

## GENERAL NOTES

- THIS SET OF DRAWINGS SHOWS THE COMPLETED PROJECT. IT IS TO BE READ IN CONJUNCTION WITH THE NON-STRUCTURAL DRAWING SETS. IT DOES NOT INCLUDE COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES, FORM WORK, FALSE WORK, SHORING, ETC. REQUIRED TO COMPLETE THE WORK.
- THE USE OF THESE DRAWINGS IS LIMITED TO THAT IDENTIFIED IN THE REVISIONS COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION" IN THE REVISIONS COLUMN BY CONTRACT ADMINISTRATOR.
- THE INFORMATION ON THIS DRAWING SHALL NOT BE USED FOR ANYTHING OTHER THAN THE SPECIFIED WORKS OR PART OF THE WORKS FOR WHICH IT HAS BEEN AUTHORIZED BY CONTRACT ADMINISTRATOR.
- SEE ARCHITECTURAL DRAWINGS FOR FLOOR AND ROOF ELEVATIONS, RECESSES, DRAINAGE SLOPES, DETAILED DIMENSIONS FOR DOORS, WINDOWS AND OTHER OPENINGS ETC.
- SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SLEEVES, NAILERS, INSERTS, ETC. TO BE ENCASED IN CONCRETE.
- THE CONTRACTOR SHALL REVIEW ALL THE DRAWINGS AND CHECK DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES BETWEEN STRUCTURAL AND OTHER DISCIPLINES DRAWINGS FOR CLARIFICATION.
- THE CONTRACTOR SHALL REPORT ANY SITE MODIFICATIONS MADE DURING CONSTRUCTION, THAT DIFFER FROM THE STRUCTURAL DRAWINGS, TO CONTRACT ADMINISTRATOR FOR REVIEW.
- DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT THE WRITTEN PERMISSION OF CONTRACT ADMINISTRATOR. CONTRACTOR TO PROVIDE APPROPRIATE ATTACHMENTS AND CONNECTIONS FOR MECHANICAL, ELECTRICAL, AND OTHER SERVICES WITHOUT CUTTING OR DRILLING.
- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND LANDSCAPE DRAWINGS FOR LOCATIONS, CONFIGURATIONS, EXTENT, AND SIZES OF ALL CURBS, UPSTANDS, DOWNTURNS, AND FOR OPENINGS THROUGH FLOORS AND WALLS FOR DUCTS.
- FIRE RESISTANCE RATINGS: SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION FOR PRECISE LOCATIONS OF REQUIRED FIRE RESISTANCE RATINGS.
- THE CONTRACTOR SHALL BE FAMILIAR WITH THE CONTENT AND RECOMMENDATIONS OF THE GEOTECHNICAL REPORTS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL COMPONENTS TO CONTRACT ADMINISTRATOR FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS ARE TO INCLUDE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER, REGISTERED IN THE PROJECT PROVINCE, FOR DESIGN OF COMPONENTS AND/OR CONNECTIONS AS REQUIRED.

## OWNERSHIP AND COPYRIGHT RESERVED

- ALL DRAWINGS, PLANS, MODELS, DESIGNS, SPECIFICATIONS AND OTHER DOCUMENTS PREPARED BY CONTRACT ADMINISTRATOR AND USED IN CONNECTION WITH THE PROJECT ARE INSTRUMENTS OF SERVICE FOR THE EXECUTION OF THE PROJECT, AND ARE TO REMAIN THE PROPERTY OF CONTRACT ADMINISTRATOR. WHETHER THE PROJECT IS EXECUTED OR NOT, AND CONTRACT ADMINISTRATOR RESERVES THE COPYRIGHT THEREIN AND IN THE WORK EXECUTED THEREFROM. SHALL NOT BE USED FOR ANY OTHER PROJECT. EXCEPT ONLY FOR GENERAL REFERENCE PURPOSES FOR ADDITION OF ALTERATION TO THE WORK SHOWN IN THEM, AND SINCE SUCH DOCUMENTS ARE DESIGN DOCUMENTS ONLY AND MAY NOT REPRESENT THE ACTUAL PROJECT AS CONSTRUCTED. USE OF THESE DOCUMENTS FOR GENERAL REFERENCE PURPOSES IS AT THE SOLE RISK OF THE PARTY USING THEM. THEY SHALL NOT BE COPIED WITHOUT THE WRITTEN CONSENT OF AN AUTHORIZED REPRESENTATIVE OF CONTRACT ADMINISTRATOR.

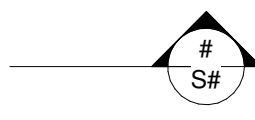
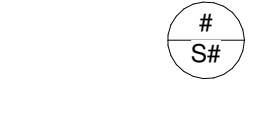
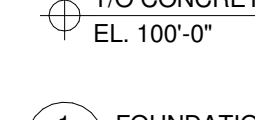


## REVIEW BY CONTRACT ADMINISTRATOR

- THE CONTRACTOR SHALL PROVIDE REASONABLE NOTICE TO CONTRACT ADMINISTRATOR PRIOR TO POURING CONCRETE OR CONCEALING ANY STRUCTURAL COMPONENTS. THE PURPOSE OF THIS NOTICE IS TO ENABLE CONTRACT ADMINISTRATOR TO CONDUCT ANY REQUIRED FIELD REVIEWS.
- CONTRACT ADMINISTRATOR PROVIDES FIELD REVIEW ONLY FOR THE WORK SHOWN ON THESE STRUCTURAL DRAWINGS. THIS REVIEW IS NOT A "FULL TIME" REVIEW BUT IS A PERIODIC REVIEW AT THE SOLE DISCRETION OF CONTRACT ADMINISTRATOR'S ENGINEERS IN ORDER TO VISUALLY ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY CONTRACT ADMINISTRATOR. FIELD REVIEW BY CONTRACT ADMINISTRATOR IS NOT CARRIED OUT FOR THE CONTRACTOR'S BENEFIT, NOR DOES IT MAKE CONTRACT ADMINISTRATOR GUARANTORS OF THE CONTRACTORS WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO BUILD THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. CONTRACT ADMINISTRATOR SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- CONTRACT ADMINISTRATOR WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON CONTRACT ADMINISTRATOR'S DRAWINGS. THE EXTENT OF THIS REVIEW IS AT THE SOLE DISCRETION OF CONTRACT ADMINISTRATOR'S ENGINEER AND IS FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE STRUCTURAL DESIGN CONCEPT. THE REVIEW IS NOT AN APPROVAL OF THE DESIGN, DETAILS AND DIMENSIONS INHERENT IN THE SHOP DRAWINGS. RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS OR FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

## ABBREVIATIONS

ALT	ALTERNATE	GALV	HOT DIPPED GALVANIZED
BOT	BOTTOM	MAX.	MAXIMUM
BR	BRACKET	MIN.	MINIMUM
BTW	BETWEEN	N.T.S.	NOT TO SCALE
B/W	BOTH WAYS	O.C.	ON CENTER
BLL	BOTTOM LOWER LAYER	R/W	REINFORCED WITH
BUL	BOTTOM UPPER LAYER	S.D.L.	SUPERIMPOSED DEAD LOAD
C/W	COMPLETE WITH	SIM.	SIMILAR
CL	CENTRELINE	S.O.G.	SLAB ON GRADE
C/C	CENTRE TO CENTRE	STAG.	STAGGER
CIP	CAST IN PLACE	S.J.	STRUT JOIST
CMU	CONCRETE MASONRY UNIT	TLL	TOP LOWER LAYER
DL	DEAD LOAD	TUL	TOP UPPER LAYER
LL	LIVE LOAD	TYP.	TYPICAL
SL	SNOW LOAD	T/O	TOP OF
E/E	EACH END	TIE	TIE ONE END
E/F	EACH FACE	T & B	TOP AND BOTTOM
E/S	EACH SIDE	T & C	TENSION AND COMPRESSION
E/W	EACH WAY	U.N.O.	UNLESS NOTED OTHERWISE
H/E	HOOK ONE END	U/S	UNDER SIDE OF
H2E	HOOK TWO ENDS	VERT.	VERTICAL
H & V	HORIZONTAL AND VERTICAL	OSF	OUTSIDE FACE
HOR	HORIZONTAL	ISF	INSIDE FACE

## SYMBOL LEGEND

	SECTION MARKER (MEANS SECTION # SHOWN ON DRAWING SHEET S#)
	PLAN DETAIL REFERENCE MARKER (MEANS DETAIL # SHOWN ON DRAWING SHEET S#)
	ELEVATION REFERENCE MARKER
	DRAWING SHEET REFERENCE MARKER
	NORTH ARROW REFERENCE MARKER

## DESIGN CRITERIA

THE DESIGN OF THE STRUCTURE IS IN ACCORDANCE WITH NBCC 2010 AND PART 4 OF DIVISION B, STRUCTURAL DESIGN OF THE 2011 MANITOBA BUILDING CODE.

IMPORTANCE CATEGORY NORMAL  
 SNOW DESIGN DATA  $S_s = 1.9 \text{ kPa (39.7 psf)}$   $S_r = 0.2 \text{ kPa (4.2 psf)}$   $I_s = 1.0$   
 WIND DESIGN DATA  $V = 19 \text{ mph (7.5 psf) @ 10'$   $I_w = 1.0$   
 SITE CLASSIFICATION FOR SEISMIC SITE RESPONSE: SITE NOT CLASSIFIED, SEISMIC DESIGN NOT REQUIRED DUE TO MB CODE AMENDMENT

REFER TO PLAN FOR DESIGN LOADING  
 CONTRACTOR TO ENSURE THAT CONSTRUCTION LOADS DO NOT EXCEED DESIGN LOADS.

## STRUCTURAL MOVEMENTS/ TOLERANCES

- THIS STRUCTURE WILL UNDERGO NORMAL TYPES OF MOVEMENT AND DEFLECTION AND THE NON-STRUCTURAL COMPONENTS MUST BE DETAILED TO ACCOMMODATE THIS.
- DRYWALL PARTITIONS, MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, BUILDING FIXTURES, GLAZING AND CURTAIN WALLS MUST BE DETAILED AND INSTALLED TO ACCOMMODATE SLAB MOVEMENT.
- ALL STRUCTURES ARE SUBJECT TO CONSTRUCTION TOLERANCES. THIS SHOULD BE ALLOWED FOR IN DETAILING NON-STRUCTURAL COMPONENTS.

## NON-STRUCTURAL ELEMENTS

- "NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT THE RESPONSIBILITY OF CONTRACT ADMINISTRATOR. THEY ARE DESIGNED, DETAILED, AND REVIEWED IN THE FIELD BY OTHERS. THEY APPEAR ON DRAWINGS OTHER THAN THOSE OF CONTRACT ADMINISTRATOR. WHERE STRUCTURAL ENGINEERING RESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, THIS SHALL BE PROVIDED BY SPECIALTY STRUCTURAL ENGINEERS, WHO SHALL ALSO PROVIDE ANY CERTIFICATION REQUIRED BY BUILDING PERMIT AUTHORITIES. SPECIALTY STRUCTURAL ENGINEERS ARE TO DESIGN THESE ELEMENTS ACCORDING TO THE APPLICABLE DESIGN LOADS AS NOTED IN PART 4 OF THE MOST CURRENT NBCC.
- EXAMPLES OF NON-STRUCTURAL OR SECONDARY STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO:
  - ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, CEILINGS, MILLWORK ETC.
  - LANDSCAPE ELEMENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.
  - CLADDING, GLAZING, WINDOW MULLIONS, INTERIOR STUD WALLS AND EXTERIOR STUD WALLS.
  - ARCHITECTURAL PRECAST, PRECAST CLADDING.
  - MECHANICAL AND ELECTRICAL EQUIPMENT, COMPONENTS, AND THEIR ATTACHMENT DETAILS.
  - ELEVATORS, ELEVATOR HOIST BEAMS, ESCALATORS, AND OTHER CONVEYING SYSTEMS.
  - BRICK OR BLOCK VENEERS AND THEIR ATTACHMENTS.
  - NON-LOAD BEARING MASONRY.
  - NON-STRUCTURAL CONCRETE TOPPING
  - ALUMINUM SKYLIGHTS.
  - STAIRS
- SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT THE PRIMARY STRUCTURAL SYSTEM SHALL BE SUBMITTED TO CONTRACT ADMINISTRATOR THESE DRAWINGS WILL BE REVIEWED ONLY FOR THE EFFECT ON THE PRIMARY STRUCTURAL SYSTEM.

## CONCRETE

- ALL CONCRETE CONSTRUCTION, COLD WEATHER CONSTRUCTION & CONCRETE TESTING TO BE IN ACCORDANCE WITH THE LATEST EDITION CSA STANDARDS A23.1 AND A23.2.
- ALL CONCRETE TO BE NORMAL WEIGHT HARD ROCK CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH AS NOTED IN TABLE 2 OF THE LATEST EDITION CSA A23.1.
- CONCRETE CLASSES OF EXPOSURE (REFER TO TABLE 1, LATEST EDITION CSA A23.1):
 

A. EXTERIOR SLABS ON GRADE (SIDEWALKS, CURBS, TOPPING, PADS)	CLASS C-2 EXPOSURE (32 MPa @28d)
B. EXTERIOR STRUCTURAL SLABS	CLASS C-1 EXPOSURE (35 MPa @28d)
C. FOUNDATION WALLS, PILES, CONCRETE BEAMS	CLASS S-2 EXPOSURE (32 MPa @28d)
- CONCRETE SLUMP TO BE COORDINATED BETWEEN CONTRACTOR AND CONCRETE SUPPLIER CONSIDERING THE PERFORMANCE CRITERIA AND THE CONTRACTOR'S CRITERIA FOR CONSTRUCTION AND PLACEMENT.
- MISCELLANEOUS CONCRETE ELEMENTS (PITS, TRENCHES, ETC.) TO BE MINIMUM 6" (150mm) THICK REINFORCED WITH 10M @ 12" (300mm) O/C EACH WAY U.N.O.
- CONCRETE SAMPLING AND TESTING TO BE COMPLETE IN ACCORDANCE WITH THE LATEST EDITION CSA A23.1/A23.2

## REINFORCING

- REINFORCING STEEL SHALL BE GRADE 400 DEFORMED NEW BILLET STOCK CONFORMING TO THE LATEST EDITION OF CSA SPECIFICATION G30.18. WELDED WIRE MESH SHALL CONFORM TO THE LATEST EDITION CSA A23.1 CLAUSE 6.1.1.1.
- CONCRETE COVER TO BE AS PER TABLE 17 OF THE LATEST EDITION CSA A23.1

EXPOSURE CONDITION	EXPOSURE CLASS		
	N	F-1, F-2, S-1, S-2	C-XL, C-1, C-3, A-1, A-2, A-3
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	-	75mm	75mm
BEAMS, GIRDERS, COLUMNS, AND PILES	30mm	40mm	60mm
SLABS, WALLS, JOISTS	20mm	40mm	60mm

- CONCRETE COVER FOR EXPOSURE CLASSES NOT NOTED ABOVE TO BE 40 mm.
- TOP STEEL IN GRADE BEAMS TO BE SPLICED AT CENTER SPAN AND BOTTOM STEEL TO BE SPLICED OVER SUPPORTS. SPLICE LENGTHS:
  - TENSION ZONE SPLICE TO BE AVOIDED WHEREVER POSSIBLE, BUT IF REQUIRED, LENGTH SHOULD BE SPECIFIED BY THE DESIGN ENGINEER.
  - COMPRESSION ZONE SPLICE SHOULD NOT BE LESS THAN 30 BAR DIAMETERS.
- CONCRETE COVER FOR FIRE RATING REQUIREMENTS AS PER CURRENT EDITION OF NBCC

## ITEMS EMBEDDED IN CONCRETE

SEE ALSO LATEST EDITION CSA A23.1  
 EXCEPT WHEN APPROVED BY THE STRUCTURAL ENGINEER, PIPES, CONDUITS, AND SLEEVES EMBEDDED IN CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:

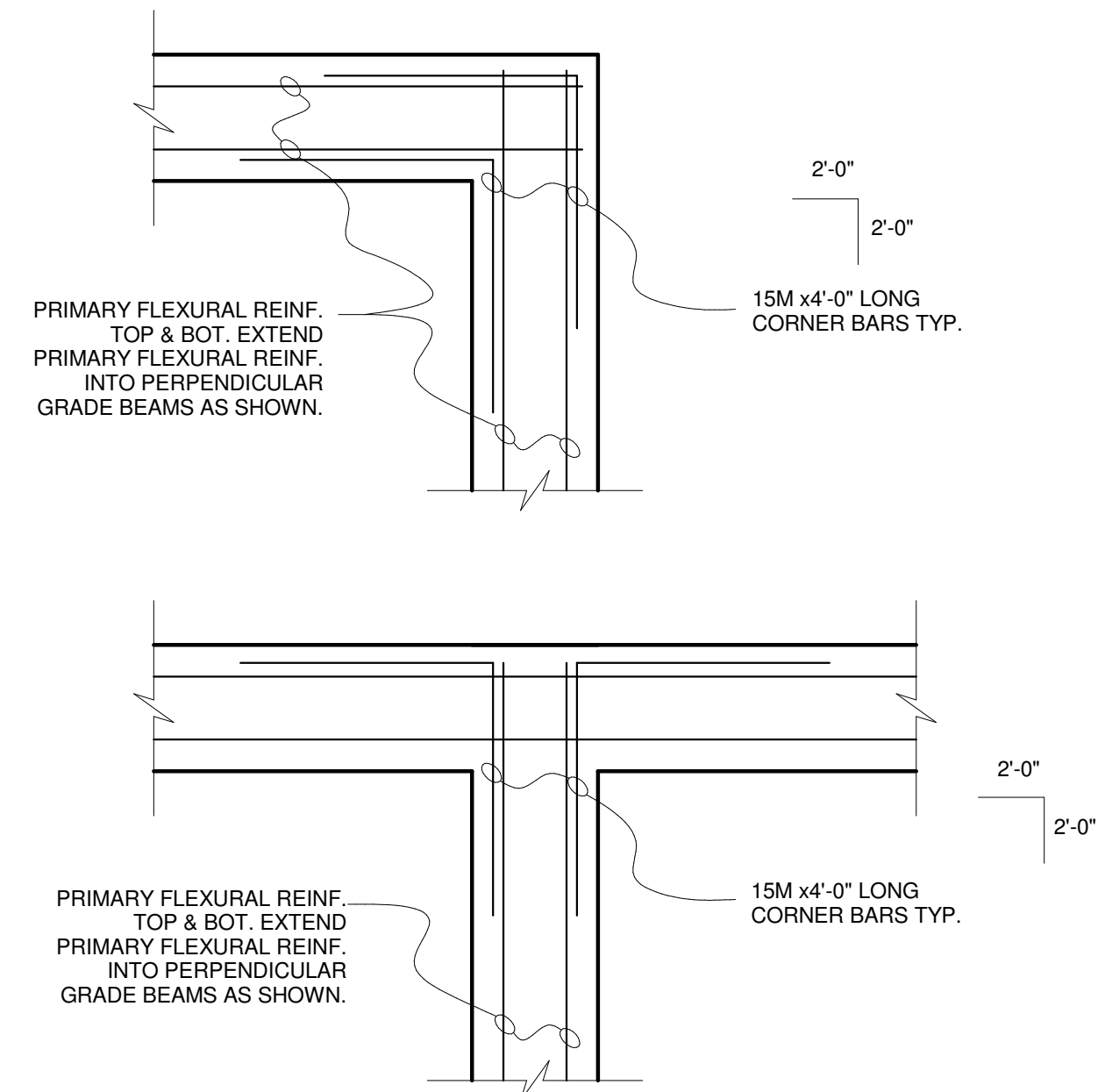
- GENERAL
  - NOT WITHSTANDING THE SATISFACTION OF THESE GUIDELINES, THE CONDUIT, SLEEVES, PIPES, ETC. SHALL NOT IMPAIR THE STRUCTURAL STRENGTH AND SHALL BE MOVED IF SO DIRECTED BY THE STRUCTURAL ENGINEER.
  - CENTRELINE SPACING TO BE NOT LESS THAN 3 DIAMETERS.
  - CENTRELINE SPACING BETWEEN PARALLEL CONDUIT AND REINFORCING BARS TO BE 3 DIAMETERS.
  - ADD REINFORCING AT POINTS OF CONGESTION AS DIRECTED BY THE STRUCTURAL ENGINEER.
- FOR SLABS - CONDUITS IN THE PLANE OF THE SLAB:
  - LOCATE BETWEEN TOP AND BOTTOM REINFORCING. (WHERE APPLICABLE)
  - MAXIMUM SIZE IN ONE LAYER TO BE NOT MORE THAN 1/4 OF CONCRETE THICKNESS.
  - THREE LAYERS OR MORE CROSSING WILL NOT BE PERMITTED.
- FOR WALLS & SLABS - CONDUIT/ PIPES NOT ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

## FOUNDATION (CIP)

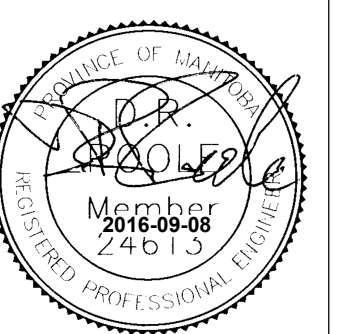
- FOUNDATION DESIGN BASED ON NBCC 2010 ALLOWABLE SKIN FRICTION VALUES FOR CLAY SOIL AND ARE SIZED FOR UPLIFT RESISTANCE FOR EXPECTED ADFFREEZE (FROST JACKING) EFFECTS IN AN UNHEATED CONDITION.
- CENTER PILES UNDER GRADE BEAMS U.N.O.
- CAST-IN-PLACE PILES TO BE A CLASS S-2 EXPOSURE (35 MPa @56d). (SEE TABLE 1, LATEST EDITION CSA A23.1)
- A GEOTECHNICAL ENGINEER SHALL INSPECT THE PILE INSTALLATIONS TO VERIFY ALLOWABLE SKIN FRICTION OF 300 psf (SL) AND ASSUMED DESIGN DISCOUNT OF 8'-0"

## LIST OF STRUCTURAL DRAWINGS

S001	GENERAL NOTES
S101	RAMP DEMO AND NEW RAMP FRAMING PLANS



**A TYPICAL CORNER BAR DETAIL**  
 S001 3/4" = 1'-0"



Project:  
 LEATHERDALE HALL

Project Number: 15-023  
 Drawing Title:  
 GENERAL NOTES

#	Issue/Revision	Date
1	ISSUED FOR CLASS B	2016/08/05
2	90% ISSUED FOR CLASS A	2016/08/05
3	ISSUED FOR CONSTRUCTION	2016/08/08

Sheet No: S001

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