STAAD INPUT

```
STAAD SPACE
START JOB INFORMATION
ENGINEER DATE 17-Jul-23
END JOB INFORMATION
INPUT WIDTH 79
UNIT METER KN
JOINT COORDINATES
1 0 0 0; 2 2.76 0 0; 3 0 0 3.36; 4 2.76 0 3.36; 5 0 -2.275 0; 6 2.76 -2.275 0;
7 0 -2.275 3.36; 8 2.76 -2.275 3.36; 9 0 3.75 0; 10 2.76 3.75 0;
11 0 3.75 3.36; 12 2.76 3.75 3.36; 13 0 7.5 0; 14 2.76 7.5 0; 15 0 7.5 3.36;
16 2.76 7.5 3.36; 17 0 11.25 0; 18 2.76 11.25 0; 19 0 11.25 3.36;
20 2.76 11.25 3.36; 21 0 15 0; 22 2.76 15 0; 23 0 15 3.36; 24 2.76 15 3.36;
25 0 18.75 0; 26 2.76 18.75 0; 27 0 18.75 3.36; 28 2.76 18.75 3.36;
29 0 22.5 0; 30 2.76 22.5 0; 31 0 22.5 3.36; 32 2.76 22.5 3.36; 33 0 26.25 0;
34 2.76 26.25 0; 35 0 26.25 3.36; 36 2.76 26.25 3.36; 37 0 30 0; 38 2.76 30 0;
39 0 30 3.36; 40 2.76 30 3.36; 41 0 33.75 0; 42 2.76 33.75 0; 43 0 33.75 3.36;
44 2.76 33.75 3.36; 49 0 3.75 -1; 50 2.76 3.75 -1; 51 0 7.5 -1; 52 2.76 7.5 -1;
53 0 11.25 -1; 54 2.76 11.25 -1; 55 0 15 -1; 56 2.76 15 -1; 57 0 18.75 -1;
58 2.76 18.75 -1; 59 0 22.5 -1; 60 2.76 22.5 -1; 61 0 26.25 -1;
62 2.76 26.25 -1; 63 0 30 -1; 64 2.76 30 -1; 65 0 34.95 0; 66 2.76 34.95 0;
67 0 34.95 3.36; 68 2.76 34.95 3.36; 69 2.76 37.5 3.36; 70 2.76 37.5 0;
71 0 37.5 0; 72 0 37.5 3.36; 73 0 33.75 -1; 74 2.76 33.75 -1; 75 0 34.95 2.24;
76 0 34.95 1.12; 77 2.76 34.95 1.12; 78 2.76 34.95 2.24; 79 0 37.5 -1;
80 2.76 37.5 -1; 81 0 37.5 2.24; 82 0 37.5 1.12; 83 2.76 37.5 1.12;
84 2.76 37.5 2.24; 85 0 3.463 0; 86 2.76 3.463 0; 87 0 3.463 3.36;
88 2.76 3.463 3.36; 89 0.287 3.75 0; 90 0.287 3.75 3.36; 91 2.473 3.75 0;
92 2.473 3.75 3.36; 93 0 3.75 3.073; 94 2.76 3.75 3.073; 95 0 3.75 0.287;
96 2.76 3.75 0.287; 97 2.473 7.5 0; 98 0 7.213 0; 99 0 7.5 0.287;
100 0 7.213 3.36; 101 0.287 7.5 3.36; 102 0 7.5 3.073; 103 0.287 7.5 0;
104 2.76 7.213 0; 105 2.76 7.5 0.287; 106 2.76 7.213 3.36; 107 2.76 7.5 3.073;
108 2.473 7.5 3.36;
MEMBER INCIDENCES
1 5 1; 2 1 85; 3 6 2; 4 2 86; 5 7 3; 6 3 87; 7 8 4; 8 4 88; 9 1 2; 10 3 1;
11 4 2; 12 3 4; 13 9 89; 14 11 93; 15 12 94; 16 11 90; 17 9 98; 18 10 104;
19 11 100; 20 12 106; 21 13 103; 22 15 102; 23 16 107; 24 15 101; 25 13 17;
26 14 18; 27 15 19; 28 16 20; 29 17 18; 30 19 17; 31 20 18; 32 19 20; 33 17 21;
34 18 22; 35 19 23; 36 20 24; 37 21 22; 38 23 21; 39 24 22; 40 23 24; 41 21 25;
42 22 26; 43 23 27; 44 24 28; 45 25 26; 46 27 25; 47 28 26; 48 27 28; 49 25 29;
50 26 30; 51 27 31; 52 28 32; 53 29 30; 54 31 29; 55 32 30; 56 31 32; 57 29 33;
58 30 34; 59 31 35; 60 32 36; 61 33 34; 62 35 33; 63 36 34; 64 35 36; 65 33 37;
66 34 38; 67 35 39; 68 36 40; 69 37 38; 70 39 37; 71 40 38; 72 39 40; 73 37 41;
74 38 42: 75 39 43: 76 40 44: 77 41 42: 78 43 41: 79 44 42: 80 43 44: 89 9 49:
90 10 50; 91 49 50; 92 13 51; 93 14 52; 94 51 52; 95 17 53; 96 18 54; 97 53 54;
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98 21 55; 99 22 56; 100 55 56; 101 25 57; 102 26 58; 103 57 58; 104 29 59;
105 30 60; 106 59 60; 107 33 61; 108 34 62; 109 61 62; 110 37 63; 111 38 64;
112 63 64; 113 41 65; 114 43 67; 115 44 68; 116 42 66; 117 68 78; 118 65 66;
119 67 68; 120 67 75; 121 69 84; 122 71 70; 123 72 69; 124 72 81; 125 65 71;
126 68 69; 127 66 70; 128 67 72; 129 41 73; 130 42 74; 131 73 74; 132 75 76;
133 76 65; 134 77 66; 135 76 77; 136 78 77; 137 75 78; 138 71 79; 139 70 80;
140 79 80; 141 81 82; 142 82 71; 143 83 70; 144 82 83; 145 84 83; 146 81 84;
147 85 9; 148 86 10; 149 87 11; 150 88 12; 151 89 91; 152 90 92; 153 91 10;
154 92 12; 155 93 95; 156 94 96; 157 95 9; 158 96 10; 159 85 95; 160 87 90;
161 87 93; 162 85 89; 163 86 91; 164 86 96; 165 88 94; 166 88 92; 167 97 14;
169 98 13; 170 99 13; 171 98 99; 172 100 15; 173 101 108; 174 100 101;
175 102 99; 176 100 102; 177 103 97; 178 98 103; 179 104 14; 180 104 97;
181 105 14; 182 104 105; 183 106 16; 184 107 105; 185 106 107; 186 108 16;
187 106 108;
DEFINE MATERIAL START
ISOTROPIC CONCRETE
E 2.17185e+07
POISSON 0.17
DENSITY 23.5616
ALPHA 1e-05
DAMP 0.05
TYPE CONCRETE
STRENGTH FCU 27579
ISOTROPIC STEEL
E 2.05e+08
POISSON 0.3
DENSITY 76.8195
ALPHA 1.2e-05
DAMP 0.03
TYPE STEEL
STRENGTH FY 253200 FU 407800 RY 1.5 RT 1.2
END DEFINE MATERIAL
MEMBER PROPERTY AMERICAN
1 3 5 7 PRIS YD 0.6 ZD 0.6
9 TO 12 PRIS YD 0.45 ZD 0.23
MEMBER PROPERTY TATASTRUCTURA
2 4 6 8 17 TO 20 25 TO 28 33 TO 36 41 TO 44 49 TO 52 57 TO 60 65 TO 68 73 -
74 TO 76 113 TO 116 125 TO 128 147 TO 150 169 172 179 -
183 TABLE ST 220X220X10.0SHS
13 TO 16 21 TO 24 29 TO 32 37 TO 40 45 TO 48 53 TO 56 61 TO 64 69 TO 72 77 -
78 TO 80 89 TO 112 117 TO 124 129 TO 146 151 TO 158 167 170 173 175 177 181 -
184 186 TABLE ST 240X120X8.0RHS
159 TO 166 171 174 176 178 180 182 185 187 TABLE ST 240X120X8.0RHS
CONSTANTS
MATERIAL CONCRETE MEMB 1 3 5 7 9 TO 12
MATERIAL STEEL MEMB 2 4 6 8 13 TO 80 89 TO 167 169 TO 187
```

5 TO 8 FIXED *************************** ************************************ ********************************** *********************************** *-----AS PER IS:1893-2016-----* SEISMIC ZONE (hyderabad) ZONE=II AS PER IS:1893-2016 * ZONE FACTOR Z=0.10* RESPONCE REDUCTION FACTOR R = 3* IMPORTANCE FACTOR I = 1.5* ROC/SOIL SITES FACTOR SS=2(1 FOR ROCX,2 FOR MEDIUM 3 FOR soft soils) * OPTIONAL VALUE FOR TYPE OF STRU ST=1(1 FOR R.C.C,2 FOR STEEL) ************************* *DEFINE 1893 LOAD *ZONE 0.1 RF 3 I 1.5 SS 2 ST 1 DM 0.05 PX 2.03 PZ 1.84 *********************************** **************** *LOAD 1 SEISMIC IN X-DIRECTION *1893 LOAD X 1 *LOAD 2 SEISMIC IN -X-DIRECTION *1893 LOAD X -1 *LOAD 3 SEISMIC IN Z-DIRECTION *1893 LOAD Z 1 *LOAD 4 SEISMIC IN -Z-DIRECTION *1893 LOAD Z -1 ********************* *********** *LOAD 7 WL+X *WIND LOAD X 1 TYPE 1 *LOAD 8 WL-X *WIND LOAD X -1 TYPE 1 *LOAD 9 WL+Z *WIND LOAD Z 1 TYPE 1 *LOAD 10 WL-Z *WIND LOAD Z -1 TYPE 1 ********* *********** *WIND LOAD CALCULATIONS *********** *BASIC WIND SPEED (Vb)=44M/SEC *RISK COEFFICIENT-k1-1.00 *TERRAIN.HEIGHT AND STRUCTURE SIZE FACTOR - K2 FOR 10mt=1.FOR 15mt=1.05,FOR 20mt=1.07,FOR 30mt=1.12 FOR 50mt=1.17 (CATEGORY-2& CLASS-B)and

SUPPORTS

*TOPOGRAPHY FACTOR-K3-1.0

```
* DESIGN WIND SPEED VZ=(Vb*K1*K2*K3)
*FOR 10mt VZ=44*1*1*1=44
*FOR 15mt VZ=44*1*1.05*1=46.2
*FOR 20mt VZ=44*1*1.07*1=47.08
*FOR 30mt VZ=44*1*1.12*1=49.28
*FOR 50mt VZ=44*1*1.17*1=51.48
*DESIGN WIND PRESSURE up to 10mts=PZ=0.6(VZ)?
*=0.6(43.12)?/1000=1.16 KN/M?
* up to 15 mts PZ = 0.6(46.2)^2/1000 = 1.28 \text{ KN/M}^2
* up to 20 mts PZ = 0.6(47.08)^2/1000 = 1.32 \text{ KN/M}^2
* up to 30 mts PZ = 0.6(49.28)^2/1000 = 1.45 \text{ KN/M}^2
* up to 50 mts PZ = 0.6(51.48)^2/1000=1.59 \text{ KN/M}^2
*******************
*DEFINE WIND LOAD
*TYPE 1
*INT 0 1.59 HEIG 2 37.5
*******************
LOAD 1 LOADTYPE Dead TITLE DL
SELFWEIGHT Y -1
FLOOR LOAD
YRANGE 3.75 3.75 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 7.5 7.5 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 11.25 11.25 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 15 15 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 18.75 18.75 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 22.5 22.5 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 26.25 26.25 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 30 30 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 33.75 33.75 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 34.95 34.95 FLOAD -14.25 XRANGE 0 2.76 ZRANGE 0 3.36 GY
YRANGE 37.5 37.5 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 3.36 GY
***********************
LOAD 2 LOADTYPE Live REDUCIBLE TITLE LL
FLOOR LOAD
YRANGE 3.75 3.75 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 7.5 7.5 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 11.25 11.25 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 15 15 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 18.75 18.75 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 22.5 22.5 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 26.25 26.25 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 30 30 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 33.75 33.75 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
YRANGE 34.95 34.95 FLOAD -2 XRANGE 0 2.76 ZRANGE 0 3.36 GY
YRANGE 37.5 37.5 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 3.36 GY
**********************
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```
LOAD 3 WL+X
MEMBER LOAD
2 6 17 19 25 27 33 35 41 43 49 51 57 59 65 67 73 75 113 114 125 128 147 149 -
169 172 UNI GX 2.67
LOAD 4 WL-X
MEMBER LOAD
4 8 18 20 26 28 34 36 42 44 50 52 58 60 66 68 74 76 115 116 126 127 148 150 -
179 183 UNI GX -2.67
LOAD 5 WL+Z
MEMBER LOAD
2 4 17 18 25 26 33 34 41 42 49 50 57 58 65 66 73 74 113 116 125 127 147 148 -
169 179 UNI GZ 0.01
**************
LOAD 6 WL-Z
MEMBER LOAD
6 8 19 20 27 28 35 36 43 44 51 52 59 60 67 68 75 76 114 115 126 128 149 150 -
172 183 UNI GZ -2.19
**************
LOAD COMB 7 1.0(DL)+1.0(LL)
1 1.0 2 1.0
LOAD COMB 8 1.0(DL)+1.0(WL+X)
1 1.0 3 1.0
LOAD COMB 9 1.0(DL)+1.0(WL-X)
1 1.0 4 1.0
LOAD COMB 10 1.0(DL)+1.0(WL+Z)
1 1.0 5 1.0
LOAD COMB 11 1.0(DL)+1.0(WL-Z)
1 1.0 6 1.0
LOAD COMB 12 1.0(DL)+0.8(LL)+0.8(WL+X)
1 1.0 2 0.8 3 0.8
LOAD COMB 13 1.0(DL)+0.8(LL)+0.8(WL-X)
1 1.0 2 0.8 4 0.8
LOAD COMB 14 1.0(DL)+0.8(LL)+0.8(WL+Z)
1 1.0 2 0.8 5 0.8
LOAD COMB 15 1.0(DL)+0.8(LL)+0.8(WL-Z)
1 1.0 2 0.8 6 0.8
LOAD COMB 16 1.5(DL)+1.5(LL)
1 1.5 2 1.5
PERFORM ANALYSIS
LOAD LIST 7 TO 15
PRINT ANALYSIS RESULTS
PRINT SUPPORT REACTION
PARAMETER 1
CODE IS800 LSD
FYLD 310000 MEMB 2 4 6 8 13 TO 80 89 TO 158 167 169 170 172 173 175 177 179 -
181 183 184 186
```

MAIN 180 MEMB 2 4 6 8 13 TO 80 89 TO 158 167 169 170 172 173 175 177 179 181 - 183 184 186

CHECK CODE MEMB 2 4 6 8 13 TO 80 89 TO 158 167 169 170 172 173 175 177 179 - 181 183 184 186

STEEL MEMBER TAKE OFF LIST 2 4 6 8 13 **TO** 80 89 **TO** 158 167 169 170 172 173 - 175 177 179 181 183 184 186

LOAD LIST 16

START CONCRETE DESIGN

CODE INDIAN

FC 25000 MEMB 1 3 5 7

FYMAIN 500000 MEMB 1 3 5 7

FYSEC 500000 MEMB 1 3 5 7

DESIGN COLUMN 1 3 5 7

END CONCRETE DESIGN

PERFORM ANALYSIS

FINISH

STAAD OUTPUT

PAGE NO. 1

****************** STAAD.Pro CONNECT Edition Version 22.09.00.115 Proprietary Program of Bentley Systems, Inc. Date= DEC 11, 2023 Time= 10:31:29 * Licensed to: Sri Harsha Consultants ***************** 1. STAAD SPACE INPUT FILE: F:\AISHWARYA\GANDHI HOSPITAL\STAAD\GH-LIFT-6.std 2. START JOB INFORMATION 3. ENGINEER DATE 17-JUL-23 4. END JOB INFORMATION

- 5. INPUT WIDTH 79
- 6. UNIT METER KN
- 7. JOINT COORDINATES
- 8. 1 0 0 0; 2 2.76 0 0; 3 0 0 3.36; 4 2.76 0 3.36; 5 0 -2.275 0; 6 2.76 -2.275 0
- 9. 7 0 -2.275 3.36; 8 2.76 -2.275 3.36; 9 0 3.75 0; 10 2.76 3.75 0
- 10. 11 0 3.75 3.36; 12 2.76 3.75 3.36; 13 0 7.5 0; 14 2.76 7.5 0; 15 0 7.5 3.36
- 11. 16 2.76 7.5 3.36; 17 0 11.25 0; 18 2.76 11.25 0; 19 0 11.25 3.36
- 12. 20 2.76 11.25 3.36; 21 0 15 0; 22 2.76 15 0; 23 0 15 3.36; 24 2.76 15 3.36
- 13. 25 0 18.75 0; 26 2.76 18.75 0; 27 0 18.75 3.36; 28 2.76 18.75 3.36
- 14. 29 0 22.5 0; 30 2.76 22.5 0; 31 0 22.5 3.36; 32 2.76 22.5 3.36; 33 0 26.25 0
- 15. 34 2.76 26.25 0; 35 0 26.25 3.36; 36 2.76 26.25 3.36; 37 0 30 0; 38 2.76 30 0
- 16. 39 0 30 3.36; 40 2.76 30 3.36; 41 0 33.75 0; 42 2.76 33.75 0; 43 0 33.75 3.36
- 17. 44 2.76 33.75 3.36; 49 0 3.75 -1; 50 2.76 3.75 -1; 51 0 7.5 -1; 52 2.76 7.5 -1.
- 18. 53 0 11.25 -1; 54 2.76 11.25 -1; 55 0 15 -1; 56 2.76 15 -1; 57 0 18.75 -1.
- 19. 58 2.76 18.75 -1; 59 0 22.5 -1; 60 2.76 22.5 -1; 61 0 26.25 -1.
- 20. 62 2.76 26.25 -1; 63 0 30 -1; 64 2.76 30 -1; 65 0 34.95 0; 66 2.76 34.95 0
- 21. 67 0 34.95 3.36; 68 2.76 34.95 3.36; 69 2.76 37.5 3.36; 70 2.76 37.5 0
- 22. 71 0 37.5 0; 72 0 37.5 3.36; 73 0 33.75 -1; 74 2.76 33.75 -1; 75 0 34.95 2.24
- 23. 76 0 34.95 1.12; 77 2.76 34.95 1.12; 78 2.76 34.95 2.24; 79 0 37.5 -1.
- 24. 80 2.76 37.5 -1; 81 0 37.5 2.24; 82 0 37.5 1.12; 83 2.76 37.5 1.12
- 25. 84 2.76 37.5 2.24; 85 0 3.463 0; 86 2.76 3.463 0; 87 0 3.463 3.36

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26. 88 2.76 3.463 3.36; 89 0.287 3.75 0; 90 0.287 3.75 3.36; 91 2.473 3.75 0 27. 92 2.473 3.75 3.36; 93 0 3.75 3.073; 94 2.76 3.75 3.073; 95 0 3.75 0.287
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- 28. 96 2.76 3.75 0.287; 97 2.473 7.5 0; 98 0 7.213 0; 99 0 7.5 0.287
- 29. 100 0 7.213 3.36; 101 0.287 7.5 3.36; 102 0 7.5 3.073; 103 0.287 7.5 0
- 30. 104 2.76 7.213 0; 105 2.76 7.5 0.287; 106 2.76 7.213 3.36; 107 2.76 7.5 3.073
- 31. 108 2.473 7.5 3.36
- 32. MEMBER INCIDENCES
- 33. 1 5 1; 2 1 85; 3 6 2; 4 2 86; 5 7 3; 6 3 87; 7 8 4; 8 4 88; 9 1 2; 10 3 1
- 34. 11 4 2; 12 3 4; 13 9 89; 14 11 93; 15 12 94; 16 11 90; 17 9 98; 18 10 104
- 35. 19 11 100; 20 12 106; 21 13 103; 22 15 102; 23 16 107; 24 15 101; 25 13 17
- 36. 26 14 18; 27 15 19; 28 16 20; 29 17 18; 30 19 17; 31 20 18; 32 19 20; 33 17 21
- 37. 34 18 22; 35 19 23; 36 20 24; 37 21 22; 38 23 21; 39 24 22; 40 23 24; 41 21 25
- 38. 42 22 26; 43 23 27; 44 24 28; 45 25 26; 46 27 25; 47 28 26; 48 27 28; 49 25 29 STAAD SPACE -- PAGE NO. 2

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39. 50 26 30; 51 27 31; 52 28 32; 53 29 30; 54 31 29; 55 32 30; 56 31 32; 57 29 33
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- 40. 58 30 34; 59 31 35; 60 32 36; 61 33 34; 62 35 33; 63 36 34; 64 35 36; 65 33 37
- 41. 66 34 38; 67 35 39; 68 36 40; 69 37 38; 70 39 37; 71 40 38; 72 39 40; 73 37 41
- 42. 74 38 42; 75 39 43; 76 40 44; 77 41 42; 78 43 41; 79 44 42; 80 43 44; 89 9 49
- 43. 90 10 50; 91 49 50; 92 13 51; 93 14 52; 94 51 52; 95 17 53; 96 18 54; 97 53 54
- 44. 98 21 55; 99 22 56; 100 55 56; 101 25 57; 102 26 58; 103 57 58; 104 29 59
- 45. 105 30 60; 106 59 60; 107 33 61; 108 34 62; 109 61 62; 110 37 63; 111 38 64
- 46. 112 63 64; 113 41 65; 114 43 67; 115 44 68; 116 42 66; 117 68 78; 118 65 66
- 47. 119 67 68; 120 67 75; 121 69 84; 122 71 70; 123 72 69; 124 72 81; 125 65 71
- 48. 126 68 69; 127 66 70; 128 67 72; 129 41 73; 130 42 74; 131 73 74; 132 75 76
- 49. 133 76 65; 134 77 66; 135 76 77; 136 78 77; 137 75 78; 138 71 79; 139 70 80
- 50. 140 79 80; 141 81 82; 142 82 71; 143 83 70; 144 82 83; 145 84 83; 146 81 84
- 51. 147 85 9: 148 86 10: 149 87 11: 150 88 12: 151 89 91: 152 90 92: 153 91 10
- 52. 154 92 12; 155 93 95; 156 94 96; 157 95 9; 158 96 10; 159 85 95; 160 87 90
- 53. 161 87 93; 162 85 89; 163 86 91; 164 86 96; 165 88 94; 166 88 92; 167 97 14
- 54. 169 98 13; 170 99 13; 171 98 99; 172 100 15; 173 101 108; 174 100 101
- 55. 175 102 99; 176 100 102; 177 103 97; 178 98 103; 179 104 14; 180 104 97
- 56. 181 105 14; 182 104 105; 183 106 16; 184 107 105; 185 106 107; 186 108 16
- 57. 187 106 108
- 58. DEFINE MATERIAL START
- 59. ISOTROPIC CONCRETE
- 60. E 2.17185E+07
- 61. POISSON 0.17
- 62. DENSITY 23.5616
- 63. ALPHA 1E-05
- 64. DAMP 0.05
- 65. TYPE CONCRETE
- 66. STRENGTH FCU 27579
- 67. ISOTROPIC STEEL
- 68. E 2.05E+08
- 69. POISSON 0.3

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71. ALPHA 1.2E-05
 72. DAMP 0.03
 73. TYPE STEEL
 74. STRENGTH FY 253200 FU 407800 RY 1.5 RT 1.2
 75. END DEFINE MATERIAL
 76. MEMBER PROPERTY AMERICAN
 77. 1 3 5 7 PRIS YD 0.6 ZD 0.6
 78. 9 TO 12 PRIS YD 0.45 ZD 0.23
 79. MEMBER PROPERTY TATASTRUCTURA
 80. 2 4 6 8 17 TO 20 25 TO 28 33 TO 36 41 TO 44 49 TO 52 57 TO 60 65 TO 68 73 -
 81. 74 TO 76 113 TO 116 125 TO 128 147 TO 150 169 172 179 -
 82. 183 TABLE ST 220X220X10.0SHS
 83. 13 TO 16 21 TO 24 29 TO 32 37 TO 40 45 TO 48 53 TO 56 61 TO 64 69 TO 72 77 -
 84. 78 TO 80 89 TO 112 117 TO 124 129 TO 146 151 TO 158 167 170 173 175 177 181 -
 85. 184 186 TABLE ST 240X120X8.0RHS
 86. 159 TO 166 171 174 176 178 180 182 185 187 TABLE ST 240X120X8.0RHS
 87. CONSTANTS
 88. MATERIAL CONCRETE MEMB 1 3 5 7 9 TO 12
 89. MATERIAL STEEL MEMB 2 4 6 8 13 TO 80 89 TO 167 169 TO 187
 90. SUPPORTS
 91. 5 TO 8 FIXED
 92 **********************
 94
******************************
 STAAD SPACE
                                -- PAGE NO. 3
 95 *********************************
 96. *-----AS PER IS:1893-2016---- -
 97. * SEISMIC ZONE (HYDERABAD) ZONE=II AS PER IS:1893-2016
 98. * ZONE FACTOR
                          Z=0.10
 99. * RESPONCE REDUCTION FACTOR
                                 R = 3
                             I = 1.5
 100. * IMPORTANCE FACTOR
 101. * ROC/SOIL SITES FACTOR
                             SS=2(1 FOR ROCX.2 FOR MEDIUM 3 FOR
SOFT SOIL
 102. * OPTIONAL VALUE FOR TYPE OF STRU ST=1(1 FOR R.C.C,2 FOR STEEL)
 104. *DEFINE 1893 LOAD
 105. *ZONE 0.1 RF 3 I 1.5 SS 2 ST 1 DM 0.05 PX 2.03 PZ 1.84
 106.
***********************************
 107. ***************
 108. *LOAD 1 SEISMIC IN X-DIRECTION
 109. *1893 LOAD X 1
```

70. DENSITY 76.8195

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110. *LOAD 2 SEISMIC IN -X-DIRECTION
 111. *1893 LOAD X -1
 112. *LOAD 3 SEISMIC IN Z-DIRECTION
 113. *1893 LOAD Z 1
 114. *LOAD 4 SEISMIC IN -Z-DIRECTION
 115. *1893 LOAD Z -1
 116. *******************
 117. *******************
 118. *LOAD 7 WL+X
 119. *WIND LOAD X 1 TYPE 1
 120. *LOAD 8 WL-X
 121. *WIND LOAD X -1 TYPE 1
 122. *LOAD 9 WL+Z
 123. *WIND LOAD Z 1 TYPE 1
 124. *LOAD 10 WL-Z
 125. *WIND LOAD Z -1 TYPE 1
 126. ************
 127. *****************
 128. *WIND LOAD CALCULATIONS
 129 ***********
 130. *BASIC WIND SPEED (VB)=44M/SEC
 131. *RISK COEFFICIENT-K1-1.00
 132. *TERRAIN,HEIGHT AND STRUCTURE SIZE FACTOR - K2 FOR 10MT=1,FOR
15MT=1.05,FOR 20M
 133. *TOPOGRAPHY FACTOR-K3-1.0
 134. * DESIGN WIND SPEED VZ=(VB*K1*K2*K3)
 135. *FOR 10MT VZ=44*1*1*1=44
 136. *FOR 15MT VZ=44*1*1.05*1=46.2
 137. *FOR 20MT VZ=44*1*1.07*1=47.08
 138. *FOR 30MT VZ=44*1*1.12*1=49.28
 139. *FOR 50MT VZ=44*1*1.17*1=51.48
 140. *DESIGN WIND PRESSURE UP TO 10MTS=PZ=0.6(VZ)?
 141. *=0.6(43.12)?/1000=1.16 KN/M?
 142. * UP TO 15 MTS PZ = 0.6(46.2)^2/1000=1.28 KN/M<sup>2</sup>
 143. * UP TO 20 MTS PZ = 0.6(47.08)^2/1000=1.32 KN/M<sup>2</sup>
 144. * UP TO 30 MTS PZ = 0.6(49.28)^2/1000=1.45 KN/M<sup>2</sup>
 145. * UP TO 50 MTS PZ = 0.6(51.48)^2/1000=1.59 KN/M<sup>2</sup>
 146. *****************************
 147. *DEFINE WIND LOAD
 148. *TYPE 1
 149. *INT 0 1.59 HEIG 2 37.5
 150. *******************
STAAD SPACE
                                     -- PAGE NO. 4
```

- 151. LOAD 1 LOADTYPE DEAD TITLE DL
- 152. SELFWEIGHT Y -1

153. FLOOR LOAD

154. YRANGE 3.75 3.75 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY **NOTE** about Floor/OneWay Loads/Weights.

Please note that depending on the shape of the floor you may

have to break up the FLOOR/ONEWAY LOAD into multiple commands.

For details please refer to Technical Reference Manual

Section 5.32.4.2 Note d and/or "5.32.4.3 Note f.

- 155. YRANGE 7.5 7.5 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
- 156. YRANGE 11.25 11.25 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
- 157. YRANGE 15 15 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
- 158. YRANGE 18.75 18.75 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
- 159. YRANGE 22.5 22.5 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
- 160. YRANGE 26.25 26.25 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
- 161. YRANGE 30 30 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
- 162. YRANGE 33.75 33.75 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 0 GY
- 163. YRANGE 34.95 34.95 FLOAD -14.25 XRANGE 0 2.76 ZRANGE 0 3.36 GY
- 164. YRANGE 37.5 37.5 FLOAD -4.125 XRANGE 0 2.76 ZRANGE -1 3.36 GY
- 165. ********************
- 166. LOAD 2 LOADTYPE LIVE REDUCIBLE TITLE LL
- 167. FLOOR LOAD
- 168. YRANGE 3.75 3.75 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 169. YRANGE 7.5 7.5 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 170. YRANGE 11.25 11.25 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 171. YRANGE 15 15 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 172. YRANGE 18.75 18.75 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 173. YRANGE 22.5 22.5 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 174. YRANGE 26.25 26.25 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 175. YRANGE 30 30 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 176. YRANGE 33.75 33.75 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 0 GY
- 177. YRANGE 34.95 34.95 FLOAD -2 XRANGE 0 2.76 ZRANGE 0 3.36 GY
- 178. YRANGE 37.5 37.5 FLOAD -2 XRANGE 0 2.76 ZRANGE -1 3.36 GY
- 179. *************************
- 180. LOAD 3 WL+X
- 181. MEMBER LOAD
- 182. 2 6 17 19 25 27 33 35 41 43 49 51 57 59 65 67 73 75 113 114 125 128 147 149 -
- 183. 169 172 UNI GX 2.67
- 184. LOAD 4 WL-X
- 185. MEMBER LOAD
- 186. 4 8 18 20 26 28 34 36 42 44 50 52 58 60 66 68 74 76 115 116 126 127 148 150 -
- 187. 179 183 UNI GX -2.67
- 188. LOAD 5 WL+Z
- 189. MEMBER LOAD
- 190, 2 4 17 18 25 26 33 34 41 42 49 50 57 58 65 66 73 74 113 116 125 127 147 148 -
- 191, 169 179 UNI GZ 0.01
- 192 **************

```
193. LOAD 6 WL-Z
194. MEMBER LOAD
STAAD SPACE
```

-- PAGE NO. 5

- 195. 6 8 19 20 27 28 35 36 43 44 51 52 59 60 67 68 75 76 114 115 126 128 149 150 -
- 196. 172 183 UNI GZ -2.19
- 197. *************
- 198. LOAD COMB 7 1.0(DL)+1.0(LL)
- 199. 1 1.0 2 1.0
- 200. LOAD COMB 8 1.0(DL)+1.0(WL+X)
- 201. 1 1.0 3 1.0
- 202. LOAD COMB 9 1.0(DL)+1.0(WL-X)
- 203. 1 1.0 4 1.0
- 204. LOAD COMB 10 1.0(DL)+1.0(WL+Z)
- 205. 1 1.0 5 1.0
- 206. LOAD COMB 11 1.0(DL)+1.0(WL-Z)
- 207. 1 1.0 6 1.0
- 208. LOAD COMB 12 1.0(DL)+0.8(LL)+0.8(WL+X)
- 209. 1 1.0 2 0.8 3 0.8
- 210. LOAD COMB 13 1.0(DL)+0.8(LL)+0.8(WL-X)
- 211. 1 1.0 2 0.8 4 0.8
- 212. LOAD COMB 14 1.0(DL)+0.8(LL)+0.8(WL+Z)
- 213. 1 1.0 2 0.8 5 0.8
- 214. LOAD COMB 15 1.0(DL)+0.8(LL)+0.8(WL-Z)
- 215. 1 1.0 2 0.8 6 0.8
- 216. LOAD COMB 16 1.5(DL)+1.5(LL)
- 217. 1 1.5 2 1.5
- 218. PERFORM ANALYSIS

_

PROBLEM STATISTICS

NUMBER OF JOINTS 104 NUMBER OF MEMBERS 178 NUMBER OF PLATES 0 NUMBER OF SOLIDS 0 NUMBER OF SURFACES 0 NUMBER OF SUPPORTS 4

Using 64-bit analysis engine.

SOLVER USED IS THE IN-CORE ADVANCED MATH SOLVER

TOTAL PRIMARY LOAD CASES = 6, TOTAL DEGREES OF FREEDOM = 600 TOTAL LOAD COMBINATION CASES = 10 SO FAR.

```
219. LOAD LIST 7 TO 15
 220. PRINT ANALYSIS RESULTS
ANALYSIS RESULTS
STAAD SPACE
                                   -- PAGE NO. 6
```

```
0.0000 -0.0063 -0.0008 -0.0000 0.0000 -0.0000
1
  7
     8
    -0.1348 -0.0244 -0.0006 0.0000 -0.0000 0.0010
  9
     0.0000 -0.0051 0.0000
                          0.0000 0.0000 -0.0000
 10
 11
     0.0000 -0.0177 -0.1177 -0.0008 -0.0000 -0.0000
     0.1082 0.0093 -0.0006 0.0000
                                  0.0000 -0.0008
 12
     -0.1079 -0.0215 -0.0008 -0.0000
                                 -0.0000 0.0008
 13
     0.0000 -0.0060 -0.0003 0.0000
                                  0.0000 - 0.0000
     -0.0000 -0.0162 -0.0945 -0.0007 -0.0000 -0.0000
 15
    -0.0000 -0.0063 -0.0008 -0.0000 -0.0000 0.0000
     0.1348 -0.0244 -0.0006 0.0000 0.0000 -0.0010
  8
  9
     -0.1352 0.0141 -0.0004
                          0.0000 -0.0000 0.0010
 10
     -0.0000 -0.0051 0.0000 0.0000 -0.0000 0.0000
     -0.0000 -0.0177 -0.1177 -0.0008 0.0000 0.0000
 11
     0.1079 -0.0215 -0.0008 -0.0000 0.0000 -0.0008
 12
     -0.1082 0.0093 -0.0006 0.0000 -0.0000 0.0008
 13
     -0.0000 -0.0060 -0.0003 0.0000 -0.0000 0.0000
 14
 15
     0.0000 -0.0162 -0.0945 -0.0007
                                  0.0000 \quad 0.0000
     0.0000 -0.0027 -0.0010 -0.0000 0.0000 -0.0000
3
 7
     0.0000 -0.0010
  8
  9
     -0.1347 -0.0211 -0.0009 -0.0000 -0.0000 0.0010
     0.0000 -0.0026 -0.0002 -0.0000
 10
                                 0.0000 - 0.0000
     11
 12
     0.1082 0.0121 -0.0008 -0.0000
                                  0.0000 - 0.0008
     -0.1078 -0.0175 -0.0011 -0.0000
 13
                                 -0.0000 0.0008
 14
     0.0000 -0.0027 -0.0005 -0.0000
                                  0.0000 - 0.0000
 15
     0.0001 0.0074 -0.0950 -0.0007 -0.0000 -0.0000
    -0.0000 -0.0027 -0.0010 -0.0000 -0.0000 0.0000
     0.1347 -0.0211 -0.0009 -0.0000
                                 0.0000 -0.0010
  8
     0.0010
 10 -0.0000 -0.0026 -0.0002 -0.0000 -0.0000 0.0000
```

```
0.0000
  11
      -0.0001
               0.0101 -0.1183 -0.0009
                                                 0.0000
       0.1078
                       -0.0011
                                -0.0000
                                         0.0000 -0.0008
  12
              -0.0175
  13
      -0.1082
               0.0121
                       -0.0008
                                -0.0000
                                         -0.0000
                                                  0.0008
  14
      -0.0000
               -0.0027 -0.0005
                                -0.0000
                                         -0.0000
                                                  0.0000
  15
      -0.0001
               0.0074
                       -0.0950
                                -0.0007
                                         0.0000
                                                  0.0000
5
  7
       0.0000
               0.0000
                       0.0000
                                0.0000
                                         0.0000
                                                 0.0000
                       0.0000
                                0.0000
  8
      0.0000
               0.0000
                                        0.0000
                                                 0.0000
  9
                       0.0000
                                0.0000
                                        0.0000
      0.0000
               0.0000
                                                 0.0000
  10
       0.0000
                       0.0000
                                0.0000
                                         0.0000
               0.0000
                                                 0.0000
  11
       0.0000
               0.0000
                        0.0000
                                0.0000
                                         0.0000
                                                 0.0000
  12
       0.0000
               0.0000
                        0.0000
                                0.0000
                                         0.0000
                                                 0.0000
  13
       0.0000
               0.0000
                        0.0000
                                0.0000
                                         0.0000
                                                 0.0000
       0.0000
                        0.0000
                                0.0000
                                         0.0000
  14
               0.0000
                                                 0.0000
  15
       0.0000
               0.0000
                        0.0000
                                0.0000
                                         0.0000
                                                 0.0000
  7
       0.0000
               0.0000
                        0.0000
                                0.0000
                                         0.0000
                                                 0.0000
6
STAAD SPACE
                                         -- PAGE NO. 7
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

JOINT LOAD X-TRANS Y-TRANS Z-TRANS X-ROTAN Y-ROTAN Z-ROTAN

8 0.00000.00000.00000.0000 0.0000 0.0000 9 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 10 0.0000 0.00000.00000.00000.00000.00000.0000 0.0000 0.0000 0.0000 11 0.0000 0.0000 12 0.00000.00000.0000 0.00000.00000.0000 0.0000 13 0.0000 0.00000.0000 0.0000 0.0000 14 0.00000.00000.0000 0.0000 0.0000 0.0000 15 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 7 7 0.00000.00000.0000 0.0000 0.00000.00008 0.0000 0.00000.0000 0.0000 0.0000 0.0000 9 0.00000.0000 0.00000.0000 0.00000.0000 10 0.0000 0.00000.0000 0.0000 0.0000 0.0000 11 0.00000.00000.0000 0.0000 0.00000.0000 0.0000 0.0000 12 0.0000 0.0000 0.0000 0.0000 13 0.00000.00000.00000.0000 0.00000.0000 14 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 15 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 7 0.00000.00000.0000 0.0000 0.00000.0000 8 0.0000 0.0000 0.0000 0.00000.00000.0000 9 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

```
0.0000 \quad 0.0000 \quad 0.0000 \quad 0.0000 \quad 0.0000
  10
       0.0000 0.0000 0.0000
                               0.0000 0.0000 0.0000
  11
              0.0000 \quad 0.0000
                               0.0000
  12
       0.0000
                                       0.0000 \quad 0.0000
  13
       0.0000 \quad 0.0000 \quad 0.0000 \quad 0.0000 \quad 0.0000
  14
       0.0000 \quad 0.0000 \quad 0.0000
                              0.0000 0.0000 0.0000
       0.0000 \quad 0.0000 \quad 0.0000 \quad 0.0000 \quad 0.0000
  15
      -0.0002 -0.0504 -0.0401 -0.0003 -0.0000 -0.0001
  7
      3.1816  0.1142  -0.0046  0.0001  0.0002  -0.0073
      -3.1807 -0.1945 -0.0531 -0.0005 -0.0002 0.0072
   9
     -0.0002 -0.0397 -0.0157 -0.0002 -0.0000 -0.0000
  10
  11
     -0.0003 -0.1413 -2.9122 -0.0075
                                       0.0000 - 0.0000
       2.5452 0.0751 -0.0185 -0.0000
                                       0.0002 -0.0058
  12
      -2.5446 -0.1718 -0.0573 -0.0005
                                       -0.0002 0.0057
  13
     -0.0002 -0.0480 -0.0273 -0.0002 -0.0000 -0.0000
  14
  15 -0.0003 -0.1293 -2.3446 -0.0061
                                       0.0000 - 0.0000
10 7 0.0002 -0.0504 -0.0401 -0.0003 0.0000 0.0001
      3.1807 -0.1945 -0.0531 -0.0005 0.0002 -0.0072
     -3.1816 0.1142 -0.0046 0.0001 -0.0002 0.0073
      0.0002 -0.0397 -0.0157 -0.0002 0.0000 0.0000
  10
  11
       0.0003 -0.1413 -2.9122 -0.0075 -0.0000 0.0000
       2.5446 -0.1718 -0.0573 -0.0005
                                       0.0002 -0.0057
  12
      -2.5452 0.0751 -0.0185 -0.0000 -0.0002 0.0058
  13
       0.0002 -0.0480 -0.0273 -0.0002 0.0000 0.0000
  14
       0.0003 -0.1293 -2.3446 -0.0061 -0.0000 0.0000
  15
11 7 -0.0001 -0.0195 -0.0400 -0.0001 0.0000 -0.0000
      3.2385 0.1300 -0.0049 -0.0001 0.0002 -0.0076
STAAD SPACE
                                        -- PAGE NO. 8
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

JOINT LOAD X-TRANS Y-TRANS Z-TRANS X-ROTAN Y-ROTAN Z-ROTAN

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```
-3.2374 -0.1662 -0.0526 -0.0001 -0.0002 0.0076
  10 -0.0000 -0.0186 -0.0156 -0.0001
                                      0.0000 - 0.0000
      0.0001 0.0830 -2.9133 -0.0074
                                       0.0000 - 0.0000
  11
      2.5908 0.0993 -0.0187 -0.0001
  12
                                       0.0002 - 0.0061
  13
      -2.5899 -0.1377 -0.0569 -0.0002
                                      -0.0002 0.0061
  14 -0.0001 -0.0196 -0.0273 -0.0001
                                      0.0000 - 0.0000
  15
      0.0001 0.0617 -2.3455 -0.0060
                                       0.0000 - 0.0000
12
   7
      0.0001 -0.0195 -0.0400 -0.0001 -0.0000 0.0000
      3.2374 -0.1662 -0.0526 -0.0001 0.0002 -0.0076
   8
```

```
9 -3.2385 0.1300 -0.0049 -0.0001 -0.0002 0.0076
  10 0.0000 -0.0186 -0.0156 -0.0001 -0.0000 0.0000
  11
     -0.0001 0.0830 -2.9133 -0.0074 -0.0000 0.0000
  12
       2.5899 -0.1377 -0.0569 -0.0002 0.0002 -0.0061
  13 -2.5908 0.0993 -0.0187 -0.0001 -0.0002
                                             0.0061
  14
      0.0001 -0.0196 -0.0273 -0.0001 -0.0000
                                              0.0000
  15 -0.0001 0.0617 -2.3455 -0.0060 -0.0000 0.0000
13 7 -0.0001 -0.0913 -0.1361 -0.0004 -0.0000 -0.0000
      7.3855 0.1918 -0.0204 0.0000 0.0006 -0.0082
   9 -7.3845 -0.3369 -0.1750 -0.0005 -0.0006 0.0082
  10 -0.0001 -0.0719 -0.0665 -0.0002 -0.0000 -0.0000
  11 -0.0002 -0.2462 -6.9334 -0.0084 0.0000 -0.0000
      5.9083 0.1239 -0.0666 -0.0001
                                      0.0005 - 0.0066
  12
  13 -5.9076 -0.2990 -0.1902 -0.0006 -0.0005 0.0065
  14 -0.0001 -0.0869 -0.1034 -0.0003 -0.0000 -0.0000
  15 -0.0002 -0.2264 -5.5969 -0.0068
                                      0.0000 - 0.0000
14 7 0.0001 -0.0913 -0.1361 -0.0004 0.0000 0.0000
      7.3845 -0.3369 -0.1750 -0.0005 0.0006 -0.0082
     -7.3855 0.1918 -0.0204 0.0000 -0.0006 0.0082
   9
  10
     0.0001 -0.0719 -0.0665 -0.0002 0.0000 0.0000
      0.0002 -0.2462 -6.9334 -0.0084 -0.0000 0.0000
  11
       5.9076 -0.2990 -0.1902 -0.0006
                                     0.0005 -0.0065
  12
      -5.9083 0.1239 -0.0666 -0.0001
                                      -0.0005 0.0066
  13
  14
       0.0001 -0.0869 -0.1034 -0.0003
                                      0.0000 0.0000
  15
      0.0002 -0.2264 -5.5969 -0.0068 -0.0000 0.0000
15
  7 -0.0000 -0.0356 -0.1359 -0.0003 0.0000 -0.0000
      7.5706 0.2208 -0.0207 -0.0001
                                     0.0006 - 0.0086
     -7.5695 -0.2867 -0.1744 -0.0003 -0.0006 0.0086
     -0.0000 -0.0338 -0.0663 -0.0002 0.0000 -0.0000
  10
      0.0001 0.1406 -6.9344 -0.0083
                                      0.0000 - 0.0000
  11
       6.0565 0.1679 -0.0667 -0.0002
  12
                                      0.0004 -0.0069
      -6.0556 -0.2381 -0.1897 -0.0003
                                     -0.0004 0.0069
  13
  14 -0.0000 -0.0357 -0.1033 -0.0002 0.0000 -0.0000
  15
      0.0001 0.1038 -5.5977 -0.0067
                                      0.0000 - 0.0000
16 7 0.0000 -0.0356 -0.1359 -0.0003 -0.0000 0.0000
      7.5695 -0.2867 -0.1744 -0.0003 0.0006 -0.0086
   9 -7.5706 0.2208 -0.0207 -0.0001 -0.0006 0.0086
STAAD SPACE
                                      -- PAGE NO. 9
```

10 0.0000 -0.0338 -0.0663 -0.0002 -0.0000 0.0000 -0.00010.1406 -6.9344 -0.0083 -0.00000.0000 11 12 6.0556 -0.2381 -0.1897 -0.0003 0.0004 -0.0069 13 -6.0565 0.1679 -0.0667 -0.0002 -0.0004 0.0069 14 0.0000 -0.0357 -0.1033 -0.0002 -0.00000.0000 -0.0001 0.1038 -5.5977 15 -0.0067 -0.00000.0000 17 7 -0.0000 -0.1293 -0.2714 -0.0005 -0.0000 -0.0001 12.1137 0.2486 -0.0524 0.00000.0010 -0.0095 -12.1125 -0.4542 -0.3370 -0.0007 -0.0010 0.0094 -0.0000 -0.1018 -0.1436 -0.0003 -0.0000 10 -0.0000 -0.3340 -11.3785 -0.0092 0.0000 - 0.000011 -0.000012 9.6910 0.1572 -0.1422 -0.0002 0.0008 -0.0076 -9.6900 -0.4051 -0.3699 -0.0007 -0.000813 0.0075 14 -0.0000 -0.1232 -0.2152 -0.0004 -0.0000-0.000115 -0.0000 -0.3090 -9.2030 -0.0076 0.0000 -0.0001 18 7 0.0000 -0.1293 -0.2714 -0.0005 0.00000.0001 12.1125 -0.4542 -0.3370 -0.0007 0.0010 -0.0094 9 -12.1137 0.2486 -0.0524 0.0000-0.0010 0.0095 0.0000 -0.1018 -0.1436 10 -0.00030.0000 0.00000.0000 -0.3340 -11.3785 -0.000011 -0.00920.00009.6900 -0.4051 -0.3699 12 -0.0007 0.0008 -0.0075 13 -9.6910 0.1572 -0.1422 -0.0002-0.00080.0076 14 0.0000 -0.1232 -0.2152 -0.0004 0.00000.0001 15 0.0000 -0.3090 -9.2030 -0.0076 -0.00000.0001 19 7 -0.0000 -0.0514 -0.2714 -0.0004 0.0000-0.0000 12.4611 0.2901 -0.0524 -0.00010.0010 -0.0100 8 -0.3849 -0.3370 -0.0004 -12.4598 -0.0010 0.0100 -0.0485 -0.1436 -0.0002 0.0000 10 -0.0000-0.0000 -0.0000 11 0.00000.1838 -11.3797 -0.00920.000012 9.9689 0.2194 -0.1422 -0.00020.0008 - 0.008013 -9.9679 -0.3205 -0.3699 -0.0004 -0.0008 0.008014 -0.0000 -0.0514 -0.2152 -0.0003 0.0000 -0.0000 15 0.00000.1344 -9.2041 -0.0075 0.0000 - 0.000020 7 0.0000 -0.0514 -0.2714 -0.0004 -0.0000 0.000012.4598 -0.3849 -0.3370 -0.0004 0.0010 -0.0100 -12.4611 0.2901 -0.0524 -0.0001 -0.0010 0.0100 10 0.0000-0.0485 -0.1436 -0.0002-0.00000.000011 -0.00000.1838 -11.3797 -0.0092 -0.00000.000012 9.9679 -0.3205 -0.3699 -0.0004 0.0008 -0.008013 -9.9689 0.2194 -0.1422 -0.0002-0.00080.0080 14 0.0000 -0.0514 -0.2152 -0.0003 -0.00000.0000 -0.00000.1344 -9.2041 -0.0075 15 -0.00000.000021 0.0000-0.1640 -0.4356 -0.0005 -0.0000 -0.0001 16.8254 0.2869 -0.1027 -0.0001 0.0015 -0.0092

```
9 -16.8242 -0.5478 -0.5220 -0.0007 -0.0015 0.0091
10 0.0000 -0.1293 -0.2420 -0.0003 -0.0000 -0.0000
STAAD SPACE -- PAGE NO. 10
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

JOINT LOAD X-TRANS Y-TRANS Z-TRANS X-ROTAN Y-ROTAN Z-ROTAN

11 0.0000 -0.4056 -15.7240 -0.0087 -0.0000 -0.0000 12 13.4603 0.1766 -0.2432 -0.0003 0.0012 -0.0074 13 -13.4593 -0.4911 -0.5787 -0.0007 -0.0012 0.0072 14 0.0000 -0.1563 -0.3547 -0.0005 -0.0000 -0.0001 15 0.0000 -0.3773 -12.7403 -0.0071 -0.0000 -0.0001 22 7 -0.0000 -0.1640 -0.4356 -0.0005 0.0000 0.0001 8 16.8242 -0.5478 -0.5220 -0.0007 0.0015 -0.0091 9 -16.8254 0.2869 -0.1027 -0.0001 -0.0015 0.0092 10 -0.0000 -0.1293 -0.2420 -0.0003 0.0000 0.0000 11 -0.0000 -0.4056 -15.7240 -0.0087 0.0000 0.0000 12 13.4593 -0.4911 -0.5787 -0.0007 0.0012 -0.0072 14 -0.0000 -0.1563 -0.3547 -0.0005 0.0000 0.0001 15 -0.0000 -0.3773 -12.7403 -0.0071 0.0000 0.0001 23 7 0.0000 -0.0667 -0.4356 -0.0004 0.0000 -0.0000 8 17.3415 0.3401 -0.1027 -0.0002 0.0015 -0.0096 9 -17.3402 -0.4625 -0.5220 -0.0004 -0.0015 0.0096 10 0.0000 -0.0625 -0.2420 -0.0003 0.0000 -0.0000 11 -0.0000 0.2138 -15.7253 -0.0086 0.0000 -0.0000 12 13.8732 0.2555 -0.2433 -0.0003 0.0012 -0.0077 13 -13.8722 -0.3866 -0.5786 -0.0005 -0.0012 0.0077 14 0.0000 -0.0666 -0.3547 -0.0004 0.0000 -0.0000 15 -0.0000 0.1545 -12.7413 -0.0070 0.0000 -0.0000 24 7 -0.0000 -0.0667 -0.4356 -0.0004 -0.0000 0.0000 8 17.3402 -0.4625 -0.5220 -0.0004 0.0015 -0.0096 9 -17.3415 0.3401 -0.1027 -0.0002 -0.0015 0.0096 10 -0.0000 -0.0625 -0.2420 -0.0003 -0.0000 0.0000 11 0.0000 0.2138 -15.7253 -0.0086 -0.0000 0.0000 12 13.8722 -0.3866 -0.5786 -0.0005 0.0012 -0.0077 13 -13.8732 0.2555 -0.2433 -0.0003 -0.0012 0.0077 14 -0.0000 -0.0666 -0.3547 -0.0004 -0.0000 0.0000 0.0000 0.1545 -12.7413 -0.0070 -0.0000 0.0000 25 7 -0.0000 -0.1955 -0.6209 -0.0006 -0.0000 -0.0001

```
8 21.1631 0.3090 -0.1768 -0.0002 0.0019 -0.0085

9 -21.1619 -0.6202 -0.7132 -0.0007 -0.0019 0.0084

10 -0.0000 -0.1542 -0.3573 -0.0004 -0.0000 -0.0000

11 -0.0000 -0.4623 -19.6507 -0.0078 -0.0000 -0.0000

12 16.9305 0.1842 -0.3712 -0.0003 0.0016 -0.0068

13 -16.9295 -0.5591 -0.8003 -0.0007 -0.0015 0.0067

14 -0.0000 -0.1864 -0.5156 -0.0005 -0.0000 -0.0001

15 -0.0000 -0.4328 -15.9503 -0.0065 -0.0000 -0.0001

26 7 0.0000 -0.1955 -0.6209 -0.0006 0.0000 0.0001

8 21.1619 -0.6202 -0.7132 -0.0007 0.0019 -0.0084

9 -21.1631 0.3090 -0.1768 -0.0002 -0.0019 0.0085

10 0.0000 -0.1542 -0.3573 -0.0004 0.0000 0.0000

11 0.0000 -0.4623 -19.6507 -0.0078 0.0000 0.0000

STAAD SPACE -- PAGE NO. 11
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

```
12 16.9295 -0.5591 -0.8003 -0.0007 0.0015 -0.0067
  13 -16.9305 0.1842 -0.3712 -0.0003 -0.0016 0.0068
  14 0.0000 -0.1864 -0.5156 -0.0005 0.0000 0.0001
  15  0.0000  -0.4328  -15.9503  -0.0065  0.0000  0.0001
27 7 -0.0000 -0.0815 -0.6209 -0.0005 0.0000 -0.0000
   8 21.8226 0.3730 -0.1769 -0.0002 0.0019 -0.0089
   9 -21.8213 -0.5220 -0.7132 -0.0004 -0.0019 0.0088
  10 -0.0000 -0.0759 -0.3573 -0.0003 0.0000 -0.0000
  11 0.0000 0.2322 -19.6520 -0.0078 0.0000 -0.0000
  12 17.4581 0.2779 -0.3712 -0.0004 0.0015 -0.0071
  13 -17.4571 -0.4380 -0.8003 -0.0005 -0.0015 0.0071
  14 -0.0000 -0.0812 -0.5156 -0.0004 0.0000 -0.0000
  15 -0.0000 0.1653 -15.9513 -0.0064 0.0000 -0.0000
28 7 0.0000 -0.0815 -0.6209 -0.0005 -0.0000 0.0000
   8 21.8213 -0.5220 -0.7132 -0.0004 0.0019 -0.0088
   10 0.0000 -0.0759 -0.3573 -0.0003 -0.0000 0.0000
  11 -0.0000 0.2322 -19.6520 -0.0078 -0.0000 0.0000
  12 17.4571 -0.4380 -0.8003 -0.0005 0.0015 -0.0071
  13 -17.4581 0.2779 -0.3712 -0.0004 -0.0015 0.0071
      0.0000 -0.0812 -0.5156 -0.0004 -0.0000 0.0000
  15
      0.0000 0.1653 -15.9513 -0.0064 -0.0000 0.0000
```

```
29 7 0.0000 -0.2237 -0.8234 -0.0006 -0.0000 -0.0001
  8 25.0388 0.3181 -0.2742 -0.0002 0.0023 -0.0077
  9 -25.0375 -0.6744 -0.9056 -0.0006 -0.0023 0.0076
  10 0.0000 -0.1767 -0.4872 -0.0004 -0.0000 -0.0000
  11 0.0000 -0.5062 -23.0840 -0.0069 -0.0000 -0.0000
  12 20.0310 0.1824 -0.5241 -0.0004 0.0018 -0.0062
  13 -20.0300 -0.6116 -1.0293 -0.0007 -0.0018 0.0061
  14 0.0000 -0.2134 -0.6945 -0.0006 -0.0000 -0.0001
  15 0.0000 -0.4770 -18.7720 -0.0057 -0.0000 -0.0001
30 7 -0.0000 -0.2237 -0.8234 -0.0006 0.0000 0.0001
  8 25.0375 -0.6744 -0.9056 -0.0006 0.0023 -0.0076
  10 -0.0000 -0.1767 -0.4872 -0.0004 0.0000 0.0000
  11 -0.0000 -0.5062 -23.0840 -0.0069 0.0000 0.0000
  12 20.0300 -0.6116 -1.0293 -0.0007 0.0018 -0.0061
  13 -20.0310 0.1824 -0.5241 -0.0004 -0.0018 0.0062
  14 -0.0000 -0.2134 -0.6945 -0.0006 0.0000 0.0001
  15 -0.0000 -0.4770 -18.7720 -0.0057 0.0000 0.0001
31 7 0.0000 -0.0958 -0.8234 -0.0005 0.0000 -0.0000
  8 25.8136 0.3917 -0.2742 -0.0003 0.0023 -0.0080
  9 -25.8124 -0.5660 -0.9056 -0.0005 -0.0023 0.0080
  10 0.0000 -0.0887 -0.4872 -0.0003 0.0000 -0.0000
      0.0000 0.2409 -23.0852 -0.0068 0.0000 -0.0000
  12 20.6509 0.2890 -0.5242 -0.0004 0.0018 -0.0064
STAAD SPACE
                                    -- PAGE NO. 12
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

```
13 -20.6499 -0.4771 -1.0293 -0.0005 -0.0018 0.0064
14 0.0000 -0.0953 -0.6946 -0.0005 0.0000 -0.0000
15 0.0000 0.1684 -18.7730 -0.0056 0.0000 -0.0000
32 7 -0.0000 -0.0958 -0.8234 -0.0005 -0.0000 0.0000
8 25.8124 -0.5660 -0.9056 -0.0005 0.0023 -0.0080
9 -25.8136 0.3917 -0.2742 -0.0003 -0.0023 0.0080
10 -0.0000 -0.0887 -0.4872 -0.0003 -0.0000 0.0000
11 -0.0000 0.2409 -23.0852 -0.0068 -0.0000 0.0000
12 20.6499 -0.4771 -1.0293 -0.0005 0.0018 -0.0064
13 -20.6509 0.2890 -0.5242 -0.0004 -0.0018 0.0064
14 -0.0000 -0.0953 -0.6946 -0.0005 -0.0000 0.0000
```

```
15 -0.0000 0.1684 -18.7730 -0.0056 -0.0000 0.0000
33 7 -0.0000 -0.2487 -1.0397 -0.0006 -0.0000 -0.0001
   8 28.4081 0.3173 -0.3929 -0.0003 0.0025 -0.0068
   9 -28.4069 -0.7137 -1.0964 -0.0006 -0.0025 0.0067
  10 -0.0000 -0.1967 -0.6293 -0.0004 -0.0000 -0.0000
  11 -0.0000 -0.5394 -25.9922 -0.0058 -0.0000 -0.0000
  12 22.7265 0.1738 -0.6993 -0.0005 0.0020 -0.0055
  13 -22.7255 -0.6509 -1.2621 -0.0007 -0.0020 0.0054
  14 -0.0000 -0.2373 -0.8885 -0.0006 -0.0000 -0.0001
  15 -0.0000 -0.5115 -21.1788 -0.0049 -0.0000 -0.0001
34 7 0.0000 -0.2487 -1.0397 -0.0006 0.0000 0.0001
   8 28.4069 -0.7137 -1.0964 -0.0006 0.0025 -0.0067
   9 -28.4081 0.3173 -0.3929 -0.0003 -0.0025 0.0068
  10 0.0000 -0.1967 -0.6293 -0.0004 0.0000 0.0000
  11 0.0000 -0.5394 -25.9922 -0.0058 0.0000 0.0000
  12 22.7255 -0.6509 -1.2621 -0.0007 0.0020 -0.0054
  13 -22.7265 0.1738 -0.6993 -0.0005 -0.0020 0.0055
  14 0.0000 -0.2373 -0.8885 -0.0006 0.0000 0.0001
  15 0.0000 -0.5115 -21.1788 -0.0049 0.0000 0.0001
35 7 -0.0000 -0.1096 -1.0397 -0.0005 0.0000 -0.0000
   8 29.2710 0.3990 -0.3929 -0.0003 0.0025 -0.0070
   9 -29.2698 -0.5976 -1.0963 -0.0005 -0.0025 0.0070
  10 -0.0000 -0.1009 -0.6293 -0.0004 0.0000 -0.0000
  11 -0.0000 0.2419 -25.9935 -0.0058 0.0000 -0.0000
  12 23.4168 0.2911 -0.6993 -0.0005 0.0020 -0.0056
  13 -23.4158 -0.5062 -1.2621 -0.0006 -0.0020 0.0056
  14 -0.0000 -0.1088 -0.8885 -0.0005 0.0000 -0.0000
  15 -0.0000 0.1654 -21.1798 -0.0048 0.0000 -0.0000
36 7 0.0000 -0.1096 -1.0397 -0.0005 -0.0000 0.0000
   8 29.2698 -0.5976 -1.0963 -0.0005 0.0025 -0.0070
   9 -29.2710 0.3990 -0.3929 -0.0003 -0.0025 0.0070
  10 0.0000 -0.1009 -0.6293 -0.0004 -0.0000 0.0000
  11 0.0000 0.2419 -25.9935 -0.0058 -0.0000 0.0000
  12 23.4158 -0.5062 -1.2621 -0.0006 0.0020 -0.0056
  13 -23.4168 0.2911 -0.6993 -0.0005 -0.0020 0.0056
STAAD SPACE
                                     -- PAGE NO. 13
```

JOINT LOAD X-TRANS Y-TRANS Z-TRANS X-ROTAN Y-ROTAN Z-ROTAN

```
14
       0.0000 -0.1088 -0.8885 -0.0005 -0.0000
                                               0.0000
       0.0000 0.1654 -21.1798 -0.0048 -0.0000 0.0000
  15
      0.0000 -0.2704 -1.2656 -0.0006 -0.0000 -0.0001
37
   7
     31.2366 0.3097 -0.5305 -0.0004
                                      0.0027 -0.0059
   9 -31.2352 -0.7411 -1.2818 -0.0006 -0.0027 0.0057
       0.0000 -0.2141 -0.7808 -0.0004 -0.0000 -0.0000
  10
       0.0000 -0.5639 -28.3500 -0.0047 -0.0000 -0.0000
      24.9892 0.1609 -0.8932 -0.0005
                                      0.0022 -0.0047
  12
  13 -24.9882 -0.6797 -1.4942 -0.0007 -0.0022 0.0046
       0.0000 -0.2582 -1.0935 -0.0006 -0.0000 -0.0001
  15
      0.0000 -0.5379 -23.1488 -0.0040 -0.0000 -0.0001
   7 -0.0000 -0.2704 -1.2656 -0.0006 0.0000 0.0001
38
     31.2352 -0.7411 -1.2818 -0.0006
                                       0.0027 -0.0057
   9 -31.2366 0.3097 -0.5305 -0.0004
                                      -0.0027
                                               0.0059
  10 -0.0000 -0.2141 -0.7808 -0.0004
                                      0.0000
                                              0.0000
      -0.0000 -0.5639 -28.3500 -0.0047
                                       0.0000 0.0000
  12 24.9882 -0.6797 -1.4942 -0.0007
                                      0.0022 -0.0046
  13 -24.9892 0.1609 -0.8932 -0.0005
                                      -0.0022
                                              0.0047
      -0.0000 -0.2582 -1.0935 -0.0006
                                       0.0000
                                               0.0001
  15 -0.0000 -0.5379 -23.1488 -0.0040
                                      0.0000 0.0001
39 7 0.0000 -0.1230 -1.2657 -0.0006
                                       0.0000 - 0.0000
     32.1607 0.3979 -0.5306 -0.0004
                                       0.0027 -0.0059
   9 -32.1593 -0.6196 -1.2818 -0.0005
                                      -0.0027 0.0059
      0.0000 -0.1125 -0.7809 -0.0004
  10
                                       0.0000 - 0.0000
       0.0000 0.2373 -28.3514 -0.0047
                                       0.0000 - 0.0000
  11
      25.7285 0.2865 -0.8934 -0.0005
                                       0.0022 -0.0048
  13 -25.7274 -0.5276 -1.4943 -0.0006 -0.0022 0.0047
      0.0000 -0.1218 -1.0936 -0.0005
                                       0.0000 - 0.0000
       0.0000 0.1580 -23.1500 -0.0040
                                      0.0000 - 0.0000
  15
40 7 -0.0000 -0.1230 -1.2657 -0.0006 -0.0000 0.0000
     32.1593 -0.6196 -1.2818 -0.0005
                                      0.0027 -0.0059
   9 -32.1607 0.3979 -0.5306 -0.0004
                                      -0.0027
                                               0.0059
  10 -0.0000 -0.1125 -0.7809 -0.0004 -0.0000
                                               0.0000
      -0.0000 0.2373 -28.3514 -0.0047 -0.0000 0.0000
  11
      25.7274 -0.5276 -1.4943 -0.0006
                                      0.0022 -0.0047
  13 -25.7285 0.2865 -0.8934 -0.0005 -0.0022
                                              0.0048
  14 -0.0000 -0.1218 -1.0936 -0.0005 -0.0000
                                               0.0000
  15 -0.0000 0.1580 -23.1500 -0.0040 -0.0000
                                              0.0000
   7 -0.0006 -0.2888 -1.4936 -0.0007 -0.0000 -0.0000
     33.4710 0.2987 -0.6824 -0.0005
                                      0.0028 -0.0046
   9 -33.4711 -0.7599 -1.4563 -0.0006 -0.0028
                                              0.0047
  10
     -0.0005 -0.2291 -0.9367 -0.0005
                                      -0.0000 -0.0000
  11
      -0.0005 -0.5818 -30.1091 -0.0036 -0.0000 -0.0000
      26.7766 0.1463 -1.0992 -0.0006
                                      0.0022 -0.0037
  13 -26.7770 -0.7006 -1.7183 -0.0007 -0.0022 0.0037
  14 -0.0006 -0.2759 -1.3027 -0.0007 -0.0000 -0.0000
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

```
15 -0.0006 -0.5581 -24.6406 -0.0031 -0.0000 -0.0000
42 7 0.0006 -0.2888 -1.4936 -0.0007 0.0000 0.0000
   8 33.4711 -0.7599 -1.4563 -0.0006 0.0028 -0.0047
   9 -33.4710 0.2987 -0.6824 -0.0005 -0.0028 0.0046
  10 0.0005 -0.2291 -0.9367 -0.0005 0.0000 0.0000
  11 0.0005 -0.5818 -30.1091 -0.0036 0.0000 0.0000
  12 26.7770 -0.7006 -1.7183 -0.0007 0.0022 -0.0037
  14 0.0006 -0.2759 -1.3027 -0.0007 0.0000 0.0000
  15  0.0006  -0.5581  -24.6406  -0.0031  0.0000  0.0000
43 7 -0.0005 -0.1358 -1.4906 -0.0005 0.0000 0.0000
   8 34.4244 0.3915 -0.6797 -0.0003 0.0028 -0.0046
   9 -34.4245 -0.6351 -1.4535 -0.0003 -0.0028 0.0047
  10 -0.0005 -0.1235 -0.9340 -0.0003 0.0000 0.0000
  11 -0.0005 0.2293 -30.1073 -0.0033 0.0000 0.0000
  12 27.5394 0.2776 -1.0963 -0.0004 0.0022 -0.0037
  13 -27.5397 -0.5437 -1.7153 -0.0005 -0.0022 0.0038
  14 -0.0005 -0.1343 -1.2997 -0.0004 0.0000 0.0000
  15 -0.0005 0.1479 -24.6384 -0.0028 0.0000 0.0000
44 7 0.0005 -0.1358 -1.4906 -0.0005 -0.0000 -0.0000
   8 34.4245 -0.6351 -1.4535 -0.0003 0.0028 -0.0047
   9 -34.4244 0.3915 -0.6797 -0.0003 -0.0028 0.0046
  10 0.0005 -0.1235 -0.9340 -0.0003 -0.0000 -0.0000
  11 0.0005 0.2293 -30.1073 -0.0033 -0.0000 -0.0000
  12 27.5397 -0.5437 -1.7153 -0.0005 0.0022 -0.0038
  13 -27.5394 0.2776 -1.0963 -0.0004 -0.0022 0.0037
  14 0.0005 -0.1343 -1.2997 -0.0004 -0.0000 -0.0000
  15 0.0005 0.1479 -24.6384 -0.0028 -0.0000 -0.0000
49 7 -0.0000 -0.1009 -0.0401 -0.0006 -0.0000 -0.0003
     8
   9 -3.1609 -0.2936 -0.0531 -0.0011 -0.0002 0.0021
  10 -0.0000 -0.0726 -0.0157 -0.0004 -0.0000 -0.0002
  11 -0.0000 -0.9093 -2.9122 -0.0077 -0.0000 -0.0002
      2.5287 0.0779 -0.0185 0.0000 0.0002 -0.0021
  13 -2.5287 -0.2697 -0.0573 -0.0011 -0.0001 0.0016
```

```
14 -0.0000 -0.0929 -0.0273 -0.0005 -0.0000 -0.0003
  15 -0.0000 -0.7622 -2.3446 -0.0064 -0.0000 -0.0002
50 7 0.0000 -0.1009 -0.0401 -0.0006 0.0000 0.0003
      3.1609 -0.2936 -0.0531 -0.0011 0.0002 -0.0021
     -3.1609 0.1409 -0.0046 0.0003 -0.0002 0.0025
      0.0000 -0.0726 -0.0157 -0.0004 0.0000 0.0002
  10
      0.0000 -0.9093 -2.9122 -0.0077 0.0000 0.0002
  11
      2.5287 -0.2697 -0.0573 -0.0011
                                     0.0001 -0.0016
  12
  13
     -2.5287 0.0779 -0.0185 0.0000 -0.0002 0.0021
      0.0000 -0.0929 -0.0273 -0.0005 0.0000 0.0003
  15
      0.0000 -0.7622 -2.3446 -0.0064 0.0000 0.0002
 STAAD SPACE
                                     -- PAGE NO. 15
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JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

```
51 7 -0.0000 -0.1494 -0.1361 -0.0007 -0.0000 -0.0003
      7.3265 0.2129 -0.0204 0.0002 0.0006 -0.0033
   9 -7.3265 -0.4413 -0.1750 -0.0012 -0.0006 0.0030
  10 -0.0000 -0.1098 -0.0665 -0.0004 -0.0000 -0.0002
  11 -0.0000 -1.1004 -6.9334 -0.0086 -0.0000 -0.0002
  12 5.8612 0.1194 -0.0666 -0.0001 0.0005 -0.0028
  13 -5.8612 -0.4040 -0.1902 -0.0012 -0.0005 0.0023
  14 -0.0000 -0.1387 -0.1034 -0.0006 -0.0000 -0.0003
  15 -0.0000 -0.9312 -5.5969 -0.0071 -0.0000 -0.0003
52 7 0.0000 -0.1494 -0.1361 -0.0007 0.0000 0.0003
     7.3265 -0.4413 -0.1750 -0.0012 0.0006 -0.0030
     -7.3265 0.2129 -0.0204 0.0002 -0.0006 0.0033
   9
      0.0000 -0.1098 -0.0665 -0.0004 0.0000 0.0002
  10
  11
      0.0000 -1.1004 -6.9334 -0.0086 0.0000 0.0002
      5.8612 -0.4040 -0.1902 -0.0012 0.0005 -0.0023
  12
  13 -5.8612 0.1194 -0.0666 -0.0001 -0.0005 0.0028
  14
      0.0000 -0.1387 -0.1034 -0.0006
                                    0.0000 0.0003
      0.0000 -0.9312 -5.5969 -0.0071
                                    0.0000 0.0003
  15
53 7 0.0000 -0.1965 -0.2714 -0.0007 -0.0000 -0.0003
   8 12.0094 0.2703 -0.0524 0.0003
                                    0.0010 -0.0041
   9 -12.0094 -0.5721 -0.3370 -0.0013 -0.0010 0.0037
  10 0.0000 -0.1458 -0.1436 -0.0005 -0.0000 -0.0002
     -0.0000 -1.2728 -11.3785 -0.0094 -0.0000 -0.0002
```

```
13 -9.6075 -0.5243 -0.3699 -0.0013 -0.0008 0.0029
  14 0.0000 -0.1833 -0.2152 -0.0007 -0.0000 -0.0003
  15 -0.0000 -1.0849 -9.2030 -0.0078 -0.0000 -0.0003
54 7 -0.0000 -0.1965 -0.2714 -0.0007 0.0000 0.0003
   8 12.0094 -0.5721 -0.3370 -0.0013 0.0010 -0.0037
   9 -12.0094 0.2703 -0.0524 0.0003 -0.0010 0.0041
  10 -0.0000 -0.1458 -0.1436 -0.0005 0.0000 0.0002
  11 0.0000 -1.2728 -11.3785 -0.0094 0.0000 0.0002
  12 9.6075 -0.5243 -0.3699 -0.0013 0.0008 -0.0029
  13 -9.6075 0.1496 -0.1422 -0.0001 -0.0008 0.0034
  14 -0.0000 -0.1833 -0.2152 -0.0007 0.0000 0.0003
  15 \quad 0.0000 \quad \text{-}1.0849 \quad \text{-}9.2030 \quad \text{-}0.0078 \quad 0.0000 \quad 0.0003
55 7 0.0000 -0.2374 -0.4356 -0.0008 0.0000 -0.0003
   8 16.6730 0.2964 -0.1027 0.0001 0.0015 -0.0044
   9 -16.6730 -0.6624 -0.5220 -0.0013 -0.0015 0.0040
  10 0.0000 -0.1780 -0.2420 -0.0005 0.0000 -0.0002
  11 0.0000 -1.2885 -15.7240 -0.0089 0.0000 -0.0002
  12 13.3384 0.1570 -0.2432 -0.0002 0.0012 -0.0036
  13 -13.3384 -0.6100 -0.5787 -0.0013 -0.0012 0.0031
  14 0.0000 -0.2225 -0.3547 -0.0007 0.0000 -0.0003
  56 7 -0.0000 -0.2374 -0.4356 -0.0008 -0.0000 0.0003
STAAD SPACE
                                      -- PAGE NO. 16
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

JOINT LOAD X-TRANS Y-TRANS Z-TRANS X-ROTAN Y-ROTAN Z-ROTAN

```
      8
      16.6730
      -0.6624
      -0.5220
      -0.0013
      0.0015
      -0.0040

      9
      -16.6730
      0.2964
      -0.1027
      0.0001
      -0.0015
      0.0044

      10
      -0.0000
      -0.1780
      -0.2420
      -0.0005
      -0.0000
      0.0002

      11
      -0.0000
      -1.2885
      -15.7240
      -0.0089
      -0.0000
      0.0002

      12
      13.3384
      -0.6100
      -0.5787
      -0.0013
      0.0012
      -0.0031

      13
      -13.3384
      0.1570
      -0.2432
      -0.0002
      -0.0012
      0.0036

      14
      -0.0000
      -0.2225
      -0.3547
      -0.0007
      -0.0000
      0.0003

      15
      -0.0000
      -1.1109
      -12.7403
      -0.0074
      -0.0000
      0.0003

      57
      7
      0.0000
      -0.2740
      -0.6209
      -0.0009
      -0.0000
      -0.0003

      8
      20.9685
      0.3050
      -0.1768
      -0.0000
      0.0019
      -0.0046

      9
      -20.9685
      -0.7284
      -0.7132
      -0.0012
      -0.0019
      -0.0002

      10
      -0.0000
      -0.2070
      -0.3573
      <td
```

```
12 16.7748 0.1519 -0.3712 -0.0003 0.0016 -0.0038
  13 -16.7748 -0.6749 -0.8003 -0.0013 -0.0015 0.0032
  14 0.0000 -0.2577 -0.5156 -0.0008 -0.0000 -0.0003
  15 0.0000 -1.1000 -15.9503 -0.0067 0.0000 -0.0003
58 7 -0.0000 -0.2740 -0.6209 -0.0009 0.0000 0.0003
  8 20.9685 -0.7284 -0.7132 -0.0012 0.0019 -0.0042
  9 -20.9685 0.3050 -0.1768 -0.0000 -0.0019 0.0046
  10 -0.0000 -0.2070 -0.3573 -0.0006 0.0000 0.0002
  11 -0.0000 -1.2599 -19.6507 -0.0080 -0.0000 0.0002
  12 16.7748 -0.6749 -0.8003 -0.0013 0.0015 -0.0032
  13 -16.7748 0.1519 -0.3712 -0.0003 -0.0016 0.0038
  14 -0.0000 -0.2577 -0.5156 -0.0008 0.0000 0.0003
  15 -0.0000 -1.1000 -15.9503 -0.0067 -0.0000 0.0003
59 7 0.0000 -0.3062 -0.8234 -0.0009 0.0000 -0.0003
  8 24.8098 0.3009 -0.2742 -0.0002 0.0023 -0.0046
  9 -24.8098 -0.7752 -0.9056 -0.0011 -0.0023 0.0042
  10 0.0000 -0.2328 -0.4872 -0.0006 0.0000 -0.0002
  11 0.0000 -1.2080 -23.0840 -0.0071 0.0000 -0.0002
  12 19.8478 0.1381 -0.5242 -0.0005 0.0018 -0.0038
  13 -19.8478 -0.7228 -1.0293 -0.0012 -0.0018 0.0033
  14 0.0000 -0.2889 -0.6945 -0.0008 0.0000 -0.0003
  15 0.0000 -1.0691 -18.7720 -0.0060 0.0000 -0.0003
60 7 -0.0000 -0.3062 -0.8234 -0.0009 -0.0000 0.0003
  8 24.8098 -0.7752 -0.9056 -0.0011 0.0023 -0.0042
  9 -24.8098 0.3009 -0.2742 -0.0002 -0.0023 0.0046
  10 -0.0000 -0.2328 -0.4872 -0.0006 -0.0000 0.0002
  11 -0.0000 -1.2080 -23.0840 -0.0071 -0.0000 0.0002
  12 19.8478 -0.7228 -1.0293 -0.0012 0.0018 -0.0033
  14 -0.0000 -0.2889 -0.6945 -0.0008 -0.0000 0.0003
  15 -0.0000 -1.0691 -18.7720 -0.0060 -0.0000 0.0003
61 7 0.0000 -0.3347 -1.0397 -0.0009 -0.0000 -0.0003
  8 28.1530 0.2870 -0.3929 -0.0003 0.0026 -0.0045
STAAD SPACE
                                    -- PAGE NO. 17
```

```
9 -28.1530 -0.8065 -1.0964 -0.0010 -0.0025 0.0041
10 0.0000 -0.2558 -0.6293 -0.0006 -0.0000 -0.0002
```

```
0.0000 -1.1395 -25.9922 -0.0061 -0.0000 -0.0002
  11
      22.5224 0.1177 -0.6993 -0.0006 0.0020 -0.0037
  13 -22.5224 -0.7571 -1.2621 -0.0012 -0.0020 0.0032
  14
      0.0000 -0.3165 -0.8885 -0.0009 -0.0000 -0.0003
      0.0000 -1.0235 -21.1788 -0.0052 -0.0000 -0.0003
   7 -0.0000 -0.3347 -1.0397 -0.0009 0.0000 0.0003
62
     28.1530 -0.8065 -1.0964 -0.0010 0.0025 -0.0041
   9 -28.1530 0.2870 -0.3929 -0.0003
                                     -0.0026 0.0045
  10 -0.0000 -0.2558 -0.6293 -0.0006
                                    0.0000 0.0002
      -0.0000 -1.1395 -25.9922 -0.0061
                                     0.0000 0.0002
  12 22.5224 -0.7571 -1.2621 -0.0012 0.0020 -0.0032
  13 -22.5224 0.1177 -0.6993 -0.0006 -0.0020 0.0037
  14 -0.0000 -0.3165 -0.8885 -0.0009
                                     0.0000 0.0003
  15 -0.0000 -1.0235 -21.1788 -0.0052 0.0000 0.0003
63 7 0.0000 -0.3568 -1.2656 -0.0009 0.0000 -0.0003
     8
   9 -30.9639 -0.8231 -1.2818 -0.0009 -0.0027 0.0040
     0.0000 -0.2736 -0.7808 -0.0007
                                     0.0000 -0.0002
  10
      0.0000 -1.0525 -28.3500 -0.0049
                                    0.0000 -0.0002
  11
  12 24.7711 0.0960 -0.8932 -0.0007
                                    0.0022 -0.0036
  13 -24.7711 -0.7776 -1.4942 -0.0011 -0.0022 0.0031
  14 0.0000 -0.3380 -1.0935 -0.0009 0.0000 -0.0003
      0.0000 -0.9611 -23.1488 -0.0043 0.0000 -0.0003
64 7 -0.0000 -0.3568 -1.2656 -0.0009 -0.0000 0.0003
     30.9639 -0.8231 -1.2818 -0.0009 0.0027 -0.0040
   9 -30.9639 0.2688 -0.5305 -0.0004 -0.0027 0.0044
  10 -0.0000 -0.2736 -0.7808 -0.0007 -0.0000
                                            0.0002
     -0.0000 -1.0525 -28.3500 -0.0049 -0.0000 0.0002
  12 24.7711 -0.7776 -1.4942 -0.0011 0.0022 -0.0031
  13 -24.7711 0.0960 -0.8932 -0.0007 -0.0022 0.0036
  14 -0.0000 -0.3380 -1.0935 -0.0009 -0.0000 0.0003
  15 -0.0000 -0.9611 -23.1488 -0.0043 -0.0000 0.0003
65 7 0.0002 -0.2938 -1.5592 -0.0001 -0.0000 -0.0001
     34.0104 0.2951 -0.7256 -0.0000 0.0028 -0.0044
   9 -34.0094 -0.7644 -1.5057 -0.0000 -0.0028 0.0041
      0.0002 -0.2331 -0.9815 -0.0000 -0.0000 -0.0001
      0.0002 -0.5862 -30.4968 -0.0026 -0.0000 -0.0001
  11
  12 27.2084 0.1419 -1.1584 -0.0001
                                    0.0023 -0.0035
  13 -27.2075 -0.7057 -1.7826 -0.0001 -0.0023 0.0033
  14 0.0002 -0.2807 -1.3632 -0.0001 -0.0000 -0.0001
  15 0.0002 -0.5632 -24.9754 -0.0022 -0.0000 -0.0001
  7 -0.0002 -0.2938 -1.5592 -0.0001
                                     0.0000 0.0001
   8 34.0094 -0.7644 -1.5057 -0.0000 0.0028 -0.0041
   9 -34.0104 0.2951 -0.7256 -0.0000 -0.0028 0.0044
STAAD SPACE
                                     -- PAGE NO. 18
```

JOINT LOAD X-TRANS Y-TRANS Z-TRANS X-ROTAN Y-ROTAN Z-ROTAN

```
10 -0.0002 -0.2331 -0.9815 -0.0000 0.0000 0.0001
  11 -0.0002 -0.5862 -30.4968 -0.0026 0.0000 0.0001
  12 27.2075 -0.7057 -1.7826 -0.0001
                                      0.0023 -0.0033
  13 -27.2084 0.1419 -1.1584 -0.0001
                                      -0.0023
                                              0.0035
                                       0.0000
  14 -0.0002 -0.2807 -1.3632 -0.0001
                                              0.0001
  15 -0.0002 -0.5632 -24.9754 -0.0022 0.0000 0.0001
   7 0.0002 -0.1398 -1.5604 -0.0009 0.0000 -0.0001
     34.9618  0.3888  -0.7269  -0.0007
                                      0.0028 -0.0044
   9 -34.9608 -0.6392 -1.5070 -0.0008
                                      -0.0028 0.0040
      0.0002 -0.1268 -0.9828 -0.0007
                                      0.0000 -0.0001
  11
       0.0002 0.2264 -30.4987 -0.0033
                                      0.0000 -0.0001
  12 27.9695 0.2743 -1.1597 -0.0009 0.0023 -0.0035
  13 -27.9686 -0.5481 -1.7837 -0.0009 -0.0023 0.0032
      0.0002 -0.1382 -1.3644 -0.0009 0.0000 -0.0001
  15
       0.0002  0.1444 -24.9771 -0.0030  0.0000 -0.0001
   7 -0.0002 -0.1398 -1.5604 -0.0009 -0.0000 0.0001
68
   8 34.9608 -0.6392 -1.5070 -0.0008 0.0028 -0.0040
   9 -34.9618 0.3888 -0.7269 -0.0007 -0.0028
                                              0.0044
  10 -0.0002 -0.1268 -0.9828 -0.0007 -0.0000
                                              0.0001
  11 -0.0002 0.2264 -30.4987 -0.0033 -0.0000
                                              0.0001
  12 27.9686 -0.5481 -1.7837 -0.0009 0.0023 -0.0032
  13 -27.9695 0.2743 -1.1597 -0.0009 -0.0023
                                               0.0035
  14 -0.0002 -0.1382 -1.3644 -0.0009 -0.0000
                                               0.0001
  15 -0.0002 0.1444 -24.9771 -0.0030 -0.0000
                                              0.0001
69 7 -0.0003 -0.1422 -1.7071 -0.0007 -0.0000 0.0001
     36.0167 -0.6413 -1.6146 -0.0005 0.0028 -0.0039
   9 -36.0176 0.3875 -0.8284 -0.0005 -0.0028
                                              0.0039
  10 -0.0002 -0.1286 -1.0844 -0.0005 -0.0000
                                              0.0001
  11 -0.0002 0.2249 -31.2429 -0.0027 -0.0000
                                              0.0001
  12 28.8132 -0.5506 -1.9245 -0.0007
                                       0.0023 -0.0031
  13 -28.8141 0.2724 -1.2955 -0.0006 -0.0023
                                               0.0032
  14 -0.0003 -0.1405 -1.5004 -0.0007
                                      -0.0000
                                               0.0001
  15 -0.0003 0.1423 -25.6271 -0.0025 -0.0000
                                               0.0001
70 7 -0.0004 -0.2980 -1.7056 -0.0005
                                      0.0000 0.0002
     35.0737 -0.7677 -1.6133 -0.0004
                                      0.0028 -0.0039
   9 -35.0746 0.2923 -0.8272 -0.0004 -0.0028
                                              0.0040
  10 -0.0003 -0.2361 -1.0832 -0.0004 0.0000
                                             0.0001
```

```
11 -0.0003 -0.5895 -31.2413 -0.0027 0.0000 0.0001
12 28.0588 -0.7099 -1.9230 -0.0005 0.0023 -0.0030
13 -28.0598 0.1381 -1.2941 -0.0005 -0.0023 0.0033
14 -0.0004 -0.2846 -1.4989 -0.0005 0.0000 0.0002
15 -0.0004 -0.5673 -25.6253 -0.0023 0.0000 0.0002
71 7 0.0004 -0.2980 -1.7056 -0.0005 -0.0000 -0.0002
8 35.0746 0.2923 -0.8272 -0.0004 0.0028 -0.0040
9 -35.0737 -0.7677 -1.6133 -0.0004 -0.0028 0.0039
10 0.0003 -0.2361 -1.0832 -0.0004 -0.0000 -0.0001
STAAD SPACE -PAGE NO. 19
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

```
11 0.0003 -0.5895 -31.2413 -0.0027 -0.0000 -0.0001
  12 28.0598 0.1381 -1.2941 -0.0005 0.0023 -0.0033
  13 -28.0588 -0.7099 -1.9230 -0.0005 -0.0023 0.0030
  14 0.0004 -0.2846 -1.4989 -0.0005 -0.0000 -0.0002
  15  0.0004  -0.5673  -25.6253  -0.0023  -0.0000  -0.0002
72 7 0.0003 -0.1422 -1.7071 -0.0007 0.0000 -0.0001
   8 36.0176 0.3875 -0.8284 -0.0005 0.0028 -0.0039
   9 -36.0167 -0.6413 -1.6146 -0.0005 -0.0028 0.0039
  10 0.0002 -0.1286 -1.0844 -0.0005 0.0000 -0.0001
  11 0.0002 0.2249 -31.2429 -0.0027 0.0000 -0.0001
  12 28.8141 0.2724 -1.2955 -0.0006 0.0023 -0.0032
  13 -28.8132 -0.5506 -1.9245 -0.0007 -0.0023 0.0031
  14 0.0003 -0.1405 -1.5004 -0.0007 0.0000 -0.0001
  15 0.0003 0.1423 -25.6271 -0.0025 0.0000 -0.0001
73 7 -0.0000 -0.3823 -1.4936 -0.0010 -0.0000 -0.0003
   8 33.1903 0.2389 -0.6824 -0.0006 0.0028 -0.0042
   9 -33.1903 -0.8369 -1.4563 -0.0008 -0.0028 0.0038
  10 -0.0000 -0.2961 -0.9367 -0.0007 -0.0000 -0.0002
  11 -0.0000 -0.9533 -30.1091 -0.0038 -0.0000 -0.0002
  12 26.5523 0.0647 -1.0992 -0.0009 0.0022 -0.0034
  13 -26.5523 -0.7960 -1.7183 -0.0010 -0.0022 0.0030
  14 -0.0000 -0.3633 -1.3027 -0.0009 -0.0000 -0.0002
  15 -0.0000 -0.8891 -24.6406 -0.0034 -0.0000 -0.0002
74 7 0.0000 -0.3823 -1.4936 -0.0010 0.0000 0.0003
   8 33.1903 -0.8369 -1.4563 -0.0008 0.0028 -0.0038
   9 -33.1903 0.2389 -0.6824 -0.0006 -0.0028 0.0042
```

```
10 0.0000 -0.2961 -0.9367 -0.0007 0.0000 0.0002
  11 0.0000 -0.9533 -30.1091 -0.0038 0.0000 0.0002
  12 26.5523 -0.7960 -1.7183 -0.0010 0.0022 -0.0030
  14 0.0000 -0.3633 -1.3027 -0.0009 0.0000 0.0002
  15 0.0000 -0.8891 -24.6406 -0.0034 0.0000 0.0002
75 7 0.0000 -0.3091 -1.5600 -0.0013 0.0000 -0.0014
  8 34.6444 0.2555 -0.7264 -0.0010 0.0028 -0.0051
  9 -34.6444 -0.7873 -1.5066 -0.0011 -0.0028 0.0026
  10 0.0000 -0.2664 -0.9823 -0.0010 0.0000 -0.0012
  11 0.0000 -0.1623 -30.4981 -0.0030 0.0000 -0.0012
  12 27.7155 0.1167 -1.1592 -0.0012 0.0023 -0.0045
  13 -27.7155 -0.7175 -1.7834 -0.0013 -0.0023 0.0017
  14 0.0000 -0.3008 -1.3640 -0.0012 0.0000 -0.0014
  15 0.0000 -0.2176 -24.9766 -0.0028 0.0000 -0.0014
76 7 0.0000 -0.3568 -1.5596 0.0004 -0.0000 -0.0014
  8 34.3269 0.2279 -0.7260 0.0005 0.0028 -0.0051
  9 -34.3269 -0.8274 -1.5061 0.0004 -0.0028 0.0026
  10 0.0000 -0.2993 -0.9819 0.0004 -0.0000 -0.0012
  11 0.0000 -0.4062 -30.4974 -0.0015 -0.0000 -0.0012
STAAD SPACE
                                   -- PAGE NO. 20
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

JOINT LOAD X-TRANS Y-TRANS Z-TRANS X-ROTAN Y-ROTAN Z-ROTAN

```
      12
      27.4615
      0.0768
      -1.1588
      0.0004
      0.0023
      -0.0045

      13
      -27.4615
      -0.7675
      -1.7830
      0.0004
      -0.0023
      0.0017

      14
      0.0000
      -0.3450
      -1.3636
      0.0004
      -0.0000
      -0.0014

      15
      0.0000
      -0.4305
      -24.9760
      -0.0012
      -0.0000
      -0.0014

      7
      7
      -0.0000
      -0.3568
      -1.5596
      0.0004
      0.0000
      0.0014

      8
      34.3269
      -0.8274
      -1.5061
      0.0004
      0.0028
      -0.0026

      9
      -34.3269
      0.2279
      -0.7260
      0.0005
      -0.0028
      0.0051

      10
      -0.0000
      -0.2993
      -0.9819
      0.0004
      0.0000
      0.0012

      11
      -0.0000
      -0.4062
      -30.4974
      -0.0015
      0.0000
      0.0012

      12
      27.4615
      -0.7675
      -1.7830
      0.0004
      0.0023
      -0.0017

      13
      -27.4615
      0.0768
      -1.1588
      0.0004
      0.0023
      0.0045

      14
      -0.0000
      -0.3450
      -1.3636
      0.0004
```

```
9 -34.6444 0.2555 -0.7264 -0.0010 -0.0028 0.0051
  10 -0.0000 -0.2664 -0.9823 -0.0010 -0.0000 0.0012
  11 -0.0000 -0.1623 -30.4981 -0.0030 -0.0000 0.0012
  12 27.7155 -0.7175 -1.7834 -0.0013 0.0023 -0.0017
  13 -27.7155 0.1167 -1.1592 -0.0012 -0.0023 0.0045
  14 -0.0000 -0.3008 -1.3640 -0.0012 -0.0000 0.0014
  15 -0.0000 -0.2176 -24.9766 -0.0028 -0.0000 0.0014
79 7 0.0000 -0.3711 -1.7056 -0.0008 0.0000 -0.0003
   8 34.7908 0.2396 -0.8272 -0.0006 0.0028 -0.0041
   9 -34.7907 -0.8262 -1.6133 -0.0006 -0.0028 0.0037
  10 0.0000 -0.2907 -1.0832 -0.0006 0.0000 -0.0002
  11 0.0000 -0.8772 -31.2413 -0.0029 0.0000 -0.0002
  12 27.8326 0.0708 -1.2941 -0.0007 0.0023 -0.0034
  13 -27.8326 -0.7818 -1.9230 -0.0008 -0.0023 0.0028
  14 0.0000 -0.3534 -1.4989 -0.0008 0.0000 -0.0003
  15  0.0000  -0.8226  -25.6253  -0.0026  0.0000  -0.0003
80 7 -0.0000 -0.3711 -1.7056 -0.0008 -0.0000 0.0003
   8 34.7907 -0.8262 -1.6133 -0.0006 0.0028 -0.0037
   9 -34.7908 0.2396 -0.8272 -0.0006 -0.0028 0.0041
  10 -0.0000 -0.2907 -1.0832 -0.0006 -0.0000 0.0002
  11 -0.0000 -0.8772 -31.2413 -0.0029 -0.0000 0.0002
  12 27.8326 -0.7818 -1.9230 -0.0008 0.0023 -0.0028
  13 -27.8326  0.0708 -1.2941 -0.0007 -0.0023  0.0034
  14 -0.0000 -0.3534 -1.4989 -0.0008 -0.0000 0.0003
  15 -0.0000 -0.8226 -25.6253 -0.0026 -0.0000 0.0003
81 7 0.0000 -0.2403 -1.7066 -0.0007 0.0000 -0.0006
   8 35.7027 0.3256 -0.8280 -0.0004 0.0028 -0.0042
   9 -35.7027 -0.7140 -1.6142 -0.0006 -0.0028 0.0034
  10 0.0000 -0.1947 -1.0840 -0.0005 0.0000 -0.0004
  11 0.0000 -0.0791 -31.2424 -0.0025 0.0000 -0.0004
  12 28.5622 0.1848 -1.2951 -0.0006 0.0023 -0.0036
 STAAD SPACE
                                      -- PAGE NO. 21
```

```
13 -28.5622 -0.6469 -1.9240 -0.0007 -0.0022 0.0025
14 0.0000 -0.2315 -1.4999 -0.0007 0.0000 -0.0005
15 0.0000 -0.1390 -25.6265 -0.0023 0.0000 -0.0005
82 7 0.0000 -0.2848 -1.7061 -0.0001 -0.0000 -0.0006
```

```
-35.3888 -0.7517 -1.6138 -0.0001
                                     -0.0028 0.0034
  10
      0.0000 -0.2253 -1.0836 -0.0001
                                     -0.0000 -0.0004
      0.0000 -0.3358 -31.2418 -0.0021 -0.0000 -0.0004
  11
      28.3111 0.1478 -1.2946 -0.0001
                                      0.0022 -0.0036
  13 -28.3111 -0.6937 -1.9235 -0.0001
                                     -0.0023 0.0025
      0.0000 -0.2726 -1.4994 -0.0001 -0.0000 -0.0005
  14
      0.0000 -0.3610 -25.6259 -0.0017 -0.0000 -0.0005
  15
   7 -0.0000 -0.2848 -1.7061 -0.0001
                                     0.0000 0.0006
   8 35.3888 -0.7517 -1.6138 -0.0001
                                     0.0028 -0.0034
   9 -35.3888 0.3002 -0.8276 -0.0000 -0.0028
                                             0.0042
  10 -0.0000 -0.2253 -1.0836 -0.0001
                                     0.0000
                                            0.0004
      -0.0000 -0.3358 -31.2418 -0.0021
                                      0.0000 0.0004
  12 28.3111 -0.6937 -1.9235 -0.0001
                                     0.0023 -0.0025
  13 -28.3111 0.1478 -1.2946 -0.0001 -0.0022
                                             0.0036
  14 -0.0000 -0.2726 -1.4994 -0.0001
                                      0.0000
                                             0.0005
  15 -0.0000 -0.3610 -25.6259 -0.0017 0.0000
                                             0.0005
84 7 -0.0000 -0.2403 -1.7066 -0.0007 -0.0000
                                             0.0006
     35.7027 -0.7140 -1.6142 -0.0006 0.0028 -0.0034
   9 -35.7027 0.3256 -0.8280 -0.0004 -0.0028
                                             0.0042
  10 -0.0000 -0.1947 -1.0840 -0.0005
                                    -0.0000
                                             0.0004
     -0.0000 -0.0791 -31.2424 -0.0025 -0.0000
                                             0.0004
     28.5622 -0.6469 -1.9240 -0.0007 0.0022 -0.0025
  13 -28.5622 0.1848 -1.2951 -0.0006 -0.0023
                                              0.0036
  14 -0.0000 -0.2315 -1.4999 -0.0007 -0.0000
                                             0.0005
  15 -0.0000 -0.1390 -25.6265 -0.0023 -0.0000
                                             0.0005
85 7 -0.0025 -0.0475 -0.0335 -0.0002 -0.0000 -0.0001
      2.9855 0.1090 -0.0056 0.0000 0.0002 -0.0073
     -2.9870 -0.1847 -0.0427 -0.0003 -0.0002 0.0073
  10 -0.0018 -0.0374 -0.0119 -0.0001 -0.0000 -0.0001
      -0.0025 -0.1343 -2.7094 -0.0075 -0.0000 -0.0001
       2.3875 0.0719 -0.0168 -0.0001
  12
                                     0.0001 - 0.0059
  13
     -2.3905 -0.1631 -0.0465 -0.0004 -0.0001
                                            0.0058
     -0.0024 -0.0452 -0.0218 -0.0002
                                     -0.0000 -0.0001
  15 -0.0029 -0.1227 -2.1798 -0.0060 -0.0000 -0.0001
86 7 0.0025 -0.0475 -0.0335 -0.0002 0.0000 0.0001
      2.9870 -0.1847 -0.0427 -0.0003
                                    0.0002 -0.0073
     -2.9855 0.1090 -0.0056 0.0000 -0.0002 0.0073
  10
      0.0018 -0.0374 -0.0119 -0.0001
                                     0.0000 0.0001
      0.0025 -0.1343 -2.7094 -0.0075
  11
                                     0.0000 0.0001
       2.3905 -0.1631 -0.0465 -0.0004
                                     0.0001 -0.0058
  13
     -2.3875 0.0719 -0.0168 -0.0001
                                     -0.0001
                                            0.0059
 STAAD SPACE
                                     -- PAGE NO. 22
```

```
0.0024 -0.0452 -0.0218 -0.0002 0.0000 0.0001
  14
       0.0029 -0.1227 -2.1798 -0.0060
                                      0.0000 0.0001
  15
      -0.0004 -0.0184 -0.0358 -0.0001 0.0000 -0.0000
87 7
       3.0344 0.1239 -0.0040 -0.0000 0.0002 -0.0076
      -3.0329 -0.1582 -0.0472 -0.0002 -0.0002 0.0076
      -0.0004 -0.0175 -0.0134 -0.0001
                                       0.0000 - 0.0000
  10
       0.0003 0.0793 -2.7129 -0.0074 -0.0000 0.0000
  11
       2.4274 0.0947 -0.0165 -0.0001
                                       0.0002 -0.0061
  12
  13
      -2.4265 -0.1310 -0.0510 -0.0002 -0.0002 0.0061
      -0.0004 -0.0185 -0.0240 -0.0001
                                       0.0000 -0.0000
  14
       15
   7
       0.0004 -0.0184 -0.0358 -0.0001 -0.0000 0.0000
88
   8
      3.0329 -0.1582 -0.0472 -0.0002 0.0002 -0.0076
   9
      -3.0344 0.1239 -0.0040 -0.0000 -0.0002 0.0076
      0.0004 -0.0175 -0.0134 -0.0001 -0.0000 0.0000
  10
      -0.0003 0.0793 -2.7129 -0.0074 0.0000 -0.0000
  11
  12
       2.4265 -0.1310 -0.0510 -0.0002
                                      0.0002 -0.0061
  13
      -2.4274 0.0947 -0.0165 -0.0001 -0.0002 0.0061
       0.0004 -0.0185 -0.0240 -0.0001 -0.0000 0.0000
  14
      \hbox{-0.0002} \quad 0.0590 \quad \hbox{-2.1836} \quad \hbox{-0.0059} \quad 0.0000 \quad \hbox{-0.0000}
  15
89 7 -0.0000 -0.0508 -0.0402 -0.0003 -0.0000 -0.0001
      3.1765 -0.0698 -0.0102 0.0000 0.0002 -0.0052
   8
      -3.1756 -0.0098 -0.0478 -0.0004 -0.0002 0.0051
      -0.0000 -0.0398 -0.0157 -0.0002 -0.0000 -0.0000
  10
       0.0000 -0.1384 -2.9158 -0.0074 -0.0000 -0.0000
  11
  12
       2.5412 -0.0723 -0.0230 -0.0001
                                       0.0001 -0.0042
  13
      -2.5405 -0.0243 -0.0531 -0.0004 -0.0001
                                               0.0041
      -0.0000 -0.0484 -0.0274 -0.0002 -0.0000 -0.0001
  14
      -0.0000 -0.1272 -2.3475 -0.0060 -0.0000 -0.0000
90 7 -0.0000 -0.0190 -0.0401 -0.0001
                                       0.0000 - 0.0000
      3.2331 -0.0618 -0.0106 -0.0001
                                      0.0002 -0.0054
   9
      -3.2321
              0.0273 -0.0468 -0.0002 -0.0002 0.0054
      0.0000 -0.0182 -0.0156 -0.0001
  10
                                       0.0000 - 0.0000
  11
      -0.0000 0.0804 -2.9171 -0.0073
                                       0.0000 - 0.0000
  12
       2.5864 -0.0540 -0.0233 -0.0001
                                       0.0002 -0.0043
  13
      -2.5856 0.0173 -0.0523 -0.0002 -0.0002 0.0043
       0.0000 -0.0191 -0.0273 -0.0001
                                       0.0000 - 0.0000
  14
  15
      -0.0000 0.0597 -2.3485 -0.0059
                                       0.0000 - 0.0000
91 7
       0.0000 -0.0508 -0.0402 -0.0003 0.0000 0.0001
```

```
8 3.1756 -0.0098 -0.0478 -0.0004 0.0002 -0.0051

9 -3.1765 -0.0698 -0.0102 0.0000 -0.0002 0.0052

10 0.0000 -0.0398 -0.0157 -0.0002 0.0000 0.0000

11 -0.0000 -0.1384 -2.9158 -0.0074 0.0000 0.0000

12 2.5405 -0.0243 -0.0531 -0.0004 0.0001 -0.0041

13 -2.5412 -0.0723 -0.0230 -0.0001 -0.0001 0.0042

14 0.0000 -0.0484 -0.0274 -0.0002 0.0000 0.0001

STAAD SPACE -- PAGE NO. 23
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

```
15 0.0000 -0.1272 -2.3475 -0.0060 0.0000 0.0000
92 7 0.0000 -0.0190 -0.0401 -0.0001 -0.0000 0.0000
      3.2321 0.0273 -0.0468 -0.0002 0.0002 -0.0054
   8
   9 -3.2331 -0.0618 -0.0106 -0.0001 -0.0002 0.0054
  10 -0.0000 -0.0182 -0.0156 -0.0001 -0.0000 0.0000
     0.0000 0.0804 -2.9171 -0.0073 -0.0000 0.0000
  11
     2.5856  0.0173  -0.0523  -0.0002  0.0002  -0.0043
  12
  13 -2.5864 -0.0540 -0.0233 -0.0001 -0.0002 0.0043
  14 -0.0000 -0.0191 -0.0273 -0.0001 -0.0000 0.0000
  93 7 -0.0001 -0.0227 -0.0400 -0.0001 0.0000 -0.0000
      3.2375  0.1244  -0.0047  -0.0001  0.0002  -0.0075
     -3.2364 -0.1653 -0.0528 -0.0001 -0.0002 0.0075
  10 -0.0001 -0.0200 -0.0156 -0.0001 0.0000 -0.0000
  11
     0.0001 -0.1068 -2.9090 -0.0055 0.0000 -0.0000
  12 2.5900 0.0936 -0.0186 -0.0001 0.0002 -0.0060
  13 -2.5892 -0.1381 -0.0570 -0.0001 -0.0002 0.0060
  14 -0.0001 -0.0220 -0.0273 -0.0001 0.0000 -0.0000
  15 0.0001 -0.0914 -2.3419 -0.0045 0.0000 -0.0000
94 7 0.0001 -0.0227 -0.0400 -0.0001 -0.0000 0.0000
   8
     3.2364 -0.1653 -0.0528 -0.0001 0.0002 -0.0075
   9 -3.2375 0.1244 -0.0047 -0.0001 -0.0002 0.0075
     0.0001 -0.0200 -0.0156 -0.0001 -0.0000 0.0000
  10
  11
     -0.0001 -0.1068 -2.9090 -0.0055 -0.0000 0.0000
  12
      2.5892 -0.1381 -0.0570 -0.0001 0.0002 -0.0060
  13 -2.5900 0.0936 -0.0186 -0.0001 -0.0002 0.0060
      0.0001 -0.0220 -0.0273 -0.0001 -0.0000 0.0000
  15 -0.0001 -0.0914 -2.3419 -0.0045 -0.0000 0.0000
```

```
95 7 -0.0004 -0.0418 -0.0400 -0.0002 -0.0000 -0.0001
      3.1916  0.1093  -0.0048  0.0001  0.0002  -0.0072
     -3.1908 -0.1771 -0.0526 -0.0004 -0.0002 0.0071
  10 -0.0003 -0.0343 -0.0156 -0.0001 -0.0000 -0.0000
  11 -0.0008 0.0533 -2.9079 -0.0056 -0.0000 -0.0000
      2.5532 0.0744 -0.0186 -0.0000
  12
                                     0.0001 -0.0058
  13 -2.5528 -0.1548 -0.0568 -0.0004 -0.0001 0.0057
  14 -0.0004 -0.0405 -0.0272 -0.0002 -0.0000 -0.0001
  15 -0.0007 0.0296 -2.3410 -0.0046 -0.0000 -0.0001
96 7 0.0004 -0.0418 -0.0400 -0.0002 0.0000 0.0001
      3.1908 -0.1771 -0.0526 -0.0004 0.0002 -0.0071
     -3.1916 0.1093 -0.0048 0.0001 -0.0002 0.0072
     0.0003 -0.0343 -0.0156 -0.0001
  10
                                     0.0000 \quad 0.0000
       0.0008 0.0533 -2.9079 -0.0056 0.0000 0.0000
  11
      2.5528 -0.1548 -0.0568 -0.0004 0.0001 -0.0057
  12
  13 -2.5532 0.0744 -0.0186 -0.0000 -0.0001 0.0058
  14 0.0004 -0.0405 -0.0272 -0.0002
                                     0.0000 0.0001
      0.0007 0.0296 -2.3410 -0.0046
                                      0.0000 0.0001
 STAAD SPACE
                                      -- PAGE NO. 24
```

JOINT DISPLACEMENT (CM RADIANS) STRUCTURE TYPE = SPACE

```
97 7 -0.0000 -0.0917 -0.1362 -0.0003 0.0000 0.0001
     7.3793 -0.1253 -0.1589 -0.0004 0.0006 -0.0061
     -7.3803 -0.0195 -0.0369 -0.0000 -0.0006 0.0062
  10 -0.0000 -0.0720 -0.0666 -0.0002 0.0000 0.0000
  11 -0.0000 -0.2444 -6.9376 -0.0083
                                      0.0000 0.0000
  12
      5.9034 -0.1299 -0.1774 -0.0005
                                      0.0004 -0.0048
  13 -5.9043 -0.0453 -0.0798 -0.0002
                                      -0.0005 0.0049
  14 -0.0000 -0.0873 -0.1035 -0.0003
                                      0.0000 0.0001
  15 -0.0000 -0.2252 -5.6003 -0.0068 0.0000 0.0001
98 7 -0.0023 -0.0886 -0.1272 -0.0003 -0.0000 -0.0001
      7.1603 0.1882 -0.0198 -0.0000 0.0005 -0.0084
     -7.1617 -0.3292 -0.1631 -0.0004 -0.0005 0.0084
  10 -0.0017 -0.0697 -0.0613 -0.0002 -0.0000 -0.0000
  11 -0.0024 -0.2406 -6.7046 -0.0085 -0.0000 -0.0001
      5.7274 0.1220 -0.0627 -0.0001
                                      0.0004 -0.0067
  12
  13
      -5.7302 -0.2920 -0.1774 -0.0004 -0.0004 0.0067
  14 -0.0022 -0.0844 -0.0959 -0.0003 -0.0000 -0.0001
```

```
15 -0.0027 -0.2211 -5.4106 -0.0069 -0.0000 -0.0001
99 7 -0.0003 -0.0806 -0.1359 -0.0003 -0.0000 -0.0001
     7.4068 0.1897 -0.0206 0.0000 0.0006 -0.0082
   9 -7.4059 -0.3196 -0.1745 -0.0004 -0.0006 0.0081
   10 -0.0002 -0.0651 -0.0664 -0.0002 -0.0000 -0.0000
   11 -0.0006 -0.0277 -6.9288 -0.0064 -0.0000 -0.0001
   12 5.9253 0.1262 -0.0666 -0.0001 0.0005 -0.0066
   13 -5.9248 -0.2812 -0.1898 -0.0005 -0.0004 0.0065
   14 -0.0003 -0.0776 -0.1033 -0.0003 -0.0000 -0.0001
   15 -0.0006 -0.0477 -5.5932 -0.0053 -0.0000 -0.0001
100 7 -0.0005 -0.0345 -0.1282 -0.0003 0.0000 -0.0000
      7.3365 0.2164 -0.0189 -0.0001 0.0006 -0.0087
   9 -7.3353 -0.2805 -0.1651 -0.0003 -0.0006 0.0087
   10 -0.0004 -0.0328 -0.0618 -0.0002 0.0000 -0.0000
     11
      5.8691 0.1647 -0.0625 -0.0001
                                    0.0005 -0.0070
   12
   13 -5.8684 -0.2328 -0.1795 -0.0004 -0.0005 0.0070
   14 -0.0005 -0.0347 -0.0968 -0.0002 0.0000 -0.0000
      0.0001 0.1021 -5.4131 -0.0068 -0.0000 0.0000
   15
101 7 0.0000 -0.0353 -0.1359 -0.0003 0.0000 -0.0000
      7.5651 0.0010 -0.0369 -0.0001 0.0006 -0.0063
     -7.5641 -0.0656 -0.1582 -0.0003 -0.0006 0.0064
   9
     0.0000 -0.0335 -0.0663 -0.0002 0.0000 -0.0000
   11 -0.0000 0.1389 -6.9390 -0.0082 0.0000 -0.0000
   12 6.0521 -0.0078 -0.0797 -0.0002 0.0004 -0.0051
   13
     -6.0513 -0.0610 -0.1768 -0.0003 -0.0004 0.0051
      0.0000 -0.0354 -0.1033 -0.0002 0.0000 -0.0000
  15 -0.0000 0.1025 -5.6014 -0.0067 0.0000 -0.0000
102 7 -0.0001 -0.0423 -0.1359 -0.0002 0.0000 -0.0000
 STAAD SPACE
                                     -- PAGE NO. 25
```

```
8 7.5596 0.2155 -0.0206 -0.0001 0.0006 -0.0085

9 -7.5586 -0.2910 -0.1745 -0.0002 -0.0006 0.0085

10 -0.0001 -0.0376 -0.0664 -0.0001 0.0000 -0.0000

11 -0.0001 -0.0743 -6.9299 -0.0064 0.0000 -0.0000

12 6.0477 0.1613 -0.0666 -0.0002 0.0004 -0.0068

13 -6.0469 -0.2439 -0.1898 -0.0003 -0.0004 0.0068
```

```
14 -0.0001 -0.0412 -0.1032 -0.0002 0.0000 -0.0000
   15 -0.0001 -0.0706 -5.5941 -0.0052 0.0000 -0.0000
103 7 0.0000 -0.0917 -0.1362 -0.0003 -0.0000 -0.0001
       7.3803 -0.0195 -0.0369 -0.0000 0.0006 -0.0062
      -7.3793 -0.1253 -0.1589 -0.0004 -0.0006 0.0061
       0.0000 -0.0720 -0.0666 -0.0002 -0.0000 -0.0000
   10
       0.0000 -0.2444 -6.9376 -0.0083 -0.0000 -0.0000
   11
       5.9043 -0.0453 -0.0798 -0.0002 0.0005 -0.0049
   12
   13
       -5.9034 -0.1299 -0.1774 -0.0005 -0.0004 0.0048
       0.0000 -0.0873 -0.1035 -0.0003 -0.0000 -0.0001
   15
       0.0000 -0.2252 -5.6003 -0.0068 -0.0000 -0.0001
104 7 0.0023 -0.0886 -0.1272 -0.0003 0.0000 0.0001
       7.1617 -0.3292 -0.1631 -0.0004 0.0005 -0.0084
      -7.1603 0.1882 -0.0198 -0.0000 -0.0005 0.0084
   10
       0.0017 -0.0697 -0.0613 -0.0002
                                      0.0000 \quad 0.0000
       0.0024 -0.2406 -6.7046 -0.0085
                                       0.0000 0.0001
   11
   12
       5.7302 -0.2920 -0.1774 -0.0004
                                      0.0004 -0.0067
       -5.7274 0.1220 -0.0627 -0.0001
                                       -0.0004 0.0067
   13
       0.0022 -0.0844 -0.0959 -0.0003
                                       0.0000 0.0001
   14
   15
       0.0027 -0.2211 -5.4106 -0.0069
                                       0.0000 0.0001
105 7 0.0003 -0.0806 -0.1359 -0.0003 0.0000 0.0001
       7.4059 -0.3196 -0.1745 -0.0004
                                     0.0006 -0.0081
      -7.4068 0.1897 -0.0206 0.0000 -0.0006 0.0082
   10
       0.0002 -0.0651 -0.0664 -0.0002
                                      0.0000 \quad 0.0000
       0.0006 -0.0277 -6.9288 -0.0064
                                      0.0000 0.0001
   11
   12
       5.9248 -0.2812 -0.1898 -0.0005
                                       0.0004 -0.0065
   13
       -5.9253 0.1262 -0.0666 -0.0001
                                       -0.0005
                                              0.0066
   14
       0.0003 -0.0776 -0.1033 -0.0003
                                       0.0000 0.0001
       0.0006 -0.0477 -5.5932 -0.0053
                                       0.0000 0.0001
   15
106 7 0.0005 -0.0345 -0.1282 -0.0003 -0.0000 0.0000
       7.3353 -0.2805 -0.1651 -0.0003
                                      0.0006 -0.0087
      -7.3365 0.2164 -0.0189 -0.0001 -0.0006
                                              0.0087
   10 0.0004 -0.0328 -0.0618 -0.0002 -0.0000 0.0000
      -0.0003 0.1381 -6.7071 -0.0084
   11
                                      0.0000 - 0.0000
   12
       5.8684 -0.2328 -0.1795 -0.0004
                                      0.0005 -0.0070
       -5.8691 0.1647 -0.0625 -0.0001
                                       -0.0005
                                              0.0070
       0.0005 -0.0347 -0.0968 -0.0002 -0.0000
   14
                                              0.0000
   15 -0.0001 0.1021 -5.4131 -0.0068
                                      0.0000 -0.0000
107 7 0.0001 -0.0423 -0.1359 -0.0002 -0.0000 0.0000
       7.5586 -0.2910 -0.1745 -0.0002 0.0006 -0.0085
 STAAD SPACE
                                       -- PAGE NO. 26
```

JOINT LOAD X-TRANS Y-TRANS Z-TRANS X-ROTAN Y-ROTAN Z-ROTAN

```
9
      -7.5596 0.2155 -0.0206 -0.0001 -0.0006 0.0085
   10 0.0001 -0.0376 -0.0664 -0.0001 -0.0000 0.0000
       0.0001 -0.0743 -6.9299 -0.0064 -0.0000 0.0000
   11
   12
       6.0469 -0.2439 -0.1898 -0.0003 0.0004 -0.0068
   13 -6.0477 0.1613 -0.0666 -0.0002 -0.0004 0.0068
   14
       0.0001 -0.0412 -0.1032 -0.0002 -0.0000
                                              0.0000
       0.0001 -0.0706 -5.5941 -0.0052 -0.0000 0.0000
   15
108 7 -0.0000 -0.0353 -0.1359 -0.0003 -0.0000 0.0000
      7.5641 -0.0656 -0.1582 -0.0003 0.0006 -0.0064
      -7.5651 0.0010 -0.0369 -0.0001 -0.0006 0.0063
   10 -0.0000 -0.0335 -0.0663 -0.0002 -0.0000 0.0000
   11
       0.0000 0.1389 -6.9390 -0.0082 -0.0000 0.0000
      6.0513 -0.0610 -0.1768 -0.0003 0.0004 -0.0051
   12
   13 -6.0521 -0.0078 -0.0797 -0.0002 -0.0004 0.0051
   14 -0.0000 -0.0354 -0.1033 -0.0002 -0.0000 0.0000
       0.0000 0.1025 -5.6014 -0.0067 -0.0000 0.0000
   15
 STAAD SPACE
                                      -- PAGE NO. 27
```

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SUPPORT REACTIONS -UNIT KN METE STRUCTURE TYPE = SPACE

JOINT LOAD FORCE-X FORCE-Y FORCE-Z MOM-X MOM-Y MOM Z

5 7 0.53 226.37 1.41 1.66 -0.00-0.36 -48.81 -475.82 1.22 1.22 -0.23 156.06 8 9 51.50 846.88 1.49 1.59 0.21 -157.53 10 0.61 183.55 1.17 0.79-0.00 -0.41 11 0.53 619.33 43.01 136.19 0.05 -0.36 12 -39.00 -310.88 1.29 1.46 -0.18 124.80 747.28 13 41.26 1.51 1.76 0.17 - 126.060.54 216.62 -0.37 14 1.25 1.12 -0.0015 0.48 565.24 34.72 109.44 0.04 - 0.347 -0.53 226.37 1.41 1.66 0.00 0.36 8 -51.50 846.88 1.49 1.59 -0.21157.53 9 48.81 -475.82 1.22 1.22 0.23 -156.06 10 -0.61 183.55 1.17 0.79 0.00 0.41 -0.53 619.33 43.01 136.19 -0.05 11 0.36

```
12 -41.26 747.28
                               1.76
                       1.51
                                     -0.17 126.06
       39.00 -310.88
                       1.29
                               1.46
                                      0.18 -124.80
  13
             216.62
  14
       -0.54
                       1.25
                              1.12
                                     0.00
                                            0.37
  15
       -0.48
             565.24
                      34.72
                              109.44
                                      -0.04
                                              0.34
7 7
       0.79
             103.30
                      -1.41
                              -0.05
                                     -0.00
                                            -0.50
     -48.44 -539.02
                      -1.05
  8
                              -0.22
                                     -0.33
                                           155.76
      51.49 735.02
                      -1.65
  9
                              -0.28
                                     0.33 -157.42
  10
       0.79
             99.98
                      -1.54
                             -0.87
                                    -0.00
                                           -0.50
       0.87 -335.80
                      39.12
                             134.08
                                       0.03 -0.55
  11
      -38.60 -407.37
                       -1.16
                              -0.06
                                      -0.27 124.51
  12
  13
       41.35 611.85
                       -1.64
                              -0.11
                                      0.26 -126.03
  14
       0.79
             103.83
                      -1.55
                              -0.58
                                     -0.00
                                           -0.50
  15
       0.85 - 244.80
                      30.98
                             107.37
                                       0.02 - 0.54
      -0.79 103.30
                      -1.41
                              -0.05
  7
                                      0.00
                                             0.50
     -51.49 735.02
                      -1.65
                              -0.28
                                     -0.33 157.42
  8
      48.44 -539.02
  9
                      -1.05
                              -0.22
                                      0.33 -155.76
  10
      -0.79
             99.98
                      -1.54
                             -0.87
                                     0.00
                                            0.50
       -0.87 -335.80
                       39.12
                                      -0.03
  11
                             134.08
                                              0.55
      -41.35 611.85
                       -1.64
                                      -0.26 126.03
  12
                              -0.11
  13
       38.60 -407.37
                       -1.16
                             -0.06
                                      0.27 -124.51
  14
       -0.79 103.83
                      -1.55
                              -0.58
                                             0.50
                                      0.00
       -0.85 -244.80
                                              0.54
  15
                       30.98
                             107.37
                                      -0.02
STAAD SPACE
                                        -- PAGE NO. 28
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

```
7 5 226.37
                -0.53
                      1.41
                              -0.00
                                    -1.66
                                            -0.36
   1 -207.08
                0.53 -1.41
                             0.00
                                    -1.54
                                            -0.84
   5 -475.82
                48.81
                       1.22
                              -0.23
                                     -1.22
                                            156.06
8
   1 495.12
              -48.81
                      -1.22
                              0.23
                                    -1.55
                                            -45.01
    5 846.88
              -51.50
                      1.49
                              0.21
                                     -1.59 -157.53
   1 -827.58
               51.50
                      -1.49
                             -0.21
                                     -1.79
                                            40.35
10
   5 183.55
                -0.61
                      1.17
                              -0.00
                                     -0.79
                                            -0.41
   1 -164.25
                0.61 -1.17
                             0.00
                                    -1.86
                                            -0.99
   5 619.33
                -0.53 43.01
                               0.05 -136.19
                                            -0.36
11
   1 -600.03
                0.53 -43.01
                              -0.05
                                     38.35
                                             -0.85
    5 -310.88
                39.00
                       1.29
                              -0.18
12
                                     -1.46
                                             124.80
```

```
1 330.17 -39.00 -1.29
                                0.18
                                       -1.48
                                              -36.09
      5 747.28 -41.26 1.51 0.17
  13
                                       -1.76 -126.06
      1 -727.99
                 41.26
                        -1.51
                                -0.17
                                       -1.66
                                               32.20
  14 5 216.62
                  -0.54
                         1.25
                                -0.00
                                       -1.12
                                               -0.37
                  0.54 -1.25
      1 -197.32
                                0.00
                                       -1.72
                                              -0.87
      5 565.24
  15
                   -0.48 34.72
                                 0.04 -109.44
                                                 -0.34
      1 -545.95
                  0.48 -34.72
                                -0.04
                                       30.44
                                               -0.76
2 7 1 199.72
                   -0.51
                         -0.22
                                 0.00
                                        -0.40
                                               -0.65
     85 -197.56
                   0.51
                         0.22
                                -0.00
                                        1.17
                                               -1.13
  8
     1 -456.42
                  52.27
                          0.35
                                -0.34
                                        -0.51
                                               107.29
     85 458.59
                 -43.03
                         -0.35
                                 0.34
                                        -0.70
                                               57.72
  9
     1 774.11
                  -48.13
                         -0.61
                                        -0.17
                                              -105.31
                                 0.33
     85 -771.95
                                        2.27
                  48.13
                          0.61
                                -0.33
                                               -61.36
  10 1 157.00
                   -0.38
                         -0.33
                                 0.00
                                        0.08
                                               -0.49
     85 -154.84
                   0.38
                         0.29
                                -0.00
                                        0.98
                                               -0.83
  11 1 562.80
                   -0.50 38.92
                                 0.07
                                        -90.41
                                                -0.64
                   0.50 -38.92
     85 -560.63
                                 -0.07
                                       -44.37
                                                -1.11
  12
      1 -300.67
                   41.63
                         0.18
                                 -0.27
                                        -0.53
                                                85.60
     85 302.83
                 -34.24
                         -0.18
                                 0.27
                                        -0.09
                                               45.77
  13 1 683.76
                         -0.59
                                  0.26
                                        -0.25
                  -38.69
                                               -84.47
     85 -681.60
                                -0.26
                                        2.28
                  38.69
                          0.59
                                               -49.49
                         -0.36
                                        -0.05
  14 1 190.07
                   -0.49
                                 0.00
                                               -0.62
     85 -187.91
                   0.49
                         0.33
                                -0.00
                                        1.25
                                               -1.07
  15 1 514.71
                   -0.59 31.03
                                 0.05
                                       -72.45
                                               -0.74
     85 -512.54
                   0.59 -31.03
                                -0.05
                                       -35.03
                                                -1.29
3 7 6 226.37
                   0.53
                         1.41
                                 0.00
                                       -1.66
                                               0.36
      2 -207.08
                                -0.00
                 -0.53 -1.41
                                       -1.54
                                               0.84
     6 846.88
                  51.50
                         1.49
                               -0.21
                                       -1.59
                                               157.53
                                       -1.79
      2 -827.58
                 -51.50 -1.49
                                 0.21
                                              -40.35
STAAD SPACE
                                        -- PAGE NO. 29
```

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

6 -475.82 -48.81 1.22 0.23 -1.22 -156.06 2 495.12 48.81 -1.22 -0.23 -1.55 45.01 10 6 183.55 0.61 1.17 -0.790.41 0.00

```
2 -164.25 -0.61 -1.17
                                -0.00
                                                 0.99
                                        -1.86
      6 619.33
                   0.53 43.01
                                  -0.05 -136.19
                                                   0.36
                  -0.53 -43.01
     2 -600.03
                                  0.05
                                         38.35
                                                  0.85
      6 747.28
                   41.26
                         1.51
                                  -0.17
                                         -1.76
                                                 126.06
 12
     2 -727.99
                 -41.26 -1.51
                                  0.17
                                         -1.66
                                                 -32.20
      6 -310.88
                  -39.00
                          1.29
                                   0.18
                                         -1.46
                                                 -124.80
                  39.00 -1.29
     2 330.17
                                 -0.18
                                         -1.48
                                                 36.09
      6 216.62
                   0.54
                          1.25
                                         -1.12
 14
                                  0.00
                                                  0.37
                        -1.25
     2 -197.32
                  -0.54
                                        -1.72
                                 -0.00
                                                 0.87
                   0.48 34.72
                                        -109.44
      6 565.24
                                  -0.04
                                                   0.34
 15
     2 -545.95
                  -0.48 -34.72
                                  0.04
                                         30.44
                                                  0.76
        199.72
                   0.51
                          -0.22
                                 -0.00
                                         -0.40
 7
     2
                                                  0.65
     86 -197.56
                   -0.51
                          0.22
                                  0.00
                                         1.17
                                                 1.13
  8
      2
        774.11
                  48.13
                          -0.61
                                  -0.33
                                         -0.17
                                                 105.31
     86 -771.95
                  -48.13
                           0.61
                                  0.33
                                          2.27
                                                 61.36
      2 -456.42
                  -52.27
                           0.35
                                  0.34
                                         -0.51
                                                -107.29
        458.59
                  43.03
                          -0.35
                                  -0.34
                                         -0.70
                                                 -57.72
     86
      2
         157.00
                                          0.08
                                                  0.49
 10
                   0.38
                          -0.33
                                 -0.00
     86 -154.84
                   -0.38
                          0.29
                                  0.00
                                         0.98
                                                 0.83
      2 562.80
                   0.50
                          38.92
                                  -0.07
                                         -90.41
                                                   0.64
 11
     86 -560.63
                   -0.50 -38.92
                                         -44.37
                                                   1.11
                                  0.07
                   38.69
                          -0.59
                                                  84.47
 12
     2 683.76
                                  -0.26
                                          -0.25
     86 -681.60
                  -38.69
                           0.59
                                  0.26
                                          2.28
                                                 49.49
      2 -300.67
                  -41.63
                           0.18
                                   0.27
                                          -0.53
                                                 -85.60
 13
     86
        302.83
                   34.24
                          -0.18
                                  -0.27
                                         -0.09
                                                 -45.77
 14 2 190.07
                                                  0.62
                   0.49
                          -0.36
                                  -0.00
                                         -0.05
     86 -187.91
                                         1.25
                   -0.49
                          0.33
                                  0.00
                                                 1.07
      2 514.71
                   0.59
                          31.03
                                         -72.45
                                                   0.74
 15
                                  -0.05
     86 -512.54
                   -0.59 -31.03
                                         -35.03
                                                   1.29
                                  0.05
     7
         103.30
                   -0.79 -1.41
                                  -0.00
 7
                                          0.05
                                                 -0.50
        -84.00
                  0.79
                         1.41
                                0.00
                                        3.16
                                               -1.29
  8
     7 -539.02
                   48.44
                          -1.05
                                  -0.33
                                          0.22
                                                 155.76
     3 558.32
                 -48.44
                          1.05
                                         2.18
                                 0.33
                                                -45.56
  9
     7 735.02
                 -51.49
                          -1.65
                                  0.33
                                          0.28
                                               -157.42
     3 -715.72
                  51.49
                          1.65
                                 -0.33
                                         3.47
                                                40.28
          99.98
                         -1.54
 10
      7
                  -0.79
                                 -0.00
                                         0.87
                                                 -0.50
        -80.68
                  0.79
                         1.54
                                0.00
                                        2.64
                                               -1.30
     7 -335.80
                   -0.87 39.12
                                   0.03 -134.08
                                                  -0.55
 11
                  0.87 -39.12
        355.10
                                 -0.03
                                         45.08
                                                 -1.43
 12
     7 -407.37
                   38.60
                         -1.16
                                  -0.27
                                          0.06
                                                 124.51
     3 426.67
                -38.60
                          1.16
                                 0.27
                                         2.58
                                                -36.70
STAAD SPACE
                                         -- PAGE NO. 30
```

ALL UNITS ARE -- KN METE (LOCAL)

-									
]	13		611.85					
				-592.56				3.61	
	1	14		103.83					
			3	-84.53		1.55		2.95	-1.29
	1	15	7	-244.80	-0.85	30.98	0.02	-107.37	-0.54
			3	264.10	0.85	-30.98	-0.02	36.90	-1.40
	6	7	3	76.43	-0.10	0.22	-0.00	-0.85	-0.15
			87	-74.27	0.10	-0.22	0.00	0.08	-0.19
		8	3	-519.44	52.28	-0.10	-0.47	0.11	108.28
			87	521.61	-43.04	0.10	0.47	0.24	56.77
		9	3	661.77	-47.57	0.36	0.47	-1.23	-105.60
			87	-659.60	47.57	-0.36	-0.47	-0.02	-59.12
	1	10	3	73.01	-0.10	-0.05	-0.00	-0.15	-0.14
			87	-70.84	0.10	0.05	0.00	0.32	-0.19
	1	11	3	-332.79	0.03	43.21	0.05	-93.06	0.00
			87	334.95	-0.03	-35.62	-0.05	-43.43	0.08
	1	12	3	-397.11	41.81	0.02	-0.38	-0.25	86.59
			87	399.27	-34.41	-0.02	0.38	0.19	45.38
	1	13	3	547.87	-38.07	0.39	0.38	-1.33	-84.51
			87	-545.70	38.07	-0.39	-0.38	-0.02	-47.34
	1	14	3	76.86	-0.10	0.06	-0.00	-0.46	-0.15
			87	-74.69	0.10	-0.06	0.00	0.25	-0.19
	1	15	3	-247.78	-0.00	34.67	0.04	-74.79	-0.03
			87	249.95	0.00	-28.60	-0.04	-34.75	0.02
,	7	7	8	103.30	0.79	-1.41	0.00	0.05	0.50
			4	-84.00	-0.79	1.41	-0.00	3.16	1.29
		8	8	735.02	51.49	-1.65	-0.33	0.28	157.42
				-715.72					-40.28
		9	8	-539.02	-48.44	-1.05	0.33	0.22	-155.76
			4	558.32	48.44	1.05	-0.33	2.18	45.56
	1	10	8	99.98	0.79	-1.54	0.00	0.87	0.50
			4	-80.68	-0.79	1.54	-0.00	2.64	1.30
	1	11	8	-335.80	0.87	39.12	-0.03	-134.08	0.55
			4	355.10	-0.87	-39.12	0.03	45.08	1.43
	1	12	8	611.85	41.35	-1.64	-0.26	0.11	126.03

```
4 -592.56 -41.35
                                0.26
                         1.64
                                       3.61
                                             -31.97
      8 -407.37
                                        0.06 -124.51
  13
                 -38.60 -1.16
                                 0.27
     4 426.67
                 38.60
                         1.16
                               -0.27
                                       2.58
                                              36.70
  14
      8 103.83
                   0.79
                        -1.55
                                0.00
                                       0.58
                                               0.50
     4 -84.53
                        1.55
                 -0.79
                              -0.00
                                      2.95
                                              1.29
                   0.85 30.98
  15
      8 -244.80
                                -0.02 -107.37
                                                 0.54
     4 264.10
                 -0.85 -30.98
                                0.02
                                      36.90
                                               1.40
         76.43
                  0.10 0.22
                                0.00
8 7 4
                                      -0.85
                                              0.15
     88 -74.27
                 -0.10 -0.22
                               -0.00
                                       0.08
                                              0.19
STAAD SPACE
                                       -- PAGE NO. 31
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

4 661.77 47.57 0.36 -0.47105.60 8 -1.23 -0.36 88 -659.60 -47.57 0.47 -0.02 59.12 4 -519.44 -52.28 -0.10 0.47 0.11 -108.28 88 521.61 43.04 0.10 -0.47 0.24 -56.77 73.01 10 4 0.10 -0.05 0.00 -0.150.14 -70.84 -0.100.05 -0.000.32 0.19 88 4 -332.79 -0.03 43.21 -93.06 11 -0.05 -0.0088 334.95 0.03 -35.62 -43.43 -0.08 0.05 4 547.87 -1.33 12 38.07 0.39 -0.3884.51 88 -545.70 -38.07 -0.39 -0.02 0.38 47.34 13 4 -397.11 -41.81 0.02 0.38 -0.25-86.59 399.27 34.41 -0.02-0.38 0.19 -45.38 88 14 4 76.86 0.10 0.06 0.00 -0.460.15 88 -74.69 -0.10 -0.06 -0.000.25 0.19 15 4 -247.78 0.00 34.67 -0.04 -74.79 0.03 249.95 88 -0.00 -28.60 0.04 -34.75 -0.029 7 1 0.01 3.37 -0.00-0.000.00 1.48 2 -0.01 3.37 0.000.00-0.00-1.48 8 1 3.42 -42.73 -0.030.000.05 -62.28 -3.42 49.46 0.03 -0.000.05 -64.95 9 1 3.42 49.46 -0.0064.95 0.03 -0.05-42.73 -3.42 -0.03 0.00-0.05 62.28 10 0.23 3.37 -0.00-0.001.47 1 0.00

```
-0.23
                   3.37 0.00
                                  0.00
                                         -0.00
                                                 -1.47
       2
      1
            0.04
                    3.37
                           0.00
                                  0.00
                                          -0.00
                                                  1.48
   11
          -0.04
                   3.37 -0.00
       2
                                 -0.00
                                          0.00
                                                 -1.48
   12
      1
            2.61
                  -33.51
                           -0.03
                                    0.00
                                           0.04
                                                  -49.52
                                  -0.00
       2
          -2.61
                  40.24
                          0.03
                                          0.04
                                                 -52.27
                   40.24
                                                   52.27
   13
       1
            2.61
                           0.03
                                  -0.00
                                          -0.04
          -2.61
                  -33.51
                          -0.03
                                  0.00
                                          -0.04
                                                  49.52
       2
   14
       1
            0.06
                    3.37
                          -0.00
                                  -0.00
                                           0.00
                                                   1.48
          -0.06
                   3.37
                          0.00
                                  0.00
                                         -0.00
                                                 -1.48
            -0.10
                    3.37
                                          -0.00
   15
       1
                           0.00
                                   0.00
                                                  1.49
       2
           0.10
                   3.37 -0.00
                                 -0.00
                                          0.00
                                                 -1.49
   7 3
           1.63
                    4.21 0.00
                                   0.01
                                          -0.00
10
                                                   2.31
                         -0.00
       1
          -1.63
                   3.99
                                 -0.01
                                         -0.00
                                                 -1.95
   8
       3
            0.90
                   4.16
                         -0.04
                                  0.00
                                          0.07
                                                  2.27
          -0.90
                   4.04
       1
                          0.04
                                 -0.00
                                         0.06
                                                 -2.07
   9
       3
            2.06
                   4.19
                          0.04
                                  0.00
                                         -0.07
                                                  2.27
          -2.06
                   4.00 -0.04
                                         -0.06
                                                 -1.95
                                 -0.00
       1
   10
       3
            1.49
                    4.31
                                         -0.00
                                                   2.50
                           0.00
                                  0.00
       1
          -1.49
                   3.88 -0.00
                                 -0.00
                                         -0.00
                                                  -1.78
       3
            4.09
                   -25.68
                                   0.01
                                          -0.01
                                                  -47.98
  11
                            0.01
          -4.09
                   33.87 -0.01
                                  -0.01
                                                 -52.06
                                          -0.01
 STAAD SPACE
                                           -- PAGE NO. 32
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
12
       3
            1.14
                    4.19 - 0.03
                                    0.01
                                           0.06
                                                    2.30
           -1.14
                   4.01
                           0.03
                                  -0.01
                                           0.05
                                                  -2.01
   13
       3
             2.06
                    4.21
                            0.03
                                   0.00
                                           -0.06
                                                    2.30
           -2.06
                   3.98
                          -0.03
                                  -0.00
                                          -0.05
                                                   -1.91
       1
   14
       3
             1.61
                    4.31
                            0.00
                                   0.00
                                          -0.00
                                                    2.49
           -1.61
                   3.89 -0.00
                                  -0.00
                                                   -1.78
                                          -0.00
       1
        3
   15
             3.69
                   -19.68
                            0.01
                                    0.01
                                           -0.01
                                                   -37.89
       1
           -3.69
                   27.87
                         -0.01
                                   -0.01
                                           -0.01
                                                   -42.00
             1.63
                                    -0.01
                                                     2.31
11 7
       4
                     4.21 -0.00
                                            0.00
           -1.63
                    3.99
                           0.00
                                   0.01
                                          0.00
                                                  -1.95
   8
       4
            2.06
                    4.19
                          -0.04
                                   -0.00
                                           0.07
                                                    2.27
```

```
-2.06
                    4.00
                           0.04
                                   0.00
       2
                                           0.06
                                                    -1.95
       4
            0.90
                    4.16
                            0.04
                                   -0.00
                                           -0.07
                                                     2.27
                    4.04
       2
           -0.90
                           -0.04
                                    0.00
                                           -0.06
                                                    -2.07
       4
             1.49
                     4.31
                           -0.00
                                    -0.00
                                             0.00
                                                      2.50
   10
       2
           -1.49
                    3.88
                           0.00
                                   0.00
                                           0.00
                                                    -1.78
                    -25.68
   11
        4
             4.09
                            -0.01
                                     -0.01
                                              0.01
                                                     -47.98
                   33.87
       2
           -4.09
                            0.01
                                    0.01
                                            0.01
                                                    -52.06
        4
             2.06
                     4.21
                                    -0.00
                                                      2.30
   12
                            -0.03
                                             0.06
                    3.98
       2
           -2.06
                           0.03
                                   0.00
                                           0.05
                                                    -1.91
                     4.19
   13
       4
            1.14
                            0.03
                                    -0.01
                                            -0.06
                                                      2.30
       2
           -1.14
                    4.01
                           -0.03
                                    0.01
                                           -0.05
                                                    -2.01
   14
        4
                     4.31
                            -0.00
                                    -0.00
                                             0.00
                                                      2.49
             1.61
       2
           -1.61
                    3.89
                                   0.00
                                           0.00
                           0.00
                                                    -1.78
   15
       4
             3.69
                   -19.68
                            -0.01
                                     -0.01
                                              0.01
                                                     -37.89
           -3.69
                   27.87
                            0.01
                                    0.01
                                            0.01
                                                    -42.00
12 7
        3
             0.69
                      3.37
                           -0.00
                                     -0.00
                                             0.00
                                                      1.44
                                           -0.00
           -0.69
                    3.37
                           0.00
                                   0.00
                                                    -1.44
       4
   8
                   -43.03
       3
            3.88
                            -0.05
                                     0.02
                                             0.06
                                                    -62.72
           -3.88
                   49.76
                            0.05
                                    -0.02
                                            0.06
                                                    -65.33
   9
       3
            3.88
                    49.76
                                    -0.02
                                                     65.33
                            0.05
                                            -0.06
           -3.88
                                    0.02
                   -43.03
                           -0.05
                                            -0.06
                                                     62.72
        3
                                    -0.00
                                                     1.44
   10
             0.69
                     3.37
                            -0.00
                                             0.00
           -0.69
                    3.37
                           0.00
                                   0.00
                                           -0.00
                                                    -1.44
       4
   11
        3
             0.89
                     3.37
                            0.00
                                    0.00
                                            -0.00
                                                     1.43
           -0.89
                    3.37
                           -0.00
                                   -0.00
                                            0.00
                                                    -1.43
       4
                    -33.75
   12
        3
             3.24
                            -0.04
                                     0.02
                                             0.05
                                                     -49.88
           -3.24
                   40.48
                            0.04
                                   -0.02
                                            0.05
                                                    -52.55
       4
   13
                    40.48
        3
             3.24
                            0.04
                                    -0.02
                                             -0.05
                                                     52.55
           -3.24
                   -33.75
                                    0.02
                                            -0.05
                                                     49.88
                           -0.04
             0.69
   14
        3
                     3.37
                            -0.00
                                    -0.00
                                             0.00
                                                     1.44
           -0.69
                    3.37
                           0.00
                                   0.00
                                           -0.00
                                                    -1.44
   15
        3
             0.84
                     3.37
                            0.00
                                    0.00
                                            -0.00
                                                     1.43
                    3.37
           -0.84
                           -0.00
                                   -0.00
                                            0.00
                                                    -1.43
 STAAD SPACE
                                              -- PAGE NO. 33
```

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

```
7 9
            -6.84
                  -11.09
                            0.33
                                   -0.26
                                           -0.05
                                                  -1.09
13
      89
            6.84
                   11.46 -0.33
                                   0.26
                                          -0.05
                                                  -2.14
   8
      9 193.26
                    40.62
                           -0.78
                                    0.59
                                           0.40
                                                  -50.65
      89 -193.26
                   -40.33
                            0.78
                                   -0.59
                                           -0.18
                                                    62.27
                            1.30
       9 -196.57
                   -61.48
                                   -0.98
                                           -0.47
                                                    47.80
          196.57
                           -1.30
                                           0.10
      89
                    61.77
                                    0.98
                                                  -65.48
   10
       9
            -5.18
                           0.22
                                          -0.03
                    -8.77
                                  -0.19
                                                  -0.90
            5.18
                   9.06 -0.22
                                                 -1.65
      89
                                  0.19
                                         -0.03
           -12.01
                   -28.49 10.11
   11
      9
                                    -1.11
                                            -1.33
                                                    -3.78
      89
           12.01
                   28.78 -10.11
                                    1.11
                                           -1.57
                                                   -4.43
                    28.94
   12
       9
           152.27
                            -0.51
                                    0.38
                                            0.31
                                                   -40.84
      89 -152.27
                                   -0.38
                   -28.58
                            0.51
                                           -0.16
                                                    49.11
   13 9 -159.59
                    -52.75
                            1.15
                                    -0.87
                                            -0.39
                                                    37.92
      89
           159.59
                    53.10
                           -1.15
                                    0.87
                                           0.06
                                                  -53.10
   14
       9
                   -10.57
                            0.29
            -6.49
                                   -0.24
                                           -0.04
                                                   -1.04
      89
            6.49
                   10.93 -0.29
                                   0.24
                                          -0.04
                                                  -2.03
   15
           -11.95
                            8.19
                                   -0.98
                                           -1.08
      9
                   -26.35
                                                    -3.34
           11.95
      89
                   26.71 -8.19
                                   0.98
                                          -1.27
                                                   -4.26
                    -4.74
14 7 11
             0.44
                            0.07
                                   -0.07
                                           -0.01
                                                   -1.41
           -0.44
                   4.86
                         -0.07
                                         -0.01
      93
                                  0.07
                                                  0.03
   8
     11
                   25.30 -12.42
            7.23
                                    1.33
                                            1.76
                                                    4.05
           -7.23
                  -25.18
      93
                          12.42
                                   -1.33
                                           1.80
                                                   3.19
            -7.44
     11
                  -33.69 12.60
                                   -1.30
                                           -1.79
                                                   -6.25
      93
            7.44
                   33.81 -12.60
                                   1.30
                                          -1.83
                                                   -3.44
            -0.88
                                           -0.01
   10 11
                    -4.48
                           0.08
                                   -0.06
                                                   -0.91
      93
            0.88
                   4.60 -0.08
                                  0.06
                                         -0.01
                                                 -0.40
   11 11
           167.05
                           -0.73
                     32.87
                                     0.16
                                            0.23
                                                    -46.95
      93 -167.05
                  -32.76
                            0.73
                                           -0.02
                                   -0.16
                                                    56.37
   12 11
             6.22
                    19.03
                           -9.92
                                    1.04
                                           1.41
                                                    2.78
      93
           -6.22
                  -18.91
                           9.92
                                           1.44
                                  -1.04
                                                   2.66
   13 11
            -5.51
                  -28.17 10.09
                                    -1.06
                                           -1.43
                                                    -5.45
                   28.28 -10.09
      93
            5.51
                                   1.06
                                          -1.46
                                                  -2.65
   14 11
                    -4.80
                                                   -1.18
            -0.26
                            0.07
                                   -0.06
                                          -0.01
      93
            0.26
                   4.92 -0.07
                                  0.06
                                         -0.01
                                                 -0.21
   15 11
           134.08
                     25.08
                            -0.57
                                     0.10
                                            0.18
                                                    -38.02
      93 -134.08
                   -24.97
                            0.57
                                   -0.10
                                           -0.02
                                                    45.20
15 7 12
             0.44
                    -4.74 -0.07
                                    0.07
                                            0.01
                                                   -1.41
      94
           -0.44
                   4.86
                          0.07
                                 -0.07
                                          0.01
                                                  0.03
   8 12
            -7.44
                   -33.69 -12.60
                                    1.30
                                            1.79
                                                   -6.25
      94
            7.44
                   33.81
                          12.60
                                  -1.30
                                           1.83
                                                  -3.44
     12
            7.23
                   25.30
                          12.42
                                   -1.33
                                           -1.76
                                                    4.05
      94
           -7.23
                  -25.18 -12.42
                                   1.33
                                           -1.80
                                                    3.19
 STAAD SPACE
                                           -- PAGE NO. 34
```

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

```
10 12
            -0.88
                   -4.48 -0.08
                                   0.06
                                          0.01
                                                  -0.91
                                 -0.06
      94
                   4.60
                          0.08
                                         0.01
                                                 -0.40
           0.88
  11 12
          167.05
                    32.87
                            0.73
                                    -0.16
                                           -0.23
                                                   -46.95
      94 -167.05 -32.76 -0.73
                                   0.16
                                           0.02
                                                  56.37
            -5.51
                  -28.17 -10.09
  12 12
                                    1.06
                                           1.43
                                                   -5.45
                  28.28
      94
           5.51
                          10.09
                                  -1.06
                                          1.46
                                                  -2.65
             6.22
                                  -1.04
  13 12
                   19.03
                           9.92
                                          -1.41
                                                   2.78
           -6.22
                 -18.91
      94
                         -9.92
                                   1.04
                                         -1.44
                                                  2.66
  14 12
            -0.26
                   -4.80 -0.07
                                   0.06
                                          0.01
                                                  -1.18
                                                -0.21
      94
           0.26
                   4.92
                          0.07
                               -0.06
                                         0.01
  15 12 134.08
                    25.08
                             0.57
                                           -0.18
                                    -0.10
                                                   -38.02
      94 -134.08
                  -24.97
                          -0.57
                                   0.10
                                           0.02
                                                  45.20
                    -4.40 -0.01
16 7 11
           -1.92
                                   0.00
                                           0.00
                                                  -0.57
      90
           1.92
                   4.52 0.01
                                 -0.00
                                        -0.00
                                                 -0.71
          207.23
   8 11
                    39.11
                            0.73
                                   -0.20
                                           -0.11
                                                  -56.06
                           -0.73
      90 -207.23
                   -38.99
                                   0.20
                                          -0.10
                                                   67.27
   9 11 -203.65
                   -50.37
                           -0.79
                                    0.22
                                           0.12
                                                   54.00
          203.65
                   50.48
                           0.79
                                  -0.22
                                           0.11
      90
                                                  -68.47
            -1.84
                   -4.14
  10 11
                           -0.08
                                   0.02
                                          0.01
                                                  -0.53
           1.84
      90
                   4.26
                          0.08
                                -0.02
                                         0.01
                                                 -0.67
  11 11
            5.10
                  15.74
                           9.77
                                  -1.02
                                          -1.27
                                                   2.36
                 -15.62
                                         -1.54
      90
           -5.10
                         -9.77
                                   1.02
                                                  2.14
  12 11
          165.33
                     30.20
                            0.60
                                   -0.16
                                           -0.09
                                                  -44.99
                                          -0.08
      90 -165.33 -30.08
                           -0.60
                                   0.16
                                                   53.64
  13 11 -163.37
                    -41.38
                           -0.62
                                    0.17
                                            0.09
                                                  43.06
      90
          163.37
                   41.50
                           0.62
                                  -0.17
                                           0.08
                                                 -54.95
  14 11
            -1.93
                   -4.40
                          -0.05
                                   0.01
                                          0.01
                                                  -0.57
            1.93
                   4.52
                          0.05
                                 -0.01
      90
                                         0.01
                                                 -0.71
  15 11
            3.63
                   11.50
                           7.83
                                  -0.82
                                          -1.01
                                                   1.74
      90
           -3.63
                 -11.38
                         -7.83
                                  0.82
                                         -1.23
                                                  1.54
17 7 9 185.10
                    -0.74
                           -0.53
                                   -0.00
                                           0.87
                                                   -1.24
      98 -182.93
                    0.74
                           0.53
                                   0.00
                                          0.98
                                                  -1.33
   8 9 -355.94
                    47.23
                            0.88
                                   -0.67
                                          -1.96
                                                  80.41
```

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98 358.11
                 -37.98
                          -0.88
                                  0.67
                                         -1.09
                                                 67.13
    9 650.60
                 -43.35
                          -1.59
                                                -79.06
                                  0.67
                                         3.12
     98 -648.44
                  43.35
                          1.59
                                 -0.67
                                         2.38
                                                -71.05
 10 9 145.81
                   -0.53
                          -0.53
                                  -0.00
                                          0.88
                                                 -0.88
    98 -143.65
                   0.53
                          0.50
                                 0.00
                                         0.90
                                                -0.97
 11
      9 479.87
                   -0.55
                          34.57
                                  0.08
                                         -63.10
                                                  -0.76
                   0.55 -34.57
     98 -477.71
                                  -0.08
                                         -56.62
                                                  -1.14
      9 -225.07
                   37.51
                           0.49
                                  -0.54
 12
                                         -1.23
                                                  63.87
    98 227.24
                 -30.11
                          -0.49
                                                 53.22
                                  0.54
                                         -0.47
 13 9 580.16
                  -34.95
                          -1.48
                                   0.53
                                          2.84
                                                 -63.71
     98 -578.00
                  34.95
                          1.48
                                 -0.53
                                          2.30
                                                -57.33
STAAD SPACE
                                         -- PAGE NO. 35
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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                        -0.64
                                -0.00
                                         1.05
                                                -1.17
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                        0.61
                                0.00
                                        1.11
                                               -1.26
   9 443.58
                 -0.71
                        27.44
                                        -50.14
15
                                 0.06
                                                 -1.07
   98 -441.41
                 0.71 - 27.44
                                -0.06
                                       -44.90
                                                 -1.40
7 10 185.10
                   0.74
                         -0.53
                                         0.87
                                  0.00
                                                 1.24
  104 -182.93
                  -0.74
                                         0.98
                         0.53
                                -0.00
                                                 1.33
8 10 650.60
                 43.35
                         -1.59
                                 -0.67
                                         3.12
                                                79.06
  104 -648.44
                 -43.35
                         1.59
                                 0.67
                                         2.38
                                                71.05
9 10 -355.94
                 -47.23
                          0.88
                                 0.67
                                        -1.96
                                                -80.41
  104
       358.11
                 37.98
                         -0.88
                                        -1.09
                                 -0.67
                                                -67.13
10 10 145.81
                  0.53
                         -0.53
                                         0.88
                                 0.00
                                                 0.88
  104 -143.65
                  -0.53
                         0.50
                                -0.00
                                        0.90
                                                 0.97
11 10 479.87
                  0.55
                         34.57
                                 -0.08
                                        -63.10
                                                  0.76
  104 -477.71
                  -0.55 -34.57
                                 0.08
                                        -56.62
                                                  1.14
12 10 580.16
                  34.95 -1.48
                                 -0.53
                                         2.84
                                                 63.71
  104 -578.00
                          1.48
                                         2.30
                 -34.95
                                 0.53
                                                57.33
13 10 -225.07
                 -37.51
                          0.49
                                  0.54
                                         -1.23
                                                -63.87
  104
        227.24
                 30.11
                         -0.49
                                 -0.54
                                        -0.47
                                                -53.22
14 10 176.33
                  0.70
                         -0.64
                                 0.00
                                         1.05
                                                 1.17
  104 -174.16
                  -0.70
                         0.61
                                -0.00
                                         1.11
                                                 1.26
15 10 443.58
                  0.71
                         27.44
                                 -0.06
                                        -50.14
                                                  1.07
  104 -441.41
                  -0.71 -27.44
                                        -44.90
                                                  1.40
                                 0.06
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19 7 11 73.76
                    -0.10
                          0.53
                                   0.00
                                         -1.35
                                                 -0.13
     100 -71.59
                    0.10 - 0.53
                                 -0.00
                                         -0.49
                                                 -0.21
   8 11 -415.64
                    47.21
                           -0.35
                                  -0.85
                                          0.67
                                                 80.21
     100
          417.81
                   -37.96
                           0.35
                                   0.85
                                          0.53
                                                 67.26
   9 11
          551.93
                   -42.44
                           1.05
                                   0.85
                                         -2.53
                                                 -77.34
     100 -549.76
                   42.44 -1.05
                                  -0.85
                                         -1.12
                                                 -69.64
  10 11
           69.66
                    -0.09
                           0.19
                                  0.00
                                         -0.64
                                                 -0.12
                    0.09 -0.19
     100
          -67.49
                                 -0.00
                                         -0.03
                                                 -0.20
  11 11 -264.40
                    -0.08 39.34
                                   0.07
                                         -67.18
                                                  -0.26
     100
          266.57
                    0.08 -31.76
                                  -0.07
                                         -55.94
                                                  -0.03
  12 11 -314.39
                    37.74 -0.06
                                   -0.68
                                          0.01
                                                  64.14
     100
          316.56
                   -30.35
                           0.06
                                   0.68
                                          0.21
                                                 53.76
  13 11 459.67
                   -33.98
                                         -2.55
                           1.06
                                   0.68
                                                 -61.90
     100 -457.50
                    33.98 -1.06
                                  -0.68
                                         -1.11
                                                 -55.76
  14 11
           73.85
                    -0.10
                          0.37
                                  0.00
                                         -1.04
                                                 -0.13
     100 -71.69
                    0.10 -0.37
                                 -0.00
                                         -0.24
                                                 -0.20
  15 11 -193.40
                    -0.09 31.69
                                         -54.27
                                                   -0.24
                                   0.06
          195.56
                    0.09 -25.62
                                         -44.96
     100
                                  -0.06
                                                  -0.07
20 7 12 73.76
                    0.10
                          0.53
                                  -0.00
                                         -1.35
                                                  0.13
     106 -71.59
                   -0.10 -0.53
                                  0.00
                                         -0.49
                                                 0.21
STAAD SPACE
                                         -- PAGE NO. 36
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ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

8 12 551.93 42.44 1.05 -0.85-2.53 77.34 106 -549.76 -42.44 -1.050.85 -1.1269.64 9 12 -415.64 -47.21-0.35 0.85 0.67 -80.21 106 417.81 37.96 0.35 -0.850.53 -67.2610 12 69.66 0.09 0.19 -0.00-0.64 0.12-67.49 -0.09 -0.19 0.00 -0.03 106 0.20 11 12 -264.40 0.08 39.34 -0.07-67.18 0.26 106 266.57 -0.08 -31.76 0.07 -55.94 0.03 12 12 459.67 33.98 1.06 -0.68-2.5561.90 106 -457.50 -33.98 -1.06 -1.11 0.68 55.76 13 12 -314.39 -37.74 -0.06 0.68 0.01 -64.14 106 316.56 30.35 0.06 0.21 -53.76 -0.68

```
73.85
                                   -0.00
   14 12
                     0.10
                            0.37
                                          -1.04
                                                   0.13
           -71.69
                    -0.10
                           -0.37
                                          -0.24
                                                   0.20
      106
                                   0.00
   15 12 -193.40
                                           -54.27
                     0.09
                           31.69
                                    -0.06
                                                     0.24
      106
          195.56
                    -0.09 -25.62
                                    0.06
                                          -44.96
                                                    0.07
21 7 13
            -6.25
                    -10.41
                             0.36
                                   -0.25
                                           -0.05
                                                   -1.03
            6.25
      103
                   10.78 -0.36
                                   0.25
                                          -0.05
                                                  -2.00
           194.66
                            -0.78
                                    0.54
                                            0.42
   8 13
                    39.52
                                                  -51.76
     103 -194.66
                            0.78
                                    -0.54
                                           -0.20
                    -39.23
                                                   63.07
   9 13 -196.97
                    -59.27
                             1.35
                                    -0.93
                                           -0.49
                                                   49.00
      103
           196.97
                    59.56
                           -1.35
                                    0.93
                                            0.11
                                                  -66.04
   10 13
            -4.74
                    -8.23
                            0.23
                                   -0.19
                                          -0.03
                                                  -0.85
     103
            4.74
                    8.52 -0.23
                                         -0.03
                                                  -1.54
                                  0.19
            -9.72
   11 13
                   -22.64 11.53
                                    -0.71
                                           -1.52
                                                   -2.97
     103
            9.72
                   22.93 -11.53
                                   0.71
                                          -1.79
                                                   -3.56
   12 13
           153.59
                     28.27 -0.51
                                    0.35
                                            0.32
                                                   -41.71
      103 -153.59
                    -27.91
                             0.51
                                    -0.35
                                           -0.18
                                                   49.79
   13 13
          -159.72
                    -50.76
                             1.20
                                    -0.83
                                            -0.41
                                                   38.89
                    51.12
      103
           159.72
                           -1.20
                                    0.83
                                            0.07
                                                  -53.50
   14 13
            -5.93
                    -9.94
                            0.31
                                   -0.24
                                          -0.04
                                                  -0.99
      103
            5.93
                   10.29 -0.31
                                   0.24
                                          -0.04
                                                  -1.91
            -9.92
                   -21.46
                                          -1.23
   15 13
                            9.35
                                   -0.66
                                                   -2.68
     103
            9.92
                   21.81
                          -9.35
                                   0.66
                                          -1.45
                                                  -3.52
22 7 15
            0.94
                    -4.12
                           0.07
                                   -0.06
                                          -0.01
                                                   -1.48
     102
            -0.94
                    4.24 -0.07
                                   0.06
                                          -0.01
                                                  0.28
   8 15
            5.04
                   17.94 -13.66
                                   0.99
                                           1.91
                                                   2.95
     102
            -5.04
                   -17.82
                          13.66
                                   -0.99
                                           2.01
                                                   2.18
   9 15
            -4.46
                   -25.30 13.84
                                   -0.95
                                           -1.93
                                                   -5.24
            4.46
                   25.42 -13.84
                                   0.95
                                           -2.04
                                                   -2.04
      102
   10 15
            -0.51
                    -3.98
                           0.07
                                   -0.05
                                          -0.01
                                                  -0.95
            0.51
                    4.10 -0.07
     102
                                  0.05
                                         -0.01
                                                  -0.21
   11 15
          173.02
                     36.07 -0.73
                                    0.11
                                            0.27
                                                   -48.61
     102 -173.02 -35.95
                             0.73
                                   -0.11
                                           -0.06
                                                    58.94
 STAAD SPACE
                                           -- PAGE NO. 37
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ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

```
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                    13.32 -10.92
                                      0.78
                                                      1.87
                                              1.53
      102
                   -13.20
                           10.92
                                     -0.78
                                                      1.94
            -4.63
                                             1.61
   13 15
            -2.97
                    -21.27
                            11.08
                                     -0.78
                                             -1.55
                                                      -4.68
      102
             2.97
                    21.38 -11.08
                                     0.78
                                            -1.63
                                                     -1.44
   14 15
             0.19
                     -4.21
                             0.07
                                    -0.06
                                            -0.01
                                                     -1.25
                     4.33
      102
            -0.19
                           -0.07
                                    0.06
                                           -0.01
                                                     0.02
            139.02
                      27.83
   15 15
                             -0.58
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                                              0.22
                                                     -39.37
      102 -139.02
                     -27.71
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                                     -0.07
                                             -0.05
                                                      47.34
   7 16
              0.94
                     -4.12
                            -0.07
                                     0.06
                                                     -1.48
                                             0.01
      107
            -0.94
                     4.24
                            0.07
                                   -0.06
                                            0.01
                                                    0.28
     16
            -4.46
                   -25.30
                           -13.84
                                     0.95
                                             1.93
                                                     -5.24
   8
                    25.42
      107
                            13.84
                                    -0.95
                                             2.04
                                                     -2.04
             4.46
   9 16
                                                     2.95
             5.04
                    17.94
                            13.66
                                    -0.99
                                            -1.91
      107
            -5.04
                   -17.82
                           -13.66
                                     0.99
                                             -2.01
                                                      2.18
   10 16
             -0.51
                     -3.98
                            -0.07
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                                             0.01
                                                     -0.95
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             0.51
                     4.10
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                      36.07
                                              -0.27
   11 16
            173.02
                              0.73
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                                                     -48.61
           -173.02
                    -35.95
                                              0.06
      107
                            -0.73
                                      0.11
                                                      58.94
   12 16
             -2.97
                    -21.27 -11.08
                                      0.78
                                              1.55
                                                      -4.68
      107
             2.97
                    21.38
                            11.08
                                    -0.78
                                                     -1.44
                                             1.63
   13 16
             4.63
                    13.32
                                     -0.78
                                             -1.53
                            10.92
                                                      1.87
      107
            -4.63
                   -13.20 -10.92
                                     0.78
                                             -1.61
                                                      1.94
   14 16
             0.19
                     -4.21
                            -0.07
                                     0.06
                                            0.01
                                                    -1.25
            -0.19
      107
                     4.33
                            0.07
                                   -0.06
                                            0.01
                                                    0.02
   15 16
            139.02
                      27.83
                              0.58
                                              -0.22
                                                     -39.37
                                     -0.07
      107 -139.02
                     -27.71
                             -0.58
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                                              0.05
                                                      47.34
   7 15
            -1.83
                     -4.29
                             0.06
                                     0.02
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                                                     -0.57
24
      101
             1.83
                     4.41 -0.06
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                                           -0.01
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           210.14
                                     -0.08
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                     38.19
                             0.75
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                                                     -57.71
      101 -210.14
                     -38.07
                             -0.75
                                      0.08
                                             -0.02
                                                      68.66
   9 15 -206.26
                     -49.15
                             -0.71
                                      0.12
                                              0.19
                                                      55.65
      101
           206.26
                     49.27
                              0.71
                                     -0.12
                                             0.02
                                                     -69.78
                                     0.02
   10 15
            -1.73
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                                             0.01
                                                     -0.52
      101
             1.73
                     4.09
                            0.03
                                   -0.02
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                                                   -0.64
   11 15
             3.40
                     10.58
                           11.23
                                     -0.61
                                             -1.45
                                                      1.62
      101
            -3.40
                   -10.47 -11.23
                                     0.61
                                             -1.77
                                                      1.40
   12 15
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                      29.46
                              0.64
                                     -0.06
                                             -0.16
                                                     -46.32
      101 -167.67
                                                      54.76
                     -29.35
                            -0.64
                                      0.06
                                             -0.03
   13 15
          -165.45
                     -40.41
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                                      0.10
                                              0.15
                                                      44.38
      101
            165.45
                     40.53
                             0.53
                                     -0.10
                                             0.01
                                                     -55.99
   14 15
             -1.82
                     -4.27
                             0.01
                                     0.02
                                            -0.00
                                                     -0.56
      101
             1.82
                     4.39
                           -0.01
                                   -0.02
                                           -0.00
                                                    -0.68
   15 15
             2.28
                     7.38
                            9.02
                                    -0.49
                                           -1.16
                                                     1.15
      101
            -2.28
                    -7.26
                           -9.02
                                                     0.95
                                    0.49
                                           -1.43
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

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                               -0.00
                                        0.65
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                         0.50
     17 -167.87
                  0.55
                                       1.24
                                0.00
                                             -1.08
   8 13 -251.95
                 42.44 0.99
                                -0.89
                                       -1.93
                                              77.35
      17 254.30 -32.43 -0.99
                                0.89
                                       -1.77
                                              63.04
                                            -75.61
   9 13 523.21
                 -38.22
                         -1.67
                                 0.88
                                       2.80
      17 -520.87
                                -0.88
                  38.22
                         1.67
                                       3.47
                                             -67.70
  10 13 134.46
                  -0.39 -0.50
                                -0.00
                                       0.72
                                              -0.71
     17 -132.11
                  0.39
                         0.46
                                0.00
                                       1.09
                                             -0.77
  11 13 392.30
                  -0.36 30.45
                                      -59.82
                                 0.02
                                               -0.61
      17 -389.95
                  0.36 -30.45
                                      -54.37
                                -0.02
                                               -0.73
  12 13 -146.77
                   33.75
                         0.59
                                 -0.71
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     17 149.11 -25.74 -0.59
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  13 13 473.37 -30.78 -1.53
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                                        2.50 -60.86
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                         1.53
                                -0.71
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                                             -54.56
  14 13 162.36
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                                -0.00
                                       0.84
                                              -0.94
      17 -160.02
                                       1.35
                  0.52
                         0.57
                                0.00
                                             -1.02
  15 13 368.64
                  -0.49 24.16
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                                      -47.59
                                               -0.86
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                  0.49 -24.16
                                -0.01 -43.01
                                               -0.99
26 7 14 170.22
                   0.55 - 0.50
                                 0.00
                                        0.65
                                               1.00
      18 -167.87
                  -0.55
                         0.50
                               -0.00
                                       1.24
                                              1.08
   8 14 523.21
                  38.22
                                        2.80
                         -1.67
                                -0.88
                                              75.61
      18 -520.87
                 -38.22
                         1.67
                                0.88
                                       3.47
                                              67.70
   9 14 -251.95
                                       -1.93
                 -42.44
                         0.99
                                 0.89
                                             -77.35
      18 254.30
                                              -63.04
                  32.43 -0.99
                                -0.89
                                       -1.77
  10 14 134.46
                  0.39 - 0.50
                                 0.00
                                       0.72
                                               0.71
                                              0.77
      18 -132.11
                  -0.39
                         0.46
                               -0.00
                                       1.09
  11 14 392.30
                  0.36 30.45
                                -0.02
                                      -59.82
                                                0.61
      18 -389.95
                  -0.36 -30.45
                                 0.02
                                      -54.37
                                               0.73
  12 14 473.37
                  30.78 -1.53
                                 -0.71
                                       2.50
                                              60.86
      18 -471.02 -30.78
                         1.53
                                0.71
                                       3.25
                                              54.56
  13 14 -146.77 -33.75 0.59
                                 0.71
                                      -1.29
                                             -61.51
     18 149.11
                  25.74 -0.59
                                -0.71
                                       -0.93
                                              -50.03
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14 14 162.36 0.52 - 0.600.00 0.840.94 18 -160.02 -0.52 0.57 1.35 1.02 -0.0015 14 368.64 0.49 24.16 -0.01 -47.59 0.86 18 -366.29 -0.49 -24.16 0.01 -43.01 0.99 27 7 15 71.35 -0.06 0.50 0.00 -1.24 -0.10 19 -69.00 0.06 -0.50 -0.00 -0.65-0.128 15 -307.44 42.22 -0.33 -0.960.51 77.25 -32.21 19 309.78 0.33 0.96 0.73 62.31 9 15 438.05 -37.32 1.01 0.96 -2.22-74.28 19 -435.71 37.32 -1.01 -0.96-1.59 -65.66 STAAD SPACE -- PAGE NO. 39

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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

10 15 66.48 -0.06 0.20 0.00 -0.58 -0.09-0.17 19 -64.13 0.06 -0.20 -0.00 -0.11 11 15 -191.36 -0.09 35.25 0.04 -63.70 -0.20 19 193.71 0.09 -27.04 -0.04 -53.09 -0.1512 15 -228.06 33.77 -0.07 -0.77-0.08 61.78 19 230.40 -25.76 0.070.77 0.33 49.82 13 15 368.33 -29.87 -2.251.01 0.77 -59.45 19 -365.99 29.87 -1.01 -0.77-1.53 -52.55 71.08 14 15 -0.06 0.36 0.00 -0.94-0.1019 -68.73 0.06 -0.36 -0.00-0.40 -0.1215 15 -135.20 -0.09 28.40 0.03 -51.44 -0.1819 137.54 0.09 -21.83 -0.03 -42.73 -0.1528 7 16 71.35 0.06 0.50 -0.00-1.24 0.10 20 -69.00 -0.06 -0.50 0.00 -0.65 0.128 16 438.05 37.32 1.01 -0.96 -2.2274.28 -37.32 -1.59 20 -435.71 -1.01 0.96 65.66 16 -307.44 -42.22 -0.33 0.96 0.51 -77.25 20 309.78 32.21 0.33 -0.96 0.73 -62.3110 16 66.48 0.06 0.20 -0.00-0.580.09 20 -64.13 -0.06 -0.20 -0.17 0.11 0.0011 16 -191.36 0.09 35.25 -0.04 -63.70 0.20 20 193.71 -0.09 -27.04 0.04 -53.09 0.15

```
12 16 368.33
                   29.87 1.01
                                   -0.77
                                          -2.25
                                                  59.45
      20 -365.99 -29.87 -1.01
                                   0.77
                                         -1.53
                                                  52.55
   13 16 -228.06
                    -33.77
                           -0.07
                                    0.77
                                          -0.08
                                                  -61.78
      20 230.40
                   25.76
                           0.07
                                  -0.77
                                          0.33
                                                -49.82
   14 16 71.08
                    0.06
                           0.36
                                  -0.00
                                         -0.94
                                                  0.10
      20 -68.73
                   -0.06
                         -0.36
                                  0.00
                                        -0.40
                                                 0.12
                     0.09 28.40
   15 16 -135.20
                                   -0.03 -51.44
                                                   0.18
      20 137.54
                   -0.09 -21.83
                                  0.03
                                        -42.73
                                                  0.15
           -0.05
                    4.03
                                  -0.00
29 7 17
                          0.00
                                         -0.00
                                                  1.73
      18
           0.05
                  4.03 -0.00
                                 0.00
                                        0.00
                                               -1.73
     17
            4.92
                  -79.55
                                               -112.53
   8
                          -0.03
                                  0.60
                                         0.05
      18
           -4.92
                  85.34
                          0.03
                                 -0.60
                                               -115.01
                                         0.04
   9 17
            4.92
                  85.34
                          0.03
                                 -0.60
                                         -0.04
                                                115.01
      18
           -4.92
                 -79.55
                          -0.03
                                  0.60
                                        -0.05
                                                112.53
   10 17
           -0.04
                    2.90
                          0.00
                                 -0.00
                                         -0.00
                                                1.24
      18
           0.04
                   2.90 -0.00
                                 0.00
                                        0.00
                                               -1.24
                    2.90
   11 17
            -0.09
                          0.00
                                 -0.00
                                         0.00
                                                1.23
                                 0.00
      18
           0.09
                   2.90 -0.00
                                        -0.00
                                               -1.23
   12 17
            3.92
                  -62.15 -0.03
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                                          0.04
                                               -89.38
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           -3.92
                  69.75
                          0.03
                                 -0.48
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                                               -92.65
           3.92
                   69.75
                                  -0.48
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   13 17
                           0.03
                                         -0.03
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           -3.92 -62.15 -0.03
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                                                89.38
 STAAD SPACE
                                         -- PAGE NO. 40
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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                   3.80 -0.00
                                  0.00
                                         0.00
                                                 -1.63
   15 17
            -0.09
                    3.80
                           0.00
                                  -0.00
                                          0.00
                                                   1.63
      18
            0.09
                   3.80 -0.00
                                  0.00
                                        -0.00
                                                 -1.63
            -0.00
30 7 19
                   -0.74 -0.00
                                  -0.04
                                           0.00
                                                  -1.78
      17
            0.00
                   2.12
                          0.00
                                 0.04
                                        -0.00
                                                 -3.02
   8 19
            0.07
                   1.15
                          -0.01
                                  0.38
                                          0.00
                                                  0.84
      17
                   0.23
                                                 0.70
           -0.07
                          0.01
                                 -0.38
                                         0.02
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   11 19
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      17
            -4.09
                   63.23
                            0.01
                                   0.03
                                           0.01
                                                  -105.61
   12 19
             0.06
                     0.53
                           -0.01
                                    0.29
                                            0.00
                                                   -0.04
      17
            -0.06
                    0.85
                           0.01
                                  -0.29
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                                                  -0.49
                                    -0.37
   13 19
            -0.06
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      17
            0.06
                    3.24
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                                                  -5.26
   14 19
             0.01
                    -0.44
                                   -0.04
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                                                  -2.50
      17
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                           0.00
   15 19
             3.27
                   -49.87
                           -0.01
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                                             0.02
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      17
           -3.27
                   51.24
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31 7 20
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      18
            0.00
                    2.12
                          -0.00
                                  -0.04
                                           0.00
                                                  -3.02
      20
   8
            -0.08
                    -1.84
                           -0.00
                                    0.44
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                                                   -3.23
                                                  -5.27
      18
            0.08
                    3.22
                           0.00
                                  -0.44
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            0.07
                    1.15
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      18
           -0.07
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                    0.23
                          -0.01
                                   0.38
                                          -0.02
   10 20
             0.01
                    -0.07
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                                    0.03
                                           -0.00
                                                   -0.72
                    1.44 -0.00
      18
            -0.01
                                  -0.03
                                           0.00
                                                   -1.81
   11 20
             4.09
                   -61.85
                                                   -104.53
                             0.01
                                     0.03
                                            -0.02
            -4.09
                   63.23
                                   -0.03
                                                  -105.61
      18
                           -0.01
                                           -0.01
   12 20
            -0.06
                    -1.86
                           -0.00
                                    0.37
                                           -0.00
                                                    -3.29
      18
            0.06
                    3.24
                           0.00
                                  -0.37
                                           0.00
                                                  -5.26
   13 20
             0.06
                     0.53
                                   -0.29
                                           -0.00
                                                   -0.04
                            0.01
      18
            -0.06
                    0.85
                          -0.01
                                   0.29
                                          -0.02
                                                   -0.49
   14 20
             0.01
                    -0.44
                            0.00
                                    0.04
                                           -0.00
                                                   -1.29
                                  -0.04
      18
            -0.01
                    1.82 -0.00
                                           0.00
                                                   -2.50
             3.27
                    -49.87
                             0.01
                                     0.04
   15 20
                                            -0.02
                                                   -84.33
      18
           -3.27
                   51.24
                          -0.01
                                   -0.04
                                           -0.01
                                                   -85.54
32 7 19 -0.01
                      0.57
                            0.00
                                    -0.00
                                            0.00
                                                     0.22
      20
            0.01
                    0.57 - 0.00
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                                          -0.00
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 STAAD SPACE
                                            -- PAGE NO. 41
```

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

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            -4.99
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                            0.00
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                                                  -124.57
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                   90.67
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                                   -0.23
                                           -0.00
                                                   124.57
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                                   -0.00
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            0.01
                    0.57
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   11 19
             0.04
                     0.57
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                                            0.01
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                   -71.52
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                    0.57
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                                                  -0.22
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                     0.57
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                    0.57
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                                                   -0.23
   7 17 155.76
                      -0.61
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                                              0.74
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      21 -153.41
                     0.61
                            0.50
                                    0.00
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                                                   -1.13
      17 -169.13
                     37.40
                             0.96
                                     -0.96
                                            -2.05
                                                     62.80
      21
           171.48
                   -27.38
                            -0.96
                                     0.96
                                            -1.55
                                                    58.66
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                    -33.26
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                            -1.63
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                                             3.02
                                                    -61.32
      21 -415.44
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                                    -0.96
                                             3.10
                                                    -63.41
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                            -0.48
                                     -0.00
                                             0.72
                                                     -0.82
      21 -121.09
                     0.43
                            0.44
                                    0.00
                                            1.00
                                                   -0.81
      17 319.49
                     -0.44
                            26.36
                                            -47.62
                                                      -0.84
                                      0.00
      21 -317.14
                     0.44 - 26.36
                                    -0.00
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           87.64
                  -21.68
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                           -0.57
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                                                    46.51
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                                                     -49.48
                             -1.50
                                      0.76
      21 -381.89
                    26.83
                             1.50
                                    -0.76
                                             2.92
                                                    -51.15
           148.76
                     -0.57
                                             0.87
   14 17
                             -0.58
                                     -0.00
                                                     -1.08
      21 -146.41
                     0.57
                            0.55
                                    0.00
                                            1.25
                                                   -1.07
                                            -37.80
   15 17 305.60
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                            20.89
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                                                      -1.10
      21 -303.26
                     0.58 - 20.89
                                    -0.00
                                            -40.53
                                                     -1.07
34 7 18 155.76
                       0.61
                             -0.50
                                      0.00
                                             0.74
                                                      1.15
      22 -153.41
                    -0.61
                            0.50
                                    -0.00
                                            1.14
                                                     1.13
      18 417.78
                     33.26
                            -1.63
                                     -0.96
                                             3.02
                                                     61.32
      22 -415.44
                                             3.10
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                                                    63.41
      18 -169.13
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                                     0.96
                                            -2.05
                                                    -62.80
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          171.48
                    27.38
                            -0.96
                                    -0.96
                                            -1.55
                                                    -58.66
   10 18 123.43
                      0.43
                            -0.48
                                     0.00
                                             0.72
                                                     0.82
                                                    0.81
      22 -121.09
                    -0.43
                            0.44
                                            1.00
                                    -0.00
   11 18 319.49
                      0.44
                            26.36
                                     -0.00
                                            -47.62
                                                       0.84
      22 -317.14
                    -0.44 -26.36
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                                            -51.21
                                                      0.81
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19

4.99

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
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                                 -0.76
                                        2.72
                                              49.48
     22 -381.89 -26.83
                          1.50
                                0.76
                                       2.92
                                              51.15
  13 18 -85.29 -29.69
                          0.57
                                 0.77
                                       -1.34 -49.81
     22
          87.64
                 21.68 -0.57
                               -0.77
                                      -0.79 -46.51
  14 18 148.76
                   0.57
                         -0.58
                                 0.00
                                       0.87
                                               1.08
     22 -146.41
                  -0.57
                         0.55
                               -0.00
                                       1.25
                                              1.07
  15 18 305.60
                   0.58 20.89
                                      -37.80
                                -0.00
                                               1.10
     22 -303.26
                  -0.58 -20.89
                                 0.00
                                      -40.53
                                               1.07
35 7 19 69.17 -0.07 0.50
                                 0.00
                                      -1.14
                                               -0.14
     23 -66.83
                  0.07 -0.50 -0.00
                                      -0.74
                                             -0.13
   8 19 -221.39
                  37.19
                        -0.26
                                -0.97
                                        0.33
                                               62.20
     23 223.73 -27.18
                         0.26
                                0.97
                                       0.64
                                              58.50
   9 19 346.87
                 -32.33
                         0.93
                                 0.97
                                       -1.87
                                              -59.34
     23 -344.53
                  32.33 -0.93
                                -0.97
                                       -1.62
                                              -61.88
  10 19 63.63
                  -0.07
                         0.21
                                0.00
                                       -0.55
                                              -0.13
     23 -61.29
                  0.07 -0.21
                                      -0.25
                               -0.00
                                             -0.13
  11 19 -132.42
                  -0.06 31.13
                                 0.01 -51.44
                                              -0.11
                  0.06 -22.92
     23 134.77
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                                     -49.91
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                                       0.22
                                              46.77
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                 -25.88
                         0.94
                                 0.77
                                       -1.94
                                             -47.51
     23 -292.85
                  25.88 -0.94
                                -0.77
                                       -1.59 -49.54
  14 19 68.60
                  -0.07
                         0.37
                                0.00
                                       -0.89
                                              -0.14
     23
         -66.26
                  0.07 - 0.37
                               -0.00
                                      -0.50
                                             -0.13
  15 19 -88.24
                  -0.07 25.10
                                 0.01 -41.60
                                             -0.12
                  0.07 -18.53
     23
          90.59
                               -0.01
                                     -40.22
                                              -0.13
36 7 20 69.17
                  0.07
                         0.50
                               -0.00
                                      -1.14
                                               0.14
     24 -66.83
                 -0.07 -0.50
                                0.00
                                      -0.74
                                              0.13
   8 20 346.87
                  32.33
                         0.93
                                -0.97
                                       -1.87
                                               59.34
                         -0.93
     24 -344.53 -32.33
                                 0.97
                                       -1.62
                                               61.88
   9 20 -221.39 -37.19
                         -0.26
                                 0.97
                                        0.33
                                              -62.20
     24 223.73
                  27.18
                         0.26
                                -0.97
                                             -58.50
                                       0.64
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10 20 63.63
                  0.07 0.21
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                                      -0.55
                                              0.13
    24 -61.29
                -0.07 -0.21
                               0.00
                                     -0.25
                                              0.13
 11 20 -132.42
                   0.06 31.13
                                -0.01 -51.44
                                                0.11
    24 134.77
                 -0.06 -22.92
                                0.01
                                     -49.91
                                               0.12
 12 20 295.19
                  25.88
                        0.94
                                -0.77
                                       -1.94
                                               47.51
    24 -292.85 -25.88
                        -0.94
                                      -1.59
                                0.77
                                              49.54
 13 20 -159.42 -29.74 -0.01
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                                       -0.19
                                              -49.73
        161.76
                 21.73
                        0.01
                               -0.77
                                       0.22
    24
                                             -46.77
 14 20
          68.60
                  0.07
                        0.37
                               -0.00
                                      -0.89
                                              0.14
        -66.26
                 -0.07 -0.37
                               0.00
    24
                                     -0.50
                                              0.13
 15 20 -88.24
                  0.07 25.10
                               -0.01
                                      -41.60
                                               0.12
    24
         90.59
                -0.07 -18.53
                               0.01 -40.22
                                              0.13
STAAD SPACE
                                      -- PAGE NO. 43
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

-

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                                                 -1.75
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           -4.98
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                  75.72
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   9 21
            4.98
                   75.72
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                                                 101.74
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      22
           -4.98
                  -69.92
                                  0.54
                                                 99.24
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                                          0.01
   10 21
            0.01
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                                  -0.00
                                                 1.25
                           0.00
                                         -0.00
      22
           -0.01
                   2.90 -0.00
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                                         0.00
                                                 -1.25
   11 21
             0.01
                    2.90
                           0.00
                                  -0.00
                                         -0.00
                                                 1.25
      22
                                  0.00
           -0.01
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                                         0.00
                                                 -1.25
   12 21
             3.99
                  -54.45
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                                   0.43
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                                                 -78.74
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                  62.06
      22
                         -0.01
                                  -0.43
                                         -0.02
                                                 -82.04
   13 21
             3.99
                   62.06
                          -0.01
                                  -0.43
                                          0.02
                                                  82.04
      22
           -3.99
                  -54.45
                           0.01
                                  0.43
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                                                 78.74
   14 21
             0.01
                    3.80
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                                         -0.00
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           -0.01
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                                         0.00
                                                -1.65
   15 21
            0.01
                    3.80
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                                  -0.00
                                         -0.00
                                                 1.65
      22
           -0.01
                   3.80
                         -0.00
                                  0.00
                                         0.00
                                                 -1.65
38 7 23
             0.00
                   -0.78 -0.00
                                  -0.04
                                           0.00
                                                -1.84
      21
           -0.00
                   2.15
                          0.00
                                 0.04
                                         0.00
                                                -3.08
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8 23
            0.15
                    0.91
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                                          -0.08
                                                    0.24
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            -0.15
                    0.47
     23
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                    -1.66
                           -0.06
                                   -0.38
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                                                    -2.98
      21
            0.14
                    3.03
                           0.06
                                   0.38
                                          0.10
                                                  -4.89
   10 23
             0.02
                    -0.12
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                                   -0.03
                                            0.00
                                                    -0.82
      21
            -0.02
                    1.50
                           0.00
                                   0.03
                                           0.00
                                                  -1.91
   11 23
             4.11
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                                                   -92.71
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                                   0.03
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   12 23
             0.12
                     0.33
                            0.04
                                    0.25
                                                   -0.32
                                           -0.08
      21
            -0.12
                    1.05 -0.04
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                                          -0.07
                                                   -0.88
   13 23
            -0.11
                    -1.72
                           -0.05
                                    -0.32
                                            0.08
                                                    -3.11
      21
                    3.10
                                   0.32
                                          0.08
                                                  -4.99
            0.11
                           0.05
   14 23
             0.02
                    -0.50
                                   -0.04
                                                    -1.38
                           -0.00
                                            0.00
                                                  -2.60
      21
            -0.02
                    1.87
                           0.00
                                   0.04
                                           0.00
   15 23
             3.29
                    -44.25
                            -0.00
                                    -0.04
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                                                  -74.89
            -3.29
      21
                   45.63
                            0.00
                                   0.04
                                           0.00
                                                  -76.11
39 7 24
              0.00
                     -0.78
                                     0.04
                                            -0.00
                                                    -1.84
                             0.00
            -0.00
      22
                    2.15
                          -0.00
                                  -0.04
                                          -0.00
                                                   -3.08
   8
      24
            -0.14
                    -1.66
                            0.06
                                   0.38
                                           -0.10
                                                   -2.98
      22
            0.14
                    3.03
                                  -0.38
                                                   -4.89
                          -0.06
                                          -0.10
   9 24
                                                    0.51
            0.15
                    0.91
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                                   -0.33
                                           0.09
      22
            -0.15
                                          0.08
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 STAAD SPACE
                                            -- PAGE NO. 44
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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   22
        -0.02
                 1.50 -0.00
                               -0.03
                                       -0.00
11 24
          4.11
                -54.82
                         0.00
                                 0.03
                                        -0.00
                                                -92.71
   22
        -4.11
                56.20 -0.00
                                -0.03
                                        -0.00
                                               -93.80
                                                -3.11
         -0.11
                                 0.32
12 24
                 -1.72
                         0.05
                                        -0.08
   22
         0.11
                 3.10 -0.05
                               -0.32
                                       -0.08
                                               -4.99
13 24
          0.12
                  0.33
                        -0.04
                                -0.25
                                         0.08
                                                -0.32
   22
        -0.12
                 1.05
                        0.04
                                0.25
                                       0.07
                                               -0.88
14 24
                 -0.50
                                 0.04
          0.02
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                                        -0.00
                                                -1.38
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        -0.02
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                                                -2.60
          3.29
                -44.25
                                 0.04
                                                -74.89
15 24
                         0.00
                                        -0.00
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-3.29
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                                          -0.00
                                                  -76.11
                                   -0.00
40
   7 23
             0.00
                     0.57
                            0.00
                                           0.00
                                                    0.22
      24
           -0.00
                   0.57 -0.00
                                  0.00
                                         -0.00
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     23
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                                                  -109.98
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                                                  110.42
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                  -79.29
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                                   0.22
                                                  109.98
                                           0.03
   10 23
             0.00
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                                                   0.22
                    0.57
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      24
           -0.00
                    0.57 - 0.00
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                                                  -0.22
   11 23
            -0.00
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                            0.00
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                                                   0.22
      24
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                   0.57
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                                         -0.00
                                                  -0.22
   12 23
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                                    0.17
                                                   -87.94
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                            0.01
                                           -0.02
                   64.45
                                                  -88.38
      24
           -4.01
                          -0.01
                                  -0.17
                                          -0.02
   13 23
             4.01
                    64.45
                           -0.01
                                   -0.17
                                            0.02
                                                   88.38
      24
           -4.01
                  -63.32
                           0.01
                                   0.17
                                           0.02
                                                  87.94
   14 23
             0.00
                    0.57
                           0.00
                                   -0.00
                                           0.00
                                                   0.22
           -0.00
      24
                   0.57
                         -0.00
                                  0.00
                                         -0.00
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   15
      23
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                            0.00
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                   0.57 -0.00
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           141.27
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   8 21
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                                                   52.28
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           99.71
                  -22.33
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      21
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                                            2.80
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                                                   -54.96
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                                           -38.96
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                     0.42 - 22.25
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                                    -0.68
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                                                    41.41
      25
           35.02 -17.64 -0.44
                                    0.68
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   13 21 303.90
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                            -1.38
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                                                    -41.01
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                    22.77
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                                            2.62
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                                   -0.67
 STAAD SPACE
                                           -- PAGE NO. 45
```

ALL UNITS ARE -- KN METE (LOCAL)

14 21 135.10 -0.56 -0.57 -0.00 0.88 -1.0525 -132.75 0.56 0.54 1.19 0.00-1.0615 21 248.19 -0.56 17.60 -0.00 -30.86 -1.05-35.13 25 -245.84 0.56 - 17.600.00-1.050.60 0.00 0.78 42 7 22 141.27 -0.50 1.12 26 -138.92 1.10 -0.600.50 -0.001.12 323.35 28.19 2.80 50.74 22 -1.48 -0.8426 -321.01 -28.19 1.48 0.84 2.74 54.96 22 -97.36 -32.34 0.80 0.84 -1.76 -52.28 99.71 22.33 -0.80 -0.84 -1.24 -50.23 26 0.43 10 22 112.35 -0.460.71 0.80 0.00 0.94 26 -110.01 -0.43 0.42 -0.000.80 22 253.71 0.42 22.25 0.00 -38.96 0.79 26 -251.37 -0.42 -22.25 -0.00-44.46 0.80 12 22 303.90 22.77 -1.38 -0.672.55 41.01 26 -301.55 -22.77 1.38 0.67 2.62 44.38 -25.65 22 -32.68 0.44 0.68 -1.10 -41.41 26 35.02 17.64 -0.44 -0.68 -0.56 -39.77 14 22 135.10 0.56 0.88 -0.570.00 1.05 26 -132.75 -0.56 0.54 1.19 -0.001.06 15 22 248.19 -30.86 0.56 17.60 0.001.05 26 -245.84 -0.56 -17.60 -0.00-35.13 1.05 43 7 23 67.04 -0.070.50 0.00 -1.10-0.13 27 -64.69 0.07 - 0.50-0.00-0.78-0.1323 -145.36 32.25 -0.13-0.840.08 51.81 -22.24 27 147.70 0.13 0.84 0.41 50.34 23 265.76 -27.37 0.81 -1.58 -48.93 0.84 27 -263.41 27.37 -0.81 -0.84-1.45-53.72 23 -0.07 10 60.84 0.23 0.00 -0.57-0.1227 -58.50 0.07 - 0.23-0.00-0.31 -0.1211 23 -80.52 -0.07 27.03 0.00 -42.80-0.1327 82.86 0.07 - 18.82-0.00-43.16 -0.1312 23 -98.77 25.78 0.09 -0.68-0.3741.42 27 101.12 -17.77 -0.09 0.68 0.02 40.25 0.68 23 230.12 -21.91 0.84 -1.69 -39.17 13 27 -227.77 21.91 -0.84-0.68-1.47 -43.00 14 23 66.19 0.39 -0.89-0.070.00 -0.1327 -63.84 0.07 - 0.39-0.00-0.56 -0.1315 23 -46.90 -0.07 21.82 0.00 -34.67 -0.1327 49.25 0.07 - 15.25-0.00-34.84 -0.137 24 67.04 0.07 0.50 -0.00-1.100.13 -64.69 -0.07 -0.50 -0.780.000.13

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
24 265.76
                    27.37
                            0.81
                                   -0.84
                                          -1.58
                                                   48.93
   8
      28 -263.41
                           -0.81
                                          -1.45
                  -27.37
                                   0.84
                                                   53.72
      24 -145.36
                   -32.25
                           -0.13
                                    0.84
                                           0.08
                                                  -51.81
          147.70
      28
                   22.24
                           0.13
                                  -0.84
                                          0.41
                                                 -50.34
   10 24
           60.84
                     0.07
                           0.23
                                  -0.00
                                          -0.57
                                                   0.12
                   -0.07 -0.23
      28
          -58.50
                                  0.00
                                         -0.31
                                                  0.12
           -80.52
                     0.07 27.03
   11 24
                                   -0.00
                                         -42.80
                                                    0.13
      28
           82.86
                   -0.07 -18.82
                                   0.00
                                         -43.16
                                                   0.13
   12 24 230.12
                    21.91
                            0.84
                                   -0.68
                                           -1.69
                                                   39.17
      28 -227.77
                  -21.91
                           -0.84
                                          -1.47
                                   0.68
                                                   43.00
   13 24 -98.77
                            0.09
                   -25.78
                                    0.68
                                           -0.37
                                                  -41.42
          101.12
      28
                    17.77
                          -0.09
                                   -0.68
                                           0.02
                                                  -40.25
   14 24
            66.19
                    0.07
                           0.39
                                  -0.00
                                          -0.89
                                                   0.13
          -63.84
                   -0.07 -0.39
                                  0.00
                                         -0.56
      28
                                                  0.13
   15 24
          -46.90
                     0.07 21.82
                                   -0.00
                                         -34.67
                                                    0.13
      28
           49.25
                   -0.07 -15.25
                                   0.00
                                        -34.84
                                                   0.13
45 7 25
            -0.00
                     4.03
                                  -0.00
                                          -0.00
                           0.00
                                                   1.75
      26
           0.00
                   4.03 -0.00
                                 0.00
                                         0.00
                                                -1.75
   8
      25
            4.97
                  -58.01
                           0.02
                                  0.45
                                         -0.02
                                                 -82.80
      26
           -4.97
                  63.80
                          -0.02
                                  -0.45
                                         -0.04
                                                 -85.30
      25
            4.97
                   63.80
                          -0.02
                                  -0.45
                                          0.04
                                                 85.30
                  -58.01
      26
           -4.97
                           0.02
                                  0.45
                                          0.02
                                                 82.80
                                                 1.25
   10 25
            -0.00
                    2.90
                           0.00
                                  -0.00
                                          -0.00
      26
           0.00
                   2.90 -0.00
                                  0.00
                                         0.00
                                                -1.25
   11 25
            -0.00
                    2.90
                           0.00
                                  -0.00
                                         -0.00
                                                 1.25
      26
           0.00
                   2.90 -0.00
                                  0.00
                                         0.00
                                                -1.25
                                   0.36
   12 25
             3.97
                  -44.92
                            0.02
                                          -0.02
                                                 -65.59
           -3.97
      26
                  52.52
                         -0.02
                                  -0.36
                                         -0.03
                                                 -68.89
   13 25
             3.97
                   52.52
                          -0.02
                                  -0.36
                                          0.03
                                                  68.89
      26
           -3.97
                  -44.92
                           0.02
                                  0.36
                                          0.02
                                                 65.59
   14 25
            -0.00
                                  -0.00
                                                 1.65
                    3.80
                           0.00
                                          -0.00
      26
           0.00
                   3.80 -0.00
                                  0.00
                                         0.00
                                                -1.65
  15 25
            -0.00
                    3.80
                           0.00
                                  -0.00
                                          -0.00
                                                  1.65
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0.00
                   3.80 -0.00
                                  0.00
                                          0.00
      26
                                                 -1.65
   7 27
             -0.00
                    -0.78 -0.00
                                   -0.04
46
                                            0.00
                                                    -1.85
      25
            0.00
                    2.16
                          0.00
                                  0.04
                                          0.00
                                                 -3.09
   8
      27
            0.14
                    0.63
                           0.07
                                   0.26
                                          -0.12
                                                   0.10
      25
           -0.14
                    0.75
                          -0.07
                                  -0.26
                                          -0.11
                                                  -0.30
   9 27
            -0.15
                    -1.38
                          -0.07
                                   -0.32
                                           0.12
                                                   -2.59
      25
            0.15
                    2.76
                                  0.32
                                          0.13
                                                 -4.37
                          0.07
   10 27
                                                   -0.89
             0.02
                    -0.17
                                   -0.03
                           -0.00
                                            0.00
            -0.02
                    1.54
                                  0.03
                                          0.00
      25
                           0.00
                                                  -1.98
   11 27
             4.10
                   -46.02
                            -0.00
                                    -0.03
                                            0.00
                                                  -77.92
      25
           -4.10
                   47.40
                           0.00
                                   0.03
                                           0.00
                                                 -79.01
 STAAD SPACE
                                           -- PAGE NO. 47
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ALL UNITS ARE -- KN METE (LOCAL)

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0.19
   12 27
             0.11
                     0.10 0.05
                                           -0.09
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      25
            -0.11
                          -0.05
                                   -0.19
                                           -0.08
                                                   -1.31
                    1.27
   13 27
             -0.12
                    -1.50
                           -0.06
                                    -0.27
                                             0.10
                                                    -2.80
      25
            0.12
                    2.88
                           0.06
                                   0.27
                                           0.10
                                                   -4.57
   14 27
             0.01
                    -0.53
                                    -0.04
                            -0.00
                                            0.00
                                                    -1.45
      25
            -0.01
                    1.91
                           0.00
                                   0.04
                                           0.00
                                                   -2.66
                            -0.00
   15 27
             3.28
                    -37.21
                                    -0.04
                                             0.00
                                                    -63.07
            -3.28
                    38.59
                                    0.04
      25
                            0.00
                                            0.00
                                                   -64.28
             -0.00
                    -0.78
47 7 28
                             0.00
                                     0.04
                                            -0.00
                                                    -1.85
                                          -0.00
            0.00
                    2.16
                          -0.00
                                  -0.04
                                                   -3.09
      26
   8
      28
            -0.15
                    -1.38
                            0.07
                                    0.32
                                           -0.12
                                                    -2.59
      26
            0.15
                    2.76
                          -0.07
                                   -0.32
                                           -0.13
                                                   -4.37
      28
             0.14
                    0.63
                           -0.07
                                   -0.26
                                            0.12
                                                    0.10
      26
            -0.14
                    0.75
                           0.07
                                   0.26
                                           0.11
                                                   -0.30
   10 28
             0.02
                                    0.03
                    -0.17
                            0.00
                                            -0.00
                                                    -0.89
      26
            -0.02
                    1.54
                          -0.00
                                   -0.03
                                           -0.00
                                                   -1.98
   11 28
             4.10
                    -46.02
                             0.00
                                     0.03
                                            -0.00
                                                    -77.92
      26
            -4.10
                   47.40 -0.00
                                   -0.03
                                           -0.00
                                                   -79.01
                                                    -2.80
   12 28
             -0.12
                     -1.50
                             0.06
                                    0.27
                                            -0.10
      26
            0.12
                    2.88
                          -0.06
                                   -0.27
                                           -0.10
                                                   -4.57
   13 28
             0.11
                     0.10 - 0.05
                                    -0.19
                                            0.09
                                                    -0.65
```

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-0.11
                    1.27 0.05
      26
                                   0.19
                                          0.08
                                                  -1.31
   14 28
             0.01
                    -0.53
                            0.00
                                    0.04
                                                   -1.45
                                          -0.00
      26
            -0.01
                    1.91 -0.00
                                  -0.04
                                          -0.00
                                                  -2.66
   15 28
             3.28
                   -37.21
                            0.00
                                    0.04
                                           -0.00
                                                   -63.07
      26
           -3.28
                   38.59 -0.00
                                   -0.04
                                          -0.00
                                                  -64.28
            -0.00
                     0.57 0.00
                                   -0.00
48 7 27
                                            0.00
                                                    0.22
            0.00
                   0.57
                          -0.00
                                   0.00
                                         -0.00
                                                  -0.22
      28
   8
      27
            5.01
                   -66.40
                                   0.19
                                                  -92.19
                            0.03
                                           -0.04
      28
            -5.01
                   67.53
                           -0.03
                                   -0.19
                                          -0.04
                                                  -92.63
      27
            5.01
                   67.53
                           -0.03
                                   -0.19
                                           0.04
                                                   92.63
                                                   92.19
      28
           -5.01
                   -66.40
                           0.03
                                   0.19
                                           0.04
   10 27
            -0.00
                     0.57
                            0.00
                                   -0.00
                                           0.00
                                                   0.22
      28
            0.00
                   0.57 -0.00
                                   0.00
                                         -0.00
                                                  -0.22
   11 27
             0.00
                    0.57
                            0.00
                                   -0.00
                                           0.00
                                                   0.22
      28
            -0.00
                    0.57 -0.00
                                   0.00
                                          -0.00
                                                  -0.22
   12 27
             4.01
                   -53.01
                            0.02
                                    0.15
                                           -0.03
                                                   -73.71
      28
           -4.01
                   54.14
                          -0.02
                                   -0.15
                                          -0.03
                                                  -74.15
   13 27
                                   -0.15
                                                   74.15
             4.01
                    54.14
                           -0.02
                                            0.03
      28
            -4.01
                  -53.01
                            0.02
                                   0.15
                                           0.03
                                                   73.71
   14 27
            -0.00
                                   -0.00
                                                   0.22
                     0.57
                            0.00
                                           0.00
            0.00
                                                  -0.22
      28
                   0.57 - 0.00
                                   0.00
                                         -0.00
            -0.00
                                   -0.00
   15 27
                     0.57
                            0.00
                                           0.00
                                                    0.22
      28
            0.00
                   0.57 - 0.00
                                   0.00
                                         -0.00
                                                  -0.22
 STAAD SPACE
                                            -- PAGE NO. 48
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

```
49 7 25 126.77
                     -0.60 -0.50
                                  -0.00
                                           0.80
                                                 -1.12
      29 -124.42
                    0.60
                           0.50
                                  0.00
                                         1.07
                                                 -1.12
          -39.26
                   27.26
   8 25
                           0.63
                                  -0.69
                                         -1.43
                                                 42.30
      29
           41.61
                 -17.25
                          -0.63
                                  0.69
                                         -0.93
                                                 41.16
     25
          242.59
                   -23.11
                           -1.30
                                   0.69
                                           2.50
                                                 -40.78
      29 -240.24
                   23.11
                           1.30
                                  -0.69
                                          2.38
                                                 -45.90
                           -0.44
  10 25
          101.23
                    -0.43
                                   0.00
                                                  -0.80
                                           0.69
      29
         -98.88
                   0.43
                          0.40
                                 -0.00
                                         0.88
                                                -0.80
                          18.14
  11 25 196.74
                    -0.43
                                   -0.00 -30.94
                                                   -0.80
```

```
0.43 - 18.14
      29 -194.39
                                  0.00 -37.10
                                                -0.80
           9.00
                  21.59
  12 25
                          0.31
                                 -0.55
                                        -0.82
                                                33.43
      29
          -6.66 -13.58 -0.31
                                 0.55
                                       -0.33
                                               32.51
  13 25 234.49 -18.71 -1.24
                                   0.55
                                          2.32
                                                -33.04
     29 -232.14
                   18.71
                          1.24
                                 -0.55
                                         2.32
                                               -37.14
                          -0.55
  14 25 121.40
                   -0.57
                                  0.00
                                         0.87
                                                -1.06
      29 -119.05
                   0.57
                          0.52
                                -0.00
                                         1.13
                                               -1.06
  15 25 197.80
                    -0.57 14.32
                                  -0.00
                                        -24.43
                                                 -1.06
                                  0.00
     29 -195.46
                   0.57 -14.32
                                       -29.26
                                                 -1.06
50 7 26 126.77
                     0.60 -0.50
                                   0.00
                                          0.80
                                                 1.12
      30 -124.42
                          0.50
                                -0.00
                   -0.60
                                         1.07
                                                1.12
   8 26 242.59
                          -1.30
                                 -0.69
                                         2.50
                                                40.78
                   23.11
      30 -240.24 -23.11
                           1.30
                                  0.69
                                         2.38
                                                45.90
     26 -39.26 -27.26
                          0.63
                                  0.69
                                        -1.43
                                               -42.30
      30
          41.61
                  17.25
                         -0.63
                                -0.69
                                        -0.93
                                               -41.16
  10 26 101.23
                    0.43
                          -0.44
                                  -0.00
                                         0.69
                                                 0.80
         -98.88
      30
                  -0.43
                         0.40
                                 0.00
                                        0.88
                                               0.80
  11 26 196.74
                    0.43
                          18.14
                                  0.00
                                        -30.94
                                                  0.80
      30 -194.39
                   -0.43 -18.14
                                 -0.00
                                        -37.10
                                                 0.80
  12 26 234.49
                   18.71
                          -1.24
                                  -0.55
                                          2.32
                                                 33.04
      30 -232.14 -18.71
                                  0.55
                                         2.32
                                                37.14
                           1.24
           9.00 -21.59
                                  0.55
  13 26
                          0.31
                                        -0.82
                                               -33.43
                                       -0.33
                                              -32.51
      30
          -6.66
                  13.58 -0.31
                                -0.55
  14 26 121.40
                    0.57
                          -0.55
                                  -0.00
                                         0.87
                                                 1.06
      30 -119.05
                   -0.57
                          0.52
                                 0.00
                                        1.13
                                                1.06
                                        -24.43
  15 26 197.80
                    0.57 14.32
                                  0.00
                                                  1.06
                                        -29.26
      30 -195.46
                   -0.57 -14.32
                                 -0.00
                                                 1.06
51 7 27 64.91
                   -0.07 0.50
                                -0.00
                                        -1.07
                                                 -0.13
      31
          -62.56
                   0.07
                        -0.50
                                 0.00
                                       -0.80
                                               -0.13
     27
          -81.93
                   27.31
                          -0.02
                                 -0.69
                                        -0.13
                                                42.11
      31
          84.28 -17.30
                          0.02
                                 0.69
                                        0.19
                                               41.53
   9 27 197.26 -22.44
                          0.69
                                 0.69
                                         -1.32
                                               -39.23
      31 -194.92
                   22.44 -0.69
                                 -0.69
                                        -1.25
                                               -44.92
 STAAD SPACE
                                        -- PAGE NO. 49
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

10 27 58.10 -0.07 0.25 -0.00-0.58 -0.1331 -55.75 0.07-0.25 0.00 -0.36-0.1311 27 -37.41 -0.07 22.92 0.00 -34.76 -0.1331 39.76 0.07 - 14.71-0.00-35.78 -0.13-48.22 12 27 21.83 0.18 -0.55 -0.5233.66 50.56 -13.82 -0.18 31 0.55 -0.1733.19 175.14 0.55 -1.48 13 27 -17.97 0.75 -31.42 31 -172.79 17.97 -0.75 -0.55-1.32-35.96 -0.89 14 27 63.81 -0.07 0.40 -0.00-0.1331 -61.46 0.07 - 0.400.00 -0.61-0.1327 -12.60 -0.07 18.53 0.00 -28.23 -0.1315 -0.13 31 14.95 0.07 -11.96 -28.95 -0.0064.91 0.07 7 28 0.50 0.00 -1.07 0.13 52 32 -62.56 -0.07 -0.50 -0.00-0.800.13 28 197.26 22.44 0.69 -1.3239.23 -0.6932 -194.92 -22.44 -0.690.69 -1.2544.92 28 -81.93 -27.31 -0.020.69 -0.13 -42.11 32 84.28 17.30 0.02 -0.69 0.19 -41.53 10 28 58.10 0.07 0.25 -0.580.00 0.13 -0.25 -55.75 -0.07 -0.36 32 -0.000.13 0.07 22.92 11 28 -37.41 -0.00-34.76 0.13 32 39.76 -0.07 -14.71 0.00 -35.78 0.13 17.97 28 175.14 0.75 -0.55-1.48 31.42 12 32 -172.79 -17.97 -0.75 0.55 -1.32 35.96 13 28 -48.22 -21.83 0.18 0.55 -0.52 -33.66 32 50.56 13.82 -0.18 -0.55 -0.17-33.19 14 28 63.81 0.07 0.40 0.00 -0.890.13 32 -61.46 -0.07 -0.40 -0.00-0.61 0.13 -12.60 15 28 0.07 18.53 -0.00-28.23 0.13 14.95 -28.95 32 -0.07 -11.96 0.00 0.13 53 7 29 -0.00 0.01 4.03 0.00 -0.001.74 -0.014.03 -0.00 0.00 0.00 30 -1.74 4.98 8 29 -45.78 0.03 0.37 -0.03-65.93 30 -4.98 51.57 -0.03-0.37-0.04 -68.4129 4.98 51.57 -0.03-0.370.04 68.41 30 -4.98 -45.78 0.03 0.37 0.03 65.93 0.01 10 29 2.90 0.00 -0.00-0.001.25 30 -0.012.90 -0.00 0.00 0.00 -1.25 11 29 0.01 2.90 0.00 -0.00-0.001.25 30 -0.012.90 -0.00 0.00 0.00 -1.250.02 12 29 3.99 -35.14 0.29 -52.09 -0.0230 -3.99 42.74 -0.02-0.29 -0.04 -55.38 13 29 3.99 42.74 -0.02 -0.290.04 55.38

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30 -3.99 -35.14 0.02 0.29 0.02 52.09
_ STAAD SPACE -- PAGE NO. 50
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

_								
_	14	29	0.01	3.80	0.00	-0.00	-0.00	1.65
		30			-0.00		0.00	
	15	29	0.01	3.80	0.00	-0.00	-0.00	1.65
		30	-0.01	3.80	-0.00	-0.00 0.00	0.00	-1.65
54	7	31	0.01	-0.78	-0.00	-0.04	0.00	-1.85
						0.04		
	8	31				0.20		
		29	-0.16	1.03	-0.07	-0.20	-0.11	-0.83
	9	31	-0.14	-1.10	-0.07	-0.25	0.12	-2.19
		29	0.14	2.48	0.07	0.25	0.13	-3.82
	10	31	0.03	-0.21	-0.00	-0.03	0.00	-0.97
		29				0.03		
	11	31						-62.65
		29	-4.12	38.30	0.00	0.03	0.00	-63.73
	12	31	0.13	-0.12	0.05	0.14	-0.09	-0.97
		29	-0.13	1.50	-0.05	-0.14	-0.08	-1.74
	13	31				-0.22		-2.49
		29	0.10	2.66	0.06	0.22	0.10	-4.13
	14	31	0.03	-0.57	-0.00	-0.04	0.00	-1.51
		29	-0.03	1.94	0.00	0.04	0.00	-2.71
	15	31	3.30	-29.94	-0.00	-0.04	0.00	-50.86
		29	-3.30	31.32	0.00	0.04	0.00	-52.06
55	7	32	0.01			0.04		
		30	-0.01	2.16	-0.00	-0.04	-0.00	-3.09
	8	32	-0.14	-1.10	0.07	0.25	-0.12	-2.19
						-0.25		
	9					-0.20		
		30	-0.16	1.03	0.07	0.20	0.11	-0.83
	10	32	0.03	-0.21	0.00	0.03	-0.00	-0.97
						-0.03		
	11	32	4.12	-36.93	0.00	0.03	-0.00	-62.65

```
-4.12
                  38.30 -0.00
                                 -0.03
                                                 -63.73
      30
                                         -0.00
  12 32
            -0.10
                   -1.28
                           0.06
                                  0.22
                                         -0.10
                                                 -2.49
                                                -4.13
      30
           0.10
                   2.66 -0.06
                                 -0.22
                                        -0.10
  13 32
            0.13
                   -0.12
                          -0.05
                                  -0.14
                                          0.09
                                                 -0.97
      30
           -0.13
                   1.50
                          0.05
                                 0.14
                                         0.08
                                                -1.74
  14 32
            0.03
                   -0.57
                           0.00
                                  0.04
                                         -0.00
                                                 -1.51
           -0.03
                   1.94 -0.00
                                 -0.04
                                                 -2.71
      30
                                        -0.00
  15 32
             3.30
                  -29.94
                           0.00
                                   0.04
                                          -0.00
                                                 -50.86
           -3.30
                  31.32 -0.00
                                 -0.04
      30
                                         -0.00
                                                 -52.06
56 7 31
             0.01
                    0.57 0.00
                                  -0.00
                                          0.00
                                                  0.22
      32
          -0.01
                   0.57 -0.00
                                 0.00
                                       -0.00
                                                -0.22
STAAD SPACE
                                          -- PAGE NO. 51
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
5.02 -53.14
                                   0.15
                                                  -73.89
      31
                           0.03
                                          -0.05
   8
      32
           -5.02
                   54.27
                           -0.03
                                  -0.15
                                          -0.04
                                                  -74.33
                   54.27
            5.02
                                                  74.33
      31
                           -0.03
                                   -0.15
                                           0.04
      32
           -5.02
                  -53.14
                           0.03
                                   0.15
                                          0.05
                                                  73.89
   10 31
             0.01
                    0.57
                                  -0.00
                                                   0.22
                           0.00
                                           0.00
      32
           -0.01
                   0.57 -0.00
                                  0.00
                                         -0.00
                                                  -0.22
   11 31
             0.01
                    0.57
                           0.00
                                  -0.00
                                           0.00
                                                   0.22
                   0.57 -0.00
                                  0.00
      32
           -0.01
                                         -0.00
                                                  -0.22
   12 31
             4.02
                   -42.40
                            0.03
                                    0.12
                                           -0.04
                                                  -59.07
                   43.53
                                                  -59.51
      32
           -4.02
                          -0.03
                                  -0.12
                                          -0.03
   13 31
                                   -0.12
                                                   59.51
             4.02
                    43.53
                           -0.03
                                           0.03
      32
           -4.02
                  -42.40
                           0.03
                                   0.12
                                          0.04
                                                  59.07
   14 31
             0.01
                    0.57
                           0.00
                                  -0.00
                                           0.00
                                                   0.22
                                                  -0.22
      32
           -0.01
                   0.57 -0.00
                                  0.00
                                         -0.00
   15 31
             0.01
                    0.57
                           0.00
                                  -0.00
                                           0.00
                                                   0.22
      32
           -0.01
                   0.57 -0.00
                                  0.00
                                         -0.00
                                                  -0.22
57
   7 29 112.27
                    -0.59 -0.51
                                     0.00
                                            0.84
                                                   -1.12
      33 -109.92
                    0.59
                            0.51
                                   -0.00
                                           1.07
                                                  -1.11
     29
            4.81
                   22.20
                           0.44
                                   -0.52
                                          -1.06
                                                   32.49
   8
      33
           -2.47
                  -12.18
                          -0.44
                                   0.52
                                          -0.57
                                                   31.98
           175.84 -18.03 -1.13
                                     0.52
                                            2.20
                                                   -30.94
```

```
33 -173.50
                   18.03
                           1.13 -0.52
                                          2.04
                                                -36.66
   10 29 90.06
                    -0.42
                         -0.43
                                                 -0.80
                                   0.00
                                          0.69
                   0.42
                          0.39
      33 -87.71
                                -0.00
                                         0.86
                                                -0.79
   11 29 148.85
                    -0.42 14.02
                                   0.00
                                         -23.01
                                                   -0.80
      33 -146.51
                    0.42 - 14.02
                                  -0.00
                                         -29.56
                                                  -0.79
   12 29
           39.47
                    17.54
                           0.15
                                  -0.42
                                         -0.51
                                                 25.57
      33 -37.12
                   -9.53 -0.15
                                  0.42
                                        -0.04
                                                25.17
   13 29 176.29
                   -14.64
                          -1.11
                                           2.09
                                   0.42
                                                 -25.17
                                          2.05
      33 -173.95
                           1.11
                                  -0.42
                    14.64
                                                -29.74
   14 29 107.66
                          -0.55
                                   0.00
                                          0.88
                    -0.56
                                                 -1.05
      33 -105.32
                    0.56
                          0.52
                                 -0.00
                                         1.11
                                                -1.04
   15 29 154.70
                    -0.56 11.01
                                   0.00
                                         -18.08
                                                  -1.05
      33 -152.35
                    0.56 -11.01
                                  -0.00
                                         -23.23
                                                  -1.04
58 7 30 112.27
                     0.59
                          -0.51
                                   -0.00
                                           0.84
                                                  1.12
      34 -109.92
                   -0.59
                           0.51
                                         1.07
                                  0.00
                                                 1.11
   8 30 175.84
                    18.03
                          -1.13
                                  -0.52
                                          2.20
                                                 30.94
      34 -173.50
                  -18.03
                           1.13
                                  0.52
                                          2.04
                                                 36.66
           4.81
                 -22.20
     30
                          0.44
                                  0.52
                                        -1.06
                                                -32.49
      34
           -2.47
                  12.18
                         -0.44
                                 -0.52
                                        -0.57
                                                -31.98
           90.06
                         -0.43
                                  -0.00
   10 30
                    0.42
                                          0.69
                                                 0.80
          -87.71
                   -0.42
                          0.39
                                         0.86
      34
                                 0.00
                                                0.79
   11 30 148.85
                    0.42 14.02
                                         -23.01
                                                   0.80
                                   -0.00
      34 -146.51
                   -0.42 -14.02
                                   0.00 - 29.56
                                                  0.79
 STAAD SPACE
                                         -- PAGE NO. 52
```

ALL UNITS ARE -- KN METE (LOCAL)

```
12 30 176.29
                   14.64
                           -1.11
                                   -0.42
                                           2.09
                                                  25.17
      34 -173.95 -14.64
                           1.11
                                  0.42
                                          2.05
                                                 29.74
   13 30 39.47
                   -17.54
                           0.15
                                   0.42
                                         -0.51
                                                 -25.57
      34 -37.12
                   9.53 -0.15
                                 -0.42
                                        -0.04
                                               -25.17
   14 30 107.66
                     0.56
                          -0.55
                                  -0.00
                                          0.88
                                                  1.05
      34 -105.32
                   -0.56
                           0.52
                                  0.00
                                         1.11
                                                 1.04
  15 30 154.70
                     0.56 11.01
                                  -0.00 -18.08
                                                   1.05
      34 -152.35
                   -0.56 -11.01
                                  0.00 - 23.23
                                                  1.04
59 7 31
            62.78
                    -0.06
                          0.51
                                  -0.00
                                         -1.05
                                                 -0.13
```

```
-60.43
                    0.06 - 0.51
                                  0.00
                                         -0.87
                                                 -0.12
      35
           -31.49
                    22.39
                                   -0.52
   8 31
                            0.11
                                          -0.34
                                                  32.56
      35
           33.84
                  -12.37
                           -0.11
                                   0.52
                                          -0.08
                                                  32.61
   9 31
           141.75
                   -17.49
                            0.58
                                    0.52
                                           -1.09
                                                  -29.66
      35 -139.40
                    17.49
                           -0.58
                                   -0.52
                                          -1.09
                                                  -35.93
   10 31
            55.40
                    -0.06
                            0.28
                                   -0.00
                                          -0.61
                                                  -0.12
      35
          -53.05
                    0.06 - 0.28
                                  0.00
                                         -0.45
                                                 -0.11
   11 31
            -3.40
                    -0.06 18.83
                                   -0.00
                                         -26.87
                                                   -0.12
                   0.06 - 10.62
      35
           5.74
                                  0.00 - 28.35
                                                  -0.11
   12 31
            -8.05
                    17.89
                           0.29
                                   -0.42
                                          -0.68
                                                  26.02
      35
           10.39
                   -9.88 -0.29
                                  0.42
                                         -0.41
                                                 26.06
           130.54
                   -14.01
                                           -1.29
                                                   -23.76
   13 31
                             0.67
                                    0.42
      35 -128.20
                    14.01
                           -0.67
                                   -0.42
                                          -1.22
                                                  -28.77
   14 31
          61.46
                    -0.06
                            0.43
                                   -0.00
                                          -0.90
                                                  -0.12
      35 -59.12
                    0.06 -0.43
                                  0.00
                                         -0.70
                                                 -0.11
   15 31
           14.43
                    -0.06 15.27
                                   -0.00 -21.91
                                                   -0.12
      35 -12.08
                    0.06 - 8.70
                                  0.00 -23.02
                                                  -0.11
           62.78
60
   7 32
                     0.06
                           0.51
                                    0.00
                                          -1.05
                                                   0.13
      36 -60.43
                   -0.06 -0.51
                                  -0.00
                                          -0.87
                                                  0.12
          141.75
   8 32
                    17.49
                            0.58
                                   -0.52
                                           -1.09
                                                   29.66
                           -0.58
                                    0.52
      36 -139.40
                   -17.49
                                          -1.09
                                                   35.93
   9 32
           -31.49
                   -22.39
                            0.11
                                   0.52
                                          -0.34
                                                  -32.56
           33.84
                   12.37
                          -0.11
                                  -0.52
                                          -0.08
                                                 -32.61
      36
   10 32
            55.40
                     0.06
                           0.28
                                   0.00
                                                   0.12
                                          -0.61
          -53.05
                   -0.06
                          -0.28
                                  -0.00
      36
                                          -0.45
                                                  0.11
   11 32
            -3.40
                    0.06
                         18.83
                                   0.00
                                         -26.87
                                                   0.12
                                                   0.11
           5.74
                  -0.06 -10.62
                                  -0.00
                                         -28.35
      36
   12 32
           130.54
                    14.01
                            0.67
                                   -0.42
                                          -1.29
                                                   23.76
      36 -128.20
                                          -1.22
                                                   28.77
                  -14.01
                           -0.67
                                    0.42
   13 32
            -8.05
                   -17.89
                            0.29
                                   0.42
                                          -0.68
                                                  -26.02
           10.39
      36
                    9.88 -0.29
                                  -0.42
                                         -0.41
                                                 -26.06
   14 32
           61.46
                     0.06
                           0.43
                                   0.00
                                          -0.90
                                                   0.12
      36 -59.12
                   -0.06
                         -0.43
                                  -0.00
                                          -0.70
                                                  0.11
   15 32
           14.43
                    0.06
                          15.27
                                    0.00
                                         -21.91
                                                    0.12
      36 -12.08
                   -0.06 -8.70
                                  -0.00
                                        -23.02
                                                   0.11
 STAAD SPACE
                                          -- PAGE NO. 53
```

$\label{eq:member} \textbf{MEMBER END FORCES} \quad \textbf{STRUCTURE TYPE} = \textbf{SPACE}$

ALL UNITS ARE -- KN METE (LOCAL)

7 33 -0.04 4.03 0.00-0.00-0.001.75 -0.00 34 0.04 4.03 0.00 0.00 -1.758 33 4.91 -33.47 0.03 0.28 -0.03 -48.93 39.26 -0.03 -0.2834 -4.91-0.04-51.45 9 33 4.91 39.26 -0.03 -0.280.04 51.45 34 -4.91-33.47 0.03 0.28 0.03 48.93 10 33 -0.03 2.90 -0.00-0.000.00 1.25 34 0.03 2.90 -0.00 0.00 0.00 -1.25 11 33 2.90 -0.03 0.00 -0.00-0.001.25 34 -0.000.03 2.90 0.00 0.00 -1.25 12 33 3.92 -25.29 0.02 0.22 -0.02-38.49 34 -3.92 32.89 -0.02-0.22-0.04-41.81 13 33 -0.223.92 32.89 -0.020.04 41.81 34 -3.92 -25.29 0.02 0.22 0.02 38.49 14 33 -0.03 3.80 -0.001.65 0.00 -0.0034 0.03 3.80 0.00 -0.000.00 -1.65 15 33 -0.03 3.80 0.00 -0.00-0.001.65 34 3.80 -0.00 0.03 0.00 0.00-1.657 35 -0.06 -0.77 -0.00 -0.04 0.00 -1.8233 0.06 2.15 0.00 0.04 -0.00-3.09 8 35 0.08 0.08 0.07 0.13 -0.12-0.6733 -0.081.30 -0.07-0.13-0.11-1.3835 -0.20-0.82-0.08-0.190.13 -1.7733 0.20 2.20 0.08 0.19 0.13 -3.30 10 35 -0.04-0.24 -0.03 -1.01-0.000.00 33 0.04 1.62 0.00 0.03 -0.00-2.1311 35 4.02 -0.00 -47.21-27.75 -0.03 0.00 33 -4.02 29.13 0.00 0.03 -0.00-48.34 -0.10 12 35 0.05 -0.33 0.06 0.09 -1.2633 -0.05 1.71 -0.06 -0.09-0.09-2.1735 13 -0.18-1.05 -0.06 -0.160.10 -2.1433 0.18 2.43 0.06 0.16 0.11 -3.71 14 35 -0.05 -0.59 -0.00 -0.04 0.00 -1.53 33 0.05 1.97 0.00 0.04 -0.00-2.77-0.04 15 35 3.20 -22.60 -0.000.00 -38.50-3.20 33 23.97 0.00 0.04 -0.00-39.74 63 7 36 -0.06 -0.770.00 0.04 -0.00-1.82 34 0.06 2.15 -0.00-0.040.00 -3.09 8 36 -0.20-0.82 0.19 -1.770.08 -0.1334 0.20 2.20 -0.08 -0.19 -0.13 -3.30 36 0.08 0.08 -0.07-0.130.12 -0.67

MEMBER END FORCES STRUCTURE TYPE = SPACE

65 7 33

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

10 36 -0.04 -0.240.00 0.03 -0.00 -1.01 34 0.04 1.62 -0.00 -0.03 0.00-2.13 11 36 4.02 -27.75 0.00 0.03 -0.00-47.21 29.13 -0.00 34 -4.02 -0.03 0.00 -48.34 -1.05 12 36 -0.18 0.06 0.16 -0.10 -2.14 34 0.18 2.43 -0.06 -0.16-0.11 -3.71 13 36 0.05 -0.33 -0.06 -0.09 0.10 -1.26 34 -0.05 1.71 0.09 0.09 -2.17 0.06 14 36 -0.05 -0.59 -1.53 0.00 0.04 -0.001.97 -0.00 -0.0434 0.05 0.00-2.77 -22.60 15 36 3.20 0.00 0.04 -0.00-38.50 34 -3.20 23.97 -0.00 -0.04 0.00 -39.74 0.00 -0.00 64 7 35 -0.03 0.57 0.00 0.23 0.03 0.57 -0.00 0.00 -0.00-0.2336 35 4.95 -39.79 0.12 8 0.03 -0.05-55.45 -4.95 40.92 -0.03 -0.12-55.93 36 -0.044.95 35 55.93 40.92 -0.03 -0.120.04 -4.95 55.45 36 -39.79 0.03 0.12 0.05 10 35 -0.03 0.57 0.00-0.000.00 0.23 36 0.03 0.57 - 0.000.00 -0.00-0.2311 35 -0.03 0.57 0.00 -0.000.00 0.23 -0.00 36 0.03 0.57 - 0.000.00 -0.2312 35 3.95 -31.72 0.03 0.09 -0.04 -44.32 -44.79 36 -3.95 32.85 -0.03 -0.09 -0.03 13 35 3.95 32.85 -0.03 -0.09 0.03 44.79 -3.95 -31.72 0.09 44.32 36 0.03 0.04 14 35 -0.03 0.57 0.00 -0.000.00 0.23 0.00 36 0.03 0.57 -0.00 -0.00-0.2315 35 -0.03 0.57 0.00 -0.000.00 0.23 36 0.03 0.57 - 0.000.00 -0.00-0.23

97.77 -0.63 -0.45

0.00

0.83

-1.15

```
37 -95.43
                       0.45
                 0.63
                             -0.00
                                     0.85
                                           -1.21
        34.79
                              -0.35
 8 33
                17.06 0.32
                                     -0.75
                                             22.62
    37 -32.44
                -7.05 -0.32
                              0.35
                                    -0.43
                                            22.57
 9 33 123.21
                -13.01
                       -0.89
                               0.35
                                      1.85
                                           -21.19
    37 -120.86
                 13.01
                        0.89
                              -0.35
                                      1.51
                                           -27.59
 10 33
         78.86
                 -0.45
                       -0.35
                               0.00
                                      0.63
                                            -0.82
    37 -76.51
                 0.45
                       0.32
                             -0.00
                                     0.63
                                            -0.87
 11 33 110.14
                 -0.45 10.00
                                0.00
                                     -15.16 -0.82
                              -0.00
    37 -107.80
                 0.45 -10.00
                                     -22.34
                                             -0.87
 12 33 58.65
                 13.42 0.07
                              -0.28
                                     -0.26
                                             17.68
    37 -56.31
                -5.41 -0.07
                              0.28
                                     0.01
                                            17.61
 13 33 129.39
                -10.64 -0.90
                                0.28
                                      1.81 -17.37
    37 -127.04
                 10.64 0.90
                              -0.28
                                      1.57
                                            -22.51
STAAD SPACE
                                     -- PAGE NO. 55
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
14 33 93.91
                  -0.59 -0.47
                                        0.84
                                 0.00
                                              -1.08
     37 -91.56
                  0.59
                        0.44
                               -0.00
                                       0.86
                                             -1.14
  15 33 118.93
                   -0.59
                         7.81
                                 0.00 -11.79 -1.08
     37 -116.59
                   0.59 -7.81
                                -0.00
                                      -17.51
                                               -1.14
                  0.63 -0.45
66 7 34 97.77
                                -0.00
                                        0.83
                                               1.15
     38 -95.43
                 -0.63
                         0.45
                                0.00
                                       0.85
                                              1.21
   8 34 123.21
                  13.01
                         -0.89
                                 -0.35
                                        1.85
                                               21.19
     38 -120.86
                 -13.01
                          0.89
                                 0.35
                                        1.51
                                              27.59
   9 34
          34.79
                 -17.06
                          0.32
                                 0.35
                                       -0.75
                                              -22.62
     38 -32.44
                  7.05 -0.32
                               -0.35
                                      -0.43
                                             -22.57
  10 34
          78.86
                   0.45
                        -0.35
                                -0.00
                                        0.63
                                               0.82
     38 -76.51
                 -0.45
                         0.32
                                0.00
                                       0.63
                                              0.87
  11 34 110.14
                   0.45 10.00
                                 -0.00 -15.16
                                               0.82
                  -0.45 -10.00
                                 0.00 -22.34
     38 -107.80
                                                0.87
  12 34 129.39
                  10.64 -0.90
                                 -0.28
                                       1.81
                                               17.37
     38 -127.04 -10.64
                          0.90
                                 0.28
                                        1.57
                                               22.51
  13 34 58.65
                 -13.42
                          0.07
                                 0.28
                                       -0.26
                                              -17.68
     38 -56.31
                        -0.07
                  5.41
                               -0.28
                                       0.01
                                             -17.61
  14 34 93.91
                   0.59
                        -0.47
                                -0.00
                                        0.84
                                               1.08
     38 -91.56
                  -0.59
                         0.44
                                       0.86
                                0.00
                                              1.14
```

```
0.59 7.81
  15 34 118.93
                                 -0.00 -11.79
                                                1.08
     38 -116.59
                  -0.59 -7.81
                                 0.00 -17.51
                                                1.14
67 7 35 60.64
                   -0.09
                         0.45
                                 -0.00 -0.96
                                                -0.15
         -58.29
      39
                  0.09 - 0.45
                                0.00
                                      -0.73
                                              -0.20
     35
           5.87
                  17.39
                        0.16
                                -0.36
                                       -0.47
                                               22.97
      39
          -3.53
                 -7.38 -0.16
                                0.36
                                      -0.14
                                              23.47
     35
           99.30
                 -12.62
                                 0.35
                          0.41
                                       -0.80
                                              -20.18
         -96.96
                  12.62
                        -0.41
                                -0.35
                                       -0.76
                                              -27.14
      39
  10 35 52.73
                   -0.09
                                -0.00
                                       -0.56
                         0.24
                                              -0.14
     39 -50.38
                  0.09 -0.24
                                0.00
                                      -0.34
                                              -0.19
  11 35
           21.44
                   -0.09 14.64
                                 -0.00 -18.87
                                               -0.14
     39 -19.10
                  0.09 - 6.42
                                      -20.62
                                0.00
                                               -0.19
  12 35 21.66
                   13.89
                         0.32
                                 -0.28
                                        -0.76
                                               18.34
     39 -19.31
                  -5.88 -0.32
                                0.28
                                       -0.42
                                              18.73
  13 35
           96.40
                  -10.12 0.52
                                 0.28
                                       -1.02
                                               -16.18
      39 -94.06
                  10.12 -0.52
                                -0.28
                                       -0.92
                                              -21.76
                         0.38
  14 35 59.14
                   -0.09
                                -0.00
                                       -0.83
                                               -0.15
         -56.80
      39
                  0.09 -0.38
                                0.00
                                      -0.59
                                              -0.20
  15 35 34.11
                   -0.09 11.90
                                -0.00 -15.48
                                                -0.15
     39 -31.77
                  0.09 -5.33
                                0.00 -16.81
                                               -0.20
68 7 36 60.64
                   0.09 0.45
                                 0.00
                                        -0.96
                                                0.15
     40 -58.29
                  -0.09 -0.45
                               -0.00
                                       -0.73
                                               0.20
 STAAD SPACE
                                        -- PAGE NO. 56
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

36 99.30 12.62 0.41 -0.35 -0.8020.18 -96.96 -12.62 -0.410.35 -0.7627.14 40 36 5.87 -17.39 0.16 0.36 -0.47-22.97 -3.53 7.38 -0.16 40 -0.36 -0.14-23.47 10 36 52.73 0.09 0.24 0.00-0.560.14 40 -50.38 -0.09 -0.24-0.00-0.340.19 11 36 21.44 0.09 14.64 0.00 -18.87 0.14 -0.00 40 -19.10 -0.09 -6.42 -20.62 0.19 12 36 96.40 10.12 0.52 -0.28-1.02 16.18 40 -94.06 -10.12 -0.52 0.28 -0.92 21.76

```
13 36
            21.66
                    -13.89
                             0.32
                                     0.28
                                            -0.76
                                                    -18.34
      40 -19.31
                     5.88
                                   -0.28
                           -0.32
                                           -0.42
                                                   -18.73
   14 36
            59.14
                      0.09
                             0.38
                                     0.00
                                            -0.83
                                                     0.15
      40
          -56.80
                    -0.09
                           -0.38
                                    -0.00
                                            -0.59
                                                     0.20
   15 36
             34.11
                      0.09
                            11.90
                                     0.00
                                            -15.48
                                                      0.15
          -31.77
                    -0.09
                           -5.33
                                    -0.00
                                           -16.81
                                                     0.20
      40
69 7 37
              0.19
                      4.03
                                    -0.00
                                                     1.70
                             0.00
                                            -0.00
           -0.19
                                   0.00
      38
                    4.03
                          -0.00
                                           0.00
                                                   -1.70
   8 37
             5.28
                   -20.92
                            0.01
                                    0.18
                                            -0.01
                                                    -31.69
      38
            -5.28
                    26.71
                           -0.01
                                   -0.18
                                           -0.03
                                                   -34.04
      37
             5.28
                    26.71
                            -0.01
                                    -0.18
                                            0.03
                                                    34.04
      38
            -5.28
                   -20.92
                                    0.18
                                                    31.69
                            0.01
                                            0.01
   10 37
             0.16
                     2.90
                            0.00
                                    -0.00
                                            -0.00
                                                     1.21
      38
            -0.16
                    2.90
                          -0.00
                                   0.00
                                           0.00
                                                   -1.21
   11 37
             0.16
                     2.90
                            0.00
                                   -0.00
                                            -0.00
                                                     1.21
      38
            -0.16
                    2.90 -0.00
                                   0.00
                                           0.00
                                                   -1.21
   12 37
             4.28
                    -15.25
                             0.01
                                     0.15
                                            -0.01
                                                    -24.71
      38
            -4.28
                    22.85
                           -0.01
                                   -0.15
                                           -0.02
                                                   -27.87
   13 37
             4.28
                    22.85
                            -0.01
                                    -0.15
                                             0.02
                                                     27.87
            -4.28
                   -15.25
                                    0.15
                                                    24.71
      38
                            0.01
                                            0.01
                                    -0.00
   14 37
             0.18
                     3.80
                            0.00
                                            -0.00
                                                     1.61
                                   0.00
      38
            -0.18
                    3.80
                           -0.00
                                           0.00
                                                   -1.61
   15 37
             0.18
                     3.80
                            0.00
                                    -0.00
                                            -0.00
                                                     1.61
      38
            -0.18
                    3.80
                           -0.00
                                   0.00
                                           0.00
                                                   -1.61
70 7 39
              0.32
                     -0.73
                           -0.00
                                    -0.04
                                             0.00
                                                   -1.82
      37
            -0.32
                    2.11
                           0.00
                                   0.04
                                          -0.00
                                                   -2.94
      39
   8
             0.47
                    -0.18
                            0.08
                                    0.07
                                           -0.15
                                                   -1.11
                                   -0.07
                                           -0.14
      37
            -0.47
                    1.55
                           -0.08
                                                   -1.80
      39
             0.12
                    -0.50
                           -0.09
                                   -0.12
                                            0.15
                                                    -1.37
            -0.12
      37
                    1.88
                           0.09
                                   0.12
                                           0.16
                                                   -2.62
   10 39
             0.31
                    -0.26
                           -0.00
                                    -0.03
                                             0.00
                                                   -1.10
      37
            -0.31
                    1.63
                           0.00
                                   0.03
                                          -0.00
                                                   -2.07
                                                   -31.52
   11 39
             4.54
                    -18.34
                            -0.00
                                    -0.03
                                             0.00
      37
            -4.54
                    19.72
                            0.00
                                    0.03
                                           -0.00
                                                   -32.43
 STAAD SPACE
                                            -- PAGE NO. 57
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

12 39 0.45 0.07 -1.60-0.520.04 -0.1237 -0.45 1.90 -0.07 -0.04-0.11-2.47 39 13 0.17 -0.78-0.07-0.110.12 -1.8137 -0.17 2.16 0.07 0.11 0.13 -3.12 14 39 0.33 -0.58-0.00-0.040.00 -1.6037 -0.33 1.96 0.000.04 -0.00-2.68 15 39 3.71 -15.06 -0.00-0.040.00 -25.93 37 -3.7116.43 0.00 0.04 -0.00-26.97 0.32 -0.73 -1.82 7 40 0.00 0.04 -0.0038 -0.04-0.322.11 -0.000.00 -2.94 -1.37 8 0.12 -0.50 40 0.09 0.12 -0.1538 -0.121.88 -0.09 -0.12-0.16-2.629 40 0.47 -0.18-0.08-0.070.15 -1.11 38 -0.471.55 0.08 0.07 0.14 -1.80 10 40 0.31 -0.260.03 -0.00-1.100.00 38 -0.31-0.00-0.03 0.00 -2.07 1.63 11 40 4.54 -18.34 0.00 0.03 -0.00-31.52 38 -4.54 19.72 -0.00 -0.03 0.00 -32.4312 40 0.17 -0.780.07 0.11 -0.12-1.81 38 -0.172.16 -0.07 -0.11-3.12 -0.1313 40 -1.60 0.45 -0.52-0.07-0.040.12 38 -0.45 1.90 0.07 0.04 0.11 -2.4714 40 0.33 -0.580.00 0.04 -0.00-1.60 -2.68 38 -0.33 -0.00-0.04 1.96 0.00 40 3.71 15 -15.06 0.00 0.04 -0.00-25.93 38 -3.7116.43 -0.00 -0.04 0.00 -26.97 7 0.16 0.57 0.00 -0.000.00 0.18 39 -0.16 -0.000.00 -0.00-0.1840 0.57 8 39 5.31 -26.15 0.02 0.07 -0.02-36.72 -37.01 40 -5.3127.28 -0.02-0.07-0.029 39 37.01 5.31 27.28 -0.02-0.070.02 40 -5.31-26.15 0.02 0.07 0.02 36.72 0.14 -0.000.19 10 39 0.57 0.00 0.00 -0.14 -0.19 40 0.57 -0.000.00 -0.0011 39 0.14 0.57 0.00 -0.000.00 0.19 40 -0.140.57 -0.000.00 -0.00-0.19 39 4.29 -20.81 -29.34 12 0.01 0.06 -0.0240 -4.29 21.94 -0.01 -0.06 -0.02 -29.64 13 39 4.29 21.94 -0.01 -0.06 0.02 29.64 29.34 40 -4.29 -20.81 0.01 0.02 0.06 14 39 0.15 0.57 0.00 -0.000.00 0.1840 -0.15 0.57 -0.000.00 -0.00-0.18

15 39 0.15 0.57 0.00 -0.00 0.00 0.18 40 -0.15 0.57 -0.00 0.00 -0.00 -0.18 _ STAAD SPACE -- PAGE NO. 58

_

$\label{eq:member} \textbf{MEMBER END FORCES} \quad \textbf{STRUCTURE TYPE} = \textbf{SPACE}$

73 7 37 83.33 -0.44 -0.77 0.01 1.21 -0.98

41 -80.98 0.44 0.77 -0.01

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

1.66

-0.66

	8	37	50.41	12.28	-0.17	-0.17	-0.08	12.75
		41	-48.06	-2.27	0.17	0.17	0.72	14.53
	9	37	85.00	-7.59	-1.00	0.19	1.82	-10.75
		41	-82.65	7.59	1.00	-0.19	1.92	-17.72
	10	37	67.64	-0.29	-0.63	0.00	0.92	-0.68
		41	-65.30	0.29	0.59	-0.00	1.38	-0.40
	11	37	80.84	-0.29	5.46	0.00	-6.48	-0.68
		41	-78.50	0.29	-5.46	-0.00	-14.01	-0.40
	12	37	66.37	9.65	-0.40	-0.14	0.38	9.82
			-64.02				1.12	
	13		94.04					
			-91.69					
			80.15					
			-77.81					
	15		90.71					
		41	-88.37	0.41	-4.11	-0.01	-10.67	-0.61
74	7		83.33					
			-80.98					
	8		85.00				1.82	
			-82.65					
	9		50.41					
			-48.06				0.72	
	10		67.64					
			-65.30					0.40
	11	38						0.68
			-78.50					
	12		94.04					
		42	-91.69	-6.25	1.06	0.15	2.07	14.46

```
13 38 66.37
                   -9.65
                         -0.40
                                 0.14
                                        0.38
                                               -9.82
      42 -64.02
                         0.40
                   1.64
                                -0.14
                                        1.12
                                              -11.34
  14 38
           80.15
                   0.41
                         -0.77
                                 -0.01
                                        1.18
                                                0.92
      42
         -77.81
                  -0.41
                         0.74
                                0.01
                                        1.64
                                               0.61
  15 38 90.71
                    0.41
                          4.11
                                 -0.01
                                        -4.74
                                                0.92
     42 -88.37
                  -0.41 -4.11
                                 0.01 -10.67
                                                0.61
75 7 39 58.46
                    0.06
                         0.77
                                 -0.00
                                       -1.10
                                                -0.02
         -56.11
                  -0.06 -0.77
                                       -1.77
      43
                                 0.00
                                                0.25
   8 39
           29.85
                  12.78
                         0.62
                                 -0.19
                                       -0.89
                                               13.31
     43 -27.50
                  -2.76
                        -0.62
                                 0.19
                                       -1.42
                                               15.83
   9 39
          70.18
                  -7.40
                          0.55
                                 0.18
                                               -9.99
                                       -0.69
     43 -67.83
                  7.40 -0.55
                                -0.18
                                             -17.75
                                       -1.37
 STAAD SPACE
                                        -- PAGE NO. 59
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
10 39
           50.07
                   0.05
                         0.56
                                 -0.00
                                        -0.76
                                               -0.03
                  -0.05 -0.56
      43 -47.73
                                 0.00
                                      -1.33
                                               0.22
  11 39
           36.87
                   0.05 10.96
                                -0.00 -10.90
                                               -0.03
         -34.53
     43
                  -0.05 -2.75
                                 0.00 -14.81
                                                0.22
  12 39 40.64
                   10.24
                                 -0.15
                         0.76
                                       -1.12
                                                10.64
         -38.29
      43
                  -2.23 -0.76
                                 0.15
                                       -1.72
                                               12.74
  13 39
                  -5.90
           72.90
                          0.70
                                 0.14
                                       -0.95
                                               -8.00
      43 -70.55
                   5.90 -0.70
                                -0.14
                                       -1.68
                                              -14.13
  14 39
           56.82
                    0.06
                         0.71
                                 -0.00
                                       -1.01
                                               -0.02
     43 -54.47
                  -0.06 -0.71
                                 0.00
                                       -1.64
                                               0.24
                   0.06
  15 39 46.26
                         9.03
                                 -0.00
                                       -9.12
                                                -0.02
     43 -43.91
                  -0.06 -2.46
                                 0.00 - 12.43
                                                0.24
76
   7 40 58.46
                   -0.06
                         0.77
                                0.00
                                       -1.10
                                               0.02
      44 -56.11
                                               -0.25
                   0.06 - 0.77
                                -0.00
                                       -1.77
   8 40
           70.18
                   7.40
                         0.55
                                -0.18
                                       -0.69
                                               9.99
      44
          -67.83
                  -7.40 -0.55
                                 0.18
                                       -1.37
                                               17.75
   9 40
           29.85
                  -12.78
                          0.62
                                 0.19
                                       -0.89
                                               -13.31
         -27.50
                                -0.19
      44
                   2.76 -0.62
                                       -1.42
                                              -15.83
  10 40
           50.07
                   -0.05
                          0.56
                                 0.00
                                       -0.76
                                                0.03
      44 -47.73
                   0.05 -0.56
                                -0.00
                                       -1.33
                                               -0.22
```

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36.87
                    -0.05 10.96
                                   0.00 - 10.90
   11 40
                                                  0.03
      44
          -34.53
                   0.05 - 2.75
                                 -0.00
                                       -14.81
                                                 -0.22
   12 40
           72.90
                    5.90 0.70
                                 -0.14
                                         -0.95
                                                 8.00
      44 -70.55
                   -5.90 -0.70
                                 0.14
                                        -1.68
                                                14.13
           40.64
   13 40
                   -10.24
                           0.76
                                   0.15
                                         -1.12
                                                -10.64
          -38.29
      44
                   2.23 -0.76
                                 -0.15
                                        -1.72
                                               -12.74
           56.82
                    -0.06
   14 40
                           0.71
                                  0.00
                                        -1.01
                                                 0.02
      44
          -54.47
                   0.06 -0.71
                                 -0.00
                                        -1.64
                                                -0.24
   15 40
           46.26
                    -0.06
                           9.03
                                  0.00
                                        -9.12
                                                 0.02
          -43.91
                   0.06 - 2.46
                                 -0.00
                                       -12.43
                                                 -0.24
      44
                    4.03 0.00
77 7 41
            -4.49
                                 -0.00
                                        -0.01
                                                 1.99
      42
           4.49
                  4.03 -0.00
                                 0.00
                                               -1.99
                                        0.01
   8
     41
           -0.48
                  -6.65
                         -0.02
                                 0.08
                                         0.03
                                               -11.52
      42
           0.48
                  12.44
                          0.02
                                -0.08
                                        0.03
                                               -14.82
   9
     41
           -0.48
                  12.44
                          0.02
                                 -0.08
                                        -0.03
                                               14.82
      42
           0.48
                  -6.65 -0.02
                                 0.08
                                        -0.03
                                               11.52
   10 41
           -4.01
                                 -0.00
                    2.90
                          0.00
                                        -0.01
                                                1.46
           4.01
                  2.90 -0.00
                                 0.00
      42
                                        0.01
                                               -1.46
   11 41
            -4.01
                    2.90
                          0.00
                                 -0.00
                                        -0.01
                                                1.46
      42
           4.01
                  2.90 -0.00
                                 0.00
                                        0.01
                                               -1.46
   12 41
           -1.57
                  -3.83 -0.02
                                  0.06
                                               -8.50
                                         0.02
      42
           1.57
                  11.43
                          0.02
                                -0.06
                                        0.02
                                               -12.57
           -1.57
  13 41
                  11.43
                           0.02
                                  -0.06
                                         -0.02
                                                 12.57
      42
           1.57
                 -3.83 -0.02
                                 0.06
                                       -0.02
                                                8.50
 STAAD SPACE
                                         -- PAGE NO. 60
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
-4.39
   14 41
                    3.80 0.00
                                 -0.00
                                        -0.01
                                                 1.88
      42
           4.39
                   3.80 -0.00
                                 0.00
                                        0.01
                                               -1.88
  15 41
            -4.39
                    3.80
                          0.00
                                 -0.00
                                        -0.01
                                                 1.88
           4.39
      42
                  3.80 -0.00
                                 0.00
                                        0.01
                                               -1.88
78 7 43
           -9.67
                   -0.46
                           0.00 -0.03 -0.00
                                                -0.95
           9.67
                   1.83
                        -0.00
                                0.03
                                       -0.01
                                               -2.89
      41
   8
     43
           -8.62
                   -0.23
                          0.08
                                 -0.02
                                        -0.13
                                                -0.72
      41
           8.62
                   1.61 -0.08
                                0.02
                                       -0.13
                                               -2.38
```

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9 43
            -9.07
                   -0.04 -0.08
                                  -0.03
                                          0.14
                                                 -0.32
            9.07
                   1.42
      41
                          0.08
                                 0.03
                                         0.13
                                                -2.14
   10 43
            -8.83
                    -0.11
                           0.00
                                  -0.02
                                          -0.00
                                                  -0.46
      41
            8.83
                   1.48 -0.00
                                  0.02
                                        -0.01
                                                 -2.21
                           0.00
   11 43
            -5.93
                   -7.58
                                  -0.02
                                          -0.00
                                                 -12.88
      41
            5.93
                   8.96 -0.00
                                  0.02
                                        -0.01
                                                -14.91
            -9.32
   12 43
                    -0.47
                           0.06
                                  -0.03
                                         -0.10
                                                 -1.02
      41
            9.32
                   1.85 -0.06
                                  0.03
                                        -0.11
                                                -2.86
   13 43
            -9.68
                    -0.32 -0.06
                                  -0.04
                                           0.11
                                                  -0.71
      41
            9.68
                   1.69 0.06
                                 0.04
                                         0.10
                                                -2.67
   14 43
            -9.49
                    -0.37
                           0.00
                                  -0.03
                                          -0.00
                                                  -0.82
            9.49
                   1.74 -0.00
                                  0.03
                                        -0.01
                                                 -2.72
      41
            -7.17
                    -6.35
                                  -0.03
                                          -0.00
   15 43
                           0.00
                                                 -10.76
            7.17
                   7.72 -0.00
                                  0.03
      41
                                        -0.01
                                                -12.88
79 7 44
             -9.67
                    -0.46 -0.00
                                   0.03
                                         0.00
                                                 -0.95
      42
            9.67
                   1.83
                          0.00
                                 -0.03
                                         0.01
                                                 -2.89
   8 44
            -9.07
                   -0.04
                           0.08
                                  0.03
                                         -0.14
                                                 -0.32
      42
            9.07
                   1.42 -0.08
                                 -0.03
                                         -0.13
                                                 -2.14
   9 44
            -8.62
                   -0.23 -0.08
                                  0.02
                                          0.13
                                                 -0.72
      42
            8.62
                                 -0.02
                                         0.13
                                                 -2.38
                   1.61
                          0.08
   10 44
            -8.83
                   -0.11 -0.00
                                   0.02
                                          0.00
                                                 -0.46
                                 -0.02
      42
            8.83
                   1.48
                          0.00
                                         0.01
                                                 -2.21
   11 44
            -5.93
                   -7.58
                          -0.00
                                   0.02
                                           0.00
                                                 -12.88
      42
            5.93
                   8.96
                          0.00
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                                         0.01
                                                -14.91
   12 44
            -9.68
                    -0.32
                           0.06
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                                         -0.11
                                                  -0.71
                                                 -2.67
      42
            9.68
                   1.69 -0.06
                                 -0.04
                                         -0.10
   13 44
            -9.32
                    -0.47 -0.06
                                   0.03
                                          0.10
                                                 -1.02
            9.32
                                 -0.03
      42
                   1.85
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                                         0.11
                                                 -2.86
            -9.49
                    -0.37 -0.00
   14 44
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      42
            9.49
                   1.74
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                                                -2.72
   15 44
            -7.17
                    -6.35
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                                                -10.76
      42
            7.17
                   7.72
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                                 -0.03
                                         0.01
                                                -12.88
80 7 43
           -4.18
                     0.57 0.00
                                  -0.00
                                           0.00
                                                   0.42
                                 0.00
      44
            4.18
                   0.57 -0.00
                                        -0.00
                                                 -0.42
 STAAD SPACE
                                           -- PAGE NO. 61
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

-10.40 -14.53 8 43 -0.22-0.020.05 0.03 44 0.22 11.54 0.02 -0.05 0.03 -15.7543 9 -0.2211.54 0.02 -0.05 -0.0315.75 44 0.22 -10.40 -0.020.05 -0.03 14.53 10 43 -3.80 0.57 0.41 0.00 0.00 0.00 44 3.80 0.57 -0.00 -0.00 -0.00 -0.4111 43 -3.800.57 0.000.00 0.41 0.00 44 3.80 -0.00-0.00 -0.00-0.410.57 43 12 -1.24 -8.21 -0.02 0.04 0.03 -11.53 44 1.24 9.34 0.02 -0.04 0.02 -12.6943 13 -1.24 9.34 0.02 -0.04-0.02 12.69 44 -0.02 0.04 -0.03 1.24 -8.21 11.53 14 43 -4.11 0.57 0.00 -0.000.00 0.42 44 4.11 0.57 -0.42 -0.000.00 -0.0015 43 -4.11 0.57 0.00 -0.00 0.00 0.42 44 4.11 -0.00-0.00-0.420.57 0.00 7 89 9 -0.00 5.97 -0.01-0.55 0.01 5.00 49 -4.03 0.01 0.55 0.00-0.000.00 8 12.05 9 0.05 -4.69 0.02 0.06 -4.11 49 -0.056.13 -0.02-12.05-0.08-1.309 9 -0.0513.36 0.02 -12.86-0.0911.34 12.86 49 0.05 -11.92 -0.020.07 1.30 10 9 -0.004.34 -0.01-0.400.01 3.62 -2.90 0.40 -0.0049 0.00 0.01 0.00 11 9 -0.004.34 -0.07-0.430.06 3.62 49 0.00 -2.90 0.43 -0.000.07 0.01 12 9 0.04 -1.58 0.01 9.44 0.05 -1.4649 -0.043.42 -0.01-9.44 -0.06 -1.0413 -0.0412.86 9 0.01 -10.49-0.0710.90 49 0.04 -11.02 -0.0110.49 0.05 1.04 -0.52 14 9 -0.005.64 -0.010.01 4.72 49 0.00 -3.80 0.01 0.52 0.00 -0.0015 9 -0.005.64 -0.06-0.550.05 4.72 49 -0.000.00 -3.80 0.06 0.55 0.01 7 90 10 0.00 5.97 0.01 0.55 -0.015.00 50 -0.01-0.55-0.000.00 -0.00-4.03 8 10 -0.0513.36 -0.0212.86 0.09 11.34 50 0.05 -11.920.02 -12.86 -0.071.30 9 10 0.05 -4.69 -0.02-12.05-0.06 -4.11 50 -0.056.13 12.05 0.08 -1.300.02 10 10 0.00 4.34 0.01 0.40 -0.013.62 50 -0.00-2.90 -0.01-0.40-0.000.00

```
11 10 0.00 4.34 0.07 0.43 -0.06 3.62
50 -0.00 -2.90 -0.07 -0.43 -0.01 0.00
_ STAAD SPACE -- PAGE NO. 62
```

$\label{eq:member} \textbf{MEMBER END FORCES} \quad \textbf{STRUCTURE TYPE} = \textbf{SPACE}$

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

-0.04 12 10 12.86 -0.01 10.49 0.07 10.90 0.04 -11.02 50 0.01 -10.49 -0.05 1.04 -1.58 13 10 0.04 -0.01-9.44 -0.05-1.46-0.04 3.42 9.44 50 0.01 0.06 -1.04 5.64 14 10 0.000.01 0.52-0.01 4.72 50 -0.00-3.80 -0.01 -0.52-0.000.00 15 10 0.00 5.64 0.55 -0.054.72 0.06 50 -0.00-3.80 -0.55 -0.06 -0.010.00 91 7 49 -0.01 4.03 0.00 0.00 -0.000.55 50 0.01 4.03 -0.00 -0.000.00 -0.558 49 0.02 -6.13 -0.051.30 0.08 -12.05-12.8650 -0.0211.92 0.05 -1.300.07 49 0.02 11.92 0.05 -1.30-0.0712.86 -0.02 -6.13 1.30 12.05 50 -0.05-0.0810 49 -0.01 2.90 0.00 0.00 -0.000.40 2.90 -0.00 -0.00-0.40 50 0.01 0.00 11 49 -0.07 2.90 0.43 0.00 0.00 -0.0150 0.07 2.90 -0.00 -0.000.01 -0.43 -3.42 0.01 12 49 -0.041.04 0.06 -9.44 50 -0.01 11.02 0.04 -1.04 0.05 -10.4913 49 0.01 11.02 0.04 -1.04 -0.05 10.49 50 -0.01 -3.42 -0.04 1.04 -0.06 9.44 3.80 0.52 14 49 -0.01 0.00 0.00 -0.0050 0.01 3.80 -0.00 -0.000.00 -0.5215 49 -0.06 3.80 0.00 0.00 -0.010.55 50 0.06 3.80 -0.00 -0.000.01 -0.5592 7 13 -0.00 5.97 -0.01 -0.56 0.01 5.00 -4.03 0.56 -0.0051 0.00 0.01 0.008 13 0.05 -4.96 0.02 12.44 0.05 -4.3851 -0.05 6.40 -0.02 -12.44 -0.08-1.31

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-0.05
                           0.02
                                 -13.23
  9 13
                 13.64
                                          -0.08
                                                  11.61
                -12.20
                         -0.02
                                 13.23
     51
           0.05
                                          0.06
                                                  1.31
 10 13
           -0.00
                    4.34
                          -0.01
                                  -0.40
                                          0.00
                                                   3.62
     51
           0.00
                 -2.90
                          0.01
                                 0.40
                                         0.00
                                                 -0.00
 11 13
           -0.00
                    4.34
                          -0.10
                                  -0.41
                                          0.09
                                                   3.62
     51
           0.00
                 -2.90
                          0.10
                                 0.41
                                         0.01
                                                 -0.00
                                  9.74
 12 13
            0.04
                  -1.80
                           0.02
                                          0.04
                                                 -1.67
     51
          -0.04
                  3.64
                         -0.02
                                 -9.74
                                        -0.06
                                                 -1.04
 13 13
           -0.04
                   13.08
                           0.02
                                 -10.79
                                          -0.06
                                                   11.12
     51
           0.04 -11.24
                          -0.02
                                 10.79
                                          0.05
                                                  1.04
 14 13
           -0.00
                    5.64
                          -0.01
                                  -0.52
                                          0.01
                                                  4.72
     51
           0.00
                 -3.80
                                 0.52
                          0.01
                                         0.00
                                                 -0.00
 15 13
           -0.00
                                  -0.54
                                                  4.72
                    5.64
                          -0.08
                                          0.08
                                                -0.00
     51
           0.00
                  -3.80
                         0.08
                                 0.54
                                         0.01
STAAD SPACE
                                          -- PAGE NO. 63
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

```
93 7 14
              0.00
                      5.97
                             0.01
                                    0.56
                                            -0.01
                                                     5.00
                                   -0.56
      52
            -0.00
                   -4.03
                          -0.01
                                           -0.00
                                                    0.00
   8 14
                                    13.23
            -0.05
                   13.64
                            -0.02
                                            0.08
                                                     11.61
      52
            0.05
                  -12.20
                            0.02
                                  -13.23
                                           -0.06
                                                    1.31
      14
                                  -12.44
            0.05
                   -4.96
                           -0.02
                                            -0.05
                                                    -4.38
      52
            -0.05
                    6.40
                           0.02
                                   12.44
                                           0.08
                                                   -1.31
   10 14
             0.00
                     4.34
                            0.01
                                    0.40
                                           -0.00
                                                    3.62
      52
            -0.00
                   -2.90
                           -0.01
                                   -0.40
                                           -0.00
                                                    0.00
   11 14
             0.00
                     4.34
                            0.10
                                    0.41
                                           -0.09
                                                    3.62
      52
            -0.00
                   -2.90
                          -0.10
                                   -0.41
                                           -0.01
                                                    0.00
   12 14
             -0.04
                     13.08
                            -0.02
                                    10.79
                                             0.06
                                                     11.12
      52
            0.04 -11.24
                            0.02
                                  -10.79
                                           -0.05
                                                     1.04
                                    -9.74
   13 14
             0.04
                    -1.80
                           -0.02
                                           -0.04
                                                    -1.67
      52
            -0.04
                    3.64
                           0.02
                                   9.74
                                           0.06
                                                  -1.04
   14 14
             0.00
                     5.64
                            0.01
                                    0.52
                                           -0.01
                                                    4.72
      52
            -0.00
                   -3.80
                           -0.01
                                   -0.52
                                           -0.00
                                                    0.00
   15 14
                     5.64
             0.00
                            0.08
                                    0.54
                                           -0.08
                                                    4.72
      52
            -0.00
                   -3.80 -0.08
                                   -0.54
                                           -0.01
                                                    0.00
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94 7 51
           -0.01
                     4.03
                            0.00
                                   0.00
                                          -0.00
                                                   0.56
                   4.03
                         -0.00
                                 -0.00
                                         0.00
                                                 -0.56
      52
            0.01
      51
   8
            0.02
                   -6.40 -0.05
                                  1.31
                                          0.08
                                                 -12.44
      52
           -0.02
                   12.20
                           0.05
                                  -1.31
                                          0.06
                                                 -13.23
      51
            0.02
                   12.20
                           0.05
                                  -1.31
                                          -0.06
                                                  13.23
           -0.02
      52
                   -6.40 -0.05
                                  1.31
                                         -0.08
                                                 12.44
   10 51
            -0.01
                    2.90
                                   0.00
                                                  0.40
                           0.00
                                          -0.00
      52
            0.01
                   2.90 -0.00
                                 -0.00
                                         0.00
                                                 -0.40
   11 51
            -0.10
                    2.90
                           0.00
                                   0.00
                                          -0.01
                                                  0.41
            0.10
                   2.90 -0.00
                                 -0.00
                                                 -0.41
      52
                                         0.01
   12 51
             0.02
                   -3.64
                           -0.04
                                   1.04
                                          0.06
                                                  -9.74
      52
           -0.02
                   11.24
                           0.04
                                  -1.04
                                          0.05
                                                 -10.79
   13 51
             0.02
                   11.24
                           0.04
                                  -1.04
                                          -0.05
                                                  10.79
                   -3.64 -0.04
                                                  9.74
      52
           -0.02
                                  1.04
                                         -0.06
   14 51
            -0.01
                    3.80
                           0.00
                                   0.00
                                          -0.00
                                                  0.52
                   3.80 -0.00
      52
            0.01
                                 -0.00
                                         0.00
                                                 -0.52
   15 51
            -0.08
                    3.80
                           0.00
                                   0.00
                                          -0.01
                                                   0.54
                   3.80 -0.00
                                 -0.00
      52
            0.08
                                         0.01
                                                 -0.54
95 7 17
           -0.00
                     5.97 0.00
                                  -0.53
                                          -0.00
                                                   5.00
            0.00
                  -4.03 -0.00
                                  0.53
                                         0.00
                                                 0.00
      53
     17
                   -5.85
                           0.03
                                  13.68
                                          -0.01
                                                  -5.12
   8
            0.01
      53
           -0.01
                   7.29 -0.03
                                 -13.68
                                                  -1.45
                                          -0.03
   9 17
            -0.01
                   14.53
                           0.03
                                 -14.44
                                          -0.03
                                                   12.36
      53
            0.01
                 -13.09 -0.03
                                  14.44
                                          0.00
                                                   1.45
 STAAD SPACE
                                          -- PAGE NO. 64
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

```
-0.00
                               -0.38
10 17
                 4.34
                        0.00
                                       -0.00
                                                3.62
   53
        0.00
               -2.90 -0.00
                               0.38
                                      0.00
                                               0.00
         -0.00
                 4.34
                               -0.38
11 17
                       -0.01
                                        0.01
                                                3.62
   53
        0.00
               -2.90
                       0.01
                               0.38
                                      0.00
                                              0.00
12 17
         0.01
                 -2.51
                        0.02
                               10.75
                                       -0.00
                                                -2.27
   53
        -0.01
                4.35 -0.02 -10.75
                                       -0.02
                                               -1.16
13 17
         -0.01
                 13.79
                         0.02
                               -11.75
                                        -0.03
                                                11.71
   53
        0.01
              -11.95
                       -0.02
                               11.75
                                        0.00
                                                1.16
14 17
         -0.00
                 5.64
                        0.00
                               -0.50
                                       -0.00
                                                4.72
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0.00
                   -3.80 -0.00
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      53
   15 17
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                                    -0.50
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                                                     4.72
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            0.00
                    -3.80
                                                    0.00
      53
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                                           0.00
              0.00
                      5.97
                                     0.53
                                                      5.00
96 7 18
                            -0.00
                                             0.00
      54
            -0.00
                    -4.03
                            0.00
                                   -0.53
                                           -0.00
                                                    -0.00
   8
                    14.53
                            -0.03
                                    14.44
                                                     12.36
      18
            -0.01
                                             0.03
      54
            0.01
                   -13.09
                            0.03
                                   -14.44
                                            -0.00
                                                     1.45
      18
                                                     -5.12
   9
             0.01
                    -5.85
                            -0.03
                                   -13.68
                                             0.01
      54
            -0.01
                    7.29
                                   13.68
                                            0.03
                                                    -1.45
                            0.03
   10 18
             0.00
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                            -0.00
                                     0.38
                                             0.00
                                                     3.62
      54
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                                                    -0.00
   11 18
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                     4.34
                            0.01
                                    0.38
                                            -0.01
                                                     3.62
      54
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                    -2.90
                           -0.01
                                   -0.38
                                           -0.00
                                                    -0.00
   12 18
             -0.01
                     13.79
                             -0.02
                                     11.75
                                              0.03
                                                      11.71
      54
                   -11.95
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                                   -11.75
            0.01
                                            -0.00
                                                     1.16
   13 18
             0.01
                     -2.51
                            -0.02
                                   -10.75
                                              0.00
                                                     -2.27
                                   10.75
      54
            -0.01
                    4.35
                            0.02
                                            0.02
                                                    -1.16
                     5.64
   14 18
             0.00
                            -0.00
                                     0.50
                                                     4.72
                                             0.00
      54
            -0.00
                    -3.80
                            0.00
                                   -0.50
                                           -0.00
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   15 18
              0.00
                     5.64
                             0.00
                                    0.50
                                            -0.00
                                                     4.72
      54
            -0.00
                    -3.80
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                                   -0.50
                                            -0.00
                                                    -0.00
97 7 53
              0.00
                      4.03
                                    -0.00
                                                      0.53
                             0.00
                                             -0.00
      54
            -0.00
                    4.03
                           -0.00
                                    0.00
                                            0.00
                                                   -0.53
   8
      53
             0.03
                    -7.29
                            -0.01
                                    1.45
                                            0.03
                                                   -13.68
                                                   -14.44
                    13.09
      54
            -0.03
                            0.01
                                    -1.45
                                            0.00
      53
             0.03
                                    -1.45
                    13.09
                            0.01
                                            -0.00
                                                     14.44
      54
            -0.03
                    -7.29
                           -0.01
                                    1.45
                                                    13.68
                                           -0.03
   10 53
             0.00
                     2.90
                            0.00
                                    -0.00
                                            -0.00
                                                     0.38
      54
            -0.00
                    2.90
                           -0.00
                                    0.00
                                                   -0.38
                                            0.00
   11 53
             -0.01
                      2.90
                             0.00
                                    -0.00
                                                     0.38
                                            -0.00
      54
            0.01
                    2.90 -0.00
                                    0.00
                                           0.00
                                                   -0.38
   12 53
             0.02
                     -4.35
                            -0.01
                                     1.16
                                             0.02
                                                    -10.75
            -0.02
                                                   -11.75
      54
                    11.95
                            0.01
                                    -1.16
                                            0.00
   13 53
             0.02
                     11.95
                             0.01
                                    -1.16
                                             -0.00
                                                     11.75
      54
            -0.02
                    -4.35 -0.01
                                    1.16
                                           -0.02
                                                    10.75
                                             -- PAGE NO. 65
 STAAD SPACE
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MEMBER END FORCES STRUCTURE TYPE = SPACE
-----ALL UNITS ARE -- KN METE (LOCAL)

	14	53	0.00	3.80	0.00	-0.00	-0.00	0.50
		54	-0.00	3.80	-0.00	0.00	0.00	-0.50
	15				0.00	-0.00	-0.00	0.50
		54	0.00	3.80	-0.00	0.00	0.00	-0.50
98	7					-0.54		
		55				0.54	-0.00	
	8	21				12.03		
		55				-12.03		
	9							11.33
		55				12.80		
	10					-0.38		
		55				0.38	-0.00	
	11					-0.38		
		55	0.00	-2.90	-0.00	0.38	-0.00	0.00
	12	21				9.42		
		55	0.00	3.40	-0.02	-9.42	-0.01	-1.03
	13	21	0.00	12.84	0.02	-10.44	-0.01	10.89
		55	-0.00	-11.00	-0.02	10.44	-0.01	1.03
	14	21	-0.00	5.64	0.00	-0.51	-0.00	4.72
		55	0.00	-3.80	-0.00	0.51	-0.00	0.00
	15	21	-0.00	5.64	0.00	-0.51	-0.00	4.72
		55	0.00	-3.80	-0.00	0.51	-0.00	0.00
99	7					0.54		
		56		-4.03		-0.54		
	8					12.80		
		56				-12.80		
						-12.03		
						12.03		
	10	22				0.38		
		56	-0.00	-2.90	0.00	-0.38	0.00	-0.00
	11	22	0.00	4.34	-0.00	0.38	0.00	3.62
		56	-0.00	-2.90	0.00	-0.38	0.00	-0.00
	12	22	0.00	12.84	-0.02	10.44	0.01	10.89
		56	-0.00	-11.00	0.02	-10.44	0.01	1.03
	13	22	-0.00	-1.55	-0.02	-9.42	0.02	-1.45
		56	0.00	3.40	0.02	9.42	0.01	-1.03
	14	22	0.00	5.64	-0.00	0.51	0.00	4.72
		56	-0.00	-3.80	0.00		0.00	-0.00
	15	22	0.00	5.64	-0.00	0.51	0.00	4.72
		56	-0.00	-3.80	0.00	-0.51	0.00	-0.00

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100 7 55 0.00 4.03 0.00 -0.00 0.00 0.54
56 -0.00 4.03 -0.00 0.00 -0.00 -0.54
STAAD SPACE -- PAGE NO. 66
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

8 55 0.03 -6.10 0.00 1.29 0.01 -12.03 -1.29 -12.8056 -0.03 11.89 -0.00-0.02 55 0.03 11.89 -0.00-1.29 0.02 12.80 -0.03 -6.10 1.29 12.03 56 0.00 -0.01 2.90 -0.00 0.38 10 55 0.000.000.0056 -0.002.90 -0.00 0.00 -0.00-0.38 11 55 0.00 2.90 0.00 -0.000.00 0.38 56 -0.002.90 -0.00 0.00 -0.00 -0.3812 55 0.02 -3.40 0.00 1.03 -9.42 0.01 11.00 56 -0.02 -0.00 -1.03 -0.01 -10.4413 55 0.02 11.00 -0.00 -1.03 0.01 10.44 56 -0.02 -3.40 0.00 1.03 -0.019.42 14 55 0.00 3.80 0.00 -0.000.000.51 56 -0.003.80 -0.00 0.00 -0.00-0.5115 55 0.00 3.80 -0.000.51 0.000.0056 -0.003.80 -0.00 0.00 -0.00-0.51101 7 25 -0.00 5.97 0.00 -0.54 5.00 -0.0057 0.00-4.03 -0.00 0.54 0.00 0.0010.00 8 25 -0.01-3.18 0.03 -0.03 -2.8257 0.01 4.62 -0.03 -10.00 -0.00-1.089 25 0.01 11.86 0.03 -10.76 -0.0110.06 57 -0.01 -10.42 -0.03 10.76 -0.021.08 10 25 -0.38 -0.00 4.34 0.00 -0.003.62 57 0.00-2.90 -0.00 0.38 0.00 0.0011 25 -0.00 4.34 -0.38 0.00 -0.003.62 -2.90 -0.00 57 0.000.38 -0.000.0012 25 -0.01 -0.38 0.02 7.80 -0.02-0.4357 0.01 2.22 -0.02 -7.80 -0.00-0.86 13 25 0.01 -8.81 11.66 0.02 -0.019.88 57 -0.01 -9.82 -0.028.81 -0.020.86 14 25 -0.005.64 0.00 -0.51-0.004.72

-3.80 -0.00 0.00 57 0.000.51 0.00 -0.00 5.64 -0.51 4.72 15 25 0.00 -0.00-3.80 -0.00 57 0.00 0.51 -0.000.00 102 7 26 0.005.97 -0.00 0.54 0.00 5.00 58 -0.00-4.03 0.00 -0.54-0.00-0.008 26 0.01 11.86 -0.0310.76 0.01 10.06 -0.01-10.42 0.03 -10.76 0.02 1.08 58 9 26 -0.01-3.18 -10.00 0.03 -2.82-0.0358 0.01 4.62 0.03 10.00 0.00 -1.08 10 26 0.00 4.34 -0.000.38 0.00 3.62 -0.00-2.90 0.00 -0.38 -0.00-0.0058 11 26 0.00 4.34 -0.000.38 0.00 3.62 58 -0.00-2.90 0.00 -0.38 0.00 -0.00STAAD SPACE -- PAGE NO. 67

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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

12 26 0.01 11.66 -0.02 8.81 0.01 9.88 58 -0.01 -9.82 0.02 -8.81 0.02 0.86 -0.38 13 26 -0.01 -0.02-7.80 0.02 -0.430.01 2.22 7.80 0.00 58 0.02 -0.865.64 14 26 0.00 -0.000.51 0.00 4.72 -0.51 58 -0.00-3.800.00 -0.00-0.0015 26 0.005.64 -0.000.51 0.00 4.72 -0.00 58 -3.800.00 -0.510.00 -0.00103 7 57 0.00 4.03 0.00 -0.00-0.000.54 58 -0.004.03 -0.000.00 0.00 -0.548 57 0.03 -4.620.01 1.08 0.00 -10.00 58 -0.03 10.42 -0.01-1.08-0.02-10.7657 10.76 0.03 10.42 -0.01-1.080.02 58 -0.03 -4.62 0.01 1.08 -0.0010.00 10 57 0.00 2.90 0.00 -0.00-0.000.38 58 -0.002.90 -0.00 0.00 0.00 -0.3811 57 2.90 -0.000.00 0.00 0.00 0.38 58 -0.002.90 -0.000.00 -0.00-0.38 0.02 -2.22 0.86 -7.8012 57 0.01 0.00

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 STAAD SPACE
                                             -- PAGE NO. 68
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

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105 7 30
               0.00
                       5.97 -0.00
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                    -8.91
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                     1.59
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                                    -6.58
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                     -7.39
                                                      0.65
       61
             -0.01
                            -0.03
                                     6.58
                                            -0.02
 STAAD SPACE
                                              -- PAGE NO. 69
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MEMBER END FORCES STRUCTURE TYPE = SPACE
-----ALL UNITS ARE -- KN METE (LOCAL)

- 10	33	-0.00	4.34	0.00	-0.39	-0.00	3.62
	61	0.00	-2.90	-0.00	0.39	0.00	0.00
11	33	-0.00	4.34	0.00	-0.39	-0.00	3.62
	61	0.00	-2.90	-0.00	0.39	0.00	0.00
12	33	-0.01	2.05	0.02	4.45	-0.03	1.65
	61	0.01	-0.21	-0.02	-4.45	0.00	-0.52
13	33	0.01	9.23	0.02	-5.47	-0.01	7.80
	61	-0.01	-7.39	-0.02	5.47	-0.02	0.52
14						-0.00	
	61	0.00	-3.80	-0.00	0.51	0.00	0.00
15	33	-0.00	5.64	0.00	-0.51	-0.00	4.72
	61	0.00	-3.80	-0.00	0.51	0.00	0.00
108	7 34	0.00	5.97	7 -0.00	0.54	0.00	5.00
	62	-0.00	-4.03	0.00	-0.54	-0.00	-0.00
8	34	0.01	8.83	-0.03	6.58	0.01	7.46
	62	-0.01	-7.39	0.03	-6.58	0.02	0.65
9	34	-0.01	-0.15	-0.03	-5.81	0.03	-0.22
		0.01				-0.00	-0.65
10	34	0.00	4.34	-0.00	0.39	0.00	3.62
	62	-0.00	-2.90	0.00	-0.39	-0.00	-0.00
11	34	0.00	4.34	-0.00	0.39	0.00	3.62
	62	-0.00	-2.90	0.00	-0.39	-0.00	-0.00
12	34	0.01	9.23	-0.02	5.47	0.01	7.80
	62	-0.01	-7.39	0.02	-5.47	0.02	0.52
13	34	-0.01	2.05	-0.02	-4.45	0.03	1.65
	62		-0.21		4.45		-0.52
14	34	0.00	5.64	-0.00	0.51	0.00	4.72
	62					-0.00	-0.00
15	34	0.00	5.64	-0.00		0.00	4.72
	62	-0.00	-3.80	0.00	-0.51	-0.00	-0.00
109	7 61	0.00	4.03		-0.00		0.54
	62	-0.00	4.03	-0.00	0.00	0.00	-0.54
8	61	0.03	-1.59	0.01	0.65	-0.00	-5.81
	62	-0.03	7.39	-0.01	-0.65	-0.02	-6.58
9	61	0.03	7.39	-0.01	-0.65	0.02	6.58
	62	-0.03	-1.59	0.01	0.65	0.00	5.81
10		0.00	2.90	0.00	-0.00	-0.00	0.39
	62	-0.00	2.90	-0.00	0.00	0.00	-0.39
11		0.00	2.90	0.00	-0.00	-0.00	0.39
	62	-0.00	2.90	-0.00	0.00	0.00	-0.39
12	61	0.02	0.21	0.01	0.52	-0.00	-4.45

-0.027.39 -0.01 -0.52-0.0262 -5.47 13 61 0.02 7.39 -0.01 -0.52 0.02 5.47 62 -0.02 0.21 0.01 0.52 0.00 4.45 STAAD SPACE -- PAGE NO. 70

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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

0.00 14 61 3.80 0.00 -0.00-0.000.51 62 -0.003.80 -0.000.00 0.00 -0.5115 61 0.00 3.80 0.00 -0.00-0.000.51 -0.003.80 -0.00 62 0.00 0.00 -0.51110 7 37 -0.005.97 0.00 -0.52 -0.005.00 -4.03 -0.00-0.0063 0.00 0.52 0.00 8 37 1.40 0.04 3.69 -0.031.10 -0.0063 0.00 0.04 -0.04 -3.69 -0.01 -0.42-4.42 37 0.00 7.28 0.04 -0.026.13 63 -0.00-5.84 -0.044.42 -0.020.42 4.34 -0.37 10 37 -0.00 0.00 -0.003.62 63 0.00 -2.90 -0.00 0.37 -0.000.00 37 -0.00 4.34 -0.37 -0.00 3.62 11 0.00 0.00 -2.90 -0.00 0.37 -0.000.00 63 12 37 3.29 2.76 2.71 -0.000.03 -0.03 0.00 -1.45 -2.76 -0.3463 -0.03 -0.01 13 37 0.00 7.99 0.03 -3.73 -0.026.73 3.73 63 -0.00-6.15 -0.03 -0.01 0.34 14 37 -0.00 5.64 0.00 -0.49 -0.004.72 -0.00 63 0.00 -3.80 0.49 -0.000.00 15 37 -0.00 5.64 0.00 -0.49 -0.004.72 0.49 63 0.00 -3.80 -0.00 -0.000.00 111 7 38 0.00 5.97 -0.00 0.52 0.005.00 64 -0.00-4.03 0.00 -0.520.00 -0.008 38 0.00 7.28 -0.044.42 0.02 6.13 64 -0.00-5.84 0.04 -4.42 0.02 0.42 38 -0.001.40 -0.04-3.69 1.10 0.03 64 0.00 0.04 0.04 3.69 0.01 -0.4210 38 0.00 4.34 -0.00 0.37 3.62 0.00

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-0.00
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   13 38
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   14 38
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                            -0.00
                                    0.49
                                            0.00
                                                    4.72
       64
            -0.00
                    -3.80
                            0.00
                                   -0.49
                                           0.00
                                                   -0.00
              0.00
                      4.03
                            0.00
                                    -0.00
112 7 63
                                             0.00
                                                     0.52
       64
           -0.00
                    4.03 -0.00
                                   0.00
                                          -0.00
                                                   -0.52
 STAAD SPACE
                                            -- PAGE NO. 71
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

8 63 0.04 -0.040.00 0.42 0.01 -3.69-0.045.84 -0.00-0.42-0.02-4.4264 9 4.42 63 0.04 5.84 -0.00-0.420.02 -0.04-0.04 0.42 -0.01 3.69 64 0.00 10 63 0.00 2.90 0.00-0.000.000.37 0.00 -0.37 64 -0.002.90 -0.00-0.0011 63 0.00 2.90 0.00 -0.000.00 0.37 64 -0.002.90 -0.00 0.00 -0.00-0.3712 63 0.03 1.45 0.34 -2.760.000.01 64 -0.03 6.15 -0.00-0.34 -0.01-3.73 13 63 0.03 6.15 -0.00-0.340.01 3.73 64 -0.03 1.45 0.00 0.34 -0.01 2.76 14 63 0.00 3.80 0.00-0.000.00 0.49 0.00 64 -0.003.80 -0.00-0.00-0.49 15 63 0.00 3.80 0.00-0.000.00 0.49 64 -0.003.80 -0.00 0.00 -0.00-0.49 113 7 41 69.15 -4.96 8.90 -0.01 0.44 -1.91 65 -68.40 4.96 -8.90 0.01 -11.12 -4.058 41 49.93 8.47 -0.07 -0.40 -1.881.71

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0.07
                                          -9.77
                                                   2.01
       65 -49.18
                     1.49 -8.47
            63.28
                    -7.99
                            8.05
                                    0.10
                                           0.48
                                                   0.81
    9 41
       65
           -62.53
                     7.99 -8.05
                                   -0.10
                                         -10.14
                                                   -10.40
   10 41
             56.58
                     -4.33
                            8.24
                                    -0.00
                                            0.03
                                                   -1.48
       65
           -55.83
                     4.33 -8.25
                                   0.00
                                          -9.93
                                                   -3.72
   11 41
             62.30
                     -4.33 11.40
                                    -0.00
                                            2.72
                                                    -1.48
       65
           -61.55
                     4.33 -11.40
                                    0.00
                                          -16.40
                                                    -3.72
   12 41
             61.30
                     -0.00
                           8.94
                                    -0.06
                                            0.01
                                                    -2.15
           -60.55
       65
                     2.57
                          -8.94
                                   0.06 - 10.74
                                                    0.60
   13 41
            71.98
                     -7.77
                             8.60
                                    0.08
                                            0.71
                                                    0.01
       65
           -71.23
                     7.77
                          -8.60
                                   -0.08
                                         -11.03
                                                   -9.32
   14 41
             66.62
                     -4.84
                             8.75
                                    -0.01
                                                   -1.82
                                            0.35
       65
           -65.87
                     4.84
                          -8.76
                                         -10.87
                                   0.01
                                                   -3.98
   15 41
            71.20
                     -4.84 11.28
                                    -0.01
                                            2.50
                                                    -1.82
      65 -70.45
                     4.84 -11.28
                                    0.01 -16.04
                                                    -3.98
114 7 43
              56.00
                                    -0.00
                                                     -0.71
                     -4.12 -8.90
                                             0.82
           -55.25
                     4.12
                           8.90
                                   0.00
                                           9.86
                                                  -4.24
       67
            38.14
                                                   -1.32
    8
      43
                     2.63
                           -7.98
                                   -0.09
                                           0.75
       67
           -37.39
                     0.58
                           7.98
                                   0.09
                                           8.82
                                                   2.55
      43
            56.34
                    -7.69
                           -8.55
                                    0.07
                                           1.00
                                                   1.98
           -55.59
                           8.55
       67
                     7.69
                                   -0.07
                                           9.26
                                                  -11.21
            47.27
   10 43
                     -3.75
                            -8.28
                                    -0.00
                                            0.86
                                                    -0.65
          -46.52
       67
                     3.75
                           8.28
                                   0.00
                                           9.07
                                                  -3.85
   11 43 41.54
                     -3.75
                            -3.18
                                    -0.00
                                            1.93
                                                    -0.65
      67
          -40.79
                     3.75
                           5.81
                                           3.47
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                                                  -3.85
 STAAD SPACE
                                           -- PAGE NO. 72
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

12 43 46.97 1.05 -8.55 -0.070.73 -1.2467 -46.22 1.51 8.55 0.07 9.52 0.96 13 43 61.53 -7.20 -9.00 0.06 0.93 1.40 67 -60.78 7.20 9.00 -0.06 9.87 -10.0514 43 54.27 -4.05 -8.78 -0.000.82 -0.70-53.52 67 4.05 8.78 0.009.72 -4.16 15 43 49.69 -4.05 -4.71-0.001.68 -0.70-48.94 4.05 6.81 67 0.00 5.24 -4.16

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115 7 44
              56.00
                        4.12 -8.90
                                       0.00
                                               0.82
                                                       0.71
           -55.25
                     -4.12
                             8.90
                                    -0.00
                                             9.86
                                                     4.24
       68
    8
      44
             56.34
                      7.69
                             -8.55
                                     -0.07
                                             1.00
                                                     -1.98
       68
           -55.59
                     -7.69
                             8.55
                                     0.07
                                             9.26
                                                     11.21
             38.14
       44
                     -2.63
                             -7.98
                                     0.09
                                             0.75
                                                      1.32
           -37.39
                                                     -2.55
       68
                     -0.58
                             7.98
                                    -0.09
                                             8.82
   10 44
             47.27
                       3.75
                             -8.28
                                      0.00
                                                      0.65
                                              0.86
           -46.52
                     -3.75
                             8.28
                                    -0.00
                                             9.07
                                                      3.85
       68
             41.54
   11 44
                       3.75
                             -3.18
                                      0.00
                                              1.93
                                                      0.65
       68
           -40.79
                     -3.75
                             5.81
                                    -0.00
                                             3.47
                                                     3.85
       44
             61.53
                       7.20
                             -9.00
                                     -0.06
                                              0.93
                                                      -1.40
   12
       68
           -60.78
                     -7.20
                             9.00
                                             9.87
                                                     10.05
                                     0.06
             46.97
   13 44
                      -1.05
                             -8.55
                                      0.07
                                              0.73
                                                       1.24
       68
           -46.22
                     -1.51
                             8.55
                                    -0.07
                                             9.52
                                                     -0.96
             54.27
                                                      0.70
   14
       44
                       4.05
                             -8.78
                                      0.00
                                              0.82
       68
           -53.52
                     -4.05
                             8.78
                                    -0.00
                                             9.72
                                                     4.16
   15 44
             49.69
                             -4.71
                       4.05
                                      0.00
                                              1.68
                                                      0.70
           -48.94
                             6.81
       68
                     -4.05
                                    -0.00
                                             5.24
                                                      4.16
116 7 42
              69.15
                        4.96
                               8.90
                                       0.01
                                               0.44
                                                       1.91
           -68.40
                     -4.96
                            -8.90
                                    -0.01
                                            -11.12
                                                      4.05
       66
                                    -0.10
      42
             63.28
                      7.99
                             8.05
                                             0.48
                                                     -0.81
           -62.53
                     -7.99
                            -8.05
                                     0.10
                                            -10.14
                                                      10.40
       66
       42
             49.93
                     -1.71
                             8.47
                                     0.07
                                            -0.40
                                                      1.88
           -49.18
                     -1.49
                            -8.47
                                     -0.07
                                            -9.77
                                                     -2.01
       66
                              8.24
   10 42
             56.58
                       4.33
                                      0.00
                                              0.03
                                                      1.48
       66
           -55.83
                     -4.33
                            -8.25
                                    -0.00
                                            -9.93
                                                      3.72
       42
             62.30
   11
                       4.33
                            11.40
                                      0.00
                                              2.72
                                                      1.48
           -61.55
                     -4.33 -11.40
                                     -0.00
                                            -16.40
                                                       3.72
       66
   12 42
             71.98
                       7.77
                              8.60
                                     -0.08
                                              0.71
                                                      -0.01
           -71.23
                     -7.77
       66
                            -8.60
                                     0.08
                                           -11.03
                                                      9.32
   13 42
             61.30
                       0.00
                              8.94
                                      0.06
                                              0.01
                                                      2.15
       66
           -60.55
                     -2.57
                            -8.94
                                    -0.06
                                            -10.74
                                                      -0.60
   14 42
             66.62
                       4.84
                              8.75
                                      0.01
                                                      1.82
                                             0.35
           -65.87
       66
                     -4.84
                            -8.76
                                     -0.01
                                            -10.87
                                                      3.98
   15 42
             71.20
                       4.84
                            11.28
                                      0.01
                                              2.50
                                                       1.82
       66 -70.45
                     -4.84 -11.28
                                     -0.01
                                            -16.04
                                                       3.98
 STAAD SPACE
                                             -- PAGE NO. 73
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MEMBER END FORCES STRUCTURE TYPE = SPACE
-----ALL UNITS ARE -- KN METE (LOCAL)

117	7 68	3 81	1 28 31	-0.01	2 87	0.00	17.31
117	78		-22.75				
8			25.97				
Ü			-21.05				
9			24.17		1.66		
	78		-19.24				
10			25.09				
10	78		-20.16				9.92
11	_		20.95				8.39
	78		-16.03				
12			28.38				17.54
	78		-22.95		-3.43		
13			26.94				
	78		-21.51				
14	68	3.90	27.68	-0.01	2.80	0.00	16.95
	78		-22.25				
15	68	5.40	24.37	-0.01	2.80	0.00	11.32
	78	-5.40	-18.94	0.01	-2.80	0.01	12.93
118	7 65	1.79	10.58	-0.00	0.00	-0.00	4.90
	66	-1.79	10.58	0.00	-0.00	0.00	-4.90
8	65	4.10	4.52	0.02	0.02	-0.03	-2.50
	66	-4.10	14.17	-0.02	-0.02	-0.02	-10.82
9	65	4.10	14.17	-0.02	-0.02	0.02	10.82
	66	-4.10	4.52	0.02	0.02	0.03	2.50
10	65	1.88	9.34		0.00	-0.00	4.28
	66		9.34	0.00	-0.00		-4.28
11	65		9.34				4.28
	66		9.34		-0.00		
12			6.47				
			14.19				
13			14.19				10.01
			6.47				
14			10.33				
			10.33				
15			10.33				
	66	-1.81	10.33	0.00	-0.00	0.00	-4.78
110	7	1 1	10.50) 0.00		0.00	A 77
			10.58				
			10.58				
8	0/	4.01	3.69	0.02	0.06	-0.02	-3.74

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-4.01
                 15.00 -0.02
                                -0.06
     68
                                       -0.03
                                               -11.87
  9 67
           4.01
                 15.00
                        -0.02
                                -0.06
                                        0.03
                                                11.87
     68
          -4.01
                  3.69
                        0.02
                                0.06
                                       0.02
                                               3.74
STAAD SPACE
                                        -- PAGE NO. 74
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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                                                     4.19
   10 67
                     9.34
                            -0.00
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            -1.80
                    9.34
                            0.00
                                    0.00
                                           -0.00
                                                   -4.19
       68
                                                     4.19
   11 67
              1.80
                     9.34
                            -0.00
                                    -0.00
                                            0.00
            -1.80
                                   0.00
       68
                    9.34
                           0.00
                                           -0.00
                                                   -4.19
   12 67
              3.46
                     5.81
                            0.01
                                    0.05
                                           -0.01
                                                    -1.69
       68
            -3.46
                    14.85
                           -0.01
                                    -0.05
                                           -0.03
                                                   -10.80
                    14.85
                                    -0.05
   13 67
              3.46
                            -0.01
                                             0.03
                                                     10.80
            -3.46
                    5.81
                                   0.05
       68
                            0.01
                                           0.01
                                                    1.69
   14 67
              1.68
                     10.33
                            -0.00
                                    -0.00
                                             0.00
                                                     4.65
       68
            -1.68
                    10.33
                            0.00
                                    0.00
                                           -0.00
                                                    -4.65
       67
              1.68
                     10.33
                            -0.00
                                    -0.00
                                             0.00
                                                     4.65
   15
                    10.33
       68
            -1.68
                            0.00
                                    0.00
                                           -0.00
                                                    -4.65
120 7 67
               3.81
                      28.31
                              0.01
                                     -2.87
                                             -0.00
                                                     17.31
       75
                   -22.75
                            -0.01
                                    2.87
            -3.81
                                            -0.01
                                                    11.28
             4.29
                    24.17
                                    -1.66
                                                    14.63
    8
      67
                             0.08
                                            -0.07
            -4.29
                   -19.24
       75
                            -0.08
                                    1.66
                                           -0.02
                                                    9.68
      67
             4.10
                   25.97
                            -0.02
                                    -3.31
                                            0.04
                                                    16.16
       75
            -4.10
                   -21.05
                            0.02
                                    3.31
                                           -0.01
                                                    10.17
   10 67
             4.21
                     25.09
                             0.01
                                    -2.52
                                            -0.01
                                                     15.43
       75
            -4.21
                   -20.16
                            -0.01
                                    2.52
                                            -0.01
                                                     9.92
   11 67
              6.08
                    20.95
                             0.01
                                    -2.52
                                            -0.01
                                                     8.39
            -6.08
       75
                   -16.03
                            -0.01
                                    2.52
                                            -0.01
                                                    12.32
   12 67
              3.96
                    26.94
                             0.07
                                    -2.11
                                            -0.06
                                                    16.31
       75
            -3.96 -21.51
                                    2.11
                                                    10.82
                            -0.07
                                            -0.02
   13 67
              3.81
                     28.38
                            -0.02
                                    -3.43
                                             0.03
                                                     17.54
       75
            -3.81
                   -22.95
                            0.02
                                    3.43
                                           -0.01
                                                    11.21
   14 67
              3.90
                   27.68
                             0.01
                                    -2.80
                                            -0.00
                                                     16.95
                  -22.25
       75
            -3.90
                            -0.01
                                    2.80
                                                    11.00
                                            -0.01
   15 67
              5.40
                    24.37
                             0.01
                                    -2.80
                                            -0.00
                                                     11.32
       75
            -5.40 -18.94
                           -0.01
                                    2.80
                                                    12.93
                                            -0.01
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121 7 69
               5.09 10.43 -0.01 1.08
                                             0.01
                                                      5.53
       84
            -5.09
                   -8.05
                           0.01
                                  -1.08
                                           0.01
                                                   4.82
   8 69
             4.32
                    7.84
                           -0.22
                                   1.08
                                           0.15
                                                   4.49
       84
            -4.32
                   -6.09
                           0.22
                                  -1.08
                                           0.10
                                                   3.32
    9
       69
             3.81
                    6.90
                           0.19
                                   0.57
                                          -0.13
                                                   3.53
       84
            -3.81
                    -5.15
                           -0.19
                                   -0.57
                                           -0.08
                                                   3.21
             4.07
                     7.38
                                    0.77
                                                    4.02
   10 69
                            -0.01
                                            0.00
            -4.07
                   -5.63
                                  -0.77
                                                   3.26
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                                           0.01
             5.32
   11 69
                     5.79
                           -0.01
                                    0.77
                                            0.00
                                                    1.52
       84
            -5.32
                   -4.04
                           0.01
                                  -0.77
                                           0.01
                                                   3.99
   12 69
             5.09
                    10.20
                            -0.18
                                     1.27
                                                    5.60
                                            0.12
       84
            -5.09
                    -7.94
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                                  -1.27
                                           0.09
                                                   4.55
             4.68
   13 69
                     9.44
                            0.14
                                    0.86
                                           -0.10
                                                    4.84
       84
            -4.68
                   -7.19 -0.14
                                   -0.86
                                           -0.06
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 STAAD SPACE
                                            -- PAGE NO. 75
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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              4.89
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            -4.89
                                   -1.02
       84
                    -7.57
                            0.01
                                            0.01
                                                    4.51
                            -0.01
                                     1.02
   15 69
              5.89
                      8.56
                                             0.01
                                                     3.23
            -5.89
                    -6.30
                            0.01
       84
                                   -1.02
                                            0.01
                                                    5.09
122 7 71
               3.08
                       7.80 -0.00 -0.00
                                            -0.00
                                                       3.07
       70
            -3.08
                     7.80
                            0.00
                                    0.00
                                           0.00
                                                   -3.07
      71
    8
             3.90
                     4.00
                            0.09
                                    0.05
                                           -0.12
                                                     0.39
       70
            -3.90
                     6.88
                           -0.09
                                   -0.05
                                           -0.12
                                                    -4.37
      71
             3.90
                     6.88
                            -0.09
                                    -0.05
                                            0.12
                                                     4.37
       70
            -3.90
                     4.00
                            0.09
                                    0.05
                                            0.12
                                                    -0.39
   10 71
              2.37
                      5.44
                            -0.00
                                    -0.00
                                            -0.00
                                                      2.19
       70
            -2.37
                     5.44
                            0.00
                                    0.00
                                                    -2.19
                                            0.00
   11 71
              2.37
                      5.44
                            -0.00
                                    -0.00
                                            -0.00
                                                      2.19
       70
            -2.37
                     5.44
                            0.00
                                    0.00
                                            0.00
                                                    -2.19
   12 71
              4.17
                      6.17
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                                     0.04
                                            -0.10
                                                     1.46
                     8.48
       70
            -4.17
                                                    -4.64
                           -0.07
                                   -0.04
                                           -0.10
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              4.17
                      8.48
                            -0.07
                                    -0.04
                                             0.10
                                                     4.64
       70
            -4.17
                     6.17
                            0.07
                                            0.10
                                                    -1.46
                                    0.04
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2.94
                     7.33 -0.00
                                   -0.00
   14 71
                                           -0.00
                                                    2.89
            -2.94
                    7.33
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                                                   -2.89
       70
              2.94
   15 71
                     7.33
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                                    -0.00
                                           -0.00
                                                    2.89
       70
            -2.94
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                                                   -2.89
123 7 72
               2.44
                      4.34 -0.00
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                                             0.00
                                                     1.77
       69
            -2.44
                    4.34
                           0.00
                                  -0.00
                                          -0.00
                                                   -1.77
    8
      72
             3.48
                     1.04
                                          -0.14
                            0.10
                                   0.05
                                                   -1.33
            -3.48
                          -0.10
                                          -0.15
                                                   -4.39
       69
                    5.18
                                   -0.05
    9 72
             3.48
                     5.18
                           -0.10
                                   -0.05
                                           0.15
                                                    4.39
       69
            -3.48
                    1.04
                           0.10
                                   0.05
                                           0.14
                                                   1.33
   10 72
              1.93
                     3.11
                           -0.00
                                                    1.32
                                    0.00
                                            0.00
       69
            -1.93
                    3.11
                                   -0.00
                                          -0.00
                                                   -1.32
                           0.00
   11 72
              1.93
                     3.11
                           -0.00
                                    0.00
                                            0.00
                                                    1.32
       69
            -1.93
                    3.11
                           0.00
                                  -0.00
                                          -0.00
                                                   -1.32
   12 72
              3.58
                     2.44
                            0.08
                                    0.04
                                           -0.11
                                                   -0.44
       69
            -3.58
                    5.75
                           -0.08
                                   -0.04
                                          -0.12
                                                   -4.13
                                                    4.13
   13 72
              3.58
                     5.75
                            -0.08
                                   -0.04
                                            0.12
       69
            -3.58
                    2.44
                           0.08
                                   0.04
                                           0.11
                                                   0.44
   14 72
              2.34
                     4.09
                            -0.00
                                    0.00
                                            0.00
                                                    1.68
       69
            -2.34
                    4.09
                                  -0.00
                                          -0.00
                                                   -1.68
                           0.00
   15 72
              2.34
                     4.09
                                    0.00
                           -0.00
                                            0.00
                                                    1.68
       69
            -2.34
                    4.09
                           0.00
                                  -0.00
                                                   -1.68
                                          -0.00
124 7 72 5.09 10.43 0.01 -1.08 -0.01
                                                      5.53
       81
            -5.09
                    -8.05 -0.01
                                   1.08
                                                    4.82
                                          -0.01
 STAAD SPACE
                                            -- PAGE NO. 76
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

8 72 3.81 6.90 -0.19-0.570.13 3.53 -5.15 81 -3.810.19 0.57 0.08 3.21 72 4.32 7.84 0.22 -1.08 -0.154.49 81 -4.32 -6.09 -0.221.08 -0.103.32 10 72 4.07 7.38 0.01 -0.77-0.004.02 81 -4.07-5.63 3.26 -0.01 0.77 -0.01 11 72 5.32 5.79 0.01 -0.77-0.001.52 -5.32 -4.04 0.77 3.99 81 -0.01 -0.01

```
12 72
              4.68
                     9.44 -0.14
                                    -0.86
                                                     4.84
                                            0.10
            -4.68
                            0.14
                                   0.86
                                           0.06
                                                    4.47
       81
                    -7.19
   13 72
              5.09
                     10.20
                             0.18
                                    -1.27
                                            -0.12
                                                     5.60
       81
            -5.09
                    -7.94
                           -0.18
                                    1.27
                                           -0.09
                                                    4.55
   14 72
              4.89
                     9.82
                            0.01
                                    -1.02
                                            -0.01
                                                     5.23
            -4.89
       81
                    -7.57
                          -0.01
                                    1.02
                                           -0.01
                                                    4.51
                     8.56
                                    -1.02
   15 72
              5.89
                            0.01
                                            -0.01
                                                     3.23
            -5.89
       81
                    -6.30 -0.01
                                    1.02
                                                    5.09
                                           -0.01
125 7 65 28.30
                      -3.17 5.09
                                    -0.01
                                            -8.24
                                                    -3.77
       71
           -26.70
                     3.17
                           -5.09
                                    0.01
                                           -4.73
                                                    -4.31
    8
      65
            19.01
                     2.60
                            4.21
                                    -0.02
                                            -7.07
                                                    -1.18
           -17.42
                     4.21
                            -4.21
                                    0.02
                                                    -0.88
       71
                                           -3.68
            22.09
      65
                     -3.80
                             3.92
                                    0.01
                                            -6.79
                                                    -3.78
       71
           -20.50
                     3.80
                           -3.92
                                    -0.01
                                           -3.19
                                                    -5.92
                                                     -3.11
   10 65
            20.55
                     -2.43
                             4.05
                                    -0.01
                                            -6.92
       71
           -18.95
                     2.43
                           -4.07
                                    0.01
                                           -3.43
                                                    -3.09
   11 65
             22.13
                     -2.43
                             5.32
                                    -0.01
                                            -7.31
                                                     -3.11
           -20.54
                     2.43
                           -5.32
       71
                                    0.01
                                           -6.25
                                                    -3.09
   12 65
            25.52
                      1.00
                            5.00
                                    -0.02
                                            -8.09
                                                    -2.10
       71
          -23.92
                     4.45
                           -5.00
                                    0.02
                                           -4.67
                                                    -2.30
   13 65
             27.98
                     -4.12
                             4.76
                                     0.00
                                                    -4.17
                                            -7.87
           -26.38
                     4.12 -4.76
       71
                                    -0.00
                                           -4.28
                                                    -6.32
   14 65
            26.74
                     -3.02
                             4.87
                                    -0.01
                                            -7.98
                                                     -3.64
       71
           -25.15
                     3.02
                           -4.89
                                    0.01
                                           -4.47
                                                    -4.07
   15 65
             28.01
                     -3.02
                             5.89
                                    -0.01
                                            -8.29
                                                     -3.64
      71 -26.42
                     3.02 -5.89
                                    0.01
                                           -6.72
                                                    -4.07
126 7 68
              16.37
                       2.45 -5.09
                                      0.00
                                              7.45
                                                      3.40
           -14.77
                    -2.45
                            5.09
                                   -0.00
                                            5.53
       69
                                                    2.85
                     3.70
    8 68
            14.62
                            -4.42
                                    -0.00
                                            6.84
                                                     3.97
           -13.02
       69
                    -3.70
                            4.42
                                    0.00
                                            4.44
                                                    5.47
    9 68
             9.53
                    -3.52
                            -3.70
                                    0.00
                                            5.87
                                                    0.47
            -7.94
       69
                    -3.29
                            3.70
                                   -0.00
                                            3.58
                                                   -0.76
   10 68
             12.08
                      1.94
                            -4.07
                                     0.00
                                             6.36
                                                     2.86
       69
           -10.49
                    -1.94
                            4.07
                                    -0.00
                                            4.02
                                                    2.09
   11 68
             10.50
                      1.94
                             0.27
                                     0.00
                                            4.92
                                                     2.86
       69
            -8.90
                    -1.94
                            5.32
                                   -0.00
                                            1.52
                                                    2.09
 STAAD SPACE
                                            -- PAGE NO. 77
```

MEMBER END FORCES STRUCTURE TYPE = SPACE
-----ALL UNITS ARE -- KN METE (LOCAL)

_							
12		17.54					
		-15.95					5.40
13		13.47					
		-11.88					
14	68	15.51					3.29
	69	-13.92	-2.35	4.89	-0.00	5.23	2.70
15	68	14.24	2.35	-1.42	0.00	6.08	3.29
	69	-12.65	-2.35	5.89	-0.00	3.23	2.70
127 <i>′</i>		5 28.30					
	70	-26.70	-3.17	-5.09	-0.01	-4.73	4.31
8	66	22.09	3.80	3.92	-0.01	-6.79	3.78
	70	-20.50	-3.80	-3.92	0.01	-3.19	5.92
9		19.01				-7.07	1.18
	70	-17.42	-4.21	-4.21	-0.02	-3.68	0.88
10	66	20.55	2.43	4.05	0.01	-6.92	3.11
	70	-18.95	-2.43	-4.07	-0.01	-3.43	3.09
11	66	22.13	2.43	5.32	0.01	-7.31	3.11
	70	-20.54	-2.43	-5.32	-0.01	-6.25	3.09
12	66	27.98	4.12	4.76	-0.00	-7.87	4.17
	70	-26.38	-4.12	-4.76	0.00	-4.28	6.32
13	66	25.52	-1.00	5.00	0.02	-8.09	2.10
	70	-23.92	-4.45	-5.00	-0.02	-4.67	2.30
14	66	26.74	3.02	4.87	0.01	-7.98	3.64
	70	-25.15	-3.02	-4.89	-0.01	-4.47	4.07
15	66	28.01	3.02	5.89	0.01	-8.29	3.64
	70	-26.42	-3.02	-5.89	-0.01	-6.72	4.07
128	7 6	7 16.37	-2.45	5 -5.09	-0.00	7.45	-3.40
	72	-14.77	2.45	5.09	0.00	5.53	-2.85
8	67	9.53				5.87	-0.47
	72	-7.94	3.29	3.70	0.00	3.58	0.76
9	67	14.62	-3.70	-4.42	0.00	6.84	-3.97
	72	-13.02	3.70	4.42	-0.00	4.44	-5.47
10	67	12.08	-1.94	-4.07	-0.00	6.36	-2.86
	72	-10.49	1.94	4.07	0.00	4.02	-2.09
11	67	10.50	-1.94	0.27	-0.00	4.92	-2.86
	72	-8.90	1.94	5.32	0.00	1.52	-2.09
12	67	13.47	2.01	-4.60	-0.00	6.84	-1.39
	72	-11.88	3.43	4.60	0.00	4.88	-0.42
13	67	17.54	-3.76	-5.17	0.00	7.62	-4.18
	72	-15.95	3.76	5.17	-0.00	5.57	-5.40

14 67 15.51 -2.35 -4.89 -0.00 7.23 -3.29 72 -13.92 2.35 4.89 0.00 5.23 -2.70 15 67 14.24 -2.35 -1.42 -0.00 6.08 -3.29 72 -12.65 2.35 5.89 0.00 3.23 -2.70 STAAD SPACE -- PAGE NO. 78

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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

129 7	41	-0.00	5.97	-0.03	-0.61	0.02	5.00
	73	0.00	-4.03	0.03	0.61	0.01	0.00
8	41	0.01	3.16	-0.00	1.11	0.01	2.62
	73	-0.01	-1.72	0.00	-1.11	-0.01	-0.18
9	41	-0.01	5.51	-0.00	-2.13	-0.01	4.61
	73	0.01	-4.07	0.00	2.13	0.01	0.18
10	41	-0.00	4.34	-0.03	-0.45	0.02	3.62
	73	0.00	-2.90	0.03	0.45	0.01	0.00
11	41	-0.00	4.34	-0.03	-0.45	0.02	3.62
	73	0.00	-2.90	0.03	0.45	0.01	0.00
12	41					0.01	
	73	-0.01	-2.86	0.01	-0.67	-0.00	-0.14
13						-0.00	
						0.01	
14	41					0.02	
	73					0.01	
15	41	-0.00	5.64	-0.03	-0.58	0.02	4.72
	73	0.00	-3.80	0.03	0.58	0.01	0.00
130 7	7 42	0.00	5.07	0.03	0.61	-0.02	5.00
						-0.02	
						0.01	
O						-0.01	
0						-0.01	
7	74					0.01	
10						-0.02	
10						-0.02	
11						-0.01	
						-0.02	
	/ -1	-0.00	-2.70	-0.03	-U. T J	-0.01	-0.00

```
-0.01
                     6.58
                            0.01
                                   1.92
                                                   5.52
   12 42
                                           0.00
      74
                   -4.74
                          -0.01
                                  -1.92
                                         -0.01
                                                  0.14
            0.01
   13 42
                                                   3.92
             0.01
                     4.70
                           0.01
                                  -0.67
                                          -0.01
       74
            -0.01
                   -2.86
                          -0.01
                                  0.67
                                          0.00
                                                  -0.14
   14 42
             0.00
                     5.64
                           0.03
                                   0.58
                                          -0.02
                                                   4.72
            -0.00
      74
                   -3.80
                          -0.03
                                  -0.58
                                          -0.01
                                                  -0.00
             0.00
                     5.64
   15 42
                           0.03
                                   0.58
                                          -0.02
                                                   4.72
      74
            -0.00
                   -3.80
                         -0.03
                                  -0.58
                                          -0.01
                                                  -0.00
131 7 73 -0.03
                      4.03 0.00 -0.00
                                          -0.01
                                                  0.61
       74
            0.03
                    4.03
                         -0.00
                                  0.00
                                          0.01
                                                 -0.61
    8
      73
            -0.00
                    1.72
                          -0.01
                                   0.18
                                          0.01
                                                  -1.11
      74
            0.00
                    4.07
                                  -0.18
                                          0.01
                                                 -2.13
                          0.01
   9
      73
            -0.00
                    4.07
                           0.01
                                  -0.18
                                          -0.01
                                                   2.13
      74
            0.00
                    1.72
                         -0.01
                                  0.18
                                         -0.01
                                                  1.11
 STAAD SPACE
                                           -- PAGE NO. 79
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
-0.00
   10 73
             -0.03
                      2.90
                             0.00
                                            -0.01
                                                     0.45
       74
                    2.90 -0.00
            0.03
                                   0.00
                                           0.01
                                                   -0.45
   11 73
             -0.03
                      2.90
                                    -0.00
                                            -0.01
                             0.00
                                                     0.45
                    2.90 -0.00
       74
            0.03
                                   0.00
                                           0.01
                                                   -0.45
   12 73
             -0.01
                                     0.14
                      2.86
                            -0.01
                                            0.00
                                                    -0.67
       74
            0.01
                    4.74
                           0.01
                                   -0.14
                                           0.01
                                                   -1.92
   13 73
             -0.01
                      4.74
                             0.01
                                    -0.14
                                            -0.01
                                                     1.92
       74
            0.01
                    2.86 -0.01
                                   0.14
                                          -0.00
                                                    0.67
   14 73
             -0.03
                      3.80
                             0.00
                                    -0.00
                                            -0.01
                                                     0.58
       74
            0.03
                    3.80
                          -0.00
                                   0.00
                                           0.01
                                                   -0.58
   15 73
             -0.03
                      3.80
                             0.00
                                    -0.00
                                            -0.01
                                                     0.58
      74
            0.03
                    3.80 -0.00
                                   0.00
                                           0.01
                                                   -0.58
132 7 75
               3.81
                       2.17
                                     0.01
                              0.00
                                             0.00
                                                    -11.28
      76
            -3.81
                    3.39
                          -0.00
                                   -0.01
                                           -0.01
                                                    10.60
    8
      75
             4.27
                     1.78
                            0.05
                                   -0.08
                                           -0.02
                                                    -9.81
            -4.27
                    3.15
                           -0.05
                                           -0.04
                                                    9.04
       76
                                   0.08
      75
             4.13
                     2.27
                           -0.05
                                    0.09
                                            0.04
                                                   -10.04
       76
            -4.13
                     2.66
                           0.05
                                   -0.09
                                           0.01
                                                   9.82
```

```
10 75
           4.21
                    2.04 0.00
                                  0.01
                                                 -9.92
                                          0.01
                   2.89 -0.00
                                 -0.01
                                         -0.01
                                                 9.44
      76
           -4.21
   11 75
             6.08
                    -2.10
                           0.00
                                  0.01
                                          0.01
                                                 -12.32
      76
           -6.08
                    7.02 -0.00
                                 -0.01
                                         -0.01
                                                 7.21
   12 75
             3.94
                    1.94 0.04
                                  -0.06
                                         -0.01
                                                 -10.92
      76
           -3.94
                   3.49 -0.04
                                  0.06
                                        -0.03
                                                 10.06
             3.83
                                                 -11.10
   13 75
                    2.33 -0.04
                                  0.08
                                          0.03
      76
           -3.83
                   3.10
                          0.04
                                 -0.08
                                         0.01
                                                10.67
   14 75
             3.90
                    2.15
                                  0.01
                                                -11.00
                          0.00
                                         0.01
           -3.90
                    3.28 -0.00
                                 -0.01
      76
                                         -0.01
                                                 10.37
   15 75
             5.40
                   -1.16
                           0.00
                                   0.01
                                          0.01
                                                 -12.93
      76
          -5.40
                   6.59 -0.00
                                 -0.01
                                         -0.01
                                                 8.59
133 7 76 3.81 -23.97 -0.01 2.91
                                            0.01 -10.60
           -3.81
                   29.53
                          0.01
                                 -2.91
                                         0.00
                                                -19.36
      65
            4.24
                  -20.72
   8
      76
                           0.01
                                  1.67
                                          0.01
                                                 -9.11
                   25.65
           -4.24
                          -0.01
                                  -1.67
                                         -0.03
                                                 -16.86
      65
      76
            4.15
                  -21.34
                           -0.09
                                   3.36
                                          0.03
                                                 -9.75
           -4.15
                   26.27
                                                -16.90
      65
                           0.09
                                 -3.36
                                          0.07
   10 76
            4.21
                  -21.01
                           -0.01
                                   2.55
                                          0.01
                                                -9.44
           -4.21
                   25.94
                           0.01
                                 -2.55
                                          0.00
                                                -16.85
      65
   11 76
             6.08
                  -25.15
                          -0.01
                                   2.55
                                                -7.21
                                          0.01
           -6.08
                   30.07
                                 -2.55
                                                -23.71
      65
                           0.01
                                         0.00
                  -23.14
   12 76
             3.93
                           0.01
                                   2.14
                                          0.01
                                                -10.11
      65
           -3.93
                   28.57
                          -0.01
                                  -2.14
                                         -0.02
                                                -18.85
   13 76
             3.85
                  -23.63
                          -0.07
                                   3.49
                                          0.02 -10.62
           -3.85
                   29.06
      65
                          0.07
                                 -3.49
                                         0.06
                                                -18.89
 STAAD SPACE
                                          -- PAGE NO. 80
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MEMBER END FORCES STRUCTURE TYPE = SPACE -----

ALL UNITS ARE -- KN METE (LOCAL)

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14 76
            3.90 -23.37 -0.01
                                 2.84
                                        0.01
                                              -10.37
          -3.90
      65
                  28.80
                         0.01
                                -2.84
                                        0.00
                                             -18.84
   15 76
            5.40
                 -26.68
                         -0.01
                                  2.84
                                        0.01
                                               -8.59
      65
           -5.40
                  32.11
                         0.01
                                -2.84
                                        0.00
                                              -24.33
134 7 77
             3.81 -23.97 0.01 -2.91 -0.01 -10.60
                  29.53 -0.01
                                2.91
                                       -0.00
      66
         -3.81
                                             -19.36
```

```
8 77
                    -21.34
                             0.09
                                     -3.36
                                             -0.03
                                                      -9.75
             4.15
                    26.27
                            -0.09
                                     3.36
                                                     -16.90
       66
            -4.15
                                             -0.07
      77
                    -20.72
             4.24
                             -0.01
                                     -1.67
                                             -0.01
                                                      -9.11
            -4.24
                    25.65
                             0.01
                                     1.67
                                             0.03
                                                    -16.86
       66
   10 77
              4.21
                    -21.01
                              0.01
                                     -2.55
                                              -0.01
                                                      -9.44
                                     2.55
       66
            -4.21
                    25.94
                            -0.01
                                             -0.00
                                                     -16.85
                    -25.15
                                      -2.55
   11 77
              6.08
                              0.01
                                              -0.01
                                                      -7.21
            -6.08
                    30.07
                            -0.01
                                     2.55
                                            -0.00
                                                     -23.71
       66
       77
                    -23.63
                                     -3.49
                                                      -10.62
   12
              3.85
                              0.07
                                              -0.02
                    29.06
                                     3.49
                                             -0.06
       66
            -3.85
                            -0.07
                                                     -18.89
   13 77
              3.93
                    -23.14
                             -0.01
                                      -2.14
                                              -0.01
                                                      -10.11
            -3.93
                    28.57
                             0.01
                                     2.14
                                             0.02
                                                    -18.85
       66
   14 77
              3.90
                    -23.37
                                      -2.84
                                              -0.01
                                                      -10.37
                              0.01
                    28.80
                                     2.84
       66
            -3.90
                            -0.01
                                             -0.00
                                                    -18.84
   15 77
              5.40
                    -26.68
                              0.01
                                     -2.84
                                              -0.01
                                                      -8.59
            -5.40
       66
                    32.11
                            -0.01
                                     2.84
                                             -0.00
                                                    -24.33
135 7 76
                       20.59
               0.01
                             -0.00
                                       0.00
                                               -0.00
                                                        2.90
       77
            -0.01
                    20.59
                                    -0.00
                             0.00
                                             0.00
                                                     -2.90
    8
      76
             0.04
                     17.57
                             -0.02
                                      0.06
                                             0.03
                                                      1.74
       77
            -0.04
                     18.67
                             0.02
                                    -0.06
                                                     -3.27
                                             0.04
      76
                     18.67
                                     -0.06
                                                      3.27
             0.04
                             0.02
                                             -0.04
                                                     -1.74
       77
            -0.04
                     17.57
                             -0.02
                                     0.06
                                             -0.03
   10 76
              0.01
                     18.12
                             -0.00
                                      0.00
                                             -0.00
                                                       2.54
       77
            -0.01
                     18.12
                             0.00
                                    -0.00
                                             0.00
                                                     -2.54
   11 76
              0.01
                     18.12
                             -0.00
                                      0.00
                                              -0.00
                                                       2.54
                     18.12
       77
            -0.01
                             0.00
                                    -0.00
                                             0.00
                                                     -2.54
   12 76
              0.03
                     19.65
                             -0.02
                                      0.05
                                              0.02
                                                       2.19
       77
            -0.03
                    20.53
                                    -0.05
                             0.02
                                             0.03
                                                     -3.41
   13 76
              0.03
                     20.53
                              0.02
                                     -0.05
                                              -0.03
                                                       3.41
            -0.03
       77
                     19.65
                             -0.02
                                     0.05
                                             -0.02
                                                     -2.19
   14 76
              0.01
                     20.09
                                      0.00
                             -0.00
                                             -0.00
                                                       2.83
       77
            -0.01
                     20.09
                             0.00
                                    -0.00
                                             0.00
                                                     -2.83
   15 76
              0.01
                     20.09
                             -0.00
                                      0.00
                                              -0.00
                                                       2.83
       77
            -0.01
                    20.09
                             0.00
                                    -0.00
                                             0.00
                                                     -2.83
136 7 78
               3.81
                       2.17 -0.00
                                    -0.01
                                              -0.00
                                                     -11.28
       77
            -3.81
                     3.39
                            0.00
                                    0.01
                                                    10.60
                                            0.01
 STAAD SPACE
                                              -- PAGE NO. 81
```

MEMBER END FORCES STRUCTURE TYPE = SPACE
----ALL UNITS ARE -- KN METE (LOCAL)

8	78	4.13	2.27	0.05	-0.09	-0.04	-10.04
	77	-4.13	2.66	-0.05	0.09	-0.01	9.82
9	78	4.27	1.78	-0.05	0.08	0.02	-9.81
	77			0.05		0.04	
10	78	4.21	2.04	-0.00	-0.01	-0.01	-9.92
	77	-4.21	2.89	0.00	0.01	0.01	9.44
1.	1 78	6.08	-2.10	-0.00	-0.01	-0.01	-12.32
	77	-6.08	7.02	0.00	0.01	0.01	7.21
12	2 78	3.83	2.33	0.04	-0.08	-0.03	-11.10
	77	-3.83	3.10	-0.04	0.08	-0.01	10.67
13	3 78	3.94					
	77	-3.94	3.49	0.04	-0.06	0.03	10.06
14	1 78	3.90	2.15	-0.00	-0.01	-0.01	-11.00
	77	-3.90	3.28	0.00	0.01	0.01	10.37
15	5 78	5.40	-1.16	-0.00	-0.01	-0.01	-12.93
	77	-5.40	6.59	0.00	0.01	0.01	8.59
137	7 75	5 0.01	20.59	9 -0.00	-0.00	0.00	2.88
	78					-0.00	
8	75	0.03	17.46	-0.02	0.13	0.04	1.58
	78	-0.03	18.78	0.02	-0.13	0.03	-3.40
9	75	0.03	18.78	0.02	-0.13	-0.03	3.40
	78	-0.03	17.46	-0.02	0.13	-0.04	-1.58
10	75	0.01	18.12	-0.00	-0.00	0.00	2.52
	78	-0.01	18.12	0.00	0.00	-0.00	-2.52
1.	1 75	0.01	18.12	-0.00	-0.00	0.00	2.52
	78	-0.01	18.12	0.00	0.00	-0.00	-2.52
12	2 75	0.02	19.57	-0.02	0.10	0.03	2.05
	78					0.02	
13	3 75	0.02	20.62	0.02	-0.10	-0.02	3.51
	78					-0.03	
14	1 75	0.01			-0.00	0.00	2.81
	78	-0.01	20.09	0.00	0.00	-0.00	-2.81
1.5	5 75		20.09		-0.00	0.00	2.81
	78	-0.01	20.09	0.00	0.00	-0.00	-2.81
138	7 71					-0.03	
	79		-4.03	-0.04	0.32	-0.01	0.00
8		-0.03		0.05		-0.08	3.51
	79	0.03	-2.74		0.09	0.03	-0.05
9			4.50		-0.53		3.72
	79	-0.03	-3.06	-0.05	0.53	-0.05	0.05

10 71 0.00 4.34 0.03 -0.26 -0.033.62 79 -2.90 -0.03 0.26 -0.01 0.00 -0.00-0.26 11 71 0.00 4.34 0.03 -0.033.62 79 -0.00-2.90 -0.03 0.26 -0.010.00 STAAD SPACE -- PAGE NO. 82

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

12 71 -0.025.51 0.06 -0.18-0.084.64 79 0.02 -3.67 -0.06 0.18 0.02 -0.0413 71 0.02 5.77 4.81 0.06 -0.53 -0.0179 -0.02 -3.93 -0.06 0.53 -0.04 0.04 14 71 0.00 5.64 0.04 -0.314.72 -0.03 79 -0.00-3.80 -0.04 0.31 -0.01 0.00 15 71 0.00 5.64 0.04 -0.31-0.034.72 79 -0.00-3.80 -0.04 0.31 -0.010.00 139 7 70 -0.00 5.97 -0.04 0.32 0.03 5.00 80 0.00 -4.03 0.04 -0.320.01 -0.004.50 8 70 0.03 -0.05 0.53 0.00 3.72 -0.03 -3.06 -0.53 0.05 80 0.05 0.05 9 70 -0.03 4.18 -0.050.09 3.51 0.08 80 0.03 -2.74 0.05 -0.09 -0.03 -0.0510 70 -0.00 4.34 0.26 3.62 -0.030.03 80 0.00 -2.90 0.03 -0.260.01 -0.00-0.00 4.34 11 70 -0.03 0.26 0.03 3.62 -2.90 80 0.000.03 -0.260.01 -0.0012 70 0.02 5.77 -0.060.53 0.01 4.81 80 -0.02 -3.93 0.06 -0.53 0.04 0.04 13 70 -0.02 5.51 -0.06 0.18 0.08 4.64 80 0.02 -3.67 0.06 -0.18-0.02-0.04-0.00 5.64 0.31 4.72 14 70 -0.04 0.03 -0.0080 0.00-3.80 0.04 -0.310.01 15 70 -0.00 5.64 -0.04 0.31 0.03 4.72 0.04 80 0.00 -3.80 -0.31 0.01 -0.00140 7 79 0.04 4.03 -0.00 -0.00 0.01 0.32

80 -0.04 4.03 0.00 0.00 -0.01-0.32

```
8 79
           0.05
                  2.74
                         0.03
                                 0.05
                                        -0.03
                                                 0.09
     80
          -0.05
                  3.06
                         -0.03
                                 -0.05
                                        -0.05
                                                 -0.53
  9 79
           0.05
                   3.06
                         -0.03
                                 -0.05
                                         0.05
                                                 0.53
     80
          -0.05
                  2.74
                         0.03
                                 0.05
                                        0.03
                                                -0.09
                         -0.00
 10 79
           0.03
                   2.90
                                 -0.00
                                          0.01
                                                  0.26
          -0.03
                  2.90
                                 0.00
                                        -0.01
     80
                         0.00
                                                -0.26
 11 79
           0.03
                   2.90
                         -0.00
                                 -0.00
                                          0.01
                                                  0.26
          -0.03
                                 0.00
     80
                  2.90
                         0.00
                                        -0.01
                                                -0.26
 12 79
           0.06
                   3.67
                          0.02
                                  0.04
                                         -0.02
                                                  0.18
     80
          -0.06
                  3.93
                         -0.02
                                 -0.04
                                        -0.04
                                                 -0.53
 13 79
           0.06
                   3.93
                         -0.02
                                 -0.04
                                          0.04
                                                  0.53
     80
          -0.06
                  3.67
                         0.02
                                 0.04
                                        0.02
                                                -0.18
 14 79
                         -0.00
           0.04
                   3.80
                                 -0.00
                                          0.01
                                                  0.31
          -0.04
                  3.80
                         0.00
                                 0.00
                                                -0.31
     80
                                        -0.01
 15 79
           0.04
                   3.80
                         -0.00
                                 -0.00
                                          0.01
                                                  0.31
     80
          -0.04
                                 0.00
                                                -0.31
                  3.80
                         0.00
                                        -0.01
STAAD SPACE
                                          -- PAGE NO. 83
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

141	7	81	5.09	-0.06	0.01	-0.04	0.01	-4.82
		82	-5.09	2.44	-0.01	0.04	-0.01	3.42
;	8	81	3.96	-0.25	-0.20	-0.11	0.12	-3.32
		82	-3.96	2.01	0.20	0.11	0.10	2.05
	9	81	4.17	0.19	0.21	0.06	-0.10	-3.21
		82	-4.17	1.56	-0.21	-0.06	-0.13	2.45
1	0	81	4.07	-0.02	0.00	-0.03	0.00	-3.26
		82	-4.07	1.78	-0.00	0.03	-0.01	2.25
1	1	81	5.32	-1.61	0.00	-0.03	0.00	-3.99
		82	-5.32	3.36	-0.00	0.03	-0.01	1.21
1	2	81	4.80	-0.23	-0.16	-0.10	0.10	-4.55
		82	-4.80	2.49	0.16	0.10	0.07	3.03
1	3	81	4.97	0.12	0.17	0.03	-0.08	-4.47
		82	-4.97	2.13	-0.17	-0.03	-0.11	3.35
1	4	81	4.89	-0.05	0.01	-0.04	0.01	-4.51
		82	-4.89	2.30	-0.01	0.04	-0.01	3.19
1	5	81	5.89	-1.32	0.01	-0.04	0.01	-5.09

```
82 -5.89
                    3.57 -0.01
                                   0.04 -0.01
                                                   2.35
              5.09 -10.55 -0.04
                                      0.91
142 7 82
                                             0.02
                                                     -3.42
       71
            -5.09
                    12.93
                            0.04
                                   -0.91
                                           0.03
                                                   -9.73
    8 82
             4.10
                    -7.49
                           -0.26
                                   0.39
                                           0.10
                                                   -2.14
            -4.10
                                                  -7.24
       71
                    9.24
                           0.26
                                  -0.39
                                           0.18
    9 82
             4.03
                    -7.37
                            0.15
                                   1.01
                                          -0.06
                                                   -2.36
            -4.03
                    9.12
                                  -1.01
                                                   -6.87
       71
                           -0.15
                                          -0.11
                                                   -2.25
   10 82
             4.07
                    -7.42
                           -0.03
                                    0.65
                                            0.01
            -4.07
                    9.18
                                                  -7.04
       71
                           0.03
                                  -0.65
                                           0.02
   11 82
             5.32
                    -9.01
                            -0.03
                                    0.65
                                            0.01
                                                   -1.21
       71
            -5.32
                    10.76
                            0.03
                                   -0.65
                                           0.02
                                                   -9.86
   12 82
             4.91
                    -9.98
                            -0.22
                                    0.66
                                            0.09
                                                   -3.10
            -4.91
                    12.23
                                                   -9.34
       71
                            0.22
                                   -0.66
                                           0.16
   13 82
             4.86
                    -9.88
                            0.11
                                    1.15
                                           -0.04
                                                   -3.28
                                                   -9.05
      71
            -4.86
                    12.13
                           -0.11
                                   -1.15
                                           -0.08
   14 82
             4.89
                    -9.92
                            -0.04
                                    0.86
                                            0.02
                                                   -3.19
            -4.89
                    12.18
                            0.04
                                                   -9.19
      71
                                   -0.86
                                           0.03
                   -11.19
                                                   -2.35
   15 82
             5.89
                            -0.04
                                     0.86
                                            0.02
      71
            -5.89
                    13.45
                            0.04
                                   -0.86
                                           0.03
                                                  -11.44
143 7 83
              5.09 -10.55 0.04
                                    -0.91 -0.02
                                                     -3.42
            -5.09
                    12.93
                                   0.91
                                                   -9.73
       70
                           -0.04
                                           -0.03
    8 83
             4.03
                    -7.37
                           -0.15
                                   -1.01
                                           0.06
                                                   -2.36
       70
            -4.03
                    9.12
                           0.15
                                   1.01
                                          0.11
                                                  -6.87
      83
             4.10
                    -7.49
                           0.26
                                   -0.39
                                          -0.10
                                                   -2.14
            -4.10
                                                  -7.24
       70
                    9.24
                           -0.26
                                   0.39
                                          -0.18
 STAAD SPACE
                                            -- PAGE NO. 84
```

MEMBER END FORCES STRUCTURE TYPE = SPACE -----

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

10 83 4.07 -7.42 0.03 -0.65-0.01-2.2570 -4.07 9.18 -0.03 0.65 -0.02-7.04 11 83 5.32 -9.01 0.03 -0.65-0.01-1.21 70 -5.32 10.76 -0.030.65 -0.02 -9.86 12 83 4.86 -9.88 -0.11-1.15 -3.280.04 70 -4.86 12.13 0.11 1.15 0.08 -9.05 13 83 4.91 -9.98 0.22 -0.66 -0.09 -3.10

```
-4.91
                     12.23 -0.22
       70
                                     0.66
                                            -0.16
                                                     -9.34
   14 83
              4.89
                     -9.92
                             0.04
                                     -0.86
                                             -0.02
                                                      -3.19
            -4.89
                     12.18
       70
                            -0.04
                                     0.86
                                            -0.03
                                                     -9.19
   15 83
              5.89
                    -11.19
                              0.04
                                     -0.86
                                             -0.02
                                                      -2.35
            -5.89
                     13.45
       70
                            -0.04
                                     0.86
                                            -0.03
                                                    -11.44
144 7 82
                                      -0.00
               0.05
                       8.11 -0.00
                                             -0.00
                                                      0.95
       83
            -0.05
                     8.11
                            0.00
                                    0.00
                                            0.00
                                                    -0.95
    8
       82
                                            -0.20
                                                     0.51
             0.06
                     5.49
                             0.14
                                    0.08
                                                     -0.96
       83
            -0.06
                     5.81
                            -0.14
                                    -0.08
                                            -0.19
       82
             0.06
                     5.81
                            -0.14
                                    -0.08
                                             0.19
                                                     0.96
       83
            -0.06
                            0.14
                                    0.08
                                            0.20
                                                    -0.51
                     5.49
   10 82
              0.04
                      5.65
                            -0.00
                                     -0.00
                                             -0.00
                                                      0.68
       83
            -0.04
                     5.65
                            0.00
                                    0.00
                                            0.00
                                                    -0.68
   11 82
              0.04
                      5.65
                            -0.00
                                     -0.00
                                             -0.00
                                                      0.68
       83
            -0.04
                     5.65
                            0.00
                                    0.00
                                            0.00
                                                    -0.68
   12 82
              0.07
                      7.49
                             0.11
                                     0.07
                                            -0.16
                                                      0.76
                     7.75
       83
            -0.07
                            -0.11
                                    -0.07
                                            -0.15
                                                     -1.12
   13
       82
                      7.75
                                                      1.12
              0.07
                            -0.11
                                     -0.07
                                             0.15
       83
            -0.07
                     7.49
                            0.11
                                    0.07
                                            0.16
                                                    -0.76
   14 82
              0.05
                      7.62
                            -0.00
                                     -0.00
                                                      0.90
                                             -0.00
       83
            -0.05
                                    0.00
                                                    -0.90
                     7.62
                            0.00
                                            0.00
   15 82
              0.05
                            -0.00
                                     -0.00
                                                      0.90
                      7.62
                                             -0.00
       83
            -0.05
                     7.62
                            0.00
                                    0.00
                                            0.00
                                                    -0.90
145
    7 84
               5.09
                      -0.06 -0.01
                                       0.04
                                              -0.01
                                                       -4.82
       83
            -5.09
                     2.44
                            0.01
                                    -0.04
                                            0.01
                                                     3.42
    8
       84
             4.17
                     0.19
                            -0.21
                                    -0.06
                                             0.10
                                                     -3.21
       83
            -4.17
                     1.56
                            0.21
                                    0.06
                                            0.13
                                                     2.45
    9
       84
             3.96
                     -0.25
                             0.20
                                                     -3.32
                                     0.11
                                            -0.12
            -3.96
       83
                     2.01
                            -0.20
                                    -0.11
                                            -0.10
                                                     2.05
        84
              4.07
                                                     -3.26
   10
                     -0.02
                            -0.00
                                      0.03
                                             -0.00
       83
            -4.07
                     1.78
                            0.00
                                    -0.03
                                            0.01
                                                     2.25
   11 84
              5.32
                     -1.61
                             -0.00
                                      0.03
                                             -0.00
                                                      -3.99
       83
            -5.32
                            0.00
                                    -0.03
                                                     1.21
                     3.36
                                            0.01
   12 84
              4.97
                      0.12
                            -0.17
                                     -0.03
                                             0.08
                                                     -4.47
            -4.97
       83
                     2.13
                            0.17
                                    0.03
                                            0.11
                                                     3.35
   13 84
              4.80
                     -0.23
                             0.16
                                     0.10
                                             -0.10
                                                     -4.55
       83
            -4.80
                     2.49 -0.16
                                    -0.10
                                            -0.07
                                                     3.03
 STAAD SPACE
                                              -- PAGE NO. 85
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
14 84
             4.89
                    -0.05 -0.01
                                   0.04
                                          -0.01
                                                  -4.51
            -4.89
      83
                    2.30
                          0.01
                                 -0.04
                                         0.01
                                                 3.19
   15 84
             5.89
                    -1.32
                          -0.01
                                   0.04
                                          -0.01
                                                  -5.09
                                                 2.35
      83
           -5.89
                    3.57
                          0.01
                                 -0.04
                                         0.01
146 7 81
              0.01
                      8.11 -0.00
                                    0.00
                                           0.00
                                                   1.05
           -0.01
                    8.11
                          0.00
                                 -0.00
                                         -0.00
                                                 -1.05
      84
   8 81
            0.01
                    5.40
                          0.15
                                  0.10
                                         -0.20
                                                 0.46
      84
            -0.01
                    5.89
                          -0.15
                                 -0.10
                                         -0.21
                                                 -1.14
      81
            0.01
                    5.89
                          -0.15
                                  -0.10
                                          0.21
                                                 1.14
      84
            -0.01
                    5.40
                          0.15
                                  0.10
                                         0.20
                                                 -0.46
   10 81
             0.01
                    5.65
                          -0.00
                                   0.00
                                          0.00
                                                  0.74
                                 -0.00
                                                 -0.74
      84
            -0.01
                    5.65
                          0.00
                                         -0.00
   11 81
                                                  0.74
             0.01
                    5.65
                          -0.00
                                   0.00
                                          0.00
      84
            -0.01
                    5.65
                          0.00
                                 -0.00
                                         -0.00
                                                 -0.74
   12 81
             0.01
                    7.42
                           0.12
                                   0.08
                                                  0.76
                                         -0.16
      84
            -0.01
                    7.82 -0.12
                                 -0.08
                                                 -1.30
                                         -0.17
   13 81
             0.01
                    7.82 -0.12
                                  -0.08
                                                  1.30
                                          0.17
      84
           -0.01
                    7.42
                          0.12
                                  0.08
                                         0.16
                                                 -0.76
   14 81
            0.01
                    7.62
                          -0.00
                                   0.00
                                          0.00
                                                  0.99
      84
            -0.01
                    7.62
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                                 -0.00
                                         -0.00
                                                 -0.99
   15 81
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                    7.62
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                                                  0.99
      84
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                    7.62
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147 7 85 170.15
                       5.68 -7.46
                                     0.02
                                                    -0.06
                                           -1.56
       9 -169.97 -5.68
                           7.46
                                  -0.02
                                          3.71
                                                  1.69
      85 -299.32 -133.62
                             7.95
                                    -1.58
                                             1.64
                                                   -21.38
                                          -3.92
       9 299.50 134.39 -7.95
                                    1.58
                                                  -17.08
      85 566.32 140.82 -19.44
                                     1.59
                                            -3.92
                                                    22.65
       9 -566.14 -140.82 19.44
                                   -1.59
                                            9.49
                                                   17.77
   10 85 133.71
                      4.34 -5.24
                                    0.01
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                                          2.71
                  -4.34
                           5.24
       9 -133.53
                                  -0.01
                                                  1.32
   11 85 408.14 10.41 -122.26
                                     -0.93
                                             14.52
                                                     -0.84
                                    0.93
       9 -407.96 -10.41 122.26
                                           20.57
                                                    3.83
                                    -1.26
                                             0.74
   12 85 -184.32 -104.98
                              3.85
                                                    -17.11
       9 184.49 105.59 -3.85
                                    1.26
                                          -1.85
                                                 -13.11
       85 508.20 114.58 -18.05
                                     1.28
                                             -3.70
                                                     18.12
       9 -508.02 -114.58 18.05
                                   -1.28
                                            8.88
                                                   14.77
                                          -1.53
   14 85 162.11
                      5.40 -6.70
                                    0.02
                                                   -0.06
       9 -161.93
                  -5.40
                           6.69
                                  -0.02
                                          3.45
                                                  1.61
   15 85 381.66 10.25 -100.32
                                     -0.74
                                             11.05
                                                     -0.67
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9 -381.48 -10.25 100.32 0.74 17.74 3.62
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148 7 86 170.15 -5.68 -7.46 -0.02 -1.56 0.06 10 -169.97 5.68 7.46 0.02 3.71 -1.69 STAAD SPACE -- PAGE NO. 86

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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

8 86 566.32 -140.82 -19.44 -1.59 -3.92 -22.65 10 -566.14 140.82 19.44 1.59 9.49 -17.77 9 86 -299.32 133.62 7.95 1.58 1.64 21.38 10 299.50 -134.39 -7.95 -1.58 -3.92 17.08 10 86 133.71 -4.34 -5.24 -0.01 -1.21 0.07 10 -133.53 4.34 5.24 2.71 0.01 -1.32 11 86 408.14 -10.41 -122.26 0.93 14.52 0.84-0.93 10 -407.96 10.41 122.26 20.57 -3.83 12 86 508.20 -114.58 -18.05 -1.28 -3.70 -18.12 10 -508.02 114.58 18.05 1.28 8.88 -14.77 13 86 -184.32 104.98 3.85 1.26 0.74 17.11 10 184.49 -105.59 -3.85 -1.26 -1.85 13.11 14 86 162.11 -5.40 -6.70 -0.02 -1.53 0.06 10 -161.93 5.40 6.69 0.02 3.45 -1.61 15 86 381.66 -10.25 -100.32 0.74 11.05 0.67 10 -381.48 10.25 100.32 -0.74 17.74 -3.62 149 7 87 64.80 1.76 0.08 -0.01 0.02 -0.1311 -64.62 -1.76 -0.08 0.01 -0.05 0.63 8 87 -351.05 -146.84 -6.85 0.81 -1.22 -19.44 11 351.23 147.61 6.85 -0.81 3.18 -22.82 9 87 468.05 148.60 7.70 -0.83 1.28 20.61 11 -467.87 -148.60 -7.70 0.83-3.49 22.04 10 87 61.21 1.67 0.99 -0.00 -0.03 -0.1211 -61.03 -1.67 -0.99 0.00 - 0.250.6011 87 -215.61 -4.46 -117.31 -0.97 14.55 0.67 11 215.79 4.46 117.94 0.97 19.21 -1.95 12 87 -264.98 -117.05 -5.69 0.65 -0.97 -15.58 11 265.16 117.66 5.69 -0.65 2.61 -18.10 13 87 390.30 119.30 5.95 -0.66 1.02 16.46

```
11 -390.12 -119.30 -5.95 0.66 -2.73
                                           17.78
   14 87 64.83
                  1.76 0.58
                             -0.00
                                    -0.03
                                            -0.13
      11 -64.65 -1.76 -0.58
                              0.00 - 0.14
                                            0.63
   15 87 -156.63 -3.14 -94.06
                              -0.78 11.64
                                              0.50
      11 156.81
                  3.14 94.56
                               0.78
                                    15.43
                                            -1.40
150 7 88 64.80 -1.76 0.08
                                0.01
                                      0.02
                                             0.13
                1.76 -0.08 -0.01
                                   -0.05
      12 -64.62
                                           -0.63
   8 88 468.05 -148.60
                                            -20.61
                        7.70
                                0.83
                                      1.28
      12 -467.87 148.60 -7.70
                                     -3.49
                               -0.83
                                            -22.04
   9 88 -351.05 146.84 -6.85
                               -0.81
                                     -1.22 19.44
      12 351.23 -147.61
                         6.85
                               0.81
                                      3.18
                                            22.82
   10 88 61.21
                 -1.67
                        0.99
                               0.00
                                     -0.03
                                            0.12
      12 -61.03
                  1.67 -0.99 -0.00 -0.25
                                           -0.60
                                0.97 14.55
   11 88 -215.61 4.46 -117.31
                                             -0.67
                -4.46 117.94 -0.97 19.21
      12 215.79
                                             1.95
 STAAD SPACE
                                     -- PAGE NO. 87
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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                                       1.02 -16.46
      12 -390.12 119.30 -5.95
                                -0.66 -2.73
                                              -17.78
   13 88 -264.98 117.05 -5.69
                                -0.65 -0.97
                                              15.58
      12 265.16 -117.66 5.69
                                 0.65
                                       2.61
                                              18.10
   14 88 64.83
                 -1.76 0.58
                                0.00
                                      -0.03
                                              0.13
                                    -0.14
      12 -64.65
                  1.76 -0.58
                              -0.00
                                             -0.63
   15 88 -156.63 3.14 -94.06
                                 0.78
                                       11.64
                                               -0.50
      12 156.81
                 -3.14 94.56
                               -0.78
                                       15.43
                                               1.40
           -0.21
151 7 89
                    3.66 0.00
                                 0.00
                                       -0.00
                                               0.87
      91
           0.21
                 3.66 -0.00
                              -0.00
                                     0.00
                                            -0.87
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                                       0.09
                                            -110.27
                               -0.49
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                104.16
                         0.08
                                       0.08
                                           -111.73
   9 89
           4.85
                104.16
                        0.08
                               -0.49
                                      -0.08
                                            111.73
      91
          -4.85
                -98.95 -0.08
                               0.49
                                      -0.09
                                            110.27
   10 89
           -0.14
                   2.61
                               0.00
                                      -0.00
                         0.00
                                            0.63
      91
           0.14
                 2.61 -0.00
                              -0.00
                                     0.00
                                            -0.63
   11 89
            0.04
                  2.61
                        0.00
                               -0.00
                                      -0.02
                                              0.79
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-0.04
                   2.61 -0.00
                                        0.02
                                               -0.79
      91
                                 0.00
   12 89
             3.79 -77.80 -0.07
                                   0.39
                                                -87.89
                                          0.08
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                  84.69
                          0.07
                                 -0.39
                                         0.07
                                               -89.71
   13 89
             3.79
                  84.69
                           0.07
                                  -0.39
                                         -0.07
                                                 89.71
      91
           -3.79 -77.80
                         -0.07
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                                        -0.08
                                                87.89
   14 89
            -0.20
                    3.45
                           0.00
                                  0.00
                                        -0.00
                                                 0.82
                   3.45 -0.00
      91
            0.20
                                -0.00
                                        0.00
                                               -0.82
   15 89
            -0.05
                    3.45
                           0.00
                                 -0.00
                                        -0.02
                                                 0.96
      91
            0.05
                   3.45 -0.00
                                 0.00
                                               -0.96
                                        0.02
152 7 90 -0.00
                     0.45
                          0.00
                                 -0.00
                                          0.00
                                                  0.13
            0.00
                   0.45 -0.00
                                 0.00
                                       -0.00
      92
                                               -0.13
   8 90
            5.03 -107.79
                          -0.15
                                   0.12
                                          0.17 -118.06
                 108.68
                                 -0.12
      92
           -5.03
                           0.15
                                         0.17
                                               -118.54
   9 90
            5.03
                 108.68
                          0.15
                                 -0.12
                                         -0.17
                                               118.54
      92
           -5.03 -107.79
                          -0.15
                                  0.12
                                         -0.17
                                               118.06
   10 90
             0.00
                    0.45
                          0.00
                                  0.00
                                         0.00
                                                0.13
      92
           -0.00
                   0.45 -0.00
                                -0.00
                                        -0.00
                                                -0.13
   11 90
            -0.13
                   0.45
                           0.00
                                 -0.00
                                         0.00
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                   0.45 -0.00
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                                       -0.00
                                                0.04
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                  -86.14 -0.12
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                                                -94.42
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                                 -0.09
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                  87.04
                          0.12
                                         -0.13
                                               94.86
                                        -0.13
      92
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                                  0.09
                                                94.42
   14 90
            0.00
                    0.45
                          0.00
                                 -0.00
                                         0.00
                                                0.14
      92
           -0.00
                   0.45 -0.00
                                 0.00
                                        -0.00
                                                -0.14
   15 90
            -0.11
                    0.45
                           0.00
                                 -0.00
                                         0.00
                                                -0.00
      92
            0.11
                   0.45 - 0.00
                                 0.00
                                       -0.00
                                                0.00
 STAAD SPACE
                                         -- PAGE NO. 88
```


ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

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153 7 91 -6.84 11.46 -0.33
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                                         0.05
                                                 2.14
           6.84 -11.09
                        0.33
                               -0.26
                                       0.05
                                               1.09
      10
   8 91 -196.57
                          -1.30
                                        -0.10
                   61.77
                                  0.98
                                                65.48
         196.57 -61.48
                          1.30
                                 -0.98
                                        0.47
                                               -47.80
   9 91 193.26 -40.33
                           0.78
                                 -0.59
                                         0.18
                                               -62.27
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10 -193.26 40.62 -0.78
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                                        -0.40
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            -5.18
                   9.06 -0.22
   10 91
                                 0.19
                                         0.03
                                                1.65
                 -8.77 0.22 -0.19
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           5.18
                                       0.03
                                               0.90
   11 91
          -12.01
                    28.78 -10.11
                                   1.11
                                          1.57
                                                  4.43
      10
           12.01 -28.49 10.11
                                 -1.11
                                         1.33
                                                 3.78
   12 91 -159.59
                    53.10 -1.15
                                   0.87
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                                                 53.10
      10 159.59 -52.75
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                                                -37.92
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                                  -0.38
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                                                -49.11
      10 -152.27
                   28.94 -0.51
                                  0.38
                                         -0.31
                                                40.84
           -6.49 10.93
                         -0.29
                                         0.04
   14 91
                                  0.24
                                                 2.03
      10
           6.49 -10.57
                         0.29
                                -0.24
                                        0.04
                                                1.04
   15 91
          -11.95
                    26.71
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                                                4.26
           11.95 -26.35
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                          8.19
                                 -0.98
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                                                3.34
154 7 92 -1.92
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                                                 0.71
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           1.92
                 -4.40 -0.01
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                                      -0.00
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                                                -67.27
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                           0.73
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                                         0.11
                                                56.06
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                                        -0.01
                                                0.67
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           1.84
                 -4.14 -0.08
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                                0.02
                                               0.53
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            5.10 -15.62 -9.77
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                                         1.54
                                                -2.14
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                 15.74
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                                -1.02
                                        1.27
                   41.50 0.62
   12 92 -163.37
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                                         -0.08
                                                54.95
      12 163.37 -41.38
                         -0.62
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                                         -0.09
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   13 92 165.33 -30.08 -0.60
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                                          0.08
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                          0.60
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                                         0.09
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   14 92
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                   4.52
                          0.05
                                 -0.01
                                        -0.01
                                                0.71
      12
           1.93
                  -4.40 -0.05
                                0.01
                                       -0.01
                                               0.57
   15 92
            3.63
                  -11.38 -7.83
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                                         1.23
                                                -1.54
           -3.63
                  11.50
                        7.83
      12
                                -0.82
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                                               -1.74
155 7 93 0.31 -0.69 0.00 -0.05 -0.00
                                               -1.18
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                   1.83 -0.00
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                                       -0.00
   8 93
           -0.40
                   1.07 -0.10
                                 0.27
                                        0.14
                                               0.48
      95
           0.40
                  0.07
                         0.10
                                -0.27
                                       0.13
                                               0.91
   9 93
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                  -1.76
                         0.09
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                                       -0.14
                                               -2.08
      95
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                   2.90
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                                         -- PAGE NO. 89
 STAAD SPACE
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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                                          -0.00
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                                            -0.02
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            -4.35
                    72.89
                           -0.02
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                                                  -101.29
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             -0.20
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                     0.51
                           -0.08
                                            0.11
       95
            0.20
                    0.63
                           0.08
                                  -0.19
                                           0.10
                                                  -0.09
   13 93
             0.79
                    -1.75
                            0.07
                                   -0.28
                                           -0.11
                                                    -2.13
            -0.79
       95
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                            0.00
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       95
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                                          -0.00
                                                  -1.85
   15 93
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                    58.89 -0.02
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                                           -0.03
                                                   -81.85
156 7 94
              0.31
                     -0.69 -0.00
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                                             0.00
                                                    -1.18
       96
            -0.31
                    1.83
                           0.00
                                  -0.05
                                           0.00
                                                  -2.33
    8
      94
             0.85
                    -1.76
                           -0.09
                                    0.33
                                           0.14
                                                   -2.08
            -0.85
                    2.90
                           0.09
                                  -0.33
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                                                  -4.41
       96
    9
      94
            -0.40
                    1.07
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                                   -0.27
                                           -0.14
                                                    0.48
       96
            0.40
                    0.07 -0.10
                                   0.27
                                          -0.13
                                                   0.91
   10 94
             0.24
                    -0.02
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                                    0.03
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       96
            -0.24
                    1.16
                           0.00
                                  -0.03
                                           0.00
                                                  -1.29
              4.35
   11 94
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            -4.35
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                                   -0.04
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                                                 -101.29
   12
       94
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                                    0.28
                                                   -2.13
                                            0.11
       96
            -0.79
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                           0.07
                                  -0.28
                                           0.10
                                                  -4.34
   13 94
             -0.20
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                            0.08
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                                           -0.11
                                                    -0.08
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            0.20
                                   0.19
                    0.63
                          -0.08
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                                                  -0.09
   14 94
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                    -0.36 -0.00
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       96
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                           0.00
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                            -0.02
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              3.59
                    -57.75
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                                            0.02
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            -3.59
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                                                  -81.85
157 7 95 -7.27
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             7.90 -20.39 11.67
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                                            -1.98
                                                    -3.51
           -7.90
                   20.51 -11.67
                                    0.64
                                           -1.37
                                                   -2.36
       95
           -19.20
                     36.46 -12.37
                                     0.63
                                             2.07
                                                     8.19
           19.20 -36.34 12.37
                                   -0.63
                                            1.48
                                                    2.25
   10
       95
            -4.93
                     7.97 -0.32
                                    0.07
                                            0.05
                                                    2.10
            4.93
                   -7.85
                           0.32
                                  -0.07
                                          0.04
                                                  0.17
   11 95 -166.94
                     47.88 -1.11
                                      0.28
                                              0.05
                                                     58.76
```

9 166.94 -47.76 1.11 -0.28 0.27 -45.03 12 95 3.92 -13.10 9.19 -0.48 -1.56 -1.78 9 -3.92 13.22 -9.19 0.48 -1.08 -2.00 13 95 -17.76 32.38 -10.05 0.53 1.68 7.58 9 17.76 -32.26 10.05 -0.53 1.20 1.69 _ STAAD SPACE -- PAGE NO. 90

_

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
14 95 -6.34
                 9.59 -0.40 0.08
                                   0.06
                                         2.71
      9 6.34 -9.47 0.40 -0.08 0.05
                                        0.03
  15 95 -135.95 41.51 -1.04 0.25 0.07 48.03
     9 135.95 -41.39 1.04 -0.25
                                   0.23 -36.14
158 7 96 -7.27 10.12 0.43 -0.09 -0.07
         7.27 -10.00 -0.43
                            0.09 -0.06
     10
                                       -0.16
   8 96 -19.20 36.46 12.37
                            -0.63
                                   -2.07
                                         8.19
     10 19.20 -36.34 -12.37
                             0.63
                                   -1.48
                                          2.25
         7.90 -20.39 -11.67
   9 96
                             0.64
                                   1.98
                                         -3.51
     10
         -7.90
               20.51 11.67 -0.64
                                   1.37
                                         -2.36
  10 96
         -4.93 7.97 0.32
                           -0.07 -0.05
                                          2.10
     10
          4.93 -7.85 -0.32
                            0.07 -0.04
                                         0.17
  11 96 -166.94 47.88 1.11 -0.28 -0.05 58.76
     10 166.94 -47.76 -1.11
                             0.28 -0.27
                                        -45.03
  12 96 -17.76 32.38 10.05
                             -0.53 -1.68
                                         7.58
     10
         17.76 -32.26 -10.05
                             0.53
                                   -1.20
                                         1.69
         3.92 -13.10 -9.19
  13 96
                             0.48
                                   1.56
                                         -1.78
     10
         -3.92
              13.22 9.19
                            -0.48
                                   1.08
                                         -2.00
  14 96
         -6.34
               9.59 0.40
                            -0.08
                                  -0.06
                                          2.71
          6.34 -9.47 -0.40
     10
                            0.08 -0.05
                                         0.03
  15 96 -135.95 41.51 1.04 -0.25 -0.07 48.03
     10 135.95 -41.39 -1.04
                             0.25
                                   -0.23
                                         -36.14
159 7 85 13.93 3.21 0.43 -0.05 -0.04
                                         0.56
     95 -13.81
               -3.09 -0.43
                             0.05 -0.14
                                         0.72
   8 85 -20.12 -8.39 -11.77
                             -0.67
                                   2.83
                                         -0.83
     95
         20.23
                8.51 11.77
                             0.67
                                   1.94
                                         -2.59
   9 85
         42.13
                13.78 12.46
                             0.70 - 3.00
                                         1.78
```

```
95 -42.01 -13.66 -12.46 -0.70 -2.06
                                             3.78
   10 85 10.23
                  2.92 0.32
                             -0.04
                                     -0.02
                                             0.36
     95 -10.11
                -2.80 -0.32
                               0.04
                                     -0.11
                                            0.80
   11 85 206.63 -35.61 1.13
                               -0.21
                                     -0.23
                                              28.06
     95 -206.51
                  35.72 -1.13
                               0.21
                                     -0.23
                                            -42.53
                 -5.79 -9.26
   12 85 -11.62
                               -0.55
                                      2.25
                                             -0.51
          11.73
                  5.90
                       9.26
                              0.55
     95
                                     1.51
                                           -1.87
  13 85 38.18
                 11.94 10.12
                                0.54
                                     -2.41
                                              1.59
     95 -38.06 -11.83 -10.12
                               -0.54
                                     -1.70
                                              3.24
                  3.26 0.41
                               -0.05
   14 85 12.66
                                     -0.03
                                             0.44
     95 -12.54
                -3.14 -0.41
                               0.05
                                     -0.13
                                            0.85
   15 85 169.78 -27.56 1.06 -0.19 -0.20
                                              22.61
     95 -169.67
                 27.68 -1.06
                               0.19
                                     -0.23
                                            -33.82
160 7 87 4.99 2.27 0.01 -0.00
                                      0.00
                                             0.32
     90 -4.87 -2.15 -0.01
                              0.00 - 0.00
                                            0.57
 STAAD SPACE
                                     -- PAGE NO. 91
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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8 87 -246.65 39.30 -0.88
                               0.27
                                     0.18 -34.86
      90 246.77 -39.19
                        0.88
                              -0.27
                                      0.18
                                            50.79
   9 87 260.22 -34.89
                              -0.28
                       0.94
                                     -0.19 35.88
     90 -260.11
                 35.01 -0.94
                               0.28
                                     -0.20 -50.07
   10 87 4.75
                  2.15
                       0.08
                              -0.00
                                    -0.01
                                            0.31
     90
          -4.63 -2.03 -0.08
                              0.00 - 0.02
                                            0.54
   11 87 -14.31
                 -6.91 -9.77
                              -0.36
                                      2.16 -0.73
                              0.36
     90
          14.43
                 7.03
                       9.77
                                    1.81
                                           -2.10
                 31.99 -0.72
                                           -27.82
   12 87 -196.13
                                0.22
                                      0.15
                                      0.14
     90 196.24 -31.88
                        0.72
                              -0.22
                                            40.78
   13 87 209.37 -27.36
                        0.74
                               -0.22
                                     -0.15
                                            28.78
                 27.48 -0.74
                               0.22
                                     -0.15
                                            -39.91
     90 -209.25
   14 87
          4.99
                  2.27
                        0.05
                              -0.00
                                    -0.01
                                            0.32
     90
          -4.88
                -2.15 -0.05
                              0.00
                                    -0.01
                                            0.57
  15 87 -10.25
                 -4.98 -7.83
                              -0.29
                                      1.73
                                           -0.51
     90 10.37
                 5.09 7.83
                              0.29 1.45 -1.54
161 7 87 2.97 3.16 -0.06 0.01
                                      0.00
                                             0.11
```

```
-2.86 -3.04 0.06 -0.01
      93
                                     0.02
                                             1.15
   8 87 -22.32 -11.54 12.32
                                 0.62
                                       -2.88
                                              -1.03
          22.44
      93
                 11.65 -12.32
                               -0.62
                                      -2.12
                                              -3.68
   9 87
           28.64
                 16.92 -12.51
                                -0.70
                                      3.00
                                              1.33
      93
          -28.52 -16.81
                        12.51
                                0.70
                                       2.07
                                              5.52
   10 87
            4.15
                  2.57
                        -0.08
                                0.01
                                      0.00
                                             0.28
                        0.08 -0.01
      93
          -4.03
                -2.45
                                      0.03
                                             0.74
   11 87 -188.82
                  41.27 0.75
                                -0.16 -0.20 -27.10
                                      -0.11
         188.94 -41.15 -0.75
                                0.16
      93
                                              43.82
   12 87 -17.43
                  -8.35
                         9.85
                                0.49
                                      -2.30
                                              -0.83
                                             -2.58
      93
          17.55
                  8.46 -9.85
                              -0.49
                                     -1.70
   13 87
          23.34
                 14.42 -10.02
                                -0.56
                                        2.40
                                             1.06
      93
          -23.22 -14.30 10.02
                                0.56
                                       1.66
                                              4.77
          3.74
                  2.94
   14 87
                       -0.07
                                0.01
                                      0.00
                                              0.22
          -3.63
                -2.82
                        0.07 -0.01
                                      0.02
                                             0.95
      93
                   33.90 0.59
   15 87 -150.64
                                 -0.13 -0.16 -21.68
      93 150.75 -33.78 -0.59
                                0.13
                                      -0.08
                                              35.42
162 7 85 15.49 6.12 -0.33
                                      -0.08
                                 0.15
                                              1.20
      89 -15.38
                 -6.01
                        0.33 -0.15
                                      0.22
                                              1.27
   8 85 -231.60
                  34.87
                          0.69
                                -0.13
                                       -0.28
                                              -33.87
      89 231.71 -34.75
                        -0.69
                                0.13
                                      -0.01
                                              47.99
   9 85 259.87 -24.97 -1.22
                                 0.35
                                       0.16
                                            36.10
      89 -259.76
                  25.09
                         1.22
                                -0.35
                                       0.33
                                             -46.26
   10 85 11.93
                 4.80
                        -0.22
                                0.11
                                      -0.07
                                            0.91
      89 -11.81
                  -4.68
                        0.22 -0.11
                                      0.16
                                             1.02
   11 85 30.84
                 13.79 -10.11
                                -0.34
                                        2.19
                                              1.94
      89 -30.72 -13.67 10.11
                                0.34
                                       1.91
                                              3.64
 STAAD SPACE
                                      -- PAGE NO. 92
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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12 85 -180.09
                29.89 0.45
                              -0.05
                                     -0.25
                                           -26.68
   89 180.21 -29.77
                     -0.45
                              0.05
                                     0.07
                                            38.79
13 85 213.08 -17.98 -1.08
                               0.33
                                      0.10
                                            29.29
   89 -212.96
                             -0.33
               18.10
                      1.08
                                     0.34
                                           -36.61
14 85
       14.73
                5.83
                     -0.29
                              0.14
                                    -0.09
                                           1.14
   89 -14.61
              -5.72
                      0.29
                            -0.14
                                    0.20
                                           1.21
```

```
15 85 29.85
                           -8.19
                                   -0.22
                                            1.72
                   13.03
                                                   1.96
      89 -29.73 -12.91
                            8.19
                                   0.22
                                           1.60
                                                  3.30
163 7 86 15.49
                      6.12
                             0.33
                                    -0.15
                                            0.08
                                                    1.20
                                   0.15
                                         -0.22
      91
          -15.38
                   -6.01
                          -0.33
                                                  1.27
      86 259.87
                    -24.97
                             1.22
                                   -0.35
                                           -0.16
                                                   36.10
      91 -259.76
                    25.09
                           -1.22
                                    0.35
                                          -0.33
                                                  -46.26
   9 86 -231.60
                    34.87
                            -0.69
                                    0.13
                                           0.28
                                                  -33.87
           231.71
                   -34.75
                                   -0.13
                                                  47.99
      91
                            0.69
                                           0.01
                     4.80
                                           0.07
   10 86
            11.93
                            0.22
                                   -0.11
                                                   0.91
      91
          -11.81
                   -4.68
                         -0.22
                                   0.11
                                         -0.16
                                                  1.02
   11 86
            30.84
                    13.79 10.11
                                    0.34
                                           -2.19
                                                    1.94
      91
           -30.72 -13.67 -10.11
                                   -0.34
                                           -1.91
                                                    3.64
   12 86 213.08
                   -17.98
                            1.08
                                    -0.33
                                           -0.10
                                                    29.29
                           -1.08
      91 -212.96
                    18.10
                                    0.33
                                          -0.34
                                                  -36.61
   13 86 -180.09
                     29.89
                            -0.45
                                     0.05
                                            0.25
                                                   -26.68
      91 180.21
                   -29.77
                            0.45
                                   -0.05
                                          -0.07
                                                   38.79
   14 86
            14.73
                     5.83
                            0.29
                                   -0.14
                                           0.09
                                                   1.14
          -14.61
                   -5.72 -0.29
      91
                                   0.14
                                         -0.20
                                                  1.21
   15 86 29.85
                   13.03
                            8.19
                                    0.22
                                          -1.72
                                                   1.96
      91 -29.73 -12.91 -8.19
                                   -0.22
                                                   3.30
                                          -1.60
164 7 86 13.93
                      3.21 -0.43
                                     0.05
                                            0.04
                                                    0.56
      96 -13.81
                   -3.09
                           0.43
                                  -0.05
                                          0.14
                                                  0.72
   8 86
           42.13
                    13.78 -12.46
                                   -0.70
                                           3.00
                                                    1.78
           -42.01
                   -13.66
                          12.46
                                    0.70
                                           2.06
                                                   3.78
      96
   9 86
                                    0.67
           -20.12
                    -8.39 11.77
                                          -2.83
                                                   -0.83
           20.23
                    8.51 -11.77
                                  -0.67
                                          -1.94
                                                  -2.59
      96
            10.23
                     2.92 -0.32
   10 86
                                   0.04
                                           0.02
                                                   0.36
      96 -10.11
                   -2.80
                           0.32
                                  -0.04
                                          0.11
                                                  0.80
                                            0.23
   11 86 206.63
                    -35.61 -1.13
                                     0.21
                                                    28.06
      96 -206.51
                                           0.23
                    35.72
                            1.13
                                   -0.21
                                                  -42.53
   12 86
            38.18
                    11.94 -10.12
                                    -0.54
                                            2.41
                                                    1.59
          -38.06 -11.83
                           10.12
                                    0.54
                                           1.70
                                                   3.24
      96
           -11.62
                     -5.79
                            9.26
                                    0.55
                                          -2.25
                                                  -0.51
   13 86
      96
            11.73
                    5.90 -9.26
                                  -0.55
                                         -1.51
                                                 -1.87
   14 86
            12.66
                     3.26
                          -0.41
                                   0.05
                                           0.03
                                                   0.44
      96 -12.54
                   -3.14
                           0.41
                                  -0.05
                                          0.13
                                                  0.85
   15 86 169.78
                    -27.56 -1.06
                                     0.19
                                            0.20
                                                   22.61
                                   -0.19
                                           0.23
      96 -169.67
                    27.68
                            1.06
                                                  -33.82
 STAAD SPACE
                                          -- PAGE NO. 93
```

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

-

165	7 8	8 2.97	3.16	0.06	-0.01	-0.00	0.11
	94	-2.86	-3.04	-0.06	0.01	-0.02	1.15
8	88	28.64	16.92	12.51	0.70	-3.00	1.33
	94	-28.52	-16.81	-12.51	-0.70	-2.07	5.52
ç	88	-22.32					
	94	22.44	11.65	12.32	0.62	2.12	-3.68
1	0 88	4.15	2.57	0.08	-0.01	-0.00	0.28
	94	-4.03	-2.45	-0.08	0.01	-0.03	0.74
1	1 88	-188.82	41.27	7 -0.75	0.16	0.20	-27.10
	94	188.94	-41.15	0.75	-0.16	0.11	43.82
1	2 88	23.34	14.42	10.02	0.56	-2.40	1.06
	94	-23.22	-14.30	-10.02	-0.56	-1.66	4.77
1	3 88	-17.43	-8.35	-9.85	-0.49	2.30	-0.83
	94	17.55	8.46	9.85	0.49	1.70	-2.58
1	4 88	3.74					
	94	-3.63	-2.82	-0.07	0.01	-0.02	0.95
1	5 88	-150.64	33.90	0.59	0.13	0.16	-21.68
	94	150.75	-33.78	0.59	-0.13	0.08	35.42
166		8 4.99					
		-4.87					
8		260.22					
		-260.11					
Ģ	88	-246.65					
	92					-0.18	50.79
1	0 88	4.75	2.15	-0.08	0.00	0.01	0.31
	92	-4.63	-2.03	0.08	-0.00	0.02	0.54
1	1 88	-14.31					
	92	14.43	7.03	-9.77	-0.36	-1.81	-2.10
1	2 88	209.37	-27.36	5 -0.74	0.22	0.15	28.78
		-209.25					
							-27.82
	92	196.24	-31.88	-0.72			
1	4 88	4.99				0.01	0.32
	92	-4.88	-2.15	0.05	-0.00	0.01	0.57
1	5 88	-10.25					-0.51
	92	10.37	5.09	-7.83	-0.29	-1.45	-1.54
	_	_					
	7 0	7 ()5	10.70	0.026	0.25	0.05	2.00

```
14 6.25 -10.41 0.36 -0.25
                                  0.05
                                         1.03
 8 97 -196.97
                59.56 -1.35
                                   -0.11 66.04
                             0.93
    14 196.97 -59.27
                      1.35
                            -0.93
                                   0.49
                                         -49.00
 9 97 194.66 -39.23
                     0.78 -0.54
                                   0.20 -63.07
    14 -194.66
              39.52 -0.78
                             0.54
                                   -0.42
                                          51.76
STAAD SPACE
                                   -- PAGE NO. 94
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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10 97 -4.74
                  8.52 -0.23
                              0.19
                                    0.03
                                           1.54
      14
          4.74 -8.23 0.23 -0.19
                                   0.03
                                          0.85
   11 97 -9.72 22.93 -11.53
                               0.71
                                    1.79
                                           3.56
                            -0.71
          9.72 -22.64 11.53
                                    1.52
                                           2.97
     14
                                    -0.07 53.50
   12 97 -159.72 51.12 -1.20
                               0.83
     14 159.72 -50.76
                       1.20
                              -0.83
                                     0.41
                                           -38.89
  13 97 153.59 -27.91 0.51
                              -0.35
                                    0.18 -49.79
     14 -153.59 28.27 -0.51
                              0.35
                                    -0.32
                                           41.71
  14 97 -5.93 10.29 -0.31
                              0.24
                                     0.04
                                           1.91
          5.93 -9.94 0.31 -0.24
      14
                                    0.04
                                          0.99
  15 97 -9.92 21.81 -9.35
                               0.66
                                    1.45
                                           3.52
          9.92 -21.46
                      9.35
                             -0.66
     14
                                    1.23
                                           2.68
169 7 98 156.92 5.28 -7.66
                                0.01 -1.44
                                             0.12
      13 -156.74 -5.28 7.66
                            -0.01
                                     3.64
                                           1.40
   8 98 -203.91 -138.81 5.72
                               -1.91
                                     1.58
                                           -27.06
     13 204.09 139.58 -5.72
                               1.91
                                     -3.23
                                           -12.89
   9 98 450.14 145.39 -17.46
                              1.92
                                    -3.68
                                             28.58
      13 -449.96 -145.39 17.46
                               -1.92
                                      8.69
                                            13.15
   10 98 123.66
                 4.05 -5.32
                               0.01
                                    -1.15
                                            0.05
                            -0.01
     13 -123.48 -4.05 5.32
                                     2.68
                                            1.11
   11 98 324.49 8.36 -130.63
                               -1.10 21.60
                                            -0.55
      13 -324.31 -8.36 130.63
                               1.10 15.89
                                             2.95
   12 98 -112.34 -109.26 1.99
                               -1.53
                                      0.74
                                           -21.58
      13 112.52 109.87 -1.99
                               1.53
                                    -1.31
                                            -9.86
  13 98 410.90 118.10 -16.56
                               1.54 -3.46
                                            22.93
     13 -410.72 -118.10 16.56
                              -1.54
                                    8.22
                                            10.97
   14 98 149.72 5.02 -6.85
                               0.01 -1.44
                                            0.11
     13 -149.54 -5.02
                        6.85
                             -0.01
                                     3.41
                                            1.34
```

15 98 310.38 8.48 -107.10 -0.38 -0.88 16.76 13 -310.20 -8.48 107.10 0.88 13.98 2.81 170 7 99 -7.52 9.15 -0.42 0.07 0.06 3.06 7.52 13 -9.03 0.42-0.07 0.06 -0.458 99 -2.13 5.57 -13.18 12.67 -0.26 -2.4713 -5.57 13.30 -12.67 0.26 -1.51 -1.33 99 -17.18 27.74 -13.35 0.23 2.22 7.15 17.18 -27.62 13.35 -0.230.80 13 1.61 -5.05 7.20 -0.31 0.06 10 99 0.05 2.08 13 5.05 -7.08 0.31 -0.06 0.04 -0.0311 99 -172.61 49.80 -1.11 0.22 0.01 61.11 172.61 -49.69 1.11 -0.2213 0.31 -46.83 1.94 12 99 -7.66 9.99 -0.19 -1.68 -0.9413 -1.94 7.78 -9.99 0.19 -1.19 -1.27 13 99 -16.26 25.08 -10.83 0.21 1.80 6.75 13 16.26 -24.97 10.83 -0.21 1.31 0.43 STAAD SPACE -- PAGE NO. 95

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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

```
-6.56
                    8.65 -0.40
                                 0.06
   14 99
                                         0.06
                                                2.70
      13
           6.56
                 -8.53
                        0.40
                              -0.06
                                       0.05
                                              -0.24
   15 99 -140.60
                    42.73 -1.03
                                   0.19
                                          0.03
                                                 49.92
      13 140.60 -42.61
                          1.03
                                 -0.19
                                         0.26
                                               -37.68
171 7 98 13.36
                     2.77 0.42
                                 -0.03
                                         -0.05
                                                  0.62
      99 -13.25
                  -2.65 -0.42
                                 0.03
                                        -0.12
                                                0.48
     98
          -13.07
                   -5.17 -12.72
                                 -1.05
                                         3.32
                                                 -0.35
      99
           13.19
                   5.29 12.72
                                 1.05
                                        1.84
                                               -1.77
     98
           34.16
                   9.87 13.40
                                 1.11
                                        -3.50
                                                1.38
                                 -1.11
          -34.04
                   -9.75 -13.40
      99
                                        -1.93
                                                 2.60
   10 98
            9.72
                   2.57
                         0.31
                                 -0.03
                                        -0.04
                                                0.37
      99
           -9.61
                  -2.45 -0.31
                                 0.03
                                       -0.09
                                               0.64
   11 98 215.14 -34.80 1.11
                                  -0.19
                                         -0.27
                                                 32.41
      99 -215.02
                  34.92 -1.11
                                  0.19
                                        -0.18
                                                -46.56
   12 98
            -6.15
                   -3.36 -10.03
                                  -0.85
                                         2.64
                                                -0.10
      99
           6.27
                   3.48 10.03
                                 0.85
                                               -1.29
                                        1.43
```

```
13 98 31.63 8.67 10.86
                             0.88
                                    -2.82
                                           1.28
      99 -31.51 -8.55 -10.86
                            -0.88
                                    -1.59
                                           2.21
   14 98 12.08
                2.83 0.40
                             -0.03
                                    -0.05
                                           0.48
      99 -11.97 -2.71 -0.40
                             0.03
                                   -0.11
                                           0.64
   15 98 176.41 -27.07 1.04 -0.16 -0.23
                                            26.11
      99 -176.30 27.19 -1.04
                              0.16 -0.19
                                          -37.12
172 7 100 63.11 1.71 -0.37 -0.01 0.33
                                            -0.11
      15 -62.93 -1.71 0.37 0.01 -0.22
   8 100 -251.13 -153.49 -4.62
                                0.76 - 1.04 - 25.62
      15 251.31 154.25
                       4.62
                             -0.76
                                     2.37
                                          -18.55
   9 100 363.77 155.10 4.76
                             -0.78
                                    1.54
                                            26.84
      15 -363.60 -155.10 -4.76
                               0.78
                                    -2.91
                                           17.68
   10 100 58.70
                 1.60 0.68
                             -0.00
                                     0.15
                                           -0.10
      15 -58.52 -1.60 -0.68
                            0.00 - 0.34
                                          0.56
   11 100 -144.53 -2.76 -125.92 -1.13 21.75 0.52
      15 144.71
                2.76 126.55
                             1.13
                                   14.48
                                           -1.31
   12 100 -185.09 -122.37 -4.06
                              0.60 -0.72 -20.52
      15 185.27 122.99 4.06
                             -0.60
                                     1.89
                                          -14.69
   13 100 306.83 124.50 3.45 -0.63
                                     1.34
                                           21.44
      15 -306.66 -124.50 -3.45
                               0.63
                                    -2.33
                                           14.29
   14 100 62.78
                 1.70 0.18
                                     0.23
                             -0.01
                                           -0.11
      15 -62.60 -1.70 -0.18
                             0.01 -0.28
                                           0.60
   15 100 -99.81 -1.79 -101.10 -0.91 17.51
                                             0.38
         99.99 1.79 101.60
      15
                             0.91
                                   11.58
                                          -0.90
173 7 101 0.04 0.45 0.00 -0.00
                                     0.00
                                            0.12
     108
         -0.04
                 0.45 -0.00
                             0.00 - 0.00
                                         -0.12
 STAAD SPACE
                                    -- PAGE NO. 96
MEMBER END FORCES STRUCTURE TYPE = SPACE
ALL UNITS ARE -- KN METE (LOCAL)
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MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

8 101 5.08 -112.15 -0.03 0.24 0.03 -122.86 108 -5.08 113.04 0.03 -0.240.04 - 123.279 101 5.08 113.04 0.03 -0.24-0.04 123.27 108 -5.08 -112.15 -0.03 0.24 -0.03122.86 10 101 0.03 0.45 0.00 -0.000.00 0.12 108 -0.03 0.45 -0.00 0.00 -0.00-0.12

```
11 101
             -0.01
                     0.45
                            0.00
                                   -0.00
                                                   0.04
                                           0.02
      108
             0.01
                    0.45 -0.00
                                  0.00
                                         -0.02
                                                  -0.04
   12 101
              4.07
                    -89.63
                           -0.02
                                    0.19
                                            0.03
                                                  -98.26
      108
            -4.07
                    90.52
                            0.02
                                  -0.19
                                           0.03
                                                  -98.64
   13 101
              4.07
                    90.52
                            0.02
                                   -0.19
                                           -0.03
                                                   98.64
      108
            -4.07
                   -89.63
                           -0.02
                                   0.19
                                          -0.03
                                                  98.26
   14 101
             0.04
                     0.45
                           0.00
                                   -0.00
                                           0.00
                                                   0.12
      108
            -0.04
                    0.45
                         -0.00
                                   0.00
                                         -0.00
                                                  -0.12
   15 101
             -0.00
                     0.45
                                   -0.00
                                                   0.06
                            0.00
                                           0.02
      108
            0.00
                    0.45 -0.00
                                         -0.02
                                  0.00
                                                  -0.06
               4.87
                      2.23 -0.06
174 7 100
                                    -0.02
                                            0.03
                                                    0.32
      101
            -4.75
                    -2.11
                           0.06
                                   0.02
                                         -0.01
                                                  0.56
   8 100 -251.10
                     38.90
                            -0.78
                                     0.23
                                            0.10
                                                   -38.44
      101
           251.22
                    -38.78
                             0.78
                                    -0.23
                                            0.22
                                                   54.20
   9 100 264.33
                                            -0.06
                    -34.55
                             0.74
                                    -0.27
                                                    39.44
      101 -264.22
                     34.67
                            -0.74
                                    0.27
                                           -0.24
                                                   -53.49
   10 100
             4.58
                     2.08
                            0.03
                                   -0.01
                                           0.01
                                                   0.30
            -4.46
                   -1.96 -0.03
      101
                                   0.01
                                          -0.02
                                                  0.52
   11 100
            -9.38
                     -4.55 -11.23
                                    -0.80
                                            2.88
                                                    -0.43
                                                 -1.44
      101
            9.50
                    4.67 11.23
                                   0.80
                                          1.67
   12 100 -199.69
                      31.67 -0.66
                                     0.18
                                             0.09
                                                    -30.67
           199.81
                    -31.56
                                    -0.18
                                            0.18
                                                   43.51
      101
                             0.66
   13 100 212.66
                    -27.09
                              0.56
                                     -0.22
                                            -0.04
                                                    31.63
      101 -212.54
                     27.20 -0.56
                                    0.22
                                           -0.19
                                                   -42.65
   14 100
              4.85
                     2.22
                           -0.01
                                   -0.02
                                           0.02
                                                   0.32
            -4.73
                    -2.10
                                         -0.01
      101
                           0.01
                                   0.02
                                                  0.56
            -6.32
   15 100
                     -3.09 -9.02
                                   -0.65
                                            2.32
                                                   -0.27
      101
             6.43
                    3.20
                                  0.65
                           9.02
                                          1.34
                                                 -1.01
175 7 102 -0.03 -0.95 0.00 -0.04 -0.00
                                                  -1.65
                   2.09 -0.00
      99
            0.03
                                  0.04
                                         -0.00
                                                 -2.58
   8 102
            -0.02
                     1.02 -0.05
                                   0.29
                                           0.06
                                                   0.56
                         0.05
      99
            0.02
                   0.12
                                 -0.29
                                         0.08
                                                 0.70
   9 102
                    -2.08
            -0.01
                            0.05
                                   -0.35
                                          -0.06
                                                  -2.84
      99
                                         -0.07
            0.01
                   3.22 -0.05
                                  0.35
                                                 -4.54
   10 102
              0.01
                    -0.18 0.00
                                   -0.03
                                           -0.00
                                                   -0.66
      99
           -0.01
                    1.32 -0.00
                                  0.03
                                         -0.00
                                                 -1.44
   11 102
              4.12 -76.40
                             0.00
                                   -0.05
                                            0.01 -106.78
           -4.12
                   77.55 -0.00
                                         -0.02 -107.67
      99
                                   0.05
 STAAD SPACE
                                           -- PAGE NO. 97
```

ALL UNITS ARE -- KN METE (LOCAL)

```
12 102 -0.03
                 0.38 -0.04 0.22 0.05 -0.19
                 0.76 0.04
      99
           0.03
                             -0.22
                                     0.06
                                            -0.35
   13 102
                 -2.10 0.04 -0.30 -0.05
           -0.02
                                            -2.91
      99
                 3.25 -0.04
                              0.30
           0.02
                                    -0.06
                                            -4.54
   14 102
           -0.01
                 -0.59 0.00 -0.04
                                      -0.00
                                            -1.16
                                    -0.00
      99
           0.01
                 1.73 -0.00
                              0.04
                                            -2.06
           3.28 -61.56 0.00 -0.05
                                       0.01 -86.06
   15 102
          -3.28
                 62.71 -0.00
      99
                               0.05
                                    -0.02
                                            -87.05
                  3.13 -0.06
                                        0.00
176 7 100 1.76
                                 0.01
                                             -0.12
           -1.65
                  -3.01
                        0.06
                             -0.01
                                      0.02
                                             1.37
     102
   8 100
          -15.33
                  -8.18 13.61
                                       -3.57
                                 0.97
                                              -0.61
           15.45
                                      -1.96
     102
                  8.30 -13.61
                               -0.97
                                              -2.74
   9 100
          19.77
                  13.47 -13.80
                               -1.06
                                       3.69
                                             0.57
          -19.65
                 -13.36 13.80
                                 1.06
                                       1.91
     102
                                               4.88
   10 100
           3.25
                   2.52
                        -0.07
                                0.01
                                       0.00
                                              0.13
     102
           -3.13
                -2.41
                        0.07 -0.01
                                      0.03
                                             0.87
   11 100 -198.76 40.11 0.74
                                 -0.15 -0.22
                                              -31.58
                 -39.99 -0.74
                                      -0.07
     102
          198.88
                                 0.15
                                              47.84
   12 100 -12.24
                  -5.66 10.88
                                 0.78
                                      -2.85
                                               -0.58
                  5.78 -10.88 -0.78
                                     -1.56
     102
           12.36
                                              -1.74
   13 100
          15.83
                  11.67 -11.05
                                -0.85
                                       2.96
                                              0.36
     102 -15.72 -11.55 11.05
                                       1.53
                                 0.85
                                               4.35
   14 100
           2.62
                   2.91 -0.07
                                0.01
                                       0.00
                                              0.01
                             -0.01
                                      0.02
     102
           -2.50 -2.79
                       0.07
                                             1.14
   15 100 -158.99 32.97 0.58
                                -0.12 -0.18
                                              -25.36
                                 0.12
     102 159.11 -32.85 -0.58
                                       -0.06
                                              38.71
177 7 103 0.20
                    3.66 0.00
                                 0.00
                                       -0.00
                                               0.89
      97
          -0.20
                  3.66 -0.00
                             -0.00
                                     0.00
                                            -0.89
   8 103
            5.15 -102.23 -0.04
                                 0.47
                                       0.05 -113.86
      97
          -5.15 107.45
                        0.04
                               -0.47
                                      0.04 -115.31
   9 103
          5.15 107.45
                         0.04
                                -0.47
                                      -0.04 115.31
          -5.15 -102.23
      97
                        -0.04
                                0.47
                                      -0.05
                                            113.86
   10 103
          0.15
                   2.61
                         0.00
                                0.00
                                      -0.00
                                            0.64
      97
          -0.15
                  2.61 -0.00
                              -0.00
                                     0.00
                                            -0.64
   11 103
            0.30
                   2.61
                         0.00
                               -0.00
                                      -0.01
                                              0.71
                               0.00
                                            -0.71
      97
          -0.30
                  2.61 -0.00
                                     0.01
   12 103
            4.20 -80.42 -0.03
                                 0.38
                                       0.04 -90.76
      97
          -4.20
                 87.32 0.03
                              -0.38
                                      0.03
                                            -92.58
```

13 103 4.20 87.32 0.03 -0.38 -0.03 92.58 -4.20 -80.42 -0.03 0.38 97 -0.0490.76 14 103 0.19 3.45 0.00 0.00 -0.000.84 97 -0.193.45 -0.00 -0.000.00 -0.84 15 103 0.31 3.45 0.00 -0.00-0.01 0.90 97 -0.31 3.45 -0.00 0.00 0.01 -0.90-- PAGE NO. 98 STAAD SPACE

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$\label{eq:member} \textbf{MEMBER END FORCES} \quad \textbf{STRUCTURE TYPE} = \textbf{SPACE}$

14 -123.48

4.05

5.32

0.01

2.68

-1.11

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

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```
178 7 98 14.89
                   5.77 -0.36
                                  0.14
                                       -0.07
                                              1.21
     103 -14.77 -5.65
                         0.36
                                -0.14
                                       0.22
                                               1.11
   8 98 -233.91
                   34.09
                         0.74
                                 -0.15
                                       -0.35
                                               -36.98
     103 234.03 -33.97 -0.74
                                 0.15
                                        0.05
                                               50.79
   9 98 261.13 -24.72
                         -1.30
                                 0.37
                                        0.26
                                               39.21
     103 -261.02
                   24.84
                         1.30
                                 -0.37
                                        0.27
                                              -49.27
   10 98
           11.45
                   4.53 -0.23
                                 0.11
                                       -0.06
                                               0.91
          -11.33
     103
                  -4.41
                         0.23
                                -0.11
                                       0.16
                                               0.91
   11 98
           25.26
                  11.09 -11.53
                                        2.90
                                              1.63
                                 -0.78
          -25.14 -10.97 11.53
                                        1.78
     103
                                 0.78
                                               2.84
   12 98 -182.13
                   29.15 0.47
                                        -0.31
                                 -0.07
                                               -29.17
     103
          182.25 -29.03 -0.47
                                 0.07
                                        0.12
                                               40.97
                  -17.90 -1.16
   13 98
          213.91
                                 0.34
                                        0.18
                                               31.79
     103 -213.79
                   18.02
                         1.16
                                 -0.34
                                        0.29
                                              -39.08
   14 98
          14.16
                   5.50 -0.31
                                       -0.08
                                 0.14
                                               1.14
                                -0.14
     103
          -14.04
                  -5.38
                                       0.20
                         0.31
                                               1.07
   15 98
           25.21
                   10.75 -9.35
                                 -0.57
                                        2.29
                                               1.72
     103 -25.09 -10.63
                          9.35
                                 0.57
                                        1.50
                                               2.61
179 7 104 156.92 -5.28 -7.66 -0.01 -1.44
                                               -0.12
      14 -156.74
                   5.28
                         7.66
                                0.01
                                       3.64
                                              -1.40
   8 104 450.14 -145.39 -17.46 -1.92 -3.68
                                               -28.58
      14 -449.96 145.39 17.46
                                 1.92
                                        8.69
                                               -13.15
   9 104 -203.91 138.81 5.72
                                 1.91
                                        1.58
                                                27.06
      14 204.09 -139.58 -5.72
                                -1.91
                                        -3.23
                                              12.89
   10 104 123.66 -4.05 -5.32
                                 -0.01
                                       -1.15
                                                -0.05
```

```
11 104 324.49 -8.36 -130.63 1.10 21.60 0.55
     14 -324.31
                 8.36 130.63 -1.10 15.89
                                           -2.95
   12 104 410.90 -118.10 -16.56 -1.54 -3.46 -22.93
     14 -410.72 118.10 16.56
                             1.54
                                     8.22
                                           -10.97
   13 104 -112.34 109.26 1.99 1.53 0.74
                                            21.58
     14 112.52 -109.87 -1.99 -1.53
                                    -1.31
                                            9.86
   14 104 149.72 -5.02 -6.85 -0.01
                                    -1.44
                                            -0.11
                                    3.41
     14 -149.54
                 5.02 6.85
                             0.01
                                        -1.34
   15 104 310.38 -8.48 -107.10 0.88 16.76
                                             0.38
     14 -310.20
                 8.48 107.10 -0.88
                                   13.98
                                            -2.81
180 7 104 14.89 5.77 0.36 -0.14
                                      0.07
                                            1.21
     97 -14.77 -5.65 -0.36
                            0.14
                                   -0.22
   8 104 261.13 -24.72 1.30
                              -0.37
                                    -0.26
                                            39.21
     97 -261.02 24.84 -1.30
                              0.37
                                    -0.27
                                         -49.27
   9 104 -233.91 34.09 -0.74
                             0.15
                                     0.35 -36.98
     97 234.03 -33.97 0.74
                             -0.15
                                    -0.05
                                           50.79
 STAAD SPACE
                                    -- PAGE NO. 99
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MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

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10 104 11.45 4.53 0.23 -0.11
                                   0.06
                                           0.91
     97 -11.33 -4.41 -0.23
                            0.11 - 0.16
                                          0.91
  11 104 25.26 11.09 11.53 0.78 -2.90
                                          1.63
     97 -25.14 -10.97 -11.53 -0.78
                                   -1.78
                                            2.84
  12 104 213.91 -17.90 1.16 -0.34 -0.18
                                            31.79
     97 -213.79 18.02 -1.16
                              0.34 - 0.29
                                         -39.08
  13 104 -182.13 29.15 -0.47 0.07
                                      0.31
                                          -29.17
                                           40.97
     97 182.25 -29.03
                      0.47
                             -0.07
                                    -0.12
  14 104 14.16 5.50 0.31
                             -0.14
                                    0.08
                                           1.14
     97 -14.04 -5.38 -0.31
                             0.14
                                   -0.20
                                          1.07
  15 104 25.21 10.75 9.35
                              0.57
                                   -2.29
                                           1.72
     97 -25.09 -10.63 -9.35
                            -0.57 -1.50
                                           2.61
181 7 105 -7.52 9.15 0.42 -0.07 -0.06
                                            3.06
          7.52 -9.03 -0.42 0.07 -0.06
     14
                                        -0.45
   8 105 -17.18 27.74 13.35
                             -0.23
                                            7.15
         17.18 -27.62 -13.35
                              0.23 -1.61
                                           0.80
```

```
9 105
          5.57 -13.18 -12.67 0.26
                                       2.13 -2.47
                13.30 12.67
      14
         -5.57
                               -0.26
                                       1.51
                                             -1.33
   10 105
           -5.05
                   7.20 0.31
                                -0.06
                                       -0.05
                                               2.08
      14
           5.05
                -7.08 -0.31
                               0.06 -0.04
                                             -0.03
   11 105 -172.61 49.80 1.11
                                 -0.22
                                       -0.01
                                                61.11
      14 172.61 -49.69 -1.11
                                 0.22
                                       -0.31
                                              -46.83
   12 105 -16.26
                   25.08 10.83
                                 -0.21
                                       -1.80
                                                6.75
          16.26 -24.97 -10.83
                                       -1.31
      14
                                 0.21
                                               0.43
   13 105
           1.94
                  -7.66 -9.99
                                 0.19
                                              -0.94
                                       1.68
                  7.78
      14
          -1.94
                        9.99 -0.19
                                      1.19
                                             -1.27
   14 105
           -6.56
                   8.65 0.40
                                -0.06
                                       -0.06
                                               2.70
           6.56
                -8.53 -0.40
                              0.06
                                    -0.05
                                            -0.24
   15 105 -140.60
                   42.73
                          1.03
                                 -0.19
                                        -0.03
      14 140.60 -42.61 -1.03
                                 0.19 -0.26
                                             -37.68
                   2.77 -0.42
182 7 104 13.36
                                 0.03
                                         0.05
                                                0.62
     105 -13.25
                  -2.65
                         0.42
                                -0.03
                                       0.12
                                              0.48
                                               1.38
   8 104
           34.16
                   9.87 -13.40
                                -1.11
                                        3.50
          -34.04
                                 1.11
     105
                  -9.75 13.40
                                       1.93
                                               2.60
   9 104 -13.07
                   -5.17 12.72
                                1.05
                                       -3.32
                                               -0.35
           13.19
                   5.29 -12.72
     105
                               -1.05
                                       -1.84
                                              -1.77
   10 104
           9.72
                   2.57 -0.31
                                0.03
                                       0.04
                                               0.37
     105
          -9.61
                 -2.45
                         0.31
                               -0.03
                                       0.09
                                              0.64
   11 104 215.14 -34.80 -1.11
                                  0.19
                                         0.27
                                                32.41
                   34.92
     105 -215.02
                         1.11
                                 -0.19
                                        0.18
                                              -46.56
   12 104
           31.63
                    8.67 -10.86
                                 -0.88
                                        2.82
                                              1.28
     105 -31.51
                  -8.55 10.86
                                 0.88
                                        1.59
                                               2.21
   13 104 -6.15
                  -3.36 10.03
                                 0.85
                                       -2.64
                                               -0.10
                  3.48 -10.03 -0.85
     105
           6.27
                                      -1.43
                                              -1.29
                                       -- PAGE NO. 100
 STAAD SPACE
```

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- KN METE (LOCAL)

MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z

14 104 12.08 2.83 -0.40 0.03 0.05 0.48 105 -11.97 -2.710.40 -0.03 0.11 0.64 15 104 176.41 -27.07 -1.04 0.16 0.23 26.11 105 -176.30 27.19 1.04 -0.16 0.19 -37.12

```
183 7 106 63.11 -1.71 -0.37
                                    0.01 0.33
                                                   0.11
      16 -62.93
                   1.71
                          0.37 -0.01 -0.22
                                                -0.60
   8 106 363.77 -155.10
                             4.76
                                    0.78
                                           1.54
                                                  -26.84
      16 -363.60 155.10 -4.76
                                  -0.78
                                          -2.91
                                                 -17.68
   9 106 -251.13 153.49 -4.62
                                    -0.76 -1.04
                                                   25.62
      16 251.31 -154.25
                           4.62
                                   0.76
                                          2.37
                                                 18.55
   10 106 58.70 -1.60
                            0.68
                                   0.00
                                          0.15
                                                  0.10
      16 -58.52
                   1.60 -0.68
                                -0.00 -0.34
                                                -0.56
   11 106 -144.53
                      2.76 -125.92
                                     1.13
                                           21.75
                                                    -0.52
      16 144.71
                   -2.76 126.55
                                  -1.13
                                          14.48
                                                   1.31
   12 106 306.83 -124.50 3.45
                                     0.63
                                            1.34
                                                  -21.44
      16 -306.66 124.50 -3.45
                                          -2.33
                                                 -14.29
                                  -0.63
   13 106 -185.09 122.37 -4.06
                                    -0.60
                                          -0.72
                                                   20.52
      16 185.27 -122.99
                          4.06
                                          1.89
                                   0.60
                                                 14.69
   14 106 62.78
                    -1.70
                          0.18
                                   0.01
                                          0.23
                                                  0.11
                    1.70 -0.18
                                -0.01
      16
          -62.60
                                        -0.28
                                                -0.60
   15 106 -99.81
                     1.79 -101.10
                                    0.91
                                           17.51
                                                   -0.38
          99.99 -1.79 101.60
                                -0.91
                                         11.58
                                                  0.90
184 7 107 -0.03 -0.95 -0.00
                                  0.04
                                           0.00
                                                  -1.65
      105
            0.03
                   2.09
                          0.00
                                -0.04
                                        0.00
                                                -2.58
   8 107
            -0.01
                    -2.08
                          -0.05
                                  0.35
                                                 -2.84
                                         0.06
      105
                    3.22
                                 -0.35
                                                -4.54
            0.01
                          0.05
                                        0.07
   9 107
            -0.02
                    1.02
                           0.05
                                 -0.29
                                         -0.06
                                                 0.56
      105
            0.02
                   0.12
                         -0.05
                                 0.29
                                        -0.08
                                                0.70
   10 107
             0.01
                    -0.18 -0.00
                                  0.03
                                          0.00
                                                 -0.66
                                 -0.03
      105
            -0.01
                    1.32
                          0.00
                                         0.00
                                                -1.44
   11 107
             4.12
                   -76.40
                          -0.00
                                   0.05
                                          -0.01 -106.78
      105
                           0.00
            -4.12
                   77.55
                                 -0.05
                                         0.02
                                               -107.67
   12 107
            -0.02
                    -2.10 -0.04
                                   0.30
                                          0.05
                                                 -2.91
      105
                    3.25
            0.02
                          0.04
                                 -0.30
                                        0.06
                                                -4.54
   13 107
            -0.03
                    0.38
                           0.04
                                  -0.22
                                         -0.05
                                                 -0.19
      105
            0.03
                   0.76 - 0.04
                                 0.22
                                        -0.06
                                                -0.35
   14 107
            -0.01
                    -0.59 -0.00
                                   0.04
                                          0.00
                                                -1.16
      105
            0.01
                    1.73
                          0.00
                                -0.04
                                        0.00
                                                -2.06
   15 107
             3.28
                   -61.56 -0.00
                                   0.05
                                          -0.01
                                                -86.06
      105
            -3.28
                   62.71
                           0.00
                                 -0.05
                                         0.02
                                                -87.05
185 7 106
             1.76
                     3.13 0.06
                                  -0.01
                                          -0.00
                                                  -0.12
      107 -1.65
                   -3.01 -0.06
                                  0.01
                                        -0.02
                                                 1.37
 STAAD SPACE
                                         -- PAGE NO. 101
```

ALL UNITS ARE -- KN METE (LOCAL)

```
8 106
          19.77
                  13.47 13.80
                                 1.06
                                       -3.69
                                               0.57
                 -13.36 -13.80
     107
          -19.65
                                -1.06
                                       -1.91
                                               4.88
                                       3.57
   9 106
          -15.33
                  -8.18 -13.61
                                -0.97
                                              -0.61
     107
           15.45
                  8.30 13.61
                                0.97
                                      1.96
                                             -2.74
   10 106
           3.25
                   2.52 0.07
                               -0.01
                                      -0.00
                                              0.13
          -3.13
                 -2.41 -0.07
                               0.01 -0.03
                                             0.87
     107
   11 106 -198.76 40.11 -0.74
                                  0.15
                                        0.22
                                               -31.58
     107 198.88 -39.99 0.74
                                -0.15
                                       0.07
                                              47.84
                                       -2.96
   12 106 15.83
                  11.67 11.05
                                0.85
                                               0.36
     107
          -15.72 -11.55 -11.05
                                -0.85
                                       -1.53
                                               4.35
   13 106 -12.24
                  -5.66 -10.88
                                -0.78
                                        2.85
                                               -0.58
     107
          12.36
                  5.78 10.88
                                0.78
                                             -1.74
                                      1.56
            2.62
   14 106
                   2.91
                        0.07
                               -0.01
                                      -0.00
                                              0.01
     107
           -2.50 -2.79 -0.07
                               0.01 -0.02
                                              1.14
   15 106 -158.99 32.97 -0.58
                                  0.12
                                        0.18
                                              -25.36
     107 159.11 -32.85
                         0.58
                                -0.12
                                       0.06
                                              38.71
186 7 108 -1.83
                   4.41 -0.06
                                -0.02
                                        0.01
                                               0.68
          1.83
                -4.29 0.06
                             0.02
                                    0.01
      16
                                            0.57
   8 108 -206.26
                   49.27
                          0.71
                                -0.12
                                      -0.02
                                               69.78
      16 206.26 -49.16 -0.71
                                0.12
                                      -0.19
                                             -55.65
   9 108 210.14 -38.07 -0.75 0.08
                                      0.02 -68.66
      16 -210.14 38.19 0.75 -0.08
                                             57.71
                                       0.19
   10 108 -1.73
                   4.09 0.03
                              -0.02
                                      -0.00
                                            0.64
                                             0.52
      16
          1.73
                -3.98 -0.03
                             0.02
                                    -0.01
           3.40 -10.47 -11.23
   11 108
                                 0.61
                                      1.77
                                             -1.40
      16
          -3.40
                10.58 11.23
                              -0.61
                                      1.45
                                             -1.62
   12 108 -165.45 40.53 0.53
                                -0.10 -0.01
                                             55.99
                                0.10 -0.15
      16 165.45 -40.41 -0.53
                                            -44.38
   13 108 167.67 -29.35 -0.64 0.06
                                       0.03
                                             -54.76
      16 -167.67
                  29.46
                        0.64
                               -0.06
                                       0.16
                                             46.32
   14 108
           -1.82
                   4.39
                         -0.01
                                -0.02
                                       0.00
                                              0.68
      16
           1.82
                 -4.27
                        0.01
                              0.02
                                     0.00
                                            0.56
           2.28
   15 108
                  -7.26 -9.02
                                0.49
                                       1.43
                                              -0.95
      16
         -2.28
                 7.38 9.02
                             -0.49
                                     1.16
                                           -1.15
187 7 106 4.87
                    2.23 0.06
                                 0.02
                                      -0.03
                                               0.32
          -4.75 -2.11 -0.06 -0.02
     108
                                      0.01
                                             0.56
   8 106 264.33 -34.55 -0.74
                                 0.27
                                        0.06
                                             39.44
                                -0.27
     108 -264.22
                 34.67 0.74
                                       0.24
                                             -53.49
```

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9 106 -251.10 38.90 0.78 -0.23 -0.10 -38.44
      108 251.22 -38.78 -0.78 0.23 -0.22 54.20
    10 106 4.58 2.08 -0.03 0.01 -0.01
                                      0.30
      108
         -4.46 -1.96 0.03 -0.01
                               0.02
                                     0.52
   11 106 -9.38 -4.55 11.23 0.80 -2.88 -0.43
         9.50 4.67 -11.23 -0.80 -1.67 -1.44
      108
  STAAD SPACE
                                -- PAGE NO. 102
 MEMBER END FORCES STRUCTURE TYPE = SPACE
 ALL UNITS ARE -- KN METE (LOCAL)
MEMBER LOAD JT AXIAL SHEAR-Y SHEAR-Z TORSION MOM-Y MOM-Z
   12 106 212.66 -27.09 -0.56 0.22 0.04 31.63
      108 -212.54 27.20 0.56 -0.22 0.19 -42.65
   13 106 -199.69 31.67 0.66 -0.18 -0.09 -30.67
      108 199.81 -31.56 -0.66 0.18 -0.18 43.51
   14 106 4.85 2.22 0.01 0.02 -0.02 0.32
      108
         -4.73 -2.10 -0.01 -0.02
                                0.01
                                     0.56
   15 106 -6.32 -3.09 9.02 0.65 -2.32 -0.27
      108
          6.43 3.20 -9.02 -0.65 -1.34 -1.01
 221. PRINT SUPPORT REACTION
SUPPORT REACTION
STAAD SPACE
                                -- PAGE NO. 103
 SUPPORT REACTIONS -UNIT KN METE STRUCTURE TYPE = SPACE
JOINT LOAD FORCE-X FORCE-Y FORCE-Z MOM-X MOM-Y MOM Z
```

5 7 0.53 226.37 1.41 1.66 -0.00 -0.36

1.22 1.22 -0.23 156.06

8 -48.81 -475.82

```
9
       51.50 846.88
                        1.49
                                1.59
                                       0.21 - 157.53
  10
        0.61
              183.55
                                0.79
                                       -0.00
                        1.17
                                               -0.41
  11
        0.53
              619.33
                        43.01
                               136.19
                                         0.05
                                                -0.36
  12
      -39.00 -310.88
                         1.29
                                 1.46
                                        -0.18
                                              124.80
  13
       41.26
              747.28
                         1.51
                                1.76
                                        0.17 -126.06
  14
        0.54
              216.62
                        1.25
                                1.12
                                       -0.00
                                              -0.37
                               109.44
  15
        0.48
              565.24
                        34.72
                                         0.04
                                               -0.34
       -0.53
              226.37
                                1.66
                                        0.00
                                               0.36
6
  7
                        1.41
      -51.50
              846.88
                                       -0.21
  8
                        1.49
                                1.59
                                              157.53
  9
      48.81
             -475.82
                        1.22
                                1.22
                                        0.23 -156.06
  10
       -0.61
              183.55
                        1.17
                                0.79
                                        0.00
                                               0.41
       -0.53
              619.33
                        43.01
                                         -0.05
  11
                               136.19
                                                 0.36
  12
      -41.26
              747.28
                         1.51
                                 1.76
                                              126.06
                                        -0.17
       39.00 -310.88
  13
                         1.29
                                 1.46
                                        0.18 -124.80
  14
       -0.54
              216.62
                        1.25
                                1.12
                                        0.00
                                               0.37
  15
       -0.48
              565.24
                        34.72
                               109.44
                                         -0.04
                                                 0.34
7 7
        0.79
              103.30
                        -1.41
                                -0.05
                                       -0.00
                                               -0.50
      -48.44 -539.02
                        -1.05
                                -0.22
                                        -0.33
                                              155.76
  8
  9
      51.49
             735.02
                        -1.65
                               -0.28
                                        0.33 -157.42
  10
        0.79
              99.98
                       -1.54
                               -0.87
                                       -0.00
                                              -0.50
        0.87 -335.80
                        39.12
                                         0.03
  11
                               134.08
                                               -0.55
      -38.60 -407.37
                        -1.16
                                -0.06
                                        -0.27 124.51
  12
              611.85
                                        0.26 - 126.03
  13
       41.35
                        -1.64
                                -0.11
  14
        0.79
             103.83
                        -1.55
                               -0.58
                                       -0.00
                                               -0.50
  15
        0.85 - 244.80
                        30.98
                               107.37
                                         0.02
                                                -0.54
8
  7
       -0.79
             103.30
                        -1.41
                                -0.05
                                        0.00
                                                0.50
  8
      -51.49 735.02
                        -1.65
                                -0.28
                                        -0.33
                                              157.42
  9
      48.44 -539.02
                        -1.05
                                -0.22
                                        0.33 -155.76
  10
       -0.79
              99.98
                       -1.54
                               -0.87
                                       0.00
                                               0.50
       -0.87 -335.80
                        39.12
                                         -0.03
  11
                               134.08
                                                 0.55
  12
      -41.35
              611.85
                        -1.64
                                -0.11
                                        -0.26
                                              126.03
  13
       38.60 -407.37
                        -1.16
                                -0.06
                                        0.27 - 124.51
  14
       -0.79
              103.83
                        -1.55
                                -0.58
                                        0.00
                                                0.50
  15
       -0.85 -244.80
                        30.98
                               107.37
                                         -0.02
                                                 0.54
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****** END OF LATEST ANALYSIS RESULT ********

222. PARAMETER 1 223. CODE IS800 LSD STAAD SPACE

-- PAGE NO. 104

- 224. FYLD 310000 MEMB 2 4 6 8 13 TO 80 89 TO 158 167 169 170 172 173 175 177 179 225. 181 183 184 186
- 226. MAIN 180 MEMB 2 4 6 8 13 TO 80 89 TO 158 167 169 170 172 173 175 177 179 181 -

227. 183 184 186 228. CHECK CODE MEMB 2 4 6 8 13 TO 80 89 TO 158 167 169 170 172 173 175 177 179 -229. 181 183 184 186 STEEL DESIGN Member Number: 2 _ | Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) | Status: PASS Ratio: 0.955 Critical Load Case: 9 Location: 0.00 | | Critical Condition: Sec. 9.3.2.2 _____ _____ _Member Number: 4_ | Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) | Status: PASS Ratio: 0.955 Critical Load Case: 8 Location: 0.00 | Critical Condition: Sec. 9.3.2.2 _____ Member Number: 6 Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) | Status: PASS Ratio: 0.899 Critical Load Case: 9 Location: 0.00 | Critical Condition: Sec. 9.3.2.2 . |------| _____ | _Member Number: 8 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) | Status: PASS Ratio: 0.899 Critical Load Case: 8 Location: 0.00 | Critical Condition: Sec. 9.3.2.2 ______ STAAD SPACE -- PAGE NO. 105 STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***************** _____ Member Number: 13 _ | Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) | Status: PASS Ratio: 0.612 Critical Load Case: 8 Location: 0.29 | | Critical Condition: Sec. 9.3.2.2 |

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Status: PASS Ratio: Critical Condition: Sec	220X220X10.0SHS (TATA STRUCTURA S 0.689 Critical Load Case: 8 Location: 0.00	
STAAD SPACE	PAGE NO. 107	
	PRO CODE CHECKING - IS-800-2007-LSD (V2.2	,
_Member Number: Member Section: ST Status: PASS Ratio: Critical Condition: Sec	240X120X8.0RHS (TATA STRUCTURA SI 0.619 Critical Load Case: 8 Location: 0.29	,
_Member Number: Member Section: ST	240X120X8.0RHS (TATA STRUCTURA SI 0.573 Critical Load Case: 11 Location: 0.29	
_Member Number:	23 _ 240X120X8.0RHS (TATA STRUCTURA SI 0.573 Critical Load Case: 11 Location: 0.29	/
Status: PASS Ratio: Critical Condition: Sec		′

_____ _Member Number: 25 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.674 Critical Load Case: 9 Location: 0.00 Critical Condition: Sec. 9.3.2.2 ------| _____ Member Number: 26 _ | Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.674 Critical Load Case: 8 Location: 0.00 Critical Condition: Sec. 9.3.2.2 ______ _____ Member Number: 27 _ | Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.618 Critical Load Case: 9 Location: 0.00 Critical Condition: Sec. 9.3.2.2 ______ _____ Member Number: 28 Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.618 Critical Load Case: 8 Location: 0.00 | Critical Condition: Sec. 9.3.2.2 | Critical Condition: Sec. 9.3.2.2 -- PAGE NO. 109 STAAD SPACE STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***************** -----| * Member Number: 29 Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) | Status: FAIL Ratio: 1.017 Critical Load Case: 9 Location: 0.00 | Critical Condition: Sec. 9.3.1.1 |-----| Member Number: 30

Status: PASS Ratio: Critical Condition: Sec	240X120X8.0RHS (TATA STRUCTU 0.928 Critical Load Case: 11 Location:	3.36
Member Number: Member Section: ST Status: FAIL Ratio: 1 Critical Condition: Sec	240X120X8.0RHS (TATA STRUCTU 1.162 Critical Load Case: 9 Location:	RA SECTIONS) 0.00
STAAD SPACE	PAGE NO. 110	
	RO CODE CHECKING - IS-800-2007-LSD ****************	` '
_Member Number: 3 Member Section: ST	33 _	,
Critical Condition: Sec		
	2.9.3.2.2	' RA SECTIONS
	2.9.3.2.2	' RA SECTIONS

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_____
_Member Number: 36 _
| Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.500 Critical Load Case: 8 Location: 3.75
Critical Condition: Sec. 9.3.2.2
Critical Condition: Sec. 9.3.2.2 |
  STAAD SPACE
                            -- PAGE NO. 111
       STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2)
       *******************
Member Number: 37 _
| Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.894 Critical Load Case: 8 Location: 2.76
Critical Condition: Sec. 8.2.1.2
._____
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_Member Number: 38 _
Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.824 Critical Load Case: 11 Location: 3.36
Critical Condition: Sec. 8.2.1.2
------|
_____
Member Number: 39
Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.824 Critical Load Case: 11 Location: 3.36
Critical Condition: Sec. 8.2.1.2
Critical Condition: Sec. 8.2.1.2
|------
_Member Number: 40 _
| Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
| Status: PASS Ratio: 0.970 Critical Load Case: 8 Location: 2.76 |
Critical Condition: Sec. 8.2.1.2
______
  STAAD SPACE
                            -- PAGE NO. 112
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_Member Number: 41 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.454 Critical Load Case: 9 Location: 3.75 Critical Condition: Sec. 9.3.2.2	
_Member Number: 42 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.454 Critical Load Case: 8 Location: 3.75 Critical Condition: Sec. 9.3.2.2	
_Member Number: 43 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.413 Critical Load Case: 9 Location: 3.75 Critical Condition: Sec. 9.3.2.2	
Member Number: 44	
_ STAAD SPACE PAGE NO. 113	
STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***********************************	
- 	
_Member Number: 45 _	
_Member Number: 46 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.694 Critical Load Case: 11 Location: 3.36	

Critical Condition: Sec. 8.2.1.2	
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STAAD SPACE PAGE NO. 114	
STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***********************************	

	0.0SHS (TATA STRUCTURA SECTIONS) Il Load Case: 8 Location: 3.75
_ STAAD SPACE	PAGE NO. 115
	HECKING - IS-800-2007-LSD (V2.2) **********
	ORHS (TATA STRUCTURA SECTIONS) al Load Case: 8 Location: 2.76
	ORHS (TATA STRUCTURA SECTIONS) al Load Case: 11 Location: 3.36
Status: PASS Ratio: 0.560 Critical Critical Condition: Sec. 8.2.1.2	ORHS (TATA STRUCTURA SECTIONS) Il Load Case: 11 Location: 3.36
Member Number: 56 _ Member Section: ST 240X120X8. Status: PASS Ratio: 0.653 Critical Critical Condition: Sec. 8.2.1.2	ORHS (TATA STRUCTURA SECTIONS) Il Load Case: 8 Location: 2.76
_ STAAD SPACE	PAGE NO. 116
	HECKING - IS-800-2007-LSD (V2.2) **********
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_Member Number: 57 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.279 Critical Load Case: 9 Location: 3.75 Critical Condition: Sec. 9.3.2.2	
_Member Number: 60 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.255 Critical Load Case: 8 Location: 3.75 Critical Condition: Sec. 9.3.2.2	
_ STAAD SPACE PAGE NO. 117	
STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***********************************	
_Member Number: 61 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.452 Critical Load Case: 8 Location: 2.76 Critical Condition: Sec. 8.2.1.2	I
_Member Number: 62 _	

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	_Member Number: 63 _	I
	Member Number: 64 _	
-	_ STAAD SPACE PAGE NO. 118	
_	STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***********************************	
	Member Number: 65 _	١
	Member Number: 66 _	
	Member Number: 67 _	I
	_Member Number: 68 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.245 Critical Load Case: 7 Location: 0.00	I

Critical Condition: Slenderness (Compress	
STAAD SPACE	PAGE NO. 119
	ING - IS-800-2007-LSD (V2.2) *********
	(TATA STRUCTURA SECTIONS) d Case: 7 Location: 0.00
	(TATA STRUCTURA SECTIONS) d Case: 7 Location: 0.00
Member Number: 71_ Member Section: ST 240X120X8.0RHS Status: PASS Ratio: 0.378 Critical Load Critical Condition: Slenderness (Compress	(TATA STRUCTURA SECTIONS) d Case: 7 Location: 0.00
	(TATA STRUCTURA SECTIONS) d Case: 8 Location: 2.76
STAAD SPACE	PAGE NO. 120
	ING - IS-800-2007-LSD (V2.2) ********
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Status: PASS Ratio: 0.245 Critical Load Case: 7 Location: Critical Condition: Slenderness (Compression)	0.00
_Member Number: 74 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTUR) Status: PASS Ratio: 0.245 Critical Load Case: 7 Location: Critical Condition: Slenderness (Compression)	
_Member Number: 75 _	
_Member Number: 76 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTUR Status: PASS Ratio: 0.245 Critical Load Case: 7 Location: Critical Condition: Slenderness (Compression)	
_ STAAD SPACE PAGE NO. 121	
STAAD.PRO CODE CHECKING - IS-800-2007-LSD (************************************	,
_Member Number: 77 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTUR Status: PASS Ratio: 0.140 Critical Load Case: 7 Location: Critical Condition: Slenderness (Tension)	A SECTIONS) 0.00
_Member Number: 78 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTUR Status: PASS Ratio: 0.170 Critical Load Case: 7 Location: Critical Condition: Slenderness (Tension)	· · · · · · · · · · · · · · · · · · ·

_Member Number: 79 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTUI Status: PASS Ratio: 0.170 Critical Load Case: 7 Location: Critical Condition: Slenderness (Tension)	
_Member Number: 80 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTUI Status: PASS Ratio: 0.140 Critical Load Case: 7 Location: Critical Condition: Slenderness (Tension)	
_ STAAD SPACE PAGE NO. 122	
_ STAAD.PRO CODE CHECKING - IS-800-2007-LSD	` '
_Member Number: 89 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTULE) Status: PASS Ratio: 0.113 Critical Load Case: 8 Location: Critical Condition: Slenderness (Compression)	
_Member Number: 90 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTUI Status: PASS Ratio: 0.113 Critical Load Case: 9 Location: Critical Condition: Slenderness (Compression)	
_Member Number: 91 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTUI) Status: PASS Ratio: 0.311 Critical Load Case: 8 Location: Critical Condition: Slenderness (Compression)	RA SECTIONS) 0.00
_Member Number: 92 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTUI Status: PASS Ratio: 0.113 Critical Load Case: 8 Location: Critical Condition: Slenderness (Compression)	,

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_Member Number: 94 _
_Member Number: 95 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.113 Critical Load Case: 8 Location: 0.00 Critical Condition: Slenderness (Compression)
_Member Number: 96 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.113 Critical Load Case: 9 Location: 0.00 Critical Condition: Slenderness (Compression)
_ STAAD SPACE PAGE NO. 124
- STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***********************************
_ Member Number: 97
Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.311 Critical Load Case: 7 Location: 0.00 Critical Condition: Slenderness (Compression)

_Member Number: 98 _		
	(120X8.0RHS (TATA STRUCTURA SECTIONS Critical Load Case: 9 Location: 0.00	S)
Critical Condition: Slenderne	·	
 _Member Number: 99 _	 	
Member Section: ST 240X	(120X8.0RHS (TATA STRUCTURA SECTIONS	5)
Critical Condition: Slenderne	Critical Load Case: 8 Location: 0.00 ess (Compression)	
Member Number: 100	 	
Member Section: ST 240X	(120X8.0RHS (TATA STRUCTURA SECTIONS	S)
Status: PASS Ratio: 0.311 Critical Condition: Slenderne	Critical Load Case: 7 Location: 0.00 ess (Compression)	
STAAD SPACE	PAGE NO. 125	
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Status: PASS Ratio: 0.311 Critical Load Case: 7 Location: Critical Condition: Slenderness (Compression)	0.00
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_ STAAD SPACE PAGE NO. 126	
- STAAD.PRO CODE CHECKING - IS-800-2007-LSD ************************************	` '
Member Number: 105 _	
	,
	0.00
	0.00
_ STAAD SPACE PAGE NO. 127	

_Member Number: 109 _	
_Member Number: 110 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTURA Status: PASS Ratio: 0.113 Critical Load Case: 9 Location: 0. Critical Condition: Slenderness (Compression)	
·	
_Member Number: 111 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTURA Status: PASS Ratio: 0.113 Critical Load Case: 8 Location: 0. Critical Condition: Slenderness (Compression)	
	,
_ STAAD SPACE PAGE NO. 128	
STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V:	*
	A SECTIONS) .20

Status: PASS Ratio: Critical Condition: Se	220X220X10.0SHS (TATA STRUCTURA SECTIONS) 0.109 Critical Load Case: 9 Location: 1.20
_Member Number: Member Section: ST Status: PASS Ratio: Critical Condition: Se	220X220X10.0SHS (TATA STRUCTURA SECTIONS) 0.109 Critical Load Case: 8 Location: 1.20
_Member Number: Member Section: ST Status: PASS Ratio: Critical Condition: Se	220X220X10.0SHS (TATA STRUCTURA SECTIONS) 0.111 Critical Load Case: 12 Location: 1.20
STAAD SPACE	PAGE NO. 129
	PRO CODE CHECKING - IS-800-2007-LSD (V2.2)
_Member Number: Member Section: ST Status: PASS Ratio: Critical Condition: Se	240X120X8.0RHS (TATA STRUCTURA SECTIONS) 0.154 Critical Load Case: 12 Location: 0.00
_Member Number:	118 _

STAAD SPACE	PAGE NO. 130
	E CHECKING - IS-800-2007-LSD (V2.2) ***********************************
_Member Number: 121 _ Member Section: ST 240X120 Status: PASS Ratio: 0.126 Cri Critical Condition: Slenderness (X8.0RHS (TATA STRUCTURA SECTIONS) tical Load Case: 7 Location: 0.00 Compression)
_Member Number: 122 _ Member Section: ST 240X120 Status: PASS Ratio: 0.311 Cri Critical Condition: Slenderness (X8.0RHS (TATA STRUCTURA SECTIONS) tical Load Case: 7 Location: 0.00 Compression)
_Member Number: 123 _ Member Section: ST 240X120 Status: PASS Ratio: 0.311 Cri Critical Condition: Slenderness (tical Load Case: 7 Location: 0.00
_Member Number: 124 _ Member Section: ST 240X120	X8.0RHS (TATA STRUCTURA SECTIONS) tical Load Case: 7 Location: 0.00 Compression)

_Member Number: 125 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.167 Critical Load Case: 7 Location: 0.00Critical Condition: Slenderness (Compression) ---------------_Member Number: 126 _ | Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.167 Critical Load Case: 7 Location: Critical Condition: Slenderness (Compression) Member Number: 127 _ | Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.167 Critical Load Case: 7 Location: 0.00 +Critical Condition: Slenderness (Compression) _____ Member Number: 128 Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) | Status: PASS Ratio: 0.167 Critical Load Case: 7 Location: 0.00 | Critical Condition: Slenderness (Compression) _____ STAAD SPACE -- PAGE NO. 132 STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***************** Member Number: 129 Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) | Status: PASS Ratio: 0.113 Critical Load Case: 8 Location: 0.00 +Critical Condition: Slenderness (Compression) Member Number: 130

Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.113 Critical Load Case: 9 Location: 0.00 Critical Condition: Slenderness (Compression)	l
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	I
_ STAAD SPACE PAGE NO. 133	
_Member Number: 134 _	I
_Member Number: 135 _	I

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_Member Number: 136 _
Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.126 Critical Load Case: 7 Location:
                                            0.00
Critical Condition: Slenderness (Compression)
  STAAD SPACE
                               -- PAGE NO. 134
        STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2)
        ******************
_Member Number: 137 _
Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.311 Critical Load Case: 7 Location:
                                            0.00 \pm
Critical Condition: Slenderness (Compression)
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_Member Number: 138 _
Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.113 Critical Load Case: 9 Location:
                                            0.00
Critical Condition: Slenderness (Compression)
_____
 _____
_Member Number: 139 _
| Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.113 Critical Load Case: 8 Location:
Critical Condition: Slenderness (Compression)
_____
Member Number: 140
| Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
Status: PASS Ratio: 0.311 Critical Load Case: 7 Location:
                                            0.00
Critical Condition: Slenderness (Compression)
|-----|
  STAAD SPACE
                               -- PAGE NO. 135
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Member Number: 141 _	I
_Member Number: 143 _	
_Member Number: 144 _	
_ STAAD SPACE PAGE NO. 136	
STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***********************************	
_Member Number: 146 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.311 Critical Load Case: 7 Location: 0.00	

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Critical Condition: Slenderness (Compression)	
_ STAAD SPACE PAGE NO. 137	
STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***********************************	
_Member Number: 149 _	
_Member Number: 150 _	
 * _Member Number: 152 _	

	Member Section: ST 240X120X8.0RHS (TATA STRUCTUR. Status: FAIL Ratio: 1.070 Critical Load Case: 9 Location: 0 Critical Condition: Sec. 9.3.1.1	
-	_ STAAD SPACE PAGE NO. 138	
_	STAAD.PRO CODE CHECKING - IS-800-2007-LSD (\ ************************************	,
	Member Number: 153 _	
	_Member Number: 154 _	
	_Member Number: 155 _ Member Section: ST 240X120X8.0RHS (TATA STRUCTUR. Status: PASS Ratio: 0.890 Critical Load Case: 11 Location: Critical Condition: Sec. 8.2.1.2	
	_Member Number: 156 _	A SECTIONS) 2.79
-	_ STAAD SPACE PAGE NO. 139	
_		*

_Member Number: 157 _	
	l
_Member Number: 167 _	
_Member Number: 169 _ Member Section: ST 220X220X10.0SHS (TATA STRUCTURA SECTIONS) Status: PASS Ratio: 0.346 Critical Load Case: 9 Location: 0.00 Critical Condition: Sec. 9.3.2.2	
_ STAAD SPACE PAGE NO. 140	
- STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2) ***********************************	
Member Number: 170 _	
· 	
_Member Number: 172 _	

Critical Condition: Sec. 9.3.1.	20X8.0RHS (TATA STRUCTURA SECTIONS) Critical Load Case: 8 Location: 2.19 1
_Member Number: 175 _ Member Section: ST 240X1 Status: PASS Ratio: 0.946 (Critical Condition: Sec. 8.2.1.	20X8.0RHS (TATA STRUCTURA SECTIONS) Critical Load Case: 11 Location: 2.79
STAAD SPACE	PAGE NO. 141
	DE CHECKING - IS-800-2007-LSD (V2.2) ***********************************
Member Number: 177 _ Member Section: ST 240X1	20X8.0RHS (TATA STRUCTURA SECTIONS) Critical Load Case: 9 Location: 0.00
	220X10.0SHS (TATA STRUCTURA SECTIONS) Critical Load Case: 8 Location: 0.00
Member Number: 179 _ Member Section: ST 220X2 Status: PASS Ratio: 0.346 (Critical Condition: Sec. 9.3.2. Member Number: 181 _ Member Section: ST 240X1 Status: PASS Ratio: 0.537 (Critical Condition: Sec. 8.2.1.	20X10.0SHS (TATA STRUCTURA SECTIONS) Critical Load Case: 8 Location: 0.00 2

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| Critical Condition: Sec. 9.3.2.2
  STAAD SPACE
                                -- PAGE NO. 142
         STAAD.PRO CODE CHECKING - IS-800-2007-LSD (V2.2)
        ************************************
_____
_Member Number: 184 _
| Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
| Status: PASS Ratio: 0.946 Critical Load Case: 11 Location: 2.79
 Critical Condition: Sec. 8.2.1.2
|------
_____
 _Member Number: 186 _
Member Section: ST 240X120X8.0RHS (TATA STRUCTURA SECTIONS)
| Status: PASS Ratio: 0.671 Critical Load Case: 9 Location:
                                             0.00 +
| Critical Condition: Sec. 9.3.2.2
|------
230. STEEL MEMBER TAKE OFF LIST 2 4 6 8 13 TO 80 89 TO 158 167 169 170 172 173 -
                               -- PAGE NO. 143
_ STAAD SPACE
\_\mathsf{STEEL}\ \mathsf{TAKE}\ \mathsf{OFF}\ \_
STEEL TAKE-OFF
 -----
  PROFILE
               LENGTH(METE)
                             WEIGHT(KN)
231. 175 177 179 181 183 184 186
ST 220X220X10.0SHS 150.00
                              93.831
ST 240X120X8.0RHS 193.28
                              79.272
              TOTAL = 173.103
MEMBER
          PROFILE
                       LENGTH
                                 WEIGHT
               (METE)
                       (KN)
  2
     ST 220X220X10.0SHS 3.46
                              2.166
     ST 220X220X10.0SHS 3.46
                              2.166
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6
    ST 220X220X10.0SHS
                              3.46
                                      2.166
8
    ST 220X220X10.0SHS
                              3.46
                                      2.166
13
     ST 240X120X8.0RHS
                              0.29
                                      0.118
14
     ST 240X120X8.0RHS
                              0.29
                                      0.118
15
     ST 240X120X8.0RHS
                              0.29
                                      0.118
16
     ST 240X120X8.0RHS
                              0.29
                                      0.118
17
     ST 220X220X10.0SHS
                              3.46
                                      2.166
18
     ST 220X220X10.0SHS
                              3.46
                                      2.166
19
     ST 220X220X10.0SHS
                              3.46
                                      2.166
20
     ST 220X220X10.0SHS
                              3.46
                                      2.166
21
     ST 240X120X8.0RHS
                              0.29
                                      0.118
22
     ST 240X120X8.0RHS
                              0.29
                                      0.118
23
     ST 240X120X8.0RHS
                              0.29
                                      0.118
24
     ST 240X120X8.0RHS
                              0.29
                                      0.118
25
     ST 220X220X10.0SHS
                                      2.346
                              3.75
26
     ST 220X220X10.0SHS
                              3.75
                                      2.346
27
     ST 220X220X10.0SHS
                              3.75
                                      2.346
28
     ST 220X220X10.0SHS
                              3.75
                                      2.346
29
     ST 240X120X8.0RHS
                              2.76
                                      1.132
30
     ST 240X120X8.0RHS
                              3.36
                                      1.378
31
     ST 240X120X8.0RHS
                              3.36
                                      1.378
32
     ST 240X120X8.0RHS
                              2.76
                                      1.132
33
     ST 220X220X10.0SHS
                              3.75
                                      2.346
34
     ST 220X220X10.0SHS
                                      2.346
                              3.75
35
     ST 220X220X10.0SHS
                              3.75
                                      2.346
36
     ST 220X220X10.0SHS
                              3.75
                                      2.346
37
     ST 240X120X8.0RHS
                              2.76
                                      1.132
38
     ST 240X120X8.0RHS
                              3.36
                                      1.378
39
     ST 240X120X8.0RHS
                              3.36
                                      1.378
40
     ST 240X120X8.0RHS
                              2.76
                                      1.132
41
     ST 220X220X10.0SHS
                              3.75
                                      2.346
42
     ST 220X220X10.0SHS
                              3.75
                                      2.346
43
     ST 220X220X10.0SHS
                              3.75
                                      2.346
44
     ST 220X220X10.0SHS
                              3.75
                                      2.346
45
     ST 240X120X8.0RHS
                              2.76
                                      1.132
46
     ST 240X120X8.0RHS
                              3.36
                                      1.378
STAAD SPACE
                                        -- PAGE NO. 144
47
     ST 240X120X8.0RHS
                              3.36
                                      1.378
48
     ST 240X120X8.0RHS
                              2.76
                                      1.132
49
     ST 220X220X10.0SHS
                              3.75
                                      2.346
50
     ST 220X220X10.0SHS
                              3.75
                                      2.346
51
     ST 220X220X10.0SHS
                              3.75
                                      2.346
52
     ST 220X220X10.0SHS
                              3.75
                                      2.346
53
     ST 240X120X8.0RHS
                              2.76
                                      1.132
54
     ST 240X120X8.0RHS
                              3.36
                                      1.378
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55	ST 240X120X8.0RHS	3.36	1.378
56	ST 240X120X8.0RHS	2.76	1.132
57	ST 220X220X10.0SHS	3.75	2.346
58	ST 220X220X10.0SHS	3.75	2.346
59	ST 220X220X10.0SHS	3.75	2.346
60	ST 220X220X10.0SHS	3.75	2.346
61	ST 240X120X8.0RHS	2.76	1.132
62	ST 240X120X8.0RHS	3.36	1.378
63	ST 240X120X8.0RHS	3.36	1.378
64	ST 240X120X8.0RHS	2.76	1.132
65	ST 220X220X10.0SHS	3.75	2.346
66	ST 220X220X10.0SHS	3.75	2.346
67	ST 220X220X10.0SHS	3.75	2.346
68	ST 220X220X10.0SHS	3.75	2.346
69	ST 240X120X8.0RHS	2.76	1.132
70	ST 240X120X8.0RHS	3.36	1.132
71	ST 240X120X8.0RHS	3.36	1.378
72	ST 240X120X8.0RHS	2.76	1.132
73	ST 220X220X10.0SHS	3.75	2.346
73 74	ST 220X220X10.0SHS	3.75	2.346
7 4 75	ST 220X220X10.0SHS	3.75	2.346
75 76	ST 220X220X10.0SHS ST 220X220X10.0SHS	3.75 3.75	
	ST 240X120X8.0RHS		2.346
77 79		2.76	1.132
78 70	ST 240X120X8.0RHS	3.36	1.378
79	ST 240X120X8.0RHS	3.36	1.378
80	ST 240X120X8.0RHS	2.76	1.132
89	ST 240X120X8.0RHS	1.00	0.410
90	ST 240X120X8.0RHS	1.00	0.410
91	ST 240X120X8.0RHS	2.76	1.132
92	ST 240X120X8.0RHS	1.00	0.410
93	ST 240X120X8.0RHS	1.00	0.410
94	ST 240X120X8.0RHS	2.76	1.132
95	ST 240X120X8.0RHS	1.00	0.410
96	ST 240X120X8.0RHS	1.00	0.410
97	ST 240X120X8.0RHS	2.76	1.132
98	ST 240X120X8.0RHS	1.00	0.410
99	ST 240X120X8.0RHS	1.00	0.410
100	ST 240X120X8.0RHS	2.76	1.132
101	ST 240X120X8.0RHS	1.00	0.410
102	ST 240X120X8.0RHS	1.00	0.410
103	ST 240X120X8.0RHS	2.76	1.132
104	ST 240X120X8.0RHS	1.00	0.410
105	ST 240X120X8.0RHS	1.00	0.410
106	ST 240X120X8.0RHS	2.76	1.132
107	ST 240X120X8.0RHS	1.00	0.410
108	ST 240X120X8.0RHS	1.00	0.410

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109
                               2.76
      ST 240X120X8.0RHS
                                       1.132
110
      ST 240X120X8.0RHS
                                       0.410
                               1.00
 STAAD SPACE
                                        -- PAGE NO. 145
                               1.00
111
      ST 240X120X8.0RHS
                                       0.410
112
      ST 240X120X8.0RHS
                               2.76
                                       1.132
113
      ST 220X220X10.0SHS
                               1.20
                                       0.751
                               1.20
114
      ST 220X220X10.0SHS
                                       0.751
115
      ST 220X220X10.0SHS
                               1.20
                                       0.751
116
      ST 220X220X10.0SHS
                               1.20
                                       0.751
117
      ST 240X120X8.0RHS
                               1.12
                                       0.459
118
      ST 240X120X8.0RHS
                               2.76
                                       1.132
119
      ST 240X120X8.0RHS
                              2.76
                                       1.132
120
      ST 240X120X8.0RHS
                               1.12
                                       0.459
121
      ST 240X120X8.0RHS
                                       0.459
                               1.12
122
      ST 240X120X8.0RHS
                               2.76
                                       1.132
123
      ST 240X120X8.0RHS
                              2.76
                                       1.132
124
      ST 240X120X8.0RHS
                               1.12
                                       0.459
125
      ST 220X220X10.0SHS
                               2.55
                                       1.595
126
      ST 220X220X10.0SHS
                               2.55
                                       1.595
127
                               2.55
      ST 220X220X10.0SHS
                                       1.595
128
                               2.55
      ST 220X220X10.0SHS
                                       1.595
129
      ST 240X120X8.0RHS
                               1.00
                                       0.410
130
      ST 240X120X8.0RHS
                               1.00
                                       0.410
131
      ST 240X120X8.0RHS
                               2.76
                                       1.132
132
      ST 240X120X8.0RHS
                               1.12
                                       0.459
133
      ST 240X120X8.0RHS
                               1.12
                                       0.459
134
      ST 240X120X8.0RHS
                                       0.459
                               1.12
135
      ST 240X120X8.0RHS
                              2.76
                                       1.132
136
      ST 240X120X8.0RHS
                               1.12
                                       0.459
137
      ST 240X120X8.0RHS
                              2.76
                                       1.132
138
      ST 240X120X8.0RHS
                               1.00
                                       0.410
139
      ST 240X120X8.0RHS
                               1.00
                                       0.410
140
                              2.76
      ST 240X120X8.0RHS
                                       1.132
141
      ST 240X120X8.0RHS
                               1.12
                                       0.459
142
      ST 240X120X8.0RHS
                               1.12
                                       0.459
      ST 240X120X8.0RHS
143
                               1.12
                                       0.459
144
      ST 240X120X8.0RHS
                               2.76
                                       1.132
145
      ST 240X120X8.0RHS
                               1.12
                                       0.459
146
      ST 240X120X8.0RHS
                               2.76
                                       1.132
147
      ST 220X220X10.0SHS
                               0.29
                                       0.180
148
      ST 220X220X10.0SHS
                               0.29
                                       0.180
149
      ST 220X220X10.0SHS
                               0.29
                                       0.180
150
      ST 220X220X10.0SHS
                               0.29
                                       0.180
151
      ST 240X120X8.0RHS
                               2.19
                                       0.897
152
      ST 240X120X8.0RHS
                                       0.897
                               2.19
```

```
153
      ST 240X120X8.0RHS
                             0.29
                                      0.118
154
      ST 240X120X8.0RHS
                             0.29
                                      0.118
155
      ST 240X120X8.0RHS
                              2.79
                                      1.143
156
      ST 240X120X8.0RHS
                             2.79
                                      1.143
157
      ST 240X120X8.0RHS
                             0.29
                                      0.118
158
      ST 240X120X8.0RHS
                             0.29
                                      0.118
167
      ST 240X120X8.0RHS
                             0.29
                                      0.118
169
      ST 220X220X10.0SHS
                              0.29
                                      0.180
170
      ST 240X120X8.0RHS
                              0.29
                                      0.118
172
      ST 220X220X10.0SHS
                              0.29
                                      0.180
173
      ST 240X120X8.0RHS
                             2.19
                                      0.897
175
      ST 240X120X8.0RHS
                              2.79
                                      1.143
177
      ST 240X120X8.0RHS
                              2.19
                                      0.897
179
      ST 220X220X10.0SHS
                              0.29
                                      0.180
 STAAD SPACE
                                      -- PAGE NO. 146
181
      ST 240X120X8.0RHS
                             0.29
                                      0.118
183
      ST 220X220X10.0SHS
                              0.29
                                      0.180
      ST 240X120X8.0RHS
                              2.79
184
                                      1.143
                             0.29
186
      ST 240X120X8.0RHS
                                      0.118
                TOTAL =
                            173.103
```

****** END OF DATA FROM INTERNAL STORAGE ********

```
232. LOAD LIST 16
```

233. START CONCRETE DESIGN

CONCRETE DESIGN

- 234. CODE INDIAN
- 235. FC 25000 MEMB 1 3 5 7
- 236. FYMAIN 500000 MEMB 1 3 5 7
- 237. FYSEC 500000 MEMB 1 3 5 7
- 238. DESIGN COLUMN 1 3 5 7
- _ STAAD SPACE

-- PAGE NO. 147

COLUMN

_

ICASC 2000 COLUMN DEGLON DEGLINES

IS 456 - 2000 COLUMN DESIGN RESULTS

IS-456 LIMIT STATE DESIGN COLUMN NO. 1 DESIGN RESULTS

M25 Fe500 (Main) Fe500 (Sec.)

LENGTH: 2275.0 mm CROSS SECTION: 600.0 mm X 600.0 mm COVER: 40.0 mm

** GUIDING LOAD CASE: 16 END JOINT: 5 SHORT COLUMN

REQD. STEEL AREA : 243.63 Sq.mm.

REQD. CONCRETE AREA: 30453.77 Sq.mm.

MAIN REINFORCEMENT: Provide 8 - 12 dia. (0.25%, 904.78 Sq.mm.)

(Equally distributed)

TIE REINFORCEMENT: Provide 8 mm dia. rectangular ties @ 190 mm c/c

SECTION CAPACITY BASED ON REINFORCEMENT REQUIRED (KNS-MET)

Puz: 4138.62 Muz1: 119.49 Muy1: 119.49

INTERACTION RATIO: 0.14 (as per Cl. 39.6, IS456:2000)

SECTION CAPACITY BASED ON REINFORCEMENT PROVIDED (KNS-MET)

.....

WORST LOAD CASE: 16

END JOINT: 5 Puz: 4379.11 Muz: 190.27 Muy: 190.27 IR: 0.09

STAAD SPACE -- PAGE NO. 148

IS-456 LIMIT STATE DESIGN COLUMN NO. 3 DESIGN RESULTS

M25 Fe500 (Main) Fe500 (Sec.)

LENGTH: 2275.0 mm CROSS SECTION: 600.0 mm X 600.0 mm COVER: 40.0 mm

** GUIDING LOAD CASE: 16 END JOINT: 6 SHORT COLUMN

REQD. STEEL AREA: 243.63 Sq.mm. REQD. CONCRETE AREA: 30453.77 Sq.mm.

MAIN REINFORCEMENT: Provide 8 - 12 dia. (0.25%, 904.78 Sq.mm.)

(Equally distributed)

TIE REINFORCEMENT: Provide 8 mm dia. rectangular ties @ 190 mm c/c

SECTION CAPACITY BASED ON REINFORCEMENT REQUIRED (KNS-MET)

Puz: 4138.62 Muz1: 119.49 Muy1: 119.49

INTERACTION RATIO: 0.14 (as per Cl. 39.6, IS456:2000)

SECTION CAPACITY BASED ON REINFORCEMENT PROVIDED (KNS-MET)

WORST LOAD CASE: 16

END JOINT: 6 Puz: 4379.11 Muz: 190.27 Muy: 190.27 IR: 0.09

======

IS-456 LIMIT STATE DESIGN COLUMN NO. 5 DESIGN RESULTS

M25 Fe500 (Main) Fe500 (Sec.)

LENGTH: 2275.0 mm CROSS SECTION: 600.0 mm X 600.0 mm COVER: 40.0 mm

** GUIDING LOAD CASE: 16 END JOINT: 7 SHORT COLUMN

_ STAAD SPACE -- PAGE NO. 149

REQD. STEEL AREA: 111.18 Sq.mm. REQD. CONCRETE AREA: 13897.12 Sq.mm.

MAIN REINFORCEMENT: Provide 8 - 12 dia. (0.25%, 904.78 Sq.mm.)

(Equally distributed)

TIE REINFORCEMENT: Provide 8 mm dia. rectangular ties @ 190 mm c/c

SECTION CAPACITY BASED ON REINFORCEMENT REQUIRED (KNS-MET)

Puz: 4090.44 Muz1: 57.68 Muy1: 57.68

INTERACTION RATIO: 0.13 (as per Cl. 39.6, IS456:2000)

SECTION CAPACITY BASED ON REINFORCEMENT PROVIDED (KNS-MET)

WORST LOAD CASE: 16

END JOINT: 3 Puz: 4379.11 Muz: 138.71 Muy: 138.71 IR: 0.06

IS-456 LIMIT STATE DESIGN COLUMN NO. 7 DESIGN RESULTS

M25 Fe500 (Main) Fe500 (Sec.)

LENGTH: 2275.0 mm CROSS SECTION: 600.0 mm X 600.0 mm COVER: 40.0 mm

** GUIDING LOAD CASE: 16 END JOINT: 8 SHORT COLUMN

REQD. STEEL AREA: 111.18 Sq.mm. REQD. CONCRETE AREA: 13897.12 Sq.mm.

MAIN REINFORCEMENT: Provide 8 - 12 dia. (0.25%, 904.78 Sq.mm.)

(Equally distributed)

TIE REINFORCEMENT: Provide 8 mm dia. rectangular ties @ 190 mm c/c

SECTION CAPACITY BASED ON REINFORCEMENT REQUIRED (KNS-MET)

Puz: 4090.44 Muz1: 57.68 Muy1: 57.68

INTERACTION RATIO: 0.13 (as per Cl. 39.6, IS456:2000)

SECTION CAPACITY BASED ON REINFORCEMENT PROVIDED (KNS-MET)

WORST LOAD CASE: 16

END JOINT: 4 Puz: 4379.11 Muz: 138.71 Muy: 138.71 IR: 0.06

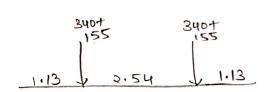
_ STAAD SPACE -- PAGE NO. 150

======

239. END CONCRETE DESIGN
240. PERFORM ANALYSIS
** ALL CASES BEING MADE ACTIVE BEFORE RE-ANALYSIS. **
241. FINISH
****** END OF THE STAAD.Pro RUN *******
**** DATE= DEC 11,2023 TIME= 10:31:31 ****

* For technical assistance on STAAD.Pro, please visit *
* http://www.bentley.com/en/support/ *
* *
* Details about additional assistance from *
* Bentley and Partners can be found at program menu *
* Help->Technical Support *
*
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* http://www.bentley.com *

Gandhi hospilal



$$(495 \times 1.13) + (495 \times 3.67)$$

= 559.35+ 1816.65
= 2376/990 = 2.4m

$$42 = \frac{4.8}{2} = 2.4$$
 $e = \frac{2}{2} - D = 2.4 - 2.4 = 0$
 $e = 0$

$$(680 \times 0.835) + (310 \times 3.965)$$

$$= 567.8 + 1729.15$$

$$= 1796.95/990 = 1.815$$

$$42 = 4.8 = 2.4$$

$$e = 6-D = 2.4 - 1.815 = 0.585$$

self weight = 4.8 x 4.8 x 0.475 x 25 = 273.6 KN

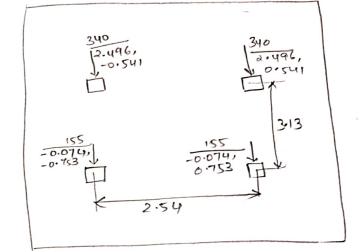
OverBurden = [(4.8 × 4.8) - 4(0.6 × 0.6)] × 1.175 × 18

= [23.04- 1.44] x1.1\$5 X18

= 21.6×1.175×18 = 456.84

Total dead load = 273.6 +456.84 = 730.44

Total load = 990 + 730.44 = 1720.44 = 1721



$$Mx = 4.844+0 = 4.844$$

$$M = \frac{WL}{2} = \frac{12.96 \times 1.02^{2}}{2} = 6.742$$

2173.10 2175 mm.