

1. CONTRACTOR TO VERIFY ALL DIMENSIONS FOR BUILDING PRIOR TO COMMENCEMENT OF WORK AND NOTIFY DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES.
2. STRUCTURAL DRAWINGS SHOW THE COMPLETED PROJECT. THEY DO NOT SHOW COMPONENTS WHICH MAY BE NECESSARY FOR CONSTRUCTION SAFETY. CONTRACTOR IS RESPONSIBLE FOR SAFETY ON AND ABOUT THE JOB SITE DURING CONSTRUCTION.
3. CONTRACTOR TO ENSURE THAT ALL WORK IS CARRIED OUT BY THE RULES AND CUSTOMS OF THE BEST TRADE PRACTICES AND THEIR SPECIFICATIONS BY SKILLED TRADES PEOPLE KNOWLEDGEABLE OF THE TYPE OF CONSTRUCTION. THEY ARE TO BE PROPERLY EQUIPPED AND SUPERVISED.
4. NOTIFY DEPARTMENTAL REPRESENTATIVE 1 WEEK IN ADVANCE FOR CONSTRUCTION REVIEW OF THE STRUCTURAL PORTION OF THE BUILDING AS SHOWN ON THE STRUCTURAL DRAWINGS IN ACCORDANCE WITH DIVISION C PART 2 OF THE NATIONAL BUILDING CODE OF CANADA 2010.
5. SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR SLEEVES, INSERTS, ETC. TO BE ENCASED IN CONCRETE.
6. THESE STRUCTURAL DRAWINGS DO NOT INCLUDE DETAILS FOR BUILDING ENVELOPE, WATER PROOFING AND DRAINAGE. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND CIVIL ENGINEERING DRAWINGS AS APPROPRIATE.
7. STRUCTURAL DESIGN DATA.
 - a. ENGINEER OF RECORD- RANDAL EMERY P.ENG.
 - b. DESIGN CODE - NATIONAL BUILDING CODE OF CANADA 2010 - PART 4.

DESIGN PARAMETERS		STEWART			
BUILDING IMPORTANCE CATEGORY		NORMAL			
SNOW LOAD PARAMETERS					
Ss = 7.9 kPa		Sr = 0.80 kPa		Is [U.S.] = 1.0 Is [SLS] = 0.9	
WIND LOAD PARAMETERS					
qS0 = 0.36 kPa		Iw [U.S.] = 1.0		Iw [SLS] = 0.75	
SEISMIC PARAMETERS					
Sa(0.2) = 0.3		Sa(0.5) = 0.19		Sa(1.0) = 0.11 Sa(2.0) = 0.063 PGA = 0.15	
Ie = 1.0					
SITE CLASS:		C [SEE GEOTECHNICAL REPORT]			
DESIGN LOADS					
GRAVITY					
		SNOW (kPa)	LIVE (kPa)	DEAD (kPa)	PARTITION (kPa)
ROOF	7.12 + ACCUMULATION		1.00 MIN	SELF-WT	-
CORRIDORS/EXITS	-		4.80	SELF-WT	-
MAIN FLOOR	-		4.80	SELF-WT	1.00

1. FOOTINGS HAVE BEEN DESIGNED FOR A SERVICEABILITY LIMIT STATE (SLS) SOIL BEARING RESISTANCE OF 250kPa AND AN ULTIMATE LIMIT STATE (ULS) SOIL BEARING RESISTANCE OF 400kPa IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY STANTEC CONSULTING LTD., DATED JANUARY 23, 2014. FOOTINGS TO BEAR ON EXISTING BLAST ROCK OR ENGINEERED FILL AS DESCRIBED IN THE GEOTECHNICAL REPORT.
2. FOUNDATIONS HAVE BEEN DESIGNED FOR THE FOLLOWING SPECIFIED LOADS FROM THE SUPERSTRUCTURE:

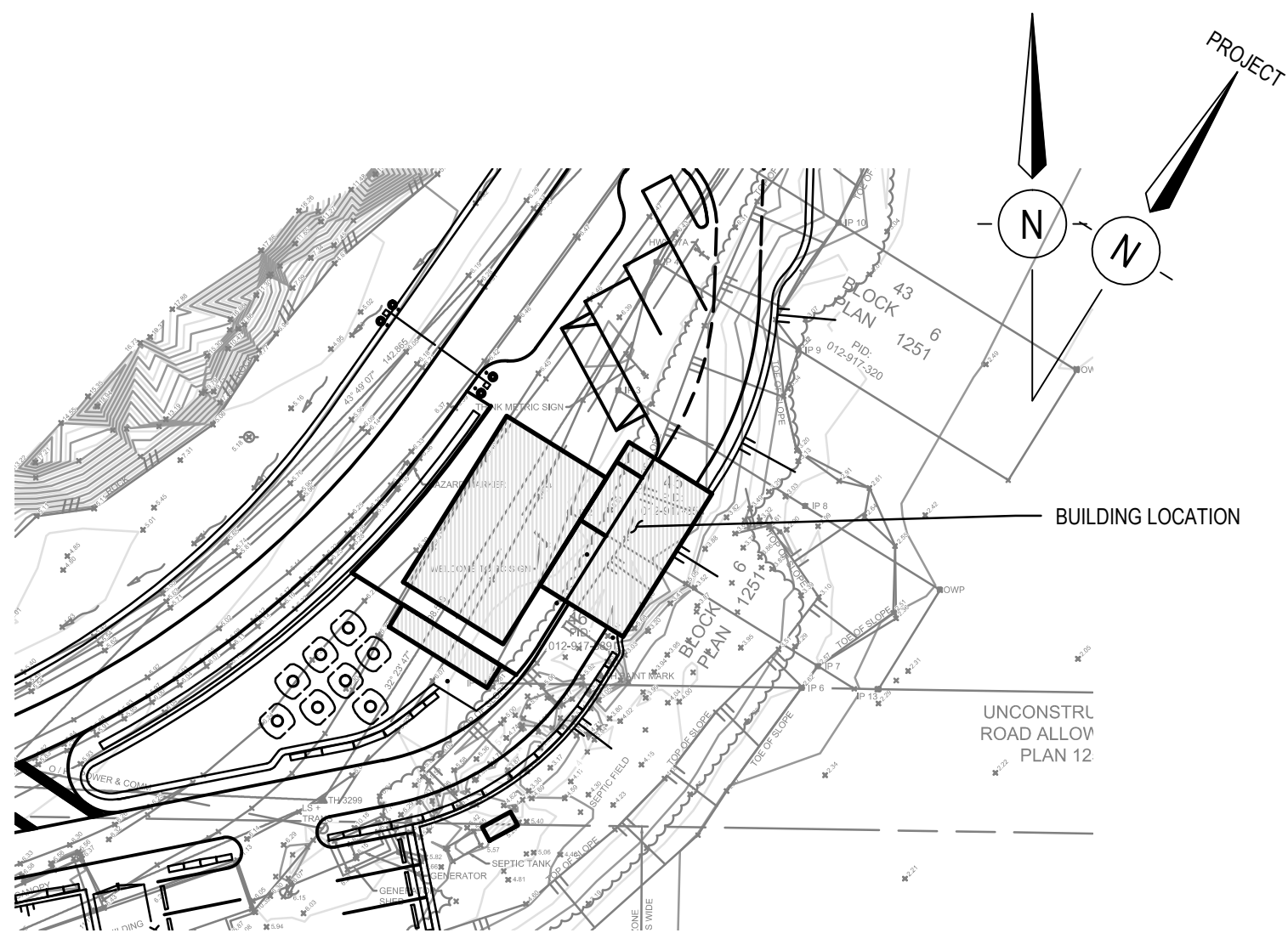
GRID LOCATION	DEAD LOAD	LIVE LOAD	SNOW LOAD	WIND UPLIFT
A - 1 C - 1	26kN	42kN	62kN	15kN
A=7620 - 1	52kN	84kN	124kN	20kN
A - 2 C - 2	26kN	42kN	180kN	15kN
A=7620 - 2	52kN	84kN	180kN	20kN
A=3835 - 2 A=11405 - 2	35kN	84kN	-	-
A - 3 C - 3	26kN	42kN	90kN	15kN
A=3835 - 3	52kN	84kN	180kN	20kN
B - 3+1118 D - 3+1118	30kN	-	205kN	35kN
B - 5 D - 5	12kN	-	75kN	4kN
ALONG 5	7kN/m	-	47kN/m	2kN/m

GRID LOCATION	SEISMIC (FACTORED)	WIND (SPECIFIED)
1 & 3	130kN	25kN
A & C	95kN	20kN
B & D	35kN	10kN
ALONG 5 (OUT OF PLANE)	15kN/m	3kN/m
4 & 5	75kN	15kN

1. CEMENT TO BE READY MIX CONCRETE CONFORMING TO THE CURRENT STANDARD CSA A23.1/A23.2. CEMENT TO BE TYPE GU OR GUS HYDRAULIC CEMENT CONFORMING TO CSA A300. USE ADMIXTURES ONLY WITH WRITTEN APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE.
- | LOCATION | 28 DAY
COMPRESSIVE
STRENGTH (MPa) |
|---------------------------------------|---|
| FOUNDATIONS | 25 |
| FOUNDATION WALLS & PIERS | 35 |
| PAVEMENTS, SIDEWALKS, CURBS & GUTTERS | 32 |
| GROUND SEAL SLAB ON GRADE | 25 |
- REFER TO PROJECT SPECIFICATIONS FOR OTHER PERFORMANCE REQUIREMENTS.

2. CONCRETE PROTECTION ON PRINCIPAL REINFORCING SHALL BE AS FOLLOWS:
SURFACES PLACED IN CONTACT WITH GROUND:
FORMED SURFACES EXPOSED TO GROUND OR WEATHER:
COLUMNS:
COLUMN TIES:

- a. A CSA CERTIFIED MATERIALS TESTING LABORATORY SHALL BE APPOINTED TO REVIEW CONCRETE MIXES AND TO GATHER AND TEST CONCRETE CYLINDERS. TESTING LABORATORY SHALL BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. COSTS OF TESTING TO BE PAID BY CONTRACTOR. COPIES OF TEST RESULTS TO BE SENT TO THE DEPARTMENTAL REPRESENTATIVE AND THE CONTRACTOR.
- b. A SUFFICIENT NUMBER OF TESTS SHALL BE MADE TO ENSURE A UNIFORM SLUMP OF CONCRETE. A SLUMP TEST SHALL BE MADE WITH EVERY STRENGTH TEST AND EVERY SECOND OR THIRD AIR TEST.
- b. AN AIR CONTENT DETERMINATION SHALL BE MADE WITH EVERY STRENGTH TEST.
- c. NOT LESS THAN ONE STRENGTH TEST (SET OF THREE CYLINDERS) SHALL BE MADE FOR EACH 100 CUBIC METERS OF CONCRETE PLACED, AND IN NO CASE SHALL THERE BE FEWER THAN ONE TEST FOR EACH CLASS OF CONCRETE PLACED ON ANY ONE DAY, AS DESIGNATED BY THE OWNER. WHEN HIGH-PERFORMANCE OR HIGH-STRENGTH CONCRETE IS INVOLVED, OR WHERE STRUCTURAL REQUIREMENTS ARE CRITICAL, THE OWNER MAY REQUIRE A HIGHER FREQUENCY OF TESTING, WHICH SHALL BE DEFINED IN THE CONTRACT DOCUMENTS.
4. UNLESS OTHERWISE SHOWN AND ON DESIGNATED SHEARWALLS, ALL CONCRETE WALLS TO BE REINFORCED AS FOLLOWS:
- | | | | |
|-------------|--------|-------------------------|-------------------------|
| 150mm [6"] | WALLS: | 15M VERT @ 450 [18"] | + 15M HORIZ @ 450 [18"] |
| 200mm [8"] | WALLS: | 15M VERT @ 500 [20"] | + 15M HORIZ @ 500 [20"] |
| 250mm [10"] | WALLS: | 15M VERT @ 500 [20"] | EACH FACE |
| | | + 15M HORIZ @ 500 [20"] | EACH FACE |
| 300mm [12"] | WALLS: | 15M VERT @ 500 [20"] | EACH FACE |
| | | + 15M HORIZ @ 500 [20"] | EACH FACE |
5. SINGLE CURTAIN WALL REINFORCING SHALL BE CENTERED IN WALLS UNLESS OTHERWISE SHOWN.
6. HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS AROUND CORNERS AND HOOKED AT WALL INTERSECTIONS, ADD 2-1M CENT ON TOPS AND ENDS OF WALLS. UNLESS OTHERWISE NOTED, HOOK AND LAP LENGTHS AS FOLLOWS:
- | BAR SIZE | VERT LAP | HORIZ LAP | HORIZ LENGTH |
|----------|--------------|--------------|--------------|
| 10M | 430mm [17"] | 500mm [20"] | 180mm [7"] |
| 15M | 600mm [24"] | 800mm [32"] | 250mm [10"] |
| 20M | 750mm [30"] | 1000mm [40"] | 300mm [12"] |
| 25M | 1200mm [48"] | 1500mm [60"] | 400mm [16"] |
| 30M | 1450mm [57"] | 1850mm [72"] | 600mm [24"] |
7. ADD 2-1M PARALLEL TO EACH SIDE OF OPENINGS IN WALLS AND SLABS, EXTENDING 600mm [24"] BEYOND CORNERS UNLESS OTHERWISE SHOWN.
8. REINFORCING SHALL BE PLACED AND BENT IN ACCORDANCE WITH CSA A23.1.
9. REINFORCING BARS SHALL BE ACCURATELY PLACED, ADEQUATELY SUPPORTED, AND SECURED AGAINST DISPLACEMENT PRIOR TO PLACING OF CONCRETE.
10. ALL COLUMN TIES SHALL HAVE 135 DEGREE HOOKS UNLESS OTHERWISE NOTED.
11. STEEL REINFORCING PLACER SHALL BE PRESENT DURING ALL CONCRETE POURS TO ENSURE THAT THE REINFORCING STEEL REMAINS IN THE CORRECT POSITIONS.
12. UNLESS OTHERWISE NOTED, SLAB REINFORCING NOT TO BE CUT AT PLUMBING, DUCTS, OR AROUND OTHER OPENINGS. SPREAD REINFORCING AROUND OPENINGS.
13. FOR ADHESIVE SET REINFORCING BAR SUBMIT ADHESIVE SYSTEM TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL. INSTALL STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
14. FOR ADHESIVE SET THREADED ANCHORS SUBMIT ADHESIVE SYSTEM TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL. INSTALL STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
15. REINFORCING STEEL WITHIN 3000mm [10'-0"] OF ELECTRICAL TRANSFORMERS TO BE EPOXY COATED.
16. ALL CONCRETE IS TO BE VIBRATED.



1:500

AB	-	ANCHOR BOLT
ALT	-	ALTERNATE
APPROX	-	APPROXIMATELY
ARCH	-	ARCHITECT
BOT	-	BOTTOM
BULDG	-	BUILDING
BM	-	BEAM
BP	-	BASE PL
BS	-	BOTH SIDES
CIP	-	CAST IN PLACE
CCJ	-	CRACK CONTROL JOINT
CJ	-	CONSTRUCTION JOINT
COL	-	COLUMN
CP	-	COMPLETE PENETRATION WELD
DWG	-	DRAWING
(E)	-	EXISTING
EF	-	EACH FACE
EL	-	ELEVATION
ELEV	-	ELEVATION
EW	-	EACH WAY
FTG	-	FOOTING
FS	-	FAR SIDE
GALV	-	GALVANIZED
HORIZ	-	HORIZONTAL
OWSJ	-	OPEN WEB STEEL JOIST
LG	-	LONG
MAX	-	MAXIMUM
MIN	-	MINIMUM
NS	-	NEAR SIDE
NTS	-	NOT TO SCALE
OC	-	ON CENTER
R/W	-	REINFORCE WITH
REINF	-	REINFORCEMENT
SF	-	STEP FOOTING
SOG	-	SLAB ON GRADE
STD	-	STANDARD
TOC	-	TOP OF CONCRETE
TOF	-	TOP OF FOOTING
TOS	-	TOP OF STEEL
TYP	-	TYPICAL
UN	-	UNLESS NOTED
UNO	-	UNLESS NOTED OTHERWISE
U/S	-	UNDERSIDE
VB	-	VAPOUR BARRIER
VERT	-	VERTICAL