. 146. 0. 255. 0. 128. 192
   ST. NCOMB4. 128. 192. 0. 192. 128. 0. 192. 192. 192
   ST. NCOMB5. 160. 255. 255. 85. 0. 192. 255. 128. 0
   ST. NCOMB6. 146. 0. 255. 255. 128. 0. 148. 87. 255
   ST. NCOMB7. 212. 160. 255. 0. 192. 192. 146. 0. 255
   ST. NCOMB8. 85. 0. 192. 85. 0. 192. 160. 255. 255
   ST. NCOMB9. 0. 157. 192. 160. 255. 255. 255. 192. 160
   ST. NCOMB10. 0. 192. 192. 0. 157. 192. 255. 87. 128
   ST. NCOMB11. 255. 128. 0. 255. 255. 255. 0. 157. 192
   ST. NCOMB12. 0. 128. 255. 255. 0. 192. 255. 87. 87
   ST. NCOMB13. 85. 0. 192. 0. 192. 128. 192. 72. 0
   ST. NCOMB14. 0. 157. 192. 0. 128. 57. 148. 87. 255
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   ST. NCOMB19. 93. 255. 87. 192. 0. 192. 78. 0. 255
   ST. NCOMB20. 160. 192. 255. 255. 255. 87. 255. 0. 192
   ST. NCOMB21. 210. 210. 210. 212. 160. 255. 128. 192. 0
   ST. NCOMB22. 160. 192. 255. 128. 192. 0. 93. 255. 87
   ST. NCOMB23. 255. 87. 128. 255. 87. 87. 192. 192. 0
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   ST. NCOMB31. 192. 72. 0. 255. 87. 87. 255. 160. 255
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   ST. NCOMB33. 146. 0. 255. 146. 0. 255. 0. 128. 192
   ST. NCOMB34. 93. 255. 87. 85. 192. 0. 255. 192. 160
   ST. NCOMB35. 163. 255. 160. 192. 0. 128. 255. 160. 255

*ANAL-CTRL
; bARDC. bANRC. iITER. TOL. bCSECF. bTRS. bCRBAR. bTPF. bCSO. bSCS. bCLATS
    YES. YES. 20. 0.001. YES. YES. YES. NO. NO. NO. NO


*ENDDATA
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8.OUPUT

F R A M E E L E M E N T F O R C E S

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
1	USD(max)	I[1]	35.110	0.000	-284.790	0.00E+00	-8.350	0.000
1	USD(max)	1/4	35.110	0.000	-285.810	0.00E+00	15.020	0.000
1	USD(max)	2/4	35.110	0.000	-286.830	0.00E+00	38.480	0.000
1	USD(max)	3/4	35.110	0.000	-287.860	0.00E+00	62.020	0.000
1	USD(max)	J[2]	35.110	0.000	-288.880	0.00E+00	85.650	0.000
1	USD(min)	I[1]	-210.270	0.000	-344.440	0.00E+00	-64.950	0.000
1	USD(min)	1/4	-210.270	0.000	-345.660	0.00E+00	-44.850	0.000
1	USD(min)	2/4	-210.270	0.000	-346.870	0.00E+00	-24.680	0.000
1	USD(min)	3/4	-210.270	0.000	-348.080	0.00E+00	-4.440	0.000
1	USD(min)	J[2]	-210.270	0.000	-349.300	0.00E+00	15.870	0.000
1	WSD(max)	I[1]	21.940	0.000	-195.770	0.00E+00	-6.520	0.000
1	WSD(max)	1/4	21.940	0.000	-196.530	0.00E+00	8.130	0.000
1	WSD(max)	2/4	21.940	0.000	-197.280	0.00E+00	22.830	0.000
1	WSD(max)	3/4	21.940	0.000	-198.040	0.00E+00	37.590	0.000
1	WSD(max)	J[2]	21.940	0.000	-198.800	0.00E+00	52.400	0.000
1	WSD(min)	I[1]	-128.190	0.000	-215.280	0.00E+00	-38.250	0.000
1	WSD(min)	1/4	-128.190	0.000	-216.040	0.00E+00	-23.740	0.000
1	WSD(min)	2/4	-128.190	0.000	-216.790	0.00E+00	-9.180	0.000
1	WSD(min)	3/4	-128.190	0.000	-217.550	0.00E+00	5.430	0.000
1	WSD(min)	J[2]	-128.190	0.000	-218.310	0.00E+00	20.090	0.000
2	USD(max)	I[2]	35.110	0.000	-169.800	0.00E+00	85.650	0.000
2	USD(max)	1/4	35.110	0.000	-170.660	0.00E+00	97.690	0.000
2	USD(max)	2/4	35.110	0.000	-171.510	0.00E+00	109.790	0.000
2	USD(max)	3/4	35.110	0.000	-172.370	0.00E+00	121.950	0.000
2	USD(max)	J[3]	35.110	0.000	-173.220	0.00E+00	134.170	0.000
2	USD(min)	I[2]	-210.270	0.000	-217.420	0.00E+00	15.870	0.000
2	USD(min)	1/4	-210.270	0.000	-218.440	0.00E+00	26.170	0.000
2	USD(min)	2/4	-210.270	0.000	-219.450	0.00E+00	36.520	0.000
2	USD(min)	3/4	-210.270	0.000	-220.470	0.00E+00	46.920	0.000
2	USD(min)	J[3]	-210.270	0.000	-221.480	0.00E+00	57.370	0.000
2	WSD(max)	I[2]	21.940	0.000	-115.210	0.00E+00	52.400	0.000
2	WSD(max)	1/4	21.940	0.000	-115.850	0.00E+00	59.990	0.000
2	WSD(max)	2/4	21.940	0.000	-116.480	0.00E+00	67.610	0.000
2	WSD(max)	3/4	21.940	0.000	-117.110	0.00E+00	75.270	0.000
2	WSD(max)	J[3]	21.940	0.000	-117.750	0.00E+00	82.970	0.000
2	WSD(min)	I[2]	-128.190	0.000	-135.890	0.00E+00	20.090	0.000
2	WSD(min)	1/4	-128.190	0.000	-136.520	0.00E+00	27.450	0.000
2	WSD(min)	2/4	-128.190	0.000	-137.160	0.00E+00	34.850	0.000
2	WSD(min)	3/4	-128.190	0.000	-137.790	0.00E+00	42.280	0.000
2	WSD(min)	J[3]	-128.190	0.000	-138.420	0.00E+00	49.750	0.000
3	USD(max)	I[3]	35.110	0.000	-101.100	0.00E+00	134.170	0.000
3	USD(max)	1/4	35.110	0.000	-101.960	0.00E+00	141.830	0.000
3	USD(max)	2/4	35.110	0.000	-102.810	0.00E+00	149.540	0.000
3	USD(max)	3/4	35.110	0.000	-103.670	0.00E+00	157.320	0.000
3	USD(max)	J[4]	35.110	0.000	-104.520	0.00E+00	165.150	0.000
3	USD(min)	I[3]	-210.270	0.000	-142.530	0.00E+00	57.370	0.000
3	USD(min)	1/4	-210.270	0.000	-143.550	0.00E+00	63.880	0.000
3	USD(min)	2/4	-210.270	0.000	-144.560	0.00E+00	70.420	0.000
3	USD(min)	3/4	-210.270	0.000	-145.580	0.00E+00	76.740	0.000
3	USD(min)	J[4]	-210.270	0.000	-146.590	0.00E+00	83.120	0.000
3	WSD(max)	I[3]	21.940	0.000	-68.570	0.00E+00	82.970	0.000
3	WSD(max)	1/4	21.940	0.000	-69.200	0.00E+00	87.830	0.000
3	WSD(max)	2/4	21.940	0.000	-69.840	0.00E+00	92.720	0.000
3	WSD(max)	3/4	21.940	0.000	-70.470	0.00E+00	97.650	0.000
3	WSD(max)	J[4]	21.940	0.000	-71.100	0.00E+00	102.620	0.000
3	WSD(min)	I[3]	-128.190	0.000	-89.080	0.00E+00	49.750	0.000
3	WSD(min)	1/4	-128.190	0.000	-89.720	0.00E+00	54.340	0.000
3	WSD(min)	2/4	-128.190	0.000	-90.350	0.00E+00	58.930	0.000
3	WSD(min)	3/4	-128.190	0.000	-90.980	0.00E+00	62.960	0.000
3	WSD(min)	J[4]	-128.190	0.000	-91.620	0.00E+00	67.030	0.000
4	USD(max)	I[4]	35.110	0.000	-32.540	0.00E+00	165.150	0.000
4	USD(max)	1/4	35.110	0.000	-33.400	0.00E+00	168.390	0.000
4	USD(max)	2/4	35.110	0.000	-34.250	0.00E+00	171.690	0.000
4	USD(max)	3/4	35.110	0.000	-35.110	0.00E+00	175.050	0.000
4	USD(max)	J[5]	35.110	0.000	-35.970	0.00E+00	178.460	0.000
4	USD(min)	I[4]	-210.270	0.000	-66.370	0.00E+00	83.120	0.000
4	USD(min)	1/4	-210.270	0.000	-67.390	0.00E+00	85.580	0.000
4	USD(min)	2/4	-210.270	0.000	-68.400	0.00E+00	88.090	0.000
4	USD(min)	3/4	-210.270	0.000	-69.410	0.00E+00	90.650	0.000
4	USD(min)	J[5]	-210.270	0.000	-70.430	0.00E+00	93.250	0.000
4	WSD(max)	I[4]	21.940	0.000	-22.000	0.00E+00	102.620	0.000
4	WSD(max)	1/4	21.940	0.000	-22.640	0.00E+00	104.720	0.000
4	WSD(max)	2/4	21.940	0.000	-23.270	0.00E+00	106.850	0.000
4	WSD(max)	3/4	21.940	0.000	-23.900	0.00E+00	109.030	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
4	WSD(max)	J[5]	21.940	0.000	-24.540	0.00E+00	111.240	0.000
4	WSD(min)	I[4]	-128.190	0.000	-41.480	0.00E+00	67.030	0.000
4	WSD(min)	1/4	-128.190	0.000	-42.120	0.00E+00	68.320	0.000
4	WSD(min)	2/4	-128.190	0.000	-42.750	0.00E+00	69.640	0.000
4	WSD(min)	3/4	-128.190	0.000	-43.380	0.00E+00	70.990	0.000
4	WSD(min)	J[5]	-128.190	0.000	-44.020	0.00E+00	72.390	0.000
5	USD(max)	I[5]	35.110	0.000	42.570	0.00E+00	178.460	0.000
5	USD(max)	1/4	35.110	0.000	41.560	0.00E+00	177.240	0.000
5	USD(max)	2/4	35.110	0.000	40.540	0.00E+00	176.080	0.000
5	USD(max)	3/4	35.110	0.000	39.530	0.00E+00	174.980	0.000
5	USD(max)	J[6]	35.110	0.000	38.510	0.00E+00	173.960	0.000
5	USD(min)	I[5]	-210.270	0.000	3.320	0.00E+00	93.250	0.000
5	USD(min)	1/4	-210.270	0.000	2.470	0.00E+00	91.930	0.000
5	USD(min)	2/4	-210.270	0.000	1.610	0.00E+00	90.660	0.000
5	USD(min)	3/4	-210.270	0.000	0.750	0.00E+00	89.440	0.000
5	USD(min)	J[6]	-210.270	0.000	-0.100	0.00E+00	88.270	0.000
5	WSD(max)	I[5]	21.940	0.000	26.610	0.00E+00	111.240	0.000
5	WSD(max)	1/4	21.940	0.000	25.970	0.00E+00	110.550	0.000
5	WSD(max)	2/4	21.940	0.000	25.340	0.00E+00	109.900	0.000
5	WSD(max)	3/4	21.940	0.000	24.710	0.00E+00	109.290	0.000
5	WSD(max)	J[6]	21.940	0.000	24.070	0.00E+00	108.730	0.000
5	WSD(min)	I[5]	-128.190	0.000	6.990	0.00E+00	72.390	0.000
5	WSD(min)	1/4	-128.190	0.000	6.350	0.00E+00	70.990	0.000
5	WSD(min)	2/4	-128.190	0.000	5.720	0.00E+00	69.640	0.000
5	WSD(min)	3/4	-128.190	0.000	5.080	0.00E+00	68.320	0.000
5	WSD(min)	J[6]	-128.190	0.000	4.450	0.00E+00	67.030	0.000
6	USD(max)	I[6]	35.110	0.000	123.700	0.00E+00	173.960	0.000
6	USD(max)	1/4	35.110	0.000	122.690	0.00E+00	168.800	0.000
6	USD(max)	2/4	35.110	0.000	121.670	0.00E+00	163.700	0.000
6	USD(max)	3/4	35.110	0.000	120.660	0.00E+00	158.660	0.000
6	USD(max)	J[7]	35.110	0.000	119.650	0.00E+00	153.670	0.000
6	USD(min)	I[6]	-210.270	0.000	71.350	0.00E+00	88.270	0.000
6	USD(min)	1/4	-210.270	0.000	70.490	0.00E+00	83.140	0.000
6	USD(min)	2/4	-210.270	0.000	69.640	0.00E+00	78.070	0.000
6	USD(min)	3/4	-210.270	0.000	68.780	0.00E+00	72.400	0.000
6	USD(min)	J[7]	-210.270	0.000	67.930	0.00E+00	66.550	0.000
6	WSD(max)	I[6]	21.940	0.000	77.310	0.00E+00	108.730	0.000
6	WSD(max)	1/4	21.940	0.000	76.680	0.00E+00	105.500	0.000
6	WSD(max)	2/4	21.940	0.000	76.050	0.00E+00	102.310	0.000
6	WSD(max)	3/4	21.940	0.000	75.410	0.00E+00	99.160	0.000
6	WSD(max)	J[7]	21.940	0.000	74.780	0.00E+00	96.050	0.000
6	WSD(min)	I[6]	-128.190	0.000	56.400	0.00E+00	67.030	0.000
6	WSD(min)	1/4	-128.190	0.000	55.760	0.00E+00	62.960	0.000
6	WSD(min)	2/4	-128.190	0.000	55.130	0.00E+00	58.930	0.000
6	WSD(min)	3/4	-128.190	0.000	54.500	0.00E+00	54.930	0.000
6	WSD(min)	J[7]	-128.190	0.000	53.860	0.00E+00	50.970	0.000
7	USD(max)	I[7]	35.110	0.000	204.970	0.00E+00	153.670	0.000
7	USD(max)	1/4	35.110	0.000	203.960	0.00E+00	143.870	0.000
7	USD(max)	2/4	35.110	0.000	202.940	0.00E+00	134.130	0.000
7	USD(max)	3/4	35.110	0.000	201.930	0.00E+00	124.450	0.000
7	USD(max)	J[8]	35.110	0.000	200.910	0.00E+00	114.820	0.000
7	USD(min)	I[7]	-210.270	0.000	141.050	0.00E+00	66.550	0.000
7	USD(min)	1/4	-210.270	0.000	140.190	0.00E+00	56.600	0.000
7	USD(min)	2/4	-210.270	0.000	139.340	0.00E+00	46.690	0.000
7	USD(min)	3/4	-210.270	0.000	138.480	0.00E+00	36.840	0.000
7	USD(min)	J[8]	-210.270	0.000	137.620	0.00E+00	27.030	0.000
7	WSD(max)	I[7]	21.940	0.000	128.110	0.00E+00	96.050	0.000
7	WSD(max)	1/4	21.940	0.000	127.470	0.00E+00	89.920	0.000
7	WSD(max)	2/4	21.940	0.000	126.840	0.00E+00	83.830	0.000
7	WSD(max)	3/4	21.940	0.000	126.200	0.00E+00	77.780	0.000
7	WSD(max)	J[8]	21.940	0.000	125.570	0.00E+00	71.760	0.000
7	WSD(min)	I[7]	-128.190	0.000	106.840	0.00E+00	50.970	0.000
7	WSD(min)	1/4	-128.190	0.000	106.200	0.00E+00	44.220	0.000
7	WSD(min)	2/4	-128.190	0.000	105.570	0.00E+00	37.500	0.000
7	WSD(min)	3/4	-128.190	0.000	104.930	0.00E+00	30.820	0.000
7	WSD(min)	J[8]	-128.190	0.000	104.300	0.00E+00	24.180	0.000
8	USD(max)	I[8]	35.110	0.000	345.940	0.00E+00	114.820	0.000
8	USD(max)	1/4	35.110	0.000	344.730	0.00E+00	93.310	0.000
8	USD(max)	2/4	35.110	0.000	343.520	0.00E+00	71.870	0.000
8	USD(max)	3/4	35.110	0.000	342.300	0.00E+00	50.530	0.000
8	USD(max)	J[9]	35.110	0.000	341.090	0.00E+00	29.260	0.000
8	USD(min)	I[8]	-210.270	0.000	264.610	0.00E+00	27.030	0.000
8	USD(min)	1/4	-210.270	0.000	263.580	0.00E+00	6.930	0.000
8	USD(min)	2/4	-210.270	0.000	262.560	0.00E+00	-13.090	0.000
8	USD(min)	3/4	-210.270	0.000	261.540	0.00E+00	-33.510	0.000
8	USD(min)	J[9]	-210.270	0.000	260.510	0.00E+00	-53.940	0.000
8	WSD(max)	I[8]	21.940	0.000	216.210	0.00E+00	71.760	0.000
8	WSD(max)	1/4	21.940	0.000	215.460	0.00E+00	58.320	0.000
8	WSD(max)	2/4	21.940	0.000	214.700	0.00E+00	44.920	0.000
8	WSD(max)	3/4	21.940	0.000	213.940	0.00E+00	31.580	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
8	WSD(max)	J[9]	21.940	0.000	213.180	0.00E+00	18.290	0.000
8	WSD(min)	I[8]	-128.190	0.000	195.980	0.00E+00	24.180	0.000
8	WSD(min)	1/4	-128.190	0.000	195.220	0.00E+00	10.540	0.000
8	WSD(min)	2/4	-128.190	0.000	194.460	0.00E+00	-3.050	0.000
8	WSD(min)	3/4	-128.190	0.000	193.710	0.00E+00	-17.610	0.000
8	WSD(min)	J[9]	-128.190	0.000	192.950	0.00E+00	-32.290	0.000
9	USD(max)	I[1]	-421.670	0.000	-11.380	0.00E+00	-74.310	0.000
9	USD(max)	1/4	-419.940	0.000	-10.130	0.00E+00	-67.720	0.000
9	USD(max)	2/4	-418.200	0.000	-8.880	0.00E+00	-61.160	0.000
9	USD(max)	3/4	-416.460	0.000	-7.660	0.00E+00	-55.060	0.000
9	USD(max)	J[10]	-414.730	0.000	-6.440	0.00E+00	-49.420	0.000
9	USD(min)	I[1]	-513.940	0.000	-158.500	0.00E+00	-100.990	0.000
9	USD(min)	1/4	-511.890	0.000	-149.050	0.00E+00	-99.600	0.000
9	USD(min)	2/4	-509.830	0.000	-139.630	0.00E+00	-98.320	0.000
9	USD(min)	3/4	-507.770	0.000	-130.240	0.00E+00	-97.140	0.000
9	USD(min)	J[10]	-505.710	0.000	-120.890	0.00E+00	-96.080	0.000
9	WSD(max)	I[1]	-295.150	0.000	-9.310	0.00E+00	-50.630	0.000
9	WSD(max)	1/4	-293.870	0.000	-8.400	0.00E+00	-46.600	0.000
9	WSD(max)	2/4	-292.580	0.000	-7.510	0.00E+00	-42.850	0.000
9	WSD(max)	3/4	-291.290	0.000	-6.620	0.00E+00	-39.360	0.000
9	WSD(max)	J[10]	-290.010	0.000	-5.750	0.00E+00	-36.140	0.000
9	WSD(min)	I[1]	-321.210	0.000	-95.370	0.00E+00	-63.120	0.000
9	WSD(min)	1/4	-319.930	0.000	-89.530	0.00E+00	-62.250	0.000
9	WSD(min)	2/4	-318.640	0.000	-83.710	0.00E+00	-61.450	0.000
9	WSD(min)	3/4	-317.360	0.000	-77.910	0.00E+00	-60.710	0.000
9	WSD(min)	J[10]	-316.070	0.000	-72.130	0.00E+00	-60.050	0.000
10	USD(max)	I[9]	-411.730	0.000	35.110	0.00E+00	-53.010	0.000
10	USD(max)	1/4	-409.990	0.000	35.110	0.00E+00	-54.690	0.000
10	USD(max)	2/4	-408.250	0.000	35.110	0.00E+00	-50.640	0.000
10	USD(max)	3/4	-406.520	0.000	35.110	0.00E+00	-45.430	0.000
10	USD(max)	J[11]	-404.780	0.000	35.110	0.00E+00	-40.650	0.000
10	USD(min)	I[9]	-513.940	0.000	-147.990	0.00E+00	-88.190	0.000
10	USD(min)	1/4	-511.890	0.000	-138.540	0.00E+00	-85.420	0.000
10	USD(min)	2/4	-509.830	0.000	-129.120	0.00E+00	-83.290	0.000
10	USD(min)	3/4	-507.770	0.000	-119.730	0.00E+00	-81.340	0.000
10	USD(min)	J[11]	-505.710	0.000	-110.380	0.00E+00	-79.590	0.000
10	WSD(max)	I[9]	-295.150	0.000	21.940	0.00E+00	-41.490	0.000
10	WSD(max)	1/4	-293.870	0.000	21.940	0.00E+00	-42.580	0.000
10	WSD(max)	2/4	-292.580	0.000	21.940	0.00E+00	-40.100	0.000
10	WSD(max)	3/4	-291.290	0.000	21.940	0.00E+00	-36.890	0.000
10	WSD(max)	J[11]	-290.010	0.000	21.940	0.00E+00	-33.950	0.000
10	WSD(min)	I[9]	-321.210	0.000	-89.690	0.00E+00	-55.120	0.000
10	WSD(min)	1/4	-319.930	0.000	-83.850	0.00E+00	-52.870	0.000
10	WSD(min)	2/4	-318.640	0.000	-78.030	0.00E+00	-50.990	0.000
10	WSD(min)	3/4	-317.360	0.000	-72.230	0.00E+00	-49.270	0.000
10	WSD(min)	J[11]	-316.070	0.000	-66.450	0.00E+00	-48.100	0.000
11	USD(max)	I[10]	-414.730	0.000	-6.440	0.00E+00	-49.420	0.000
11	USD(max)	1/4	-413.800	0.000	-4.760	0.00E+00	-42.290	0.000
11	USD(max)	2/4	-412.870	0.000	-3.100	0.00E+00	-36.050	0.000
11	USD(max)	3/4	-411.950	0.000	-1.470	0.00E+00	-30.700	0.000
11	USD(max)	J[12]	-411.020	0.000	0.130	0.00E+00	-26.220	0.000
11	USD(min)	I[10]	-505.710	0.000	-120.890	0.00E+00	-96.080	0.000
11	USD(min)	1/4	-504.610	0.000	-107.860	0.00E+00	-94.760	0.000
11	USD(min)	2/4	-503.520	0.000	-94.890	0.00E+00	-93.650	0.000
11	USD(min)	3/4	-502.420	0.000	-81.990	0.00E+00	-93.350	0.000
11	USD(min)	J[12]	-501.320	0.000	-69.150	0.00E+00	-93.310	0.000
11	WSD(max)	I[10]	-290.010	0.000	-5.750	0.00E+00	-36.140	0.000
11	WSD(max)	1/4	-289.320	0.000	-4.550	0.00E+00	-32.080	0.000
11	WSD(max)	2/4	-288.630	0.000	-3.360	0.00E+00	-28.540	0.000
11	WSD(max)	3/4	-287.950	0.000	-2.200	0.00E+00	-25.520	0.000
11	WSD(max)	J[12]	-287.260	0.000	-1.060	0.00E+00	-23.010	0.000
11	WSD(min)	I[10]	-316.070	0.000	-72.130	0.00E+00	-60.050	0.000
11	WSD(min)	1/4	-315.380	0.000	-64.070	0.00E+00	-59.230	0.000
11	WSD(min)	2/4	-314.700	0.000	-56.060	0.00E+00	-58.530	0.000
11	WSD(min)	3/4	-314.010	0.000	-48.090	0.00E+00	-58.270	0.000
11	WSD(min)	J[12]	-313.330	0.000	-40.160	0.00E+00	-58.150	0.000
12	USD(max)	I[11]	-404.780	0.000	35.110	0.00E+00	-40.650	0.000
12	USD(max)	1/4	-403.850	0.000	35.110	0.00E+00	-34.670	0.000
12	USD(max)	2/4	-402.930	0.000	35.110	0.00E+00	-29.530	0.000
12	USD(max)	3/4	-402.000	0.000	35.110	0.00E+00	-25.220	0.000
12	USD(max)	J[13]	-401.080	0.000	35.110	0.00E+00	-21.730	0.000
12	USD(min)	I[11]	-505.710	0.000	-110.380	0.00E+00	-79.590	0.000
12	USD(min)	1/4	-504.610	0.000	-97.350	0.00E+00	-79.970	0.000
12	USD(min)	2/4	-503.520	0.000	-84.380	0.00E+00	-82.090	0.000
12	USD(min)	3/4	-502.420	0.000	-71.480	0.00E+00	-84.210	0.000
12	USD(min)	J[13]	-501.320	0.000	-58.640	0.00E+00	-86.330	0.000
12	WSD(max)	I[11]	-290.010	0.000	21.940	0.00E+00	-33.950	0.000
12	WSD(max)	1/4	-289.320	0.000	21.940	0.00E+00	-30.280	0.000
12	WSD(max)	2/4	-288.630	0.000	21.940	0.00E+00	-27.140	0.000
12	WSD(max)	3/4	-287.950	0.000	21.940	0.00E+00	-24.510	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
12	WSD(max)	J[13]	-287.260	0.000	21.940	0.00E+00	-22.390	0.000
12	WSD(min)	I[11]	-316.070	0.000	-66.450	0.00E+00	-48.100	0.000
12	WSD(min)	1/4	-315.380	0.000	-58.390	0.00E+00	-49.470	0.000
12	WSD(min)	2/4	-314.700	0.000	-50.380	0.00E+00	-50.840	0.000
12	WSD(min)	3/4	-314.010	0.000	-42.410	0.00E+00	-52.200	0.000
12	WSD(min)	J[13]	-313.330	0.000	-34.480	0.00E+00	-53.570	0.000
13	USD(max)	I[12]	-411.020	0.000	0.130	0.00E+00	-26.220	0.000
13	USD(max)	1/4	-410.100	0.000	1.710	0.00E+00	-22.630	0.000
13	USD(max)	2/4	-409.170	0.000	3.270	0.00E+00	-19.740	0.000
13	USD(max)	3/4	-408.240	0.000	4.800	0.00E+00	-17.330	0.000
13	USD(max)	J[14]	-407.320	0.000	9.630	0.00E+00	-15.790	0.000
13	USD(min)	I[12]	-501.320	0.000	-69.150	0.00E+00	-93.310	0.000
13	USD(min)	1/4	-500.220	0.000	-56.390	0.00E+00	-93.370	0.000
13	USD(min)	2/4	-499.130	0.000	-43.690	0.00E+00	-93.550	0.000
13	USD(min)	3/4	-498.030	0.000	-31.050	0.00E+00	-93.830	0.000
13	USD(min)	J[14]	-496.930	0.000	-18.490	0.00E+00	-94.220	0.000
13	WSD(max)	I[12]	-287.260	0.000	-1.060	0.00E+00	-23.010	0.000
13	WSD(max)	1/4	-286.580	0.000	0.060	0.00E+00	-21.020	0.000
13	WSD(max)	2/4	-285.890	0.000	1.160	0.00E+00	-19.540	0.000
13	WSD(max)	3/4	-285.200	0.000	2.240	0.00E+00	-18.560	0.000
13	WSD(max)	J[14]	-284.520	0.000	4.180	0.00E+00	-18.090	0.000
13	WSD(min)	I[12]	-313.330	0.000	-40.160	0.00E+00	-58.150	0.000
13	WSD(min)	1/4	-312.640	0.000	-32.270	0.00E+00	-58.120	0.000
13	WSD(min)	2/4	-311.950	0.000	-24.430	0.00E+00	-58.160	0.000
13	WSD(min)	3/4	-311.270	0.000	-16.620	0.00E+00	-58.280	0.000
13	WSD(min)	J[14]	-310.580	0.000	-8.860	0.00E+00	-58.480	0.000
14	USD(max)	I[13]	-401.080	0.000	35.110	0.00E+00	-21.730	0.000
14	USD(max)	1/4	-400.150	0.000	35.110	0.00E+00	-19.070	0.000
14	USD(max)	2/4	-399.220	0.000	35.110	0.00E+00	-17.140	0.000
14	USD(max)	3/4	-398.300	0.000	35.110	0.00E+00	-15.920	0.000
14	USD(max)	J[15]	-397.370	0.000	35.110	0.00E+00	-15.510	0.000
14	USD(min)	I[13]	-501.320	0.000	-58.640	0.00E+00	-86.330	0.000
14	USD(min)	1/4	-500.220	0.000	-45.880	0.00E+00	-88.450	0.000
14	USD(min)	2/4	-499.130	0.000	-33.180	0.00E+00	-90.570	0.000
14	USD(min)	3/4	-498.030	0.000	-20.540	0.00E+00	-92.690	0.000
14	USD(min)	J[15]	-496.930	0.000	-7.980	0.00E+00	-94.810	0.000
14	WSD(max)	I[13]	-287.260	0.000	21.940	0.00E+00	-22.390	0.000
14	WSD(max)	1/4	-286.580	0.000	21.940	0.00E+00	-20.790	0.000
14	WSD(max)	2/4	-285.890	0.000	21.940	0.00E+00	-19.540	0.000
14	WSD(max)	3/4	-285.200	0.000	21.940	0.00E+00	-18.560	0.000
14	WSD(max)	J[15]	-284.520	0.000	21.940	0.00E+00	-18.090	0.000
14	WSD(min)	I[13]	-313.330	0.000	-34.480	0.00E+00	-53.570	0.000
14	WSD(min)	1/4	-312.640	0.000	-26.590	0.00E+00	-54.940	0.000
14	WSD(min)	2/4	-311.950	0.000	-18.750	0.00E+00	-56.300	0.000
14	WSD(min)	3/4	-311.270	0.000	-10.940	0.00E+00	-57.670	0.000
14	WSD(min)	J[15]	-310.580	0.000	-3.180	0.00E+00	-59.040	0.000
15	USD(max)	I[14]	-407.320	0.000	9.630	0.00E+00	-15.790	0.000
15	USD(max)	1/4	-406.390	0.000	14.850	0.00E+00	-15.100	0.000
15	USD(max)	2/4	-405.460	0.000	20.050	0.00E+00	-15.270	0.000
15	USD(max)	3/4	-404.540	0.000	31.770	0.00E+00	-16.290	0.000
15	USD(max)	J[16]	-403.610	0.000	43.920	0.00E+00	-18.090	0.000
15	USD(min)	I[14]	-496.930	0.000	-18.490	0.00E+00	-94.220	0.000
15	USD(min)	1/4	-495.830	0.000	-5.990	0.00E+00	-94.710	0.000
15	USD(min)	2/4	-494.740	0.000	1.860	0.00E+00	-95.310	0.000
15	USD(min)	3/4	-493.640	0.000	4.250	0.00E+00	-96.000	0.000
15	USD(min)	J[16]	-492.540	0.000	6.580	0.00E+00	-96.800	0.000
15	WSD(max)	I[14]	-284.520	0.000	4.180	0.00E+00	-18.090	0.000
15	WSD(max)	1/4	-283.830	0.000	8.340	0.00E+00	-18.120	0.000
15	WSD(max)	2/4	-283.150	0.000	12.470	0.00E+00	-18.640	0.000
15	WSD(max)	3/4	-282.460	0.000	19.860	0.00E+00	-19.660	0.000
15	WSD(max)	J[16]	-281.770	0.000	27.450	0.00E+00	-21.050	0.000
15	WSD(min)	I[14]	-310.580	0.000	-8.860	0.00E+00	-58.480	0.000
15	WSD(min)	1/4	-309.900	0.000	-1.140	0.00E+00	-58.740	0.000
15	WSD(min)	2/4	-309.210	0.000	3.670	0.00E+00	-59.080	0.000
15	WSD(min)	3/4	-308.520	0.000	5.070	0.00E+00	-59.490	0.000
15	WSD(min)	J[16]	-307.840	0.000	6.440	0.00E+00	-59.970	0.000
16	USD(max)	I[15]	-397.370	0.000	35.110	0.00E+00	-15.510	0.000
16	USD(max)	1/4	-396.450	0.000	35.110	0.00E+00	-15.900	0.000
16	USD(max)	2/4	-395.520	0.000	35.110	0.00E+00	-17.090	0.000
16	USD(max)	3/4	-394.590	0.000	37.880	0.00E+00	-19.060	0.000
16	USD(max)	J[17]	-393.670	0.000	49.090	0.00E+00	-21.660	0.000
16	USD(min)	I[15]	-496.930	0.000	-7.980	0.00E+00	-94.810	0.000
16	USD(min)	1/4	-495.830	0.000	4.260	0.00E+00	-96.930	0.000
16	USD(min)	2/4	-494.740	0.000	16.430	0.00E+00	-99.050	0.000
16	USD(min)	3/4	-493.640	0.000	21.980	0.00E+00	-101.180	0.000
16	USD(min)	J[17]	-492.540	0.000	27.010	0.00E+00	-103.300	0.000
16	WSD(max)	I[15]	-284.520	0.000	21.940	0.00E+00	-18.090	0.000
16	WSD(max)	1/4	-283.830	0.000	21.940	0.00E+00	-18.120	0.000
16	WSD(max)	2/4	-283.150	0.000	21.940	0.00E+00	-18.640	0.000
16	WSD(max)	3/4	-282.460	0.000	23.680	0.00E+00	-19.660	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
16	WSD(max)	J[17]	-281.770	0.000	30.680	0.00E+00	-21.170	0.000
16	WSD(min)	I[15]	-310.580	0.000	-3.180	0.00E+00	-59.040	0.000
16	WSD(min)	1/4	-309.900	0.000	3.960	0.00E+00	-60.410	0.000
16	WSD(min)	2/4	-309.210	0.000	11.050	0.00E+00	-61.770	0.000
16	WSD(min)	3/4	-308.520	0.000	16.580	0.00E+00	-63.140	0.000
16	WSD(min)	J[17]	-307.840	0.000	19.530	0.00E+00	-64.510	0.000
17	USD(max)	I[16]	-403.610	0.000	43.920	0.00E+00	-18.090	0.000
17	USD(max)	1/4	-402.690	0.000	56.010	0.00E+00	-20.700	0.000
17	USD(max)	2/4	-401.760	0.000	68.030	0.00E+00	-24.160	0.000
17	USD(max)	3/4	-400.830	0.000	79.980	0.00E+00	-28.470	0.000
17	USD(max)	J[18]	-399.910	0.000	91.860	0.00E+00	-33.620	0.000
17	USD(min)	I[16]	-492.540	0.000	6.580	0.00E+00	-96.800	0.000
17	USD(min)	1/4	-491.440	0.000	8.830	0.00E+00	-97.690	0.000
17	USD(min)	2/4	-490.350	0.000	11.020	0.00E+00	-98.680	0.000
17	USD(min)	3/4	-489.250	0.000	12.860	0.00E+00	-99.770	0.000
17	USD(min)	J[18]	-488.150	0.000	14.310	0.00E+00	-100.940	0.000
17	WSD(max)	I[16]	-281.770	0.000	27.450	0.00E+00	-21.050	0.000
17	WSD(max)	1/4	-281.090	0.000	35.000	0.00E+00	-22.840	0.000
17	WSD(max)	2/4	-280.400	0.000	42.520	0.00E+00	-25.150	0.000
17	WSD(max)	3/4	-279.720	0.000	49.990	0.00E+00	-27.990	0.000
17	WSD(max)	J[18]	-279.030	0.000	57.410	0.00E+00	-31.350	0.000
17	WSD(min)	I[16]	-307.840	0.000	6.440	0.00E+00	-59.970	0.000
17	WSD(min)	1/4	-307.150	0.000	7.750	0.00E+00	-60.520	0.000
17	WSD(min)	2/4	-306.470	0.000	9.030	0.00E+00	-61.130	0.000
17	WSD(min)	3/4	-305.780	0.000	10.120	0.00E+00	-61.810	0.000
17	WSD(min)	J[18]	-305.090	0.000	11.010	0.00E+00	-62.550	0.000
18	USD(max)	I[17]	-393.670	0.000	49.090	0.00E+00	-21.660	0.000
18	USD(max)	1/4	-392.740	0.000	60.240	0.00E+00	-24.920	0.000
18	USD(max)	2/4	-391.820	0.000	71.310	0.00E+00	-29.010	0.000
18	USD(max)	3/4	-390.890	0.000	82.320	0.00E+00	-33.940	0.000
18	USD(max)	J[19]	-389.960	0.000	93.270	0.00E+00	-39.690	0.000
18	USD(min)	I[17]	-492.540	0.000	27.010	0.00E+00	-103.300	0.000
18	USD(min)	1/4	-491.440	0.000	28.800	0.00E+00	-105.420	0.000
18	USD(min)	2/4	-490.350	0.000	28.800	0.00E+00	-107.800	0.000
18	USD(min)	3/4	-489.250	0.000	28.800	0.00E+00	-110.260	0.000
18	USD(min)	J[19]	-488.150	0.000	28.800	0.00E+00	-112.720	0.000
18	WSD(max)	I[17]	-281.770	0.000	30.680	0.00E+00	-21.170	0.000
18	WSD(max)	1/4	-281.090	0.000	37.650	0.00E+00	-23.180	0.000
18	WSD(max)	2/4	-280.400	0.000	44.570	0.00E+00	-25.660	0.000
18	WSD(max)	3/4	-279.720	0.000	51.450	0.00E+00	-28.630	0.000
18	WSD(max)	J[19]	-279.030	0.000	58.290	0.00E+00	-32.080	0.000
18	WSD(min)	I[17]	-307.840	0.000	19.530	0.00E+00	-64.510	0.000
18	WSD(min)	1/4	-307.150	0.000	19.530	0.00E+00	-65.880	0.000
18	WSD(min)	2/4	-306.470	0.000	19.530	0.00E+00	-67.380	0.000
18	WSD(min)	3/4	-305.780	0.000	19.530	0.00E+00	-68.910	0.000
18	WSD(min)	J[19]	-305.090	0.000	19.530	0.00E+00	-70.450	0.000
19	USD(max)	I[18]	-399.910	0.000	91.860	0.00E+00	-33.620	0.000
19	USD(max)	1/4	-398.980	0.000	103.680	0.00E+00	-39.620	0.000
19	USD(max)	2/4	-398.060	0.000	115.430	0.00E+00	-46.450	0.000
19	USD(max)	3/4	-397.130	0.000	127.120	0.00E+00	-54.110	0.000
19	USD(max)	J[20]	-396.200	0.000	138.740	0.00E+00	-62.590	0.000
19	USD(min)	I[18]	-488.150	0.000	14.310	0.00E+00	-100.940	0.000
19	USD(min)	1/4	-487.050	0.000	15.740	0.00E+00	-102.210	0.000
19	USD(min)	2/4	-485.960	0.000	17.140	0.00E+00	-103.560	0.000
19	USD(min)	3/4	-484.860	0.000	18.520	0.00E+00	-105.010	0.000
19	USD(min)	J[20]	-483.760	0.000	19.870	0.00E+00	-107.080	0.000
19	WSD(max)	I[18]	-279.030	0.000	57.410	0.00E+00	-31.350	0.000
19	WSD(max)	1/4	-278.340	0.000	64.800	0.00E+00	-35.230	0.000
19	WSD(max)	2/4	-277.660	0.000	72.150	0.00E+00	-39.630	0.000
19	WSD(max)	3/4	-276.970	0.000	79.450	0.00E+00	-44.540	0.000
19	WSD(max)	J[20]	-276.290	0.000	86.710	0.00E+00	-49.960	0.000
19	WSD(min)	I[18]	-305.090	0.000	11.010	0.00E+00	-62.550	0.000
19	WSD(min)	1/4	-304.410	0.000	11.890	0.00E+00	-63.350	0.000
19	WSD(min)	2/4	-303.720	0.000	12.730	0.00E+00	-64.210	0.000
19	WSD(min)	3/4	-303.040	0.000	13.560	0.00E+00	-65.130	0.000
19	WSD(min)	J[20]	-302.350	0.000	14.370	0.00E+00	-66.110	0.000
20	USD(max)	I[19]	-389.960	0.000	93.270	0.00E+00	-39.690	0.000
20	USD(max)	1/4	-389.040	0.000	104.140	0.00E+00	-46.260	0.000
20	USD(max)	2/4	-388.110	0.000	115.430	0.00E+00	-53.650	0.000
20	USD(max)	3/4	-387.180	0.000	127.120	0.00E+00	-61.850	0.000
20	USD(max)	J[21]	-386.260	0.000	138.740	0.00E+00	-70.860	0.000
20	USD(min)	I[19]	-488.150	0.000	28.800	0.00E+00	-112.720	0.000
20	USD(min)	1/4	-487.050	0.000	28.800	0.00E+00	-115.180	0.000
20	USD(min)	2/4	-485.960	0.000	28.800	0.00E+00	-117.630	0.000
20	USD(min)	3/4	-484.860	0.000	28.800	0.00E+00	-120.090	0.000
20	USD(min)	J[21]	-483.760	0.000	28.800	0.00E+00	-122.550	0.000
20	WSD(max)	I[19]	-279.030	0.000	58.290	0.00E+00	-32.080	0.000
20	WSD(max)	1/4	-278.340	0.000	65.090	0.00E+00	-36.010	0.000
20	WSD(max)	2/4	-277.660	0.000	72.150	0.00E+00	-40.410	0.000
20	WSD(max)	3/4	-276.970	0.000	79.450	0.00E+00	-45.290	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
20	WSD(max)	J[21]	-276.290	0.000	86.710	0.00E+00	-50.630	0.000
20	WSD(min)	I[19]	-305.090	0.000	19.530	0.00E+00	-70.450	0.000
20	WSD(min)	1/4	-304.410	0.000	19.530	0.00E+00	-71.990	0.000
20	WSD(min)	2/4	-303.720	0.000	19.530	0.00E+00	-73.520	0.000
20	WSD(min)	3/4	-303.040	0.000	19.530	0.00E+00	-75.060	0.000
20	WSD(min)	J[21]	-302.350	0.000	19.530	0.00E+00	-76.590	0.000
21	USD(max)	I[20]	-396.200	0.000	138.740	0.00E+00	-62.590	0.000
21	USD(max)	1/4	-394.550	0.000	146.990	0.00E+00	-69.160	0.000
21	USD(max)	2/4	-392.900	0.000	155.220	0.00E+00	-76.140	0.000
21	USD(max)	3/4	-391.240	0.000	163.410	0.00E+00	-83.540	0.000
21	USD(max)	J[22]	-389.590	0.000	171.560	0.00E+00	-90.440	0.000
21	USD(min)	I[20]	-483.760	0.000	19.870	0.00E+00	-107.080	0.000
21	USD(min)	1/4	-481.800	0.000	20.820	0.00E+00	-110.700	0.000
21	USD(min)	2/4	-479.840	0.000	21.760	0.00E+00	-114.490	0.000
21	USD(min)	3/4	-477.880	0.000	22.680	0.00E+00	-118.460	0.000
21	USD(min)	J[22]	-475.920	0.000	23.600	0.00E+00	-122.610	0.000
21	WSD(max)	I[20]	-276.290	0.000	86.710	0.00E+00	-49.960	0.000
21	WSD(max)	1/4	-275.060	0.000	91.870	0.00E+00	-54.140	0.000
21	WSD(max)	2/4	-273.840	0.000	97.010	0.00E+00	-58.580	0.000
21	WSD(max)	3/4	-272.610	0.000	102.130	0.00E+00	-63.270	0.000
21	WSD(max)	J[22]	-271.390	0.000	107.230	0.00E+00	-67.660	0.000
21	WSD(min)	I[20]	-302.350	0.000	14.370	0.00E+00	-66.110	0.000
21	WSD(min)	1/4	-301.120	0.000	14.940	0.00E+00	-67.370	0.000
21	WSD(min)	2/4	-299.900	0.000	15.490	0.00E+00	-70.210	0.000
21	WSD(min)	3/4	-298.670	0.000	16.030	0.00E+00	-73.190	0.000
21	WSD(min)	J[22]	-297.450	0.000	16.560	0.00E+00	-76.310	0.000
22	USD(max)	I[21]	-386.260	0.000	138.740	0.00E+00	-70.860	0.000
22	USD(max)	1/4	-384.600	0.000	146.990	0.00E+00	-77.790	0.000
22	USD(max)	2/4	-382.950	0.000	155.220	0.00E+00	-85.120	0.000
22	USD(max)	3/4	-381.300	0.000	163.410	0.00E+00	-92.860	0.000
22	USD(max)	J[30]	-379.640	0.000	171.560	0.00E+00	-101.010	0.000
22	USD(min)	I[21]	-483.760	0.000	28.800	0.00E+00	-122.550	0.000
22	USD(min)	1/4	-481.800	0.000	28.800	0.00E+00	-124.300	0.000
22	USD(min)	2/4	-479.840	0.000	28.800	0.00E+00	-126.060	0.000
22	USD(min)	3/4	-477.880	0.000	28.800	0.00E+00	-127.810	0.000
22	USD(min)	J[30]	-475.920	0.000	28.800	0.00E+00	-129.570	0.000
22	WSD(max)	I[21]	-276.290	0.000	86.710	0.00E+00	-50.630	0.000
22	WSD(max)	1/4	-275.060	0.000	91.870	0.00E+00	-54.730	0.000
22	WSD(max)	2/4	-273.840	0.000	97.010	0.00E+00	-59.070	0.000
22	WSD(max)	3/4	-272.610	0.000	102.130	0.00E+00	-63.640	0.000
22	WSD(max)	J[30]	-271.390	0.000	107.230	0.00E+00	-68.450	0.000
22	WSD(min)	I[21]	-302.350	0.000	19.530	0.00E+00	-76.590	0.000
22	WSD(min)	1/4	-301.120	0.000	19.530	0.00E+00	-77.690	0.000
22	WSD(min)	2/4	-299.900	0.000	19.530	0.00E+00	-78.790	0.000
22	WSD(min)	3/4	-298.670	0.000	19.530	0.00E+00	-79.880	0.000
22	WSD(min)	J[30]	-297.450	0.000	19.530	0.00E+00	-80.980	0.000
23	USD(max)	I[22]	-28.800	0.000	-292.120	0.00E+00	3.170	0.000
23	USD(max)	1/4	-28.800	0.000	-275.860	0.00E+00	18.300	0.000
23	USD(max)	2/4	-28.800	0.000	-259.140	0.00E+00	33.940	0.000
23	USD(max)	3/4	-28.800	0.000	-242.420	0.00E+00	48.610	0.000
23	USD(max)	J[23]	-28.800	0.000	-225.710	0.00E+00	62.320	0.000
23	USD(min)	I[22]	-219.780	0.000	-360.780	0.00E+00	-53.300	0.000
23	USD(min)	1/4	-219.780	0.000	-341.590	0.00E+00	-37.960	0.000
23	USD(min)	2/4	-219.780	0.000	-322.400	0.00E+00	-23.500	0.000
23	USD(min)	3/4	-219.780	0.000	-303.210	0.00E+00	-9.880	0.000
23	USD(min)	J[23]	-219.780	0.000	-284.020	0.00E+00	2.550	0.000
23	WSD(max)	I[22]	-19.530	0.000	-205.730	0.00E+00	1.070	0.000
23	WSD(max)	1/4	-19.530	0.000	-194.790	0.00E+00	11.440	0.000
23	WSD(max)	2/4	-19.530	0.000	-183.840	0.00E+00	21.210	0.000
23	WSD(max)	3/4	-19.530	0.000	-172.900	0.00E+00	30.380	0.000
23	WSD(max)	J[23]	-19.530	0.000	-161.960	0.00E+00	38.950	0.000
23	WSD(min)	I[22]	-137.360	0.000	-225.490	0.00E+00	-33.310	0.000
23	WSD(min)	1/4	-137.360	0.000	-213.490	0.00E+00	-22.340	0.000
23	WSD(min)	2/4	-137.360	0.000	-201.500	0.00E+00	-11.960	0.000
23	WSD(min)	3/4	-137.360	0.000	-189.500	0.00E+00	-2.190	0.000
23	WSD(min)	J[23]	-137.360	0.000	-177.510	0.00E+00	6.180	0.000
24	USD(max)	I[23]	-28.800	0.000	-225.710	0.00E+00	62.320	0.000
24	USD(max)	1/4	-28.800	0.000	-205.060	0.00E+00	77.940	0.000
24	USD(max)	2/4	-28.800	0.000	-184.410	0.00E+00	92.080	0.000
24	USD(max)	3/4	-28.800	0.000	-163.770	0.00E+00	104.780	0.000
24	USD(max)	J[24]	-28.800	0.000	-143.120	0.00E+00	116.170	0.000
24	USD(min)	I[23]	-219.780	0.000	-284.020	0.00E+00	2.550	0.000
24	USD(min)	1/4	-219.780	0.000	-260.320	0.00E+00	16.770	0.000
24	USD(min)	2/4	-219.780	0.000	-236.620	0.00E+00	29.760	0.000
24	USD(min)	3/4	-219.780	0.000	-212.920	0.00E+00	41.510	0.000
24	USD(min)	J[24]	-219.780	0.000	-189.220	0.00E+00	52.020	0.000
24	WSD(max)	I[23]	-19.530	0.000	-161.960	0.00E+00	38.950	0.000
24	WSD(max)	1/4	-19.530	0.000	-148.440	0.00E+00	48.710	0.000
24	WSD(max)	2/4	-19.530	0.000	-134.930	0.00E+00	57.550	0.000
24	WSD(max)	3/4	-19.530	0.000	-120.980	0.00E+00	65.490	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
24	WSD(max)	J[24]	-19.530	0.000	-106.170	0.00E+00	72.580	0.000
24	WSD(min)	I[23]	-137.360	0.000	-177.510	0.00E+00	6.180	0.000
24	WSD(min)	1/4	-137.360	0.000	-162.700	0.00E+00	15.760	0.000
24	WSD(min)	2/4	-137.360	0.000	-147.890	0.00E+00	24.510	0.000
24	WSD(min)	3/4	-137.360	0.000	-133.070	0.00E+00	32.420	0.000
24	WSD(min)	J[24]	-137.360	0.000	-118.260	0.00E+00	39.500	0.000
25	USD(max)	I[24]	-28.800	0.000	-143.120	0.00E+00	116.170	0.000
25	USD(max)	1/4	-28.800	0.000	-122.560	0.00E+00	126.050	0.000
25	USD(max)	2/4	-28.800	0.000	-102.000	0.00E+00	134.480	0.000
25	USD(max)	3/4	-28.800	0.000	-81.430	0.00E+00	141.460	0.000
25	USD(max)	J[25]	-28.800	0.000	-60.870	0.00E+00	146.990	0.000
25	USD(min)	I[24]	-219.780	0.000	-189.220	0.00E+00	52.020	0.000
25	USD(min)	1/4	-219.780	0.000	-165.610	0.00E+00	61.260	0.000
25	USD(min)	2/4	-219.780	0.000	-142.010	0.00E+00	69.260	0.000
25	USD(min)	3/4	-219.780	0.000	-118.400	0.00E+00	75.620	0.000
25	USD(min)	J[25]	-219.780	0.000	-94.800	0.00E+00	80.350	0.000
25	WSD(max)	I[24]	-19.530	0.000	-106.170	0.00E+00	72.580	0.000
25	WSD(max)	1/4	-19.530	0.000	-91.420	0.00E+00	78.740	0.000
25	WSD(max)	2/4	-19.530	0.000	-76.670	0.00E+00	83.990	0.000
25	WSD(max)	3/4	-19.530	0.000	-61.910	0.00E+00	88.330	0.000
25	WSD(max)	J[25]	-19.530	0.000	-47.160	0.00E+00	91.760	0.000
25	WSD(min)	I[24]	-137.360	0.000	-118.260	0.00E+00	39.500	0.000
25	WSD(min)	1/4	-137.360	0.000	-103.510	0.00E+00	45.730	0.000
25	WSD(min)	2/4	-137.360	0.000	-88.760	0.00E+00	51.120	0.000
25	WSD(min)	3/4	-137.360	0.000	-74.000	0.00E+00	55.690	0.000
25	WSD(min)	J[25]	-137.360	0.000	-59.250	0.00E+00	59.430	0.000
26	USD(max)	I[25]	-28.800	0.000	-60.870	0.00E+00	146.990	0.000
26	USD(max)	1/4	-28.800	0.000	-40.230	0.00E+00	151.070	0.000
26	USD(max)	2/4	-28.800	0.000	-19.580	0.00E+00	153.700	0.000
26	USD(max)	3/4	-28.800	0.000	1.070	0.00E+00	154.860	0.000
26	USD(max)	J[26]	-28.800	0.000	21.710	0.00E+00	154.560	0.000
26	USD(min)	I[25]	-219.780	0.000	-94.800	0.00E+00	80.350	0.000
26	USD(min)	1/4	-219.780	0.000	-71.100	0.00E+00	83.870	0.000
26	USD(min)	2/4	-219.780	0.000	-47.400	0.00E+00	86.150	0.000
26	USD(min)	3/4	-219.780	0.000	-23.700	0.00E+00	87.190	0.000
26	USD(min)	J[26]	-219.780	0.000	0.000	0.00E+00	86.990	0.000
26	WSD(max)	I[25]	-19.530	0.000	-47.160	0.00E+00	91.760	0.000
26	WSD(max)	1/4	-19.530	0.000	-32.350	0.00E+00	94.300	0.000
26	WSD(max)	2/4	-19.530	0.000	-17.540	0.00E+00	95.920	0.000
26	WSD(max)	3/4	-19.530	0.000	-2.720	0.00E+00	96.630	0.000
26	WSD(max)	J[26]	-19.530	0.000	12.090	0.00E+00	96.420	0.000
26	WSD(min)	I[25]	-137.360	0.000	-59.250	0.00E+00	59.430	0.000
26	WSD(min)	1/4	-137.360	0.000	-44.440	0.00E+00	62.350	0.000
26	WSD(min)	2/4	-137.360	0.000	-29.630	0.00E+00	64.430	0.000
26	WSD(min)	3/4	-137.360	0.000	-14.810	0.00E+00	65.680	0.000
26	WSD(min)	J[26]	-137.360	0.000	0.000	0.00E+00	66.100	0.000
27	USD(max)	I[26]	-28.800	0.000	21.710	0.00E+00	154.560	0.000
27	USD(max)	1/4	-28.800	0.000	40.960	0.00E+00	152.860	0.000
27	USD(max)	2/4	-28.800	0.000	62.590	0.00E+00	149.820	0.000
27	USD(max)	3/4	-28.800	0.000	84.210	0.00E+00	145.450	0.000
27	USD(max)	J[27]	-28.800	0.000	105.830	0.00E+00	139.750	0.000
27	USD(min)	I[26]	-219.780	0.000	0.000	0.00E+00	86.990	0.000
27	USD(min)	1/4	-219.780	0.000	20.060	0.00E+00	85.600	0.000
27	USD(min)	2/4	-219.780	0.000	40.120	0.00E+00	83.090	0.000
27	USD(min)	3/4	-219.780	0.000	60.190	0.00E+00	79.460	0.000
27	USD(min)	J[27]	-219.780	0.000	80.250	0.00E+00	74.700	0.000
27	WSD(max)	I[26]	-19.530	0.000	12.090	0.00E+00	96.420	0.000
27	WSD(max)	1/4	-19.530	0.000	25.600	0.00E+00	95.330	0.000
27	WSD(max)	2/4	-19.530	0.000	39.120	0.00E+00	93.420	0.000
27	WSD(max)	3/4	-19.530	0.000	52.630	0.00E+00	90.660	0.000
27	WSD(max)	J[27]	-19.530	0.000	66.150	0.00E+00	87.080	0.000
27	WSD(min)	I[26]	-137.360	0.000	0.000	0.00E+00	66.100	0.000
27	WSD(min)	1/4	-137.360	0.000	13.510	0.00E+00	65.680	0.000
27	WSD(min)	2/4	-137.360	0.000	27.030	0.00E+00	64.430	0.000
27	WSD(min)	3/4	-137.360	0.000	40.540	0.00E+00	62.350	0.000
27	WSD(min)	J[27]	-137.360	0.000	54.060	0.00E+00	59.430	0.000
28	USD(max)	I[27]	-28.800	0.000	105.830	0.00E+00	139.750	0.000
28	USD(max)	1/4	-28.800	0.000	127.370	0.00E+00	132.730	0.000
28	USD(max)	2/4	-28.800	0.000	148.910	0.00E+00	124.400	0.000
28	USD(max)	3/4	-28.800	0.000	170.440	0.00E+00	114.740	0.000
28	USD(max)	J[28]	-28.800	0.000	191.980	0.00E+00	103.760	0.000
28	USD(min)	I[27]	-219.780	0.000	80.250	0.00E+00	74.700	0.000
28	USD(min)	1/4	-219.780	0.000	100.230	0.00E+00	68.830	0.000
28	USD(min)	2/4	-219.780	0.000	120.210	0.00E+00	61.780	0.000
28	USD(min)	3/4	-219.780	0.000	140.190	0.00E+00	53.420	0.000
28	USD(min)	J[28]	-219.780	0.000	158.930	0.00E+00	43.940	0.000
28	WSD(max)	I[27]	-19.530	0.000	66.150	0.00E+00	87.080	0.000
28	WSD(max)	1/4	-19.530	0.000	79.610	0.00E+00	82.680	0.000
28	WSD(max)	2/4	-19.530	0.000	93.070	0.00E+00	77.450	0.000
28	WSD(max)	3/4	-19.530	0.000	106.530	0.00E+00	71.390	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
28	WSD(max)	J[28]	-19.530	0.000	119.990	0.00E+00	64.500	0.000
28	WSD(min)	I[27]	-137.360	0.000	54.060	0.00E+00	59.430	0.000
28	WSD(min)	1/4	-137.360	0.000	67.520	0.00E+00	55.690	0.000
28	WSD(min)	2/4	-137.360	0.000	80.980	0.00E+00	50.950	0.000
28	WSD(min)	3/4	-137.360	0.000	94.440	0.00E+00	44.980	0.000
28	WSD(min)	J[28]	-137.360	0.000	107.900	0.00E+00	38.170	0.000
29	USD(max)	I[28]	-28.800	0.000	191.980	0.00E+00	103.760	0.000
29	USD(max)	1/4	-28.800	0.000	213.600	0.00E+00	91.390	0.000
29	USD(max)	2/4	-28.800	0.000	236.620	0.00E+00	77.700	0.000
29	USD(max)	3/4	-28.800	0.000	260.320	0.00E+00	62.670	0.000
29	USD(max)	J[29]	-28.800	0.000	284.020	0.00E+00	46.300	0.000
29	USD(min)	I[28]	-219.780	0.000	158.930	0.00E+00	43.940	0.000
29	USD(min)	1/4	-219.780	0.000	177.180	0.00E+00	33.300	0.000
29	USD(min)	2/4	-219.780	0.000	195.420	0.00E+00	21.530	0.000
29	USD(min)	3/4	-219.780	0.000	213.670	0.00E+00	8.630	0.000
29	USD(min)	J[29]	-219.780	0.000	231.910	0.00E+00	-5.390	0.000
29	WSD(max)	I[28]	-19.530	0.000	119.990	0.00E+00	64.500	0.000
29	WSD(max)	1/4	-19.530	0.000	133.500	0.00E+00	56.760	0.000
29	WSD(max)	2/4	-19.530	0.000	147.890	0.00E+00	48.180	0.000
29	WSD(max)	3/4	-19.530	0.000	162.700	0.00E+00	38.760	0.000
29	WSD(max)	J[29]	-19.530	0.000	177.510	0.00E+00	28.510	0.000
29	WSD(min)	I[28]	-137.360	0.000	107.900	0.00E+00	38.170	0.000
29	WSD(min)	1/4	-137.360	0.000	121.410	0.00E+00	30.510	0.000
29	WSD(min)	2/4	-137.360	0.000	134.930	0.00E+00	22.010	0.000
29	WSD(min)	3/4	-137.360	0.000	148.440	0.00E+00	12.670	0.000
29	WSD(min)	J[29]	-137.360	0.000	161.960	0.00E+00	2.500	0.000
30	USD(max)	I[29]	-28.800	0.000	284.020	0.00E+00	46.300	0.000
30	USD(max)	1/4	-28.800	0.000	303.210	0.00E+00	32.070	0.000
30	USD(max)	2/4	-28.800	0.000	322.400	0.00E+00	16.960	0.000
30	USD(max)	3/4	-28.800	0.000	341.590	0.00E+00	0.980	0.000
30	USD(max)	J[30]	-28.800	0.000	360.780	0.00E+00	-15.880	0.000
30	USD(min)	I[29]	-219.780	0.000	231.910	0.00E+00	-5.390	0.000
30	USD(min)	1/4	-219.780	0.000	246.690	0.00E+00	-17.560	0.000
30	USD(min)	2/4	-219.780	0.000	261.460	0.00E+00	-30.480	0.000
30	USD(min)	3/4	-219.780	0.000	276.230	0.00E+00	-44.140	0.000
30	USD(min)	J[30]	-219.780	0.000	291.010	0.00E+00	-58.530	0.000
30	WSD(max)	I[29]	-19.530	0.000	177.510	0.00E+00	28.510	0.000
30	WSD(max)	1/4	-19.530	0.000	189.500	0.00E+00	19.600	0.000
30	WSD(max)	2/4	-19.530	0.000	201.500	0.00E+00	10.140	0.000
30	WSD(max)	3/4	-19.530	0.000	213.490	0.00E+00	0.140	0.000
30	WSD(max)	J[30]	-19.530	0.000	225.490	0.00E+00	-10.410	0.000
30	WSD(min)	I[29]	-137.360	0.000	161.960	0.00E+00	2.500	0.000
30	WSD(min)	1/4	-137.360	0.000	172.900	0.00E+00	-6.340	0.000
30	WSD(min)	2/4	-137.360	0.000	183.840	0.00E+00	-15.740	0.000
30	WSD(min)	3/4	-137.360	0.000	194.790	0.00E+00	-25.680	0.000
30	WSD(min)	J[30]	-137.360	0.000	205.730	0.00E+00	-36.160	0.000

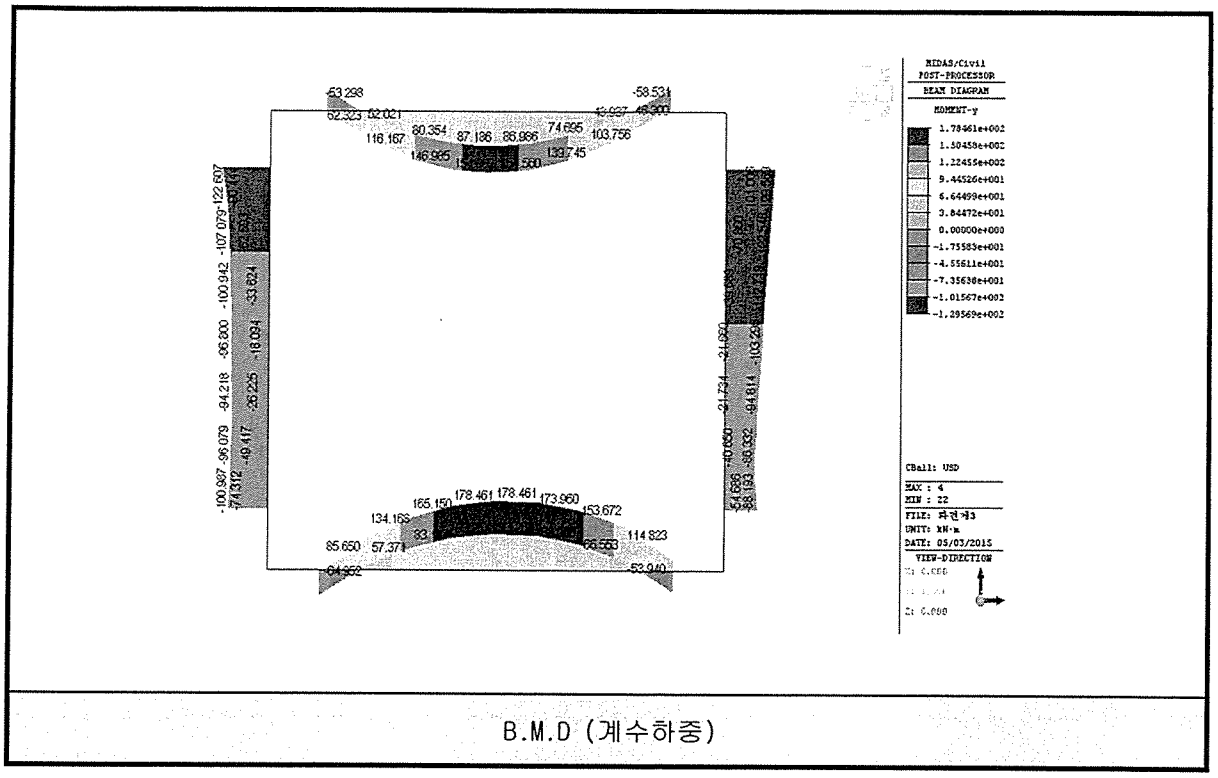
9. 단면력 요약

구분	위치	부재	극한하중			사용하중	비고
			Mu(kN · m)	Su(kN)	Pu(kN)	M(kN · m)	
상부슬래브	단부	23,30	-58.53	360.78	-	-36.16	
	중앙부	26,27	154.86	105.83	-	96.63	
벽체	상단부 (축력최대)	21.22	-89.03	171.56	-483.76	-49.96	
	상단부 (모멘트최대)	21,22	-129.57	171.56	-453.56	-80.98	
	중앙부 (축력최대)	15,16	-32.23	49.09	-496.93	-18.09	
	중앙부 (모멘트최대)	15,16	-103.30	-18.49	-467.57	-64.51	
	하단부 (축력최대)	9,10	-88.19	-158.50	-513.94	-33.95	
	하단부 (모멘트최대)	9,10	-100.99	-158.50	-494.60	-63.12	
하부슬래브	단부	1,8	-64.95	349.30	-	-38.25	
	중앙부	4,5	178.46	70.43	-	111.24	

-'전단력과 사용하중 상태에서의 모멘트는 선택 부재에서의 최대값 적용

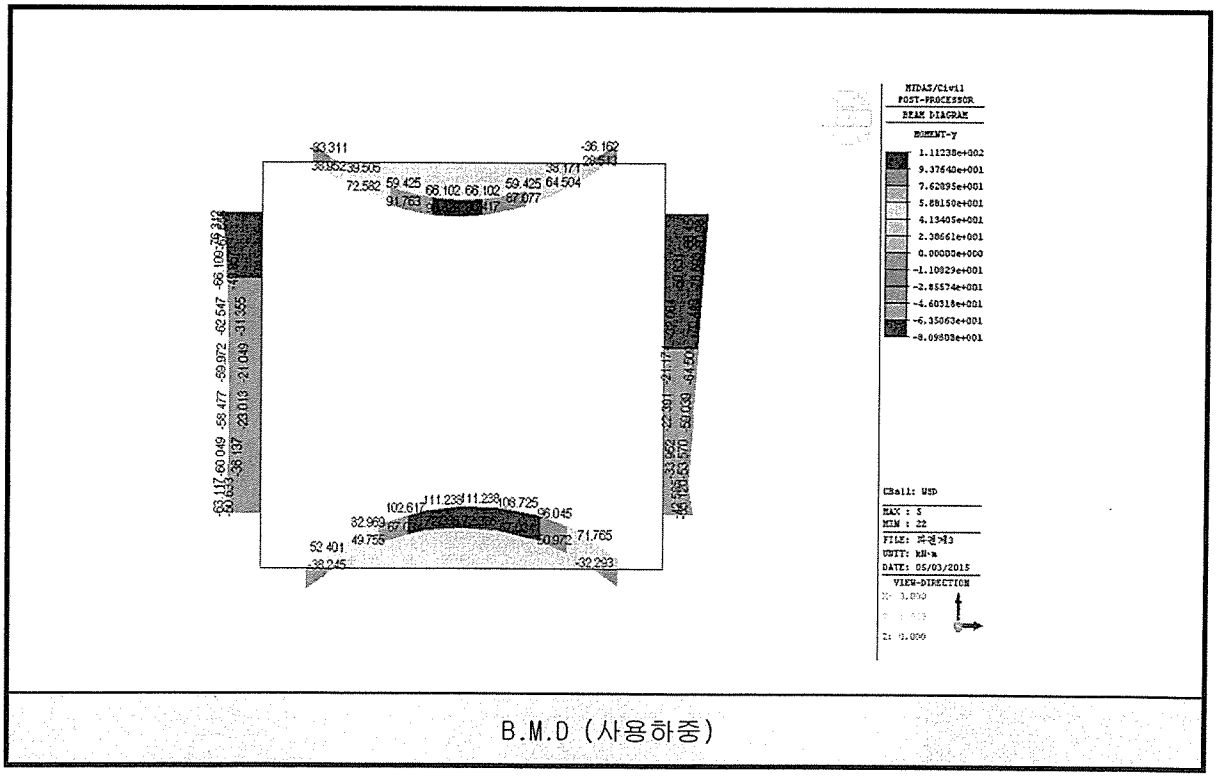
10. 단면력도

(1) 극한하중 모멘트도



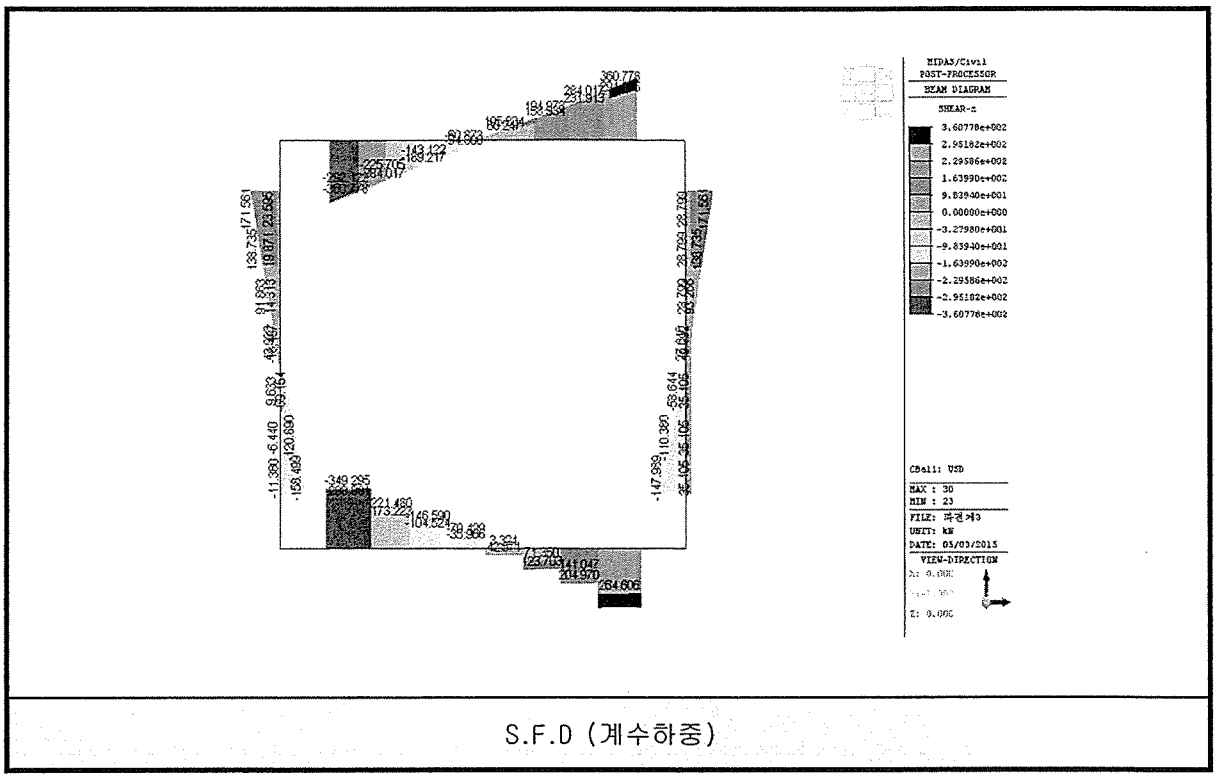
B.M.D (계수하중)

(2) 사용하중 모멘트도



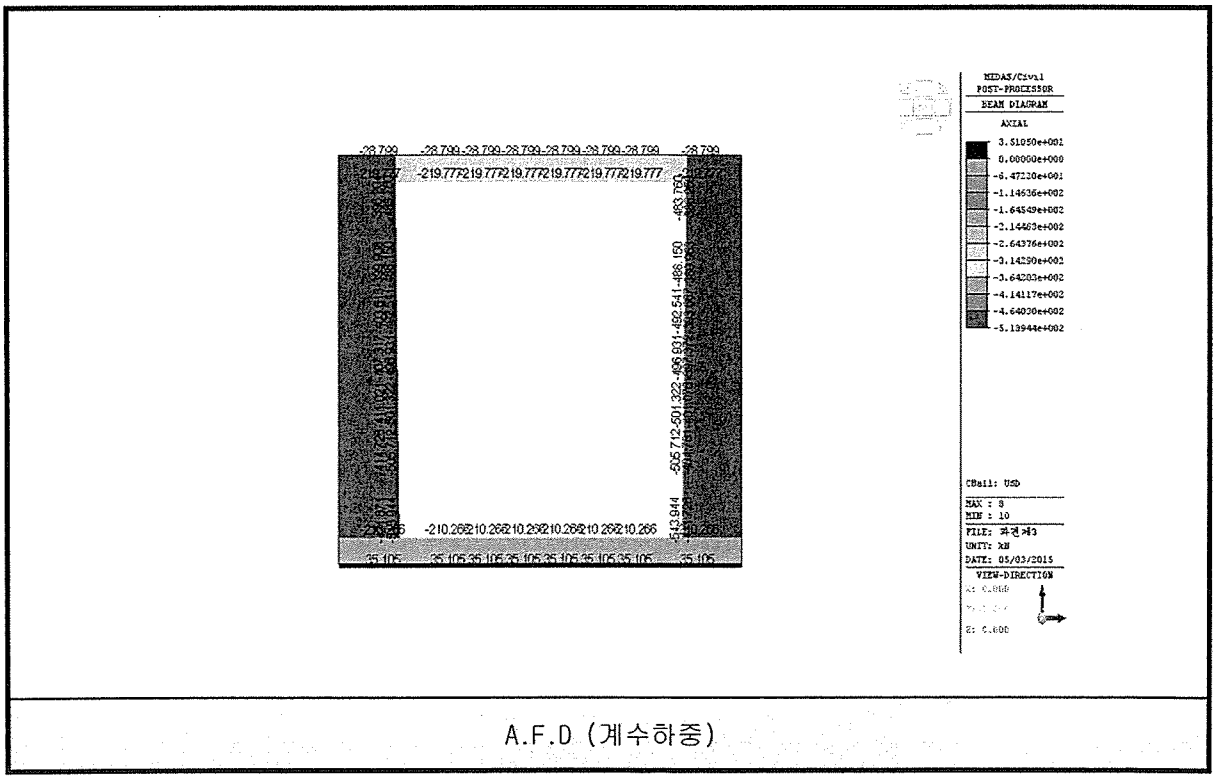
B.M.D (사용하중)

(3) 극한하중 전단력도



S.F.D (계수하중)

(4) 극한하중 축력도



A.F.D (계수하중)

11. 단면검토

① 상부 슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	36.160
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Su (kN)
1000.0	500.0	400.0	100.0	58.530	360.780

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 409.750 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 409.750 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 546.334 mm^2 ※ As = 546.334 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 58.530 kN · m ----- ∴ O.K. [사용률 = 3.787]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

Vu > Φv x Vc ∴ 전단철근보강이 필요하다.

Req Av = (360.8 - 232.782) × 10^3 × 150.0 / (400.0 × 300.0 × 0.85)

= 188.232 ㎟

Use Av = 253.400 ㎟ (H13 × 2 EA, 간격 s = 150.0 mm)

Øv · As = Øv · Av · fy · D / (s × B) = 172.312 kN

s = 150.0 mm ≥ Min (600, 0.5D) = 150.0 mm ----- ∴ O.K.

Øv · Vn = Øv · Vc + Øv · Vs = 405.094 kN > Vu ----- ∴ O.K.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 36.16 × 1000000 / [1588.8 × (400 - 83.857/3)]

= 61.173 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2 × 1000 × 400/(7 × 1588.8)]

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 61.173) - 2.5 × 92 = 1057.330 mm

300 x (210 / fs) = 300 × (210 / 61.173) = 1029.864 mm

Sa는 작은 값인 1029.864 mm 를 적용

S = 125.00 ≤ Sa (= 1029.864 mm) ----- ∴ O.K.

② 상부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	96.630
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	400.0	300.0	100.0	154.860	105.830

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.02719 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1492.094 mm^2

사용철근비 : Puse = As / (B × D) = 0.00530

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1492.094 mm^2 As(min) = 1050.000 mm^2

4/3×As(req) = 1989.459 mm^2 ※ As = 1492.094 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 164463107 N · mm

= 164.463 kN · m > 154.860 kN · m ----- ∴ O.K. [사용률 = 1.062]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 96.63 × 1000000 / [1588.8×(300 - 71.32/3)]

= 220.180 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×300/(7×1588.8)]

= 71.320 ㎜

사용철근량 = 1588.800 ㎟ (철근도심 : 100 ㎜)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 ㎜

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(㎜)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 220.18) - 2.5 × 92 = 127.662 ㎜

300 x (210 / fs) = 300 × (210 / 220.18) = 286.130 ㎜

Sa는 작은 값인 127.662 ㎜ 를 적용

S = 125.00 ≤ Sa (= 127.662 ㎜) ------ ∴ O.K.

③ 하부슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	38.250
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	550.0	450.0	100.0	64.950	349.300

전단설계시 단면의 유효높이 ds = 350.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.04229 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 403.767 mm^2

사용철근비 : Puse = As / (B × D) = 0.00353

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 403.767 mm^2 As(min) = 1575.000 mm^2

4/3×As(req) = 538.356 mm^2 ※ As = 538.356 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 250258307 N · mm

= 250.258 kN · m > 64.950 kN · m ----- ∴ O.K [사용률 = 3.853]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 271.579 kN

Vu > Φv x Vc ∴ 전단철근보강이 필요하다.

Req Av = (349.3 - 271.579)×10³ ×150.0 / (400.0×350.0×0.85)

= 97.968 ㎟

Use Av = 253.400 ㎟ (H13×2 EA, 간격 s = 150.0 mm)

Øv · As = Øv · Av · fy · D / (s × B) = 201.031 kN

s = 150.0 mm < Min (600, 0.5D) = 175.0 mm ------ ∴ O.K

Øv · Vn = Øv · Vc + Øv · Vs = 472.610 kN > Vu ------ ∴ O.K

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 38.25 × 1000000 / [1588.8×(450 - 89.542/3)]

= 57.300 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×450/(7×1588.8)]

= 89.542 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 57.3) - 2.5 × 92 = 1144.344 mm

300 x (210 / fs) = 300 × (210 / 57.3) = 1099.475 mm

Sa는 작은 값인 1099.475 mm 를 적용

S = 125.00 ≤ Sa (= 1099.475 mm) ------ ∴ O.K.

④ 하부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	111.240
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	450.0	350.0	100.0	178.460	70.430

전단설계시 단면의 유효높이 ds = 350.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03222 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1464.405 mm^2

사용철근비 : Puse = As / (B × D) = 0.00454

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1464.405 mm^2 As(min) = 1225.000 mm^2

4/3×As(req) = 1952.540 mm^2 ※ As = 1464.405 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 193061507 N · mm

= 193.062 kN · m > 178.460 kN · m ----- ∴ O.K [사용률 = 1.082]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 271.579 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 111.24 × 1000000 / [1588.8×(350 - 77.81/3)]

= 216.054 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×350/(7×1588.8)]

= 77.810 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 216.054) - 2.5 × 92 = 134.493 mm

300 x (210 / fs) = 300 × (210 / 216.054) = 291.594 mm

Sa는 작은 값인 134.493 mm 를 적용

S = 125.00 ≤ Sa (= 134.493 mm) ------ ∴ O.K.

⑤ 벽체 상단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	80.980
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	500.0	400.0	100.0	129.570	171.560

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 916.253 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 916.253 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 1221.670 mm^2 ※ As = 1221.670 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 129.570 kN · m ----- ∴ O.K [사용률 = 1.711]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

1/2 x Φv x Vc = 116.391 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 80.98 × 1000000 / [1588.8×(400 - 83.857/3)]

= 136.997 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 ㎜

사용철근량 = 1588.800 $㎜^2$ (철근도심 : 100 ㎜)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 ㎜

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(㎜)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 136.997) - 2.5 × 92 = 344.831 ㎜

300 x (210 / fs) = 300 × (210 / 136.997) = 459.865 ㎜

Sa는 작은 값인 344.831 ㎜ 를 적용

S = 125.00 ≤ Sa (= 344.831 ㎜) ----- ∴ O.K.

⑥ 벽체 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	64.510
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	400.0	300.0	100.0	103.300	18.490

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.02719 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ———————— (1)

$a = As \times fy / (0.85 \times fck \times b)$ ———————— (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 981.676 mm^2

사용철근비 : Puse = As / (B × D) = 0.00530

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 981.676 mm^2 As(min) = 1050.000 mm^2

4/3×As(req) = 1308.901 mm^2 ※ As = 1050.000 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 164463107 N · mm

= 164.463 kN · m > 103.300 kN · m ----- ∴ O.K [사용률 = 1.592]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 64.51 × 1000000 / [1588.8×(300 - 71.32/3)]

= 146.992 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×300/(7×1588.8)]

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 146.992) - 2.5 × 92 = 305.745 mm

300 x (210 / fs) = 300 × (210 / 146.992) = 428.596 mm

Sa는 작은 값인 305.745 mm 를 적용

S = 125.00 ≤ Sa (= 305.745 mm) ----- ∴ O.K.

⑦ 벽체 하단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	63.120
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	500.0	400.0	100.0	100.990	158.500

전단설계시 단면의 유효높이 ds = 300.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 24.922 mm

최외단 인장철근 변형률 εt = 0.03725 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 711.238 mm^2

사용철근비 : Puse = As / (B × D) = 0.00397

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 711.238 mm^2 As(min) = 1400.000 mm^2

4/3×As(req) = 948.318 mm^2 ※ As = 948.318 mm^2

사용철근량 = H16 × 8ea = 1588.800 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 221659907 N · mm

= 221.660 kN · m > 100.990 kN · m ----- ∴ O.K [사용률 = 2.195]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 232.782 kN

1/2 x Φv x Vc = 116.391 kN ≤ Vu ≤Φv x Vc ∴ 슬래브이므로 최소전단 철근 배근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 63.12 × 1000000 / [1588.8×(400 - 83.857/3)]

= 106.782 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 1588.8/1000 + 7 × 1588.8/1000 × √[(1 + 2×1000×400/(7×1588.8)]

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 106.782) - 2.5 × 92 = 507.482 mm

300 x (210 / fs) = 300 × (210 / 106.782) = 589.985 mm

Sa는 작은 값인 507.482 mm 를 적용

S = 125.00 ≤ Sa (= 507.482 mm) ----- ∴ O.K.

⑤ 벽체 상단부 - Pmax 일 경우

설계축력	:	Pu	=	483.76	(kN) ,	설계모멘트	:	Mu	=	89.03	(kN · m)
설계전단력	:	Vu	=	171.56	(kN) ,	사용 모멘트	:	M	=	49.96	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	184.04 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 249.482 mm , a = k1 x c = 208.567 mm 사용

fs = 600 x (400.000 - 249.482) / 249.482 = 361.9917 Mpa (fs ≤ fy)

fs' = 600 x (249.482 - 100.000) / 249.482 = 359.5021 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 208.567 x 1000 = 5230867.543 N

Cs = 794.400 x (359.502 - 0.836 x 30) = 265664.895 N

Ts = 1588.800 x 361.992 = 575132.425 N

Pn = 5230867.543 + 265664.895 - 575132.425 = 4921400.013 N

Mn' = 5230867.543 x (400.0 - 208.567 / 2) + 265664.895 x (400.0 - 100.0)

= 1626552561.153 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 330.505114 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 4921400.013

ΦPn = 3444980.009 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 4921400.013 = 3444.980 kN ≥ Pu = 483.760 kN ------- O.K!!!

ΦMn = ΦPn x 184.038 = 634.006 kN.m ≥ Mu = 89.030 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 248869.324 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 49.96 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 84.519 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 ㎜

사용철근량 = 1588.800 $㎜^2$ (철근도심 : 100 ㎜)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 ㎜

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(㎜)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 84.519) - 2.5 × 92 = 701.742 ㎜

300 x (210 / fs) = 300 × (210 / 84.519) = 745.394 ㎜

Sa는 작은 값인 701.742 ㎜ 를 적용

S = 125.00 ≤ Sa (= 701.742 ㎜) ----- ∴ O.K.

⑥ 벽체 상단부 - Mmax 일 경우

설계축력	:	Pu	=	453.56	(kN) ,	설계모멘트	:	Mu	=	129.57	(kN · m)	
설계전단력	:	Vu	=	171.56	(kN) ,	사용 모멘트	:	M	=	80.98	(kN.m)	
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e	=	285.67 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 138.006 mm , a = k1 x c = 115.373 mm 사용

fs = 600 x (400.000 - 138.006) / 138.006 = 400 Mpa (fs ≤ fy)

fs' = 600 x (138.006 - 100.000) / 138.006 = 165.235 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 115.373 x 1000 = 2893546.855 N

Cs = 794.400 x (165.235 - 0.836 x 30) = 111339.159 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 2893546.855 + 111339.159 - 635520.000 = 2369366.013 N

Mn' = 2893546.855 x (400.0 - 115.373 / 2) + 111339.159 x (400.0 - 100.0)

= 1023902359.529 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 432.140915 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 2369366.013

ΦPn = 1658556.209 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 2369366.013 = 1658.556 kN ≥ Pu = 453.560 kN ——— O.K!!!

ΦMn = ΦPn x 285.673 = 473.805 kN.m ≥ Mu = 129.570 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 247865.036 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 80.98 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 136.997 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 ㎜

사용철근량 = 1588.800 ㎟ (철근도심 : 100 ㎜)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 ㎜

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(㎜)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 136.997) - 2.5 × 92 = 344.831 ㎜

300 x (210 / fs) = 300 × (210 / 136.997) = 459.865 ㎜

Sa는 작은 값인 344.831 ㎜ 를 적용

S = 125.00 ≤ Sa (= 344.831 ㎜) ----- ∴ O.K.

⑦ 벽체 중앙부 - Pmax 일 경우

설계축력	:	Pu	=	496.93	(kN) ,	설계모멘트	:	Mu	=	32.23	(kN·m)	
설계전단력	:	Vu	=	49.09	(kN) ,	사용 모멘트	:	M	=	18.09	(kN.m)	
부 재 높 이	:	H	=	400.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	300.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e	=	64.86 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

$\sum$ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0060) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 400.00 x 1000.00 = 10032000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (10032000.00 x 200.0 + 635520.0 x 100.0 + 317760.0 x 300.0) / 10985280.000

= 197.107 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 180.000 mm, ab = k1 x cb = 150.480 mm

fs' = 600 x (180.000 - 100.0) / 180.0(= 266.6667 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 150.480 x 1000 = 3774038.400 N

Cs = As' x (fs' - 0.9 x fck) = 190391.200 N

Ts = As x fs = 635520.000 N

Pb = 3774038.400 + 190391.200 - 635520.000 = 3328909.600 N

Mb = 3774038.400x(300.0-150.480/2)+190391.200x(300.0-100.0)-3328909.600x(197.107-100.0)

= 563069348.351 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 169.145 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 329.377 mm , a = k1 x c = 275.359 mm 사용

fs = 600 x (300.000 - 329.377) / 329.377 = -53.5139 Mpa (fs ≤ fy)

fs' = 600 x (329.377 - 100.000) / 329.377 = 400 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 275.359 x 1000 = 6906010.130 N

Cs = 794.400 x (400.000 - 0.836 x 30) = 297836.448 N

Ts = 1588.800 x -53.514 = -85022.917 N

Pn = 6906010.130 + 297836.448 - -85022.917 = 7288869.496 N

Mn' = 6906010.130 x (300.0 - 275.359 / 2) + 297836.448 x (300.0 - 100.0)

= 1180553424.391 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 161.965631 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 8874006.720 N ≥ Pn = 7288869.496

ΦPn = 5102208.647 > ΦPb = 2330236.720 , 0.1 x fck x Ag = 1200000.000

∴ Φ = 0.700

ΦPn = 0.70 x 7288869.496 = 5102.209 kN ≥ Pu = 496.930 kN ——— O.K!!!

ΦMn = ΦPn x 64.858 = 330.920 kN.m ≥ Mu = 32.230 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 253438.587 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 18.09 × 1000000 / [1588.8×(300 - 71.32/3)]

= 41.220 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2\times1000\times300/(7\times1588.8)]}$

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 41.22) - 2.5 × 92 = 1680.50 mm

300 x (210 / fs) = 300 × (210 / 41.22) = 1528.40 mm

Sa는 작은 값인 1528.40 mm 를 적용

S = 125.00 ≤ Sa (= 1528.399 mm) ------ ∴ O.K.

⑧ 벽체 중앙부 - Mmax 일 경우

설계축력	:	Pu	=	467.57	(kN) ,	설계모멘트	:	Mu	=	103.30	(kN · m)	
설계전단력	:	Vu	=	18.49	(kN) ,	사용 모멘트	:	M	=	64.51	(kN.m)	
부 재 높 이	:	H	=	400.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	300.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e	=	220.93 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0060) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 400.00 x 1000.00 = 10032000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (10032000.00 x 200.0 + 635520.0 x 100.0 + 317760.0 x 300.0) / 10985280.000

= 197.107 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 180.000 mm, ab = k1 x cb = 150.480 mm

fs' = 600 x (180.000 - 100.0) / 180.0(= 266.6667 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 150.480 x 1000 = 3774038.400 N

Cs = As' x (fs' - 0.9 x fck) = 190391.200 N

Ts = As x fs = 635520.000 N

Pb = 3774038.400 + 190391.200 - 635520.000 = 3328909.600 N

Mb = 3774038.400x(300.0-150.480/2)+190391.200x(300.0-100.0)-3328909.600x(197.107-100.0)

= 563069348.351 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 169.145 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 128.055 mm , a = k1 x c = 107.054 mm 사용

fs = 600 x (300.000 - 128.055) / 128.055 = 400 Mpa (fs ≤ fy)

fs' = 600 x (128.055 - 100.000) / 128.055 = 131.451 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 107.054 x 1000 = 2684911.722 N

Cs = 794.400 x (131.451 - 0.836 x 30) = 84501.093 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 2684911.722 + 84501.093 - 635520.000 = 2133892.815 N

Mn' = 2684911.722 x (300.0 - 107.054 / 2) + 84501.093 x (300.0 - 100.0)

= 678658604.562 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 318.036888 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 8874006.720 N ≥ Pn = 2133892.815

ΦPn = 1493724.971 > ΦPb = 2330236.720 , 0.1 x fck x Ag = 1200000.000

∴ Φ = 0.700

ΦPn = 0.70 x 2133892.815 = 1493.725 kN ≥ Pu = 467.570 kN ------- O.K!!!

ΦMn = ΦPn x 220.929 = 330.008 kN.m ≥ Mu = 103.300 kN.m ------- O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 252218.144 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 64.51 \times 1000000 / [1588.8 \times (300 - 71.32/3)]$

= 146.992 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 300/(7 \times 1588.8)]}$

= 71.320 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 mm^2)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 146.992) - 2.5 × 92 = 305.75 mm

300 x (210 / fs) = 300 × (210 / 146.992) = 428.60 mm

Sa는 작은 값인 305.75 mm 를 적용

S = 125.00 ≤ Sa (= 305.745 mm) ------ ∴ O.K.

⑨ 벽체 하단부 - Pmax 일 경우

설계축력	:	Pu	=	513.94	(kN) ,	설계모멘트	:	Mu	=	88.19	(kN · m)
설계전단력	:	Vu	=	158.50	(kN) ,	사용 모멘트	:	M	=	33.95	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	171.60 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb > e → 압축파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 262.694 mm , a = k1 x c = 219.612 mm 사용

fs = 600 x (400.000 - 262.694) / 262.694 = 313.6105 Mpa (fs ≤ fy)

fs' = 600 x (262.694 - 100.000) / 262.694 = 371.5974 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 219.612 x 1000 = 5507873.575 N

Cs = 794.400 x (371.597 - 0.836 x 30) = 275273.400 N

Ts = 1588.800 x 313.611 = 498264.382 N

Pn = 5507873.575 + 275273.400 - 498264.382 = 5284882.592 N

Mn' = 5507873.575 x (400.0 - 219.612 / 2) + 275273.400 x (400.0 - 100.0)

= 1680933377.477 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 318.063481 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 5284882.592

ΦPn = 3699417.815 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 5284882.592 = 3699.418 kN ≥ Pu = 513.940 kN ------ O.K!!!

ΦMn = ΦPn x 171.596 = 634.805 kN.m ≥ Mu = 88.190 kN.m ------ O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 249872.948 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 ㎠ O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 33.95 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 57.434 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 57.434) - 2.5 × 92 = 1141.13 mm

300 x (210 / fs) = 300 × (210 / 57.434) = 1096.90 mm

Sa는 작은 값인 1096.90 mm 를 적용

S = 125.00 ≤ Sa (= 1096.904 mm) ----- ∴ O.K.

⑩ 벽체 하단부 - Mmax 일 경우

설계축력	:	Pu	=	494.60	(kN) ,	설계모멘트	:	Mu	=	100.99	(kN·m)
설계전단력	:	Vu	=	158.50	(kN) ,	사용 모멘트	:	M	=	63.12	(kN.m)
부 재 높 이	:	H	=	500.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	400.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	300.0	(mm) ,	k_1	=	0.836	,	e =	204.19 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 16 @ 8 EA = 15.888 cm^2 , d1 = 10.0 cm

Σ = 15.888 cm^2

Asf = H 16 @ 4 EA = 7.944 cm^2 , d'1 = 10.0 cm

Pmin (0.0012) < Puse (0.0048) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 500.00 x 1000.00 = 12540000.000 N

Cs = As x fy = 635520.00 N , Cs' = Asf x fy = 317760.000 N

Xp = (12540000.00 x 250.0 + 635520.0 x 100.0 + 317760.0 x 400.0) / 13493280.000

= 246.468 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 240.000 mm, ab = k1 x cb = 200.640 mm

fs' = 600 x (240.000 - 100.0) / 240.0(= 350 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 200.640 x 1000 = 5032051.200 N

Cs = As' x (fs' - 0.9 x fck) = 256591.200 N

Ts = As x fs = 635520.000 N

Pb = 5032051.200 + 256591.200 - 635520.000 = 4653122.400 N

Mb = 5032051.200x(400.0-200.640/2)+256591.200x(400.0-100.0)-4653122.400x(246.468-100.0)

= 903450909.646 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 194.160 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 224.848 mm , a = k1 x c = 187.973 mm 사용

fs = 600 x (400.000 - 224.848) / 224.848 = 400 Mpa (fs ≤ fy)

fs' = 600 x (224.848 - 100.000) / 224.848 = 333.1534 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 187.973 x 1000 = 4714366.276 N

Cs = 794.400 x (333.153 - 0.836 x 30) = 244733.477 N

Ts = 1588.800 x 400.000 = 635520.000 N

Pn = 4714366.276 + 244733.477 - 635520.000 = 4323579.753 N

Mn' = 4714366.276 x (400.0 - 187.973 / 2) + 244733.477 x (400.0 - 100.0)

= 1516079444.633 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 350.652775 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 10914006.720 N ≥ Pn = 4323579.753

ΦPn = 3026505.827 > ΦPb = 3257185.680 , 0.1 x fck x Ag = 1500000.000

∴ Φ = 0.700

ΦPn = 0.70 x 4323579.753 = 3026.506 kN ≥ Pu = 494.600 kN ——— O.K!!!

ΦMn = ΦPn x 204.185 = 617.968 kN.m ≥ Mu = 100.990 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 249229.804 N

여기서 , $1/2\phi Vc < Vu \leq \phi Vc$ 이므로 최소 전단 철근 필요

- 계산된 스터럽 : min.Av = 0.35x(bo x s / fy)= 1.31㎠

- 배근할 스터럽 : H 13 다리수: N = 2 스터럽 간격 : s = 15 cm O.K !!!

Av(req)= 1.31㎠ < Av = 2.534 cm^2 O.K !!!

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 63.12 \times 1000000 / [1588.8 \times (400 - 83.857/3)]$

= 106.782 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 1588.8/1000 + 7 \times 1588.8/1000 \times \sqrt{[(1 + 2 \times 1000 \times 400/(7 \times 1588.8)]}$

= 83.857 mm

사용철근량 = 1588.800 mm^2 (철근도심 : 100 mm)

1단 H16 @ 125 (= 1588.8 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 16 / 2 = 92.00 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 106.782) - 2.5 × 92 = 507.482 mm

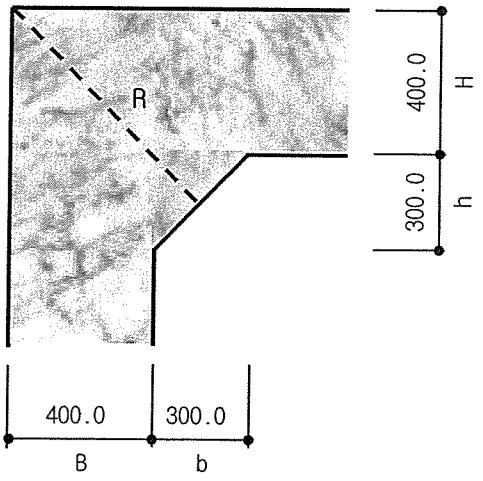
300 x (210 / fs) = 300 × (210 / 106.782) = 589.985 mm

Sa는 작은 값인 507.482 mm 를 적용

S = 125.00 ≤ Sa (= 507.482 mm) ----- ∴ O.K.

12. 우각부 검토

1) 상부 슬래브



CON'C 설계기준강도(fck) : 30.0 MPa

CON'C 허용휨인장응력(fta) = 0.13√fck Mpa

: 0.712 MPa

철근 항복강도(fy) : 400.0 MPa

철근 허용응력 : 180.0 MPa

사용 모멘트 Mo : 80.98 kN·m

$R = \sqrt{2} \times b / (b+h) \times [B + h + (H \times h/b)]$

$= 777.82$ mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 80980000}{777.82^2 \times 1000.0} = 0.669 \text{ MPa}$$

f_{tmax} = 0.669 MPa < f_{ta} = 0.712 MPa 이므로 보강철근 필요없음.

② 소요 철근량

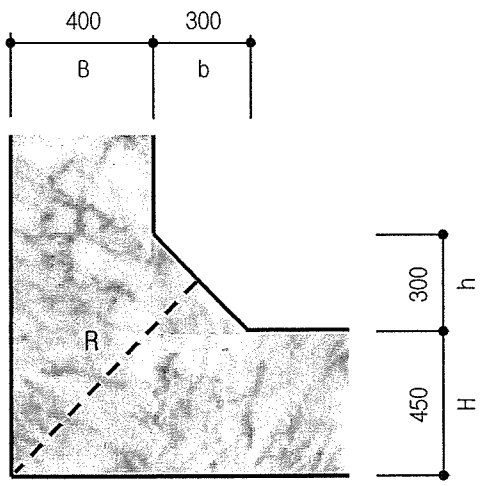
외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 0}{777.82 \times 180.0} = 0.00 \text{ mm}^2$$

▶ 보강 As = Asf - 주철근사용 As = 0.00 - 794.4 = -794.40 mm²

----- 우각부 보강철근 필요없음

2) 하부 슬래브



CON'C 설계기준강도(fck)	:	30.0	MPa
CON'C 허용휨인장응력(fta) = 0.13√fck Mpa			
	:	0.712	MPa
철근 항복강도(fy)	:	400.0	MPa
철근 허용응력	:	180.0	MPa
사용 모멘트 Mo	:	63.12	kN · m

R = √ (B2 + H2) = 602.08 mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 63120000}{602.08^{\,2} \times 1000.0} = 0.871 \text{ MPa}$$

f_{tmax} = 0.871 MPa > f_{ta} = 0.712 MPa 이므로 보강철근 필요.

② 소요 철근량

외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 63120000}{602.08 \times 180.0} = 1164.85 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 1164.85 - 794.4 = 370.45 ㎟

----- 우각부 보강철근 필요

외측인장에 대한 보강 사용철근량(As)

As = H16 @ 250 - 1 단 = 794.40 ㎟

Asf = 370.45 ㎟ < As = 794.40 ㎟ ----- ∴ O.K.

13. 배력철근 검토

1) 구조상세 - 철도설계기준(노반편) p.5-19

다. 종방향으로 영향을 받는 경우로써 상부슬래브, 하부슬래브와 벽체에 있어서 종방향 최소철근량은 복토의 깊이가 3.0 m 이하인 경우에는 콘크리트 단면적의 0.4%, 복토가 3.0m 이상인 경우에는 복토 깊이가 30m인 경우의 사용량인 1.0%를 기준으로 선형변화량을 사용하되, 종방향 철근량은 주철근량 미만이어야 한다.

라. 단단한 지반 위에 놓인 경우와 말뚝기초로 지지되는 경우로써 종방향 부등침하가 우려되지 않은 경우에는 다.항의 기준을 적용하지 않는다. 따라서 어느 정도 견고한 지반위에 놓이는 일반적인 구교로써 적적한 신축이음매가 설치되어 상세한 종방향해석이 필요하지 않다고 판단되는 경우 종방향 철근량은 슬래브의 경우 콘크리트단면적의 0.25%, 벽체의 경우 0.3%를 적용한다.

마. 배력철근은 단위폭주변의 인장 주철근량의 1/5 이상으로 하여 종단방향에 계산외의 응력이 발생하는 것을 고려하여야 한다.

2) 배력철근의 최소 철근비

슬래브의 배력 철근비 = 0.25 %　　벽체의 배력 철근비 = 0.30 %

① 상부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 400.0 × 0.25 = 1000.00 ㎟

사용철근 인장측 ; H 13 @ 150 = 844.67 ㎟

압축측 ; H 13 @ 300 = 422.33 ㎟

∑ As = 1267.00 ㎟

따라서, As = 1267.00 ㎟ > Asreq = 1000.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ----- ∴ O.K.

② 하부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 450.0 × 0.25 = 1125.00 ㎟

사용철근 인장측 ; H 13 @ 150 = 844.67 ㎟

압축측 ; H 13 @ 300 = 422.33 ㎟

∑ As = 1267.00 ㎟

따라서, As = 1267.00 ㎟ > Asreq = 1125.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ----- ∴ O.K.

③ 벽체

배력철근 최소 철근비 (Asreq) = 1,000.0 × 400.0 × 0.30					=	1200.00	㎟
사용철근 인장측 ;	H	13	@	150	=	844.67	㎟
압축측 ;	H	13	@	300	=	422.33	㎟
					∑ As =	1267.00	㎟

따라서, As = 1267.00 ㎟ > Asreq = 1200.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 317.760 ㎟

따라서, As = 844.67 ㎟ > Asreq = 317.76 ㎟ ----- ∴ O.K.

14. 사용성검토

1) 상부슬래브 최소 두께

1.2(L+3)/30 = 1.2 × (2.480 + 3) / 30 = 219.2 mm

상부슬래브 두께 = 400.0 mm

Tuse = 400.0 mm > Tmin = 219.2 mm ----- ∴ O.K.

2) 철근 피로검토

피로응력한계 : 사용하중하에서 활하중과 충격에 의해 야기되는 직선철근의 최대 인장응력과 최소 응력 상이의 범위는 다음 값을 초과할수 없다.

$f_f = 165 - 0.33fmin$

여기서, f_f : 응력범위(Mpa)

fmin : 최소응력 수준으로 인장은 정(+), 압축은 부(-)의 값(Mpa)

① 상부슬래브 단부

2.48 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 3.053 kN · m Mmin = -0.562 kN · m

- 사용철근량 = H16 × 8ea = 1588.800 ㎟

n = 7

p = As / bd = 1588.80 / (1000 × 400) = 0.00397

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00397 + \sqrt{\{ (7 \times 0.00397)^2 + 2 \times 7 \times 0.00397 \}}$

= 0.210

J = 1 - K / 3 = 1 - 0.210 / 3 = 0.930

$$fs\ max = \frac{M}{As \times j \times d} = \frac{3.053 \times 10^6}{1588.80 \times 0.930 \times 400} = 5.160 \text{ Mpa}$$

$$fs\ min = \frac{-0.562 \times 10^6}{1588.80 \times 0.930 \times 400} = -1 \text{ Mpa}$$

Δf = fs max - fs min = 6.111 Mpa

$f_f = 165 - 0.33fmin$

= 165 - 0.33 × -0.95 = 165.314 Mpa > 6.111 Mpa O.K.

② 상부슬래브 중앙부

2.48 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 9.123 kN · m Mmin = 8.451 kN · m

- 사용철근량 = H16 × 8ea = 1588.800 ㎟

n = 7

p = As / bd = 1588.80 / (1000 × 300) = 0.00530

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.0053 + \sqrt{\{ (7 \times 0.0053)^2 + 2 \times 7 \times 0.0053 \}}$

= 0.238

J = 1 - K / 3 = 1 - 0.238 / 3 = 0.921

$$fs\ max = \frac{M}{As \times j \times d} = \frac{9.123 \times 10^6}{1588.80 \times 0.921 \times 300} = 20.790\ Mpa$$

$$fs\ min = \frac{8.451 \times 10^6}{1588.80 \times 0.921 \times 300} = 19\ Mpa$$

Δf = fs max - fs min = 1.534 Mpa

$f_f = 165 - 0.33 fmin$

= 165 - 0.33 × 19.26 = 158.645 Mpa > 1.534 Mpa O.K.

15. 기초지지력 검토

1) 구체자중

-	2.800	x	0.450	x	24.500				=	30.870	kN/m
-	2.800	x	0.400	x	24.500				=	27.440	kN/m
-	2.000	x	0.400	x	24.500				=	19.600	kN/m
-	2.000	x	0.400	x	24.500				=	19.600	kN/m
-	0.300	x	0.300	x	1/2	x	4	x 24.500	=	4.410	kN/m
								∴ Total	=	101.920	kN/m

101.920 / 2.800 = 36.400 kN/m²

2) 상부연직하중

= 209.06 kN/m²

3) 활하중

= 21.019 kN/m²

4) 최대 지반 반력

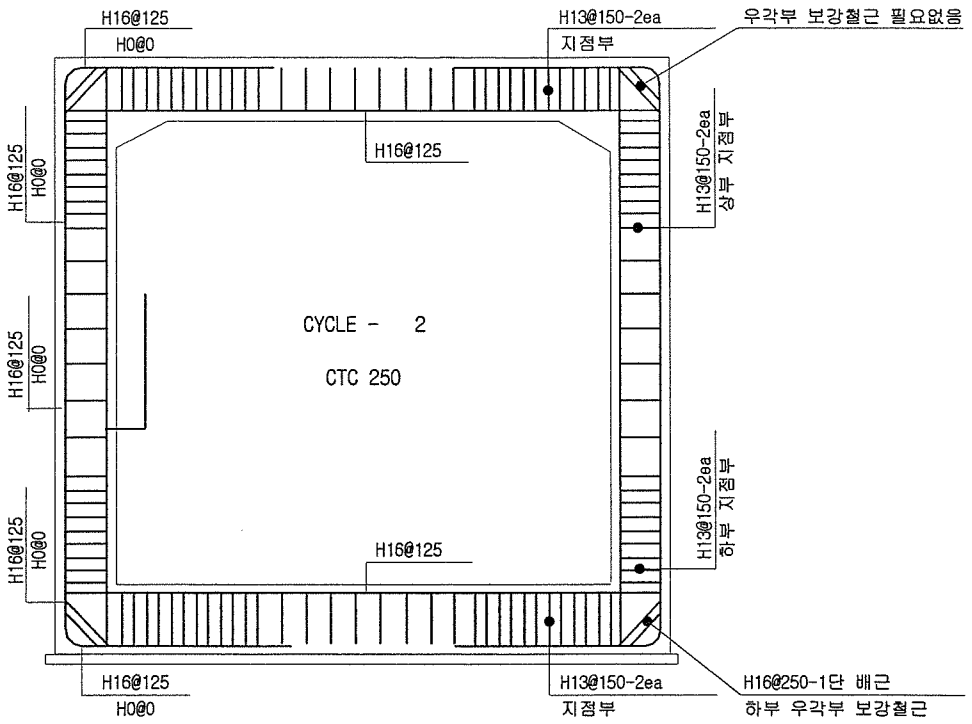
Qmax = 36.400 + 209.060 + 21.019

= 266.479 kN/m²

5) 지지력 검토

Qmax = 266.479 kN/m² < 300.00 kN/m² --- ∴ O.K.

16. 주철근 조립도



▶ 배력철근

- 상부 지점부 : H13, 인장측:150, 압축측:300
- 하부 지점부 : H13, 인장측:150, 압축측:300
- 벽체부 : H13, 인장측:150, 압축측:300

U-Type 개거 2.0x2.4

구조계산서

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■ 해석결과 요약

* 기초 검토

구분	$q_{max}(kN/m^2)$	Qu(kN)	$qa(kN/m^2)$	비 고
직접기초	34.840	2240.680	287.267	∴ O.K

* 휨 검토

구분		B(m)	H(m)	dc(m)	헌치(m)	Mu(kn.m)	ΦMn(kn.m)	BENDING Bar(mm)	휨검토		최소철근비 검토	주철근간격 검토
									판정	S.F		
하부슬래브	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		59.672	90.378	H 16 @ 150	O.K	1.515	O.K	O.K
좌측 벽체	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		26.358	46.427	H 16 @ 300	O.K	1.761	O.K	O.K
우측 벽체	단부	1.000	0.300	0.100	0.300	78.129	138.042	H 16 @ 150	O.K	1.767	O.K	O.K
	중앙부	1.000	0.300	0.100		26.383	46.427	H 16 @ 300	O.K	1.760	O.K	O.K

* 전단검토

구분		ΦVc	Vu	판정	전단철근			전단검토	
					사용철근	다리수	간격	판정	S.F
하부슬래브	단부	155.188	30.052	전단철근 불필요	H 0	× 0	@ 0	O.K	-
	중앙부	-	-	-	H -	× -	@ -	-	-
좌측 벽체	단부	155.188	84.550	전단철근 불필요	H 0	× 0	@ 0	O.K	-
	중앙부	-	-	-	H -	× -	@ -	-	-
우측 벽체	단부	155.188	84.550	전단철근 불필요	H 0	× 0	@ 0	O.K	-
	중앙부	-	-	-	H -	× -	@ -	-	-

1. 설계개요 및 조건

1.1 설계개요

• 구조해석 프로그램 : MIDAS CIVIL

1.2 설계방법

(1) 부재의 단면검토 : 강도설계법

(2) 사용성 검토 : 허용응력설계법

1.3 일반사항

(1) 사용재료의 강도

① 콘크리트의 압축강도 : f_{ck} = 30 MPa

② 철근의 항복강도 : f_y = 400 MPa

(2) 사용재료의 탄성계수

① 콘크리트의 탄성계수 : E_c = 27,537 MPa

② 철근의 탄성계수 : E_s = 200,000 MPa

(3) 토사 내부마찰각 : Φ = 35°

(4) 토압 : K_o = 0.426

(5) 사 각(Skew) : 71.00 °

1.4 설계하중

(1) 고정하중

재 료	단위중량(kN/m^3)	재 료	단위중량(kN/m^3)
철근콘크리트	24.5	아스팔트 포장	23.0
흙(지하수위 이상)	20.0	흙(지하수위 이하)	11.0
지하수	10.0		

(2) 상재 하중(kN/m^2)

q_L = 15.0 kN/m^2

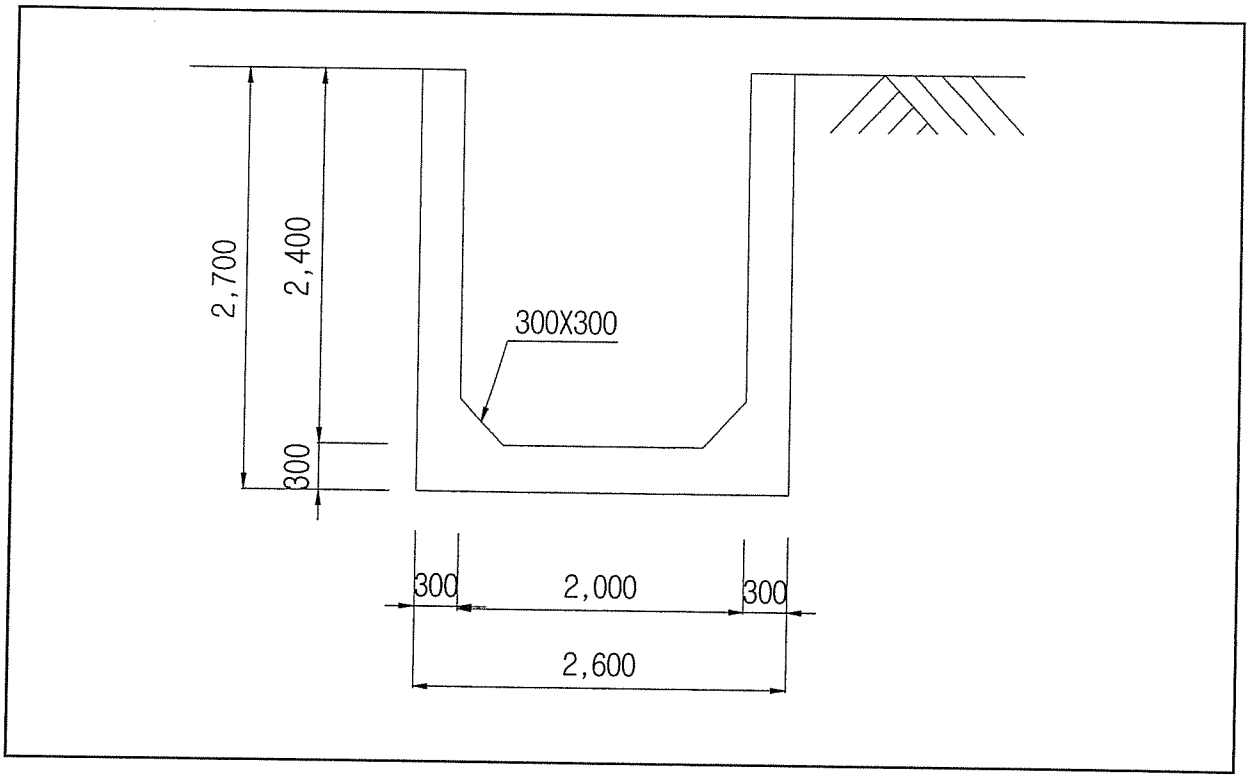
1.5 참고문헌

(1) 콘크리트 구조설계기준 (한국콘크리트 학회, 2012)

(2) 도로교 설계기준 (건설교통부, 2010)

(3) 철도설계기준 (노반편) (건설교통부 2013)

2. 단면가정

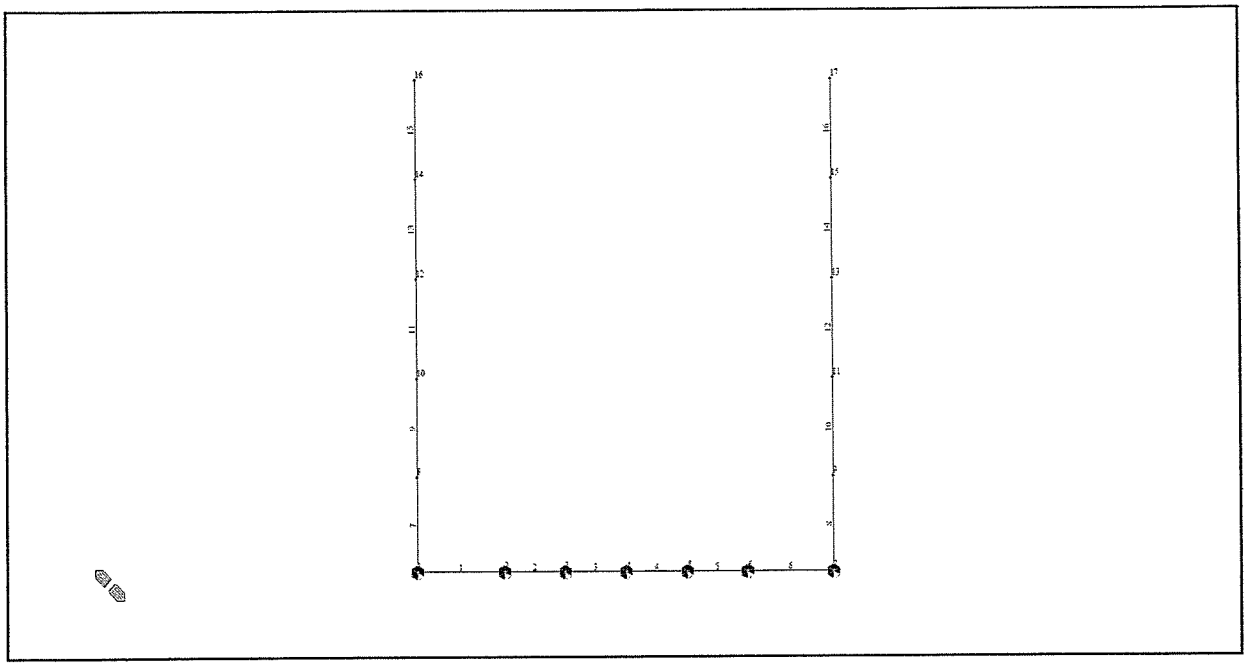


* N=15, Φ=35° 적용 함.

* 지하수위는 극한 지하수위(GL -1.0m) 로 적용 함.

3. 구조해석 모델링

3.1 해석모형



3.2 단면제원

구 분	폭(m)	높이(m)	C.T.C(m)	단면적(m^2)	단면2차모멘트(m^4)	비 고
1	1.00	0.30	-	0.300	0.002250	하부슬래브
2	1.00	0.30	-	0.300	0.002250	좌측벽체
3	1.00	0.30	-	0.300	0.002250	우측벽체

3.3 지반반력계수

$Kv = Kvo \times (Bv / 30)^n$ (n = -3/4)

$Kvo = 1/30 \times \alpha \times Eo$

Bv : 구조물의 환산재하폭

Eo = 2800 x N = 2800 × 9 = 25,200.000 kN/m^2

α = 1

Kvo = 1 × 1 / 0.3 × 25200 = 84000.000 kN/m^3

Bv = √ (2.600 × 1.000) = 1.612 m

∴ Kv = 84000.000 × (1.6 / 0.3) ^ (-3/4) = 23796.069 kN/m^3

절점번호	지반반력계수					비고
1,7	23796.069	×	0.3750	=	8923.526 kN/m^2	
2,6	23796.069	×	0.3750	=	8923.526 kN/m^2	
3,4,5	23796.069	×	0.4000	=	9518.428 kN/m^2	

※ 지반스프링은 압축력에만 저항하는 비선형 경계조건을 사용하여 부반력 발생시 자동제거함.

4. 하중산정

4.1 고정하중

(1) 구조물 자중 : 프로그램내 자동입력 ---------- LC 1

4.2 활하중에 의한 측압 ---------- LC 2

$$Lh = 0.426 \times 15.000 = 6.390 \ kN/m^2$$

4.3 토압

(1) 지하수위 유 ---------- LC 3

$$Q_{N1L} = 1.000 \times 20.000 \times 0.426 = 8.520 \ kN/m^2$$

$$Q_{N1R} = 8.520 + 1.700 \times 11.000 \times 0.426 = 16.486 \ kN/m^2$$

(2) 지하수위 무 ---------- LC 4

$$Q_{N1L} = 2.700 \times 20.000 \times 0.426 = 23.004 \ kN/m^2$$

4.4 수압

(1) 측벽 수압 ---------- LC 5

1) 벽체

$$Q_{W1L} = 10.000 \times 1.700 = 17.000 \ kN/m^2$$

4.5 온도하중 ---------- LC 6, LC 7

- 계절적 온도변화 ± 10°C를 프로그램내 SYSTEM TEMPERRATURE 기능을 이용하여 이상화 한다.

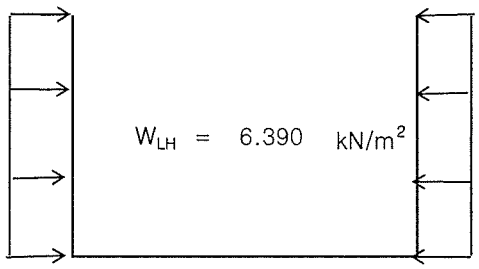
4.6 건조수축 ---------- LC 8

- 15^0c 의 온도하중으로 변환 설계
  - 건조수축계수 : $\varepsilon = 15 \times 10^{-5}$
  - 온도선팽창 계수 : $\alpha = 1.0 \times 10^{-5}$
  - $\Delta T = -\frac{\varepsilon}{\alpha} = 15 \ ^\circ C$

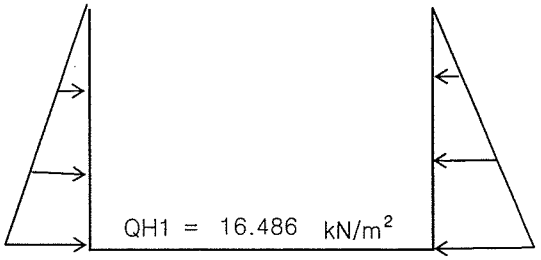
4.7 하중재하도

(1) LC 1 : 프로그램내 자동재하

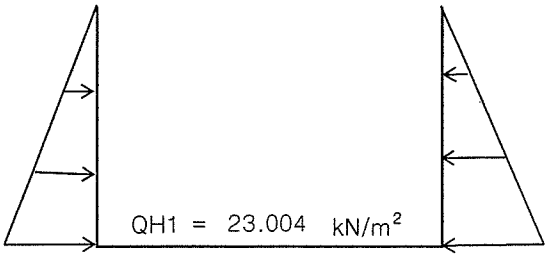
(2) LC 2



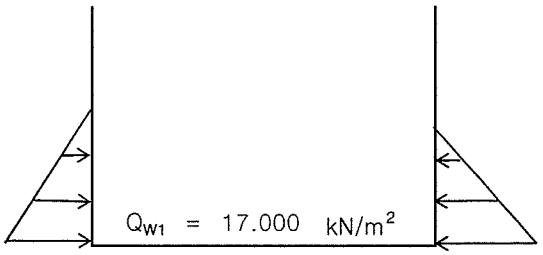
(3) LC 3



(4) LC 4



(5) LC 5



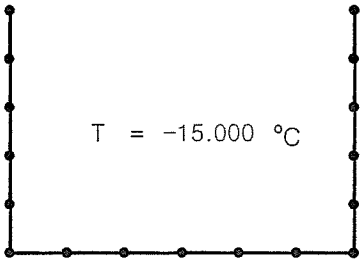
(6) LC 6

- 프래그램내 System Temperature 기능을 이용
10 °C 온도하중 재하

(7) LC 7

- 프래그램내 System Temperature 기능을 이용
-10 °C 온도하중 재하

(8) LC 8



5. 하중조합

5.1 계수하중

구분	고정하중 (D	활하중측압	수평토압		수압	온도하중		건조수축	비고
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	
CB1	1.35	1.85	1.60		1.60				계수하중
CB2	1.35	1.85		1.60					
CB3	1.35	1.85	0.80		0.80				
CB4	1.35	1.85		0.80					
CB5	1.60	1.60	1.60		1.60				
CB6	1.60	1.60		1.60					
CB7	1.60	1.60	0.80		0.80				
CB8	1.60	1.60		0.80					
CB9	1.35	1.40	1.60		1.60	1.35			
CB10	1.35	1.40		1.60		1.35			
CB11	1.35	1.40	0.80		0.80	1.35			
CB12	1.35	1.40		0.80		1.35			
CB13	1.35	1.40	1.60		1.60		1.35	1.35	
CB14	1.35	1.40		1.60			1.35	1.35	
CB15	1.35	1.40	0.80		0.80		1.35	1.35	
CB16	1.35	1.40		0.80			1.35	1.35	

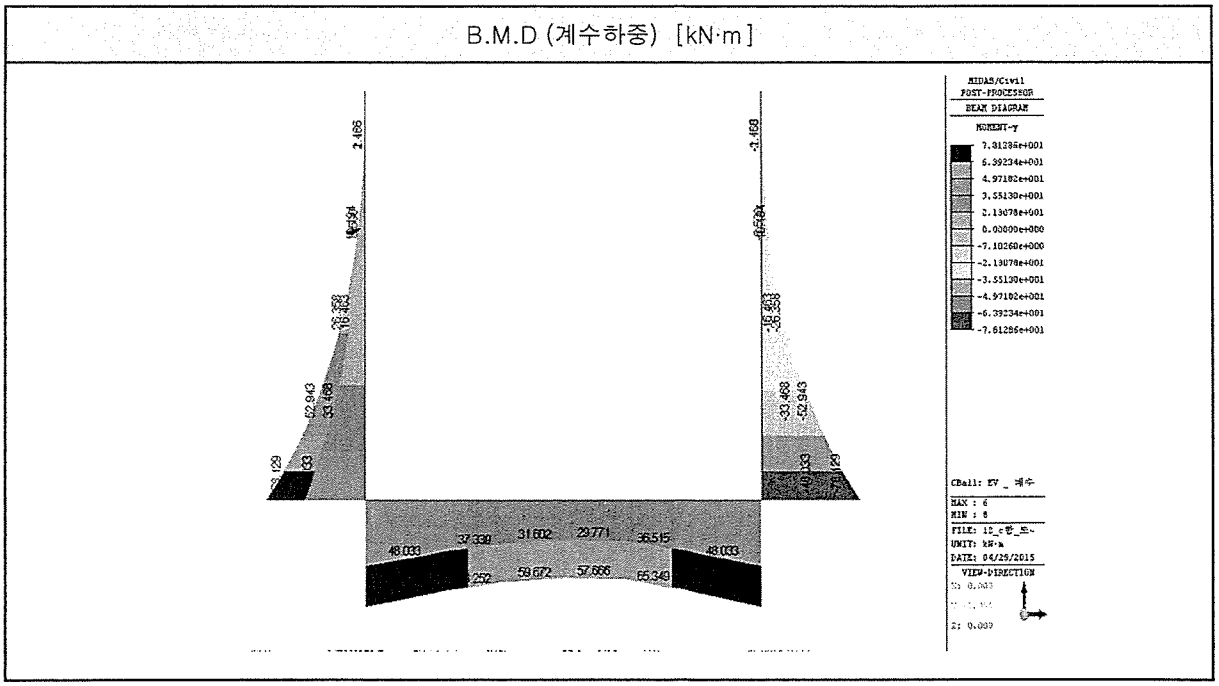
5.2 사용하중

구분	고정하중 (D	활하중측압	수평토압		수압	온도하중		건조수축	비고
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	
CB17	1.00	1.00	1.00		1.00				사용하중
CB18	1.00	1.00		1.00					
CB19	1.00	1.00	0.50		0.50				
CB20	1.00	1.00		0.50					
CB21	1.00	1.00	1.00		1.00	1.00			
CB22	1.00	1.00		1.00		1.00			
CB23	1.00	1.00	0.50		0.50	1.00			
CB24	1.00	1.00		0.50		1.00			
CB25	1.00	1.00	1.00		1.00		1.00	1.00	
CB26	1.00	1.00		1.00			1.00	1.00	
CB27	1.00	1.00	0.50		0.50		1.00	1.00	
CB28	1.00	1.00		0.50			1.00	1.00	
CB29	1.00		1.00		1.00				
CB30	1.00			1.00					

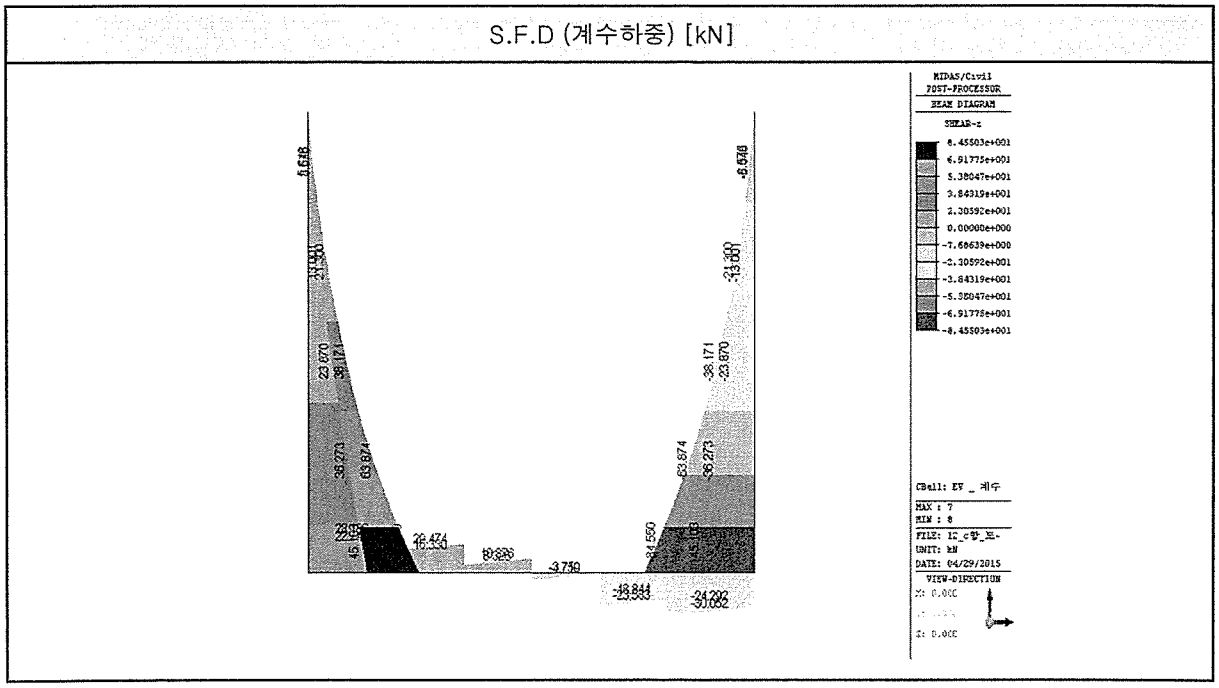
6. 구조해석 결과

6.1 부재력도 (ENVELOPE)

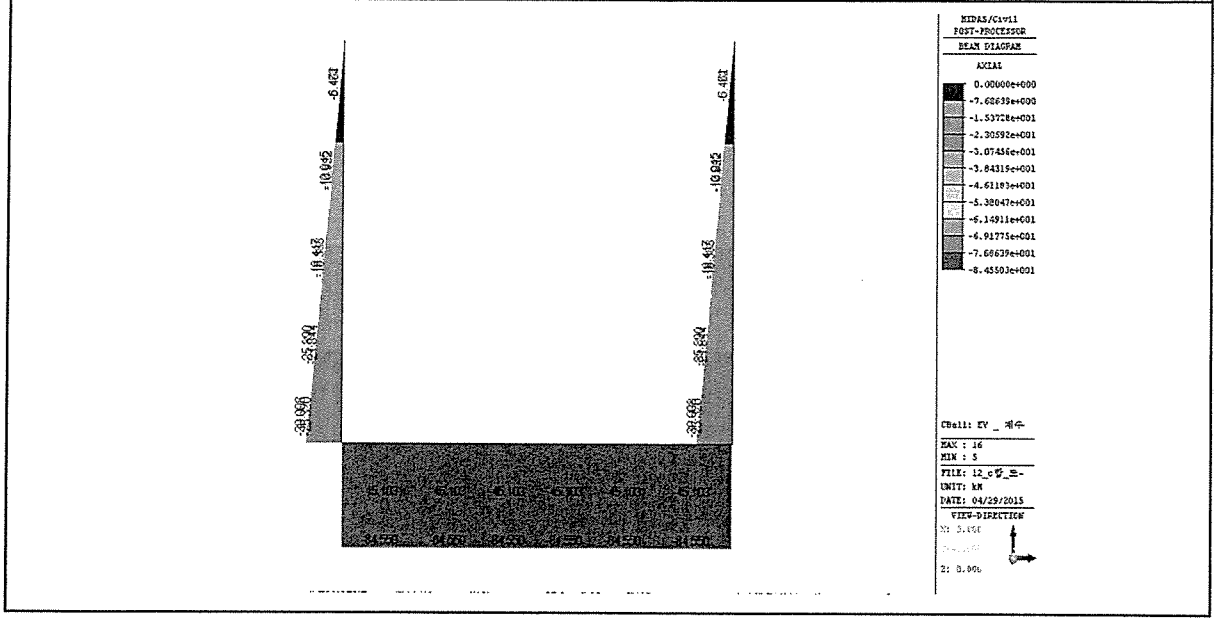
B.M.D (계수하중) [kN·m]



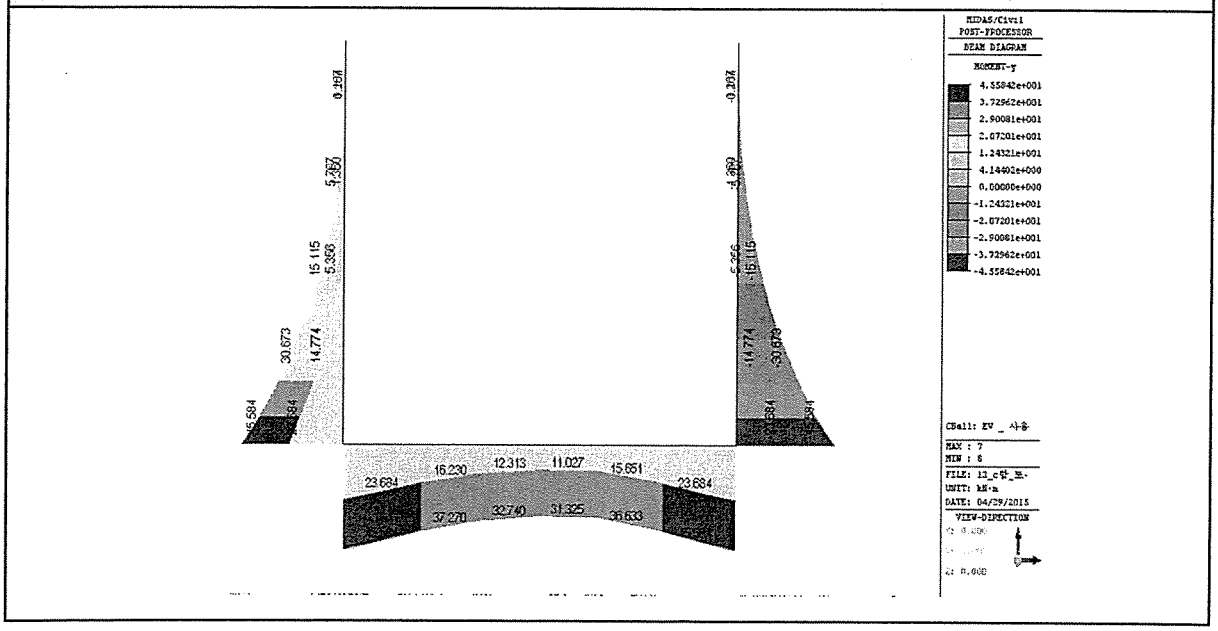
S.F.D (계수하중) [kN]



A.F.D (계수하중) [kN]



B.M.D (사용하중) [kN·m]



6.2 부재력 집계

구 분		단면제원		Mu[kN·m]	Vu[kN]	Mo[kN·m]	비고
		B (mm)	H (mm)				
하 부 슬래브	단 부	1,000	400	78.129	30.052	45.584	
	중앙부	1,000	300	59.672		32.740	
좌측벽체	단 부	1,000	400	78.129	84.550	45.584	
	중앙부	1,000	300	26.358		15.115	
우측벽체	단 부	1,000	400	78.129	84.550	45.584	
	중앙부	1,000	300	26.383		15.115	

7. 단면설계

7.1 하부슬래브

7.1.1 하부슬래브 단부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	78.129 kN.m	Vu	=	30.052 kN	Mo	=	45.584 kN.m	d (휨)	=	300 mm
B	=	1000 mm	H	=	400 mm	헌치	=	300 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1 단 배치		d_t	=	300 mm

Use A_s = 1단 1CYCL H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCL H @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00441]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,\,min}$ = 1,050 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,\,min}$ = 1,027 mm^2

$A_{s,\,min}$ = 1,050 mm^2

$A_{s,\,Req}$ = 738 mm^2 , 4/3 $A_{s,\,Req}$ = 984 mm^2

MIN ($A_{s,min}$, 4/3 $A_{s,req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a / 2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc = \phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 30.052 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 7 = 30{,}000\ mm^2$

$k = - np + \sqrt{[\,2np + (np)^2\,]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

$= - 7 \times 0.00441 + \sqrt{[\,2 \times 0.031 + 0.031^2\,]} = 0.22$

$j = 1 - k / 3 = 1 - 0.22 / 3 = 0.927$

$fs = M / [As \cdot d \cdot j]$ = 123.801 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 406 mm > s = 150 mm ∴ O.K

$s_2 = 300 (210 / fs)$ = 509 mm

7.1.2 하부슬래브 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	59.672 kN.m	Vu	=	0.000 kN	Mo	=	32.740 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s =	1단	1CYCL	H	16 @	150 ,	2CYCLI	H	0 @	0 =	1,324 mm^2
	2단	1CYCL	H	@	,	2CYCLI	H	0 @	0 =	- mm^2
				TOTAL =	1,324 mm^2	[p =	0.00662]			

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 - 25) / 25

= 0.02115 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.02115 - 0.002)$$

= 2.246 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,\,min}$ = 700 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,\,min}$ = 685 mm^2

$A_{s,\,min}$ = 700 mm^2

$A_{s,\,Req}$ = 858 mm^2 , $4/3\ A_{s,\,Req}$ = 1,143 mm^2

MIN ($A_{s.min}$, $4/3\ A_{s.req}$) = 700 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 529,600 × (200 - 21 / 2) / 10 E+6

= 90.378 kN.m > Mu = 59.672 kN.m ∴ O.K [S.F = 1.515]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 7$ = 30,000 mm^2

$k = -np + \sqrt{[2np + (np)^2]}$ [∵ n = Es / Ec = 7.3 ≒ 7]

$= -7 \times 0.00662 + \sqrt{[2 \times 0.046 + 0.046^2]}$ = 0.261

$j = 1 - k / 3 = 1 - 0.261 / 3$ = 0.913

$fs = M / [As \cdot d \cdot j]$ = 135.422 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 351 mm

$s_2 = 300 (210 / fs)$ = 465 mm

> s = 150 mm ∴ O.K

7.2 좌측벽체

7.2.1 좌측벽체 단부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	78.129 kN.m	Vu	=	84.550 kN	Mo	=	45.584 kN.m	d (휨)	=	300 mm
B	=	1000 mm	H	=	400 mm	헌치	=	300 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	300 mm

Use A_s = 1단 1CYCL H 16 @ 150 , 2CYCLI H 0 @ 0 = 1,324 mm^2

2단 1CYCL H 0 @ , 2CYCLI H 0 @ 0 = - mm^2

TOTAL = 1,324 mm^2 [p = 0.00441]

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1.min}$ = 1,050 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2.min}$ = 1,027 mm^2

$A_{s,min}$ = 1,050 mm^2

$A_{s,Req}$ = 738 mm^2 , 4/3 $A_{s,Req}$ = 984 mm^2

MIN ($A_{s.min}$, 4/3 $A_{s.req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a / 2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc = \phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 84.550 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1,000 / 7$ = 30,000 mm^2

$k = - np + \sqrt{[2np + (np)^2]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

= - 7 × 0.00441 + √ [2 × 0.031 + 0.0309^2] = 0.22

$j = 1 - k / 3 = 1 - 0.22 / 3$ = 0.927

$fs = M / [As \cdot d \cdot j]$ = 123.801 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 406 mm

$s_2 = 300 (210 / fs)$ = 509 mm > s = 150 mm ∴ O.K

7.2.2 좌측벽체 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	26.358 kN.m	Vu	=	0.000 kN	Mo	=	15.115 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s =	1단	1CYCL H	16 @	300	, 2CYCLI H	0 @	0	=	662	mm^2
	2단	1CYCL H	@		, 2CYCLI H	0 @	0	=	-	mm^2
			TOTAL =		662 mm^2	[p =	0.00331	]		

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 264,800 N

$C = 0.85 f_{ck} a b$ = 25,500 a $C = T$; a = 10 mm

▶ $c = a / \beta_1$ = 10 / 0.84 = 12 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 − 12) / 12

= 0.04530 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)}(\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)}(0.04530 - 0.002)$$

= 4.259 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,\,min}$ = 700 mm^2

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,\,min}$ = 685 mm^2

$A_{s,\,min}$ = 700 mm^2

$A_{s,\,Req}$ = 371 mm^2 , $4/3\, A_{s,\,Req}$ = 495 mm^2

MIN ($A_{s,min}$, $4/3\, A_{s,req}$) = 495 mm^2 < Use As = 662 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 264,800 × (200 − 10 / 2) / 10 E+6

= 46.427 kN.m > Mu = 26.358 kN.m ∴ O.K [S.F = 1.761]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 3$ = 60,000 mm^2

$k = -np + \sqrt{[\,2np + (np)^2\,]}$ [∵ $n = Es / Ec$ = 7.3 ≒ 7]

$= -7 \times 0.00331 + \sqrt{[\,2 \times 0.023 + 0.0232^2\,]}$ = 0.193

$j = 1 - k / 3 = 1 - 0.193 / 3$ = 0.936

$fs = M / [As \cdot d \cdot j]$ = 121.966 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 − 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5\, Cc$ = 416 mm

$s_2 = 300 (210 / fs)$ = 517 mm > s = 300 mm ∴ O.K

7.3 우측벽체

7.3.1 우측벽체 단부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	78.129 kN.m	Vu	=	84.550 kN	Mo	=	45.584 kN.m	d (휨)	=	300 mm
B	=	1000 mm	H	=	400 mm	헌치	=	300 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	300 mm

Use A_s =	1단	1CYCl	H	16 @	150 ,	2CYCLI	H	0 @	0 =	1,324 mm^2
	2단	1CYCl	H	@	,	2CYCLI	H	0 @	0 =	- mm^2
			TOTAL	=	1,324 mm^2	[p =	0.00441	]		

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 529,600 N

$C = 0.85 f_{ck} a b$ = 25,500 a $\quad C = T$; a = 21 mm

▶ $c = a / \beta_1$ = 21 / 0.84 = 25 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (300 - 25) / 25

= 0.03323 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.03323 - 0.002)$$

= 3.252 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1.min}$ = 1,050 mm^2]

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2.min}$ = 1,027 mm^2] $A_{s,min}$ = 1,050 mm^2

$A_{s.Req}$ = 738 mm^2 , 4/3 $A_{s,Req}$ = 984 mm^2

MIN ($A_{s.min}$, 4/3 $A_{s.req}$) = 984 mm^2 < Use As = 1,324 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a / 2)$ = 0.900 × 529,600 × (300 - 21 / 2) / 10 E+6

= 138.042 kN.m > Mu = 78.129 kN.m ∴ O.K [S.F = 1.767]

(2) 전단 검토

▶ $\phi_v Vc = \phi_v 1/6 \sqrt{f_{ck}} B d$ = 155.188 kN > Vu = 84.550 kN

∴ 전단철근 불필요

(3) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1,000 / 7$ = 30,000 mm^2

$k = - np + \sqrt{[2 np + (np)^2]}$ [∵ n = Es / Ec = 7.3 ≒ 7]

$= - 7 \times 0.00441 + \sqrt{[2 \times 0.031 + 0.0309^2]}$ = 0.22

$j = 1 - k / 3 = 1 - 0.22 / 3$ = 0.927

$fs = M / [As \cdot d \cdot j]$ = 123.801 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 - 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5 Cc$ = 406 mm

$s_2 = 300 (210 / fs)$ = 509 mm > s = 150 mm ∴ O.K

7.3.2 우측벽체 중앙부

(1) 휨 검토

f_{ck}	=	30 MPa	f_y	=	400 MPa	d_t'	=	100 mm	d'	=	100 mm
Mu	=	26.383 kN.m	Vu	=	0.000 kN	Mo	=	15.115 kN.m	d (휨)	=	200 mm
B	=	1000 mm	H	=	300 mm	헌치	=	0 mm	d (전단)	=	200 mm
ϕ_f	=	0.900	ϕ_v	=	0.85	주철근	1	단 배치	d_t	=	200 mm

Use A_s =	1단	1CYCLE H	16 @	300	,	2CYCLE H	0 @	0	=	662	mm^2
	2단	1CYCLE H	@		,	2CYCLE H	0 @	0	=	-	mm^2
		TOTAL =	662	mm^2	[p =	0.00331]					

▶ 주철근이 항복한다고 가정하면, $T = A_s f_y$ = 264,800 N

$C = 0.85 f_{ck} a b$ = 25,500 a $\quad C = T$; a = 10 mm

▶ $c = a / \beta_1$ = 10 / 0.84 = 12 mm

$\varepsilon_t = 0.003 (d_t - c) / c$ = 0.003 × (200 − 12) / 12

= 0.04530 > 0.002 ⇒ 가정만족 (주철근 항복)

> 0.005 ⇒ 인장지배 단면

$$\phi_f = \phi_c + \frac{(\phi_t - \phi_c)}{(0.005 - \varepsilon_y)} (\varepsilon_t - \varepsilon_y) = 0.65 + \frac{(0.900 - 0.65)}{(0.005 - 0.002)} (0.04530 - 0.002)$$

= 4.259 > 0.9 ⇒ ϕ_f = 0.900

▶ 최소 철근비 검토

$P_{min1} = 1.4 / f_y$ = 0.00350 ⇒ $A_{s1,\,min}$ = 700 mm^2]

$P_{min2} = 0.25 \sqrt{f_{ck}} / f_y$ = 0.00342 ⇒ $A_{s2,\,min}$ = 685 mm^2] $A_{s,\,min}$ = 700 mm^2

$A_{s,\,Req}$ = 372 mm^2 , $4/3\, A_{s,\,Req}$ = 496 mm^2

MIN ($A_{s,min}$, $4/3\, A_{s,req}$) = 496 mm^2 < Use As = 662 mm^2 ∴ O.K

◈ $Md = \phi_f T (d - a/2)$ = 0.900 × 264,800 × (200 − 10 / 2) / 10 E+6

= 46.427 kN.m > Mu = 26.383 kN.m ∴ O.K [S.F = 1.760]

(2) 주철근 간격 검토

▶ 주철근 응력, fs

$A = 2 \times 100 \times 1{,}000 / 3$ = 60,000 mm^2

$k = -np + \sqrt{[2np + (np)^2]}$ [∵ n = Es / Ec = 7.3 ≒ 7]

$= -7 \times 0.00331 + \sqrt{[2 \times 0.023 + 0.0232^2]}$ = 0.193

$j = 1 - k / 3 = 1 - 0.193 / 3$ = 0.936

$fs = M / [As \cdot d \cdot j]$ = 121.966 MPa

◈ 주철근 간격

$Cc = d_t' - d_b/2$ = 100 − 15.9 / 2 = 92 mm (여기서, d_b = 16)

$s_1 = 375 (210 / fs) - 2.5\, Cc$ = 416 mm > s = 300 mm ∴ O.K

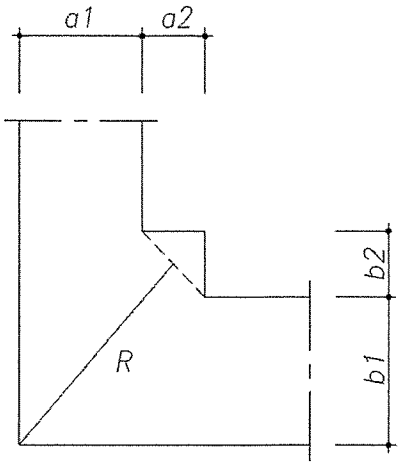
$s_2 = 300 (210 / fs)$ = 517 mm

7.4 온도 및 배력철근 설계

구 분		단면제원		사 용 주철근	소요 배력철근량 (mm^2)		사용 배력철근량 (mm^2)			판정
		B (mm)	H (mm)		주철근 20%	온도철근				
하 부 슬래브	단 부	1,000	300	H16@150	265	600	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@150	265	600	인장	H13@200=634	950	O.K
							압축	H13@400=317		
좌측 벽체	단부	1,000	300	H16@150	265	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@300	132	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
우측 벽체	단부	1,000	300	H16@150	265	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		
	중앙부	1,000	300	H16@300	132	750	인장	H13@200=634	950	O.K
							압축	H13@400=317		

7.5 우각부 보강 설계

(1) 하부슬래브 (좌,우측)



f_{ck}	=	30	MPa
f_y	=	400	MPa
Mo	=	45.584	kN·m
a1	=	300	mm
a2	=	300	mm
b1	=	300	mm
b2	=	300	mm

$$R = \{(a2 \times b1 + b2 \times a1 + a2 \times b2) / (a2 + b2)\} \times \sqrt{2}$$

$$= \quad 636 \quad mm$$

- 주철근 (절곡하여 보강철근으로 고려할 수 있는 주철근량)

As' = H 16 @ 300 = 662 mm^2

H 0 @ 0 = 0 mm^2

1) 최대인장응력, f_{tmax}

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 45.584 \times 10^6}{(636.396)^2 \times 1{,}000}$$

$$= 0.563 \text{ Mpa} > 0.08\sqrt{fck} = 0.438 \text{ Mpa}$$ 보강철근 필요 !

2) 보강철근량 산정, As

- 필요철근량

$$As = \frac{2 \times Mo}{R \times f_{sa}} - As'$$

$$= \frac{2 \times 45.584 \times 10^6}{636 \times 180} - 662$$

$$= 796 \ mm^2 - 662 \ mm^2$$

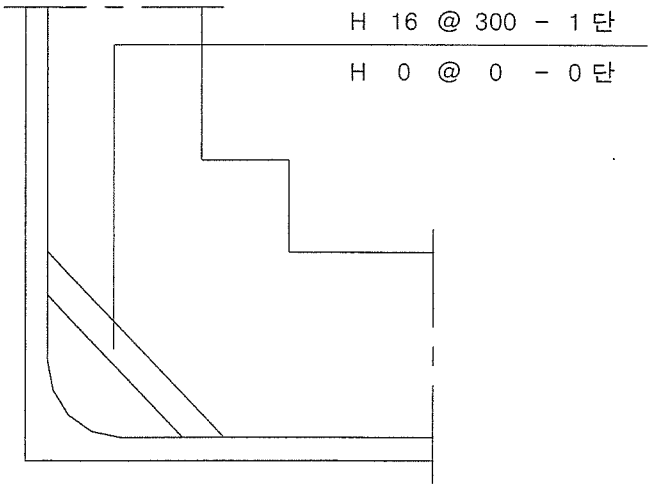
$$= 134 \ mm^2$$

- 사용철근량

As = H 16 @ 300 - 1 단

+ H 0 @ 0 - 0 단

= 662 mm^2 O.K



8. 사용성 검토

8.1 처짐 검토

1) 하부 슬래브 : 최소부재두께 적용

철근의 항복응력 fy = 400 MPa

부재의 지간길이 L = 2.300 m

슬래브 양단 연속의 경우

T = L / 28 = 0.082 m

(보정계수) FACTOR = 1.000

처짐계산을 하지않는 경우의 최소두께

T = 0.082m < H = 0.300m (처짐검토 생략)

9. 기초지반 지지력 검토

9.1 작용하중

9.1.1 구 체 자 중 (W1) :

(0.3 × 2.4 + 0.3 × 2 × 1 EA + 0.3 × 0.3 / 2
× 2 EA + 0.3 × 2.4) × 24.500 / 2.6 = 20.071 kN/m²

9.1.2 상재고정하중(W2)

(1) 상재토

되메움토 : 0.000 × 20.000 = 0.000 kN/m²

아스콘 : 0.000 × 23.000 = 0.000 kN/m²

9.1.3 활 하 중(L)

(1) 활 하 중 :

= 0.000 kN/m²

9.1.4 수로개거내의 물의자중(w3)

2.000 × 1.920 × 1.000 / 2.600 / 1.000 × 10.000 = 14.769 kN/m²

9.2 지지력 검토

9.2.1 최대지반반력 (qmax) : W1 + W2 + L + W3

20.071 + 0.000 + 0.000 + 14.769 = 34.840 kN/m²

9.2.2 허용지반반력 (qa)

- 정역학 공식에 의한 지반의 허용 연직 지지력 (Terzaghi식 사용)

$Qu = A \cdot [\ c \cdot Nc + q \cdot Nq + 0.5 \cdot r1 \cdot B \cdot Nr\ ]$

Qu : 하중의 편심 및 경사가 없는 연속기초지반의 극한지지력 (kN)

- A : 재하면적 = 2.600 m²
- c : 지반의 점착력 = 0.000 kN/m²
- q : 상재하중, (q = r2 · Df) = 48.000 kN/m²
- r1 : 지지 지반의 흙의 단위중량 = 20.000 kN/m³
- r2 : 근입 지반의 흙의 단위중량 = 20.000 kN/m³
- B : 확대기초의 폭 = 2.600 m
- L : 확대기초의 길이 = 1.000 m
- Φ : 지반의 전단 저항각

  Φ = √ (12 × N) + 15 = √ (12 × 15) + 15 = 28 °
- Nc = 25.100 , Nq = 12.700 , Nr = 9.700 (전단 저항각 28 ° 일때)
- Qu = 2.600 × [0.000 × 25.100 + 48.000 × 12.700 +
  0.500 × 20.000 × 2.600 × 9.700] = 2240.680 kN
- Qa = 2240.680 / 3 = 746.893 kN
- qa = 746.893 / 2.600 = 287.267 kN/m²

* 평상시 최대 지반반력 (도.설.해 2008) = 400.000 kN/m²

∴ q_{max} =	34.840 kN/m²	<	q_a =	287.267 kN/m²	∴ O.K

C(함) 산운제2

- 4.0 x 2.00 x 1
- 토피 = 9.7m 이하

1. 설 계 조 건
2. 단 면 가 정
3. 해석모델 및 단면제원
4. 하중산정
5. 하중재하도
6. 하중계수 및 하중조합
7. INPUT DATA
8. OUTPUT
9. 단면력요약
10. 단 면 력 도
11. 단 면 검 토
12. 우각부 검토
13. 배력철근 검토
14. 사용성 검토
15. 기초지지력 검토
16. 주철근조립도
17. 날개벽 설계

1. 설계 조건

1) 구조물명 : c (함)

2) 구조형식 : 철근 콘크리트 구조

3) 설계하중 : KRL2012 (복 선)

4) 재료중량

- 철근 콘크리트(γ_c)	=	24.5	kN/m^3
- 무근 콘크리트(γ_{con})	=	23.0	kN/m^3
- 뒷채움 토사(γ_t)	=	20.0	kN/m^3
- 뒷채움 토사(γ_{sub})	=	11.0	kN/m^3
- 지하수(γ_w)	=	10.0	kN/m^3

5) 사용재료의 성질

- 콘크리트 설계기준 강도(fck)	=	30.0	MPa
- 콘크리트 탄성계수(Ec)	=	27537	MPa
- 철근의 항복강도(fy)	=	400.0	MPa
- 철근의 탄성계수(Es)	=	200000	MPa

6) 토 사

- 흙의 내부마찰각 (ϕ)	=	35.0	°
- 정지 토압계수 (Ko)	=	0.426	

7) 기 초 형 식 : 직접기초

8) 사 각(Skew) : 57.00 ° 연 장 (L) : 68.00 m

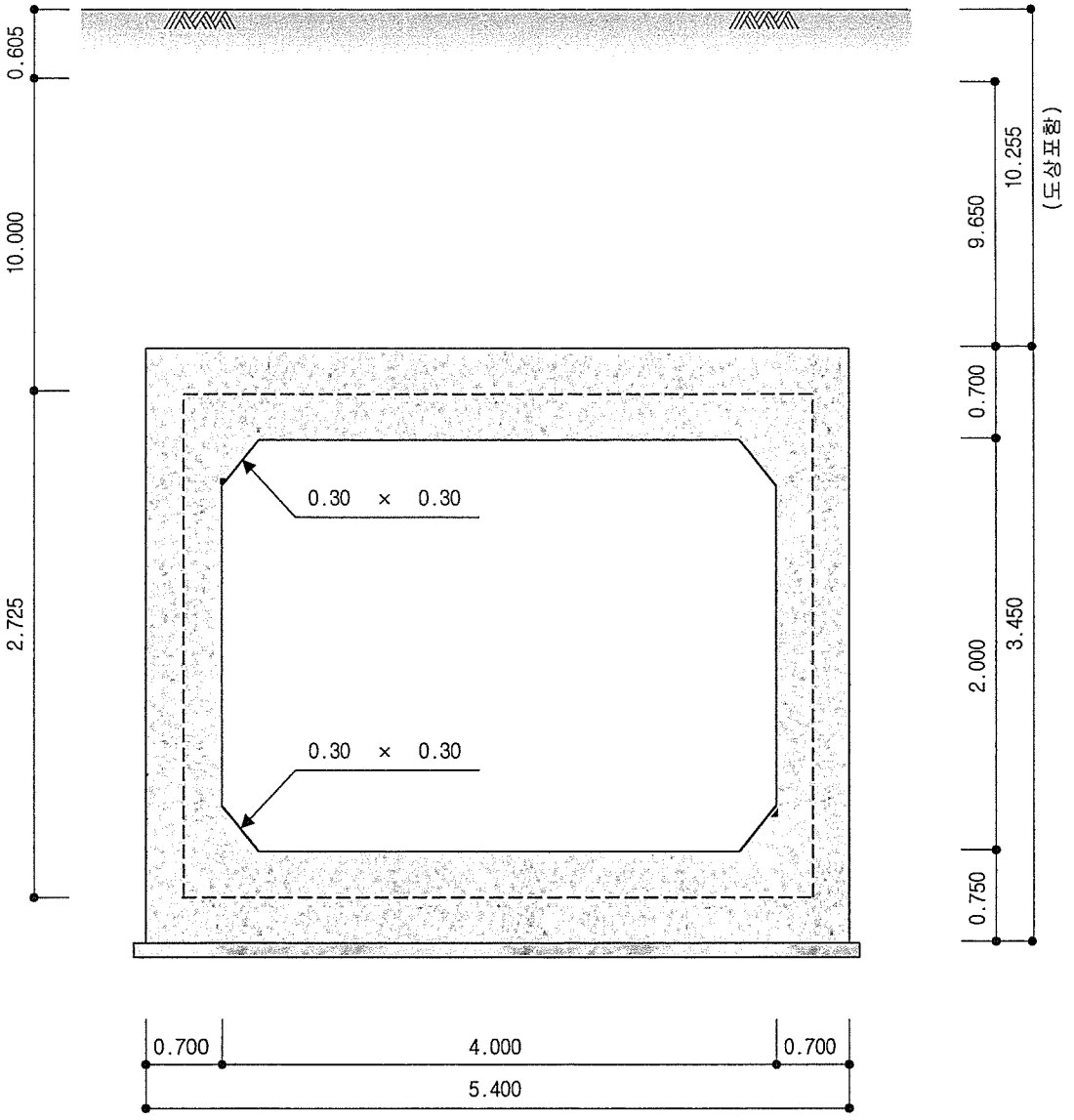
9) 설계방법

- 강도 설계법 : 부재 단면검토(슬래브, 벽체, 보, 기둥 등)
- 허용응력 설계법 : 사용성 검토(처짐, 균열, 우각부 검토)

10) 참고문헌

- 철도설계기준(노반편), 국토해양부, 2013
- 콘크리트 구조설계기준해설, 한국콘크리트 학회, 2012

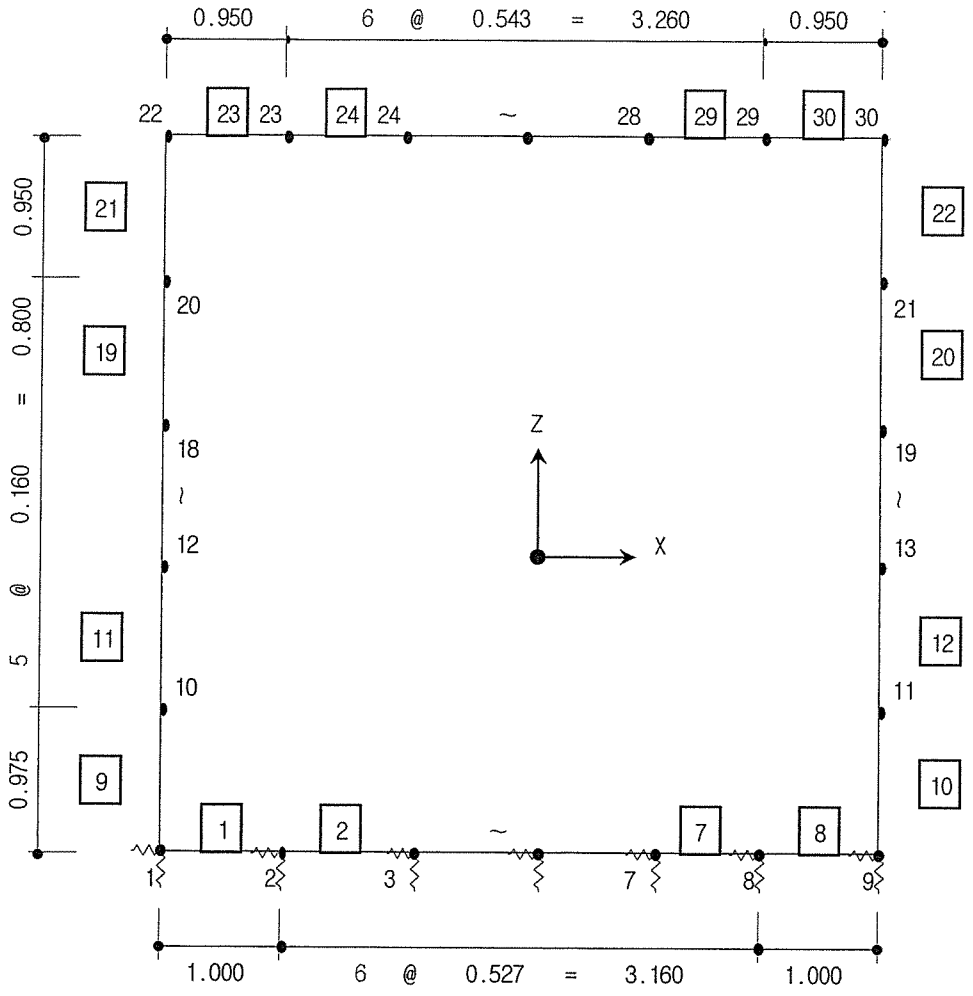
2. 단면 가정



※ 유효경간

Skew =	57.0	°				
Ln =	4.700	m				
Ls =	5.604	m				
Ls/B =	5.604	/	18.000	=	0.311	< 1.500
L =	5.160	m				

3. 해석모델 및 단면제원



1) 절점 좌표

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
1	0.000	0.000	0.000	13	5.160	0.000	1.135
2	1.000	0.000	0.000	14	0.000	0.000	1.295
3	1.527	0.000	0.000	15	5.160	0.000	1.295
4	2.053	0.000	0.000	16	0.000	0.000	1.455
5	2.580	0.000	0.000	17	5.160	0.000	1.455
6	3.107	0.000	0.000	18	0.000	0.000	1.615
7	3.633	0.000	0.000	19	5.160	0.000	1.615
8	4.160	0.000	0.000	20	0.000	0.000	1.775
9	5.160	0.000	0.000	21	5.160	0.000	1.775
10	0.000	0.000	0.975	22	0.000	0.000	2.725
11	5.160	0.000	0.975	23	0.950	0.000	2.725
12	0.000	0.000	1.135	24	1.493	0.000	2.725

Joint	좌 표			Joint	좌 표		
	X	Y	Z		X	Y	Z
25	2.037	0.000	2.725	28	3.667	0.000	2.725
26	2.580	0.000	2.725	29	4.210	0.000	2.725
27	3.123	0.000	2.725	30	5.160	0.000	2.725

2) 경계 조건

joint	spring계수 (kN/m²)		joint	spring계수 (kN/m²)	
	z방향(수직)	x방향(수평)		z방향(수직)	x방향(수평)
1 . 9	15029		3 ~ 7	9312	
2 . 8	13497				

3) 단면제원

Element	두께	폭	비 고
23 ~ 30	0.700	1.000	상부슬래브
1 ~ 8	0.750	1.000	하부슬래브
9 ~ 22	0.700	1.000	벽 체

4) 강역설정

(1) 강역설정기준(콘크리트구조설계기준 2012)

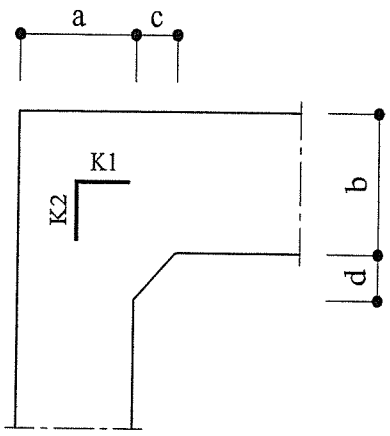
CASE 1 : 부재단부가 다른 부재와 접합할 때는 부재단에서 부재두께의 1/4 안쪽정에서 절점까지

CASE 2 : 부재가 그 축선에 대해 25° 이상 60° 미만인 경사진 헌치를 갖는 경우에는 부재두께가 1.5배가 되는 정에서 부터 절점까지

CASE 3 : 헌치의 경사가 60° 이상의 경우는 헌치의 시점에서 부재두께의 1/4 안쪽 정에서부터 절점까지

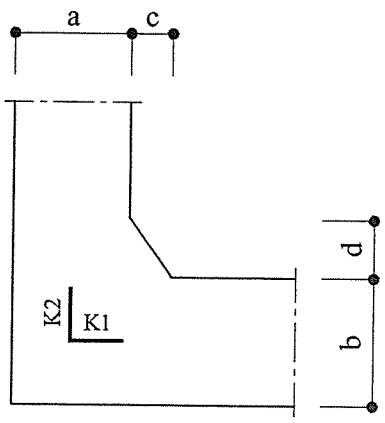
(2) 강역설정

- 절점 22 , 30



a =	700	mm	c =	300	mm
b =	700	mm	d =	300	mm
K1 =	300	mm	K2 =	300	mm

- 절점 1 , 9

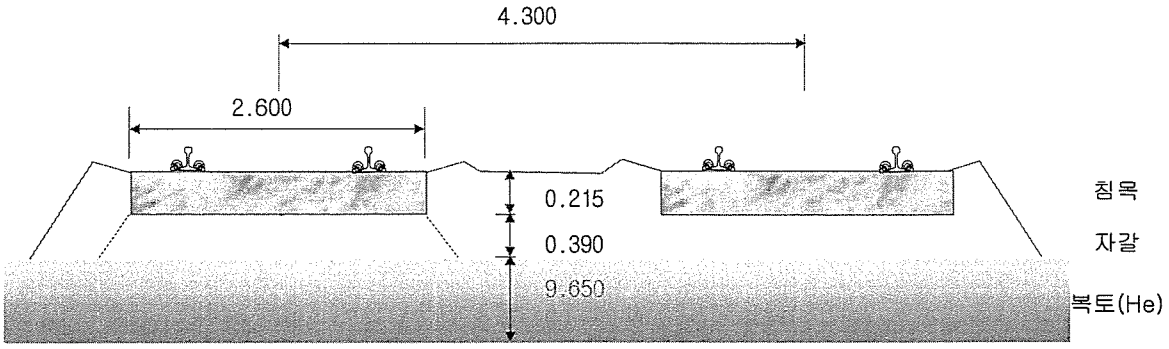


a =	700	mm	c =	300	mm
b =	750	mm	d =	300	mm
K1 =	275	mm	K2 =	325	mm

4. 하중산정

4.1 상시

1) 상부 고정하중(지하수 無)



① 하중 분포폭 산정 (b')

① He < 0.5m 경우 : b + d

b_1 = 2.600 + 0.390 = 2.990 m

② He ≥ 0.5m 경우 : c + b + (d + He)

b_2 = 4.300 + 2.600 + (0.390 + 9.650) = 14.590 m

여기서, He : 시공기면에서의 토피고(m)

a : 동륜간 축간거리(m) c : 복선선로 중심간격(m)

b : 침목길이(m) d : 침목하면의 도상두께(m)

H : 상부슬래브 두께

He ≥ 0.5 m

∴ b' = 14.590 m

② 구조물 자중 : 프로그램 상에서 Self Weight 기능을 이용하여 자동 고려

③ 궤도 중량

- 레일 : 레일당 1.5kN/m를 적용

q_1 = 4 × 1.500 / 14.590 = 0.411 kN/㎡

- 침목 : 고속철도용 5.0kN/m

q_2 = 5.000 × 2 / 14.590 = 0.685 kN/㎡

= 1.096 kN/㎡

④ 도상 (q_2)

TCL = 0.215 × 19.000 × 1.3 = 5.311 kN/㎡

HSB = 0.390 × 19.000 × 1.3 = 9.633 kN/㎡

= 14.944 kN/㎡

⑤ 복토하중 (q_3) = 20.000 × 9.650 = 193.000 kN/㎡

∴ $q_1 + q_2 + q_3$ = 1.096 + 14.944 + 193.000 = 209.040 kN/㎡

2) 활하중

① 활하중 산정 : KRL 2012

$$W_{HL} = \frac{2P}{a \times b'} = \frac{2\times(220+80x3)}{3.000 \times 14.590} = 21.019 \text{ kN/㎡}$$

∴ W = 21.019 kN/㎡

② 충격계수

1) 단선 (i_0) (철도설계기준 노반편(2013) p.5-7)

지 간 L (m)	0	5	10	20	30	40	50	70	100
충격계수 (i)	0.60	0.48	0.43	0.37	0.34	0.32	0.30	0.27	0.24

* 상기표에 없는 지간의 충격 계수는 보간법으로 구한다.

지 간 L (m) = 5.160 m

따라서 i_0 = 0.478 (보간법에 의하여 산정된 충격계수)

2) 구조물 상면의 복토높이에 따른 충격 계수

H ≥ 1.0일 경우 $i = io \cdot \{(2.5 - H)/1.5\}$

여기서, H ≤ 1.0 m 에서는 $i = i_o$

H ≥ 2.5 m 에서는 i = 0

따라서, 본 구조물의 H = 10.255 m i = 0.000

W_L = 21.019 ×(1 + 0.000) = 21.019 kN/㎡

③ 활하중에 의한 측압 (충격비고려)(철도설계기준 노반편(2013) p.5-6)

W_{LH} = 21.019 × 0.4 = 8.408 kN/㎡

3) 토 압

- 지하수가 없는 경우 작용 토압

q_1 = 0.426 ×(16.040 + 20.000 × 10.000) = 92.033 kN/㎡

q_2 = 92.033 + 0.426 ×(20.000 × 0.950) = 100.127 kN/㎡

q_3 = 100.127 + 0.426 ×(20.000 × 0.160) = 101.490 kN/㎡

q_4 = 101.490 + 0.426 ×(20.000 × 0.160) = 102.853 kN/㎡

q_5 = 102.853 + 0.426 ×(20.000 × 0.160) = 104.216 kN/㎡

q_6 = 104.216 + 0.426 ×(20.000 × 0.160) = 105.579 kN/㎡

q_7 = 105.579 + 0.426 ×(20.000 × 0.160) = 106.942 kN/㎡

q_8 = 106.942 + 0.426 ×(20.000 × 0.975) = 115.249 kN/㎡

- 시공중 편토압 산정 (지하수가 없는 경우 작용 토압)

q_1 = 0.426 × (0.000 + 20.000 × 0.350) = 2.982 kN/㎡

q_2 = 2.982 + 0.426 × (20.000 × 0.950) = 11.076 kN/㎡

q_3 = 11.076 + 0.426 × (20.000 × 0.160) = 12.439 kN/㎡

q_4 = 12.439 + 0.426 × (20.000 × 0.160) = 13.802 kN/㎡

q_5 = 13.802 + 0.426 × (20.000 × 0.160) = 15.165 kN/㎡

q_6 = 15.165 + 0.426 × (20.000 × 0.160) = 16.528 kN/㎡

q_7 = 16.528 + 0.426 × (20.000 × 0.160) = 17.891 kN/㎡

q_8 = 17.891 + 0.426 × (20.000 × 0.975) = 26.198 kN/㎡

4) 온도하중

토피가 1.0m 이상일 경우에는 온도변화를 고려치 않으며, 토피가 1.0m 이하일 경우에는 다음식을 따른다.

$t = a \times t_0$ = 0.000 × 10.0 = 0.000 ℃

t : 박스 구조물의 상부 슬래브에 작용하는 온도변화

a : 토피심도(m)에 따른 저감률 $a=1-h_0$ (h_0:토피심도)

t_0 : 지표면에서의 기본온도 변화

상부슬래브의 두께가 700mm 이상인 경우 $t_0 = \pm 10$℃

상부슬래브의 두께가 700mm 미만인 경우 $t_0 = \pm 15$℃

토피고 H > 1.0m 이므로 온도변화는 고려하지 않는다.

5) 건조수축

$$\Delta Tx = \frac{\varepsilon}{\alpha} = \frac{-0.00015}{0.00001} = -15\,^{\circ}C$$

6) 장대레일 하중

장대레일 종하중은 필요시에 고려하여야 하며, 1궤도당 10 kN/m로 하고 작용위치는 상부슬래브 축선으로 한다. (단, 토피가 1.0m 이상인 경우는 이를 무시한다.)

토피가 10.255 m 이므로 장대레일 하중을 무시한다.

H_r = 0.000 × 4 / 14.590 = 0.000 kN/㎡

7) 상시 지반반력 계수

지지 지반 N치 = 16

Eo = 2800 × N = 2800 × 16 = 44800

Kvo = 1 / 0.3 x α x Eo = 1 / 0.3 × 1 x 44800 = 149333

Bv = √ Av = √ (5.160 × 5.160) = 5.160

Kv = Kvo (Bv/0.3)^-3/4 = 17681 kN/㎡

17681 × (0.700 / 2 + 1.000 / 2) = 15029 kN/m² - 저판 단부 스프링

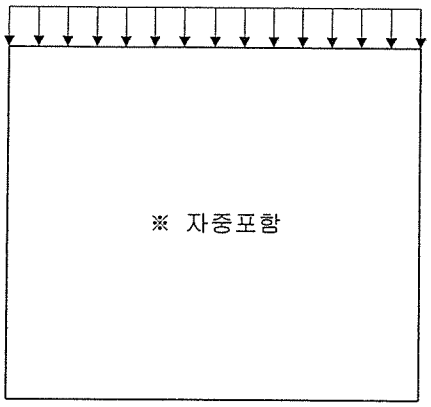
17681 × (1.000 / 2 + 0.527 / 2) = 13497 kN/m² - 저판 전단검토위치

17681 × (0.527 / 2 + 0.527 / 2) = 9312 kN/m² - 저판 중앙부 스프링

5. 하중재하도

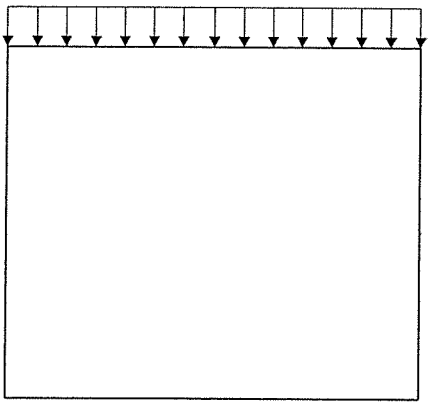
① 고정하중

W_D = 209.040 kN/m²



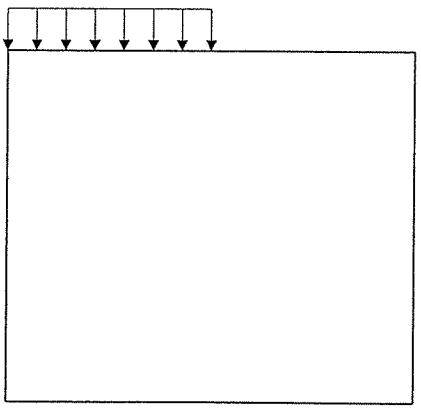
② 활하중(만재하)

W_L = 21.019 kN/m²



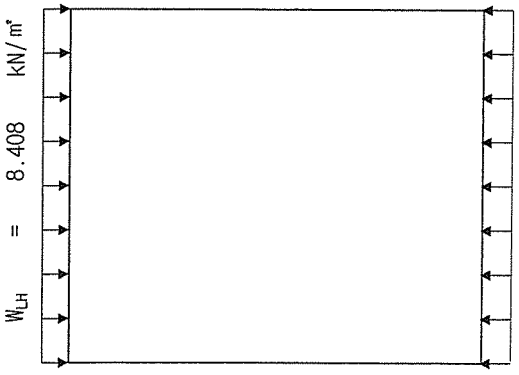
③ 활하중(편재하)

W_L = 21.019 kN/m²



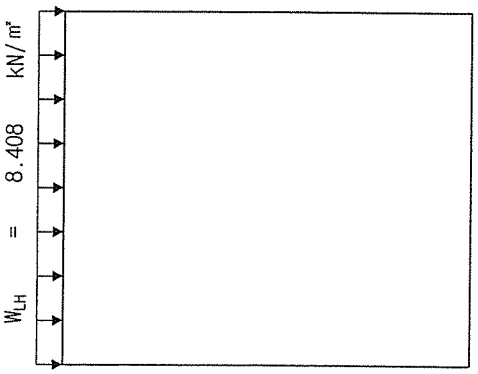
④ 활하중에 의한 측압(만재하)

W_{LH} = 8.408 kN/m²

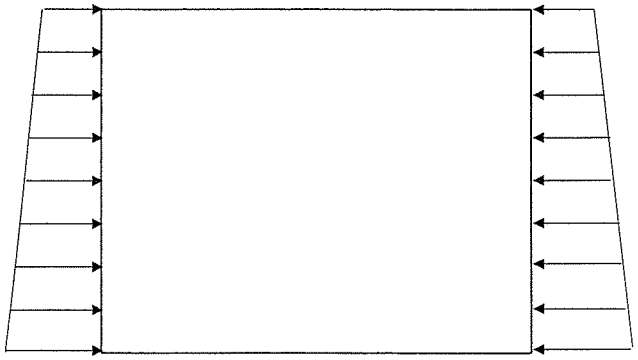


⑤ 활하중에 의한 측압(편재하)

W_{LH} = 8.408 kN/m²



⑥ 수평토압(지하수 없는 경우)

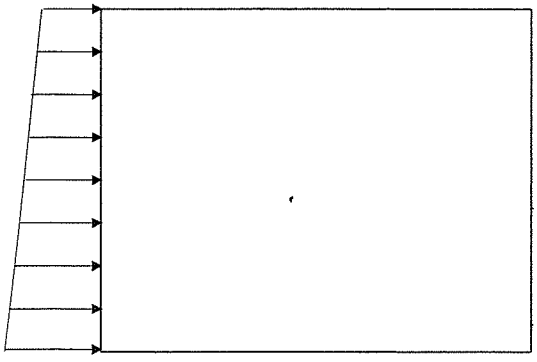


q_1 = 92.033 kN/㎡

q_7 = 115.249 kN/㎡

⑦ 편측토압(지하수 없는 경우)

q_1 = 2.982 kN/㎡



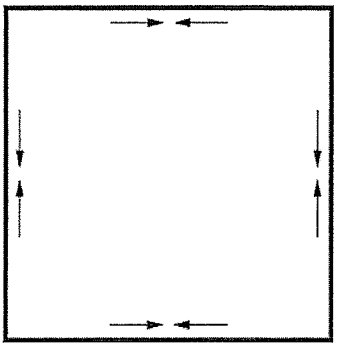
q_7 = 26.198 kN/㎡

⑧ 온도하중

△T = 0 °

⑨ 건조수축

△T = -15 °



⑩ 장대레일 종하중

Hr = 0.000 kN/m^2

6. 하중계수 및 하중조합

1) 극한하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
1	1.35	1.85		1.85		1.6						
2	1.35	1.85		1.85		0.6						
3	1.35		1.85		1.85	1.6						
4	1.35		1.85		1.85	0.6						
5	1.6	1.60		1.60		1.6						
6	1.6	1.60		1.60		0.6						
7	1.6		1.6		1.6	1.6						
8	1.6		1.6		1.6	0.6						
9	1.35	1.40		1.40		1.6		1.35		1.35		
10	1.35	1.40		1.40		0.6		1.35		1.35		
11	1.35	1.40		1.40		1.6			1.35	1.35	1.40	
12	1.35	1.40		1.40		0.6			1.35	1.35	1.40	
13	1.35		1.40		1.40	1.6		1.35		1.35		
14	1.35		1.40		1.40	0.6		1.35		1.35		
15	1.35		1.40		1.40	1.6			1.35	1.35	1.4	
16	1.35		1.40		1.40	0.6			1.35	1.35	1.4	
17	1.35		1.85		1.85		1.60					
18	1.35		1.85		1.85		0.60					
19	1.60		1.60		1.60		1.60					
20	1.60		1.60		1.60		0.60					

2) 사용하중 검토시

구분	고정하중	활하중		활하중 측압		수평토압 (지하수無)		온도하중		건조수축	장대레일	비고
				양측재하	편측재하	양측재하	편측재하					
		전경간	1/2	수평	수평	수평	수평	온도상승	온도하강			
	LC1	LC2	LC3	LC4	LC5	LC6	LC7	LC8	LC9	LC10	LC11	
21	1.0	1.0		1.0		1.0						
22	1.0	1.0		1.0		0.5						
23	1.0		1.0		1.0	1.0						
24	1.0		1.0		1.0	0.5						
25	1.0	1.0		1.0		1.0		1.0			1.0	
26	1.0	1.0		1.0		0.5		1.0			1.0	
27	1.0	1.0		1.0		1.0			1.0	1.0	1.0	
28	1.0	1.0		1.0		0.5			1.0	1.0	1.0	
29	1.0		1.0		1.0	1.0		1.0			1.0	
30	1.0		1.0		1.0	0.5		1.0			1.0	
31	1.0		1.0		1.0	1.0			1.0	1.0	1.0	
32	1.0		1.0		1.0	0.5			1.0	1.0	1.0	
33	1.0					1.0						
34	1.0		1.0		1.0		1.0					
35	1.0		1.0		1.0		0.5					

7. INPUT DATA

```
*VERSION
   8.3.1

*UNIT    ; Unit System
; FORCE, LENGTH, HEAT, TEMPER
   KN   , M, J, C

*STRUCTYPE    ; Structure Type
; iSTYP, iMASS, iSMAS, bMASSOFFSET, bSELFWEIGHT, GRAV, TEMPER, bALIGNBEAM, bALIGNSLAB, bROTRIGID
     1, 1, 1, NO, YES, 9.806, 0, NO, NO, NO

*REBAR-MATL-CODE    ; Rebar Material Code
; CONC_CODE, CONC_MDB, SRC_CODE, SRC_MDB
 KS01-Civil(RC), SD300, KS01-Civil(RC), SD300

*NODE    ; Nodes
; iNO, X, Y, Z
     1, 0, 0, 0
     2, 0.55, 0, 0
     3, 0.797, 0, 0
     4, 1.043, 0, 0
     5, 1.29, 0, 0
     6, 1.537, 0, 0
     7, 1.783, 0, 0
     8, 2.03, 0, 0
     9, 2.58, 0, 0
    10, 0, 0, 0.525
    11, 2.58, 0, 0.525
    12, 0, 0, 0.805
    13, 2.58, 0, 0.805
    14, 0, 0, 1.085
    15, 2.58, 0, 1.085
    16, 0, 0, 1.365
    17, 2.58, 0, 1.365
    18, 0, 0, 1.645
    19, 2.58, 0, 1.645
    20, 0, 0, 1.925
    21, 2.58, 0, 1.925
    22, 0, 0, 2.425
    23, 0.5, 0, 2.425
    24, 0.763, 0, 2.425
    25, 1.027, 0, 2.425
    26, 1.29, 0, 2.425
    27, 1.553, 0, 2.425
    28, 1.817, 0, 2.425
    29, 2.08, 0, 2.425
    30, 2.58, 0, 2.425

*ELEMENT    ; Elements
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, iOPT(EXVAL2) ; Frame  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, ANGLE, iSUB, EXVAL, EXVAL2, bLMT ; Comp/Tens Truss
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iSUB, iWID             ; Planar Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, iN3, iN4, iN5, iN6, iN7, iN8     ; Solid  Element
; iEL, TYPE, iMAT, iPRO, iN1, iN2, REF, RPX, RPY, RPZ, iSUB, EXVAL  ; Frame(Ref. Point)
     1, BEAM  ,    2,    2,    1,    2,  180
     2, BEAM  ,    2,    2,    2,    3,  180
     3, BEAM  ,    2,    2,    3,    4,  180
     4, BEAM  ,    2,    2,    4,    5,  180
     5, BEAM  ,    2,    2,    5,    6,  180
     6, BEAM  ,    2,    2,    6,    7,  180
     7, BEAM  ,    2,    2,    7,    8,  180
     8, BEAM  ,    2,    2,    8,    9,  180
     9, BEAM  ,    2,    3,    1,   10,  180
    10, BEAM  ,    2,    3,    9,   11,    0
    11, BEAM  ,    2,    3,   10,   12,  180
    12, BEAM  ,    2,    3,   11,   13,    0
    13, BEAM  ,    2,    3,   12,   14,  180
    14, BEAM  ,    2,    3,   13,   15,    0
    15, BEAM  ,    2,    3,   14,   16,  180
    16, BEAM  ,    2,    3,   15,   17,    0
    17, BEAM  ,    2,    3,   16,   18,  180
    18, BEAM  ,    2,    3,   17,   19,    0
    19, BEAM  ,    2,    3,   18,   20,  180
    20, BEAM  ,    2,    3,   19,   21,    0
    21, BEAM  ,    2,    3,   20,   22,  180
    22, BEAM  ,    2,    3,   21,   30,    0
    23, BEAM  ,    2,    1,   22,   23,    0
    24, BEAM  ,    2,    1,   23,   24,    0
    25, BEAM  ,    2,    1,   24,   25,    0
    26, BEAM  ,    2,    1,   25,   26,    0
    27, BEAM  ,    2,    1,   26,   27,    0
    28, BEAM  ,    2,    1,   27,   28,    0
    29, BEAM  ,    2,    1,   28,   29,    0
```

```
    30, BEAM  ,    2,     1,    29,    30,     0

*MATERIAL    ; Material
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA1]          ; STEEL, CONC, USER
; iMAT, TYPE, MNAME, SPHEAT, HEATCO, PLAST, TUNIT, bMASS, DAMPRATIO, [DATA2], [DATA2] ; SRC
; [DATA1] : 1, DB, NAME, CODE
; [DATA1] : 2, ELAST, POISN, THERMAL, DEN, MASS
; [DATA1] : 3, Ex, Ey, Ez, Tx, Ty, Tz, Sxy, Sxz, Syz, Pxy, Pxz, Pyz, DEN, MASS   ; Orthotropic
; [DATA2] : 1, DB, NAME, CODE or 2, ELAST, POISN, THERMAL, DEN, MASS
    1, USER , STEEL             , 0, 0, , C, NO, 0, 2, 2.0000e+008,   0.3, 1.1700e-005, 76.8196,     0
    2, USER , CONC              , 0, 0, , C, NO, 0, 2, 2.7537e+007,  0.18, 1.0000e-005,  24.5,     0

*MATL-COLOR
; iMAT, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
    1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
    2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5


*SECTION    ; Section
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL              ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF         ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE                ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       [SIZE-A]                                                              ; 3rd line
;       [SIZE-B]                                                              ; 4th line
;       [SIZE-C]                                                              ; 5th line
;       [SIZE-D]                                                              ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EgdEsb, DgdDsb, Pgd, Psb                     ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                       ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                    ; 4th line
```

```
;       [SIZE-A]                                                                ; 5th line
;       [SIZE-B]                                                                ; 6th line
;       [SIZE-C]                                                                ; 7th line
;       [SIZE-D]                                                                ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]  : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.45, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0

*SECT-COLOR
; iSEC, W_R, W_G, W_B, HF_R, HF_G, HF_B, HE_R, HE_G, HE_B, bBLEND, FACT
   1, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   2, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5
   3, 255,   0,   0,    0, 255,   0,    0,   0, 255,  NO, 0.5

*DGN-SECT
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, [DATA1], [DATA2]                    ; 1st line - DB/USER
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, BLT, D1, ..., D8, iCEL             ; 1st line - VALUE
;       AREA, ASy, ASz, Ixx, Iyy, Izz                                         ; 2nd line
;       CyP, CyM, CzP, CzM, QyB, QzB, PERI_OUT, PERI_IN, Cy, Cz               ; 3rd line
;       Y1, Y2, Y3, Y4, Z1, Z2, Z3, Z4, Zyy, Zzz                              ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, ELAST, DEN, POIS, POIC, SF         ; 1st line - SRC
;       D1, D2, [SRC]                                                         ; 2nd line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 1, DB, NAME1, NAME2, D1, D2        ; 1st line - COMBINED
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE, 2, D11, D12, D13, D14, D15, D21, D22, D23, D24
; iSEC, TYPE, SNAME, [OFFSET2], bSD, SHAPE, iyVAR, izVAR, STYPE               ; 1st line - TAPERED
;       DB, NAME1, NAME2                                                      ; 2nd line(STYPE=DB)
;       [DIM1], [DIM2]                                                        ; 2nd line(STYPE=USER)
;       D11, D12, D13, D14, D15, D16, D17, D18                                ; 2nd line(STYPE=VALUE)
;       AREA1, ASy1, ASz1, Ixx1, Iyy1, Izz1                                   ; 3rd line(STYPE=VALUE)
;       CyP1, CyM1, CzP1, CzM1, QyB1, QzB1, PERI_OUT1, PERI_IN1, Cy1, Cz1     ; 4th line(STYPE=VALUE)
;       Y11, Y12, Y13, Y14, Z11, Z12, Z13, Z14, Zyy1, Zyy2                    ; 5th line(STYPE=VALUE)
;       D21, D22, D23, D24, D25, D26, D27, D28                                ; 6th line(STYPE=VALUE)
;       AREA2, ASy2, ASz2, Ixx2, Iyy2, Izz2                                   ; 7th line(STYPE=VALUE)
;       CyP2, CyM2, CzP2, CzM2, QyB2, QzB2, PERI_OUT2, PERI_IN2, Cy2, Cz2     ; 8th line(STYPE=VALUE)
;       Y21, Y22, Y23, Y24, Z21, Z22, Z23, Z24, Zyy2, Zzz2                    ; 9th line(STYPE=VALUE)
;       OPT1, OPT2, [JOINT]                                                   ; 2nd line(STYPE=PSC)
;       ELAST, DEN, POIS, POIC                                                ; 2nd line(STYPE=PSC-CMPW)
;       bSHEARCHK, [SCHK-I], [SCHK-J], [WT-I], [WT-J], WI, WJ, bSYM, bSIDEHOLE ; 3rd line(STYPE=PSC)
;       bSHEARCHK, bSYM, bHUNCH, [CMPWEB-I], [CMPWEB-J]                       ; 3rd line(STYPE=PSC-CMPW)
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF-I], [STIFF-J]       ; 4th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 5th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 6th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 7th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 8th line(STYPE=PSC)
;       [SIZE-A]-i                                                            ; 9th line(STYPE=PSC)
;       [SIZE-B]-i                                                            ; 10th line(STYPE=PSC)
;       [SIZE-C]-i                                                            ; 11th line(STYPE=PSC)
;       [SIZE-D]-i                                                            ; 12th line(STYPE=PSC)
;       GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMULTI, EsEc-L, EsEc-S       ; 2nd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 3rd line(STYPE=CMP-B/I)
;       SW_i, Hw_i, tw_i, B_i, Bf1_i, tf1_i, B2_i, Bf2_i, tf2_i               ; 4th line(STYPE=CMP-B/I)
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 5th line(STYPE=CMP-B)
;       GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb, bSYM, SW_i, SW_i       ; 2nd line(STYPE=CMP-CI/CT)
;       OPT1, OPT2, [JOINT]                                                   ; 3rd line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 4th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 5th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 6th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 7th line(STYPE=CMP-CI/CT)
;       [SIZE-A]-i                                                            ; 8th line(STYPE=CMP-CI/CT)
;       [SIZE-B]-i                                                            ; 9th line(STYPE=CMP-CI/CT)
;       [SIZE-C]-i                                                            ; 10th line(STYPE=CMP-CI/CT)
;       [SIZE-D]-i                                                            ; 11th line(STYPE=CMP-CI/CT)
; iSEC, TYPE, SNAME, [OFFSET], bSD, STYPE1, STYPE2                            ; 1st line - CONSTRUCT
;       SHAPE, ...(same with other type data from shape)                      ; Before (STYPE1)
;       SHAPE, ...(same with other type data from shape)                      ; After  (STYPE2)
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SB
;       Hw, tw, B, Bf1, tf1, B2, Bf2, tf2                                     ; 2nd line
;       N1, N2, Hr, Hr2, tr1, tr2                                             ; 3rd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 4th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                     ; 1st line - COMPOSITE-SI
;       Hw, tw, B, tf1, B2, tf2                                               ; 2nd line
;       SW, GN, CTC, Bc, Tc, Hh, EsEc, DsDc, Ps, Pc, bMulti, Elong, Esh       ; 3rd line
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```
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                   ; 1st line - COMPOSITE-CI/CT
;       OPT1, OPT2, [JOINT]                                                 ; 2nd line
;       [SIZE-A]                                                            ; 3rd line
;       [SIZE-B]                                                            ; 4th line
;       [SIZE-C]                                                            ; 5th line
;       [SIZE-D]                                                            ; 6th line
;       SW, GN, CTC, Bc, Tc, Hh, EqdEsb, DqdDsb, Pqd, Psb                   ; 7th line
; iSEC, TYPE, SNAME, [OFFSET], bSD, SHAPE                                   ; 1st line - PSC
;       OPT1, OPT2, [JOINT]                                                 ; 2nd line
;       bSHEARCHK, [SCHK], [WT], WIDTH, bSYM, bSIDEHOLE                     ; 3rd line
;       bUSERDEFMESHSIZE, MESHSIZE, bUSERINPSTIFF, [STIFF]                  ; 4th line
;       [SIZE-A]                                                            ; 5th line
;       [SIZE-B]                                                            ; 6th line
;       [SIZE-C]                                                            ; 7th line
;       [SIZE-D]                                                            ; 8th line
; [DATA1] : 1, DB, NAME or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10
; [DATA2] : CCSHAPE or iCEL or iN1, iN2
; [SRC]   : 1, DB, NAME1, NAME2 or 2, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, iN1, iN2
; [DIM1], [DIM2] : D1, D2, D3, D4, D5, D6, D7, D8
; [OFFSET] : OFFSET, iCENT, iREF, iHORZ, HUSER, iVERT, VUSER
; [OFFSET2]: OFFSET, iCENT, iREF, iHORZ, HUSERI, HUSERJ, iVERT, VUSERI, VUSERJ
; [JOINT]  :  8(1CELL, 2CELL), 13(3CELL),  9(PSCM),  8(PSCH), 9(PSCT),  2(PSCB), 0(nCELL),  2(nCEL2)
; [SIZE-A] :  6(1CELL, 2CELL), 10(3CELL), 10(PSCM),  6(PSCH), 8(PSCT), 10(PSCB), 5(nCELL), 11(nCEL2)
; [SIZE-B] :  6(1CELL, 2CELL), 12(3CELL),  6(PSCM),  6(PSCH), 8(PSCT),  6(PSCB), 8(nCELL), 18(nCEL2)
; [SIZE-C] : 10(1CELL, 2CELL), 13(3CELL),  9(PSCM), 10(PSCH), 7(PSCT),  8(PSCB), 0(nCELL), 11(nCEL2)
; [SIZE-D] :  8(1CELL, 2CELL), 13(3CELL),  6(PSCM),  7(PSCH), 8(PSCT),  5(PSCB), 0(nCELL), 18(nCEL2)
; [STIFF]  : AREA, ASy, ASz, Ixx, Iyy, Izz
; [SCHK]   : bAUTO_Z1, Z1, bAUTO_Z3, Z3
; [WT]     : bAUTO_TOR, TOR, bAUTO_SHR1, SHR1, bAUTO_SHR2, SHR2, bAUTO_SHR3, SHR3
; [CMPWEB] : EFD, LRF, A, B, H, T
   1, DBUSER    , TOPSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0
   2, DBUSER    , BOTSLAB          , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.45, 1, 0, 0, 0, 0, 0, 0, 0, 0
   3, DBUSER    , WALL             , CC, 0, 0, 0, 0, 0, 0, YES, SB , 2, 0.4, 1, 0, 0, 0, 0, 0, 0, 0, 0


*STLDCASE    ; Static Load Cases
; LCNAME, LCTYPE, DESC
   LC1  , USER,
   LC2  , USER,
   LC3  , USER,
   LC4  , USER,
   LC5  , USER,
   LC6  , USER,
   LC7  , USER,
   LC8  , USER,
   LC9  , USER,
   LC10 , USER,
   LC11 , USER,
   NCOMB1, USER,
   NCOMB2, USER,
   NCOMB3, USER,
   NCOMB4, USER,
   NCOMB5, USER,
   NCOMB6, USER,
   NCOMB7, USER,
   NCOMB8, USER,
   NCOMB9, USER,
   NCOMB10, USER,
   NCOMB11, USER,
   NCOMB12, USER,
   NCOMB13, USER,
   NCOMB14, USER,
   NCOMB15, USER,
   NCOMB16, USER,
   NCOMB17, USER,
   NCOMB18, USER,
   NCOMB19, USER,
   NCOMB20, USER,
   NCOMB21, USER,
   NCOMB22, USER,
   NCOMB23, USER,
   NCOMB24, USER,
   NCOMB25, USER,
   NCOMB26, USER,
   NCOMB27, USER,
   NCOMB28, USER,
   NCOMB29, USER,
   NCOMB30, USER,
   NCOMB31, USER,
   NCOMB32, USER,
   NCOMB33, USER,
   NCOMB34, USER,
   NCOMB35, USER,


*SPRING    ; Point Spring Supports
; NODE_LIST, Type, SDx, SDy, SDz, SRx, SRy, SRz, GROUP, FROMTYPE, EFFAREA, Kx, Ky, Kz
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; NODE_LIST, Type, Direction, Vx, Vy, Vz, Stiffness, GROUP, FROMTYPE, EFFAREA
; NODE_LIST, Type, Multi-Linear Type, Direction, Vx, Vy, Vz, ax, ay, bx, by, cx, cy, dx, dy, ex, ey, fx, fy, GROUP, FROMTYPE, EFFAREA
   1, LINEAR, 1e+014, 0, 0, 0, 0, 0, NO, 0, 0, 0, 0, 0, 0, 0, , 0, 0, 0, 0, 0
   2 8, COMP  ,  5, 0, 0, 0, 6663, , 0, 0, 0, 0, 0
   3to7, COMP  ,  5, 0, 0, 0, 4126, , 0, 0, 0, 0, 0
   1 9, COMP  ,  5, 0, 0, 0, 7945, , 0, 0, 0, 0, 0

*OFFSET    ; Beam End Offsets
; ELEM_LIST, TYPE, RGDXi, RGDYi, RGDZi, RGDXi, RGDYi, RGDZi, GROUP  ; TYPE=GLOBAL
; ELEM_LIST, TYPE, RGDi, RGDj, GROUP                                ; TYPE=ELEMENT
     1, ELEMENT, 0.275, 0,
     8, ELEMENT, 0, 0.275,
     9, ELEMENT, 0.325, 0,
    10, ELEMENT, 0.325, 0,
    21, ELEMENT, 0, 0.3,
    22, ELEMENT, 0, 0.3,
    23, ELEMENT, 0.3, 0,
    30, ELEMENT, 0, 0.3,

*USE-STLD, LC1

; *SELFWEIGHT, X, Y, Z, GROUP
*SELFWEIGHT, 0, 0, -1,

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -66.185, 1, -66.185, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -66.185, 1, -66.185, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -66.185, 1, -66.185, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -66.185, 1, -66.185, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -66.185, 1, -66.185, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -66.185, 1, -66.185, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -66.185, 1, -66.185, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -66.185, 1, -66.185, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC1] ------------------------

*USE-STLD, LC2

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    27, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    28, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    29, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    30, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC2] ------------------------

*USE-STLD, LC3

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
    23, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    24, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    25, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO
    26, BEAM   , UNILOAD, GZ, NO , NO, aDir[1], , , , 0, -21.019, 1, -21.019, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC3] ------------------------

*USE-STLD, LC4

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
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    13, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM   , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -8.408, 1, -8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC4] ----------

*USE-STLD, LC5

*BEAMLOAD    ; Element Beam Loads
; ELEM_LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM_LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL_I-END, ADDITIONAL_J-END, bADDITIONAL_J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.408, 1, 8.408, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC5] ----------

*USE-STLD, LC6

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 50.562, 1, 46.089, 0, 0, 0, 0, , NO, 0, 0, NO
    10, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -50.562, 1, -46.089, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 46.089, 1, 43.703, 0, 0, 0, 0, , NO, 0, 0, NO
    12, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -46.089, 1, -43.703, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 43.703, 1, 41.317, 0, 0, 0, 0, , NO, 0, 0, NO
    14, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -43.703, 1, -41.317, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 41.317, 1, 38.931, 0, 0, 0, 0, , NO, 0, 0, NO
    16, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -41.317, 1, -38.931, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 38.931, 1, 36.545, 0, 0, 0, 0, , NO, 0, 0, NO
    18, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -38.931, 1, -36.545, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 36.545, 1, 34.159, 0, 0, 0, 0, , NO, 0, 0, NO
    20, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -36.545, 1, -34.159, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 34.159, 1, 29.899, 0, 0, 0, 0, , NO, 0, 0, NO
    22, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, -34.159, 1, -29.899, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC6] ----------

*USE-STLD, LC7

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST, CMD, TYPE, DIR, bPROJ, [ECCEN], [VALUE], GROUP
; ELEM LIST, CMD, TYPE, TYPE, DIR, VX, VY, VZ, bPROJ, [ECCEN], [VALUE], GROUP
; [VALUE]       : D1, P1, D2, P2, D3, P3, D4, P4
; [ECCEN]       : bECCEN, ECCDIR, I-END, J-END, bJ-END
; [ADDITIONAL]  : bADDITIONAL, ADDITIONAL I-END, ADDITIONAL J-END, bADDITIONAL J-END
     9, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 22.367, 1, 17.894, 0, 0, 0, 0, , NO, 0, 0, NO
    11, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 17.894, 1, 15.508, 0, 0, 0, 0, , NO, 0, 0, NO
    13, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 15.508, 1, 13.122, 0, 0, 0, 0, , NO, 0, 0, NO
    15, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 13.122, 1, 10.736, 0, 0, 0, 0, , NO, 0, 0, NO
    17, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 10.736, 1, 8.35, 0, 0, 0, 0, , NO, 0, 0, NO
    19, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 8.35, 1, 5.964, 0, 0, 0, 0, , NO, 0, 0, NO
    21, BEAM    , UNILOAD, GX, NO , NO, aDir[1], , , , 0, 5.964, 1, 1.704, 0, 0, 0, 0, , NO, 0, 0, NO

; End of data for load case [LC7] ----------

*USE-STLD, LC10

*ELTEMPER    ; Element Temperatures
; ELEM LIST, TEMPER, GROUP
     1, -15.
     2, -15.
     3, -15.
     4, -15.
     5, -15.
     6, -15.
     7, -15.
     8, -15.
     9, -15.
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    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
    30. -15.

; End of data for load case [LC10] ------------------------

*USE-STLD. NCOMB1

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 80.8992. 1. 73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -80.8992. 1. -73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.7424. 1. 69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.7424. 1. -69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 69.9248. 1. 66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -69.9248. 1. -66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.1072. 1. 62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.1072. 1. -62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.2896. 1. 58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.2896. 1. -58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.472. 1. 54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.472. 1. -54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 54.6544. 1. 47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -54.6544. 1. -47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB1] ------------------------

*USE-STLD. NCOMB2

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.3372. 1. 27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.3372. 1. -27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.6534. 1. 26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.6534. 1. -26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2218. 1. 24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2218. 1. -24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.7902. 1. 23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.7902. 1. -23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.3586. 1. 21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.3586. 1. -21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.927. 1. 20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.927. 1. -20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.4954. 1. 17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -15.5548. 1. -15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.4954. 1. -17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB2] ------------------------

*USE-STLD. NCOMB3

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 80.8992. 1. 73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -80.8992. 1. -73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.7424. 1. 69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.7424. 1. -69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 69.9248. 1. 66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -69.9248. 1. -66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.1072. 1. 62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.1072. 1. -62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.2896. 1. 58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.2896. 1. -58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.472. 1. 54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.472. 1. -54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 54.6544. 1. 47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -54.6544. 1. -47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB3] ------------------------

*USE-STLD. NCOMB4

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.3372. 1. 27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.3372. 1. -27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.6534. 1. 26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.6534. 1. -26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2218. 1. 24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2218. 1. -24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.7902. 1. 23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.7902. 1. -23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.3586. 1. 21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.3586. 1. -21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.927. 1. 20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.927. 1. -20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.4954. 1. 17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.4954. 1. -17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB4] ------------------------

*USE-STLD. NCOMB5

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 80.8992. 1. 73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -80.8992. 1. -73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.7424. 1. 69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.7424. 1. -69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 69.9248. 1. 66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -69.9248. 1. -66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.1072. 1. 62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.1072. 1. -62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
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    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.2896. 1. 58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.2896. 1. -58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.472. 1. 54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.472. 1. -54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 54.6544. 1. 47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -54.6544. 1. -47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB5] ------------------------

*USE-STLD. NCOMB6

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.3372. 1. 27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.3372. 1. -27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.6534. 1. 26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.6534. 1. -26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2218. 1. 24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2218. 1. -24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.7902. 1. 23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.7902. 1. -23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.3586. 1. 21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.3586. 1. -21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.927. 1. 20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.927. 1. -20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.4954. 1. 17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.4954. 1. -17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -13.4528. 1. -13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB6] ------------------------

*USE-STLD. NCOMB7

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 80.8992. 1. 73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -80.8992. 1. -73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.7424. 1. 69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.7424. 1. -69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 69.9248. 1. 66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -69.9248. 1. -66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.1072. 1. 62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.1072. 1. -62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.2896. 1. 58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.2896. 1. -58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.472. 1. 54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.472. 1. -54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 54.6544. 1. 47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -54.6544. 1. -47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB7] ------------------------

*USE-STLD. NCOMB8

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST: CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.3372. 1. 27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.3372. 1. -27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.6534. 1. 26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.6534. 1. -26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2218. 1. 24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2218. 1. -24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.7902. 1. 23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.7902. 1. -23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.3586. 1. 21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.3586. 1. -21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.927. 1. 20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.927. 1. -20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.4954. 1. 17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.4954. 1. -17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
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     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB8] ------------------------

*USE-STLD. NCOMB9

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 80.8992. 1. 73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -80.8992. 1. -73.7424. 0. 0. 0. 0. . NO. 0. 0. N(
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.7424. 1. 69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.7424. 1. -69.9248. 0. 0. 0. 0. . NO. 0. 0. N(
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 69.9248. 1. 66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -69.9248. 1. -66.1072. 0. 0. 0. 0. . NO. 0. 0. N(
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.1072. 1. 62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.1072. 1. -62.2896. 0. 0. 0. 0. . NO. 0. 0. N(
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.2896. 1. 58.472. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.2896. 1. -58.472. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.472. 1. 54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.472. 1. -54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 54.6544. 1. 47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -54.6544. 1. -47.8384. 0. 0. 0. 0. . NO. 0. 0. N(
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB9] ------------------------

*USE-STLD. NCOMB10

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.3372. 1. 27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.3372. 1. -27.6534. 0. 0. 0. 0. . NO. 0. 0. N(
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.6534. 1. 26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. N(
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.6534. 1. -26.2218. 0. 0. 0. 0. . NO. 0. 0. N(
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
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    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2218. 1. 24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2218. 1. -24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.7902. 1. 23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.7902. 1. -23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.3586. 1. 21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.3586. 1. -21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.927. 1. 20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.927. 1. -20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.4954. 1. 17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.4954. 1. -17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB10] ------------------------

*USE-STLD. NCOMB11

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 80.8992. 1. 73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -80.8992. 1. -73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.7424. 1. 69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.7424. 1. -69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 69.9248. 1. 66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -69.9248. 1. -66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.1072. 1. 62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.1072. 1. -62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.2896. 1. 58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.2896. 1. -58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.472. 1. 54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.472. 1. -54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 54.6544. 1. 47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -54.6544. 1. -47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
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    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB11] ----------------------

*USE-STLD. NCOMB12

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.3372. 1. 27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.3372. 1. -27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.6534. 1. 26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.6534. 1. -26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2218. 1. 24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2218. 1. -24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.7902. 1. 23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.7902. 1. -23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.3586. 1. 21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.3586. 1. -21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.927. 1. 20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.927. 1. -20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.4954. 1. 17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.4954. 1. -17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -11.7712. 1. -11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
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    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB12] ------------------------

*USE-STLD. NCOMB13

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 80.8992. 1. 73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -80.8992. 1. -73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.7424. 1. 69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.7424. 1. -69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 69.9248. 1. 66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -69.9248. 1. -66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.1072. 1. 62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.1072. 1. -62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.2896. 1. 58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.2896. 1. -58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.472. 1. 54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.472. 1. -54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 54.6544. 1. 47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -54.6544. 1. -47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
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    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB13] ------------------------

*USE-STLD. NCOMB14

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.3372. 1. 27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.3372. 1. -27.6534. 0. 0. 0. 0. . NO. 0. 0. N(
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.6534. 1. 26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.6534. 1. -26.2218. 0. 0. 0. 0. . NO. 0. 0. N(
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2218. 1. 24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2218. 1. -24.7902. 0. 0. 0. 0. . NO. 0. 0. N(
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.7902. 1. 23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.7902. 1. -23.3586. 0. 0. 0. 0. . NO. 0. 0. N(
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.3586. 1. 21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.3586. 1. -21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.927. 1. 20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.927. 1. -20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.4954. 1. 17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.4954. 1. -17.9394. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB14] ------------------------

*USE-STLD. NCOMB15

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 80.8992. 1. 73.7424. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -80.8992. 1. -73.7424. 0. 0. 0. 0. . NO. 0. 0. N(
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 73.7424. 1. 69.9248. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -73.7424. 1. -69.9248. 0. 0. 0. 0. . NO. 0. 0. N(
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 69.9248. 1. 66.1072. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -69.9248. 1. -66.1072. 0. 0. 0. 0. . NO. 0. 0. N(
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 66.1072. 1. 62.2896. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -66.1072. 1. -62.2896. 0. 0. 0. 0. . NO. 0. 0. N(
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 62.2896. 1. 58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -62.2896. 1. -58.472. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 58.472. 1. 54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -58.472. 1. -54.6544. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 54.6544. 1. 47.8384. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -54.6544. 1. -47.8384. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. N(
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. N(
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    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -20.25.
     2. -20.25.
     3. -20.25.
     4. -20.25.
     5. -20.25.
     6. -20.25.
     7. -20.25.
     8. -20.25.
     9. -20.25.
    10. -20.25.
    11. -20.25.
    12. -20.25.
    13. -20.25.
    14. -20.25.
    15. -20.25.
    16. -20.25.
    17. -20.25.
    18. -20.25.
    19. -20.25.
    20. -20.25.
    21. -20.25.
    22. -20.25.
    23. -20.25.
    24. -20.25.
    25. -20.25.
    26. -20.25.
    27. -20.25.
    28. -20.25.
    29. -20.25.
    30. -20.25.

; End of data for load case [NCOMB15] ------------------------

*USE-STLD. NCOMB16

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 30.3372. 1. 27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -30.3372. 1. -27.6534. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 27.6534. 1. 26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -27.6534. 1. -26.2218. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 26.2218. 1. 24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -26.2218. 1. -24.7902. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.7902. 1. 23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -24.7902. 1. -23.3586. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.3586. 1. 21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.3586. 1. -21.927. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.927. 1. 20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.927. 1. -20.4954. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.4954. 1. 17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.7712. 1. 11.7712. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.4954. 1. -17.9394. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -29.4266. 1. -29.4266. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
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     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
      1. -20.25.
      2. -20.25.
      3. -20.25.
      4. -20.25.
      5. -20.25.
      6. -20.25.
      7. -20.25.
      8. -20.25.
      9. -20.25.
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     11. -20.25.
     12. -20.25.
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     14. -20.25.
     15. -20.25.
     16. -20.25.
     17. -20.25.
     18. -20.25.
     19. -20.25.
     20. -20.25.
     21. -20.25.
     22. -20.25.
     23. -20.25.
     24. -20.25.
     25. -20.25.
     26. -20.25.
     27. -20.25.
     28. -20.25.
     29. -20.25.
     30. -20.25.

; End of data for load case [NCOMB16] ------------------------

*USE-STLD. NCOMB17

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 35.7872. 1. 28.6304. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 28.6304. 1. 24.8128. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.8128. 1. 20.9952. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.9952. 1. 17.1776. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.1776. 1. 13.36. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.36. 1. 9.5424. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.5424. 1. 2.7264. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB17] ------------------------

*USE-STLD. NCOMB18

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.35.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
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; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4202. 1. 10.7364. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.7364. 1. 9.3048. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.3048. 1. 7.8732. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.8732. 1. 6.4416. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.4416. 1. 5.01. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.01. 1. 3.5784. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 3.5784. 1. 1.0224. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.5548. 1. 15.5548. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -38.8851. 1. -38.8851. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -89.3498. 1. -89.3498. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB18] ------------------------

*USE-STLD. NCOMB19

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 35.7872. 1. 28.6304. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 28.6304. 1. 24.8128. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 24.8128. 1. 20.9952. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.9952. 1. 17.1776. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.1776. 1. 13.36. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.36. 1. 9.5424. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.5424. 1. 2.7264. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB19] ------------------------

*USE-STLD. NCOMB20

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.6.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4202. 1. 10.7364. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.7364. 1. 9.3048. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
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     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 9.3048. 1. 7.8732. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.8732. 1. 6.4416. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.4416. 1. 5.01. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.01. 1. 3.5784. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.4528. 1. 13.4528. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 3.5784. 1. 1.0224. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. N(
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. N(
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. N(
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -33.6304. 1. -33.6304. 0. 0. 0. 0. . NO. 0. 0. N(
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -105.896. 1. -105.896. 0. 0. 0. 0. . NO. 0. 0. N(

; End of data for load case [NCOMB20] ------------------------

*USE-STLD. NCOMB21

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
      9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.562. 1. 46.089. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.562. 1. -46.089. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.089. 1. 43.703. 0. 0. 0. 0. . NO. 0. 0. NO
     11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.089. 1. -43.703. 0. 0. 0. 0. . NO. 0. 0. NO
     12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.703. 1. 41.317. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.703. 1. -41.317. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 41.317. 1. 38.931. 0. 0. 0. 0. . NO. 0. 0. NO
     15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -41.317. 1. -38.931. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 38.931. 1. 36.545. 0. 0. 0. 0. . NO. 0. 0. NO
     17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -38.931. 1. -36.545. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.545. 1. 34.159. 0. 0. 0. 0. . NO. 0. 0. NO
     19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.545. 1. -34.159. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.159. 1. 29.899. 0. 0. 0. 0. . NO. 0. 0. NO
     21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.159. 1. -29.899. 0. 0. 0. 0. . NO. 0. 0. NO
     22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
     25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
     26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
     27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
     30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB21] ------------------------

*USE-STLD. NCOMB22

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.
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*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.281. 1. 23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.281. 1. -23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.0445. 1. 21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.0445. 1. -21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.8515. 1. 20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.8515. 1. -20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.6585. 1. 19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.6585. 1. -19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.4655. 1. 18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.4655. 1. -18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 18.2725. 1. 17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -18.2725. 1. -17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.0795. 1. 14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -17.0795. 1. -14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB22] ------------------------

*USE-STLD. NCOMB23

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.562. 1. 46.089. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.562. 1. -46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.089. 1. 43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.089. 1. -43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.703. 1. 41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.703. 1. -41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 41.317. 1. 38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -41.317. 1. -38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 38.931. 1. 36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -38.931. 1. -36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.545. 1. 34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.545. 1. -34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.159. 1. 29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.159. 1. -29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
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    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB23] ------------------------

*USE-STLD. NCOMB24

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.281. 1. 23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.281. 1. -23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.0445. 1. 21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.0445. 1. -21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.8515. 1. 20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.8515. 1. -20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.6585. 1. 19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.6585. 1. -19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.4655. 1. 18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.4655. 1. -18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 18.2725. 1. 17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -18.2725. 1. -17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.0795. 1. 14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -17.0795. 1. -14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB24] ------------------------

*USE-STLD. NCOMB25

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.562. 1. 46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.562. 1. -46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.089. 1. 43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.089. 1. -43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.703. 1. 41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.703. 1. -41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 41.317. 1. 38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -41.317. 1. -38.931. 0. 0. 0. 0. . NO. 0. 0. NO
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    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 38.931. 1. 36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -38.931. 1. -36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.545. 1. 34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.545. 1. -34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.159. 1. 29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.159. 1. -29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB25] ------------------------

*USE-STLD. NCOMB26

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.281. 1. 23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.281. 1. -23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.0445. 1. 21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.0445. 1. -21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.8515. 1. 20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.8515. 1. -20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.6585. 1. 19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.6585. 1. -19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.4655. 1. 18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.4655. 1. -18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 18.2725. 1. 17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -18.2725. 1. -17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.0795. 1. 14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -17.0795. 1. -14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
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; End of data for load case [NCOMB26] ------------------------

*USE-STLD. NCOMB27

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.562. 1. 46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.562. 1. -46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.089. 1. 43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.089. 1. -43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.703. 1. 41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.703. 1. -41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 41.317. 1. 38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -41.317. 1. -38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 38.931. 1. 36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -38.931. 1. -36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.545. 1. 34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.545. 1. -34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.159. 1. 29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.159. 1. -29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
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     27. -15.
     28. -15.
     29. -15.
     30. -15.

; End of data for load case [NCOMB27] ------------------------

*USE-STLD. NCOMB28

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.281. 1. 23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.281. 1. -23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.0445. 1. 21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.0445. 1. -21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.8515. 1. 20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.8515. 1. -20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.6585. 1. 19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.6585. 1. -19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.4655. 1. 18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.4655. 1. -18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 18.2725. 1. 17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -18.2725. 1. -17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.0795. 1. 14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -8.408. 1. -8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -17.0795. 1. -14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
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     23. -15.
     24. -15.
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     28. -15.
     29. -15.
     30. -15.

; End of data for load case [NCOMB28] ------------------------

*USE-STLD. NCOMB29

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.562. 1. 46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.562. 1. -46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.089. 1. 43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.089. 1. -43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.703. 1. 41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.703. 1. -41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 41.317. 1. 38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -41.317. 1. -38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 38.931. 1. 36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -38.931. 1. -36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.545. 1. 34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.545. 1. -34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.159. 1. 29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.159. 1. -29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB29] ------------------------

*USE-STLD. NCOMB30

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.281. 1. 23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.281. 1. -23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.0445. 1. 21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.0445. 1. -21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.8515. 1. 20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.8515. 1. -20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.6585. 1. 19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.6585. 1. -19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.4655. 1. 18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.4655. 1. -18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 18.2725. 1. 17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -18.2725. 1. -17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
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    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.0795. 1. 14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -17.0795. 1. -14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB30] ------------------------

*USE-STLD. NCOMB31

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.562. 1. 46.089. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.562. 1. -46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.089. 1. 43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.089. 1. -43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.703. 1. 41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.703. 1. -41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 41.317. 1. 38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -41.317. 1. -38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 38.931. 1. 36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -38.931. 1. -36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.545. 1. 34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.545. 1. -34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.159. 1. 29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.159. 1. -29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
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     23. -15.
     24. -15.
     25. -15.
     26. -15.
     27. -15.
     28. -15.
     29. -15.
     30. -15.

; End of data for load case [NCOMB31] ------------------------

*USE-STLD. NCOMB32

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 25.281. 1. 23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -25.281. 1. -23.0445. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 23.0445. 1. 21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -23.0445. 1. -21.8515. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 21.8515. 1. 20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -21.8515. 1. -20.6585. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 20.6585. 1. 19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -20.6585. 1. -19.4655. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 19.4655. 1. 18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -19.4655. 1. -18.2725. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 18.2725. 1. 17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -18.2725. 1. -17.0795. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.0795. 1. 14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -17.0795. 1. -14.9495. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

*ELTEMPER    ; Element Temperatures
; ELEM LIST. TEMPER. GROUP
     1. -15.
     2. -15.
     3. -15.
     4. -15.
     5. -15.
     6. -15.
     7. -15.
     8. -15.
     9. -15.
    10. -15.
    11. -15.
    12. -15.
    13. -15.
    14. -15.
    15. -15.
    16. -15.
    17. -15.
    18. -15.
    19. -15.
    20. -15.
    21. -15.
    22. -15.
    23. -15.
    24. -15.
    25. -15.
    26. -15.
    27. -15.
    28. -15.
    29. -15.
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    30. -15.

; End of data for load case [NCOMB32] ------------------------

*USE-STLD. NCOMB33

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 50.562. 1. 46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    10. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -50.562. 1. -46.089. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 46.089. 1. 43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    12. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -46.089. 1. -43.703. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 43.703. 1. 41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    14. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -43.703. 1. -41.317. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 41.317. 1. 38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    16. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -41.317. 1. -38.931. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 38.931. 1. 36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    18. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -38.931. 1. -36.545. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 36.545. 1. 34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    20. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -36.545. 1. -34.159. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 34.159. 1. 29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    22. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. -34.159. 1. -29.899. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB33] ------------------------

*USE-STLD. NCOMB34

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 22.367. 1. 17.894. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 17.894. 1. 15.508. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 15.508. 1. 13.122. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 13.122. 1. 10.736. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 10.736. 1. 8.35. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.35. 1. 5.964. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.964. 1. 1.704. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB34] ------------------------

*USE-STLD. NCOMB35

; *SELFWEIGHT. X. Y. Z. GROUP
*SELFWEIGHT. 0. 0. -1.

*BEAMLOAD    ; Element Beam Loads
; ELEM LIST. CMD. TYPE. DIR. bPROJ. [ECCEN]. [VALUE]. GROUP
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; ELEM LIST. CMD. TYPE. TYPE. DIR. VX. VY. VZ. bPROJ. [ECCEN]. [VALUE]. GROUP
; [VALUE]       : D1. P1. D2. P2. D3. P3. D4. P4
; [ECCEN]       : bECCEN. ECCDIR. I-END. J-END. bJ-END
; [ADDITIONAL]  : bADDITIONAL. ADDITIONAL I-END. ADDITIONAL J-END. bADDITIONAL J-END
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
     9. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 11.1835. 1. 8.947. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    11. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.947. 1. 7.754. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    13. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 7.754. 1. 6.561. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    15. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 6.561. 1. 5.368. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 5.368. 1. 4.175. 0. 0. 0. 0. . NO. 0. 0. NO
    17. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    19. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 4.175. 1. 2.982. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 8.408. 1. 8.408. 0. 0. 0. 0. . NO. 0. 0. NO
    21. BEAM    . UNILOAD. GX. NO . NO. aDir[1]. . . . 0. 2.982. 1. 0.852. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    23. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    24. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    25. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -21.019. 1. -21.019. 0. 0. 0. 0. . NO. 0. 0. NO
    26. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    27. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    28. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    29. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO
    30. BEAM    . UNILOAD. GZ. NO . NO. aDir[1]. . . . 0. -66.185. 1. -66.185. 0. 0. 0. 0. . NO. 0. 0. NO

; End of data for load case [NCOMB35] ------------------------


*LOADCOMB    ; Combinations
; NAME=NAME. KIND. ACTIVE. bES. iTYPE. DESC. iSERV-TYPE. nLCOMTYPE   ; line 1
;      ANAL1. LCNAME1. FACT1. ...                                    ; from line 2
   NAME=COMB1. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 1.6
   NAME=COMB2. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.85. ST. LC4. 1.85. ST. LC6. 0.6
   NAME=COMB3. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 1.6
   NAME=COMB4. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC6. 0.6
   NAME=COMB5. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 1.6
   NAME=COMB6. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC2. 1.6. ST. LC4. 1.6. ST. LC6. 0.6
   NAME=COMB7. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 1.6
   NAME=COMB8. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC6. 0.6
   NAME=COMB9. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
        ST. LC11. 1.35
   NAME=COMB10. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
        ST. LC11. 1.35
   NAME=COMB11. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
        ST. LC10. 1.35. ST. LC11. 1.4
   NAME=COMB12. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC2. 1.4. ST. LC4. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
        ST. LC10. 1.35. ST. LC11. 1.4
   NAME=COMB13. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC8. 1.35
        ST. LC11. 1.35
   NAME=COMB14. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC8. 1.35
        ST. LC11. 1.35
   NAME=COMB15. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 1.6. ST. LC9. 1.35
        ST. LC10. 1.35. ST. LC11. 1.4
   NAME=COMB16. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.4. ST. LC5. 1.4. ST. LC6. 0.6. ST. LC9. 1.35
        ST. LC10. 1.35. ST. LC11. 1.4
   NAME=COMB17. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 1.6
   NAME=COMB18. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.35. ST. LC3. 1.85. ST. LC5. 1.85. ST. LC7. 0.6
   NAME=COMB19. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 1.6
   NAME=COMB20. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1.6. ST. LC3. 1.6. ST. LC5. 1.6. ST. LC7. 0.6
   NAME=COMB21. GEN. INACTIVE. 0. 0. . 0. 0
        ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1
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```
NAME=COMB22. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5
NAME=COMB23. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1
NAME=COMB24. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5
NAME=COMB25. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB26. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB27. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB28. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC2. 1. ST. LC4. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB29. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC8. 1. ST. LC11. 1
NAME=COMB30. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC8. 1
     ST. LC11. 1
NAME=COMB31. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 1. ST. LC9. 1. ST. LC10. 1
     ST. LC11. 1
NAME=COMB32. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC6. 0.5. ST. LC9. 1
     ST. LC10. 1. ST. LC11. 1
NAME=COMB33. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC6. 1
NAME=COMB34. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 1
NAME=COMB35. GEN. INACTIVE. 0. 0. . 0. 0
     ST. LC1. 1. ST. LC3. 1. ST. LC5. 1. ST. LC7. 0.5
NAME=USD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB1. 1. ST. NCOMB2. 1. ST. NCOMB3. 1. ST. NCOMB4. 1
     ST. NCOMB5. 1. ST. NCOMB6. 1. ST. NCOMB7. 1. ST. NCOMB8. 1
     ST. NCOMB9. 1. ST. NCOMB10. 1. ST. NCOMB11. 1. ST. NCOMB12. 1
     ST. NCOMB13. 1. ST. NCOMB14. 1. ST. NCOMB15. 1. ST. NCOMB16. 1
     ST. NCOMB17. 1. ST. NCOMB18. 1. ST. NCOMB19. 1. ST. NCOMB20. 1
NAME=WSD. GEN. ACTIVE. 0. 1. . 0. 0
     ST. NCOMB21. 1. ST. NCOMB22. 1. ST. NCOMB23. 1. ST. NCOMB24. 1
     ST. NCOMB25. 1. ST. NCOMB26. 1. ST. NCOMB27. 1. ST. NCOMB28. 1
     ST. NCOMB29. 1. ST. NCOMB30. 1. ST. NCOMB31. 1. ST. NCOMB32. 1
     ST. NCOMB33. 1. ST. NCOMB34. 1. ST. NCOMB35. 1
NAME=NCOMB1. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB1. 1
NAME=NCOMB2. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB2. 1
NAME=NCOMB3. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB3. 1
NAME=NCOMB4. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB4. 1
NAME=NCOMB5. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB5. 1
NAME=NCOMB6. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB6. 1
NAME=NCOMB7. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB7. 1
NAME=NCOMB8. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB8. 1
NAME=NCOMB9. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB9. 1
NAME=NCOMB10. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB10. 1
NAME=NCOMB11. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB11. 1
NAME=NCOMB12. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB12. 1
NAME=NCOMB13. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB13. 1
NAME=NCOMB14. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB14. 1
NAME=NCOMB15. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB15. 1
NAME=NCOMB16. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB16. 1
NAME=NCOMB17. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB17. 1
NAME=NCOMB18. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB18. 1
NAME=NCOMB19. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB19. 1
NAME=NCOMB20. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB20. 1
NAME=NCOMB21. CONC. STRENGTH. 0. 0. . 0. 0
     ST. NCOMB21. 1
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    NAME=NCOMB22. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB22. 1
    NAME=NCOMB23. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB23. 1
    NAME=NCOMB24. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB24. 1
    NAME=NCOMB25. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB25. 1
    NAME=NCOMB26. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB26. 1
    NAME=NCOMB27. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB27. 1
    NAME=NCOMB28. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB28. 1
    NAME=NCOMB29. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB29. 1
    NAME=NCOMB30. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB30. 1
    NAME=NCOMB31. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB31. 1
    NAME=NCOMB32. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB32. 1
    NAME=NCOMB33. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB33. 1
    NAME=NCOMB34. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB34. 1
    NAME=NCOMB35. CONC. STRENGTH. 0. 0. . 0. 0
          ST. NCOMB35. 1

*LOADCONST    ; Load Constribution for Nonlinear Load Case
; NAME=STLDCASE. DESC                                          ; 1st line
;       LCNAME1. LCTYPE1. FACTOR1. LCNAME2. LCTYPE2. FACTOR2. ...   ; from line 2
    NAME=NCOMB1.
          LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 1.6
    NAME=NCOMB2.
          LC1. ST. 1.35. LC2. ST. 1.85. LC4. ST. 1.85. LC6. ST. 0.6
    NAME=NCOMB3.
          LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 1.6
    NAME=NCOMB4.
          LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC6. ST. 0.6
    NAME=NCOMB5.
          LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 1.6
    NAME=NCOMB6.
          LC1. ST. 1.6. LC2. ST. 1.6. LC4. ST. 1.6. LC6. ST. 0.6
    NAME=NCOMB7.
          LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 1.6
    NAME=NCOMB8.
          LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC6. ST. 0.6
    NAME=NCOMB9.
          LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
          LC11. ST. 1.35
    NAME=NCOMB10.
          LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
          LC11. ST. 1.35
    NAME=NCOMB11.
          LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
          LC10. ST. 1.35. LC11. ST. 1.4
    NAME=NCOMB12.
          LC1. ST. 1.35. LC2. ST. 1.4. LC4. ST. 1.4. LC6. ST. 0.6. LC9. ST. 1.35
          LC10. ST. 1.35. LC11. ST. 1.4
    NAME=NCOMB13.
          LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 1.6. LC8. ST. 1.35
          LC11. ST. 1.35
    NAME=NCOMB14.
          LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 0.6. LC8. ST. 1.35
          LC11. ST. 1.35
    NAME=NCOMB15.
          LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 1.6. LC9. ST. 1.35
          LC10. ST. 1.35. LC11. ST. 1.4
    NAME=NCOMB16.
          LC1. ST. 1.35. LC3. ST. 1.4. LC5. ST. 1.4. LC6. ST. 0.6. LC9. ST. 1.35
          LC10. ST. 1.35. LC11. ST. 1.4
    NAME=NCOMB17.
          LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC7. ST. 1.6
    NAME=NCOMB18.
          LC1. ST. 1.35. LC3. ST. 1.85. LC5. ST. 1.85. LC7. ST. 0.6
    NAME=NCOMB19.
          LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC7. ST. 1.6
    NAME=NCOMB20.
          LC1. ST. 1.6. LC3. ST. 1.6. LC5. ST. 1.6. LC7. ST. 0.6
    NAME=NCOMB21.
          LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 1
    NAME=NCOMB22.
          LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5
    NAME=NCOMB23.
          LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1
    NAME=NCOMB24.
```

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        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 0.5
   NAME=NCOMB25.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 1. LC8. ST. 1. LC11. ST. 1
   NAME=NCOMB26.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5. LC8. ST. 1
        LC11. ST. 1
   NAME=NCOMB27.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 1. LC9. ST. 1. LC10. ST. 1
        LC11. ST. 1
   NAME=NCOMB28.
        LC1. ST. 1. LC2. ST. 1. LC4. ST. 1. LC6. ST. 0.5. LC9. ST. 1
        LC10. ST. 1. LC11. ST. 1
   NAME=NCOMB29.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1. LC8. ST. 1. LC11. ST. 1
   NAME=NCOMB30.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 0.5. LC8. ST. 1
        LC11. ST. 1
   NAME=NCOMB31.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 1. LC9. ST. 1. LC10. ST. 1
        LC11. ST. 1
   NAME=NCOMB32.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC6. ST. 0.5. LC9. ST. 1
        LC10. ST. 1. LC11. ST. 1
   NAME=NCOMB33.
        LC1. ST. 1. LC6. ST. 1
   NAME=NCOMB34.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC7. ST. 1
   NAME=NCOMB35.
        LC1. ST. 1. LC3. ST. 1. LC5. ST. 1. LC7. ST. 0.5

*LC-COLOR    ; Diagram Color for Load Case
; ANAL. LCNAME. iR1(ALL). iG1(ALL). iB1(ALL). iR2(MIN). iG2(MIN). iB2(MIN). iR3(MAX). iG2(MAX). iB2(MAX)
 CB. COMB1. 160. 255. 255. 0. 192. 192. 192. 72. 0
 CB. COMB2. 192. 192. 0. 212. 160. 255. 255. 160. 255
 CB. COMB3. 146. 0. 255. 78. 0. 255. 255. 0. 128
 CB. COMB4. 255. 255. 255. 192. 0. 128. 192. 192. 192
 CB. COMB5. 93. 255. 87. 255. 255. 255. 192. 192. 0
 CB. COMB6. 93. 255. 87. 0. 128. 192. 0. 157. 192
 CB. COMB7. 210. 210. 210. 128. 192. 0. 192. 0. 128
 CB. COMB8. 128. 192. 0. 85. 192. 0. 255. 0. 128
 CB. COMB9. 160. 255. 255. 0. 192. 192. 212. 160. 255
 CB. COMB10. 85. 0. 192. 0. 128. 57. 163. 160. 255
 CB. COMB11. 146. 0. 255. 78. 0. 255. 255. 160. 255
 CB. COMB12. 0. 192. 128. 192. 192. 192. 255. 255. 255
 CB. COMB13. 93. 255. 87. 0. 192. 128. 0. 192. 192
 CB. COMB14. 0. 192. 192. 255. 160. 255. 255. 160. 255
 CB. COMB15. 255. 160. 255. 212. 160. 255. 0. 128. 255
 CB. COMB16. 160. 192. 255. 192. 192. 0. 255. 87. 128
 CB. COMB17. 128. 192. 0. 255. 255. 87. 255. 255. 87
 CB. COMB18. 148. 87. 255. 192. 0. 128. 0. 192. 128
 CB. COMB19. 78. 0. 255. 148. 87. 255. 210. 210. 210
 CB. COMB20. 0. 192. 192. 128. 192. 0. 0. 192. 128
 CB. COMB21. 255. 0. 192. 146. 0. 255. 148. 87. 255
 CB. COMB22. 160. 192. 255. 192. 192. 192. 0. 128. 57
 CB. COMB23. 163. 255. 160. 192. 72. 0. 163. 255. 160
 CB. COMB24. 0. 128. 57. 0. 128. 128. 0. 128. 255
 CB. COMB25. 192. 192. 192. 210. 210. 210. 160. 192. 255
 CB. COMB26. 0. 192. 128. 210. 210. 210. 255. 0. 192
 CB. COMB27. 85. 0. 192. 93. 255. 87. 85. 0. 192
 CB. COMB28. 255. 128. 0. 0. 157. 192. 255. 0. 128
 CB. COMB29. 192. 72. 0. 192. 192. 192. 192. 72. 0
 CB. COMB30. 255. 128. 0. 160. 255. 255. 160. 255. 255
 CB. COMB31. 0. 128. 192. 0. 192. 128. 146. 0. 255
 CB. COMB32. 0. 128. 57. 255. 0. 192. 192. 72. 0
 CB. COMB33. 0. 192. 128. 0. 128. 128. 160. 192. 255
 CB. COMB34. 255. 255. 87. 255. 255. 255. 192. 0. 128
 CB. COMB35. 192. 0. 128. 255. 87. 87. 255. 255. 87
 CB. USD. 255. 0. 128. 163. 160. 255. 0. 128. 128
 CB. WSD. 163. 255. 160. 85. 192. 0. 163. 160. 255
 ST. LC1. 255. 0. 128. 192. 192. 192. 163. 160. 255
 ST. LC2. 0. 192. 128. 0. 157. 192. 255. 0. 128
 ST. LC3. 85. 192. 0. 128. 192. 0. 255. 87. 87
 ST. LC4. 255. 87. 128. 93. 255. 87. 192. 0. 128
 ST. LC5. 255. 87. 128. 255. 87. 128. 0. 128. 128
 ST. LC6. 0. 192. 192. 0. 128. 128. 0. 192. 128
 ST. LC7. 255. 0. 192. 192. 128. 0. 255. 255. 255
 ST. LC8. 255. 0. 128. 0. 157. 192. 192. 128. 0
 ST. LC9. 192. 0. 128. 212. 160. 255. 0. 192. 192
 ST. LC10. 212. 160. 255. 192. 72. 0. 163. 255. 160
 ST. LC11. 148. 87. 255. 78. 0. 255. 0. 157. 192
 CBC. NCOMB1. 255. 87. 87. 160. 192. 255. 78. 0. 255
 CBC. NCOMB2. 128. 192. 0. 255. 255. 255. 192. 0. 192
 CBC. NCOMB3. 0. 128. 57. 85. 0. 192. 85. 0. 192
 CBC. NCOMB4. 160. 192. 255. 255. 255. 255. 160. 255. 255
 CBC. NCOMB5. 163. 255. 160. 0. 128. 57. 255. 192. 160
 CBC. NCOMB6. 192. 192. 192. 192. 192. 192. 255. 255. 255
 CBC. NCOMB7. 255. 128. 0. 0. 128. 255. 0. 128. 255
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CBC. NCOMB8. 255. 255. 255. 255. 0. 192. 255. 192. 87
CBC. NCOMB9. 192. 72. 0. 210. 210. 210. 255. 255. 255
CBC. NCOMB10. 146. 0. 255. 0. 128. 255. 160. 192. 255
CBC. NCOMB11. 212. 160. 255. 163. 255. 160. 255. 0. 192
CBC. NCOMB12. 128. 192. 0. 160. 192. 255. 163. 255. 160
CBC. NCOMB13. 0. 192. 128. 0. 192. 192. 255. 160. 255
CBC. NCOMB14. 255. 255. 87. 255. 255. 87. 0. 157. 192
CBC. NCOMB15. 192. 0. 128. 85. 192. 0. 255. 87. 128
CBC. NCOMB16. 0. 128. 128. 0. 192. 192. 192. 192. 0
CBC. NCOMB17. 0. 192. 192. 128. 192. 0. 255. 192. 160
CBC. NCOMB18. 0. 192. 192. 192. 192. 0. 192. 192. 0
CBC. NCOMB19. 0. 157. 192. 0. 192. 128. 0. 128. 255
CBC. NCOMB20. 192. 192. 192. 0. 128. 255. 128. 192. 0
CBC. NCOMB21. 255. 0. 128. 93. 255. 87. 255. 192. 160
CBC. NCOMB22. 255. 192. 87. 85. 192. 0. 255. 87. 128
CBC. NCOMB23. 192. 192. 192. 85. 192. 0. 128. 192. 0
CBC. NCOMB24. 85. 0. 192. 212. 160. 255. 85. 0. 192
CBC. NCOMB25. 78. 0. 255. 255. 255. 87. 255. 160. 255
CBC. NCOMB26. 146. 0. 255. 160. 192. 255. 255. 192. 160
CBC. NCOMB27. 192. 0. 192. 192. 0. 128. 255. 255. 87
CBC. NCOMB28. 255. 255. 87. 210. 210. 210. 192. 72. 0
CBC. NCOMB29. 93. 255. 87. 163. 160. 255. 93. 255. 87
CBC. NCOMB30. 0. 128. 192. 148. 87. 255. 255. 255. 87
CBC. NCOMB31. 0. 192. 128. 148. 87. 255. 255. 160. 255
CBC. NCOMB32. 192. 128. 0. 0. 192. 192. 0. 128. 255
CBC. NCOMB33. 255. 192. 87. 255. 160. 255. 0. 192. 192
CBC. NCOMB34. 0. 128. 57. 192. 72. 0. 255. 87. 128
CBC. NCOMB35. 255. 255. 87. 192. 72. 0. 85. 0. 192
ST. NCOMB1. 0. 192. 128. 255. 192. 87. 212. 160. 255
```

8.OUPUT

F R A M E E L E M E N T F O R C E S

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
1	USD(max)	I[1]	76.550	0.000	-443.690	0.00E+00	-150.210	0.000
1	USD(max)	1/4	76.550	0.000	-445.400	0.00E+00	-118.650	0.000
1	USD(max)	2/4	76.550	0.000	-447.100	0.00E+00	-86.970	0.000
1	USD(max)	3/4	76.550	0.000	-448.810	0.00E+00	-55.180	0.000
1	USD(max)	J[2]	76.550	0.000	-450.510	0.00E+00	-23.270	0.000
1	USD(min)	I[1]	-116.140	0.000	-541.210	0.00E+00	-195.070	0.000
1	USD(min)	1/4	-116.140	0.000	-543.230	0.00E+00	-158.940	0.000
1	USD(min)	2/4	-116.140	0.000	-545.250	0.00E+00	-122.660	0.000
1	USD(min)	3/4	-116.140	0.000	-547.270	0.00E+00	-86.240	0.000
1	USD(min)	J[2]	-116.140	0.000	-549.290	0.00E+00	-49.720	0.000
1	WSD(max)	I[1]	47.840	0.000	-302.560	0.00E+00	-107.310	0.000
1	WSD(max)	1/4	47.840	0.000	-303.820	0.00E+00	-86.470	0.000
1	WSD(max)	2/4	47.840	0.000	-305.080	0.00E+00	-65.040	0.000
1	WSD(max)	3/4	47.840	0.000	-306.350	0.00E+00	-41.580	0.000
1	WSD(max)	J[2]	47.840	0.000	-307.610	0.00E+00	-18.030	0.000
1	WSD(min)	I[1]	-66.250	0.000	-338.250	0.00E+00	-121.920	0.000
1	WSD(min)	1/4	-66.250	0.000	-339.520	0.00E+00	-99.330	0.000
1	WSD(min)	2/4	-66.250	0.000	-340.780	0.00E+00	-76.660	0.000
1	WSD(min)	3/4	-66.250	0.000	-342.040	0.00E+00	-53.900	0.000
1	WSD(min)	J[2]	-66.250	0.000	-343.310	0.00E+00	-31.050	0.000
2	USD(max)	I[2]	76.550	0.000	-265.020	0.00E+00	-23.270	0.000
2	USD(max)	1/4	76.550	0.000	-268.880	0.00E+00	25.060	0.000
2	USD(max)	2/4	76.550	0.000	-272.730	0.00E+00	76.480	0.000
2	USD(max)	3/4	76.550	0.000	-276.590	0.00E+00	128.620	0.000
2	USD(max)	J[3]	76.550	0.000	-280.450	0.00E+00	181.470	0.000
2	USD(min)	I[2]	-116.140	0.000	-324.260	0.00E+00	-49.720	0.000
2	USD(min)	1/4	-116.140	0.000	-328.830	0.00E+00	-7.060	0.000
2	USD(min)	2/4	-116.140	0.000	-333.400	0.00E+00	36.210	0.000
2	USD(min)	3/4	-116.140	0.000	-337.970	0.00E+00	80.080	0.000
2	USD(min)	J[3]	-116.140	0.000	-342.550	0.00E+00	123.600	0.000
2	WSD(max)	I[2]	47.840	0.000	-180.290	0.00E+00	-18.030	0.000
2	WSD(max)	1/4	47.840	0.000	-183.150	0.00E+00	13.680	0.000
2	WSD(max)	2/4	47.840	0.000	-186.010	0.00E+00	45.830	0.000
2	WSD(max)	3/4	47.840	0.000	-188.860	0.00E+00	78.420	0.000
2	WSD(max)	J[3]	47.840	0.000	-191.720	0.00E+00	111.460	0.000
2	WSD(min)	I[2]	-66.250	0.000	-202.660	0.00E+00	-31.050	0.000
2	WSD(min)	1/4	-66.250	0.000	-205.520	0.00E+00	-0.360	0.000
2	WSD(min)	2/4	-66.250	0.000	-208.380	0.00E+00	30.780	0.000
2	WSD(min)	3/4	-66.250	0.000	-211.230	0.00E+00	62.360	0.000
2	WSD(min)	J[3]	-66.250	0.000	-214.090	0.00E+00	92.280	0.000
3	USD(max)	I[3]	76.550	0.000	-155.480	0.00E+00	181.470	0.000
3	USD(max)	1/4	76.550	0.000	-159.340	0.00E+00	211.230	0.000
3	USD(max)	2/4	76.550	0.000	-163.190	0.00E+00	241.700	0.000
3	USD(max)	3/4	76.550	0.000	-167.040	0.00E+00	272.880	0.000
3	USD(max)	J[4]	76.550	0.000	-170.890	0.00E+00	304.770	0.000
3	USD(min)	I[3]	-116.140	0.000	-190.480	0.00E+00	123.600	0.000
3	USD(min)	1/4	-116.140	0.000	-195.040	0.00E+00	148.090	0.000
3	USD(min)	2/4	-116.140	0.000	-199.600	0.00E+00	173.170	0.000
3	USD(min)	3/4	-116.140	0.000	-204.170	0.00E+00	198.850	0.000
3	USD(min)	J[4]	-116.140	0.000	-208.730	0.00E+00	225.130	0.000
3	WSD(max)	I[3]	47.840	0.000	-105.240	0.00E+00	111.460	0.000
3	WSD(max)	1/4	47.840	0.000	-108.090	0.00E+00	130.060	0.000
3	WSD(max)	2/4	47.840	0.000	-110.940	0.00E+00	149.110	0.000
3	WSD(max)	3/4	47.840	0.000	-113.790	0.00E+00	168.610	0.000
3	WSD(max)	J[4]	47.840	0.000	-116.650	0.00E+00	188.540	0.000
3	WSD(min)	I[3]	-66.250	0.000	-119.050	0.00E+00	92.280	0.000
3	WSD(min)	1/4	-66.250	0.000	-121.900	0.00E+00	108.840	0.000
3	WSD(min)	2/4	-66.250	0.000	-124.750	0.00E+00	125.850	0.000
3	WSD(min)	3/4	-66.250	0.000	-127.610	0.00E+00	143.290	0.000
3	WSD(min)	J[4]	-66.250	0.000	-130.460	0.00E+00	161.180	0.000
4	USD(max)	I[4]	76.550	0.000	-48.170	0.00E+00	304.770	0.000
4	USD(max)	1/4	76.550	0.000	-52.030	0.00E+00	313.960	0.000
4	USD(max)	2/4	76.550	0.000	-55.880	0.00E+00	323.860	0.000
4	USD(max)	3/4	76.550	0.000	-59.740	0.00E+00	334.470	0.000
4	USD(max)	J[5]	76.550	0.000	-63.600	0.00E+00	345.800	0.000
4	USD(min)	I[4]	-116.140	0.000	-64.680	0.00E+00	225.130	0.000
4	USD(min)	1/4	-116.140	0.000	-69.250	0.00E+00	232.970	0.000
4	USD(min)	2/4	-116.140	0.000	-73.820	0.00E+00	241.410	0.000
4	USD(min)	3/4	-116.140	0.000	-78.400	0.00E+00	250.450	0.000
4	USD(min)	J[5]	-116.140	0.000	-82.970	0.00E+00	260.080	0.000
4	WSD(max)	I[4]	47.840	0.000	-31.140	0.00E+00	188.540	0.000
4	WSD(max)	1/4	47.840	0.000	-34.000	0.00E+00	194.290	0.000
4	WSD(max)	2/4	47.840	0.000	-36.860	0.00E+00	200.480	0.000
4	WSD(max)	3/4	47.840	0.000	-39.720	0.00E+00	207.110	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
4	WSD(max)	J[5]	47.840	0.000	-42.570	0.00E+00	214.190	0.000
4	WSD(min)	I[4]	-66.250	0.000	-40.430	0.00E+00	161.180	0.000
4	WSD(min)	1/4	-66.250	0.000	-43.280	0.00E+00	166.240	0.000
4	WSD(min)	2/4	-66.250	0.000	-46.140	0.00E+00	171.750	0.000
4	WSD(min)	3/4	-66.250	0.000	-49.000	0.00E+00	177.710	0.000
4	WSD(min)	J[5]	-66.250	0.000	-51.850	0.00E+00	184.110	0.000
5	USD(max)	I[5]	76.550	0.000	75.210	0.00E+00	345.800	0.000
5	USD(max)	1/4	76.550	0.000	70.640	0.00E+00	334.470	0.000
5	USD(max)	2/4	76.550	0.000	66.070	0.00E+00	323.860	0.000
5	USD(max)	3/4	76.550	0.000	61.490	0.00E+00	313.960	0.000
5	USD(max)	J[6]	76.550	0.000	56.920	0.00E+00	304.770	0.000
5	USD(min)	I[5]	-116.140	0.000	49.400	0.00E+00	260.080	0.000
5	USD(min)	1/4	-116.140	0.000	45.540	0.00E+00	251.480	0.000
5	USD(min)	2/4	-116.140	0.000	41.680	0.00E+00	243.470	0.000
5	USD(min)	3/4	-116.140	0.000	37.820	0.00E+00	236.060	0.000
5	USD(min)	J[6]	-116.140	0.000	33.970	0.00E+00	229.240	0.000
5	WSD(max)	I[5]	47.840	0.000	47.010	0.00E+00	214.190	0.000
5	WSD(max)	1/4	47.840	0.000	44.150	0.00E+00	207.110	0.000
5	WSD(max)	2/4	47.840	0.000	41.290	0.00E+00	200.480	0.000
5	WSD(max)	3/4	47.840	0.000	38.430	0.00E+00	194.290	0.000
5	WSD(max)	J[6]	47.840	0.000	35.580	0.00E+00	189.250	0.000
5	WSD(min)	I[5]	-66.250	0.000	37.530	0.00E+00	184.110	0.000
5	WSD(min)	1/4	-66.250	0.000	34.670	0.00E+00	177.710	0.000
5	WSD(min)	2/4	-66.250	0.000	31.820	0.00E+00	171.750	0.000
5	WSD(min)	3/4	-66.250	0.000	28.960	0.00E+00	166.240	0.000
5	WSD(min)	J[6]	-66.250	0.000	26.100	0.00E+00	161.180	0.000
6	USD(max)	I[6]	76.550	0.000	207.980	0.00E+00	304.770	0.000
6	USD(max)	1/4	76.550	0.000	203.420	0.00E+00	274.440	0.000
6	USD(max)	2/4	76.550	0.000	198.850	0.00E+00	246.770	0.000
6	USD(max)	3/4	76.550	0.000	194.290	0.00E+00	219.820	0.000
6	USD(max)	J[7]	76.550	0.000	189.720	0.00E+00	193.570	0.000
6	USD(min)	I[6]	-116.140	0.000	156.850	0.00E+00	229.240	0.000
6	USD(min)	1/4	-116.140	0.000	153.000	0.00E+00	204.300	0.000
6	USD(min)	2/4	-116.140	0.000	149.140	0.00E+00	179.950	0.000
6	USD(min)	3/4	-116.140	0.000	145.290	0.00E+00	156.210	0.000
6	USD(min)	J[7]	-116.140	0.000	141.440	0.00E+00	133.060	0.000
6	WSD(max)	I[6]	47.840	0.000	129.990	0.00E+00	189.250	0.000
6	WSD(max)	1/4	47.840	0.000	127.140	0.00E+00	171.520	0.000
6	WSD(max)	2/4	47.840	0.000	124.280	0.00E+00	154.230	0.000
6	WSD(max)	3/4	47.840	0.000	121.430	0.00E+00	137.390	0.000
6	WSD(max)	J[7]	47.840	0.000	118.580	0.00E+00	120.980	0.000
6	WSD(min)	I[6]	-66.250	0.000	115.640	0.00E+00	161.180	0.000
6	WSD(min)	1/4	-66.250	0.000	112.790	0.00E+00	143.290	0.000
6	WSD(min)	2/4	-66.250	0.000	109.940	0.00E+00	125.850	0.000
6	WSD(min)	3/4	-66.250	0.000	107.090	0.00E+00	108.840	0.000
6	WSD(min)	J[7]	-66.250	0.000	104.230	0.00E+00	92.280	0.000
7	USD(max)	I[7]	76.550	0.000	342.550	0.00E+00	193.570	0.000
7	USD(max)	1/4	76.550	0.000	337.970	0.00E+00	145.490	0.000
7	USD(max)	2/4	76.550	0.000	333.400	0.00E+00	98.130	0.000
7	USD(max)	3/4	76.550	0.000	328.830	0.00E+00	51.470	0.000
7	USD(max)	J[8]	76.550	0.000	324.260	0.00E+00	8.560	0.000
7	USD(min)	I[7]	-116.140	0.000	265.320	0.00E+00	133.060	0.000
7	USD(min)	1/4	-116.140	0.000	261.460	0.00E+00	91.630	0.000
7	USD(min)	2/4	-116.140	0.000	257.610	0.00E+00	47.450	0.000
7	USD(min)	3/4	-116.140	0.000	253.750	0.00E+00	3.820	0.000
7	USD(min)	J[8]	-116.140	0.000	249.890	0.00E+00	-41.600	0.000
7	WSD(max)	I[7]	47.840	0.000	214.090	0.00E+00	120.980	0.000
7	WSD(max)	1/4	47.840	0.000	211.230	0.00E+00	90.930	0.000
7	WSD(max)	2/4	47.840	0.000	208.380	0.00E+00	61.330	0.000
7	WSD(max)	3/4	47.840	0.000	205.520	0.00E+00	32.170	0.000
7	WSD(max)	J[8]	47.840	0.000	202.660	0.00E+00	3.450	0.000
7	WSD(min)	I[7]	-66.250	0.000	191.720	0.00E+00	92.280	0.000
7	WSD(min)	1/4	-66.250	0.000	188.860	0.00E+00	62.690	0.000
7	WSD(min)	2/4	-66.250	0.000	186.010	0.00E+00	33.550	0.000
7	WSD(min)	3/4	-66.250	0.000	183.150	0.00E+00	4.850	0.000
7	WSD(min)	J[8]	-66.250	0.000	180.290	0.00E+00	-26.000	0.000
8	USD(max)	I[8]	76.550	0.000	549.290	0.00E+00	8.560	0.000
8	USD(max)	1/4	76.550	0.000	547.270	0.00E+00	-21.070	0.000
8	USD(max)	2/4	76.550	0.000	545.250	0.00E+00	-50.590	0.000
8	USD(max)	3/4	76.550	0.000	543.230	0.00E+00	-79.990	0.000
8	USD(max)	J[9]	76.550	0.000	541.210	0.00E+00	-109.270	0.000
8	USD(min)	I[8]	-116.140	0.000	429.510	0.00E+00	-41.600	0.000
8	USD(min)	1/4	-116.140	0.000	427.800	0.00E+00	-79.290	0.000
8	USD(min)	2/4	-116.140	0.000	426.100	0.00E+00	-116.850	0.000
8	USD(min)	3/4	-116.140	0.000	424.390	0.00E+00	-154.270	0.000
8	USD(min)	J[9]	-116.140	0.000	422.690	0.00E+00	-191.540	0.000
8	WSD(max)	I[8]	47.840	0.000	343.310	0.00E+00	3.450	0.000
8	WSD(max)	1/4	47.840	0.000	342.040	0.00E+00	-18.250	0.000
8	WSD(max)	2/4	47.840	0.000	340.780	0.00E+00	-39.870	0.000
8	WSD(max)	3/4	47.840	0.000	339.520	0.00E+00	-61.400	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
8	WSD(max)	J[9]	47.840	0.000	338.250	0.00E+00	-82.840	0.000
8	WSD(min)	I[8]	-66.250	0.000	307.610	0.00E+00	-26.000	0.000
8	WSD(min)	1/4	-66.250	0.000	306.350	0.00E+00	-49.560	0.000
8	WSD(min)	2/4	-66.250	0.000	305.080	0.00E+00	-73.030	0.000
8	WSD(min)	3/4	-66.250	0.000	303.820	0.00E+00	-96.420	0.000
8	WSD(min)	J[9]	-66.250	0.000	302.560	0.00E+00	-119.710	0.000
9	USD(max)	I[1]	-647.580	0.000	29.990	0.00E+00	-257.730	0.000
9	USD(max)	1/4	-644.540	0.000	31.240	0.00E+00	-254.050	0.000
9	USD(max)	2/4	-641.500	0.000	32.480	0.00E+00	-250.720	0.000
9	USD(max)	3/4	-638.470	0.000	33.710	0.00E+00	-247.760	0.000
9	USD(max)	J[10]	-635.430	0.000	34.930	0.00E+00	-245.150	0.000
9	USD(min)	I[1]	-786.980	0.000	-81.760	0.00E+00	-330.230	0.000
9	USD(min)	1/4	-783.380	0.000	-74.370	0.00E+00	-330.910	0.000
9	USD(min)	2/4	-779.780	0.000	-67.030	0.00E+00	-331.700	0.000
9	USD(min)	3/4	-776.180	0.000	-59.710	0.00E+00	-332.600	0.000
9	USD(min)	J[10]	-772.570	0.000	-52.430	0.00E+00	-333.610	0.000
9	WSD(max)	I[1]	-441.100	0.000	16.560	0.00E+00	-174.400	0.000
9	WSD(max)	1/4	-438.850	0.000	17.460	0.00E+00	-172.820	0.000
9	WSD(max)	2/4	-436.600	0.000	18.360	0.00E+00	-171.430	0.000
9	WSD(max)	3/4	-434.350	0.000	19.240	0.00E+00	-170.260	0.000
9	WSD(max)	J[10]	-432.100	0.000	20.110	0.00E+00	-169.280	0.000
9	WSD(min)	I[1]	-491.860	0.000	-43.980	0.00E+00	-206.390	0.000
9	WSD(min)	1/4	-489.610	0.000	-39.430	0.00E+00	-206.820	0.000
9	WSD(min)	2/4	-487.360	0.000	-34.900	0.00E+00	-207.310	0.000
9	WSD(min)	3/4	-485.110	0.000	-30.400	0.00E+00	-207.870	0.000
9	WSD(min)	J[10]	-482.860	0.000	-25.910	0.00E+00	-208.500	0.000
10	USD(max)	I[9]	-614.460	0.000	76.550	0.00E+00	-237.590	0.000
10	USD(max)	1/4	-611.420	0.000	76.550	0.00E+00	-235.130	0.000
10	USD(max)	2/4	-608.380	0.000	76.550	0.00E+00	-233.000	0.000
10	USD(max)	3/4	-605.340	0.000	76.550	0.00E+00	-231.200	0.000
10	USD(max)	J[11]	-602.300	0.000	76.550	0.00E+00	-229.720	0.000
10	USD(min)	I[9]	-786.980	0.000	-67.320	0.00E+00	-323.470	0.000
10	USD(min)	1/4	-783.380	0.000	-59.940	0.00E+00	-324.120	0.000
10	USD(min)	2/4	-779.780	0.000	-52.590	0.00E+00	-324.930	0.000
10	USD(min)	3/4	-776.180	0.000	-45.280	0.00E+00	-325.890	0.000
10	USD(min)	J[11]	-772.570	0.000	-38.000	0.00E+00	-327.010	0.000
10	WSD(max)	I[9]	-441.100	0.000	47.840	0.00E+00	-174.400	0.000
10	WSD(max)	1/4	-438.850	0.000	47.840	0.00E+00	-172.820	0.000
10	WSD(max)	2/4	-436.600	0.000	47.840	0.00E+00	-171.430	0.000
10	WSD(max)	3/4	-434.350	0.000	47.840	0.00E+00	-170.260	0.000
10	WSD(max)	J[11]	-432.100	0.000	47.840	0.00E+00	-169.280	0.000
10	WSD(min)	I[9]	-491.860	0.000	-36.170	0.00E+00	-200.820	0.000
10	WSD(min)	1/4	-489.610	0.000	-31.620	0.00E+00	-200.810	0.000
10	WSD(min)	2/4	-487.360	0.000	-27.100	0.00E+00	-200.910	0.000
10	WSD(min)	3/4	-485.110	0.000	-22.590	0.00E+00	-201.150	0.000
10	WSD(min)	J[11]	-482.860	0.000	-18.110	0.00E+00	-201.500	0.000
11	USD(max)	I[10]	-635.430	0.000	34.930	0.00E+00	-245.150	0.000
11	USD(max)	1/4	-633.810	0.000	36.610	0.00E+00	-242.090	0.000
11	USD(max)	2/4	-632.190	0.000	38.260	0.00E+00	-239.730	0.000
11	USD(max)	3/4	-630.570	0.000	39.890	0.00E+00	-238.040	0.000
11	USD(max)	J[12]	-628.940	0.000	41.500	0.00E+00	-237.030	0.000
11	USD(min)	I[10]	-772.570	0.000	-52.430	0.00E+00	-333.610	0.000
11	USD(min)	1/4	-770.650	0.000	-42.300	0.00E+00	-335.880	0.000
11	USD(min)	2/4	-768.730	0.000	-32.230	0.00E+00	-338.500	0.000
11	USD(min)	3/4	-766.810	0.000	-22.230	0.00E+00	-341.240	0.000
11	USD(min)	J[12]	-764.890	0.000	-12.300	0.00E+00	-344.090	0.000
11	WSD(max)	I[10]	-432.100	0.000	20.110	0.00E+00	-169.280	0.000
11	WSD(max)	1/4	-430.900	0.000	21.320	0.00E+00	-168.260	0.000
11	WSD(max)	2/4	-429.700	0.000	22.500	0.00E+00	-167.630	0.000
11	WSD(max)	3/4	-428.500	0.000	23.660	0.00E+00	-167.390	0.000
11	WSD(max)	J[12]	-427.300	0.000	24.810	0.00E+00	-167.540	0.000
11	WSD(min)	I[10]	-482.860	0.000	-25.910	0.00E+00	-208.500	0.000
11	WSD(min)	1/4	-481.660	0.000	-19.670	0.00E+00	-209.840	0.000
11	WSD(min)	2/4	-480.460	0.000	-13.470	0.00E+00	-211.370	0.000
11	WSD(min)	3/4	-479.260	0.000	-7.310	0.00E+00	-212.990	0.000
11	WSD(min)	J[12]	-478.060	0.000	-1.190	0.00E+00	-214.690	0.000
12	USD(max)	I[11]	-602.300	0.000	76.550	0.00E+00	-229.720	0.000
12	USD(max)	1/4	-600.680	0.000	76.550	0.00E+00	-228.200	0.000
12	USD(max)	2/4	-599.060	0.000	76.550	0.00E+00	-227.310	0.000
12	USD(max)	3/4	-597.440	0.000	76.550	0.00E+00	-227.050	0.000
12	USD(max)	J[13]	-595.820	0.000	76.550	0.00E+00	-227.410	0.000
12	USD(min)	I[11]	-772.570	0.000	-38.000	0.00E+00	-327.010	0.000
12	USD(min)	1/4	-770.650	0.000	-27.860	0.00E+00	-328.830	0.000
12	USD(min)	2/4	-768.730	0.000	-18.030	0.00E+00	-330.960	0.000
12	USD(min)	3/4	-766.810	0.000	-8.290	0.00E+00	-333.390	0.000
12	USD(min)	J[13]	-764.890	0.000	1.380	0.00E+00	-336.120	0.000
12	WSD(max)	I[11]	-432.100	0.000	47.840	0.00E+00	-169.280	0.000
12	WSD(max)	1/4	-430.900	0.000	47.840	0.00E+00	-168.260	0.000
12	WSD(max)	2/4	-429.700	0.000	47.840	0.00E+00	-167.630	0.000
12	WSD(max)	3/4	-428.500	0.000	47.840	0.00E+00	-167.390	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
12	WSD(max)	J[13]	-427.300	0.000	47.840	0.00E+00	-167.540	0.000
12	WSD(min)	I[11]	-482.860	0.000	-18.110	0.00E+00	-201.500	0.000
12	WSD(min)	1/4	-481.660	0.000	-11.870	0.00E+00	-202.210	0.000
12	WSD(min)	2/4	-480.460	0.000	-6.180	0.00E+00	-203.150	0.000
12	WSD(min)	3/4	-479.260	0.000	-0.610	0.00E+00	-204.590	0.000
12	WSD(min)	J[13]	-478.060	0.000	4.920	0.00E+00	-207.770	0.000
13	USD(max)	I[12]	-628.940	0.000	41.500	0.00E+00	-237.030	0.000
13	USD(max)	1/4	-627.320	0.000	45.330	0.00E+00	-236.700	0.000
13	USD(max)	2/4	-625.700	0.000	49.540	0.00E+00	-237.040	0.000
13	USD(max)	3/4	-624.080	0.000	53.720	0.00E+00	-238.040	0.000
13	USD(max)	J[14]	-622.460	0.000	57.880	0.00E+00	-239.710	0.000
13	USD(min)	I[12]	-764.890	0.000	-12.300	0.00E+00	-344.090	0.000
13	USD(min)	1/4	-762.970	0.000	-2.430	0.00E+00	-347.050	0.000
13	USD(min)	2/4	-761.050	0.000	7.370	0.00E+00	-350.120	0.000
13	USD(min)	3/4	-759.130	0.000	17.100	0.00E+00	-353.290	0.000
13	USD(min)	J[14]	-757.210	0.000	26.770	0.00E+00	-356.580	0.000
13	WSD(max)	I[12]	-427.300	0.000	24.810	0.00E+00	-167.540	0.000
13	WSD(max)	1/4	-426.100	0.000	25.930	0.00E+00	-168.080	0.000
13	WSD(max)	2/4	-424.900	0.000	28.510	0.00E+00	-169.000	0.000
13	WSD(max)	3/4	-423.690	0.000	31.800	0.00E+00	-170.300	0.000
13	WSD(max)	J[14]	-422.490	0.000	35.070	0.00E+00	-171.970	0.000
13	WSD(min)	I[12]	-478.060	0.000	-1.190	0.00E+00	-214.690	0.000
13	WSD(min)	1/4	-476.860	0.000	4.880	0.00E+00	-216.460	0.000
13	WSD(min)	2/4	-475.660	0.000	10.910	0.00E+00	-218.310	0.000
13	WSD(min)	3/4	-474.460	0.000	16.910	0.00E+00	-220.240	0.000
13	WSD(min)	J[14]	-473.260	0.000	22.860	0.00E+00	-222.250	0.000
14	USD(max)	I[13]	-595.820	0.000	76.550	0.00E+00	-227.410	0.000
14	USD(max)	1/4	-594.200	0.000	76.550	0.00E+00	-228.380	0.000
14	USD(max)	2/4	-592.580	0.000	76.550	0.00E+00	-229.970	0.000
14	USD(max)	3/4	-590.960	0.000	76.550	0.00E+00	-232.160	0.000
14	USD(max)	J[15]	-589.340	0.000	76.550	0.00E+00	-234.960	0.000
14	USD(min)	I[13]	-764.890	0.000	1.380	0.00E+00	-336.120	0.000
14	USD(min)	1/4	-762.970	0.000	10.980	0.00E+00	-339.140	0.000
14	USD(min)	2/4	-761.050	0.000	20.510	0.00E+00	-343.060	0.000
14	USD(min)	3/4	-759.130	0.000	29.980	0.00E+00	-348.080	0.000
14	USD(min)	J[15]	-757.210	0.000	39.380	0.00E+00	-353.100	0.000
14	WSD(max)	I[13]	-427.300	0.000	47.840	0.00E+00	-167.540	0.000
14	WSD(max)	1/4	-426.100	0.000	47.840	0.00E+00	-168.080	0.000
14	WSD(max)	2/4	-424.900	0.000	47.840	0.00E+00	-169.000	0.000
14	WSD(max)	3/4	-423.690	0.000	47.840	0.00E+00	-170.300	0.000
14	WSD(max)	J[15]	-422.490	0.000	47.840	0.00E+00	-171.970	0.000
14	WSD(min)	I[13]	-478.060	0.000	4.920	0.00E+00	-207.770	0.000
14	WSD(min)	1/4	-476.860	0.000	10.400	0.00E+00	-210.940	0.000
14	WSD(min)	2/4	-475.660	0.000	15.850	0.00E+00	-214.120	0.000
14	WSD(min)	3/4	-474.460	0.000	21.250	0.00E+00	-217.300	0.000
14	WSD(min)	J[15]	-473.260	0.000	26.610	0.00E+00	-220.480	0.000
15	USD(max)	I[14]	-622.460	0.000	57.880	0.00E+00	-239.710	0.000
15	USD(max)	1/4	-620.840	0.000	62.010	0.00E+00	-242.030	0.000
15	USD(max)	2/4	-619.220	0.000	67.890	0.00E+00	-245.000	0.000
15	USD(max)	3/4	-617.600	0.000	77.210	0.00E+00	-248.610	0.000
15	USD(max)	J[16]	-615.980	0.000	86.460	0.00E+00	-252.870	0.000
15	USD(min)	I[14]	-757.210	0.000	26.770	0.00E+00	-356.580	0.000
15	USD(min)	1/4	-755.290	0.000	35.360	0.00E+00	-359.970	0.000
15	USD(min)	2/4	-753.370	0.000	37.820	0.00E+00	-363.460	0.000
15	USD(min)	3/4	-751.450	0.000	40.210	0.00E+00	-367.050	0.000
15	USD(min)	J[16]	-749.530	0.000	42.530	0.00E+00	-370.740	0.000
15	WSD(max)	I[14]	-422.490	0.000	35.070	0.00E+00	-171.970	0.000
15	WSD(max)	1/4	-421.290	0.000	38.320	0.00E+00	-174.020	0.000
15	WSD(max)	2/4	-420.090	0.000	42.430	0.00E+00	-176.440	0.000
15	WSD(max)	3/4	-418.890	0.000	48.260	0.00E+00	-179.230	0.000
15	WSD(max)	J[16]	-417.690	0.000	54.040	0.00E+00	-182.380	0.000
15	WSD(min)	I[14]	-473.260	0.000	22.860	0.00E+00	-222.250	0.000
15	WSD(min)	1/4	-472.050	0.000	28.130	0.00E+00	-224.330	0.000
15	WSD(min)	2/4	-470.850	0.000	29.580	0.00E+00	-226.480	0.000
15	WSD(min)	3/4	-469.650	0.000	30.980	0.00E+00	-228.700	0.000
15	WSD(min)	J[16]	-468.450	0.000	32.340	0.00E+00	-230.990	0.000
16	USD(max)	I[15]	-589.340	0.000	76.550	0.00E+00	-234.960	0.000
16	USD(max)	1/4	-587.720	0.000	76.550	0.00E+00	-238.350	0.000
16	USD(max)	2/4	-586.100	0.000	76.550	0.00E+00	-242.340	0.000
16	USD(max)	3/4	-584.480	0.000	79.930	0.00E+00	-246.920	0.000
16	USD(max)	J[17]	-582.860	0.000	88.240	0.00E+00	-252.080	0.000
16	USD(min)	I[15]	-757.210	0.000	39.380	0.00E+00	-353.100	0.000
16	USD(min)	1/4	-755.290	0.000	48.720	0.00E+00	-358.110	0.000
16	USD(min)	2/4	-753.370	0.000	56.220	0.00E+00	-363.130	0.000
16	USD(min)	3/4	-751.450	0.000	60.180	0.00E+00	-368.140	0.000
16	USD(min)	J[17]	-749.530	0.000	64.120	0.00E+00	-373.160	0.000
16	WSD(max)	I[15]	-422.490	0.000	47.840	0.00E+00	-171.970	0.000
16	WSD(max)	1/4	-421.290	0.000	47.840	0.00E+00	-174.020	0.000
16	WSD(max)	2/4	-420.090	0.000	47.840	0.00E+00	-176.440	0.000
16	WSD(max)	3/4	-418.890	0.000	49.960	0.00E+00	-179.230	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
16	WSD(max)	J[17]	-417.690	0.000	55.150	0.00E+00	-182.380	0.000
16	WSD(min)	I[15]	-473.260	0.000	26.610	0.00E+00	-220.480	0.000
16	WSD(min)	1/4	-472.050	0.000	31.930	0.00E+00	-223.660	0.000
16	WSD(min)	2/4	-470.850	0.000	37.210	0.00E+00	-226.830	0.000
16	WSD(min)	3/4	-469.650	0.000	42.440	0.00E+00	-230.010	0.000
16	WSD(min)	J[17]	-468.450	0.000	45.400	0.00E+00	-233.190	0.000
17	USD(max)	I[16]	-615.980	0.000	86.460	0.00E+00	-252.870	0.000
17	USD(max)	1/4	-614.360	0.000	95.650	0.00E+00	-257.770	0.000
17	USD(max)	2/4	-612.740	0.000	104.770	0.00E+00	-263.300	0.000
17	USD(max)	3/4	-611.120	0.000	113.820	0.00E+00	-269.450	0.000
17	USD(max)	J[18]	-609.500	0.000	122.800	0.00E+00	-276.230	0.000
17	USD(min)	I[16]	-749.530	0.000	42.530	0.00E+00	-370.740	0.000
17	USD(min)	1/4	-747.600	0.000	44.790	0.00E+00	-374.530	0.000
17	USD(min)	2/4	-745.680	0.000	46.980	0.00E+00	-379.450	0.000
17	USD(min)	3/4	-743.760	0.000	48.740	0.00E+00	-385.350	0.000
17	USD(min)	J[18]	-741.840	0.000	50.190	0.00E+00	-391.530	0.000
17	WSD(max)	I[16]	-417.690	0.000	54.040	0.00E+00	-182.380	0.000
17	WSD(max)	1/4	-416.490	0.000	59.780	0.00E+00	-185.900	0.000
17	WSD(max)	2/4	-415.290	0.000	65.480	0.00E+00	-189.770	0.000
17	WSD(max)	3/4	-414.090	0.000	71.140	0.00E+00	-194.000	0.000
17	WSD(max)	J[18]	-412.890	0.000	76.750	0.00E+00	-198.590	0.000
17	WSD(min)	I[16]	-468.450	0.000	32.340	0.00E+00	-230.990	0.000
17	WSD(min)	1/4	-467.250	0.000	33.660	0.00E+00	-233.340	0.000
17	WSD(min)	2/4	-466.050	0.000	34.940	0.00E+00	-235.770	0.000
17	WSD(min)	3/4	-464.850	0.000	35.990	0.00E+00	-238.250	0.000
17	WSD(min)	J[18]	-463.650	0.000	36.880	0.00E+00	-240.800	0.000
18	USD(max)	I[17]	-582.860	0.000	88.240	0.00E+00	-252.080	0.000
18	USD(max)	1/4	-581.240	0.000	96.480	0.00E+00	-257.820	0.000
18	USD(max)	2/4	-579.610	0.000	104.770	0.00E+00	-264.130	0.000
18	USD(max)	3/4	-577.990	0.000	113.820	0.00E+00	-271.020	0.000
18	USD(max)	J[19]	-576.370	0.000	122.800	0.00E+00	-278.470	0.000
18	USD(min)	I[17]	-749.530	0.000	64.120	0.00E+00	-373.160	0.000
18	USD(min)	1/4	-747.600	0.000	64.670	0.00E+00	-378.230	0.000
18	USD(min)	2/4	-745.680	0.000	64.670	0.00E+00	-383.590	0.000
18	USD(min)	3/4	-743.760	0.000	64.670	0.00E+00	-388.950	0.000
18	USD(min)	J[19]	-741.840	0.000	64.670	0.00E+00	-394.310	0.000
18	WSD(max)	I[17]	-417.690	0.000	55.150	0.00E+00	-182.380	0.000
18	WSD(max)	1/4	-416.490	0.000	60.300	0.00E+00	-185.900	0.000
18	WSD(max)	2/4	-415.290	0.000	65.480	0.00E+00	-189.770	0.000
18	WSD(max)	3/4	-414.090	0.000	71.140	0.00E+00	-194.000	0.000
18	WSD(max)	J[19]	-412.890	0.000	76.750	0.00E+00	-198.590	0.000
18	WSD(min)	I[17]	-468.450	0.000	45.400	0.00E+00	-233.190	0.000
18	WSD(min)	1/4	-467.250	0.000	45.400	0.00E+00	-236.400	0.000
18	WSD(min)	2/4	-466.050	0.000	45.400	0.00E+00	-239.740	0.000
18	WSD(min)	3/4	-464.850	0.000	45.400	0.00E+00	-243.090	0.000
18	WSD(min)	J[19]	-463.650	0.000	45.400	0.00E+00	-246.440	0.000
19	USD(max)	I[18]	-609.500	0.000	122.800	0.00E+00	-276.230	0.000
19	USD(max)	1/4	-607.880	0.000	131.720	0.00E+00	-283.630	0.000
19	USD(max)	2/4	-606.260	0.000	140.570	0.00E+00	-291.640	0.000
19	USD(max)	3/4	-604.630	0.000	149.360	0.00E+00	-300.260	0.000
19	USD(max)	J[20]	-603.010	0.000	158.080	0.00E+00	-309.480	0.000
19	USD(min)	I[18]	-741.840	0.000	50.190	0.00E+00	-391.530	0.000
19	USD(min)	1/4	-739.920	0.000	51.620	0.00E+00	-397.990	0.000
19	USD(min)	2/4	-738.000	0.000	53.020	0.00E+00	-404.720	0.000
19	USD(min)	3/4	-736.080	0.000	54.400	0.00E+00	-411.720	0.000
19	USD(min)	J[20]	-734.160	0.000	55.750	0.00E+00	-418.990	0.000
19	WSD(max)	I[18]	-412.890	0.000	76.750	0.00E+00	-198.590	0.000
19	WSD(max)	1/4	-411.690	0.000	82.330	0.00E+00	-203.520	0.000
19	WSD(max)	2/4	-410.490	0.000	87.860	0.00E+00	-208.800	0.000
19	WSD(max)	3/4	-409.290	0.000	93.350	0.00E+00	-214.430	0.000
19	WSD(max)	J[20]	-408.090	0.000	98.800	0.00E+00	-220.400	0.000
19	WSD(min)	I[18]	-463.650	0.000	36.880	0.00E+00	-240.800	0.000
19	WSD(min)	1/4	-462.450	0.000	37.750	0.00E+00	-244.870	0.000
19	WSD(min)	2/4	-461.250	0.000	38.600	0.00E+00	-249.430	0.000
19	WSD(min)	3/4	-460.050	0.000	39.430	0.00E+00	-254.200	0.000
19	WSD(min)	J[20]	-458.850	0.000	40.230	0.00E+00	-259.180	0.000
20	USD(max)	I[19]	-576.370	0.000	122.800	0.00E+00	-278.470	0.000
20	USD(max)	1/4	-574.750	0.000	131.720	0.00E+00	-286.480	0.000
20	USD(max)	2/4	-573.130	0.000	140.570	0.00E+00	-295.050	0.000
20	USD(max)	3/4	-571.510	0.000	149.360	0.00E+00	-304.160	0.000
20	USD(max)	J[21]	-569.890	0.000	158.080	0.00E+00	-313.830	0.000
20	USD(min)	I[19]	-741.840	0.000	64.670	0.00E+00	-394.310	0.000
20	USD(min)	1/4	-739.920	0.000	64.670	0.00E+00	-399.670	0.000
20	USD(min)	2/4	-738.000	0.000	64.670	0.00E+00	-405.030	0.000
20	USD(min)	3/4	-736.080	0.000	64.670	0.00E+00	-411.720	0.000
20	USD(min)	J[21]	-734.160	0.000	64.670	0.00E+00	-418.990	0.000
20	WSD(max)	I[19]	-412.890	0.000	76.750	0.00E+00	-198.590	0.000
20	WSD(max)	1/4	-411.690	0.000	82.330	0.00E+00	-203.520	0.000
20	WSD(max)	2/4	-410.490	0.000	87.860	0.00E+00	-208.800	0.000
20	WSD(max)	3/4	-409.290	0.000	93.350	0.00E+00	-214.430	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
20	WSD(max)	J[21]	-408.090	0.000	98.800	0.00E+00	-220.400	0.000
20	WSD(min)	I[19]	-463.650	0.000	45.400	0.00E+00	-246.440	0.000
20	WSD(min)	1/4	-462.450	0.000	45.400	0.00E+00	-249.790	0.000
20	WSD(min)	2/4	-461.250	0.000	45.400	0.00E+00	-253.140	0.000
20	WSD(min)	3/4	-460.050	0.000	45.400	0.00E+00	-256.490	0.000
20	WSD(min)	J[21]	-458.850	0.000	45.400	0.00E+00	-259.840	0.000
21	USD(max)	I[20]	-603.010	0.000	158.080	0.00E+00	-309.480	0.000
21	USD(max)	1/4	-600.120	0.000	164.260	0.00E+00	-316.440	0.000
21	USD(max)	2/4	-597.230	0.000	170.410	0.00E+00	-323.700	0.000
21	USD(max)	3/4	-594.330	0.000	176.530	0.00E+00	-331.260	0.000
21	USD(max)	J[22]	-591.440	0.000	182.620	0.00E+00	-339.130	0.000
21	USD(min)	I[20]	-734.160	0.000	55.750	0.00E+00	-418.990	0.000
21	USD(min)	1/4	-730.730	0.000	56.700	0.00E+00	-424.350	0.000
21	USD(min)	2/4	-727.300	0.000	57.630	0.00E+00	-429.850	0.000
21	USD(min)	3/4	-723.870	0.000	58.560	0.00E+00	-435.480	0.000
21	USD(min)	J[22]	-720.440	0.000	59.470	0.00E+00	-441.250	0.000
21	WSD(max)	I[20]	-408.090	0.000	98.800	0.00E+00	-220.400	0.000
21	WSD(max)	1/4	-405.940	0.000	102.660	0.00E+00	-224.870	0.000
21	WSD(max)	2/4	-403.800	0.000	106.510	0.00E+00	-229.510	0.000
21	WSD(max)	3/4	-401.660	0.000	110.330	0.00E+00	-234.330	0.000
21	WSD(max)	J[22]	-399.510	0.000	114.130	0.00E+00	-239.310	0.000
21	WSD(min)	I[20]	-458.850	0.000	40.230	0.00E+00	-259.180	0.000
21	WSD(min)	1/4	-456.710	0.000	40.800	0.00E+00	-262.870	0.000
21	WSD(min)	2/4	-454.560	0.000	41.350	0.00E+00	-266.660	0.000
21	WSD(min)	3/4	-452.420	0.000	41.900	0.00E+00	-270.560	0.000
21	WSD(min)	J[22]	-450.270	0.000	42.430	0.00E+00	-274.570	0.000
22	USD(max)	I[21]	-569.890	0.000	158.080	0.00E+00	-313.830	0.000
22	USD(max)	1/4	-567.000	0.000	164.260	0.00E+00	-321.070	0.000
22	USD(max)	2/4	-564.100	0.000	170.410	0.00E+00	-328.580	0.000
22	USD(max)	3/4	-561.210	0.000	176.530	0.00E+00	-336.360	0.000
22	USD(max)	J[30]	-558.310	0.000	182.620	0.00E+00	-344.410	0.000
22	USD(min)	I[21]	-734.160	0.000	64.670	0.00E+00	-418.990	0.000
22	USD(min)	1/4	-730.730	0.000	64.670	0.00E+00	-424.350	0.000
22	USD(min)	2/4	-727.300	0.000	64.670	0.00E+00	-429.850	0.000
22	USD(min)	3/4	-723.870	0.000	64.670	0.00E+00	-435.480	0.000
22	USD(min)	J[30]	-720.440	0.000	64.670	0.00E+00	-441.250	0.000
22	WSD(max)	I[21]	-408.090	0.000	98.800	0.00E+00	-220.400	0.000
22	WSD(max)	1/4	-405.940	0.000	102.660	0.00E+00	-224.870	0.000
22	WSD(max)	2/4	-403.800	0.000	106.510	0.00E+00	-229.510	0.000
22	WSD(max)	3/4	-401.660	0.000	110.330	0.00E+00	-234.330	0.000
22	WSD(max)	J[30]	-399.510	0.000	114.130	0.00E+00	-239.310	0.000
22	WSD(min)	I[21]	-458.850	0.000	45.400	0.00E+00	-259.840	0.000
22	WSD(min)	1/4	-456.710	0.000	45.400	0.00E+00	-262.870	0.000
22	WSD(min)	2/4	-454.560	0.000	45.400	0.00E+00	-266.660	0.000
22	WSD(min)	3/4	-452.420	0.000	45.400	0.00E+00	-270.560	0.000
22	WSD(min)	J[30]	-450.270	0.000	45.400	0.00E+00	-274.570	0.000
23	USD(max)	I[22]	-64.670	0.000	-515.610	0.00E+00	-203.290	0.000
23	USD(max)	1/4	-64.670	0.000	-502.970	0.00E+00	-177.270	0.000
23	USD(max)	2/4	-64.670	0.000	-490.330	0.00E+00	-151.920	0.000
23	USD(max)	3/4	-64.670	0.000	-477.700	0.00E+00	-127.210	0.000
23	USD(max)	J[23]	-64.670	0.000	-465.060	0.00E+00	-103.170	0.000
23	USD(min)	I[22]	-218.400	0.000	-630.940	0.00E+00	-289.040	0.000
23	USD(min)	1/4	-218.400	0.000	-616.030	0.00E+00	-257.860	0.000
23	USD(min)	2/4	-218.400	0.000	-601.110	0.00E+00	-227.440	0.000
23	USD(min)	3/4	-218.400	0.000	-586.200	0.00E+00	-197.750	0.000
23	USD(min)	J[23]	-218.400	0.000	-571.280	0.00E+00	-168.820	0.000
23	WSD(max)	I[22]	-45.400	0.000	-349.880	0.00E+00	-149.300	0.000
23	WSD(max)	1/4	-45.400	0.000	-341.610	0.00E+00	-130.580	0.000
23	WSD(max)	2/4	-45.400	0.000	-333.340	0.00E+00	-112.320	0.000
23	WSD(max)	3/4	-45.400	0.000	-325.070	0.00E+00	-94.530	0.000
23	WSD(max)	J[23]	-45.400	0.000	-316.800	0.00E+00	-77.210	0.000
23	WSD(min)	I[22]	-136.500	0.000	-394.340	0.00E+00	-180.650	0.000
23	WSD(min)	1/4	-136.500	0.000	-385.020	0.00E+00	-161.160	0.000
23	WSD(min)	2/4	-136.500	0.000	-375.690	0.00E+00	-142.150	0.000
23	WSD(min)	3/4	-136.500	0.000	-366.370	0.00E+00	-123.600	0.000
23	WSD(min)	J[23]	-136.500	0.000	-357.050	0.00E+00	-105.510	0.000
24	USD(max)	I[23]	-64.670	0.000	-465.060	0.00E+00	-103.170	0.000
24	USD(max)	1/4	-64.670	0.000	-424.740	0.00E+00	-30.840	0.000
24	USD(max)	2/4	-64.670	0.000	-384.430	0.00E+00	35.750	0.000
24	USD(max)	3/4	-64.670	0.000	-344.110	0.00E+00	104.000	0.000
24	USD(max)	J[24]	-64.670	0.000	-303.800	0.00E+00	164.670	0.000
24	USD(min)	I[23]	-218.400	0.000	-571.280	0.00E+00	-168.820	0.000
24	USD(min)	1/4	-218.400	0.000	-523.700	0.00E+00	-81.490	0.000
24	USD(min)	2/4	-218.400	0.000	-476.120	0.00E+00	-4.810	0.000
24	USD(min)	3/4	-218.400	0.000	-428.530	0.00E+00	56.370	0.000
24	USD(min)	J[24]	-218.400	0.000	-380.950	0.00E+00	111.070	0.000
24	WSD(max)	I[23]	-45.400	0.000	-316.800	0.00E+00	-77.210	0.000
24	WSD(max)	1/4	-45.400	0.000	-290.410	0.00E+00	-25.060	0.000
24	WSD(max)	2/4	-45.400	0.000	-264.030	0.00E+00	22.340	0.000
24	WSD(max)	3/4	-45.400	0.000	-237.640	0.00E+00	65.000	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
24	WSD(max)	J[24]	-45.400	0.000	-211.250	0.00E+00	102.920	0.000
24	WSD(min)	I[23]	-136.500	0.000	-357.050	0.00E+00	-105.510	0.000
24	WSD(min)	1/4	-136.500	0.000	-327.310	0.00E+00	-50.930	0.000
24	WSD(min)	2/4	-136.500	0.000	-297.570	0.00E+00	-1.100	0.000
24	WSD(min)	3/4	-136.500	0.000	-267.830	0.00E+00	39.020	0.000
24	WSD(min)	J[24]	-136.500	0.000	-238.100	0.00E+00	74.820	0.000
25	USD(max)	I[24]	-64.670	0.000	-303.800	0.00E+00	164.670	0.000
25	USD(max)	1/4	-64.670	0.000	-263.420	0.00E+00	217.820	0.000
25	USD(max)	2/4	-64.670	0.000	-223.040	0.00E+00	263.360	0.000
25	USD(max)	3/4	-64.670	0.000	-181.400	0.00E+00	301.290	0.000
25	USD(max)	J[25]	-64.670	0.000	-139.510	0.00E+00	331.600	0.000
25	USD(min)	I[24]	-218.400	0.000	-380.950	0.00E+00	111.070	0.000
25	USD(min)	1/4	-218.400	0.000	-333.300	0.00E+00	159.400	0.000
25	USD(min)	2/4	-218.400	0.000	-285.640	0.00E+00	201.020	0.000
25	USD(min)	3/4	-218.400	0.000	-237.980	0.00E+00	233.430	0.000
25	USD(min)	J[25]	-218.400	0.000	-190.330	0.00E+00	259.380	0.000
25	WSD(max)	I[24]	-45.400	0.000	-211.250	0.00E+00	102.920	0.000
25	WSD(max)	1/4	-45.400	0.000	-184.830	0.00E+00	136.140	0.000
25	WSD(max)	2/4	-45.400	0.000	-158.400	0.00E+00	164.600	0.000
25	WSD(max)	3/4	-45.400	0.000	-131.970	0.00E+00	188.310	0.000
25	WSD(max)	J[25]	-45.400	0.000	-103.710	0.00E+00	207.250	0.000
25	WSD(min)	I[24]	-136.500	0.000	-238.100	0.00E+00	74.820	0.000
25	WSD(min)	1/4	-136.500	0.000	-208.310	0.00E+00	106.460	0.000
25	WSD(min)	2/4	-136.500	0.000	-178.520	0.00E+00	133.870	0.000
25	WSD(min)	3/4	-136.500	0.000	-148.740	0.00E+00	157.060	0.000
25	WSD(min)	J[25]	-136.500	0.000	-118.950	0.00E+00	176.040	0.000
26	USD(max)	I[25]	-64.670	0.000	-139.510	0.00E+00	331.600	0.000
26	USD(max)	1/4	-64.670	0.000	-97.690	0.00E+00	357.110	0.000
26	USD(max)	2/4	-64.670	0.000	-55.870	0.00E+00	376.090	0.000
26	USD(max)	3/4	-64.670	0.000	-14.040	0.00E+00	387.470	0.000
26	USD(max)	J[26]	-64.670	0.000	27.780	0.00E+00	391.260	0.000
26	USD(min)	I[25]	-218.400	0.000	-190.330	0.00E+00	259.380	0.000
26	USD(min)	1/4	-218.400	0.000	-142.750	0.00E+00	278.860	0.000
26	USD(min)	2/4	-218.400	0.000	-95.160	0.00E+00	291.910	0.000
26	USD(min)	3/4	-218.400	0.000	-47.580	0.00E+00	298.530	0.000
26	USD(min)	J[26]	-218.400	0.000	0.000	0.00E+00	298.720	0.000
26	WSD(max)	I[25]	-45.400	0.000	-103.710	0.00E+00	207.250	0.000
26	WSD(max)	1/4	-45.400	0.000	-73.970	0.00E+00	221.560	0.000
26	WSD(max)	2/4	-45.400	0.000	-44.230	0.00E+00	233.420	0.000
26	WSD(max)	3/4	-45.400	0.000	-14.490	0.00E+00	240.530	0.000
26	WSD(max)	J[26]	-45.400	0.000	15.250	0.00E+00	242.910	0.000
26	WSD(min)	I[25]	-136.500	0.000	-118.950	0.00E+00	176.040	0.000
26	WSD(min)	1/4	-136.500	0.000	-89.220	0.00E+00	190.770	0.000
26	WSD(min)	2/4	-136.500	0.000	-59.480	0.00E+00	201.290	0.000
26	WSD(min)	3/4	-136.500	0.000	-29.740	0.00E+00	207.600	0.000
26	WSD(min)	J[26]	-136.500	0.000	0.000	0.00E+00	209.700	0.000
27	USD(max)	I[26]	-64.670	0.000	27.780	0.00E+00	391.260	0.000
27	USD(max)	1/4	-64.670	0.000	66.610	0.00E+00	387.470	0.000
27	USD(max)	2/4	-64.670	0.000	108.830	0.00E+00	376.090	0.000
27	USD(max)	3/4	-64.670	0.000	151.050	0.00E+00	357.110	0.000
27	USD(max)	J[27]	-64.670	0.000	193.270	0.00E+00	330.550	0.000
27	USD(min)	I[26]	-218.400	0.000	0.000	0.00E+00	298.720	0.000
27	USD(min)	1/4	-218.400	0.000	40.310	0.00E+00	292.860	0.000
27	USD(min)	2/4	-218.400	0.000	80.630	0.00E+00	281.310	0.000
27	USD(min)	3/4	-218.400	0.000	120.940	0.00E+00	264.080	0.000
27	USD(min)	J[27]	-218.400	0.000	161.260	0.00E+00	241.170	0.000
27	WSD(max)	I[26]	-45.400	0.000	15.250	0.00E+00	242.910	0.000
27	WSD(max)	1/4	-45.400	0.000	41.630	0.00E+00	240.530	0.000
27	WSD(max)	2/4	-45.400	0.000	68.020	0.00E+00	233.420	0.000
27	WSD(max)	3/4	-45.400	0.000	94.400	0.00E+00	221.560	0.000
27	WSD(max)	J[27]	-45.400	0.000	120.790	0.00E+00	204.960	0.000
27	WSD(min)	I[26]	-136.500	0.000	0.000	0.00E+00	209.700	0.000
27	WSD(min)	1/4	-136.500	0.000	26.390	0.00E+00	207.600	0.000
27	WSD(min)	2/4	-136.500	0.000	52.770	0.00E+00	201.290	0.000
27	WSD(min)	3/4	-136.500	0.000	79.160	0.00E+00	190.770	0.000
27	WSD(min)	J[27]	-136.500	0.000	105.540	0.00E+00	176.040	0.000
28	USD(max)	I[27]	-64.670	0.000	193.270	0.00E+00	330.550	0.000
28	USD(max)	1/4	-64.670	0.000	237.980	0.00E+00	296.340	0.000
28	USD(max)	2/4	-64.670	0.000	285.640	0.00E+00	254.510	0.000
28	USD(max)	3/4	-64.670	0.000	333.300	0.00E+00	205.080	0.000
28	USD(max)	J[28]	-64.670	0.000	380.950	0.00E+00	148.030	0.000
28	USD(min)	I[27]	-218.400	0.000	161.260	0.00E+00	241.170	0.000
28	USD(min)	1/4	-218.400	0.000	197.130	0.00E+00	212.520	0.000
28	USD(min)	2/4	-218.400	0.000	232.810	0.00E+00	178.180	0.000
28	USD(min)	3/4	-218.400	0.000	268.490	0.00E+00	137.400	0.000
28	USD(min)	J[28]	-218.400	0.000	304.160	0.00E+00	90.690	0.000
28	WSD(max)	I[27]	-45.400	0.000	120.790	0.00E+00	204.960	0.000
28	WSD(max)	1/4	-45.400	0.000	148.740	0.00E+00	183.580	0.000
28	WSD(max)	2/4	-45.400	0.000	178.520	0.00E+00	157.440	0.000
28	WSD(max)	3/4	-45.400	0.000	208.310	0.00E+00	126.540	0.000

Elem	Load	Part	Axial (kN)	Shear-y (kN)	Shear-z (kN)	Torsion (kN · m)	Moment-y (kN · m)	Moment-z (kN · m)
28	WSD(max)	J[28]	-45.400	0.000	238.100	0.00E+00	90.880	0.000
28	WSD(min)	I[27]	-136.500	0.000	105.540	0.00E+00	176.040	0.000
28	WSD(min)	1/4	-136.500	0.000	131.970	0.00E+00	157.060	0.000
28	WSD(min)	2/4	-136.500	0.000	158.400	0.00E+00	133.870	0.000
28	WSD(min)	3/4	-136.500	0.000	184.830	0.00E+00	104.810	0.000
28	WSD(min)	J[28]	-136.500	0.000	211.250	0.00E+00	71.010	0.000
29	USD(max)	I[28]	-64.670	0.000	380.950	0.00E+00	148.030	0.000
29	USD(max)	1/4	-64.670	0.000	428.530	0.00E+00	83.470	0.000
29	USD(max)	2/4	-64.670	0.000	476.120	0.00E+00	11.320	0.000
29	USD(max)	3/4	-64.670	0.000	523.700	0.00E+00	-59.240	0.000
29	USD(max)	J[29]	-64.670	0.000	571.280	0.00E+00	-133.220	0.000
29	USD(min)	I[28]	-218.400	0.000	304.160	0.00E+00	90.690	0.000
29	USD(min)	1/4	-218.400	0.000	339.790	0.00E+00	38.360	0.000
29	USD(min)	2/4	-218.400	0.000	375.410	0.00E+00	-19.650	0.000
29	USD(min)	3/4	-218.400	0.000	411.030	0.00E+00	-88.800	0.000
29	USD(min)	J[29]	-218.400	0.000	446.650	0.00E+00	-169.740	0.000
29	WSD(max)	I[28]	-45.400	0.000	238.100	0.00E+00	90.880	0.000
29	WSD(max)	1/4	-45.400	0.000	267.830	0.00E+00	50.530	0.000
29	WSD(max)	2/4	-45.400	0.000	297.570	0.00E+00	5.440	0.000
29	WSD(max)	3/4	-45.400	0.000	327.310	0.00E+00	-44.310	0.000
29	WSD(max)	J[29]	-45.400	0.000	357.050	0.00E+00	-93.630	0.000
29	WSD(min)	I[28]	-136.500	0.000	211.250	0.00E+00	71.010	0.000
29	WSD(min)	1/4	-136.500	0.000	237.640	0.00E+00	33.050	0.000
29	WSD(min)	2/4	-136.500	0.000	264.030	0.00E+00	-9.120	0.000
29	WSD(min)	3/4	-136.500	0.000	290.410	0.00E+00	-55.500	0.000
29	WSD(min)	J[29]	-136.500	0.000	316.800	0.00E+00	-106.090	0.000
30	USD(max)	I[29]	-64.670	0.000	571.280	0.00E+00	-133.220	0.000
30	USD(max)	1/4	-64.670	0.000	586.200	0.00E+00	-156.640	0.000
30	USD(max)	2/4	-64.670	0.000	601.110	0.00E+00	-179.810	0.000
30	USD(max)	3/4	-64.670	0.000	616.030	0.00E+00	-203.540	0.000
30	USD(max)	J[30]	-64.670	0.000	630.940	0.00E+00	-227.830	0.000
30	USD(min)	I[29]	-218.400	0.000	446.650	0.00E+00	-169.740	0.000
30	USD(min)	1/4	-218.400	0.000	457.820	0.00E+00	-197.750	0.000
30	USD(min)	2/4	-218.400	0.000	468.980	0.00E+00	-227.440	0.000
30	USD(min)	3/4	-218.400	0.000	480.150	0.00E+00	-257.860	0.000
30	USD(min)	J[30]	-218.400	0.000	491.310	0.00E+00	-289.040	0.000
30	WSD(max)	I[29]	-45.400	0.000	357.050	0.00E+00	-93.630	0.000
30	WSD(max)	1/4	-45.400	0.000	366.370	0.00E+00	-109.680	0.000
30	WSD(max)	2/4	-45.400	0.000	375.690	0.00E+00	-126.140	0.000
30	WSD(max)	3/4	-45.400	0.000	385.020	0.00E+00	-143.010	0.000
30	WSD(max)	J[30]	-45.400	0.000	394.340	0.00E+00	-160.300	0.000
30	WSD(min)	I[29]	-136.500	0.000	316.800	0.00E+00	-106.090	0.000
30	WSD(min)	1/4	-136.500	0.000	325.070	0.00E+00	-123.600	0.000
30	WSD(min)	2/4	-136.500	0.000	333.340	0.00E+00	-142.150	0.000
30	WSD(min)	3/4	-136.500	0.000	341.610	0.00E+00	-161.160	0.000
30	WSD(min)	J[30]	-136.500	0.000	349.880	0.00E+00	-180.650	0.000

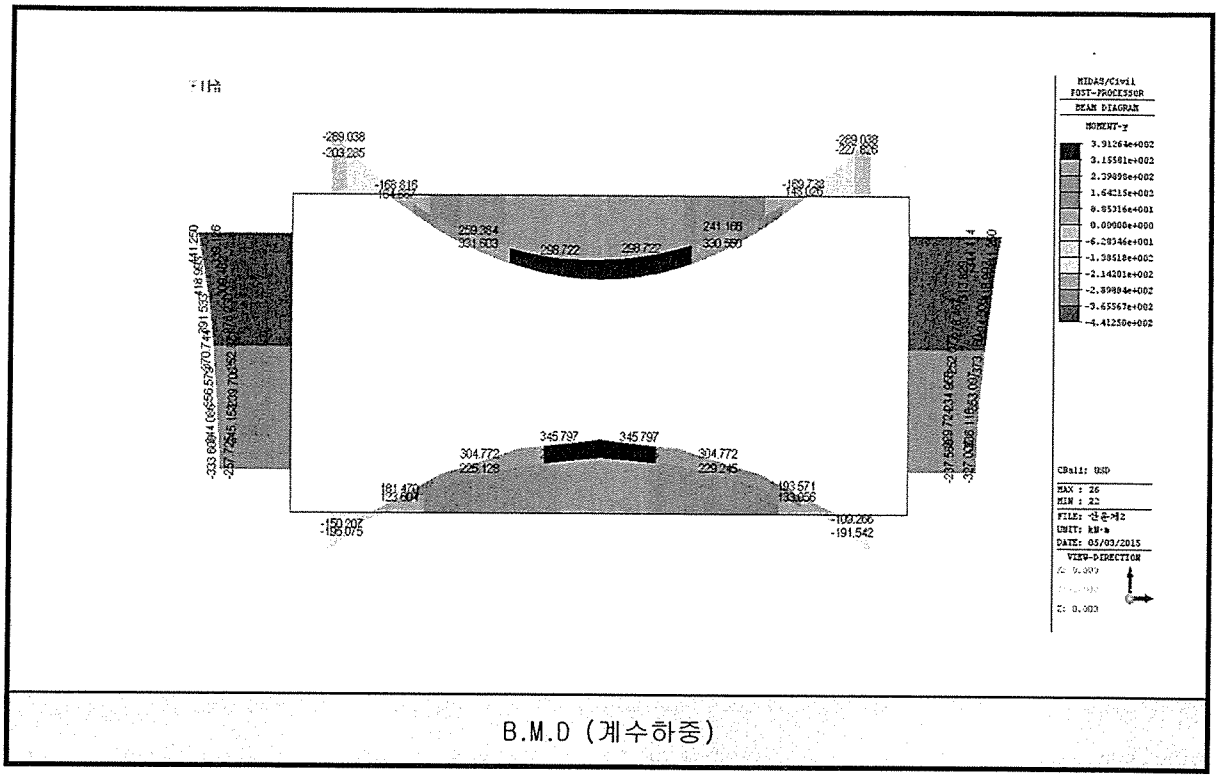
9. 단면력 요약

구분	위치	부재	극한하중			사용하중	비고
			Mu(kN · m)	Su(kN)	Pu(kN)	M(kN · m)	
상부슬래브	단부	23,30	-289.04	630.94	-	-180.65	
	중앙부	26,27	391.26	193.27	-	242.91	
벽체	상단부 (축력최대)	21,22	-397.48	182.62	-734.16	-220.40	
	상단부 (모멘트최대)	21,22	-441.25	182.62	-720.44	-274.57	
	중앙부 (축력최대)	15,16	-309.82	88.24	-757.21	-171.97	
	중앙부 (모멘트최대)	15,16	-373.16	26.77	-691.01	-233.19	
	하단부 (축력최대)	9,10	-312.67	-81.76	-786.98	-169.28	
	하단부 (모멘트최대)	9,10	-333.61	-81.76	-748.18	-208.50	
하부슬래브	단부	1,8	-195.07	549.29	-	-121.92	
	중앙부	4,5	345.80	82.97	-	214.19	

-'전단력과 사용하중 상태에서의 모멘트는 선택 부재에서의 최대값 적용

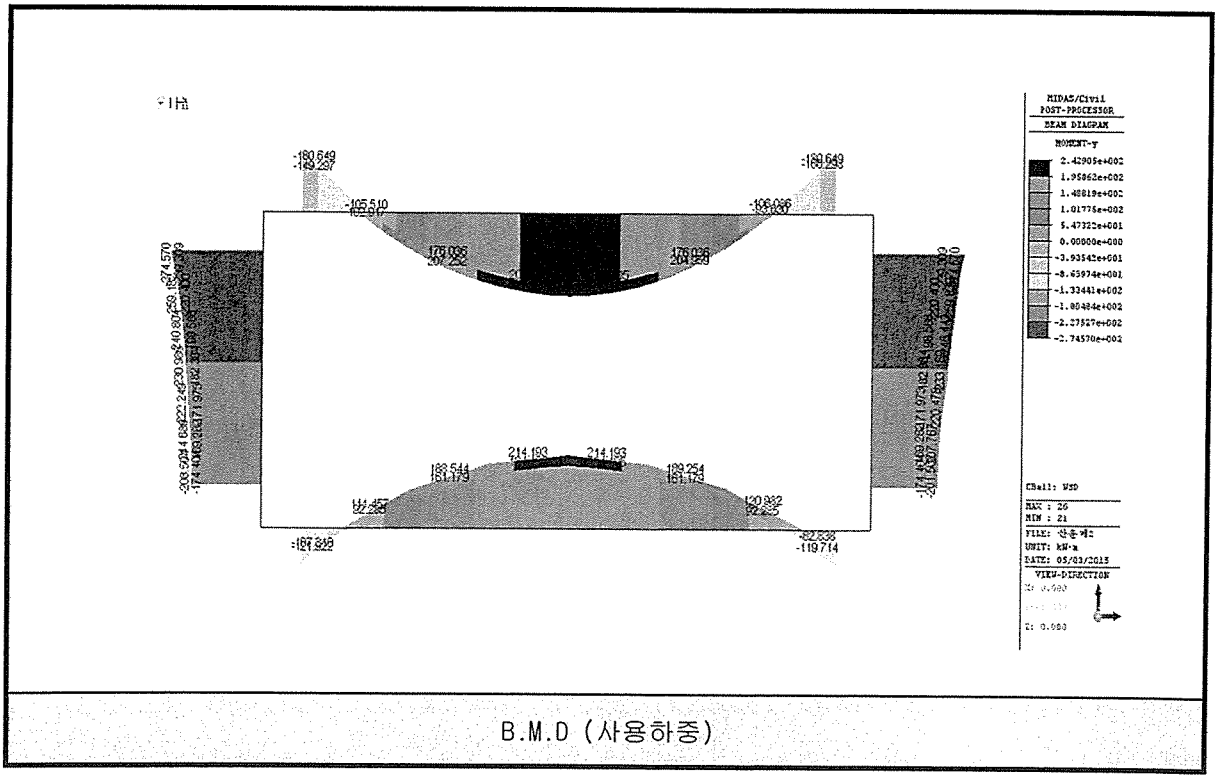
10. 단면력도

(1) 극한하중 모멘트도



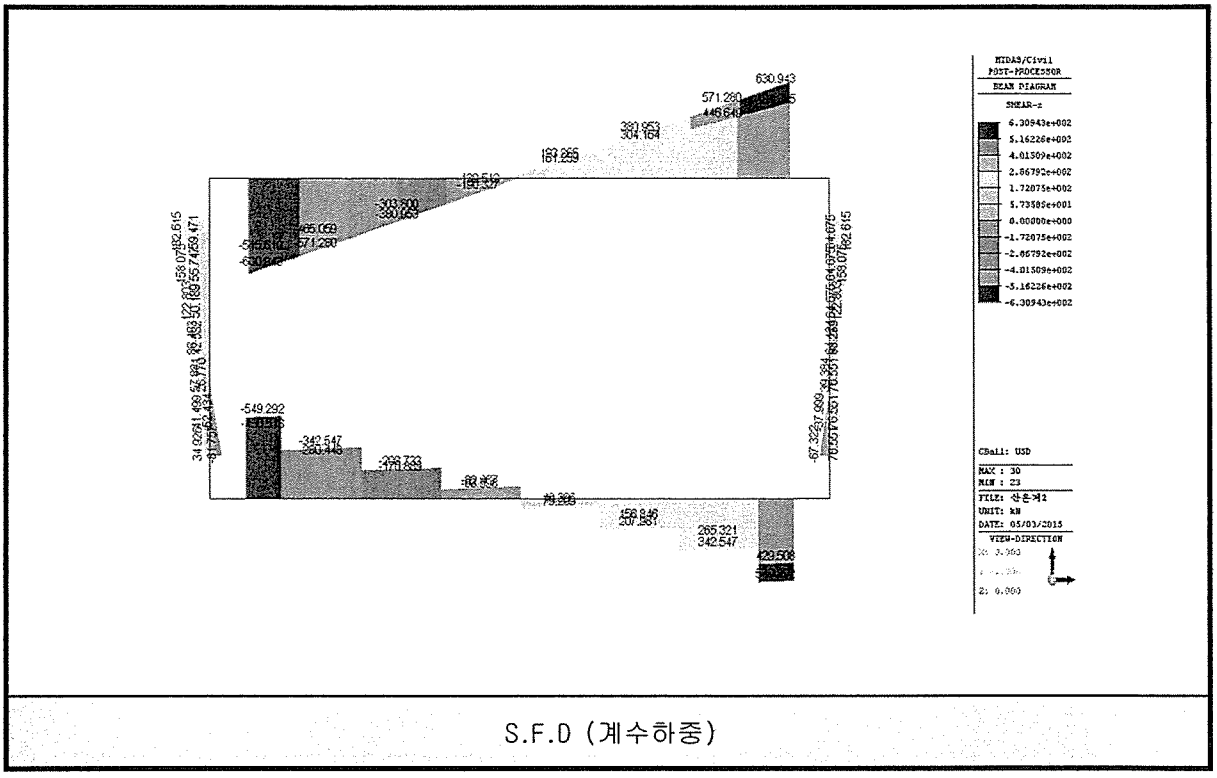
B.M.D (계수하중)

(2) 사용하중 모멘트도



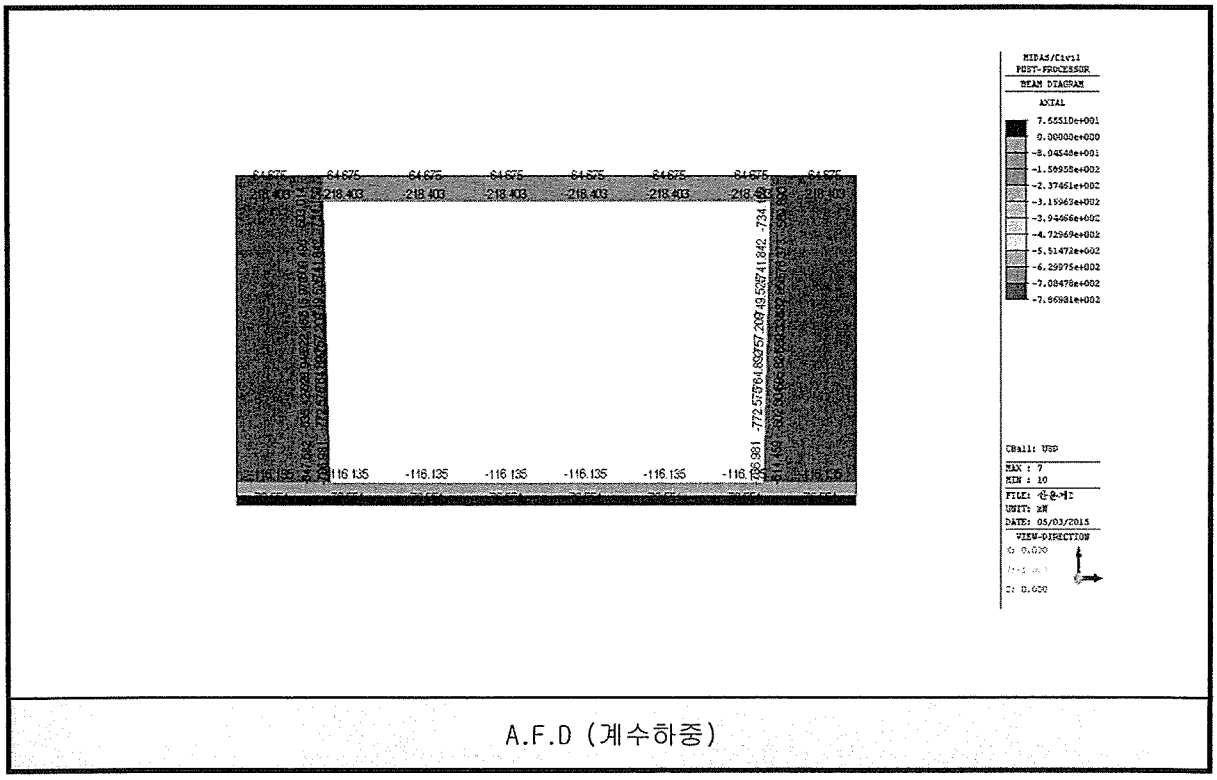
B.M.D (사용하중)

(3) 극한하중 전단력도



S.F.D (계수하중)

(4) 극한하중 축력도



A.F.D (계수하중)

11. 단면검토

① 상부 슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	180.650
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Su (kN)
1000.0	800.0	700.0	100.0	289.040	630.940

전단설계시 단면의 유효높이 ds = 600.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.04583 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ———————— (1)

a = As×fy / (0.85×fck×b) ———————— (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1162.116 mm^2

사용철근비 : Puse = As / (B × D) = 0.00327

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1162.116 mm^2 As(min) = 2450.000 mm^2

4/3×As(req) = 1549.488 mm^2 ※ As = 1549.488 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 562751230 N · mm

= 562.751 kN · m > 289.040 kN · m ----- ∴ O.K. [사용률 = 1.947]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 465.564 kN

Vu > Φv x Vc ∴ 전단철근보강이 필요하다.

Req Av = (630.9 - 465.564)×10³ ×150.0 / (400.0×600.0×0.85)

= 121.600 ㎟

Use Av = 253.400 ㎟ (H13×2 EA, 간격 s = 150.0 mm)

Øv · As = Øv · Av · fy · D / (s × B) = 344.624 kN

s = 150.0 mm < Min (600, 0.5D) = 300.0 mm ----- ∴ O.K.

Øv · Vn = Øv · Vc + Øv · Vs = 810.188 kN > Vu ----- ∴ O.K.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 180.65 × 1000000 / [2292×(700 - 134.684/3)]

= 120.313 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×700/(7×2292)]

= 134.684 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 120.313) - 2.5 × 90.5 = 428.293 mm

300 x (210 / fs) = 300 × (210 / 120.313) = 523.635 mm

Sa는 작은 값인 428.293 mm 를 적용

S = 125.00 ≤ Sa (= 428.293 mm) ----- ∴ O.K.

② 상부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	242.910
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	700.0	600.0	100.0	391.260	193.270

전단설계시 단면의 유효높이 ds = 600.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03885 ≥ 0.004 ----- ∴ O.K.

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ———————— (1)

$a = As \times fy / (0.85 \times fck \times b)$ ———————— (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1856.439 mm^2

사용철근비 : Puse = As / (B × D) = 0.00382

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1856.439 mm^2 As(min) = 2100.000 mm^2

4/3×As(req) = 2475.253 mm^2 ※ As = 2100.000 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 480239230 N · mm

= 480.239 kN · m > 391.260 kN · m ----- ∴ O.K. [사용률 = 1.227]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 465.564 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 242.91 × 1000000 / [2292×(600 - 123.635/3)]

= 189.663 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×600/(7×2292)]

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 189.663) - 2.5 × 90.5 = 188.959 mm

300 x (210 / fs) = 300 × (210 / 189.663) = 332.167 mm

Sa는 작은 값인 188.959 mm 를 적용

S = 125.00 ≤ Sa (= 188.959 mm) ----- ∴ O.K.

③ 하부슬래브 단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	φf	φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	121.920
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	850.0	750.0	100.0	195.070	549.290

전단설계시 단면의 유효높이 ds = 650.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.04932 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 728.024 mm^2

사용철근비 : Puse = As / (B × D) = 0.00306

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 728.024 mm^2 As(min) = 2625.000 mm^2

4/3×As(req) = 970.699 mm^2 ※ As = 970.699 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 604007230 N · mm

= 604.007 kN · m > 195.070 kN · m ----- ∴ O.K [사용률 = 3.096]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 504.361 kN

Vu > Φv x Vc ∴ 전단철근보강이 필요하다.

Req Av = (549.3 - 504.361)×10³ ×150.0 / (400.0×650.0×0.85)

= 30.495 ㎟

Use Av = 253.400 ㎟ (H13×2 EA, 간격 s = 150.0 mm)

Øv · As = Øv · Av · fy · D / (s × B) = 373.343 kN

s = 150.0 mm < Min (600, 0.5D) = 325.0 mm ----- ∴ O.K

Øv · Vn = Øv · Vc + Øv · Vs = 877.704 kN > Vu ----- ∴ O.K

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 121.92 × 1000000 / [2292×(750 - 139.916/3)]

= 75.628 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×750/(7×2292)]

= 139.916 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 75.628) - 2.5 × 90.5 = 815.033 mm

300 x (210 / fs) = 300 × (210 / 75.628) = 833.026 mm

Sa는 작은 값인 815.033 mm 를 적용

S = 125.00 ≤ Sa (= 815.033 mm) ----- ∴ O.K.

④ 하부슬래브 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	214.190
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	750.0	650.0	100.0	345.800	82.970

전단설계시 단면의 유효높이 ds = 650.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.04234 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1505.112 mm^2

사용철근비 : Puse = As / (B × D) = 0.00353

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350
Pmin = 0.25 √fck / fy = 0.00342
적용 = 0.0035

As(req) = 1505.112 mm^2 As(min) = 2275.000 mm^2

4/3×As(req) = 2006.817 mm^2 ※ As = 2006.817 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 521495230 N · mm

= 521.495 kN · m > 345.800 kN · m ----- ∴ O.K [사용률 = 1.508]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 504.361 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 214.19 × 1000000 / [2292×(650 - 129.265/3)]

= 153.978 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×650/(7×2292)]

= 129.265 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 153.978) - 2.5 × 90.5 = 285.186 mm

300 x (210 / fs) = 300 × (210 / 153.978) = 409.149 mm

Sa는 작은 값인 285.186 mm 를 적용

S = 125.00 ≤ Sa (= 285.186 mm) ----- ∴ O.K.

⑤ 벽체 상단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	274.570
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	800.0	700.0	100.0	441.250	182.620

전단설계시 단면의 유효높이 ds = 600.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.04583 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

Mu / Φ = As×fy / (d - a/2) ---------- (1)

a = As×fy / (0.85×fck×b) ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1786.763 mm^2

사용철근비 : Puse = As / (B × D) = 0.00327

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 : Pmin = 1.4 / fy = 0.00350

Pmin = 0.25 √fck / fy = 0.00342

적용 = 0.0035

As(req) = 1786.763 mm^2 As(min) = 2450.000 mm^2

4/3×As(req) = 2382.350 mm^2 ※ As = 2382.350 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ N.G.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 562751230 N · mm

= 562.751 kN · m > 441.250 kN · m ----- ∴ O.K [사용률 = 1.275]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 465.564 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 274.57 × 1000000 / [2292×(700 - 134.684/3)]

= 182.864 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×700/(7×2292)]

= 134.684 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 182.864) - 2.5 × 90.5 = 204.399 mm

300 x (210 / fs) = 300 × (210 / 182.864) = 344.519 mm

Sa는 작은 값인 204.399 mm 를 적용

S = 125.00 ≤ Sa (= 204.399 mm) ------ ∴ O.K.

⑥ 벽체 중앙부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	233.190
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	700.0	600.0	100.0	373.160	26.770

전단설계시 단면의 유효높이 ds = 600.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.03885 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b} \times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1768.475 mm^2

사용철근비 : Puse = As / (B × D) = 0.00382

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 1768.475 mm^2 As(min) = 2100.000 mm^2

4/3×As(req) = 2357.967 mm^2 ※ As = 2100.000 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Øf · fy · As · (D - a/2) = 480239230 N · mm

= 480.239 kN · m > 373.160 kN · m ----- ∴ O.K [사용률 = 1.287]

* 전단력 검토

$\phi v \cdot Vc = \phi v \cdot 1/6 \cdot \sqrt{fck} \cdot B \cdot d / 1000 =$ 465.564 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 233.19 \times 1000000 / [2292 \times (600 - 123.635/3)]$

= 182.074 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 600/(7 \times 2292)]}$

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 182.074) - 2.5 × 90.5 = 206.266 mm

300 x (210 / fs) = 300 × (210 / 182.074) = 346.013 mm

Sa는 작은 값인 206.266 mm 를 적용

S = 125.00 ≤ Sa (= 206.266 mm) ----- ∴ O.K.

⑦ 벽체 하단부

* 검토 조건

pmin = max(0.25√fck / fy, 1.4/fy) = 0.00350

fck (Mpa)	fy (Mpa)	β1	Φf	Φv	Mo (kN.m)
30.0	400.0	0.836	0.900	0.850	208.500
B (mm)	H (mm)	d (mm)	피복 (mm)	Mu (kN.m)	Vu (kN)
1000.0	800.0	700.0	100.0	333.610	81.760

전단설계시 단면의 유효높이 ds = 600.0 d1' = 100 d2' = 0

* 휨모멘트 검토

공칭강도시 등가응력깊이 a = (As×fy) / (0.85×fck×B) = 35.953 mm

최외단 인장철근 변형률 εt = 0.04583 ≥ 0.004 ----- ∴ O.K

여기서 εt = 0.003×(H - a/β1 - Dc_min) / (a/β1)

0.005 ≤ εt 이므로 인장지배단면, Φf = 0.900 를 적용한다.

ⓐ 필요철근량 및 철근비 검토

$Mu / \Phi = As \times fy / (d - a/2)$ ---------- (1)

$a = As \times fy / (0.85 \times fck \times b)$ ---------- (2)

式(2)를 式(1)에 대입하여 2차방정식으로 As를 구한다.

$$\frac{fy^2}{2\times 0.85\times fck\times b}\times As^2 - fy\times d\times As + \frac{Mu}{\Phi} = 0$$

필요 철근량 req.As = 1344.091 mm^2

사용철근비 : Puse = As / (B × D) = 0.00327

최대철근비 : Pmax = 0.714 x k1 x Φx (fck / fy) x {600 / (600 + fy)} = 0.02283

최소철근비 :
- Pmin = 1.4 / fy = 0.00350
- Pmin = 0.25 √fck / fy = 0.00342
- 적용 = 0.0035

As(req) = 1344.091 mm^2 As(min) = 2450.000 mm^2

4/3×As(req) = 1792.121 mm^2 ※ As = 1792.121 mm^2

사용철근량 = H19 × 8ea = 2292.000 ㎟ ----- ∴ O.K.

ⓑ 휨강도 검토

ØMn = Ø f · fy · As · (D - a/2) = 562751230 N · mm

= 562.751 kN · m > 333.610 kN · m ----- ∴ O.K [사용률 = 1.687]

* 전단력 검토

Øv · Vc = Øv · 1/6 · √fck · B · d / 1000 = 465.564 kN

∴ 전단철근이 필요없음.

▣ 사용성 검토 (균열방지 인장철근 간격검토)

ⓐ 응력산정

fs = M / [As x (d - χ/3)]

= 208.5 × 1000000 / [2292×(700 - 134.684/3)]

= 138.861 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×700/(7×2292)]

= 134.684 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

ⓑ 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 138.861) - 2.5 × 90.5 = 340.864 mm

300 x (210 / fs) = 300 × (210 / 138.861) = 453.691 mm

Sa는 작은 값인 340.864 mm 를 적용

S = 125.00 ≤ Sa (= 340.864 mm) ----- ∴ O.K.

⑤ 벽체 상단부 - Pmax 일 경우

설계축력	:	Pu	=	734.16	(kN) ,	설계모멘트	:	Mu	=	397.48	(kN · m)	
설계전단력	:	Vu	=	182.62	(kN) ,	사용 모멘트	:	M	=	220.40	(kN.m)	
부 재 높 이	:	H	=	800.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	700.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	600.0	(mm) ,	k_1	=	0.836	,	e	=	541.41 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0043) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 800.00 x 1000.00 = 20064000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (20064000.00 x 400.0 + 916800.0 x 100.0 + 458400.0 x 700.0) / 21439200.000

= 393.586 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 420.000 mm, ab = k1 x cb = 351.120 mm

fs' = 600 x (420.000 - 100.0) / 420.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 351.120 x 1000 = 8806089.600 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 8806089.600 + 427458.000 - 916800.000 = 8316747.600 N

Mb = 8806089.600x(700.0-351.120/2)+427458.000x(700.0-100.0)-8316747.600x(393.586-100.0)

= 2433063249.061 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 292.550 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 165.475 mm , a = k1 x c = 138.337 mm 사용

fs = 600 x (700.000 - 165.475) / 165.475 = 400 Mpa (fs ≤ fy)

fs' = 600 x (165.475 - 100.000) / 165.475 = 237.4075 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 138.337 x 1000 = 3469494.468 N

Cs = 1146.000 x (237.407 - 0.836 x 30) = 243327.273 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 3469494.468 + 243327.273 - 916800.000 = 2796021.741 N

Mn' = 3469494.468 x (700.0 - 138.337 / 2) + 243327.273 x (700.0 - 100.0)

= 2334662589.824 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 834.993449 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 17350024.800 N ≥ Pn = 2796021.741

ΦPn = 1957215.219 < ΦPb = 5821723.320 , 0.1 x fck x Ag = 2400000.000

∴ Φ = 0.730

ΦPn = 0.73 x 2796021.741 = 2041.096 kN ≥ Pu = 734.160 kN ——— O.K!!!

ΦMn = ΦPn x 541.408 = 1105.065 kN.m ≥ Mu = 397.480 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 496081.905 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 220.4 \times 1000000 / [2292 \times (700 - 134.684/3)]$

= 146.786 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 700/(7 \times 2292)]}$

= 134.684 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 146.786) - 2.5 × 90.5 = 310.244 mm

. 300 x (210 / fs) = 300 × (210 / 146.786) = 429.195 mm

Sa는 작은 값인 310.244 mm 를 적용

S = 125.00 ≤ Sa (= 310.244 mm) ----- ∴ O.K.

⑥ 벽체 상단부 - Mmax 일 경우

설계축력	:	Pu	=	720.44	(kN) ,	설계모멘트	:	Mu	=	441.25	(kN · m)
설계전단력	:	Vu	=	182.62	(kN) ,	사용 모멘트	:	M	=	274.57	(kN.m)
부 재 높 이	:	H	=	800.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	700.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	600.0	(mm) ,	k_1	=	0.836	,	e =	612.47 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0043) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 800.00 x 1000.00 = 20064000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (20064000.00 x 400.0 + 916800.0 x 100.0 + 458400.0 x 700.0) / 21439200.000

= 393.586 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 420.000 mm, ab = k1 x cb = 351.120 mm

fs' = 600 x (420.000 - 100.0) / 420.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 351.120 x 1000 = 8806089.600 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 8806089.600 + 427458.000 - 916800.000 = 8316747.600 N

Mb = 8806089.600x(700.0-351.120/2)+427458.000x(700.0-100.0)-8316747.600x(393.586-100.0)

= 2433063249.061 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 292.550 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 140.345 mm , a = k1 x c = 117.328 mm 사용

fs = 600 x (700.000 - 140.345) / 140.345 = 400 Mpa (fs ≤ fy)

fs' = 600 x (140.345 - 100.000) / 140.345 = 172.4821 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 117.328 x 1000 = 2942596.774 N

Cs = 1146.000 x (172.482 - 0.836 x 30) = 168922.804 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 2942596.774 + 168922.804 - 916800.000 = 2194719.578 N

Mn' = 2942596.774 x (700.0 - 117.328 / 2) + 168922.804 x (700.0 - 100.0)

= 1988546308.818 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 906.058515 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 17350024.800 N ≥ Pn = 2194719.578

ΦPn = 1536303.704 < ΦPb = 5821723.320 , 0.1 x fck x Ag = 2400000.000

∴ Φ = 0.750

ΦPn = 0.75 x 2194719.578 = 1646.040 kN ≥ Pu = 720.440 kN ------ O.K!!!

ΦMn = ΦPn x 612.473 = 1008.155 kN.m ≥ Mu = 441.250 kN.m ------ O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 495511.589 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 274.57 × 1000000 / [2292×(700 - 134.684/3)]

= 182.864 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2\times1000\times700/(7\times2292)]}$

= 134.684 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 182.864) - 2.5 × 90.5 = 204.399 mm

300 x (210 / fs) = 300 × (210 / 182.864) = 344.519 mm

Sa는 작은 값인 204.399 mm 를 적용

S = 125.00 ≤ Sa (= 204.399 mm) ------ ∴ O.K.

⑦ 벽체 중앙부 - Pmax 일 경우

설계축력	:	Pu	=	757.21	(kN) ,	설계모멘트	:	Mu	=	309.82	(kN · m)	
설계전단력	:	Vu	=	88.24	(kN) ,	사용 모멘트	:	M	=	171.97	(kN.m)	
부 재 높 이	:	H	=	700.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	600.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	600.0	(mm) ,	k_1	=	0.836	,	e	=	409.16 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0049) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 700.00 x 1000.00 = 17556000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (17556000.00 x 350.0 + 916800.0 x 100.0 + 458400.0 x 600.0) / 18931200.000

= 343.947 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 360.000 mm, ab = k1 x cb = 300.960 mm

fs' = 600 x (360.000 - 100.0) / 360.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 300.960 x 1000 = 7548076.800 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 7548076.800 + 427458.000 - 916800.000 = 7058734.800 N

Mb = 7548076.800x(600.0-300.960/2)+427458.000x(600.0-100.0)-7058734.800x(343.947-100.0)

= 1884786827.089 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 267.015 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 195.310 mm , a = k1 x c = 163.279 mm 사용

fs = 600 x (600.000 - 195.310) / 195.310 = 400 Mpa (fs ≤ fy)

fs' = 600 x (195.310 - 100.000) / 195.310 = 292.7964 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 163.279 x 1000 = 4095045.526 N

Cs = 1146.000 x (292.796 - 0.836 x 30) = 306802.974 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 4095045.526 + 306802.974 - 916800.000 = 3485048.500 N

Mn' = 4095045.526 x (600.0 - 163.279 / 2) + 306802.974 x (600.0 - 100.0)

= 2276110663.620 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 653.106443 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 15310024.800 N ≥ Pn = 3485048.500

ΦPn = 2439533.950 > ΦPb = 4941114.360 , 0.1 x fck x Ag = 2100000.000

∴ Φ = 0.700

ΦPn = 0.70 x 3485048.500 = 2439.534 kN ≥ Pu = 757.210 kN ——— O.K!!!

ΦMn = ΦPn x 409.160 = 998.160 kN.m ≥ Mu = 309.820 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d =$ 501536.607 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 171.97 \times 1000000 / [2292 \times (600 - 123.635/3)]$

= 134.274 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 600/(7 \times 2292)]}$

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 134.274) - 2.5 × 90.5 = 360.24 mm

300 x (210 / fs) = 300 × (210 / 134.274) = 469.19 mm

Sa는 작은 값인 360.24 mm 를 적용

S = 125.00 ≤ Sa (= 360.239 mm) ----- ∴ O.K.

⑧ 벽체 중앙부 - Mmax 일 경우

설계축력	:	Pu	=	691.01	(kN) ,	설계모멘트	:	Mu	=	373.16	(kN · m)	
설계전단력	:	Vu	=	26.77	(kN) ,	사용 모멘트	:	M	=	233.19	(kN.m)	
부 재 높 이	:	H	=	700.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	600.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	600.0	(mm) ,	k_1	=	0.836	,	e	=	540.02 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

$\sum$ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0049) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 700.00 x 1000.00 = 17556000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (17556000.00 x 350.0 + 916800.0 x 100.0 + 458400.0 x 600.0) / 18931200.000

= 343.947 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 360.000 mm, ab = k1 x cb = 300.960 mm

fs' = 600 x (360.000 - 100.0) / 360.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 300.960 x 1000 = 7548076.800 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 7548076.800 + 427458.000 - 916800.000 = 7058734.800 N

Mb = 7548076.800x(600.0-300.960/2)+427458.000x(600.0-100.0)-7058734.800x(343.947-100.0)

= 1884786827.089 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 267.015 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 134.428 mm , a = k1 x c = 112.382 mm 사용

fs = 600 x (600.000 - 134.428) / 134.428 = 400 Mpa (fs ≤ fy)

fs' = 600 x (134.428 - 100.000) / 134.428 = 153.6641 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 112.382 x 1000 = 2818533.648 N

Cs = 1146.000 x (153.664 - 0.836 x 30) = 147357.359 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 2818533.648 + 147357.359 - 916800.000 = 2049091.007 N

Mn' = 2818533.648 x (600.0 - 112.382 / 2) + 147357.359 x (600.0 - 100.0)

= 1606423032.584 N.mm

- 편심오차 : | e' - Mn'/Pn | = 0.001 < 0.001 (e' = e + Xp - dc = 783.967630 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 15310024.800 N ≥ Pn = 2049091.007

ΦPn = 1434363.705 < ΦPb = 4941114.360 , 0.1 x fck x Ag = 2100000.000

∴ Φ = 0.750

ΦPn = 0.75 x 2049091.007 = 1536.818 kN ≥ Pu = 691.010 kN ——— O.K!!!

ΦMn = ΦPn x 540.021 = 829.914 kN.m ≥ Mu = 373.160 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 498391.674 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 233.19 \times 1000000 / [2292 \times (600 - 123.635/3)]$

= 182.074 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 600/(7 \times 2292)]}$

= 123.635 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc ; 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 182.074) - 2.5 × 90.5 = 206.27 mm

300 x (210 / fs) = 300 × (210 / 182.074) = 346.01 mm

Sa는 작은 값인 206.27 mm 를 적용

S = 125.00 ≤ Sa (= 206.266 mm) ----- ∴ O.K.

⑨ 벽체 하단부 - Pmax 일 경우

설계축력	:	Pu	=	786.98	(kN) ,	설계모멘트	:	Mu	=	312.67	(kN · m)	
설계전단력	:	Vu	=	81.76	(kN) ,	사용 모멘트	:	M	=	169.28	(kN.m)	
부 재 높 이	:	H	=	800.0	(mm) ,	f_y	=	400	MPa	f_{ck}	=	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v	=	0.85
유효높이(휨)	:	d	=	700.0	(mm) ,	d'	=	100	(mm),	ϕc	=	0.70
유효높이(전단)	:	d	=	600.0	(mm) ,	k_1	=	0.836	,	e	=	397.30 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0043) < Pmax (0.0800) ———— O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 800.00 x 1000.00 = 20064000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (20064000.00 x 400.0 + 916800.0 x 100.0 + 458400.0 x 700.0) / 21439200.000

= 393.586 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 420.000 mm, ab = k1 x cb = 351.120 mm

fs' = 600 x (420.000 - 100.0) / 420.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 351.120 x 1000 = 8806089.600 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 8806089.600 + 427458.000 - 916800.000 = 8316747.600 N

Mb = 8806089.600x(700.0-351.120/2)+427458.000x(700.0-100.0)-8316747.600x(393.586-100.0)

= 2433063249.061 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 292.550 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 272.010 mm , a = k1 x c = 227.400 mm 사용

fs = 600 x (700.000 - 272.010) / 272.010 = 400 Mpa (fs ≤ fy)

fs' = 600 x (272.010 - 100.000) / 272.010 = 379.42 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 227.400 x 1000 = 5703203.125 N

Cs = 1146.000 x (379.420 - 0.836 x 30) = 406073.589 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 5703203.125 + 406073.589 - 916800.000 = 5192476.714 N

Mn' = 5703203.125 x (700.0 - 227.400 / 2) + 406073.589 x (700.0 - 100.0)

= 3587430880.810 N.mm

- 편심오차 : |e' - Mn'/Pn| = 0.001 < 0.001 (e' = e + Xp - dc = 690.889198 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 17350024.800 N ≥ Pn = 5192476.714

ΦPn = 3634733.700 > ΦPb = 5821723.320 , 0.1 x fck x Ag = 2400000.000

∴ Φ = 0.700

ΦPn = 0.70 x 5192476.714 = 3634.734 kN ≥ Pu = 786.980 kN ------ O.K!!!

ΦMn = ΦPn x 397.304 = 1444.093 kN.m ≥ Mu = 312.670 kN.m ------ O.K!!!

○ 전단력 검토

ϕVc = 0.85 × 1/6 × (1 + Pu / (14 x Ag)) x √fck × bo × d = 498277.539 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

fs = M / [As x (d - χ/3)]

= 169.28 × 1000000 / [2292×(700 - 134.684/3)]

= 112.741 Mpa

χ = -nAs/b + nAs/b√[1 + 2bd/(nAs)]

= -7 × 2292/1000 + 7 × 2292/1000 × √[(1 + 2×1000×700/(7×2292)]

= 134.684 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 mm^2)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 112.741) - 2.5 × 90.5 = 472.26 mm

300 x (210 / fs) = 300 × (210 / 112.741) = 558.81 mm

Sa는 작은 값인 472.26 mm 를 적용

S = 125.00 ≤ Sa (= 472.257 mm) ----- ∴ O.K.

⑩ 벽체 하단부 - Mmax 일 경우

설계축력	:	Pu	=	748.18	(kN) ,	설계모멘트	:	Mu	=	333.61	(kN · m)
설계전단력	:	Vu	=	81.76	(kN) ,	사용 모멘트	:	M	=	208.50	(kN.m)
부 재 높 이	:	H	=	800.0	(mm) ,	f_y	=	400	MPa	f_{ck} =	30 MPa
폭	:	b	=	1000	(mm) ,	ϕ_f	=	0.90	,	ϕ_v =	0.85
유효높이(휨)	:	d	=	700.0	(mm) ,	d'	=	100	(mm),	ϕc =	0.70
유효높이(전단)	:	d	=	600.0	(mm) ,	k_1	=	0.836	,	e =	445.90 (mm)

○ 휨철근량 계산

- 철근비검토

As = H 19 @ 8 EA = 22.920 cm^2 , d1 = 10.0 cm

Σ = 22.920 cm^2

Asf = H 19 @ 4 EA = 11.460 cm^2 , d'1 = 10.0 cm

Pmin (0.0015) < Puse (0.0043) < Pmax (0.0800) ---------- O.K!!!

- 평형하중 산정

소성중심 계산

Cc = 0.84 x 30 x 800.00 x 1000.00 = 20064000.000 N

Cs = As x fy = 916800.00 N , Cs' = Asf x fy = 458400.000 N

Xp = (20064000.00 x 400.0 + 916800.0 x 100.0 + 458400.0 x 700.0) / 21439200.000

= 393.586 mm

- 평형상태 계산

Cb = 600 / (600 + fy) x d = 420.000 mm, ab = k1 x cb = 351.120 mm

fs' = 600 x (420.000 - 100.0) / 420.0(= 400 Mpa (fs' ≤ fy)

Cc = 0.836 x 30 x 351.120 x 1000 = 8806089.600 N

Cs = As' x (fs' - 0.9 x fck) = 427458.000 N

Ts = As x fs = 916800.000 N

Pb = 8806089.600 + 427458.000 - 916800.000 = 8316747.600 N

Mb = 8806089.600x(700.0-351.120/2)+427458.000x(700.0-100.0)-8316747.600x(393.586-100.0)

= 2433063249.061 N.mm

eb < e → 인장파괴 (eb = Mb / Pb = 292.550 mm)

- 공칭강도 계산 : 반복계산을 통해 c = 224.746 mm , a = k1 x c = 187.888 mm 사용

fs = 600 x (700.000 - 224.746) / 224.746 = 400 Mpa (fs ≤ fy)

fs' = 600 x (224.746 - 100.000) / 224.746 = 333.032 Mpa (fs ≤ fy)

Cc = 0.836 x 30 x 187.888 x 1000 = 4712223.461 N

Cs = 1146.000 x (333.032 - 0.836 x 30) = 352913.010 N

Ts = 2292.000 x 400.000 = 916800.000 N

Pn = 4712223.461 + 352913.010 - 916800.000 = 4148336.471 N

Mn' = 4712223.461 x (700.0 - 187.888 / 2) + 352913.010 x (700.0 - 100.0)

= 3067619819.626 N.mm

- 편심오차 : |e' - Mn'/Pn| = 0.001 < 0.001 (e' = e + Xp - dc = 739.480954 mm)

- 축방향력 및 휨에대한 검토

(max) Pn = 0.80 x { 0.85 fck x (Ag - Ast) + fy x Ast} : 17350024.800 N ≥ Pn = 4148336.471

ΦPn = 2903835.529 > ΦPb = 5821723.320 , 0.1 x fck x Ag = 2400000.000

∴ Φ = 0.700

ΦPn = 0.70 x 4148336.471 = 2903.836 kN ≥ Pu = 748.180 kN ——— O.K!!!

ΦMn = ΦPn x 445.895 = 1294.807 kN.m ≥ Mu = 333.610 kN.m ——— O.K!!!

○ 전단력 검토

$\phi Vc = 0.85 \times 1/6 \times (1 + Pu / (14 \times Ag)) \times \sqrt{fck} \times bo \times d$ = 496664.692 N

여기서 , Vu < 1/2ϕVc 이므로 전단철근보강 불필요

○ 사용성 검토 (균열방지 인장철근 간격검토)

- 응력산정

$fs = M / [As \times (d - \chi/3)]$

$= 208.5 \times 1000000 / [2292 \times (700 - 134.684/3)]$

= 138.861 Mpa

$\chi = -nAs/b + nAs/b\sqrt{[1 + 2bd/(nAs)]}$

$= -7 \times 2292/1000 + 7 \times 2292/1000 \times \sqrt{[(1 + 2 \times 1000 \times 700/(7 \times 2292)]}$

= 134.684 mm

사용철근량 = 2292.000 mm^2 (철근도심 : 100 mm)

1단 H19 @ 125 (= 2292 ㎟)

- 철근의 최대 중심간격

Cc = 100 - 19 / 2 = 90.50 mm

여기서 Cc : 인장철근이나 긴장재의 표면과 콘크리트 표면사이의 두께(mm)

Smin : 375 x (210 / fs) - 2.5 x Cc = 375 × (210 / 138.861) - 2.5 × 90.5 = 340.864 mm

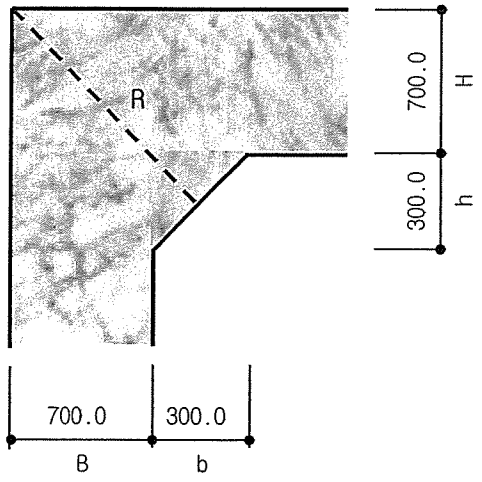
300 x (210 / fs) = 300 × (210 / 138.861) = 453.691 mm

Sa는 작은 값인 340.864 mm 를 적용

S = 125.00 ≤ Sa (= 340.864 mm) ——— ∴ O.K.

12. 우각부 검토

1) 상부 슬래브



CON'C 설계기준강도(fck) : 30.0 MPa

CON'C 허용휨인장응력(fta) = 0.13√fck Mpa : 0.712 MPa

철근 항복강도(fy) : 400.0 MPa

철근 허용응력 : 180.0 MPa

사용 모멘트 Mo : 274.57 kN · m

$R = \sqrt{2} \times b / (b+h) \times [B + h + (H \times h/b)]$

$= 1202.08$ mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 274570000}{1202.08^2 \times 1000.0} = 0.950 \text{ MPa}$$

f_{tmax} = 0.95 MPa > f_{ta} = 0.712 MPa 이므로 보강철근 필요.

② 소요 철근량

외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 274570000}{1202.08 \times 180.0} = 2537.91 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 2537.91 - 1146 = 1391.91 ㎟

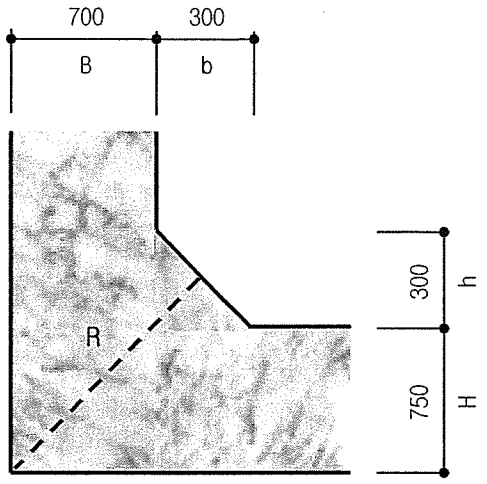
----- 우각부 보강철근 필요

외측인장에 대한 보강 사용철근량(As)

As = H16 @ 250 - 2 단 = 1588.80 ㎟

보강 As = 1391.91 ㎟ < As = 1588.80 ㎟ ----- ∴ O.K.

2) 하부 슬래브



CON'C 설계기준강도(fck)	:	30.0	MPa
CON'C 허용휨인장응력(fta) = 0.13√fck Mpa			
	:	0.712	MPa
철근 항복강도(fy)	:	400.0	MPa
철근 허용응력	:	180.0	MPa
사용 모멘트 Mo	:	208.50	kN · m

R = √ (B2 + H2) = 1025.91 mm

① 보강철근 필요여부 판정

$$f_{tmax} = \frac{5 \times Mo}{R^2 \times W} = \frac{5 \times 208500000}{1025.91^{\,2} \times 1000.0} = 0.99 \text{ MPa}$$

f_{tmax} = 0.99 MPa > f_{ta} = 0.712 MPa 이므로 보강철근 필요.

② 소요 철근량

외측인장에 대한 보강 필요철근량(Asf)

$$Asf = \frac{2 \times Mo}{R \times fsa} = \frac{2 \times 208500000}{1025.91 \times 180.0} = 2258.15 \text{ ㎟}$$

▶ 보강 As = Asf - 주철근사용 As = 2258.15 - 1146 = 1112.15 ㎟

----- 우각부 보강철근 필요

외측인장에 대한 보강 사용철근량(As)

As = H16 @ 250 - 2 단 = 1588.80 ㎟

Asf = 1112.15 ㎟ < As = 1588.80 ㎟ ----- ∴ O.K.

13. 배력철근 검토

1) 구조상세 - 철도설계기준(노반편) p.5-19

다. 종방향으로 영향을 받는 경우로써 상부슬래브, 하부슬래브와 벽체에 있어서 종방향 최소철근량은 복토의 깊이가 3.0 m 이하인 경우에는 콘크리트 단면적의 0.4%, 복토가 3.0m 이상인 경우에는 복토 깊이가 30m인 경우의 사용량인 1.0%를 기준으로 선형변화량을 사용하되, 종방향 철근량은 주철근량 미만이어야 한다.

라. 단단한 지반 위에 놓인 경우와 말뚝기초로 지지되는 경우로써 종방향 부등침하가 우려되지 않은 경우에는 다.항의 기준을 적용하지 않는다. 따라서 어느 정도 견고한 지반위에 놓이는 일반적인 구교로써 적적한 신축이음매가 설치되어 상세한 종방향해석이 필요하지 않다고 판단되는 경우 종방향 철근량은 슬래브의 경우 콘크리트단면적의 0.25%, 벽체의 경우 0.3%를 적용한다.

마. 배력철근은 단위폭주변의 인장 주철근량의 1/5 이상으로 하여 종단방향에 계산외의 응력이 발생하는 것을 고려하여야 한다.

2) 배력철근의 최소 철근비

슬래브의 배력 철근비 = 0.25 %　　벽체의 배력 철근비 = 0.30 %

① 상부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 700.0 × 0.25 = 1750.00 ㎟

사용철근 인장측 ; H 16 @ 150 = 1324.00 ㎟

압축측 ; H 16 @ 300 = 662.00 ㎟

∑ As = 1986.00 ㎟

따라서, As = 1986.00 ㎟ > Asreq = 1750.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ----- ∴ O.K.

② 하부슬래브

배력철근 최소 철근비 (Asreq) = 1,000.0 × 750.0 × 0.25 = 1800.00 ㎟

사용철근 인장측 ; H 16 @ 150 = 1324.00 ㎟

압축측 ; H 16 @ 300 = 662.00 ㎟

∑ As = 1986.00 ㎟

따라서, As = 1986.00 ㎟ > Asreq = 1800.00 ㎟ ----- ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ----- ∴ O.K.

③ 벽체

배력철근 최소 철근비 (Asreq) = 1,000.0 × 700.0 × 0.30 = 1800.00 ㎟

사용철근 인장측 ; H 16 @ 150 = 1324.00 ㎟

압축측 ; H 16 @ 300 = 662.00 ㎟

∑ As = 1986.00 ㎟

따라서, As = 1986.00 ㎟ > Asreq = 1800.00 ㎟ ------ ∴ O.K.

사용 주철근량의 1/5 = 458.400 ㎟

따라서, As = 1324.00 ㎟ > Asreq = 458.40 ㎟ ------ ∴ O.K.

14. 사용성검토

1) 상부슬래브 최소 두께

1.2(L+3)/30 = 1.2 × (5.160 + 3) / 30 = 326.4 mm

상부슬래브 두께 = 700.0 mm

Tuse = 700.0 mm > Tmin = 326.4 mm ——— ∴ O.K.

2) 철근 피로검토

피로응력한계 : 사용하중하에서 활하중과 충격에 의해 야기되는 직선철근의 최대 인장응력과 최소 응력 상이의 범위는 다음 값을 초과할수 없다.

$f_f = 165 - 0.33fmin$

여기서, f_f : 응력범위(Mpa)

fmin : 최소응력 수준으로 인장은 정(+), 압축은 부(-)의 값(Mpa)

① 상부슬래브 단부

5.16 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 1.187 kN · m Mmin = -3.732 kN · m

- 사용철근량 = H19 × 8ea = 2292.000 ㎟

n = 7

p = As / bd = 2292.00 / (1000 × 700) = 0.00327

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00327 + \sqrt{\{ (7 \times 0.00327)^2 + 2 \times 7 \times 0.00327 \}}$

= 0.192

J = 1 - K / 3 = 1 - 0.192 / 3 = 0.936

$$fs\ max = \frac{M}{As \times j \times d} = \frac{1.187 \times 10^6}{2292.00 \times 0.936 \times 700} = 0.790 \text{ Mpa}$$

$$fs\ min = \frac{-3.732 \times 10^6}{2292.00 \times 0.936 \times 700} = -2 \text{ Mpa}$$

Δf = fs max - fs min = 3.276 Mpa

$f_f = 165 - 0.33fmin$

= 165 - 0.33 × -2.49 = 165.820 Mpa > 3.276 Mpa O.K.

② 상부슬래브 중앙부

5.16 m 지간에서의 모멘트 변화에 의한 피로검토

Mmax = 13.219 kN · m Mmin = 11.880 kN · m

- 사용철근량 = H19 × 8ea = 2292.000 ㎟

n = 7

p = As / bd = 2292.00 / (1000 × 600) = 0.00382

$K = -np + \sqrt{\{(np)^2 + 2np\}}$

$= -7 \times 0.00382 + \sqrt{\{ (7 \times 0.00382)^2 + 2 \times 7 \times 0.00382 \}}$

= 0.206

J = 1 - K / 3 = 1 - 0.206 / 3 = 0.931

$$fs\ max = \frac{M}{As \times j \times d} = \frac{13.219 \times 10^6}{2292.00 \times 0.931 \times 600} = 10.320 \text{ Mpa}$$

$$fs\ min = \frac{11.880 \times 10^6}{2292.00 \times 0.931 \times 600} = 9 \text{ Mpa}$$

Δf = fs max - fs min = 1.044 Mpa

$f_f = 165 - 0.33 fmin$

= 165 - 0.33 × 9.28 = 161.939 Mpa > 1.044 Mpa O.K.

15. 기초지지력 검토

1) 구체자중

-	5.400	x	0.750	x	24.500				=	99.225	kN/m
-	5.400	x	0.700	x	24.500				=	92.610	kN/m
-	2.000	x	0.700	x	24.500				=	34.300	kN/m
-	2.000	x	0.700	x	24.500				=	34.300	kN/m
-	0.300	x	0.300	x	1/2	x	4	x 24.500	=	4.410	kN/m
								∴ Total	=	264.845	kN/m

264.845 / 5.400 = 49.045 kN/m²

2) 상부연직하중

= 209.04 kN/m²

3) 활하중

= 21.019 kN/m²

4) 최대 지반 반력

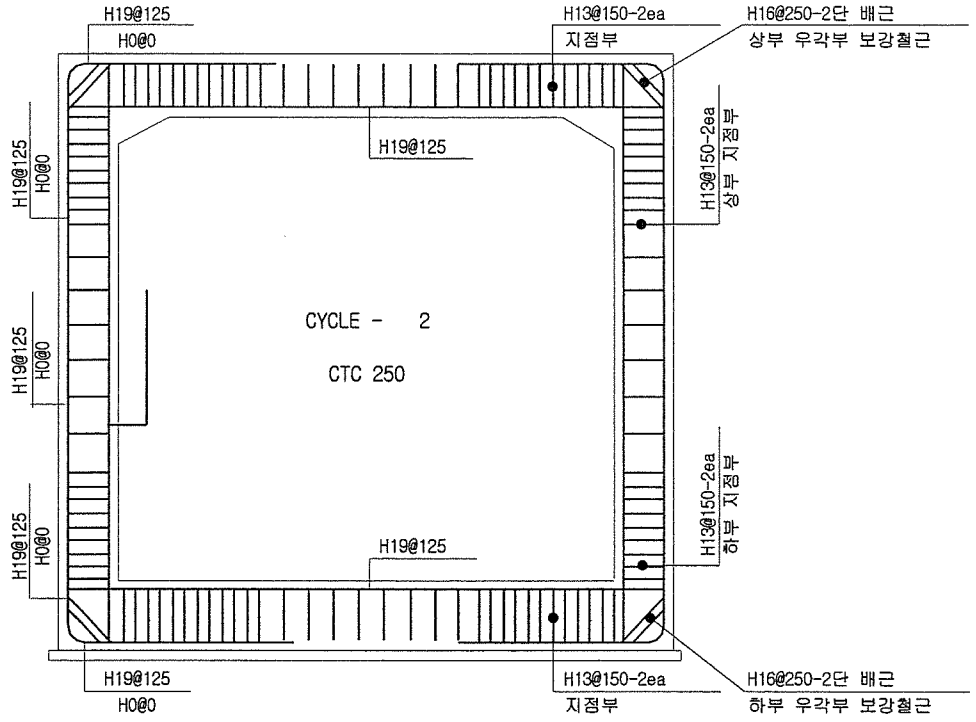
Qmax = 49.045 + 209.040 + 21.019

= 279.104 kN/m²

5) 지지력 검토

Qmax = 279.104 kN/m² < 300.00 kN/m² --- ∴ O.K.

16. 주철근 조립도



▶ 배력철근

- 상부 지점부 : H16, 인장측:150, 압축측:300
- 하부 지점부 : H16, 인장측:150, 압축측:300
- 벽체부 : H16, 인장측:150, 압축측:300