**PROJECT TITLE :**

| | | | | |
|---|---|---|---|---|
| MIDAS | Company | | Client | |
| | Author | Ing. Osvaldo Guzman Avila | File Name | P049-2025-MOD-001.mdl |

*** PROJECT INFORMATION

Project Name :
Date : 2025/6/20

*** CONTROL DATA

Panel Zone Effect : Do not Calculate
Unit System : KN, M
Definition of Frame
- X Direction of Frame : Braced I Non-sway
- Y Direction of Frame : Braced I Non-sway
- Design Type : 3-D

Design Code
- Steel : AISC(15th)-LRFD16
- Concrete : NSR-10
- SRC : SSRC79

*** LOAD CASE DATA

| NO | NAME | TYPE | SELF WEIGHT FACTOR X | Y | Z | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | PP | D | 0.000 | 0.000 | -1.000 | |
| 4 | WX | W | 0.000 | 0.000 | 0.000 | |
| 5 | WY | W | 0.000 | 0.000 | 0.000 | |
| 6 | EVT | D | 0.000 | 0.000 | 0.000 | |

*** MATERIAL PROPERTY DATA

| NO | NAME | TYPE | MODULUS OF ELASTICITY | SHEAR MODULUS | THERMAL COEFF. | POISSON RATIO | WEIGHT DENSITY |
|---|---|---|---|---|---|---|---|
| 1 | Grade C3500 | CONC | 2.35e+07 | 9.793e+06 | 5e-06 | 0.2 | 23.56 |
| 2 | A500-50 | STEEL | 1.999e+08 | 7.69e+07 | 6.5e-06 | 0.3 | 77.09 |

| NO | NAME | TYPE | STRENGTH OF DESIGN MATERIAL STEEL | CONCRETE | MAIN REBAR | SUB REBAR |
|---|---|---|---|---|---|---|
| 1 | Grade C3500 | CONC | - | 2.413e+04 | 4.137e+05 | 4.137e+05 |
| 2 | A500-50 | STEEL | 3.447e+05 | - | - | - |

*** STORY DATA

Ground Level , 0

| NAME | LEVEL | HEIGHT | FLOOR DIAPHRAGM |
|---|---|---|---|
| Roof | 3.500 | 0.000 | Do not consider |
| 2F | 1.500 | 2.000 | Do not consider |
| 1F | 0.000 | 1.500 | Do not consider |
| B1 | -0.150 | 0.150 | Do not consider |

*** NODE DATA

| NO | X | Y | Z | TEMPERATURE |
|---|---|---|---|---|
| 1 | 0 | 0 | 0 | 0 |
| 2 | 2.5 | 0 | 0 | 0 |
| 3 | 0 | 0 | 1.5 | 0 |
| 4 | 2.5 | 0 | 1.5 | 0 |
| 5 | 5 | 0 | 0 | 0 |
| 6 | 5 | 0 | 1.5 | 0 |
| 7 | 7.5 | 0 | 0 | 0 |
| 8 | 7.5 | 0 | 1.5 | 0 |
| 14 | 0 | 0 | 1.25 | 0 |
| 15 | 0 | 0 | 1 | 0 |
| 16 | 0 | 0 | 0.75 | 0 |
| 17 | 0 | 0 | 0.5 | 0 |
| 18 | 0 | 0 | 0.25 | 0 |
| 20 | 0.25 | 0 | 0 | 0 |
| 21 | 0.5 | 0 | 0 | 0 |
| 22 | 0.75 | 0 | 0 | 0 |
| 23 | 1 | 0 | 0 | 0 |

**PROJECT TITLE :**

| | Company | | Client | |
|---|---|---|---|---|
| MIDAS | Author | Ing. Osvaldo Guzman Avila | File Name | P049-2025-MOD-001.mdl |

| | | | | |
|---|---|---|---|---|
| 24 | 1.25 | 0 | 0 | 0 |
| 25 | 1.5 | 0 | 0 | 0 |
| 26 | 1.75 | 0 | 0 | 0 |
| 27 | 2 | 0 | 0 | 0 |
| 28 | 2.25 | 0 | 0 | 0 |
| 30 | 2.5 | 0 | 0.25 | 0 |
| 31 | 2.5 | 0 | 0.5 | 0 |
| 32 | 2.5 | 0 | 0.75 | 0 |
| 33 | 2.5 | 0 | 1 | 0 |
| 34 | 2.5 | 0 | 1.25 | 0 |
| 36 | 2.25 | 0 | 1.5 | 0 |
| 37 | 2 | 0 | 1.5 | 0 |
| 38 | 1.75 | 0 | 1.5 | 0 |
| 39 | 1.5 | 0 | 1.5 | 0 |
| 40 | 1.25 | 0 | 1.5 | 0 |
| 41 | 1 | 0 | 1.5 | 0 |
| 42 | 0.75 | 0 | 1.5 | 0 |
| 43 | 0.5 | 0 | 1.5 | 0 |
| 44 | 0.25 | 0 | 1.5 | 0 |
| 45 | 2.25 | 0 | 0.25 | 0 |
| 46 | 2 | 0 | 0.25 | 0 |
| 47 | 1.75 | 0 | 0.25 | 0 |
| 48 | 1.5 | 0 | 0.25 | 0 |
| 49 | 1.25 | 0 | 0.25 | 0 |
| 50 | 1 | 0 | 0.25 | 0 |
| 51 | 0.75 | 0 | 0.25 | 0 |
| 52 | 0.5 | 0 | 0.25 | 0 |
| 53 | 0.25 | 0 | 0.25 | 0 |
| 54 | 2.25 | 0 | 0.5 | 0 |
| 55 | 2 | 0 | 0.5 | 0 |
| 56 | 1.75 | 0 | 0.5 | 0 |
| 57 | 1.5 | 0 | 0.5 | 0 |
| 58 | 1.25 | 0 | 0.5 | 0 |
| 59 | 1 | 0 | 0.5 | 0 |
| 60 | 0.75 | 0 | 0.5 | 0 |
| 61 | 0.5 | 0 | 0.5 | 0 |
| 62 | 0.25 | 0 | 0.5 | 0 |
| 63 | 2.25 | 0 | 0.75 | 0 |
| 64 | 2 | 0 | 0.75 | 0 |
| 65 | 1.75 | 0 | 0.75 | 0 |
| 66 | 1.5 | 0 | 0.75 | 0 |
| 67 | 1.25 | 0 | 0.75 | 0 |
| 68 | 1 | 0 | 0.75 | 0 |
| 69 | 0.75 | 0 | 0.75 | 0 |
| 70 | 0.5 | 0 | 0.75 | 0 |
| 71 | 0.25 | 0 | 0.75 | 0 |
| 72 | 2.25 | 0 | 1 | 0 |
| 73 | 2 | 0 | 1 | 0 |
| 74 | 1.75 | 0 | 1 | 0 |
| 75 | 1.5 | 0 | 1 | 0 |
| 76 | 1.25 | 0 | 1 | 0 |
| 77 | 1 | 0 | 1 | 0 |
| 78 | 0.75 | 0 | 1 | 0 |
| 79 | 0.5 | 0 | 1 | 0 |
| 80 | 0.25 | 0 | 1 | 0 |
| 81 | 2.25 | 0 | 1.25 | 0 |
| 82 | 2 | 0 | 1.25 | 0 |
| 83 | 1.75 | 0 | 1.25 | 0 |
| 84 | 1.5 | 0 | 1.25 | 0 |
| 85 | 1.25 | 0 | 1.25 | 0 |
| 86 | 1 | 0 | 1.25 | 0 |
| 87 | 0.75 | 0 | 1.25 | 0 |
| 88 | 0.5 | 0 | 1.25 | 0 |
| 89 | 0.25 | 0 | 1.25 | 0 |
| 97 | 2.75 | 0 | 0 | 0 |
| 98 | 3 | 0 | 0 | 0 |
| 99 | 3.25 | 0 | 0 | 0 |
| 100 | 3.5 | 0 | 0 | 0 |
| 101 | 3.75 | 0 | 0 | 0 |
| 102 | 4 | 0 | 0 | 0 |
| 103 | 4.25 | 0 | 0 | 0 |
| 104 | 4.5 | 0 | 0 | 0 |
| 105 | 4.75 | 0 | 0 | 0 |
| 107 | 5 | 0 | 0.25 | 0 |
| 108 | 5 | 0 | 0.5 | 0 |
| 109 | 5 | 0 | 0.75 | 0 |
| 110 | 5 | 0 | 1 | 0 |
| 111 | 5 | 0 | 1.25 | 0 |
| 113 | 4.75 | 0 | 1.5 | 0 |

**PROJECT TITLE :**

| | Company | | Client | |
|---|---|---|---|---|
| MIDAS | Author | Ing. Osvaldo Guzman Avila | File Name | P049-2025-MOD-001.mdl |

| | | | | |
|---|---|---|---|---|
| 114 | 4.5 | 0 | 1.5 | 0 |
| 115 | 4.25 | 0 | 1.5 | 0 |
| 116 | 4 | 0 | 1.5 | 0 |
| 117 | 3.75 | 0 | 1.5 | 0 |
| 118 | 3.5 | 0 | 1.5 | 0 |
| 119 | 3.25 | 0 | 1.5 | 0 |
| 120 | 3 | 0 | 1.5 | 0 |
| 121 | 2.75 | 0 | 1.5 | 0 |
| 122 | 4.75 | 0 | 0.25 | 0 |
| 123 | 4.5 | 0 | 0.25 | 0 |
| 124 | 4.25 | 0 | 0.25 | 0 |
| 125 | 4 | 0 | 0.25 | 0 |
| 126 | 3.75 | 0 | 0.25 | 0 |
| 127 | 3.5 | 0 | 0.25 | 0 |
| 128 | 3.25 | 0 | 0.25 | 0 |
| 129 | 3 | 0 | 0.25 | 0 |
| 130 | 2.75 | 0 | 0.25 | 0 |
| 131 | 4.75 | 0 | 0.5 | 0 |
| 132 | 4.5 | 0 | 0.5 | 0 |
| 133 | 4.25 | 0 | 0.5 | 0 |
| 134 | 4 | 0 | 0.5 | 0 |
| 135 | 3.75 | 0 | 0.5 | 0 |
| 136 | 3.5 | 0 | 0.5 | 0 |
| 137 | 3.25 | 0 | 0.5 | 0 |
| 138 | 3 | 0 | 0.5 | 0 |
| 139 | 2.75 | 0 | 0.5 | 0 |
| 140 | 4.75 | 0 | 0.75 | 0 |
| 141 | 4.5 | 0 | 0.75 | 0 |
| 142 | 4.25 | 0 | 0.75 | 0 |
| 143 | 4 | 0 | 0.75 | 0 |
| 144 | 3.75 | 0 | 0.75 | 0 |
| 145 | 3.5 | 0 | 0.75 | 0 |
| 146 | 3.25 | 0 | 0.75 | 0 |
| 147 | 3 | 0 | 0.75 | 0 |
| 148 | 2.75 | 0 | 0.75 | 0 |
| 149 | 4.75 | 0 | 1 | 0 |
| 150 | 4.5 | 0 | 1 | 0 |
| 151 | 4.25 | 0 | 1 | 0 |
| 152 | 4 | 0 | 1 | 0 |
| 153 | 3.75 | 0 | 1 | 0 |
| 154 | 3.5 | 0 | 1 | 0 |
| 155 | 3.25 | 0 | 1 | 0 |
| 156 | 3 | 0 | 1 | 0 |
| 157 | 2.75 | 0 | 1 | 0 |
| 158 | 4.75 | 0 | 1.25 | 0 |
| 159 | 4.5 | 0 | 1.25 | 0 |
| 160 | 4.25 | 0 | 1.25 | 0 |
| 161 | 4 | 0 | 1.25 | 0 |
| 162 | 3.75 | 0 | 1.25 | 0 |
| 163 | 3.5 | 0 | 1.25 | 0 |
| 164 | 3.25 | 0 | 1.25 | 0 |
| 165 | 3 | 0 | 1.25 | 0 |
| 166 | 2.75 | 0 | 1.25 | 0 |
| 174 | 5.25 | 0 | 0 | 0 |
| 175 | 5.5 | 0 | 0 | 0 |
| 176 | 5.75 | 0 | 0 | 0 |
| 177 | 6 | 0 | 0 | 0 |
| 178 | 6.25 | 0 | 0 | 0 |
| 179 | 6.5 | 0 | 0 | 0 |
| 180 | 6.75 | 0 | 0 | 0 |
| 181 | 7 | 0 | 0 | 0 |
| 182 | 7.25 | 0 | 0 | 0 |
| 184 | 7.5 | 0 | 0.25 | 0 |
| 185 | 7.5 | 0 | 0.5 | 0 |
| 186 | 7.5 | 0 | 0.75 | 0 |
| 187 | 7.5 | 0 | 1 | 0 |
| 188 | 7.5 | 0 | 1.25 | 0 |
| 190 | 7.25 | 0 | 1.5 | 0 |
| 191 | 7 | 0 | 1.5 | 0 |
| 192 | 6.75 | 0 | 1.5 | 0 |
| 193 | 6.5 | 0 | 1.5 | 0 |
| 194 | 6.25 | 0 | 1.5 | 0 |
| 195 | 6 | 0 | 1.5 | 0 |
| 196 | 5.75 | 0 | 1.5 | 0 |
| 197 | 5.5 | 0 | 1.5 | 0 |
| 198 | 5.25 | 0 | 1.5 | 0 |
| 199 | 7.25 | 0 | 0.25 | 0 |
| 200 | 7 | 0 | 0.25 | 0 |
| 201 | 6.75 | 0 | 0.25 | 0 |

**PROJECT TITLE :**

| | Company | | Client | |
|---|---|---|---|---|
| MIDAS | Author | Ing. Osvaldo Guzman Avila | File Name | P049-2025-MOD-001.mdl |

| | | | | |
|---|---|---|---|---|
| 202 | 6.5 | 0 | 0.25 | 0 |
| 203 | 6.25 | 0 | 0.25 | 0 |
| 204 | 6 | 0 | 0.25 | 0 |
| 205 | 5.75 | 0 | 0.25 | 0 |
| 206 | 5.5 | 0 | 0.25 | 0 |
| 207 | 5.25 | 0 | 0.25 | 0 |
| 208 | 7.25 | 0 | 0.5 | 0 |
| 209 | 7 | 0 | 0.5 | 0 |
| 210 | 6.75 | 0 | 0.5 | 0 |
| 211 | 6.5 | 0 | 0.5 | 0 |
| 212 | 6.25 | 0 | 0.5 | 0 |
| 213 | 6 | 0 | 0.5 | 0 |
| 214 | 5.75 | 0 | 0.5 | 0 |
| 215 | 5.5 | 0 | 0.5 | 0 |
| 216 | 5.25 | 0 | 0.5 | 0 |
| 217 | 7.25 | 0 | 0.75 | 0 |
| 218 | 7 | 0 | 0.75 | 0 |
| 219 | 6.75 | 0 | 0.75 | 0 |
| 220 | 6.5 | 0 | 0.75 | 0 |
| 221 | 6.25 | 0 | 0.75 | 0 |
| 222 | 6 | 0 | 0.75 | 0 |
| 223 | 5.75 | 0 | 0.75 | 0 |
| 224 | 5.5 | 0 | 0.75 | 0 |
| 225 | 5.25 | 0 | 0.75 | 0 |
| 226 | 7.25 | 0 | 1 | 0 |
| 227 | 7 | 0 | 1 | 0 |
| 228 | 6.75 | 0 | 1 | 0 |
| 229 | 6.5 | 0 | 1 | 0 |
| 230 | 6.25 | 0 | 1 | 0 |
| 231 | 6 | 0 | 1 | 0 |
| 232 | 5.75 | 0 | 1 | 0 |
| 233 | 5.5 | 0 | 1 | 0 |
| 234 | 5.25 | 0 | 1 | 0 |
| 235 | 7.25 | 0 | 1.25 | 0 |
| 236 | 7 | 0 | 1.25 | 0 |
| 237 | 6.75 | 0 | 1.25 | 0 |
| 238 | 6.5 | 0 | 1.25 | 0 |
| 239 | 6.25 | 0 | 1.25 | 0 |
| 240 | 6 | 0 | 1.25 | 0 |
| 241 | 5.75 | 0 | 1.25 | 0 |
| 242 | 5.5 | 0 | 1.25 | 0 |
| 243 | 5.25 | 0 | 1.25 | 0 |
| 244 | 0.3 | 0.3 | -0.15 | 0 |
| 245 | -0.3 | 0.3 | -0.15 | 0 |
| 246 | -0.3 | -0.3 | -0.15 | 0 |
| 247 | 0.3 | -0.3 | -0.15 | 0 |
| 248 | 2.8 | 0.3 | -0.15 | 0 |
| 249 | 2.2 | 0.3 | -0.15 | 0 |
| 250 | 2.2 | -0.3 | -0.15 | 0 |
| 251 | 2.8 | -0.3 | -0.15 | 0 |
| 252 | 5.3 | 0.3 | -0.15 | 0 |
| 253 | 4.7 | 0.3 | -0.15 | 0 |
| 254 | 4.7 | -0.3 | -0.15 | 0 |
| 255 | 5.3 | -0.3 | -0.15 | 0 |
| 256 | 7.8 | 0.3 | -0.15 | 0 |
| 257 | 7.2 | 0.3 | -0.15 | 0 |
| 258 | 7.2 | -0.3 | -0.15 | 0 |
| 259 | 7.8 | -0.3 | -0.15 | 0 |
| 260 | 0 | 0 | 3.5 | 0 |
| 261 | 7.5 | 0 | 3.5 | 0 |
| 262 | 5 | 0 | 3.5 | 0 |
| 263 | 2.5 | 0 | 3.5 | 0 |

** POINT SPRING SUPPORT

| NODE | TRANSLATIONAL DIRECTION | | | ROTATIONAL DIRECTION | | |
|---|---|---|---|---|---|---|
| | SDx | SDy | SDz | SRx | SRy | SRz |
| 244 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 245 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 246 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 247 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 248 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 249 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 250 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 251 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 252 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 253 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 254 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 255 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 256 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 257 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 258 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |
| 259 | 35.2800 | 352.9800 | 3529.8000 | 0.0000 | 0.0000 | 0.0000 |

*** SECTION PROPERTY DATA

| NO | NAME | SHAPE | H | B | tw | tf1 | r1 |
|---|---|---|---|---|---|---|---|
| 1 | PIPE2STD | P | 0.0605 | 0.00391 | 0 | 0 | 0 |
| 2 | VC-30X30 | SB | 0.3 | 0.3 | 0 | 0 | 0 |
| 3 | V-15X20 | SB | 0.2 | 0.15 | 0 | 0 | 0 |
| 4 | C-15X20 | SB | 0.15 | 0.2 | 0 | 0 | 0 |

| NO | NAME | STIFFNESS SCALE FACTOR | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | A | Asy | Asz | Ix | Iy | Iz | W | Boundary Group |
| 1 | PIPE2STD | | | | | | | | |
| 2 | VC-30X30 | | | | | | | | |
| 3 | V-15X20 | | | | | | | | |
| 4 | C-15X20 | | | | | | | | |

| NO | NAME | AREA | MOMENT OF INERTIA | | | SHAPE FACTOR | |
|---|---|---|---|---|---|---|---|
| | | [SRC:EQIV.] | Ix | Iy | Iz | k-Y | k-Z |
| 1 | PIPE2STD | 0.0006581 | 5.203e-07 | 2.61e-07 | 2.61e-07 | 0.5279 | 0.5279 |
| 2 | VC-30X30 | 0.09 | 0.001139 | 0.000675 | 0.000675 | 0.8333 | 0.8333 |
| 3 | V-15X20 | 0.03 | 0.0001215 | 0.0001 | 5.625e-05 | 0.8333 | 0.8333 |
| 4 | C-15X20 | 0.03 | 0.0001215 | 5.625e-05 | 0.0001 | 0.8333 | 0.8333 |

| NO | NAME | SECTION MODULUS Sy | | SECTION MODULUS Sz | |
|---|---|---|---|---|---|
| | | I or CONC. | J or STEEL | I or CONC. | J or STEEL |
| 1 | PIPE2STD | 8.652e-06 | 8.652e-06 | 8.652e-06 | 8.652e-06 |
| 2 | VC-30X30 | 0.0045 | 0.0045 | 0.0045 | 0.0045 |
| 3 | V-15X20 | 0.001 | 0.001 | 0.00075 | 0.00075 |
| 4 | C-15X20 | 0.00075 | 0.00075 | 0.001 | 0.001 |

*** BEAM MEMBER DATA

| NO | NODAL CONNECTIVITY | | BEAM END RELEASE | | MATERIAL | SECTION | LENGTH |
|---|---|---|---|---|---|---|---|
| | I | J | I | J | | | |
| 1 | 1 | 20 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 2 | 1 | 18 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 3 | 3 | 44 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 4 | 2 | 97 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 5 | 2 | 30 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 6 | 4 | 121 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 7 | 5 | 174 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 8 | 5 | 107 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 9 | 6 | 198 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 10 | 7 | 184 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 11 | 3 | 260 | - | - | A500-50 | PIPE2STD | 2 |
| 12 | 4 | 263 | - | - | A500-50 | PIPE2STD | 2 |
| 13 | 6 | 262 | - | - | A500-50 | PIPE2STD | 2 |
| 14 | 8 | 261 | - | - | A500-50 | PIPE2STD | 2 |
| 198 | 14 | 3 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 199 | 15 | 14 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 200 | 16 | 15 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 201 | 17 | 16 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 202 | 18 | 17 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 203 | 20 | 21 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 204 | 21 | 22 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 205 | 22 | 23 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 206 | 23 | 24 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 207 | 24 | 25 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 208 | 25 | 26 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 209 | 26 | 27 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 210 | 27 | 28 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 211 | 28 | 2 | - | - | Grade C3500 | VC-30X30 | 0.25 |

**PROJECT TITLE :**

| | Company | | Client | |
|---|---|---|---|---|
| MIDAS | Author | Ing. Osvaldo Guzman Avila | File Name | P049-2025-MOD-001.mdl |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 212 | 30 | 31 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 213 | 31 | 32 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 214 | 32 | 33 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 215 | 33 | 34 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 216 | 34 | 4 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 217 | 36 | 4 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 218 | 37 | 36 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 219 | 38 | 37 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 220 | 39 | 38 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 221 | 40 | 39 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 222 | 41 | 40 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 223 | 42 | 41 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 224 | 43 | 42 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 225 | 44 | 43 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 226 | 97 | 98 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 227 | 98 | 99 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 228 | 99 | 100 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 229 | 100 | 101 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 230 | 101 | 102 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 231 | 102 | 103 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 232 | 103 | 104 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 233 | 104 | 105 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 234 | 105 | 5 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 235 | 107 | 108 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 236 | 108 | 109 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 237 | 109 | 110 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 238 | 110 | 111 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 239 | 111 | 6 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 240 | 113 | 6 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 241 | 114 | 113 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 242 | 115 | 114 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 243 | 116 | 115 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 244 | 117 | 116 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 245 | 118 | 117 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 246 | 119 | 118 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 247 | 120 | 119 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 248 | 121 | 120 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 249 | 174 | 175 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 250 | 175 | 176 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 251 | 176 | 177 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 252 | 177 | 178 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 253 | 178 | 179 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 254 | 179 | 180 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 255 | 180 | 181 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 256 | 181 | 182 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 257 | 182 | 7 | - | - | Grade C3500 | VC-30X30 | 0.25 |
| 258 | 184 | 185 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 259 | 185 | 186 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 260 | 186 | 187 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 261 | 187 | 188 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 262 | 188 | 8 | - | - | Grade C3500 | C-15X20 | 0.25 |
| 263 | 190 | 8 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 264 | 191 | 190 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 265 | 192 | 191 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 266 | 193 | 192 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 267 | 194 | 193 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 268 | 195 | 194 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 269 | 196 | 195 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 270 | 197 | 196 | - | - | Grade C3500 | V-15X20 | 0.25 |
| 271 | 198 | 197 | - | - | Grade C3500 | V-15X20 | 0.25 |

*** PLATE MEMBER DATA

| NO | NODAL CONNECTIVITY 1 | 2 | 3 | 4 | MATERIAL | THICKNESS | AREA |
|---|---|---|---|---|---|---|---|
| 18 | 2 | 30 | 45 | 28 | Grade C3500 | 0.15 | 0.0625 |
| 19 | 28 | 45 | 46 | 27 | Grade C3500 | 0.15 | 0.0625 |
| 20 | 27 | 46 | 47 | 26 | Grade C3500 | 0.15 | 0.0625 |
| 21 | 26 | 47 | 48 | 25 | Grade C3500 | 0.15 | 0.0625 |
| 22 | 25 | 48 | 49 | 24 | Grade C3500 | 0.15 | 0.0625 |
| 23 | 24 | 49 | 50 | 23 | Grade C3500 | 0.15 | 0.0625 |
| 24 | 23 | 50 | 51 | 22 | Grade C3500 | 0.15 | 0.0625 |
| 25 | 22 | 51 | 52 | 21 | Grade C3500 | 0.15 | 0.0625 |
| 26 | 21 | 52 | 53 | 20 | Grade C3500 | 0.15 | 0.0625 |
| 27 | 20 | 53 | 18 | 1 | Grade C3500 | 0.15 | 0.0625 |
| 28 | 30 | 31 | 54 | 45 | Grade C3500 | 0.15 | 0.0625 |
| 29 | 45 | 54 | 55 | 46 | Grade C3500 | 0.15 | 0.0625 |

**PROJECT TITLE :**

| | Company | | Client | |
|---|---|---|---|---|
| MIDAS | Author | Ing. Osvaldo Guzman Avila | File Name | P049-2025-MOD-001.mdl |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 30 | 46 | 55 | 56 | 47 | Grade C3500 | 0.15 | 0.0625 |
| 31 | 47 | 56 | 57 | 48 | Grade C3500 | 0.15 | 0.0625 |
| 32 | 48 | 57 | 58 | 49 | Grade C3500 | 0.15 | 0.0625 |
| 33 | 49 | 58 | 59 | 50 | Grade C3500 | 0.15 | 0.0625 |
| 34 | 50 | 59 | 60 | 51 | Grade C3500 | 0.15 | 0.0625 |
| 35 | 51 | 60 | 61 | 52 | Grade C3500 | 0.15 | 0.0625 |
| 36 | 52 | 61 | 62 | 53 | Grade C3500 | 0.15 | 0.0625 |
| 37 | 53 | 62 | 17 | 18 | Grade C3500 | 0.15 | 0.0625 |
| 38 | 31 | 32 | 63 | 54 | Grade C3500 | 0.15 | 0.0625 |
| 39 | 54 | 63 | 64 | 55 | Grade C3500 | 0.15 | 0.0625 |
| 40 | 55 | 64 | 65 | 56 | Grade C3500 | 0.15 | 0.0625 |
| 41 | 56 | 65 | 66 | 57 | Grade C3500 | 0.15 | 0.0625 |
| 42 | 57 | 66 | 67 | 58 | Grade C3500 | 0.15 | 0.0625 |
| 43 | 58 | 67 | 68 | 59 | Grade C3500 | 0.15 | 0.0625 |
| 44 | 59 | 68 | 69 | 60 | Grade C3500 | 0.15 | 0.0625 |
| 45 | 60 | 69 | 70 | 61 | Grade C3500 | 0.15 | 0.0625 |
| 46 | 61 | 70 | 71 | 62 | Grade C3500 | 0.15 | 0.0625 |
| 47 | 62 | 71 | 16 | 17 | Grade C3500 | 0.15 | 0.0625 |
| 48 | 32 | 33 | 72 | 63 | Grade C3500 | 0.15 | 0.0625 |
| 49 | 63 | 72 | 73 | 64 | Grade C3500 | 0.15 | 0.0625 |
| 50 | 64 | 73 | 74 | 65 | Grade C3500 | 0.15 | 0.0625 |
| 51 | 65 | 74 | 75 | 66 | Grade C3500 | 0.15 | 0.0625 |
| 52 | 66 | 75 | 76 | 67 | Grade C3500 | 0.15 | 0.0625 |
| 53 | 67 | 76 | 77 | 68 | Grade C3500 | 0.15 | 0.0625 |
| 54 | 68 | 77 | 78 | 69 | Grade C3500 | 0.15 | 0.0625 |
| 55 | 69 | 78 | 79 | 70 | Grade C3500 | 0.15 | 0.0625 |
| 56 | 70 | 79 | 80 | 71 | Grade C3500 | 0.15 | 0.0625 |
| 57 | 71 | 80 | 15 | 16 | Grade C3500 | 0.15 | 0.0625 |
| 58 | 33 | 34 | 81 | 72 | Grade C3500 | 0.15 | 0.0625 |
| 59 | 72 | 81 | 82 | 73 | Grade C3500 | 0.15 | 0.0625 |
| 60 | 73 | 82 | 83 | 74 | Grade C3500 | 0.15 | 0.0625 |
| 61 | 74 | 83 | 84 | 75 | Grade C3500 | 0.15 | 0.0625 |
| 62 | 75 | 84 | 85 | 76 | Grade C3500 | 0.15 | 0.0625 |
| 63 | 76 | 85 | 86 | 77 | Grade C3500 | 0.15 | 0.0625 |
| 64 | 77 | 86 | 87 | 78 | Grade C3500 | 0.15 | 0.0625 |
| 65 | 78 | 87 | 88 | 79 | Grade C3500 | 0.15 | 0.0625 |
| 66 | 79 | 88 | 89 | 80 | Grade C3500 | 0.15 | 0.0625 |
| 67 | 80 | 89 | 14 | 15 | Grade C3500 | 0.15 | 0.0625 |
| 68 | 34 | 4 | 36 | 81 | Grade C3500 | 0.15 | 0.0625 |
| 69 | 81 | 36 | 37 | 82 | Grade C3500 | 0.15 | 0.0625 |
| 70 | 82 | 37 | 38 | 83 | Grade C3500 | 0.15 | 0.0625 |
| 71 | 83 | 38 | 39 | 84 | Grade C3500 | 0.15 | 0.0625 |
| 72 | 84 | 39 | 40 | 85 | Grade C3500 | 0.15 | 0.0625 |
| 73 | 85 | 40 | 41 | 86 | Grade C3500 | 0.15 | 0.0625 |
| 74 | 86 | 41 | 42 | 87 | Grade C3500 | 0.15 | 0.0625 |
| 75 | 87 | 42 | 43 | 88 | Grade C3500 | 0.15 | 0.0625 |
| 76 | 88 | 43 | 44 | 89 | Grade C3500 | 0.15 | 0.0625 |
| 77 | 89 | 44 | 3 | 14 | Grade C3500 | 0.15 | 0.0625 |
| 78 | 5 | 107 | 122 | 105 | Grade C3500 | 0.15 | 0.0625 |
| 79 | 105 | 122 | 123 | 104 | Grade C3500 | 0.15 | 0.0625 |
| 80 | 104 | 123 | 124 | 103 | Grade C3500 | 0.15 | 0.0625 |
| 81 | 103 | 124 | 125 | 102 | Grade C3500 | 0.15 | 0.0625 |
| 82 | 102 | 125 | 126 | 101 | Grade C3500 | 0.15 | 0.0625 |
| 83 | 101 | 126 | 127 | 100 | Grade C3500 | 0.15 | 0.0625 |
| 84 | 100 | 127 | 128 | 99 | Grade C3500 | 0.15 | 0.0625 |
| 85 | 99 | 128 | 129 | 98 | Grade C3500 | 0.15 | 0.0625 |
| 86 | 98 | 129 | 130 | 97 | Grade C3500 | 0.15 | 0.0625 |
| 87 | 97 | 130 | 30 | 2 | Grade C3500 | 0.15 | 0.0625 |
| 88 | 107 | 108 | 131 | 122 | Grade C3500 | 0.15 | 0.0625 |
| 89 | 122 | 131 | 132 | 123 | Grade C3500 | 0.15 | 0.0625 |
| 90 | 123 | 132 | 133 | 124 | Grade C3500 | 0.15 | 0.0625 |
| 91 | 124 | 133 | 134 | 125 | Grade C3500 | 0.15 | 0.0625 |
| 92 | 125 | 134 | 135 | 126 | Grade C3500 | 0.15 | 0.0625 |
| 93 | 126 | 135 | 136 | 127 | Grade C3500 | 0.15 | 0.0625 |
| 94 | 127 | 136 | 137 | 128 | Grade C3500 | 0.15 | 0.0625 |
| 95 | 128 | 137 | 138 | 129 | Grade C3500 | 0.15 | 0.0625 |
| 96 | 129 | 138 | 139 | 130 | Grade C3500 | 0.15 | 0.0625 |
| 97 | 130 | 139 | 31 | 30 | Grade C3500 | 0.15 | 0.0625 |
| 98 | 108 | 109 | 140 | 131 | Grade C3500 | 0.15 | 0.0625 |
| 99 | 131 | 140 | 141 | 132 | Grade C3500 | 0.15 | 0.0625 |
| 100 | 132 | 141 | 142 | 133 | Grade C3500 | 0.15 | 0.0625 |
| 101 | 133 | 142 | 143 | 134 | Grade C3500 | 0.15 | 0.0625 |
| 102 | 134 | 143 | 144 | 135 | Grade C3500 | 0.15 | 0.0625 |
| 103 | 135 | 144 | 145 | 136 | Grade C3500 | 0.15 | 0.0625 |
| 104 | 136 | 145 | 146 | 137 | Grade C3500 | 0.15 | 0.0625 |
| 105 | 137 | 146 | 147 | 138 | Grade C3500 | 0.15 | 0.0625 |
| 106 | 138 | 147 | 148 | 139 | Grade C3500 | 0.15 | 0.0625 |
| 107 | 139 | 148 | 32 | 31 | Grade C3500 | 0.15 | 0.0625 |
| 108 | 109 | 110 | 149 | 140 | Grade C3500 | 0.15 | 0.0625 |

**PROJECT TITLE :**

| | Company | | Client | |
|---|---|---|---|---|
| MIDAS | Author | Ing. Osvaldo Guzman Avila | File Name | P049-2025-MOD-001.mdl |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 109 | 140 | 149 | 150 | 141 | Grade C3500 | 0.15 | 0.0625 |
| 110 | 141 | 150 | 151 | 142 | Grade C3500 | 0.15 | 0.0625 |
| 111 | 142 | 151 | 152 | 143 | Grade C3500 | 0.15 | 0.0625 |
| 112 | 143 | 152 | 153 | 144 | Grade C3500 | 0.15 | 0.0625 |
| 113 | 144 | 153 | 154 | 145 | Grade C3500 | 0.15 | 0.0625 |
| 114 | 145 | 154 | 155 | 146 | Grade C3500 | 0.15 | 0.0625 |
| 115 | 146 | 155 | 156 | 147 | Grade C3500 | 0.15 | 0.0625 |
| 116 | 147 | 156 | 157 | 148 | Grade C3500 | 0.15 | 0.0625 |
| 117 | 148 | 157 | 33 | 32 | Grade C3500 | 0.15 | 0.0625 |
| 118 | 110 | 111 | 158 | 149 | Grade C3500 | 0.15 | 0.0625 |
| 119 | 149 | 158 | 159 | 150 | Grade C3500 | 0.15 | 0.0625 |
| 120 | 150 | 159 | 160 | 151 | Grade C3500 | 0.15 | 0.0625 |
| 121 | 151 | 160 | 161 | 152 | Grade C3500 | 0.15 | 0.0625 |
| 122 | 152 | 161 | 162 | 153 | Grade C3500 | 0.15 | 0.0625 |
| 123 | 153 | 162 | 163 | 154 | Grade C3500 | 0.15 | 0.0625 |
| 124 | 154 | 163 | 164 | 155 | Grade C3500 | 0.15 | 0.0625 |
| 125 | 155 | 164 | 165 | 156 | Grade C3500 | 0.15 | 0.0625 |
| 126 | 156 | 165 | 166 | 157 | Grade C3500 | 0.15 | 0.0625 |
| 127 | 157 | 166 | 34 | 33 | Grade C3500 | 0.15 | 0.0625 |
| 128 | 111 | 6 | 113 | 158 | Grade C3500 | 0.15 | 0.0625 |
| 129 | 158 | 113 | 114 | 159 | Grade C3500 | 0.15 | 0.0625 |
| 130 | 159 | 114 | 115 | 160 | Grade C3500 | 0.15 | 0.0625 |
| 131 | 160 | 115 | 116 | 161 | Grade C3500 | 0.15 | 0.0625 |
| 132 | 161 | 116 | 117 | 162 | Grade C3500 | 0.15 | 0.0625 |
| 133 | 162 | 117 | 118 | 163 | Grade C3500 | 0.15 | 0.0625 |
| 134 | 163 | 118 | 119 | 164 | Grade C3500 | 0.15 | 0.0625 |
| 135 | 164 | 119 | 120 | 165 | Grade C3500 | 0.15 | 0.0625 |
| 136 | 165 | 120 | 121 | 166 | Grade C3500 | 0.15 | 0.0625 |
| 137 | 166 | 121 | 4 | 34 | Grade C3500 | 0.15 | 0.0625 |
| 138 | 7 | 184 | 199 | 182 | Grade C3500 | 0.15 | 0.0625 |
| 139 | 182 | 199 | 200 | 181 | Grade C3500 | 0.15 | 0.0625 |
| 140 | 181 | 200 | 201 | 180 | Grade C3500 | 0.15 | 0.0625 |
| 141 | 180 | 201 | 202 | 179 | Grade C3500 | 0.15 | 0.0625 |
| 142 | 179 | 202 | 203 | 178 | Grade C3500 | 0.15 | 0.0625 |
| 143 | 178 | 203 | 204 | 177 | Grade C3500 | 0.15 | 0.0625 |
| 144 | 177 | 204 | 205 | 176 | Grade C3500 | 0.15 | 0.0625 |
| 145 | 176 | 205 | 206 | 175 | Grade C3500 | 0.15 | 0.0625 |
| 146 | 175 | 206 | 207 | 174 | Grade C3500 | 0.15 | 0.0625 |
| 147 | 174 | 207 | 107 | 5 | Grade C3500 | 0.15 | 0.0625 |
| 148 | 184 | 185 | 208 | 199 | Grade C3500 | 0.15 | 0.0625 |
| 149 | 199 | 208 | 209 | 200 | Grade C3500 | 0.15 | 0.0625 |
| 150 | 200 | 209 | 210 | 201 | Grade C3500 | 0.15 | 0.0625 |
| 151 | 201 | 210 | 211 | 202 | Grade C3500 | 0.15 | 0.0625 |
| 152 | 202 | 211 | 212 | 203 | Grade C3500 | 0.15 | 0.0625 |
| 153 | 203 | 212 | 213 | 204 | Grade C3500 | 0.15 | 0.0625 |
| 154 | 204 | 213 | 214 | 205 | Grade C3500 | 0.15 | 0.0625 |
| 155 | 205 | 214 | 215 | 206 | Grade C3500 | 0.15 | 0.0625 |
| 156 | 206 | 215 | 216 | 207 | Grade C3500 | 0.15 | 0.0625 |
| 157 | 207 | 216 | 108 | 107 | Grade C3500 | 0.15 | 0.0625 |
| 158 | 185 | 186 | 217 | 208 | Grade C3500 | 0.15 | 0.0625 |
| 159 | 208 | 217 | 218 | 209 | Grade C3500 | 0.15 | 0.0625 |
| 160 | 209 | 218 | 219 | 210 | Grade C3500 | 0.15 | 0.0625 |
| 161 | 210 | 219 | 220 | 211 | Grade C3500 | 0.15 | 0.0625 |
| 162 | 211 | 220 | 221 | 212 | Grade C3500 | 0.15 | 0.0625 |
| 163 | 212 | 221 | 222 | 213 | Grade C3500 | 0.15 | 0.0625 |
| 164 | 213 | 222 | 223 | 214 | Grade C3500 | 0.15 | 0.0625 |
| 165 | 214 | 223 | 224 | 215 | Grade C3500 | 0.15 | 0.0625 |
| 166 | 215 | 224 | 225 | 216 | Grade C3500 | 0.15 | 0.0625 |
| 167 | 216 | 225 | 109 | 108 | Grade C3500 | 0.15 | 0.0625 |
| 168 | 186 | 187 | 226 | 217 | Grade C3500 | 0.15 | 0.0625 |
| 169 | 217 | 226 | 227 | 218 | Grade C3500 | 0.15 | 0.0625 |
| 170 | 218 | 227 | 228 | 219 | Grade C3500 | 0.15 | 0.0625 |
| 171 | 219 | 228 | 229 | 220 | Grade C3500 | 0.15 | 0.0625 |
| 172 | 220 | 229 | 230 | 221 | Grade C3500 | 0.15 | 0.0625 |
| 173 | 221 | 230 | 231 | 222 | Grade C3500 | 0.15 | 0.0625 |
| 174 | 222 | 231 | 232 | 223 | Grade C3500 | 0.15 | 0.0625 |
| 175 | 223 | 232 | 233 | 224 | Grade C3500 | 0.15 | 0.0625 |
| 176 | 224 | 233 | 234 | 225 | Grade C3500 | 0.15 | 0.0625 |
| 177 | 225 | 234 | 110 | 109 | Grade C3500 | 0.15 | 0.0625 |
| 178 | 187 | 188 | 235 | 226 | Grade C3500 | 0.15 | 0.0625 |
| 179 | 226 | 235 | 236 | 227 | Grade C3500 | 0.15 | 0.0625 |
| 180 | 227 | 236 | 237 | 228 | Grade C3500 | 0.15 | 0.0625 |
| 181 | 228 | 237 | 238 | 229 | Grade C3500 | 0.15 | 0.0625 |
| 182 | 229 | 238 | 239 | 230 | Grade C3500 | 0.15 | 0.0625 |
| 183 | 230 | 239 | 240 | 231 | Grade C3500 | 0.15 | 0.0625 |
| 184 | 231 | 240 | 241 | 232 | Grade C3500 | 0.15 | 0.0625 |
| 185 | 232 | 241 | 242 | 233 | Grade C3500 | 0.15 | 0.0625 |
| 186 | 233 | 242 | 243 | 234 | Grade C3500 | 0.15 | 0.0625 |
| 187 | 234 | 243 | 111 | 110 | Grade C3500 | 0.15 | 0.0625 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 188 | 188 | 8 | 190 | 235 | Grade C3500 | 0.15 | 0.0625 |
| 189 | 235 | 190 | 191 | 236 | Grade C3500 | 0.15 | 0.0625 |
| 190 | 236 | 191 | 192 | 237 | Grade C3500 | 0.15 | 0.0625 |
| 191 | 237 | 192 | 193 | 238 | Grade C3500 | 0.15 | 0.0625 |
| 192 | 238 | 193 | 194 | 239 | Grade C3500 | 0.15 | 0.0625 |
| 193 | 239 | 194 | 195 | 240 | Grade C3500 | 0.15 | 0.0625 |
| 194 | 240 | 195 | 196 | 241 | Grade C3500 | 0.15 | 0.0625 |
| 195 | 241 | 196 | 197 | 242 | Grade C3500 | 0.15 | 0.0625 |
| 196 | 242 | 197 | 198 | 243 | Grade C3500 | 0.15 | 0.0625 |
| 197 | 243 | 198 | 6 | 111 | Grade C3500 | 0.15 | 0.0625 |
| 288 | 245 | 246 | 247 | 244 | Grade C3500 | 0.3 | 0.36 |
| 289 | 249 | 250 | 251 | 248 | Grade C3500 | 0.3 | 0.36 |
| 290 | 253 | 254 | 255 | 252 | Grade C3500 | 0.3 | 0.36 |
| 291 | 257 | 258 | 259 | 256 | Grade C3500 | 0.3 | 0.36 |

*** TOTAL WEIGHT / VOLUME / SURFACE AREA SUMMARY

| SECTION NO | SECION NAME | SURFACE AREA | VOLUME | WEIGHT | FRAME NUMBER | TRUSS NUMBER |
|---|---|---|---|---|---|---|
| 1 | PIPE2STD | 2.842 | 0.005265 | 0.4058 | 4 | 0 |
| 2 | VC-30X30 | 9 | 0.675 | 15.91 | 30 | 0 |
| 3 | V-15X20 | 5.25 | 0.225 | 5.302 | 30 | 0 |
| 4 | C-15X20 | 4.2 | 0.18 | 4.241 | 24 | 0 |

*** LOAD DATA

; Self Weight, Nodal Load, Specified Displacement, Beam Load, Floor Load, Finishing Material Load,
System Temperature, Nodal Temperature, Element Temperature, Beam Section Temperature,
Wind Load, Static Seismic Load, Time History Analysis Data

[ LOAD CASE : PP ]

** SELF WEIGHT DATA

; X=0, Y=0, Z=-1

[ LOAD CASE : WX ]

** WIND LOAD DATA : CODE , NSR-10

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WIND LOADS BASED ON NSR-10 [UNIT: kN, m]

Design Wind Loads : F = p * Area
Design Wind Pressure : p = qz*G*Cp1 - qh*G*Cp2
Velocity Pressure at Design Height z [N/m^2] : qz = 0.613*Kz*Kzt*Kd*V^2*I
Velocity Pressure at Mean Roof Height [N/m^2] : qh = 0.613*Kh*Kht*Kd*V^2*I
Calculated Value of qh for X-dir [N/m^2] : qh = 929.63
Calculated Value of qh for Y-dir [N/m^2] : qh = 929.63

Basic Wind Speed [km/h] : V = 125.00
Directional Factor for X-dir Wind Loads : Kdx = 0.85
Directional Factor for Y-dir Wind Loads : Kdy = 0.85
Importance Factor : I = 1.15
Exposure Category : C
Mean Roof Height : H = 3.20
Gradient Height [m] : Zg = 274.32
Force Coefficient : Alpha= 9.50
Kz at Mean Roof Height (Kh) : Kh = 0.85

Structural Rigidity : Rigid Structure

Gust effect Factor for X-dir Wind Loads : Gx = 0.85
Gust effect Factor for Y-dir Wind Loads : Gy = 0.85

Topographic Effects for X-dir Wind Loads : Not Included
Topographic Effects for Y-dir Wind Loads : Not Included
Accidental Eccentricity for X-direction : Wx = None
Accidental Eccentricity for Y-direction : Wy = None
Scale Factor for X-directional Wind Loads : SFx = 1.00
Scale Factor for Y-directional Wind Loads : SFy = 0.00

---

Wind force of the specific story is calculated as the sum of the forces
of the following two parts.
1. Part I : Lower half part of the specific story
2. Part II : Upper half part of the just below story of the specific story

The reference height for the calculation of the wind pressure related factors are,
therefore, considered separately for the above mentioned two parts as follows.

Reference height for the wind pressure related factors(except topographic related factors)
1. Part I : top level of the specific story
2. Part II : top level of the just below story of the specific story

Reference height for the topographic related factors :
1. Part I : bottom level of the specific story
2. Part II : bottom level of the just below story of the specific story

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** External Pressure Coefficients at Windward and Leeward Walls (Cp1, Cp2)

| STORY NAME | Cp1 (Windward) | Cp2(X-DIR) (Leeward) | Cp2(Y-DIR) (Leeward) |
|---|---|---|---|
| Roof | 0.800 | 0.000 | -0.500 |
| 2F | 0.800 | 0.000 | -0.500 |
| 1F | 0.800 | 0.000 | -0.500 |
| B1 | 0.000 | 0.000 | 0.000 |

** Velocity Exposure Coefficients at Design Height (Kz)
** Topographic Factors at Windward and Leeward Walls (Kzt)
** Velocity Pressure at Design Height (qz) [Current Unit]

| STORY NAME | Kz | Kzt(X-DIR) (Windward) | Kzt(Y-DIR) (Windward) | Kzt(X-DIR) (Leeward) | Kzt(Y-DIR) (Leeward) | qz(X-DIR) | qz(Y-DIR) |
|---|---|---|---|---|---|---|---|
| Roof | 0.849 | 1.000 | 1.000 | 1.000 | 1.000 | 0.930 | 0.930 |
| 2F | 0.849 | 1.000 | 1.000 | 1.000 | 1.000 | 0.930 | 0.930 |
| 1F | 0.849 | 1.000 | 1.000 | 1.000 | 1.000 | 0.930 | 0.930 |
| B1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

W I N D L O A D G E N E R A T I O N D A T A X - D I R E C T I O N

| STORY NAME | PRESSURE | ELEV. | LOADED HEIGHT | LOADED BREADTH | WIND FORCE | ADDED FORCE | STORY FORCE | STORY SHEAR | OVERTURN`G MOMENT |
|---|---|---|---|---|---|---|---|---|---|
| Roof | 0.632151 | 3.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2F | 0.632151 | 1.5 | 1.75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| G.L. | 0.632151 | 0.0 | 0.75 | 0.0 | 0.0 | 0.0 | -- | 0.0 | 0.0 |

W I N D L O A D G E N E R A T I O N D A T A Y - D I R E C T I O N

| STORY NAME | PRESSURE | ELEV. | LOADED HEIGHT | LOADED BREADTH | WIND FORCE | ADDED FORCE | STORY FORCE | STORY SHEAR | OVERTURN`G MOMENT |
|---|---|---|---|---|---|---|---|---|---|
| Roof | 1.027246 | 3.5 | 1.0 | 7.5 | 7.7043449 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2F | 1.027246 | 1.5 | 1.75 | 7.5 | 13.482604 | 0.0 | 0.0 | 0.0 | 0.0 |
| G.L. | 1.027246 | 0.0 | 0.75 | 7.5 | 5.7782587 | 0.0 | -- | 0.0 | 0.0 |

W I N D L O A D G E N E R A T I O N D A T A RZ - D I R E C T I O N

| STORY NAME | TORSIONAL PRESSURE | ELEV. | LOADED HEIGHT | LOADED BREADTH | WIND TORSION | ADDED TORSION | STORY TORSION | ACCUMULATED TORSION |
|---|---|---|---|---|---|---|---|---|
| Roof | 0.0 | 3.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2F | 0.0 | 1.5 | 1.75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| G.L. | 0.0 | 0.0 | 0.75 | 0.0 | 0.0 | 0.0 | -- | 0.0 |

==========
ECCENTRICITY RELATED DATA

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| STORY NAME | STORY FORCE(X) | STORY FORCE(Y) | ACCIDENTAL ECCENT.(X) | ACCIDENTAL ECCENT.(Y) | ACCIDENTAL TORSION(X) | ACCIDENTAL TORSION(Y) |
|---|---|---|---|---|---|---|
| Roof | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2F | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| G.L. | -- | -- | 0.0 | 0.0 | -- | -- |

[ LOAD CASE : WY ]

** WIND LOAD DATA : CODE , NSR-10

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WIND LOADS BASED ON NSR-10 [UNIT: kN, m]

```
Design Wind Loads                                  : F    = p * Area
Design Wind Pressure                               : p    = qz*G*Cp1 - qh*G*Cp2
Velocity Pressure at Design Height z [N/m^2]         : qz   = 0.613*Kz*Kzt*Kd*V^2*I
Velocity Pressure at Mean Roof Height [N/m^2]        : qh   = 0.613*Kh*Kht*Kd*V^2*I
Calculated Value of qh for X-dir [N/m^2]             : qh   = 929.63
Calculated Value of qh for Y-dir [N/m^2]             : qh   = 929.63

Basic Wind Speed [km/h]                            : V    = 125.00
Directional Factor for X-dir Wind Loads            : Kdx  = 0.85
Directional Factor for Y-dir Wind Loads            : Kdy  = 0.85
Importance Factor                                  : I    = 1.15
Exposure Category                                  : C
Mean Roof Height                                   : H    = 3.20
Gradient Height [m]                                : Zg   = 274.32
Force Coefficient                                  : Alpha= 9.50
Kz at Mean Roof Height (Kh)                        : Kh   = 0.85

Structural Rigidity                                : Rigid Structure

Gust effect Factor for X-dir Wind Loads            : Gx   = 0.91
Gust effect Factor for Y-dir Wind Loads            : Gy   = 0.90

Topographic Effects for X-dir Wind Loads           : Not Included
Topographic Effects for Y-dir Wind Loads           : Not Included
Accidental Eccentricity for X-direction            : Wx   = None
Accidental Eccentricity for Y-direction            : Wy   = None
Scale Factor for X-directional Wind Loads          : SFx  = 0.00
Scale Factor for Y-directional Wind Loads          : SFy  = 1.00
```

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Wind force of the specific story is calculated as the sum of the forces
of the following two parts.
1. Part I  : Lower half part of the specific story
2. Part II : Upper half part of the just below story of the specific story

The reference height for the calculation of the wind pressure related factors are,
therefore, considered separately for the above mentioned two parts as follows.

Reference height for the wind pressure related factors(except topographic related factors)
1. Part I  : top level of the specific story
2. Part II : top level of the just below story of the specific story

Reference height for the topographic related factors :
1. Part I  : bottom level of the specific story
2. Part II : bottom level of the just below story of the specific story

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** External Pressure Coefficients at Windward and Leeward Walls (Cp1, Cp2)

| STORY NAME | Cp1 (Windward) | Cp2(X-DIR) (Leeward) | Cp2(Y-DIR) (Leeward) |
|---|---|---|---|
| Roof | 0.800 | 0.000 | -0.500 |
| 2F | 0.800 | 0.000 | -0.500 |
| 1F | 0.800 | 0.000 | -0.500 |
| B1 | 0.000 | 0.000 | 0.000 |

** Velocity Exposure Coefficients at Design Height (Kz)
** Topographic Factors at Windward and Leeward Walls (Kzt)
** Velocity Pressure at Design Height (qz) [Current Unit]

| STORY NAME | Kz | Kzt(X-DIR) (Windward) | Kzt(Y-DIR) (Windward) | Kzt(X-DIR) (Leeward) | Kzt(Y-DIR) (Leeward) | qz(X-DIR) | qz(Y-DIR) |
|---|---|---|---|---|---|---|---|
| Roof | 0.849 | 1.000 | 1.000 | 1.000 | 1.000 | 0.930 | 0.930 |
| 2F | 0.849 | 1.000 | 1.000 | 1.000 | 1.000 | 0.930 | 0.930 |
| 1F | 0.849 | 1.000 | 1.000 | 1.000 | 1.000 | 0.930 | 0.930 |
| B1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

W I N D  L O A D  G E N E R A T I O N  D A T A  X - D I R E C T I O N

| STORY NAME | PRESSURE | ELEV. | LOADED HEIGHT | LOADED BREADTH | WIND FORCE | ADDED FORCE | STORY FORCE | STORY SHEAR | OVERTURN`G MOMENT |
|---|---|---|---|---|---|---|---|---|---|
| Roof | 0.674693 | 3.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2F | 0.674693 | 1.5 | 1.75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| G.L. | 0.674693 | 0.0 | 0.75 | 0.0 | 0.0 | 0.0 | -- | 0.0 | 0.0 |

W I N D  L O A D  G E N E R A T I O N  D A T A  Y - D I R E C T I O N

| STORY NAME | PRESSURE | ELEV. | LOADED HEIGHT | LOADED BREADTH | WIND FORCE | ADDED FORCE | STORY FORCE | STORY SHEAR | OVERTURN`G MOMENT |
|---|---|---|---|---|---|---|---|---|---|
| Roof | 1.082452 | 3.5 | 1.0 | 7.5 | 8.1183935 | 0.0 | 8.1183935 | 0.0 | 0.0 |
| 2F | 1.082452 | 1.5 | 1.75 | 7.5 | 14.207189 | 0.0 | 14.207189 | 8.1183935 | 16.236787 |
| G.L. | 1.082452 | 0.0 | 0.75 | 7.5 | 6.0887951 | 0.0 | -- | 22.325582 | 49.72516 |

W I N D  L O A D  G E N E R A T I O N  D A T A  RZ - D I R E C T I O N

| STORY NAME | TORSIONAL PRESSURE | ELEV. | LOADED HEIGHT | LOADED BREADTH | WIND TORSION | ADDED TORSION | STORY TORSION | ACCUMULATED TORSION |
|---|---|---|---|---|---|---|---|---|
| Roof | 0.0 | 3.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2F | 0.0 | 1.5 | 1.75 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| G.L. | 0.0 | 0.0 | 0.75 | 0.0 | 0.0 | 0.0 | -- | 0.0 |

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ECCENTRICITY RELATED DATA
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| STORY NAME | STORY FORCE(X) | STORY FORCE(Y) | ACCIDENTAL ECCENT.(X) | ACCIDENTAL ECCENT.(Y) | ACCIDENTAL TORSION(X) | ACCIDENTAL TORSION(Y) |
|---|---|---|---|---|---|---|
| Roof | 0.0 | 8.1183935 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2F | 0.0 | 14.207189 | 0.0 | 0.0 | 0.0 | 0.0 |
| G.L. | -- | -- | 0.0 | 0.0 | -- | -- |

*** LOAD COMBINATION DATA

** GENERAL

| NO | NAME | TYPE | ACTIVE | DESCRIPTION |
|---|---|---|---|---|
| 1 | gLCB1 | Add | ACTIVE | 1.4D |
| 2 | gLCB2 | Add | ACTIVE | 1.2D + 1.0WX |
| 3 | gLCB3 | Add | ACTIVE | 1.2D + 1.0WY |
| 4 | gLCB4 | Add | ACTIVE | 1.2D - 1.0WX |
| 5 | gLCB5 | Add | ACTIVE | 1.2D - 1.0WY |
| 6 | gLCB6 | Add | ACTIVE | 0.9D + 1.0WX |
| 7 | gLCB7 | Add | ACTIVE | 0.9D + 1.0WY |
| 8 | gLCB8 | Add | ACTIVE | 0.9D - 1.0WX |
| 9 | gLCB9 | Add | ACTIVE | 0.9D - 1.0WY |
| 10 | gLCB10 | Add | ACTIVE | (D) |
| 11 | gLCB11 | Add | ACTIVE | (D) + 1.0WX |
| 12 | gLCB12 | Add | ACTIVE | (D) + 1.0WY |
| 13 | gLCB13 | Add | ACTIVE | (D) - 1.0WX |
| 14 | gLCB14 | Add | ACTIVE | (D) - 1.0WY |
| 15 | gLCB15 | Add | ACTIVE | (D) + 0.75(1.0)WX |

**PROJECT TITLE :**

| | Company | | Client | |
|---|---|---|---|---|
| MIDAS | Author | Ing. Osvaldo Guzman Avila | File Name | P049-2025-MOD-001.mdl |

| | | | | |
|---|---|---|---|---|
| 16 | gLCB16 | Add | ACTIVE | (D) + 0.75(1.0)WY |
| 17 | gLCB17 | Add | ACTIVE | (D) - 0.75(1.0)WX |
| 18 | gLCB18 | Add | ACTIVE | (D) - 0.75(1.0)WY |
| 19 | gLCB19 | Add | ACTIVE | 0.6D + 1.0WX |
| 20 | gLCB20 | Add | ACTIVE | 0.6D + 1.0WY |
| 21 | gLCB21 | Add | ACTIVE | 0.6D - 1.0WX |
| 22 | gLCB22 | Add | ACTIVE | 0.6D - 1.0WY |
| 23 | RC ENV_STR | Envelope | ACTIVE | Concrete Strength Envelope |
| 24 | RC ENV_SER | Envelope | ACTIVE | Concrete Serviceability Envelope |

** STEEL DESIGN

| NO | NAME | TYPE | ACTIVE | DESCRIPTION |
|---|---|---|---|---|
| 1 | sLCB1 | Add | ACTIVE | 1.4D |
| 2 | sLCB2 | Add | ACTIVE | 1.2D + 1.0WX |
| 3 | sLCB3 | Add | ACTIVE | 1.2D + 1.0WY |
| 4 | sLCB4 | Add | ACTIVE | 1.2D - 1.0WX |
| 5 | sLCB5 | Add | ACTIVE | 1.2D - 1.0WY |
| 6 | sLCB6 | Add | ACTIVE | 0.9D + 1.0WX |
| 7 | sLCB7 | Add | ACTIVE | 0.9D + 1.0WY |
| 8 | sLCB8 | Add | ACTIVE | 0.9D - 1.0WX |
| 9 | sLCB9 | Add | ACTIVE | 0.9D - 1.0WY |
| 10 | sLCB10 | Add | ACTIVE | 0.9D |
| 11 | sLCB11 | Add | SERVICE | SERV :(D) |
| 12 | sLCB12 | Add | SERVICE | SERV :(D) + 0.6WX |
| 13 | sLCB13 | Add | SERVICE | SERV :(D) + 0.6WY |
| 14 | sLCB14 | Add | SERVICE | SERV :(D) - 0.6WX |
| 15 | sLCB15 | Add | SERVICE | SERV :(D) - 0.6WY |
| 16 | sLCB16 | Add | SERVICE | SERV :(D) + 0.75(0.6)WX |
| 17 | sLCB17 | Add | SERVICE | SERV :(D) + 0.75(0.6)WY |
| 18 | sLCB18 | Add | SERVICE | SERV :(D) - 0.75(0.6)WX |
| 19 | sLCB19 | Add | SERVICE | SERV :(D) - 0.75(0.6)WY |
| 20 | sLCB20 | Add | SERVICE | SERV :0.6D + 0.6WX |
| 21 | sLCB21 | Add | SERVICE | SERV :0.6D + 0.6WY |
| 22 | sLCB22 | Add | SERVICE | SERV :0.6D - 0.6WX |
| 23 | sLCB23 | Add | SERVICE | SERV :0.6D - 0.6WY |
| 24 | sLCB24 | Add | SERVICE | SERV :0.6(D) |

** CONCRETE DESIGN

| NO | NAME | TYPE | ACTIVE | DESCRIPTION |
|---|---|---|---|---|
| 1 | cLCB1 | Add | STRENGTH | 1.4D |
| 2 | cLCB2 | Add | STRENGTH | 1.2D + 1.0WX |
| 3 | cLCB3 | Add | STRENGTH | 1.2D + 1.0WY |
| 4 | cLCB4 | Add | STRENGTH | 1.2D - 1.0WX |
| 5 | cLCB5 | Add | STRENGTH | 1.2D - 1.0WY |
| 6 | cLCB6 | Add | STRENGTH | 0.9D + 1.0WX |
| 7 | cLCB7 | Add | STRENGTH | 0.9D + 1.0WY |
| 8 | cLCB8 | Add | STRENGTH | 0.9D - 1.0WX |
| 9 | cLCB9 | Add | STRENGTH | 0.9D - 1.0WY |
| 10 | cLCB10 | Add | SERVICE | SERV :(D) |
| 11 | cLCB11 | Add | SERVICE | SERV :(D) + 1.0WX |
| 12 | cLCB12 | Add | SERVICE | SERV :(D) + 1.0WY |
| 13 | cLCB13 | Add | SERVICE | SERV :(D) - 1.0WX |
| 14 | cLCB14 | Add | SERVICE | SERV :(D) - 1.0WY |
| 15 | cLCB15 | Add | SERVICE | SERV :(D) + 0.75(1.0)WX |
| 16 | cLCB16 | Add | SERVICE | SERV :(D) + 0.75(1.0)WY |
| 17 | cLCB17 | Add | SERVICE | SERV :(D) - 0.75(1.0)WX |
| 18 | cLCB18 | Add | SERVICE | SERV :(D) - 0.75(1.0)WY |
| 19 | cLCB19 | Add | SERVICE | SERV :0.6D + 1.0WX |
| 20 | cLCB20 | Add | SERVICE | SERV :0.6D + 1.0WY |
| 21 | cLCB21 | Add | SERVICE | SERV :0.6D - 1.0WX |
| 22 | cLCB22 | Add | SERVICE | SERV :0.6D - 1.0WY |