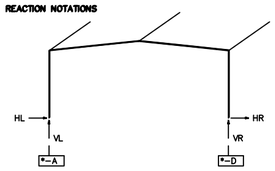
FRAME ID #3
cs 64.5/24./19.229 20.89/8.
USER NAME: dxmoreau
JOB NAME: 17646A
DATE: 10/ 5/17
FILE: frame_3.fra
PAGE: 3-4

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 3
NOTES: (1) All reactions are in kips and kip-ft.
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.
TIME: 10: 00: 09

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 3

COLUMN	*-A			*-D		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
WL6	0.3	1.1	0.0	4.4	-2.2	0.0

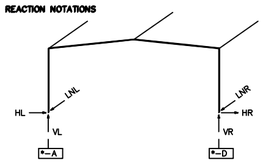
LOAD GROUP DESCRIPTION

WL6 : Lateral Primary Wind Load

FRAME ID #4
cs 64.5/24./20.562 20.89/8.
USER NAME: dxmoreau
JOB NAME: 17646A
DATE: 10/ 5/17
FILE: frame_4.fra
PAGE: 4-3

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 4
NOTES: (1) All reactions are in kips and kip-ft.
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.
TIME: 13: 35: 26

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 4

COLUMN	*-A			*-D		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	1.3	3.8	0.0	-1.3	3.8	0.0
COLL	0.4	1.0	0.0	-0.4	1.0	0.0
PAR1	6.9	25.3	0.0	-6.9	8.0	0.0
PAR2	6.9	8.0	0.0	-6.9	25.3	0.0
MD	-0.0	-0.0	0.0	-0.2	4.7	0.0
SNOW	13.8	33.2	0.0	-13.8	33.2	0.0
ML	-0.0	-0.0	0.0	-0.4	13.5	0.0
LL	5.8	13.9	0.0	-5.8	13.8	0.0
RBDWEQ	-0.5	33.0	0.0	0.5	54.1	0.0
EQ	-5.8	-4.1	0.0	-6.8	4.1	0.0
RBUPEQ	0.7	-33.0	-27.7	-0.7	-54.2	-57.5
WL1	-4.9	-7.1	0.0	-0.1	-3.6	0.0
WL2	-5.1	-10.4	0.0	0.1	-6.8	0.0
WL3	-4.7	-2.3	0.0	-0.3	1.2	0.0
WL4	0.1	-3.6	0.0	4.9	-7.1	0.0
WL5	-0.1	-6.8	0.0	5.0	-10.3	0.0
WL6	0.4	1.2	0.0	4.6	-2.3	0.0
LWL1	-0.4	-6.1	0.0	0.7	-4.6	0.0
RBUPLW	0.1	-5.6	-4.7	-0.1	-5.6	-4.7
LWL2	-0.6	-9.3	0.0	0.9	-7.8	0.0

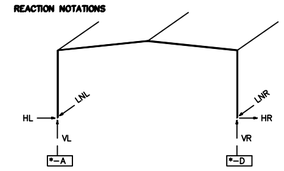
LOAD GROUP DESCRIPTION

DL : Roof Dead Load
COLL : Roof Collateral Load
PAR1 : Partial Load [PARxx]
PAR2 : Partial Load [PARxx]
MD : Mezzanine Dead Load
SNOW : Roof Snow Load
ML : Mezzanine Live Load
LL : Roof Live Load
RBDWEQ : Downward Acting Rod Brace Load from Long. Seismic
EQ : Lateral Seismic Load [parallel to plane of frame]
RBUPEQ : Upward Acting Rod Brace Load from Long. Seismic
WL1 : Lateral Primary Wind Load
WL2 : Lateral Primary Wind Load
WL3 : Lateral Primary Wind Load
WL4 : Lateral Primary Wind Load
WL5 : Lateral Primary Wind Load
WL6 : Lateral Primary Wind Load
LWL1 : Longitudinal Primary Wind Load
RBUPLW : Upward Acting Rod Brace Load from Long. Wind
LWL2 : Longitudinal Primary Wind Load

FRAME ID #4
cs 64.5/24./20.562 20.89/8.
USER NAME: dxmoreau
JOB NAME: 17646A
DATE: 10/ 5/17
FILE: frame_4.fra
PAGE: 4-4

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 4
NOTES: (1) All reactions are in kips and kip-ft.
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.
TIME: 13: 35: 26

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 4

COLUMN	*-A			*-D		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
LWL3	-0.1	-1.2	0.0	0.5	0.2	0.0
LWL4	-0.8	-4.6	0.0	0.4	-6.1	0.0
LWL5	-0.9	-7.9	0.0	0.6	-9.3	0.0
LWL6	-0.5	0.2	0.0	0.2	-1.2	0.0
RBDWLW	-0.1	5.6	0.0	0.1	5.6	0.0

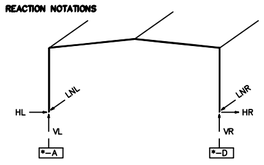
LOAD GROUP DESCRIPTION

LWL3 : Longitudinal Primary Wind Load
LWL4 : Longitudinal Primary Wind Load
LWL5 : Longitudinal Primary Wind Load
LWL6 : Longitudinal Primary Wind Load
RBDWLW : Downward Acting Rod Brace Load from Long. Wind

FRAME ID #5
cs 64.5/24./20.25 20.89/8.5
USER NAME: dxmoreau
JOB NAME: 17646A
DATE: 10/ 5/17
FILE: frame_5.fra
PAGE: 5-3

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 5
NOTES: (1) All reactions are in kips and kip-ft.
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.
TIME: 13: 35: 58

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 5

COLUMN	*-A			*-D		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	1.2	3.7	0.0	-1.2	3.8	0.0
COLL	0.4	1.0	0.0	-0.4	1.0	0.0
PAR1	6.8	24.9	0.0	-6.8	7.8	0.0
PAR2	6.8	7.9	0.0	-6.8	24.9	0.0
SNOW	13.6	32.7	0.0	-13.6	32.7	0.0
LL	5.7	13.6	0.0	-5.7	13.6	0.0
RBUPEQ	0.7	-33.0	-27.7	-0.7	-54.2	-57.5
RBDWEQ	-0.5	33.0	0.0	0.5	54.2	0.0
EQ	-3.8	-2.6	0.0	-3.6	2.6	0.0
WL1	-6.1	-8.9	0.0	-0.0	-4.4	0.0
WL2	-6.2	-12.0	0.0	0.2	-7.6	0.0
WL3	-5.8	-4.1	0.0	-0.3	0.3	0.0
WL4	0.1	-4.4	0.0	6.0	-8.8	0.0
WL5	-0.1	-7.6	0.0	6.2	-12.0	0.0
WL6	0.4	0.3	0.0	5.7	-4.1	0.0
LWL1	-0.8	-7.5	0.0	1.3	-5.7	0.0
RBUPLW	0.1	-5.6	-4.7	-0.1	-5.6	-4.7
LWL2	-1.0	-10.7	0.0	1.5	-8.8	0.0
LWL3	-0.6	-2.8	0.0	1.0	-0.9	0.0
LWL4	-1.3	-5.7	0.0	0.9	-7.5	0.0

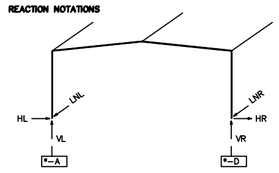
LOAD GROUP DESCRIPTION

DL : Roof Dead Load
COLL : Roof Collateral Load
PAR1 : Partial Load [PARxx]
PAR2 : Partial Load [PARxx]
SNOW : Roof Snow Load
LL : Roof Live Load
RBUPEQ : Upward Acting Rod Brace Load from Long. Seismic
RBDWEQ : Downward Acting Rod Brace Load from Long. Seismic
EQ : Lateral Seismic Load [parallel to plane of frame]
WL1 : Lateral Primary Wind Load
WL2 : Lateral Primary Wind Load
WL3 : Lateral Primary Wind Load
WL4 : Lateral Primary Wind Load
WL5 : Lateral Primary Wind Load
WL6 : Lateral Primary Wind Load
LWL1 : Longitudinal Primary Wind Load
RBUPLW : Upward Acting Rod Brace Load from Long. Wind
LWL2 : Longitudinal Primary Wind Load
LWL3 : Longitudinal Primary Wind Load
LWL4 : Longitudinal Primary Wind Load

FRAME ID #5
cs 64.5/24./20.25 20.89/8.5
USER NAME: dxmoreau
JOB NAME: 17646A
DATE: 10/ 5/17
FILE: frame_5.fra
PAGE: 5-4

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 5
NOTES: (1) All reactions are in kips and kip-ft.
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.
TIME: 13: 35: 58

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 5

COLUMN	*-A			*-D		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
LWL5	-1.5	-8.8	0.0	1.0	-10.7	0.0
LWL6	-1.0	-0.9	0.0	0.6	-2.8	0.0
RBDWLW	-0.1	5.6	0.0	0.1	5.6	0.0

LOAD GROUP DESCRIPTION

LWL5 : Longitudinal Primary Wind Load
LWL6 : Longitudinal Primary Wind Load
RBDWLW : Downward Acting Rod Brace Load from Long. Wind

NOTES

1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTED OTHERWISE).
a) A REACTION TABLE IS PROVIDED WITH THE REACTIONS FOR EACH LOAD GROUP.
b) RIGID FRAMES
(1) GABLED BUILDINGS
(a) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE LEFT SIDE OF THE BUILDING, AS SHOWN ON THE ANCHOR ROD DRAWING, FROM THE OUTSIDE OF THE BUILDING.
(b) INTERIOR COLUMNS ARE SPACED FROM LEFT SIDE TO RIGHT SIDE.
(2) SINGLE SLOPE BUILDINGS
(a) LEFT COLUMN IS THE LOW SIDE COLUMN.
(b) RIGHT COLUMN IS THE HIGH SIDE COLUMN.
(c) INTERIOR COLUMNS ARE SPACED FROM LOW SIDE TO HIGH SIDE.
c) ENDWALLS
(1) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE WALL FROM THE OUTSIDE.
(2) INTERIOR COLUMNS ARE SPACED FROM LEFT TO RIGHT.
d) ANCHOR ROD SIZE IS DETERMINED BY SHEAR AND TENSION AT THE BOTTOM OF THE BASE PLATE. THE LENGTH OF THE ANCHOR ROD AND METHOD OF LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY THE FOUNDATION ENGINEER.
e) ANCHOR RODS ARE ASTM F1554 Gr. 36 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
f) X-BRACING
(1) ROD BRACING REACTIONS HAVE BEEN INCLUDED IN VALUES SHOWN IN THE REACTION TABLES.
(2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ AND RBDWEQ) DO NOT INCLUDE THE AMPLIFICATION FACTOR, Ω_0.
(3) FOR CANADA BUILDING CODE (NBC), WHEN X-BRACING IS PRESENT IN THE SIDEWALL OR ENDWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ & RBDWEQ) ARE MULTIPLIED BY FORCE REDUCTION FACTOR, Rd, WHEN SPECIFIED SHORT-PERIOD SPECTRAL ACCELERATION RATIO $I_E F_a S_a(0.2)$ IS GREATER THAN 0.45.
3) REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN.
a) FOR PROJECTS USING ULTIMATE DESIGN WIND SPEEDS SUCH AS 2012 IBC, 2015 IBC, OR 2014 FLORIDA BUILDING CODE, THE WIND LOAD REACTIONS ARE AT A STRENGTH VALUE WITH A LOAD FACTOR OF 1.0.
b) FOR IBC CODES, THE SEISMIC REACTIONS PROVIDED ARE AT A STRENGTH LEVEL AND DO NOT CONTAIN THE RHO FACTOR.
c) FOR NBCC CODES, THE SEISMIC REACTIONS PROVIDED DO NOT CONTAIN THE R_d*R_o FACTOR.
THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS. HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN.

Revision	Date	Description	By	Ck'd

Robertson Building Systems
1343 SANDHILL DRIVE
ANCASTER, ONTARIO L9G 4V5
905-304-1111

Customer: ARGUE CONSTRUCTION LTD.
CARP, ON

Project Name & Location:
VANSON TRUCKING
OTTAWA, ON

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale: NOT TO SCALE
Drawn by: DW 10/10/17
Checked by: STU 10/10/17
Project Engineer: AIS
Job Number: 16-B-17646
Sheet Number: F4 of 5

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

A. Szilveszter, P.ENG
Ontario P.ENG 100041568
DRR01A ENR01A

LICENSED PROFESSIONAL ENGINEER
A. Szilveszter
100041568
17/10/11
PROVINCE OF ONTARIO