Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 10/03/14

WIND BENT REACTIONS (30x144)

Wall Loc	Wall Line	Col Line	± Reactions Wind(k) Horz	Wind(k) Vert	Seismic(k) Horz	Seismic(k) Vert
F_SW	L	6	11.4	9.5	1.6	1.3
F_SW	L	7	11.4	9.5	1.6	1.3
B_SW	A	7	13.4	20.4	1.6	2.5
B_SW	A	6	13.4	20.4	1.6	2.5

ANCHOR BOLT SUMMARY (30x144)

⊠ 28	Frame 7	3/4"	A307	3.00

GENERAL NOTES

1. FOUNDATION DESIGN AND CONSTRUCTION ARE NOT THE RESPONSIBILITY OF ESSEX STRUCTURAL STEEL COMPANY, INC.
2. THE BUILDING REACTION DATA REPORTS THE LOADS WHICH THIS BUILDING PLACES ON THE FOUNDATION.
3. ANCHOR BOLTS SHALL BE ACCURATELY SET TO A TOLERANCE OF +/- 1/8" IN BOTH ELEVATION AND LOCATION.
4. COLUMN BASE PLATES ARE DESIGNED NOT TO EXCEED A BEARING PRESSURE OF 1125 POUNDS PER SQUARE INCH.
5. ALL COLUMN BASE PLATES ARE TO BE SET AT FINISHED FLOOR ELEVATION OF 100'- 0" UNLESS OTHERWISE NOTED ON THE ANCHOR BOLT SETTING PLAN.....
6. SEE REACTION TABLES FOR PROPER BASE PLATE WIDTHS AND LENGTHS.

NOTES FOR REACTIONS

1. All loading conditions are examined and only maximum/minimum H or V and the corresponding H or V are reported.
2. Positive reactions are as shown in the sketch. Foundation loads are in opposite directions.
3. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
4. Building reactions are based on the following building data:

Width (ft)	=	144.0
Length (ft)	=	30.3
Eave Height (ft)	=	24.0/ 14.0
Roof Slope (rise/12)	=	5.0/ 5.0
Dead Load (psf)	=	3.0
Collateral Load (psf)	=	5.0
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*Ss)	=	0.36

5. Loading conditions are:

1 Dead+Collateral+Snow+Slide_Snow
2 Dead+Collateral+0.75Live-0.75Wind_Long2+0.75LWND2_R2E
3 Dead+Collateral+0.75Snow+0.75Wind_Left2+0.75Slide_Snow
4 0.6Dead+Wind_Left1
5 0.6Dead+Wind_Right1
6 0.6Dead+Wind_Left2
7 0.6Dead+Wind_Right2
8 0.6Dead+Wind_Long1+LWND1_L2E
9 0.6Dead+Wind_Long1+LWND1_R2E
10 0.6Dead--Wind_Long1+LWND1_L2E
11 1.03Dead+1.03Collateral+0.75Seismic_Right
12 Dead+Collateral+F1UNB_SL_L
13 Dead+Collateral+F1UNB_SL_R
14 0.6Dead+Wind_Right2+Wind_Suction
15 0.6Dead+Wind_Pressure+Wind_Long1
16 0.6Dead+Wind_Left2+Wind_Suction
17 0.6Dead+Wind_Suction+Wind_Long1
18 0.6Dead+Wind_Left1+Wind_Suction
19 0.6Dead+Wind_Pressure+Wind_Long2

FRAME LINES: 7

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

Frm Line	Col Line	Column Reactions (k) Load ID	Hmax H	V Vmax	Load ID	Hmin H	V Vmin	Anc. Qty	Bolt Dia	Base Plate (in) Width	Length	Thick	Grout (in)
7	A	5 2	3.9 0.0	-8.3 53.5	6 8	-4.1 2.1	-4.1 -28.2	4	0.750	8.000	12.00	0.500	0.0
7	L	7 3	5.4 -4.6	-2.7 13.2	4 9	-7.9 -3.4	3.1 -13.7	4	0.750	8.000	12.00	0.375	0.0
7	B	8 1	0.0 0.0	-10.8 86.9	8	0.0	-10.8	4	0.625	8.000	14.00	0.500	0.0
7	C	4 12	0.0 0.0	-3.1 59.7	4	0.0	-3.1	4	0.625	8.000	14.00	0.375	0.0
7	E	4 13	0.0 0.0	-3.1 31.1	4	0.0	-3.1	4	0.750	10.00	14.00	0.375	0.0
7	G	10 1	0.0 0.0	-10.8 30.5	10	0.0	-10.8	4	0.750	10.00	14.00	0.375	0.0
7	J	4 1	0.0 0.0	-12.2 30.1	4	0.0	-12.2	4	0.750	8.000	14.00	0.375	0.0

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

Frm Line	Col Line	Column Reactions (k) Load ID	Hmax H	V Vmax	Load ID	Hmin H	V Vmin	Anc. Qty	Bolt Dia	Base Plate (in) Width	Length	Thick	Grout (in)
6	B	16 18	12.4 0.0	1.2 2.1	17	-11.4	1.2	4	0.625	10.00	14.25	0.375	0.0
6	C	16 18	27.6 0.0	2.4 4.0	17	-25.4	2.4	4	0.750	15.00	14.50	0.250	0.0
6	I	16 18	14.1 0.0	0.9 1.5	17	-12.9	0.9	4	0.625	10.00	14.25	0.375	0.0
6	J	16 18	5.8 0.0	0.4 0.7	17	-5.3	0.4	4	0.625	8.000	14.25	0.375	0.0
7	J	14 11	7.1 0.0	0.3 0.5	19	-6.5	0.3	4	0.750	8.000	14.00	0.375	0.0
7	G	14 11	11.4 0.0	0.5 0.8	19	-10.4	0.5	4	0.750	8.000	14.25	0.375	0.0
7	E	14 11	14.7 0.0	1.5 2.6	19	-13.5	1.5	4	0.750	10.00	14.25	0.375	0.0
7	C	14 11	13.5 0.0	1.3 2.2	19	-12.3	1.3	4	0.750	10.00	14.25	0.375	0.0
7	B	14 11	11.5 0.0	0.6 0.9	19	-10.5	0.6	4	0.750	8.000	14.25	0.375	0.0

DETAIL Q — FUTURE MEZZANINE COLUMN DETAIL
ELEVATION: 100'-0"
ELEVATION: 99'-5" @ LINE 2

USE (2) 5/8 ANCHORS (BY OTHERS)

DETAIL P — MEZZANINE COLUMN DETAIL
ELEVATION: 100'-0"

USE (2) 5/8 x 12 A/BOLTS

Dia= 3/4" ELEVATION: 100'-1"

DETAIL V

Dia= 3/4" ELEVATION: 99'-5"

DETAIL R

Dia= 3/4" ELEVATION: 99'-5"

DETAIL S

Dia= 5/8" ELEVATION: 99'-5"

DETAIL T

Dia= 5/8" ELEVATION: 100'-1"

DETAIL U

Dia= 3/4" ELEVATION: 100'-1"

DETAIL L

Dia= 3/4" ELEVATION: 100'-1"

DETAIL M

Dia= 3/4" ELEVATION: 100'-1"

DETAIL N

Dia= 1" ELEVATION: 100'-1"

DETAIL O

STATE OF MAINE
STEPHEN JON REIFENBERG
NO. 4763
LICENSED
PROFESSIONAL ENGINEER

9/17/14

ERECTION REQUIRES MINOR ADJUSTMENTS

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

REVISIONS
REV. A, 7/14/2014, JCK: REVISED DETAILS L, M ADDED P, Q . REVISED COL. LETTERS @ LINE 7
REV. B, 7/16/2014, JCK: REVISED DETAILS L, M ADDED R S T U V
REV. C, 7/22/2014, JCK: DELETED 6.1
REV. D, 8/21/2014, JCK: DET. Q ELEV.

PROJECT: CANAL LANDING
100 WEST COMMERCIAL STREET
PORTLAND, MAINE 04101
CONTRACTOR: IRISHSPAN INDUSTRIES
PROJECT NO.: S-1468

TITLE: REACTIONS (30x144 PART)
SHEET: 2A
DRAWN BY: WPK
DATE: 6/23/14
SCALE: D.N.S.