

NOTES FOR REACTIONS

- All loading conditions are examined and only maximum/minimum H or V and the corresponding H or V are reported.
- Positive reactions are as shown in the sketch. Foundation loads are in opposite directions.
- Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
- Building reactions are based on the following building data:
 - Width (ft) = 160.0
 - Length (ft) = 150.0
 - Eave Height (ft) = 31.5 / 31.5
 - Roof Slope (rise/12) = 3.6 / 3.6
 - Dead Load (psf) = 3.0
 - Collateral Load (psf) = 5.0
 - Crane Load = 10.0 Ton Top Running
 - Live Load (psf) = 42.0
 - Snow Load (psf) = 42.0
 - Wind Speed (mph) = 115.0
 - Wind Code = IBC 09
 - Exposure = C
 - Closed/Open = C
 - Importance Wind = 1.00
 - Importance Seismic = 1.00
 - Seismic Design Category = B
 - Seismic Coeff (Fa/Sa) = 0.36
- Loading conditions are:
 - Dead+Collateral+Snow
 - Dead+Collateral+Snow+Slide_Snow
 - 0.6Dead+Wind_Left1
 - 0.6Dead+Wind_Right1
 - 0.6Dead+Wind_Left2
 - 0.6Dead+Wind_Right2
 - 0.6Dead+Wind_Long1+LWIND1_L2E
 - 0.6Dead+Wind_Long1+LWIND1_R2E
 - 0.6Dead+Wind_Long1+LWIND1_L2E
 - 0.6Dead+Wind_Long1+LWIND1_R2E
 - 1.03Dead+1.03Collateral+0.7Seismic_Left
 - 1.03Dead+1.03Collateral+0.7Seismic_Right
 - 1.03Dead+1.03Collateral+0.75Live+0.52Seismic_Left
 - 1.03Dead+1.03Collateral+0.75Live+0.52Seismic_Right
 - Dead+Wind_Right1/2+F1CRANE42
 - Dead+Wind_Left1/2+F1CRANE43
 - Dead+Collateral+F1UNB_SL_L
 - Dead+Collateral+F1UNB_SL_R
 - Dead+Collateral+0.75Snow+F2CRANE44
 - Dead+Collateral+0.75Snow+0.75Side_Snow+F2CRANE42
 - Dead+Collateral+0.75Snow+0.75Side_Snow+F2CRANE43
 - Dead+Wind_Left1/2+F2CRANE43
 - Dead+Collateral+0.75Snow+F3CRANE44
 - Dead+Collateral+0.75Snow+0.75Snow_Drift+F3CRANE44
 - Dead+Collateral+0.75Snow+0.75Side_Snow+F3CRANE41
 - Dead+Collateral+0.75Snow+0.75Side_Snow+F3CRANE42
 - Dead+Wind_Left1/2+F3CRANE43
 - 0.6Dead+Wind_Right2+Wind_Suction
 - 0.6Dead+Wind_Pressure+Wind_Long2

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

| Frm Line | Col Line | Load ID | Column Reactions (k) | | | Hmin | V | Anc. Bolt Qty | Base_Plate (in) | Thick | Grout (in) | | |
|----------|----------|---------|----------------------|-------|------|------|-------|---------------|-----------------|-------|------------|-------|-----|
| | | | Hmax | V | Vmax | | | | | | | | |
| 6/6.1* | A | 4 | 5.3 | -6.8 | 5 | -7.6 | -10.1 | 4 | 0.750 | 8.000 | 12.00 | 0.625 | 0.0 |
| | | 24 | 1.6 | 80.1 | 3 | -5.7 | -14.4 | | | | | | |
| 6/6.1* | M | 6 | 5.8 | -10.4 | 3 | -7.5 | -1.9 | 4 | 0.750 | 8.000 | 12.00 | 0.375 | 0.0 |
| | | 25 | -1.3 | 51.0 | 4 | 4.0 | -14.3 | | | | | | |
| 6/6.1* | B | 7 | 0.0 | -11.5 | 12 | -0.7 | 58.5 | 4 | 0.750 | 10.00 | 14.00 | 0.500 | 0.0 |
| | | 13 | -0.7 | 73.1 | 7 | 0.0 | -11.5 | | | | | | |
| 6/6.1* | C | 26 | 1.5 | 79.9 | 3 | 0.0 | -13.8 | 4 | 0.750 | 12.00 | 14.50 | 0.375 | 0.0 |
| | | 4 | 0.0 | -12.0 | 27 | -1.5 | 29.0 | 4 | 0.750 | 12.00 | 14.50 | 0.625 | 0.0 |
| 6/6.1* | I | 24 | -1.2 | 118.8 | 4 | 0.0 | -12.0 | | | | | | |
| | | 9 | 0.0 | -4.1 | 9 | 0.0 | -4.1 | 4 | 0.750 | 8.000 | 13.75 | 0.375 | 0.0 |
| 6/6.1* | J | 11 | 0.0 | 48.6 | | | | | | | | | |
| | | 3 | 0.0 | -13.0 | 3 | 0.0 | -13.0 | 4 | 0.750 | 8.000 | 13.75 | 0.375 | 0.0 |
| 6/6.1* | L | 23 | 0.0 | 21.2 | | | | | | | | | |

ENDWALL COLUMN: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

| Frm Line | Col Line | Load ID | Column Reactions (k) | | | Hmin | V | Anc. Bolt Qty | Base_Plate (in) | Thick | Grout (in) | | |
|----------|----------|---------|----------------------|-----|------|-------|-----|---------------|-----------------|-------|------------|-------|-----|
| | | | Hmax | V | Vmax | | | | | | | | |
| 1 | B | 28 | 14.1 | 0.9 | 29 | -12.8 | 0.9 | 4 | 0.750 | 8.000 | 14.00 | 0.375 | 0.0 |
| | | 12 | 0.0 | 1.6 | | | | | | | | | |
| 1 | C | 28 | 10.2 | 1.2 | 29 | -9.3 | 1.2 | 4 | 0.750 | 10.00 | 14.25 | 0.375 | 0.0 |
| | | 12 | 0.0 | 2.1 | | | | | | | | | |
| 1 | D | 28 | 10.6 | 1.4 | 29 | -9.7 | 1.4 | 4 | 0.750 | 10.00 | 14.25 | 0.375 | 0.0 |
| | | 12 | 0.0 | 2.4 | | | | | | | | | |
| 1 | H | 28 | 10.6 | 1.4 | 29 | -9.7 | 1.4 | 4 | 0.750 | 10.00 | 14.25 | 0.375 | 0.0 |
| | | 12 | 0.0 | 2.4 | | | | | | | | | |
| 1 | I | 28 | 10.2 | 1.2 | 29 | -9.3 | 1.2 | 4 | 0.750 | 10.00 | 14.25 | 0.375 | 0.0 |
| | | 12 | 0.0 | 2.1 | | | | | | | | | |
| 1 | K | 28 | 14.1 | 0.9 | 29 | -12.8 | 0.9 | 4 | 0.750 | 8.000 | 14.00 | 0.375 | 0.0 |
| | | 12 | 0.0 | 1.6 | | | | | | | | | |
| 6 | L | 28 | 10.6 | 0.6 | 29 | -9.5 | 0.6 | 4 | 0.750 | 8.000 | 14.25 | 0.375 | 0.0 |
| | | 12 | 0.0 | 1.0 | | | | | | | | | |
| 6 | J | 28 | 10.8 | 1.0 | 29 | -9.8 | 1.0 | 4 | 0.750 | 8.000 | 14.00 | 0.375 | 0.0 |
| | | 12 | 0.0 | 1.8 | | | | | | | | | |
| 6 | I | 28 | 7.8 | 0.9 | 29 | -7.1 | 0.9 | 4 | 0.750 | 8.000 | 14.25 | 0.375 | 0.0 |
| | | 12 | 0.0 | 1.5 | | | | | | | | | |
| 6 | C | 28 | 14.9 | 1.8 | 29 | -13.6 | 1.8 | 4 | 0.750 | 11.00 | 14.50 | 0.250 | 0.0 |
| | | 12 | 0.0 | 3.0 | | | | | | | | | |
| 6 | B | 28 | 14.1 | 0.9 | 29 | -12.8 | 0.9 | 4 | 0.750 | 8.000 | 14.00 | 0.375 | 0.0 |
| | | 12 | 0.0 | 1.6 | | | | | | | | | |

WIND BENT REACTIONS (160x150)

| Wall Loc | Col Line | Line | ± Reactions (k) | | Seismic(k) |
|----------|----------|------|-----------------|------|------------|
| | | | Horz | Vert | |
| F_SW | M | 2 | 10.6 | 21.0 | 4.2 |
| | | 3 | 10.6 | 21.0 | 4.2 |
| F_SW | M | 4 | 10.6 | 21.0 | 4.2 |
| | | 5 | 10.6 | 21.0 | 4.2 |
| B_SW | A | 4 | 10.6 | 21.0 | 4.1 |
| | | 3 | 10.6 | 21.0 | 4.1 |
| B_SW | A | 2 | 10.6 | 21.0 | 4.1 |
| | | 3 | 10.6 | 21.0 | 4.1 |

ANCHOR BOLT SUMMARY (160x150)

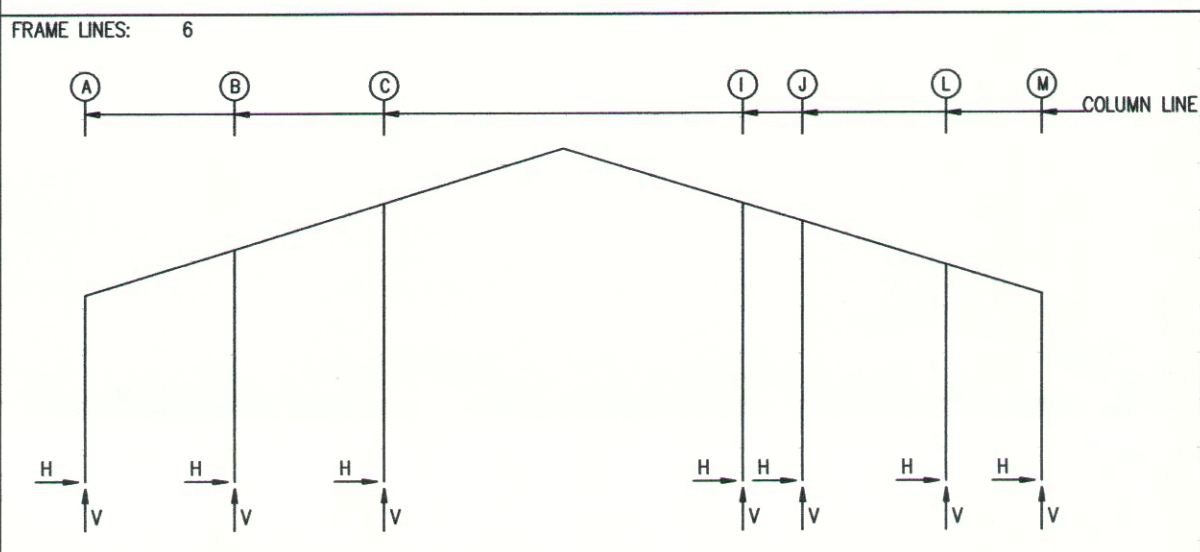
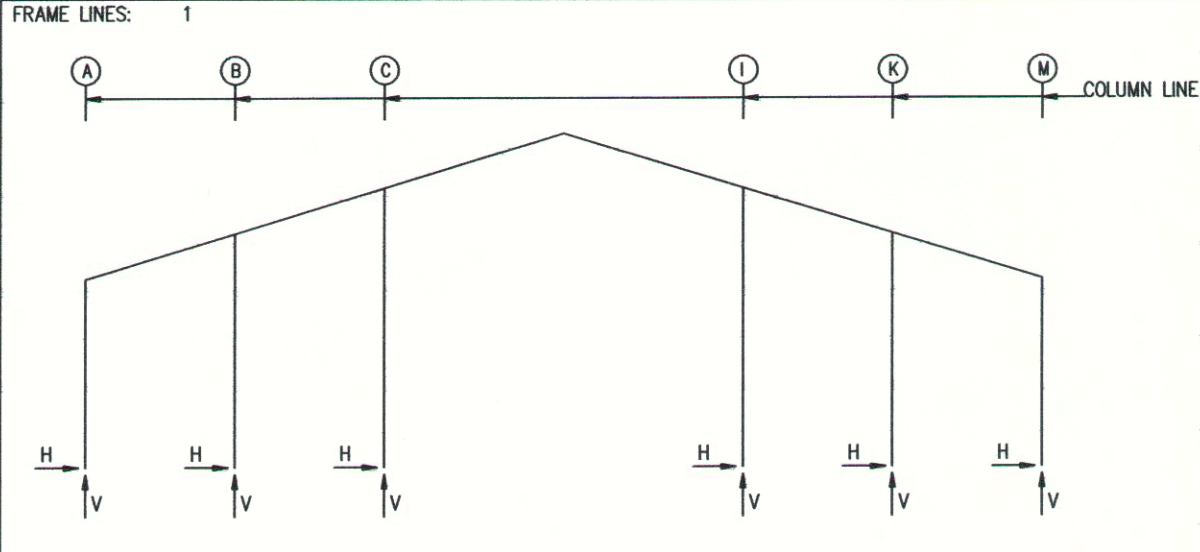
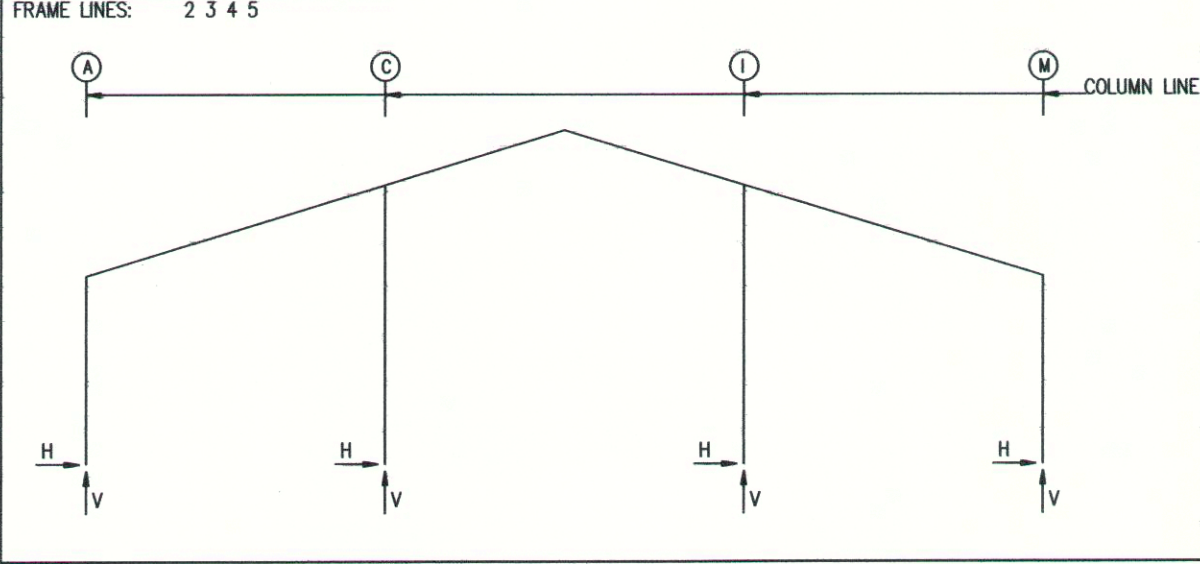
| Qty | Locate | (in) | Type | (in) |
|-----|---------|------|------|------|
| 12 | Endwall | 3/4" | A307 | 3.00 |
| 28 | Frame | 3/4" | A307 | 3.00 |
| 64 | Frame | 1" | A307 | 3.00 |

BUILDING BRACING REACTIONS (160x150 PART)

| Wall Loc | Col Line | Line | ± Reactions (k) | | Panel Shear (lb/ft) |
|----------|----------|------------------------|-----------------|------|---------------------|
| | | | Horz | Vert | |
| L_EW | 1 | Rigid Frame At Endwall | | | |
| F_SW | M | Wind Bent In Wall | | | |
| R_EW | 6 | Rigid Frame At Endwall | | | |
| B_SW | A | Wind Bent In Wall | | | |

CRANE BRACING REACTIONS

| Wall Loc | Col Line | Line | ± Reactions (k) | |
|----------|----------|------|-----------------|------|
| | | | Horz | Vert |
| INT | C | 2,3 | 1.5 | 1.9 |
| | | 4,5 | 1.5 | 1.9 |
| I | 1 | 2,3 | 1.5 | 1.9 |
| | | 4,5 | 1.5 | 1.9 |



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

| Frm Line | Col Line | Load ID | Column Reactions (k) | | | Hmin | V | Anc. Bolt Qty | Base_Plate (in) | Thick | Grout (in) | | |
|----------|----------|---------|----------------------|-------|------|------|-------|---------------|-----------------|-------|------------|-------|-----|
| | | | Hmax | V | Vmax | | | | | | | | |
| 1 | A | 4 | 5.3 | -6.9 | 5 | -7.8 | -10.7 | 4 | 0.750 | 8.000 | 12.00 | 0.375 | 0.0 |
| | | 19 | 2.2 | 50.9 | 3 | -6.0 | -15.0 | | | | | | |
| 1 | M | 6 | 5.8 | -10.1 | 3 | -7.3 | -6.3 | 4 | 0.750 | 8.000 | 12.00 | 0.375 | 0.0 |
| | | 2 | 0.0 | 54.6 | 4 | 4.0 | -14.5 | | | | | | |
| 1 | B | 7 | 0.0 | -11.6 | 7 | 0.0 | -11.6 | 4 | 0.750 | 10.00 | 14.00 | 0.375 | 0.0 |
| | | 13 | 0.0 | 74.2 | 3 | 0.0 | -14.4 | 4 | 0.750 | 12.00 | 14.50 | 0.500 | 0.0 |
| 1 | C | 20 | 1.5 | 98.8 | 3 | 0.0 | -14.4 | 4 | 0.750 | 12.00 | 14.50 | 0.500 | 0.0 |
| | | 4 | 0.0 | -13.6 | 22 | -1.5 | 31.1 | 4 | 0.750 | 12.00 | 14.50 | 0.500 | 0.0 |
| 1 | I | 21 | -1.5 | 99.0 | 4 | 0.0 | -13.6 | | | | | | |
| | | 8 | 0.0 | -11.7 | 8 | 0.0 | -11.7 | 4 | 0.750 | 10.00 | 14.00 | 0.375 | 0.0 |
| 1 | K | 14 | 0.0 | 73.6 | | | | | | | | | |

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

| Frm Line | Col Line | Load ID | Column Reactions (k) | | | Hmin | V | Anc. Bolt Qty | Base_Plate (in) | Thick | Grout (in) | | |
|----------|----------|---------|----------------------|-------|------|-------|-------|---------------|-----------------|-------|------------|-------|-----|
| | | | Hmax | V | Vmax | | | | | | | | |
| 2* | A | 4 | 7.7 | -21.4 | 5 | -15.7 | -20.4 | 4 | 1.000 | 10.00 | 12.25 | 0.625 | 0.0 |
| | | 2 | 1.7 | 122.6 | 7 | 3.9 | -51.0 | | | | | | |
| 2* | M | 6 | 12.0 | -21.5 | 3 | -11.4 | -22.5 | 4 | 1.000 | 10.00 | 12.25 | 0.625 | 0.0 |
| | | 1 | -1.2 | 128.8 | 8 | -3.9 | -50.7 | | | | | | |
| 2* | C | 15 | 1.5 | 31.5 | 12 | -0.6 | 78.0 | 4 | 1.000 | 10.00 | 14.25 | 0.625 | 0.0 |
| | | 17 | -0.6 | 174.6 | 9 | 0.0 | -35.3 | | | | | | |
| 2* | I | 10 | 0.0 | -35.3 | 16 | -1.5 | 22.2 | 4 | 1.000 | 10.00 | 14.25 | 0.625 | 0.0 |
| | | 18 | 0.0 | 173.2 | 10 | 0.0 | -35.3 | | | | | | |

SEE GENERAL NOTES SHEET 2A
ERECTION REQUIRES MINOR ADJUSTMENTS

ESSEX STRUCTURAL STEEL CO., INC.
CORTLAND, NEW YORK 13045

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| REVISIONS | PROJECT: CANAL LANDING 100 WEST COMMERCIAL STREET PORTLAND, MAINE 04101 |
| REV. A, 7/14/2014, JCK: REMOVED COL. REACTIONS AT 6-G, 6-E. DETAIL B PLATE LENGTH | CONTRACTOR: IRISHSPAN INDUSTRIES PROJECT NO.: S-1468 |
| REV. B, 7/22/2014, JCK: REVISED LINE 6 TO INCLUDE 6.1 | TITLE: REACTIONS 160x150 PART |
| | SHEET: 2 |
| DRAWN BY: WPK | DATE: 6/23/14 |
| | SCALE: D.N.S. |

