

CALCULATED STRUCTURAL MOVEMENTS

THIS STRUCTURE WILL UNDERGO NORMAL TYPES OF MOVEMENT AND DEFLECTION, AND THE FOLLOWING ARE ESTIMATES FOR THIS STRUCTURE. NON-STRUCTURAL COMPONENTS MUST BE DETAILED TO ACCOMMODATE THIS. DESIGN, DETAILING, AND FIELD REVIEW OF THESE NON-STRUCTURAL ELEMENTS IS BY OTHERS, AND NOT READ JONES CHRISTOFFERSEN LTD.

1. DIFFERENTIAL VERTICAL MOVEMENTS BETWEEN ADJACENT COLUMNS AND BETWEEN ADJACENT COLUMNS AND WALLS = APPROXIMATELY 25 mm (ASSUMED GEOTECHNICAL ENGINEER TO VERIFY)
2. VERTICAL DEFLECTION OF COLUMNS AND WALLS DUE TO SHRINKAGE AND CREEP = APPROXIMATELY 3.5 mm PER 3600 mm OF HEIGHT.
3. VERTICAL FLOOR/ ROOF DEFLECTIONS HAVE BEEN DESIGNED TO MEET THE FOLLOWING CRITERIA, BUT NOT TO EXCEED MAXIMUM DEFLECTION OF 25mm.

TYPE OF MEMBER	DEFLECTION TO BE CONSIDERED	CALCULATED DEFLECTION LIMITATIONS
REINFORCED CONCRETE MEMBERS		
FLAT ROOF NOT SUPPORTING NONSTRUCTURAL ELEMENTS LIKELY TO BE DAMAGED BY LARGE DEFLECTIONS	IMMEDIATE DEFLECTION DUE TO SPECIFIED LIVE LOAD	L/180
ROOF OR FLOOR CONSTRUCTION SUPPORTING NONSTRUCTURAL ELEMENTS NOT LIKELY TO BE DAMAGED BY LARGE DEFLECTIONS	SUM OF THE LONG-TERM DEFLECTIONS DUE TO ALL SUSTAINED LOADS AND THE IMMEDIATE DEFLECTION DUE TO ANY ADDITIONAL LIVE LOAD	L/240
ROOF OR FLOOR CONSTRUCTION SUPPORTING NONSTRUCTURAL ELEMENTS NOT LIKELY TO BE DAMAGED BY LARGE DEFLECTIONS	IMMEDIATE DEFLECTION DUE TO SPECIFIED LIVE LOAD	L/360
ROOF OR FLOOR CONSTRUCTION SUPPORTING NONSTRUCTURAL ELEMENTS LIKELY TO BE DAMAGED BY LARGE DEFLECTIONS	THAT PART OF THE TOTAL DEFLECTION OCCURRING AFTER ATTACHMENT OF NONSTRUCTURAL ELEMENTS	L/480
RESIDENTIAL TYPICAL FLOOR WITH CARPET FLOORING AND WINDOW/ CURTAIN WALL CLADDING	THAT PART OF THE TOTAL DEFLECTION OCCURRING AFTER ATTACHMENT OF NONSTRUCTURAL ELEMENTS	L/360
RESIDENTIAL TYPICAL FLOOR WITH ENGINEERED WOOD FLOOR AND WINDOW/ CURTAIN WALL CLADDING	THAT PART OF THE TOTAL DEFLECTION OCCURRING AFTER ATTACHMENT OF NONSTRUCTURAL ELEMENTS	L/400
STRUCTURAL STEEL MEMBERS		
SIMPLE SPAN MEMBERS OF FLOORS AND ROOFS SUPPORTING CONSTRUCTION AND FINISHES NOT SUSCEPTIBLE TO CRACKING	LIVE LOAD	L/300
SIMPLE SPAN MEMBERS OF FLOORS AND ROOFS SUPPORTING CONSTRUCTION AND FINISHES SUSCEPTIBLE TO CRACKING	LIVE LOAD	L/360

4. PERIMETER OR SPANDREL ELEMENTS (SUPPORTING CLADDING, PRECAST, MASONRY WALLS AND THE LIKE) HAVE BEEN DESIGNED FOR AN ALLOWABLE INCREMENTAL LONG TERM DEFLECTION OF L/360.
5. THE STRUCTURE HAS BEEN DESIGNED ASSUMING THAT THE INSTALLATION OF NONSTRUCTURAL ELEMENTS SUCH AS CLADDING, MECHANICAL AND ELECTRICAL SERVICES AND THE LIKE, WILL NOT COMMENCE UNTIL AT LEAST ONE MONTH AFTER THE REINFORCED CONCRETE SLAB SUPPORTING THE NONSTRUCTURAL ELEMENTS HAS BEEN POURED AND THE RESHORING REMOVED.
6. THE STRUCTURE HAS BEEN DESIGNED TO LIMIT THE MAXIMUM INTERSTOREY DRIFT UNDER SERVICEABILITY LIMIT STATE (SLS) AVERAGE HOURLY WIND PRESSURE TO H/400 WHERE H IS THE FLOOR TO FLOOR HEIGHT BETWEEN TO ADJACENT FLOORS, UNDER SEISMIC LOADS, THE INTERSTOREY DRIFT HAS BEEN LIMITED TO 0.025 Hs, WHERE Hs IS THE HEIGHT OF THE STOREY.
7. NONSTRUCTURAL ELEMENTS SUCH AS CLADDING, MECHANICAL AND ELECTRICAL SERVICES AND SUPPORTS AND THE LIKE, MUST BE DESIGNED AND DETAILED TO ACCOMMODATE THE ANTICIPATED MOVEMENTS NOTED ABOVE.
8. MOVEMENT AT EXPANSION JOINTS - SEE DETAIL AND PLANS

ALL STRUCTURES ARE ALSO SUBJECT TO CONSTRUCTION TOLERANCES. THIS SHOULD BE ALLOWED FOR IN DETAILING NON-STRUCTURAL COMPONENTS IN ADDITION TO THE ABOVE MOVEMENTS.

NON-STRUCTURAL ELEMENTS

1. "NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT PART OF THE STRUCTURAL DESIGN SHOWN ON THESE DRAWINGS. SUCH ELEMENTS ARE DESIGNED, DETAILED AND REVIEWED IN THE FIELD BY OTHERS. THEY APPEAR ON DRAWINGS OTHER THAN THESE DRAWINGS OF READ JONES CHRISTOFFERSEN LTD., WHERE STRUCTURAL ENGINEERING RESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, THIS SHALL BE PROVIDED BY SPECIALTY STRUCTURAL ENGINEERS, WHO SHALL ALSO PROVIDE ANY LETTERS REQUIRED BY BUILDING PERMIT AUTHORITIES.
2. EXAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO:

A. ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, FLAG POSTS, CANOPIES, CEILINGS, MILLWORK, ETC.

B. LANDSCAPE ELEMENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.

C. INTERIOR STUD WALLS AND EXTERIOR STUD WALLS.

D. ARCHITECTURAL PRECAST, PRECAST CLADDING.

E. MECHANICAL AND ELECTRICAL EQUIPMENT, COMPONENTS, AND THEIR ATTACHMENT DETAILS.

F. WINDOW WASHING EQUIPMENT AND ITS ATTACHMENTS.

G. ESCALATORS, ELEVATORS, AND CONVEYING SYSTEMS.

H. GLASS BLOCK AND ITS ATTACHMENTS.

I. BRICK OR BLOCK VENEERS AND THEIR ATTACHMENTS.

J. NON-LOAD BEARING MASONRY.

K. NON-STRUCTURAL CONCRETE TOPPINGS.
3. SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT THE PRIMARY STRUCTURAL SYSTEM SHALL BE SUBMITTED TO READ JONES CHRISTOFFERSEN LTD. THESE DRAWINGS WILL BE REVIEWED ONLY FOR THE EFFECT OF THE ELEMENT ON THE PRIMARY STRUCTURAL SYSTEM.

11. DEFINITIONS:

A. RJC: READ JONES CHRISTOFFERSEN OR ITS REPRESENTATIVE.

B. SPECIALTY STRUCTURAL ENGINEER: A STRUCTURAL ENGINEER REGISTERED AND LICENSED TO PRACTICE BY THE PROFESSIONAL ENGINEERING ASSOCIATION HAVING JURISDICTION IN THE AREA WHERE THE STRUCTURE IS TO BE BUILT AND WHO IS RESPONSIBLE FOR THE DESIGN AND FIELD REVIEW OF:

- STRUCTURAL ELEMENTS DESIGNED BY THE CONTRACTOR OR SUBCONTRACTORS, SUCH AS OPEN WEB STEEL JOISTS, PRECAST DOUBLE TEES, PRECAST PLANKS, STRUCTURAL STEEL CONNECTIONS, LIGHT WOOD FRAME ROOF TRUSSES, ETC.

- SECONDARY STRUCTURAL ELEMENTS AND NON-STRUCTURAL ELEMENTS. SEE ALSO "NON-STRUCTURAL ELEMENTS" GENERAL NOTES.

C. CONTINUOUS: FULL TENSION SPLICE AND TENSION DEVELOPMENT LENGTH.

D. EMBEDMENT: UNLESS NOTED OTHERWISE COMPRESSION EMBEDMENT MEANS A COMPRESSION DEVELOPMENT LENGTH AND TENSION EMBEDMENT MEANS A TENSION DEVELOPMENT LENGTH AS PER CAN/CSA-A23.3 AND AS SHOWN ON THESE GENERAL NOTES DRAWINGS.

E. GENERAL CONTRACTOR: FOR THE PURPOSES OF THESE DRAWINGS, THE USE OF THE TERM "CONTRACTOR" OR "GENERAL CONTRACTOR" SHALL REFER TO THE PRIME PERSON OR COMPANY RESPONSIBLE FOR CONSTRUCTION OF THE PROJECT AND THE COORDINATION OF TRADES AND SUBCONTRACTORS. THIS MAY BE THE GENERAL CONTRACTOR, OR A CONSTRUCTION MANAGER.

DESIGN LOADS

1. FLOOR PLAN LOADING IS SHOWN ON PLANS.
2. CLADDING LOADS:

A. CURTAIN AND WINDOW WALL -1.0 kPa VERTICAL SURFACE

B. GRANITE (32mm) CLADDING IN ALUMINUM CURTAIN WALL FRAME - 2.0 kPa VERTICAL SURFACE

C. BRICK ON METAL STUD - 2.5 kPa VERTICAL SURFACE

D. PRECAST WITH WINDOWS (45%) - 3.0 kPa VERTICAL SURFACE
4. SPECIFIED CONCENTRATED LOADS ARE AS FOLLOWS U.N.O. ON PLAN:

A. ROOFS ----- 1.3 kN

B. FLOOR OF CLASSROOMS----- 4.5 kN

C. FLOORS - OFFICES, HOSPITALS, STAGES, MANUFACTURING BUILDINGS, RETAIL ----- 9 kN

D. FLOORS - PARKING ----- 11 kN

E. LOADING DOCKS AND SUSPENDED PLAZAS WITH FIRE TRUCK ACCESS (TANDEM AXLE LOADS) ----- 256 kN

F. LOADING DOCKS AND SUSPENDED PLAZA SLABS WITHOUT FIRE TRUCK ACCESS----- 54 kN
5. SEISMIC AND WIND DESIGN:

THE LATERAL SYSTEM FOR THIS PROJECT CONSISTS OF SHEAR WALLS, MOMENT FRAMES AND IS DESIGNED FOR THE FOLLOWING EARTHQUAKE FACTORS:

5a. EARTHQUAKE DESIGN PARAMETERS

Sa (0.2) = 0.22

Sa (0.5) = 0.13

Sa (1.0) = 0.067

Sa (2.0) = 0.021

SITE CLASSIFICATION: SITE CLASS D

Ie = 1.0 Fa = 1.3

Rd = 1.0 Fv = 1.4

Ro = 1.0 Ta = 0.15s

5b. WIND DESIGN PARAMETERS:

Ce, Cg, and Cp ARE BASED ON OBC CL. 4.1.7.

q50 = 0.44 kPa, Iw = 1.0 ULS, 0.75 SLS

WIND UPLIFT LOADS ON STEEL OR WOOD ROOFS SHALL BE 1 kPa NET UNLESS NOTED OTHERWISE ON PLAN.

5c. FACTORED BASE FORCES.

MAXIMUM BASE SHEARS AND OVERTURNING MOMENT FOR THE STRUCTURE THROUGH [STATIC] ANALYSIS ARE:

		SHEAR
WIND	- NORTH/SOUTH DIRECTION -	17 kN
	- EAST/WEST DIRECTION -	20 kN
SEISMIC	- NORTH/SOUTH DIRECTION -	17 kN
	- EAST/WEST DIRECTION -	17kN

6. LATERAL LOADS ON FOUNDATION WALLS.

A. FOUNDATION WALLS RETAINING EARTH ARE DESIGNED TO RESIST A HORIZONTAL PRESSURE AT ANY DEPTH PER THE FOLLOWING ASSUMPTIONS (GEOTECHNICAL ENGINEER TO VERIFY):

EARTHQUAKE SOIL PRESSURE-----: PE = N/A

SOIL PRESSURE COEFFICIENT-----: K = 0.5

DEPTH BELOW GROUND WATER LEVEL-----: Hw = 0 (Free draining)

DRY UNIT WEIGHT OF SOIL-----: q = 21.0 kN/m3

SURFACE SURCHARGE-----: q = 12 kPa

B. THE SUBSTRUCTURE HAS BEEN DESIGNED TO RESIST UNBALANCED SOIL PRESSURE ACTING ON FOUNDATION WALLS AND RESISTED BY THE SHEAR AND FOUNDATION WALLS. THE UNBALANCED SOIL PRESSURE HAS BEEN CALCULATED BASED ON ASSUMED GEOTECHNICAL DATA (GEOTECHNICAL ENGINEER TO VERIFY) AND IT IS A CONSEQUENCE OF:

- FINISHED GRADE ELEVATION

- SLOPING GRADE

- EXPANSION JOINTS

- EXISTING BASEMENTS ON SURROUNDING PROPERTIES.

C. DO NOT BACKFILL WALLS UNTIL Laterally supported by completed floor and/ or roof structure.

GENERAL

1. SECTION MARK SHOWN THUS  MEANS SECTION #4 ON DRAWING S301.

2. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, NAILERS, INSERTS, ETC., TO BE ENCASED IN CONCRETE.

3. SEE ARCHITECTURAL DRAWINGS FOR FLOOR AND ROOF ELEVATIONS, RECESSES, DRAINAGE SLOPES, ETC.

4. THE GENERAL CONTRACTOR SHALL REVIEW ALL THE DRAWINGS AND CHECK DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES BETWEEN STRUCTURAL AND OTHER DISCIPLINES DRAWINGS FOR CLARIFICATION.

5. CONCRETE WORK SHALL CONFORM TO CAN/CSA-A23.1, CAN/CSA-A23.2, CAN/CSA-A23.3 AND REFERENCED DOCUMENTS.

6. STRUCTURAL STEEL WORK SHALL CONFORM TO CAN/CSA-S16 AND REFERENCED DOCUMENTS.

7. FIRE RESISTANCE RATINGS SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PRECISE LOCATION OF REQUIRED FIRE RESISTANCE RATINGS.

8. DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION OF RJC.

9. 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, CONDUIT AND PIPING. PROVIDE FOR SAME.

10. ABBREVIATIONS:

75 ----- MOMENT CONNECTION PASS THROUGH FORCE [kN]

A.B. ----- ANCHOR BOLT

A.E.SS ----- ARCHITECTURALLY EXPOSED STRUCTURAL STEEL

ALT. ----- ALTERNATE

ARCH. ----- ARCHITECTURAL

B.C.E. ----- BOTTOM CHORD

EXT. ----- EXTENSION

BEW. ----- BOTTOM EACH WAY

B.L.L. ----- BOTTOM LOWER LAYER

BLW. ----- BOTTOM LONG WAY

BSW. ----- BOTTOM SHORT WAY

B. BOT. ----- BOTTOM

B.U.L. ----- BOTTOM UPPER LAYER

CA. ----- COLUMN ABOVE

CANT. --- CANTILEVER

CB. ----- COLUMN BELOW

CBM. ----- COUPLING BEAM

CI. ----- FACTORED COMPRESSION

C.I.P. ----- CAST IN PLACE

C.J. ----- CONTROL JOINT

CL. ----- CENTER LINE

CLR. ----- CLEAR

CONC. ----- CONCRETE

CONT. ----- CONTINUOUS

C.P. ----- COMPLETE PENETRATION

CTRS. ----- CENTRES

CW. ----- COMPLETE WITH

DBM. ----- DIVIDER BEAM

DET. ----- DETAIL

D.L. ----- DEAD LOAD

D.O. ----- DO OVER - (DITTO)

DP. ----- DEEP (I.E. DEPTH OF BEAM)

D.T.S. ----- DEPTH TO SUIT

DWG. ----- DRAWING

DWLS. ----- DOWELS

E.E. ----- EACH END

E.F. ----- EACH FACE

EL. ----- ELEVATION

ELEV. ----- ELEVATION

ELEC. ----- ELECTRICAL

E.S. ----- EACH SIDE

E.WAY. ----- EACH WAY

E.W. ----- EACH WAY

EXIST. ----- EXISTING

EXT. ----- EXTERIOR

EXP. JT. --- EXPANSION JOINT

F.D. ----- FLOOR DRAIN

F.S. ----- FAR SIDE

GALV. ----- GALVANIZED

G.L. ----- GRID LINE

H.1.E.----- HOOK ONE END

H.2.E. ----- HOOK 2 ENDS

H & V. ----- HORIZONTAL AND VERTICAL

H. HOR. --- HORIZONTAL

HSC. ----- HORIZONTALLY SLOTTED CONNECTION

Hf. ----- FACTORED HORIZONTAL SHEAR FORCE

HORIZ. --- HORIZONTAL

HORIZ. ----- HORIZONTAL

HP. ----- HIGH POINT

INT. ----- INTERIOR

JT. ----- JOINT

LG. ----- LONG

LL. ----- LIVE LOAD

L.L.B.B. ---- LONG LEGS BACK TO BACK

L.L.H. ----- LONG LEG HORIZONTAL

L.L.V. ----- LONG LEG VERTICAL

L.S.H. ----- LONG SIDE HORIZONTAL

L.S.V. ----- LONG SIDE VERTICAL

L.W. ----- LONG WAY

LP. ----- LOW POINT

MAX. ----- MAXIMUM

MECH. ----- MECHANICAL

Mf. ----- FACTORED BENDING MOMENT

Mfx. ----- STRONG AXIS BENDING

Mfy. ----- WEAK AXIS BENDING

MIN. ----- MINIMUM

Mif. ----- FACTORED TORSION

N.I.C. ----- NOT IN CONTRACT

N.S. ----- NEAR SIDE

N.T.S. ----- NOT TO SCALE

O.C. ----- ON CENTRE

O.C. ----- ON CENTRE

OPP. ----- OPPOSITE

O.W.S.J. --- OPEN WEB STEEL JOIST

P.P. ----- PARTIAL PENETRATION

P/T. ----- POST-TENSIONING

R.D. ----- ROOF DRAIN

RTN. ----- RETURN

RW. ----- REINFORCED WITH SUPERIMPOSED DEAD LOAD

S.D.F. ----- STEP DOWN FOOTING

SIM. ----- SIMILAR

S.L. ----- SNOW LOAD

S.L.B.B. --- SHORT LEGS BACK TO BACK

S.O.G. ----- SLAB ON GRADE

SPEC. ----- SPECIFICATIONS

SR. ----- STUD RAIL

ST. ----- STAGGER

STIR. ----- STIRRUP

S.W. ----- SHORT WAY

SYM. ----- SYMMETRICAL

TEW. ----- TOP EACH WAY

TI. ----- FACTORED TENSION

THK. ----- THICK

THRU. ----- THROUGH

T.L.L. ----- TOP LOWER LAYER

T & B. ----- TOP AND BOTTOM

T & C. ----- TENSION AND COMPRESSION

T & G. ----- TONGUE AND GROOVE

T.J. ----- TIE JOIST

T.O. ----- TOP OF

T.O.C. ----- TOP OF CONCRETE

T.O.S.S. --- TOP OF STRUCT. STEEL

T.O.S. ----- TOP OF SLAB

T.U.L. ----- TOP UPPER LAYER

TYP. ----- TYPICAL

U.N.O. ----- UNLESS NOTED OTHERWISE

ULS. ----- ULTIMATE LIMIT STATE

SLS. ----- SERVICEABILITY LIMIT STATE

U/S. ----- UNDERSIDE

V. VERT. -- VERTICAL

VF. ----- HIGH POINT

W.P. ----- WORK POINT

LIST OF STRUCTURAL DRAWINGS

S-100	GENERAL NOTES AND TYPICAL DETAILS
S-101	GENERAL NOTES AND TYPICAL DETAILS
S-102	GENERAL NOTES AND TYPICAL DETAILS
S-103	GENERAL NOTES AND TYPICAL DETAILS
S-104	GENERAL NOTES AND TYPICAL DETAILS
S-105	GENERAL NOTES AND TYPICAL DETAILS
S-106	GENERAL NOTES AND TYPICAL DETAILS
S-107	GENERAL NOTES AND TYPICAL DETAILS
S-108	GENERAL NOTES AND TYPICAL DETAILS
S-109	GENERAL NOTES AND TYPICAL DETAILS
S-200	OVERALL PLAN - BASEMENT LEVEL
S-201	PART PLAN - BASEMENT LEVEL FOUNDATION PLAN
S-202	PART PLAN - BASEMENT LEVEL FOUNDATION PLAN
S-210	OVERALL PLAN - GROUND LEVEL FRAMING PLAN
S-211	PART PLAN - GROUND LEVEL FRAMING PLAN
S-212	PART PLAN - GROUND LEVEL FRAMING PLAN
S-220	GALLERY FLOOR FRAMING PLAN
S-230	PART PLAN - ROOF LEVEL SNOW LOADING PLAN
S-231	PART PLAN - ROOF LEVEL GLASS FRAMING PLAN
S-400	WALL ELEVATIONS
S-500	CONCRETE BEAM SCHEDULE
S-700	FOUNDATION SECTIONS
S-810	GLASS SECTIONS & DETAILS

DRAWINGS

1. 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 READ JONES CHRISTOFFERSEN LTD. THE DRAWINGS SHALL NOT BE USED FOR PRICING, COSTING, OR TENDER UNLESS SO INDICATED IN THE REVISION COLUMN. PRICING OR COSTING DRAWINGS ARE NOT COMPLETE AND ANY PRICES BASED ON PRICING OR COSTING DRAWINGS MUST INCLUDE ALLOWANCES FOR THIS.

2. THE INFORMATION ON THESE DRAWINGS SHALL NOT BE USED FOR ANY OTHER PROJECT OR WORKS. THE INFORMATION ON THESE DRAWINGS APPLIES SOLELY TO THIS PROJECT.

3. THE DRAWINGS DO NOT SHOW COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES, FORMWORK, FALSE WORK, SHORING, ETC. REQUIRED TO COMPLETE THE WORK.

DESIGN CODE

1. THE COMPLETED BASE BUILDING STRUCTURE SHOWN ON THE STRUCTURAL DRAWINGS HAS BEEN DESIGNED IN SUBSTANTIAL ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012 WHICH IS BASED ON THE NATIONAL BUILDING CODE OF CANADA 2010.

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or these drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

The work "as constructed" may vary from what is shown on these drawings.

Use of these drawings is limited to that identified in the Issued/Revision column.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

22015-12-04

ISSUED FOR PHASE 1 TENDER

2015-10-29

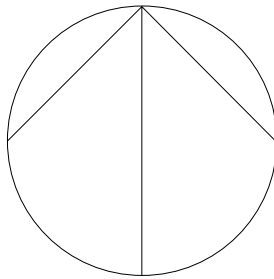
ISSUED FOR BUILDING PERMIT

REV.

DATE

ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

 **Read Jones Christoffersen**
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title:

GENERAL NOTES & TYPICAL DETAILS

Drawn :

Scale :

Date :

Project Number :
TOR.111805.0001

Drawing Number :
S-100

Drawing Stage:
CD

22" x 34"

FIELD REVIEW BY
READ JONES CHRISTOFFERSEN (RJC)

1.

READ JONES CHRISTOFFERSEN PROVIDES FIELD REVIEW ONLY FOR THE WORK SHOWN ON THESE STRUCTURAL DRAWINGS. THIS REVIEW IS NOT A "FULL TIME" REVIEW BUT IS CONDUCTED WITH SUCH FREQUENCY AS RJC DEEMS APPROPRIATE TO OBSERVE VARIOUS STAGES OF THE WORK AND TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY READ JONES CHRISTOFFERSEN. FIELD REVIEW BY READ JONES CHRISTOFFERSEN IS NOT CARRIED OUT FOR THE CONTRACTOR'S BENEFIT, NOR DOES IT MAKE READ JONES CHRISTOFFERSEN GUARANTORS OF THE CONTRACTOR'S WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO BUILD THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. RJC SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTOR, 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.

RJC WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON RJC'S DRAWINGS. THE EXTENT OF THIS REVIEW IS AT THE SOLE DISCRETION OF RJC'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 OR SUBCONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OR SUBCONTRACTOR OF HIS OR HER RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS OR FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

2.

PROVIDE 24 HOURS ADVANCE NOTICE OF EACH REQUIRED FIELD REVIEW. FIELD REVIEWS SHALL BE SCHEDULED TO BE CARRIED OUT DURING NORMAL BUSINESS HOURS UNLESS SPECIAL ARRANGEMENTS ARE MADE WITH RJC.

3.

THE WORK TO BE REVIEWED SHALL BE GENERALLY COMPLETE.

CONCRETE FORMWORK STRIPPING
AND SHORING

1.

THE DESIGN AND FIELD REVIEW OF FORMWORK, SHORING AND RESHORING IS THE RESPONSIBILITY OF THE CONTRACTOR. RESHORING DRAWINGS SHALL BE SUBMITTED TO RJC FOR THE EFFECT ON THE BASE BUILDING STRUCTURE ONLY.

2.

NO COLUMN OR WALL FORMS SHALL BE REMOVED BEFORE CONCRETE HAS REACHED 10 MPa FOR ARCHITECTURAL CONCRETE OR 8 MPa FOR OTHER COLUMNS OR WALLS.

3.

NO SLABFORMS OR BEAMFORMS SHALL BE REMOVED BEFORE CONCRETE HAS REACHED 75% OF THE 28 DAY STRENGTH BEFORE STRIPPING/ RE-SHORING.

4.

STRENGTH OF CONCRETE FOR STRIPPING TO BE DETERMINED USING CYLINDERS STORED ON SITE IN A PROTECTED ENCLOSURE THAT MAINTAINS A SIMILAR TEMPERATURE AND HUMIDITY AS THE STRUCTURAL ELEMENTS REPRESENTED. ALTERNATE METHODS, IF ACCEPTABLE TO RJC, MAY BE USED.

5.

ALL SLABS, BEAMS, GIRDERS ETC. TO BE SHORED UNTIL CONCRETE REACHES DESIGN STRENGTH.

6.

SOME MULTI LEVEL OR HANGER ASSEMBLIES REQUIRE FULL SHORING FOR A NUMBER OF LEVELS. SEE STRUCTURAL DRAWINGS FOR SPECIAL SHORING REQUIREMENTS.

7.

NO CONCRETE MAY BE REMOVED WITH PERCUSSIVE METHODS SUCH AS CHIPPING OR JACK-HAMMERING WITHOUT PRIOR APPROVAL OF RJC.

8.

SHORING:

A)COMMON / TYPICAL CONSTRUCTION PRACTICE HAS BEEN ASSUMED TO SHORE THE FRESH WEIGHT OF FLOORS.

B)THE FRESH WEIGHT OF TYPICAL SLABS/ FLOORS ARE ASSUMED TO BE SHORED TO FOUR (4) FLOORS BELOW. (1 FORMWORK + 3 RESHORING)

C)FLOORS WITH NON-TYPICAL DEPTHS MAY HAVE TO BE SHORED TO MORE THAN FOUR (4) FLOORS. [TOWER CRANES ASSUMED TO BE RESHORED OVER MIN. 10 FLOORS U.N.O.]

D)AT NO TIME SHALL THE FACTORED CONSTRUCTION LOAD EXCEED THE FACTORED DESIGN LOAD ON FLOORS.

E)DESIGN FORMWORK & SHORING FOR POST-TENSIONED FLOORS CONSIDERING THE SEQUENCE OF POST-TENSIONING OF VARIOUS FLOORS ELEMENTS.

F)TRANSFER GIRDERS/ SLABS OR SUSPENDED AREAS WHERE THE SUPPORTING STRUCTURE IS NOT YET IN PLACE MAY HAVE TO BE RE-SHORED ALL THE WAY TO LOWEST S.O.G. LEVEL. IN SUCH CASES THE GENERAL CONTRACTOR IS TO HAVE THE SUBGRADE PREPARED TO SUIT THE LOADS SPECIFIED BY THE TEMPORARY WORKS FORMWORK SUPPLIER'S ENGINEER AND THE METHOD SPECIFIED BY THE GEOTECHNICAL CONSULTANT. SETTLEMENTS OF THE S.O.G. UNDER SHORING LOADS SHALL NOT EXCEED 5mm.

1.

THE CONTRACT DOCUMENTS ARE BASED ON ASSUMED AS-BUILT DIMENSIONS FOR THE EXISTING BUILDING STRUCTURE AND ASSUMPTIONS IN ACCORDANCE WITH DETAILING AND PLACING PRACTICE. THESE ASSUMPTIONS MAY VARY FROM THE ACTUAL ON-SITE CONDITIONS. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CONSULTANT OF ANY ACTUAL VARIATIONS FROM THE ASSUMED CONDITIONS.

2.

MINOR MODIFICATIONS TO SUIT TOLERANCES OF +/- 50mm WILL BE REQUIRED TO THE WORK INDICATED ON THESE DRAWINGS TO REFLECT ACTUAL SITE CONDITIONS. THE CONTRACTOR WILL COOPERATE WITH THE CONSULTANT AND RJC IN THIS REGARD. MINOR MODIFICATIONS WILL BECOME THE RESPONSIBILITY OF THE CONTRACTOR AND WILL NOT RESULT IN A CHANGE IN THE CONTRACT PRICE.

3.

ENSURE THAT ALL NECESSARY JOB DIMENSIONS ARE TAKEN AND ALL TRADES ARE COORDINATED FOR THE PROPER EXECUTION OF THE WORK. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF SUCH DIMENSIONS, AND FOR COORDINATION.

4.

PRIOR TO FABRICATION OF ANY STRUCTURAL MEMBERS, THE CONTRACTOR SHALL COMPLETE THIS SITE REVIEW OF CRITICAL "TIE-IN" DIMENSIONS AND CONFIRM ALL DIMENSIONS TO ENSURE PROPER FIT OF NEW WORK TO EXISTING. REPORT ANY DISCREPANCIES TO RJC PRIOR TO STARTING WORK.

5.

COMMENCEMENT OF CONSTRUCTION OR ANY PART THEREOF CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND MEANS DIMENSIONS AND ELEVATIONS HAVE BEEN CONSIDERED, VERIFIED AND ARE ACCEPTABLE.

6.

ANY OPENINGS THAT ARE NOT SHOWN OR INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE REPORTED TO RJC FOR REVIEW. THESE OPENINGS MAY NOT BE ALLOWED, MAY HAVE TO BE MOVED, OR MAY REQUIRE ADDITIONAL STRUCTURAL WORK AND DETAILING. DO NOT PROCEED WITH THESE OPENINGS WITHOUT WRITTEN PERMISSION FROM RJC.

7.

UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, THE CORING OR CUTTING OF OPENINGS AND HOLES SHOWN ON THE STRUCTURAL DRAWINGS THROUGH THE EXISTING STRUCTURE SHALL NOT CUT ANY REINFORCING BARS. THE CONTRACTOR SHALL LOCATE THE LOCATION, SIZE, LENGTH, ORIENTATION AND POSITION OF EXISTING REINFORCING AND PROVIDE RJC WITH HARD COPIES OF SUCH FOR OUR REVIEW IN THE VICINITY OF THE HOLES AND SLEEVES TO BE CUT OR CORED, AND THE HOLES AND SLEEVES SHALL BE LOCATED TO AVOID CUTTING OF REINFORCING BARS. WHERE THIS IS NOT POSSIBLE, IT SHALL BE REPORTED TO RJC FOR REVIEW.

8.

NEW OPENINGS TO BE CUT THROUGH EXISTING FLOOR SLAB OR WALLS SHALL BE CLEARLY MARKED OUT BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY RJC ONCE THE MARKING OUT HAS BEEN COMPLETED SO THAT RJC CAN REVIEW THE PROPOSED LOCATIONS OF ALL NEW OPENINGS. DO NOT PROCEED WITH CUTTING OF NEW OPENINGS WITHOUT THE APPROVAL OF RJC.

9.

UNLESS NOTED OTHERWISE ON THE DRAWINGS NEW STRAIGHT SIDED OPENINGS THROUGH EXISTING SLABS AND WALLS SHALL BE SAWCUT WITH NO OVERCUTS. USE CORED HOLES AT THE CORNERS. JACKHAMMERING SHALL NOT BE PERMITTED. REFER TO THE DETAILS AND PROCEDURES INDICATED ON THE STRUCTURAL DRAWINGS FOR THE NEW OPENINGS. ALTERNATES TO THE ABOVE PROCEDURES MUST BE REVIEWED BY RJC PRIOR TO THE START OF DEMOLITION OR CONSTRUCTION.

10.

UNLESS NOTED OTHERWISE AT ALL LOCATIONS WHERE NEW CONCRETE WILL BE IN CONTACT WITH EXISTING CONCRETE SURFACES, THE EXISTING CONCRETE SURFACE IS TO BE COMPLETELY CLEANED AND ROUGHENED BY HYDRODEMOLITION, BUSH HAMMERING, (OR APPROVED EQUAL) TO AN AMPLITUDE OF 6 mm (1/4").

11.

CONNECTIONS FOR NEW STRUCTURAL STEEL FRAMING TO EXISTING STRUCTURAL STEEL SHALL BE ACHIEVED THROUGH WELDED CONNECTIONS UNLESS OTHERWISE NOTED. WELDING OF NEW STEEL TO "OLD" STEEL (STEEL PRODUCED IN EARLY 20TH CENTURY) MAY REQUIRE MODIFICATIONS TO THE STANDARD WELDING PROCEDURES. PROCEDURES OF WELDING NEW STEEL TO "OLD" STEEL SHALL BE PREPARED BY THE CONTRACTOR'S SPECIALTY STRUCTURAL ENGINEER AND REVIEWED AND APPROVED BY RJC. CONTRACTOR TO ALSO PROVIDE A REPORT FROM MATERIALS TESTING COMPANY COMMENTING ON CHEMICAL COMPOSITION AND WELDABILITY OF OLD STEEL.

12.

CONTRACTOR TO ENSURE THAT UNDERGROUND OR IN-SLAB SERVICES ARE NOT DAMAGED THROUGH DEMOLITION, SAWCUTTING, HOLE AUGURING, OR OTHER CONSTRUCTION ACTIVITIES. SEE SPECIFICATION FOR TESTING/LOCATING REQUIREMENTS.

13.

FASTENING TO EXISTING MATERIALS:

UNLESS NOTED OTHERWISE, THE FOLLOWING REQUIREMENTS APPLY TO ALL CONNECTIONS BETWEEN EXISTING AND NEW MATERIALS:

A. USE ONLY PRODUCTS AS SPECIFIED UNLESS ALTERNATES HAVE BEEN PRE-APPROVED BY RJC IN WRITING.

B. SEE ALSO CONCRETE ANCHORS NOTE.

14.

DRILL AND SITE MEASURE BOLT HOLES IN EXISTING STRUCTURE PRIOR TO FABRICATING STEEL CONNECTION PLATES. BOLT HOLES MAY HAVE TO BE MOVED FROM WHAT IS SHOWN ON THE DRAWINGS TO AVOID CUTTING EXISTING REINFORCING OR TO AVOID OTHER SITE CONDITIONS. SITE MODIFICATION OF STEEL CONNECTION PLATES WILL NOT BE ACCEPTED WITHOUT THE PRIOR APPROVAL OF RJC.

1.

THE CONTRACTOR SHALL DESIGN, PROVIDE, ERECT, MAINTAIN, REMOVE AND ASSUME FULL AND SOLE RESPONSIBILITY FOR ALL TEMPORARY WORKS REQUIRED FOR THE SAFE AND COMPLETE EXECUTION OF THE WORKS.

2.

IN THE EXECUTION OF THE TEMPORARY WORKS AND FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR ALL LIKELY CONSTRUCTION LOADING AND PROVIDE SUFFICIENT BRACING AND PROPS TO KEEP THE WORKS IN PLUMB AND ALIGNMENT AND FREE FROM EXCESSIVE DEFLECTION.

3.

ACCESS OF HEAVY CONSTRUCTION EQUIPMENT AND ACCUMULATION OF CONSTRUCTION MATERIALS ON THE FLOORS ARE NOT PERMITTED, UNLESS SUCH HAVE BEEN CATERED FOR IN THE CONTRACTOR'S TEMPORARY WORK DESIGN TO THE SATISFACTION OF THE ARCHITECT & ENGINEER.

4.

COSTS OF ALL TEMPORARY WORKS ARE DEEMED TO HAVE BEEN INCLUDED IN THE CONTRACT PRICE.

5.

SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY WORKS FOR REVIEW BEFORE FABRICATION COMMENCES. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED AND LICENSED TO PRACTICE BY THE PROFESSIONAL ENGINEERING ASSOCIATION HAVING JURISDICTION IN THE AREA WHERE THE STRUCTURE IS TO BE BUILT.

6.

ANY CONSTRUCTION SEQUENCES SHOWN ON THE DRAWINGS SHALL BE PART OF TEMPORARY WORKS AND ARE FOR THE CONTRACTOR'S CONSIDERATION ONLY. THE CONTRACTOR IS AT LIBERTY TO USE ANY OTHER SEQUENCE AS HE DEEMS APPROPRIATE, BUT AT NO TIME SHALL THE SAFETY AND INTEGRITY OF THE WORKS AND THE STRUCTURE BE COMPROMISED. IF THE CONTRACTOR ADAPTS THE SUGGESTED SEQUENCE, SUCH SEQUENCE SHALL BE DEEMED AS THE CONTRACTOR'S OWN SELECTION OF METHOD, AND THE CONTRACTOR SHALL ASSUME FULL AND SOLE RESPONSIBILITY FOR IT, AS STATED IN (1) ABOVE. THE CONTRACTOR SHALL INFORM THE ARCHITECT IF HE WISHES TO DEVIATE FROM ANY SUGGESTED SEQUENCE.

7.

SEE ALSO CONCRETE FORMWORK STRIPPING AND SHORING NOTES.

CONCRETE ANCHORS

1.

EXCEPT WHERE INDICATED ON THE DRAWINGS, ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI (CANADA) LTD, CONTACT HILTI AT (800) 363-4458 FOR PRODUCT RELATED QUESTIONS.

- "EPOXY OR ADHESIVE ANCHOR" MEANS A:

- HIT-HY 200 SAFE SET SYSTEM OR HIT-HY 200 FOR FAST CURE APPLICATIONS.

- HIT-RE 500 OR HIT-RE 500 SD ADHESIVE ANCHOR FOR SLOW CURE APPLICATIONS.

- "SCREENED EPOXY ANCHOR" MEANS A "HIT-HY 70 ADHESIVE ANCHOR".

- "KWIK BOLT" MEANS A "KWIK BOLT TZ OR KWIK BOLT 3 EXPANSION ANCHOR", TO BE SELECTED BASED ON APPLICATION REQUIREMENTS.

- "HSL" MEANS AN "HSL-3 HEAVY-DUTY EXPANSION ANCHOR".

2. ANCHOR CAPACITY USED IN DESIGN IS BASED ON GUIDELINES PUBLISHED BY HILTI. ALTERNATE FASTENING SYSTEMS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. ALTERNATE ADHESIVE ANCHORS MUST BE EQUAL CONSIDERING LOAD RESISTANCE, IN SERVICE AND INSTALLATION TEMPERATURE, AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS, CREEP TESTING, SEISMIC TESTING, AND APPROPRIATE ON SITE TRAINING.

3. INSTALL AS PER THE MANUFACTURER'S INSTRUCTIONS AS INCLUDED IN THE ANCHOR PACKAGING. WEDGE ANCHORS TO HAVE HOLES CLEANED WITH HIGH PRESSURE AIR BLAST. ADHESIVE (EPOXY) ANCHORS TO HAVE HOLES WELL CLEANED PER MANUFACTURER'S INSTRUCTIONS WHICH INCLUDES HIGH PRESSURE AIR BLAST FOLLOWED BY BRUSHING THEN HIGH PRESSURE AIR BLAST SEQUENCE. USE STEEL WIRE BRUSH ON CONCRETE AND MASONRY.

4. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFI SYSTEM.

5. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

6. DO NOT CUT REINFORCING BARS TO INSTALL ANCHORS UNLESS THE STRUCTURAL DRAWINGS SPECIFICALLY NOTE FOR A PARTICULAR DETAIL THAT THE REINFORCING BARS IN THE CONCRETE CAN BE CUT.

7. WHEN ANCHORS ARE USED TO ATTACH STRUCTURAL STEEL, THE CONTRACTOR SHALL USE A TEMPLATE TO LOCATE THE ANCHOR HOLES. IF THIS IS NOT DONE, THEN UPON COMPLETION OF ANCHOR INSTALLATION, THE CONTRACTOR SHALL PREPARE TEMPLATES OF THE AS-BUILT ANCHOR POSITIONS. THE CONTRACTOR SHALL REFER TO THESE TEMPLATES FOR THE FABRICATION OF THE STEEL STRUCTURE.

8. DO NOT OVERSIZE HOLES IN STEEL MATERIAL TO FIT ANCHOR LOCATIONS EXCEPT FOR COLUMN BASE PLATE HOLES WHICH ARE FABRICATED SLIGHTLY OVERSIZED AS PER STANDARD PRACTICE.

AT LOCATIONS OF INTERFERENCE BETWEEN CONCRETE ANCHORS AND EXISTING REINFORCEMENT, ADJUST PROPOSED LOCATIONS OF ANCHORS AS REQUIRED TO AVOID CUTTING REINFORCEMENT. SUBMIT A PROPOSED ANCHOR LAYOUT TO RJC FOR REVIEW AND APPROVAL BEFORE INSTALLING ANCHORS.

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or

2. These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

The work "as constructed" may vary from what is shown on these drawings.

3. Use of these drawings is limited to that identified in the Issued/Revision column.

Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2

2015-12-04

ISSUED FOR PHASE 1 TENDER

1

2015-10-29

ISSUED FOR BUILDING PERMIT

REV.

DATE

ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.

OUR LADY OF
PERPETUAL HELP CHURCH
RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc

Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title :

Drawn :

Scale :

Date :

Project Number :
TOR.111805.0001

Drawing Number :

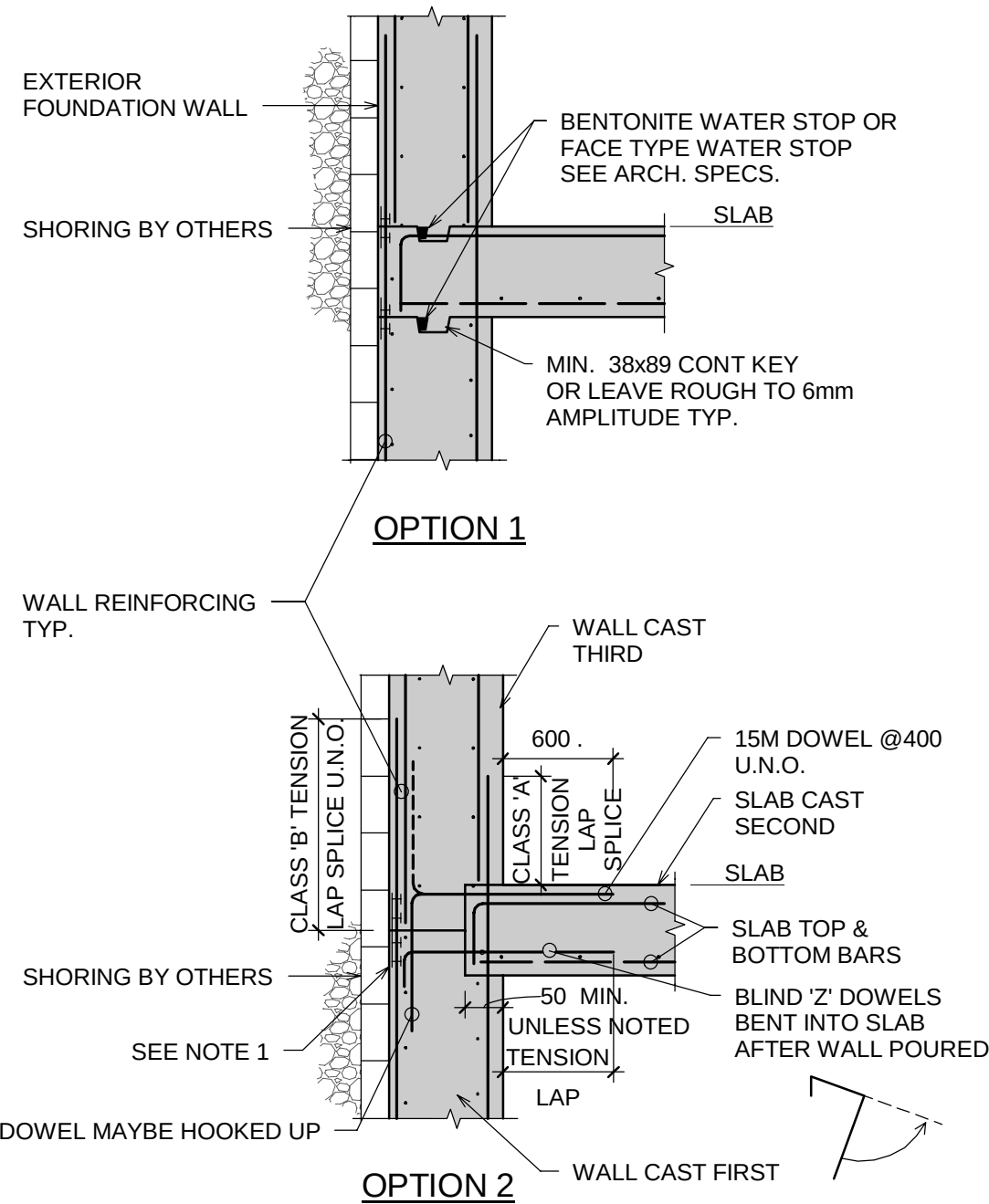
Drawing Stage:

CD

GENERAL NOTES &
TYPICAL DETAILS

S-101

BELOW GRADE EXTERIOR FOUNDATION WALL AND SLAB POUR JOINTS



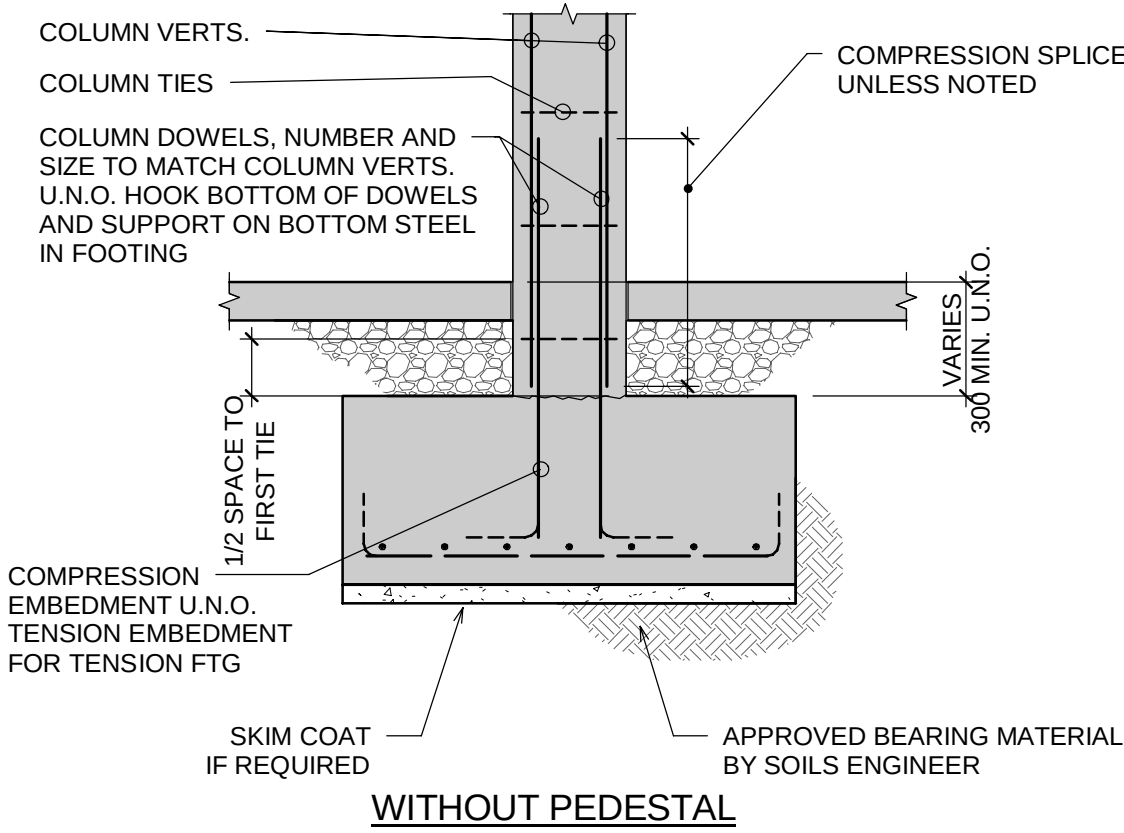
NOTES:

- FOR WALLS RETAINING EARTH PROVIDE EITHER INTERNAL OR EXTERNAL CONT. WATERSTOP AT JOINTS AS SPECIFIED BY THE ARCHITECT.
- PROVIDE CLASS 'B' TENSION LAP SPLICE (FOR TOP BARS) WHERE WALL SPANS HORIZONTALLY.
- PLACE VERTICAL REINFORCEMENT IN OUTSIDE LAYERS AND HORIZONTAL REINFORCEMENT ON INSIDE LAYERS OF THE REINFORCING CURTAINS/MATS.
- DO NOT BACKFILL OR REMOVE TEMPORARY LATERAL BRACING UNTIL UPPER & LOWER SLAB OF WALL SEGMENT IN PLACE.

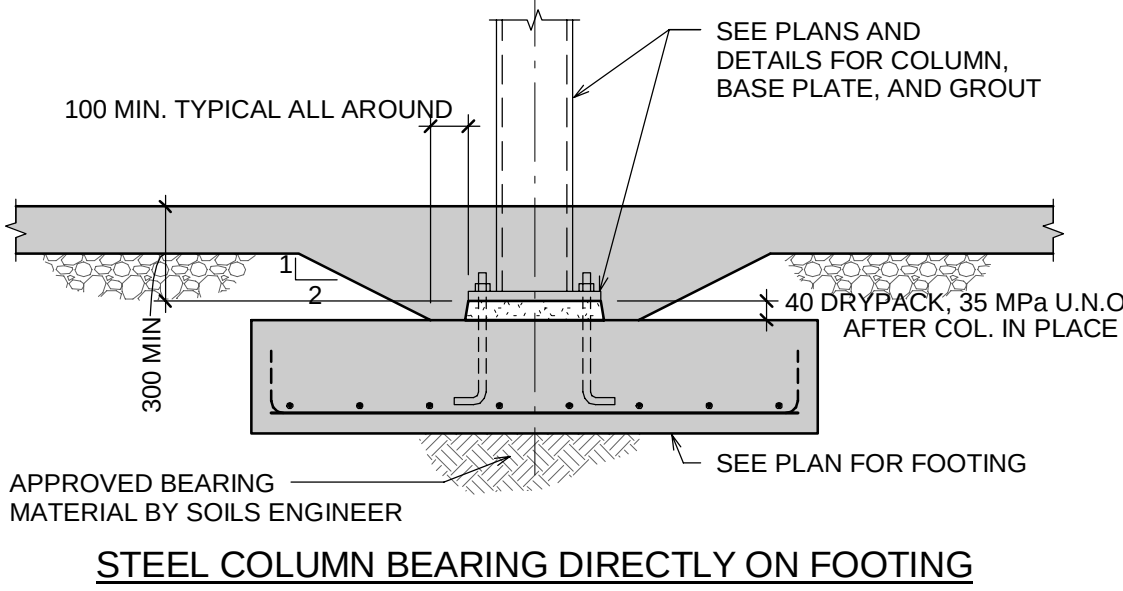
TYPICAL INTERIOR COLUMN FOOTING

EXCEPT AS NOTED:

- FOR SPLICE LENGTHS, SEE TABLES ON STRUCTURAL DRAWINGS.
- FOOTING SHALL BE CENTERED UNDER COLUMN U.N.O.

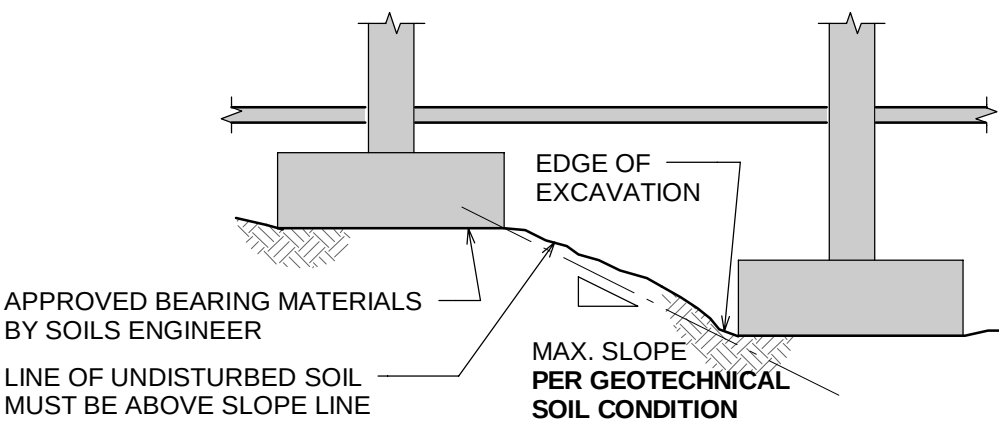


TYPICAL INTERIOR STEEL COLUMN ON FOOTING DETAILS - U.N.O.

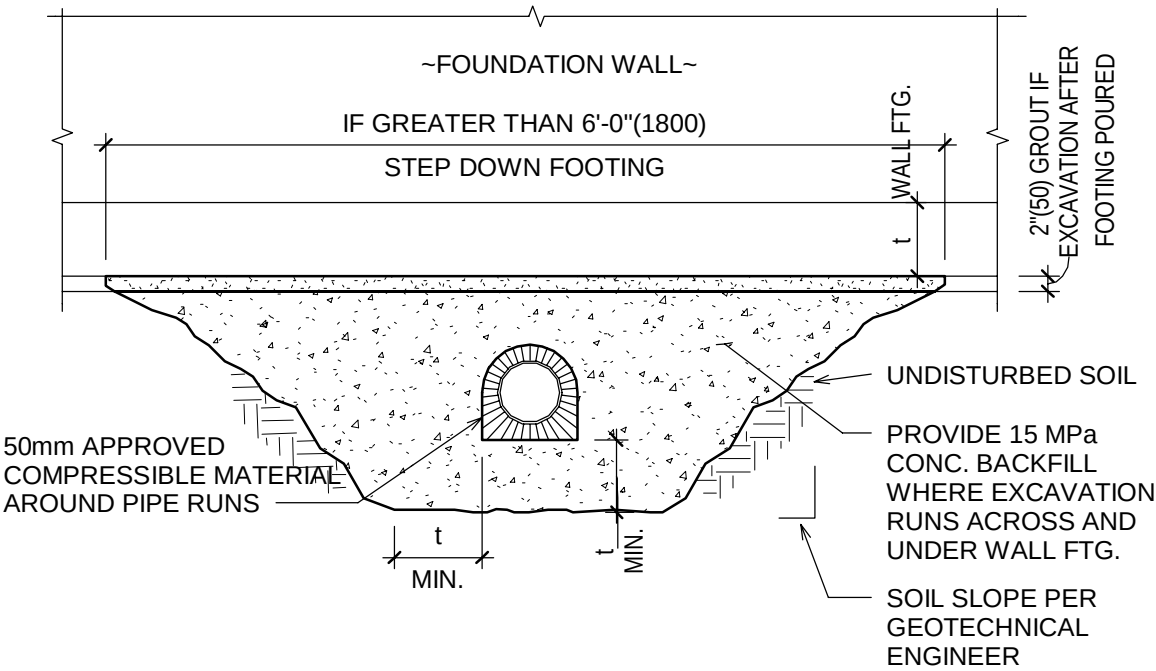


TYPICAL FOOTING ADJACENT TO EXCAVATION

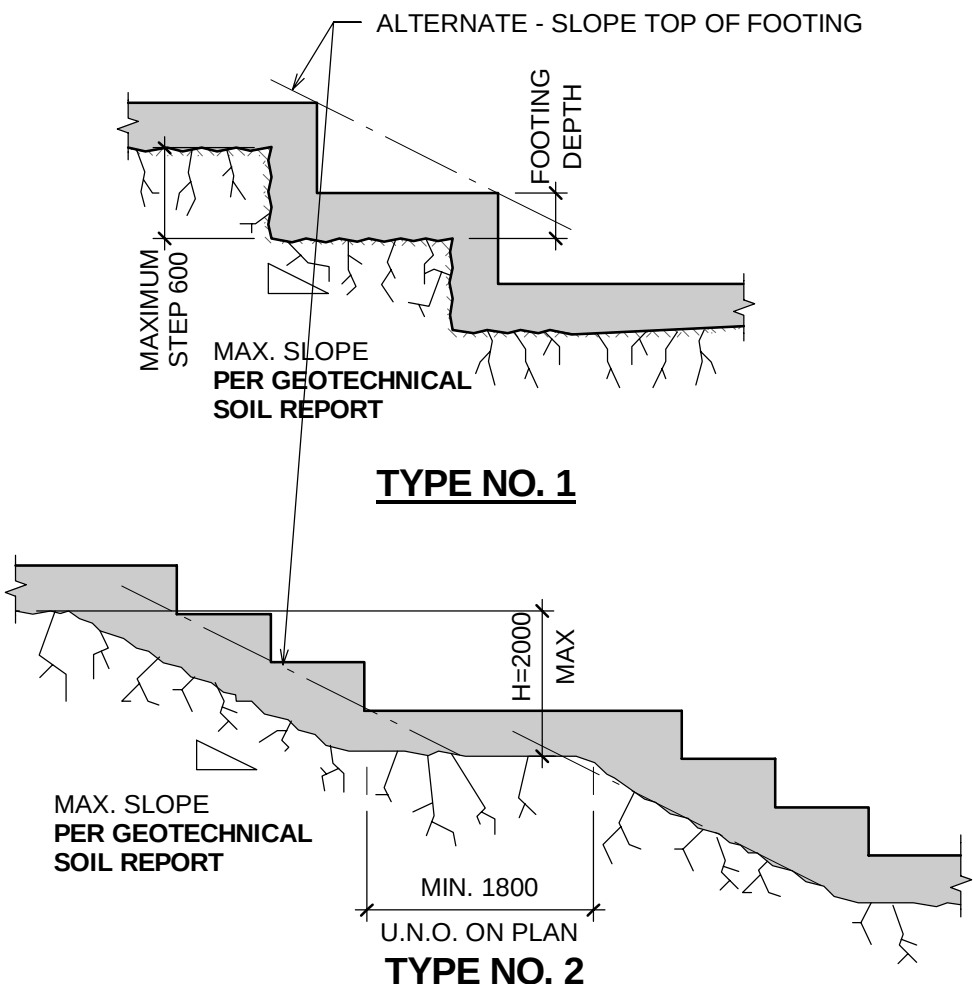
EDGE OF ADJACENT EXCAVATION FOR FOOTINGS, SUMPS, BASEMENT, SITE SERVICES, ETC.



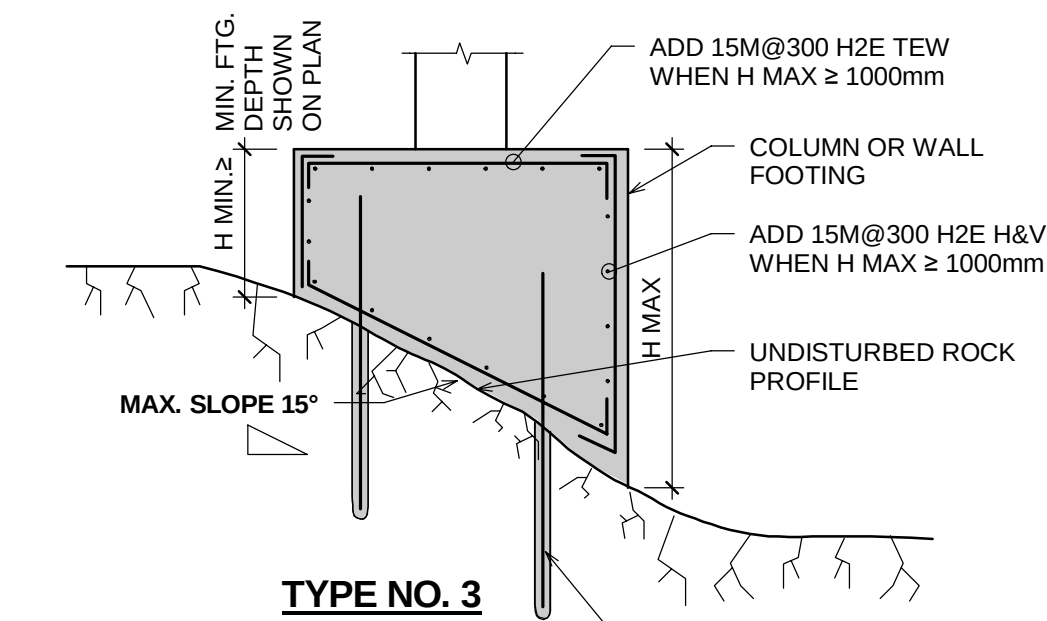
TYPICAL PIPE UNDER WALL FOOTING DETAIL



TYPICAL STEPPED FOOTINGS ON BEDROCK (WALLS)



NOTE: IF TOTAL STEPPING 'H' EXCEEDED PROVIDE INTERMEDIATE FLAT HORIZONTAL SECTION BETWEEN SLOPED FOOTINGS U.N.O. ON PLAN

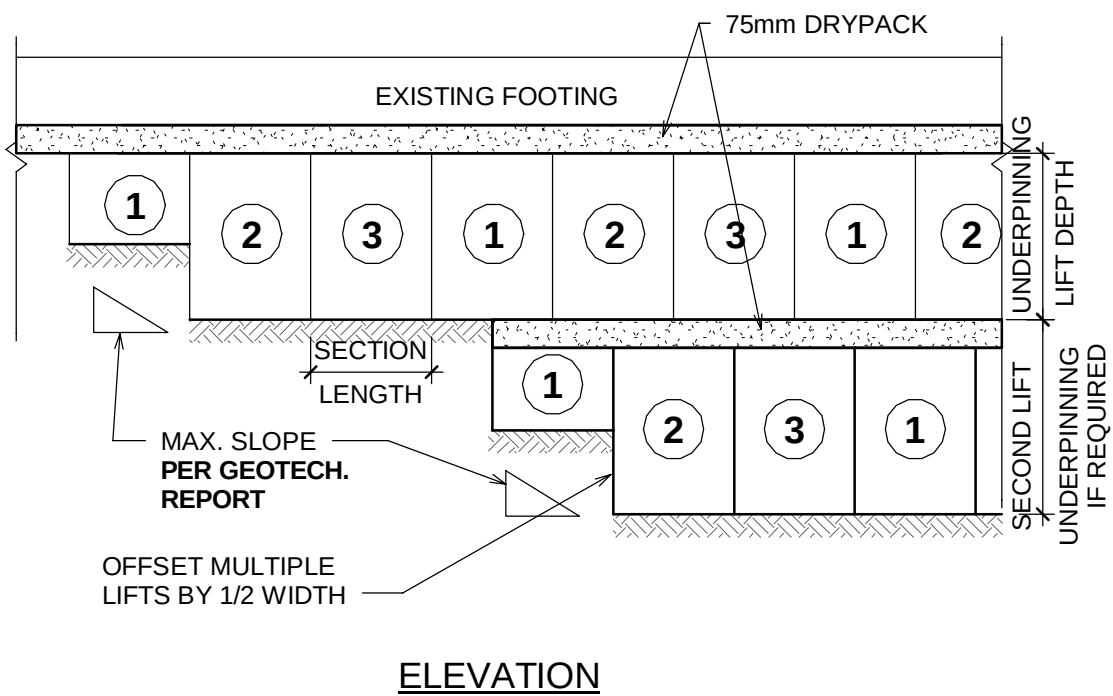


NOTE:

- FOR ROCK PROFILES SUCH THAT MAX. SLOPE EXCEEDS 15° CUT FLAT TERRACE INTO ROCK.
- ADD 55M DOWELS GROUTED 900mm INTO UNDISTURBED ROCK WHEN SLOPE IS GREATER THAN 10°

UNDERPINNING NOTES

- CONCRETE SHALL HAVE 28 DAY STRENGTH OF 25 MPa AND A MAX. SLUMP OF 75mm (3"). DRYPACK GROUT TO BE NON-SHRINK MIN. Fc=35 MPa.
- UNDERPINNING SHALL BE DONE IN 1200mm (4'-0") LONG SECTIONS MAX. U.N.O.
- NUMBERS OF PANELS INDICATE STAGES IN WHICH UNDERPINNING SHALL PROCEED, I.E. ALL SECTIONS MARKED #1 FOLLOWED BY ALL SECTIONS #2 ETC. POUR CONCRETE IN PLACE AND LEAVE FOR 24 HRS. BEFORE CLEANING UNDERSIDE EXISTING FOOTING, DRYPACKING AND PROCEEDING WITH NEXT STAGE.
- PROVIDE ALL NECESSARY SHORING/ BRACING TO EXISTING STRUCTURE REQUIRED TO CARRY OUT THIS WORK. CONTRACTOR TO ENSURE EXISTING WALL ABOVE IS STABLE PRIOR TO PROCEEDING WITH WORK.
- FOOTING AND UNDERPINNING EXCAVATIONS SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO POURING CONCRETE TO CONFIRM ADEQUACY OF SUB-GRADE.
- MAX. HEIGHT OF UNDERPINNING SHALL NOT EXCEED 1200mm (4'-0") TYPICAL IN ONE LIFT. IF UNDERPINNING DEPTH IS LARGER, MULTIPLE LIFTS ARE REQUIRED. EACH LIFT TO BE COMPLETED AND FULLY CURED PRIOR TO SUBSEQUENT LIFT PROCEEDING. UNDERPINNING WIDTH TO MATCH EXISTING FOUNDATION WIDTH U.N.O.
- CLEAN UNDERSIDE OF EXISTING FOOTING/WALL.
- DO NOT LEAVE OPEN EXCAVATION OVERNIGHT.
- WHERE EXIST. SERVICES RUN THROUGH UNDERPINNING, WRAP SERVICE WITH 50mm THK. COMPRESSIBLE MATERIAL

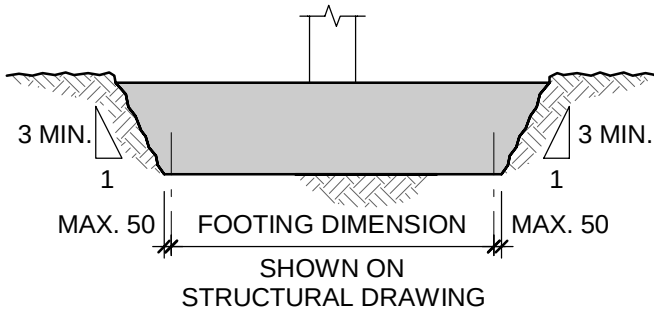


EXCAVATIONS

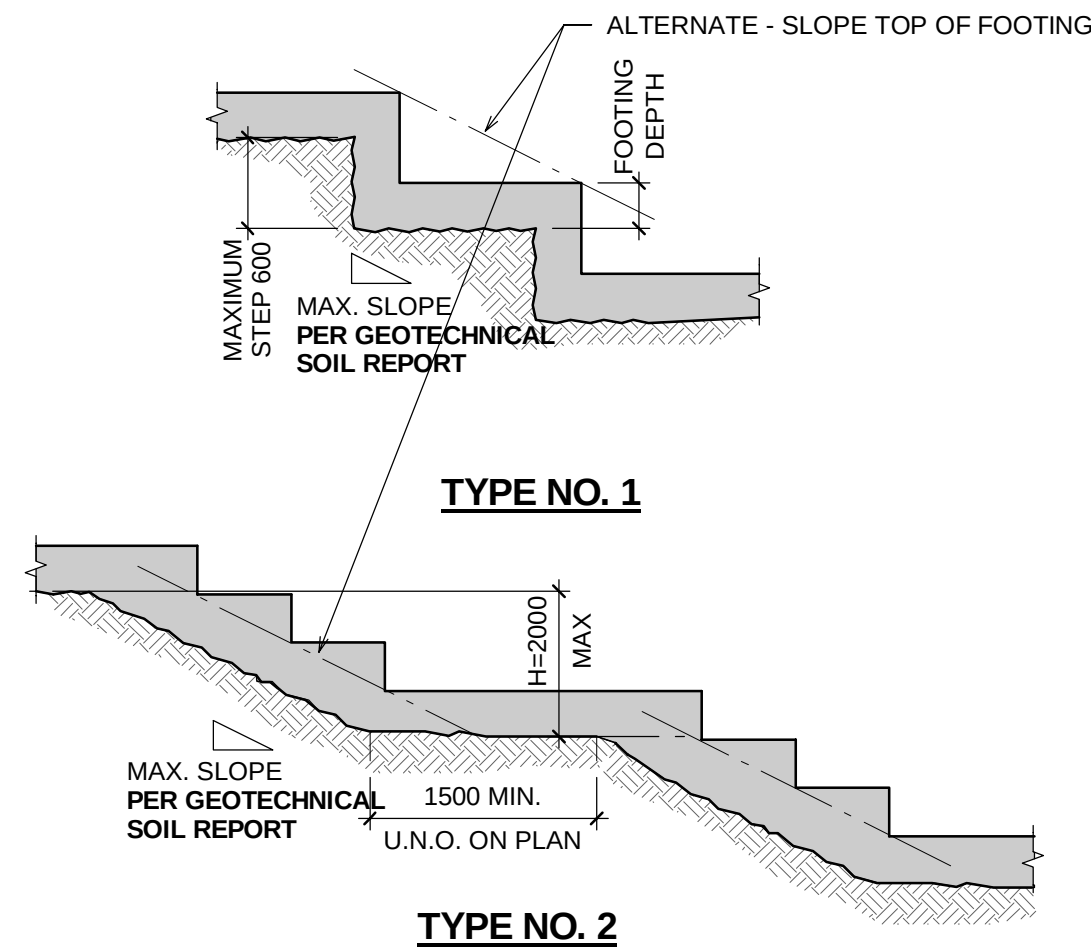
- DESIGN AND FIELD REVIEW OF EXCAVATION, SHORING, AND BACKFILL IS NOT DONE BY READ JONES CHRISTOFFERSEN.

FOUNDATIONS

- FOOTINGS HAVE BEEN DESIGNED FOR THE FOLLOWING BEARING RESISTANCES (ASSUMED GEOTECHNICAL ENGINEER TO VERIFY)
 - A. STRIP FOOTINGS: ULS: 225 kPa, SLS: 150 kPa
 - B. SPREAD FOOTINGS: ULS: 225 kPa, SLS: 150 kPa
- BEARING SURFACES MUST BE APPROVED BY THE SOILS ENGINEER IMMEDIATELY BEFORE FOOTING CONCRETE IS PLACED. RJC IS NOT RESPONSIBLE FOR CONFIRMING BEARING CAPACITIES OF SOILS.
- REFER TO SOILS REPORT FOR OTHER SPECIFIC DESIGN REQUIREMENTS FOR FOOTINGS, SOIL SLOPES, FROST PROTECTION, MINIMUM COVER, ETC.
- UNLESS OTHERWISE SHOWN, CENTER FOOTINGS UNDER COLUMNS AND WALLS.
- DOWELS SHALL BE PLACED BEFORE CONCRETE IS PLACED. TEMPLATES SHALL BE USED TO ENSURE CORRECT PLACEMENT OF DOWELS.
- PROVIDE 50 mm GROUND SEAL/ SKIM COAT, MUD SLAB UNDER FOOTINGS AS REQUIRED BY SOIL CONDITIONS.
- FOR GROUND ELEVATIONS AND DRAINAGE SLOPES, SEE ARCHITECT'S DRAWINGS.
- VARY FOOTING ELEVATIONS WHERE REQUIRED IN ACCORDANCE WITH DETAIL FOR "TYPICAL STEPPED FOOTING"(S.D.F.), SHOWN ON STRUCTURAL DRAWINGS.
- FOOTINGS MAY HAVE TO BE LOWERED TO ACCOMMODATE MECHANICAL OR ELECTRICAL SERVICES. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ELEVATIONS OF SAME. FOOTINGS ARE NOT TO BE UNDERMINED BY EXCAVATIONS FOR SERVICES, PITS, ETC.
- FOOTING ELEVATIONS, IF SHOWN, ARE FOR PRICE ESTIMATING PURPOSES ONLY. ARE NOT FINAL AND MAY VARY ACCORDING TO SITE CONDITIONS OR AS REQUIRED BY SERVICES. ALL FOOTINGS MUST BE TAKEN TO A BEARING LAYER APPROVED BY THE SOILS ENGINEER.
- BEARING SURFACES MUST BE PROTECTED FROM FREEZING BEFORE AND AFTER FOOTINGS ARE POURED.
- SUB-BASE DESIGN OF SOIL UNDER THE SLAB ON GRADE SHALL BE IN ACCORDANCE WITH THE SOIL REPORT.
- CONCRETE PLACED UNDER WATER SHALL CONFORM TO CAN/CSA-A23.1.
- FOOTINGS CAST DIRECTLY INTO EXCAVATIONS (WITHOUT SIDE FORMS) SHALL NOT BE LARGER THAN SHOWN BELOW:



TYPICAL STEPPED FOOTINGS ON SOIL (WALLS)



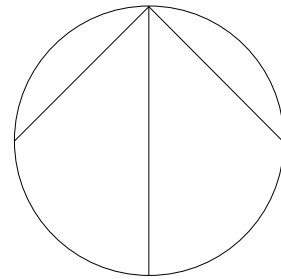
NOTE: IF TOTAL STEPPING 'H' EXCEEDED PROVIDE INTERMEDIATE FLAT HORIZONTAL SECTION BETWEEN SLOPED FOOTINGS U.N.O. ON PLAN

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them ("Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or purpose.
 - These drawings are "design drawings" only.
- They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.
- The work "as constructed" may vary from what is shown on these drawings.
- Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.
- The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-12-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

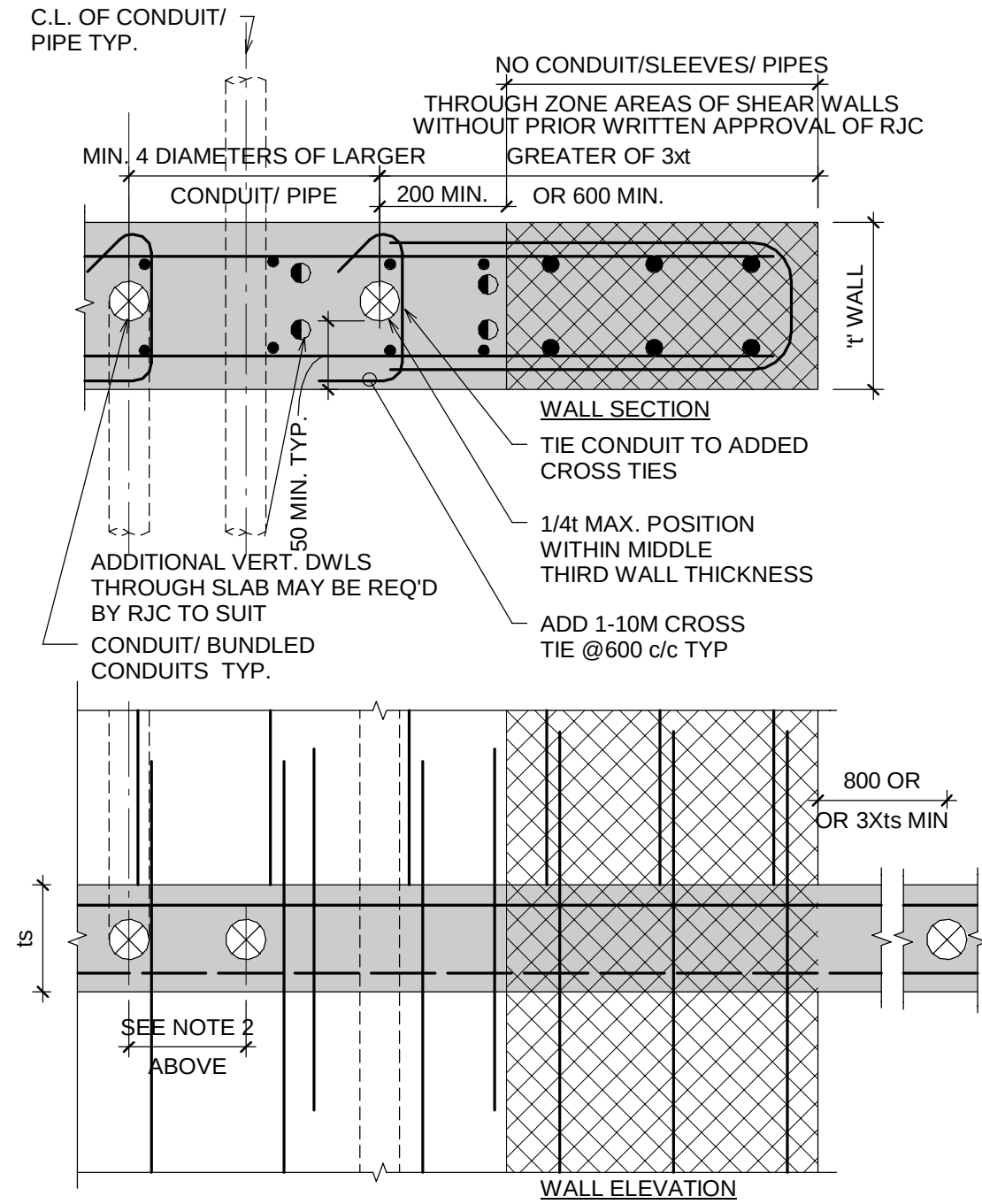
Title:

GENERAL NOTES & TYPICAL DETAILS

Drawn :	Scale :	Date :
Project Number : TOR.111805.0001	Drawing Number :	
Drawing Stage: CD		

S-102

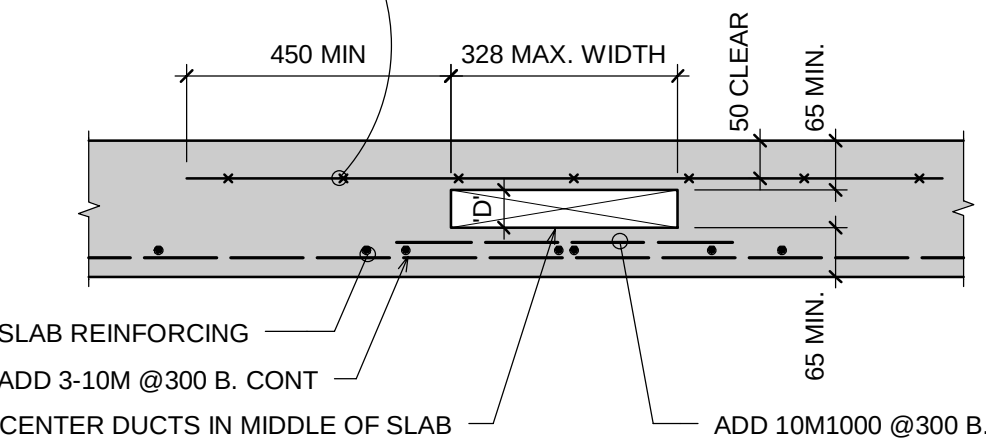
6. WALLS - CONDUIT, SLEEVES OR EMBEDDED PIPES:
- A. MAXIMUM DIAMETER = 1/4 WALL THICKNESS
B. NO HORIZONTAL RUNS PERMITTED
C. VERTICAL RUNS TO HAVE MINIMUM 50 mm CONCRETE COVER AND SHALL HAVE A MINIMUM CLEAR SPACING OF 4 DIAMETERS.



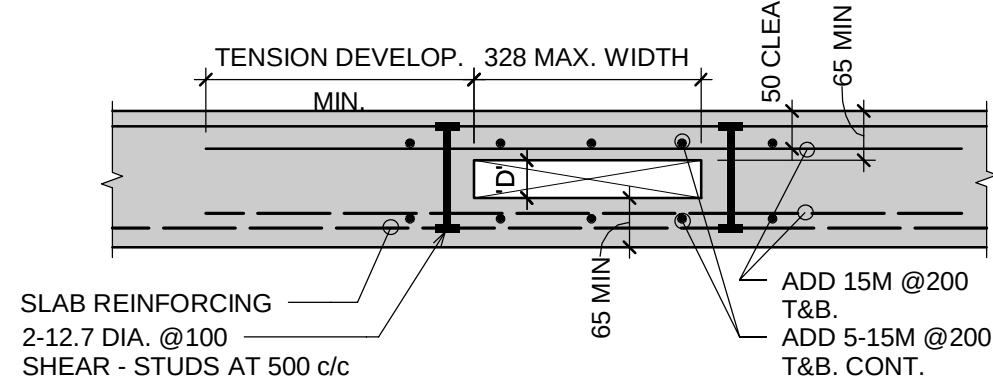
7. GUIDELINES FOR IN-SLAB DUCTS/ CONCENTRATED SERVICES

- SHOP DRAWINGS OF PROPOSED DUCT LAYOUTS/ CONCENTRATED SERVICES TO BE SUBMITTED TO RJC FOR REVIEW PRIOR TO CONSTRUCTION.
- IN SLAB DUCTS SHALL NOT CROSS.
- MAXIMUM 'D' IN 250 SLAB = 68 mm OUTSIDE DIMENSION: TYP. 305x45 DUCT +11mm INSULATION AROUND.
- MINIMUM CLEAR SPACING = 600 mm BETWEEN ELEMENTS.
- MINIMUM CLEAR SPACING TO COLUMNS AND WALLS = 1200 mm UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.
- VERTICAL DUCT PENETRATION TO BE MIN. 300 CLEAR OF FREE SLAB EDGE.

PLACE WWR 152x152 -47.6x47.6 X 1200 WIDE OVER DUCTS OR 10M @300 E.W. OR 15M @400 E.W.



TYPICAL DETAIL FOR ELEMENTS LOCATED AT MID-THIRD OF SLAB



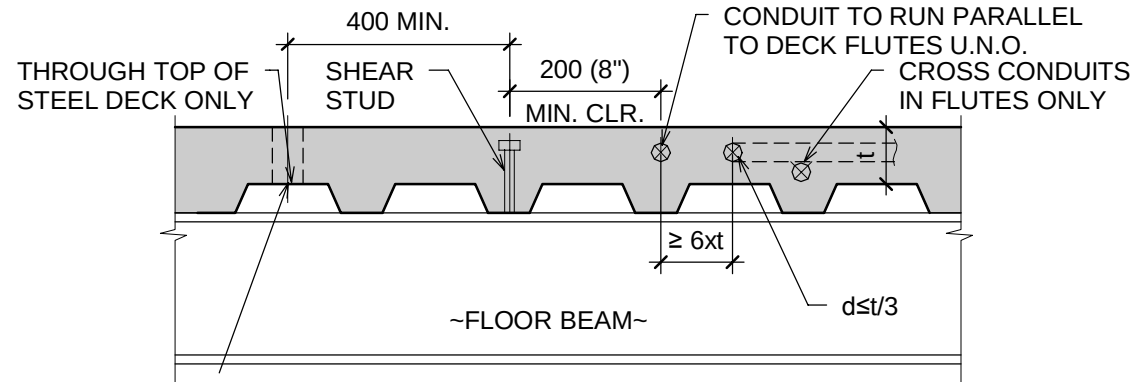
TYPICAL DETAIL FOR FOR ELEMENTS OUTSIDE MID-THIRD OF THE SLAB SPAN BUT AT LEAST 1200mm AWAY FROM SUPPORTS

CONDUITS, PIPES AND SLEEVES EMBEDDED IN CONCRETE

EXCEPT WHEN APPROVED BY RJC, PIPES, CONDUITS, AND SLEEVES EMBEDDED IN CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH CSA STANDARD A23.1 AND THE FOLLOWING GUIDELINES:

1. GENERAL

- A. **SLEEVING DRAWINGS FOR ALL ELEMENTS SHALL BE SUBMITTED TO RJC FOR REVIEW PRIOR TO CONSTRUCTION.**
- B. NOT WITHSTANDING THE SATISFYING OF THESE GUIDELINES, THE CONDUIT, SLEEVES, PIPES, ETC. SHALL NOT IMPAIR THE STRUCTURAL STRENGTH AND SHALL BE MOVED IF SO DIRECTED BY RJC.
- C. CENTERLINE SPACING TO BE NOT LESS THAN 3 DIAMETERS OF LARGER CONDUIT/ PIPE, UNLESS NOTED OTHERWISE.
- D. ADD REINFORCING AT POINTS OF CONGESTION AS DIRECTED BY THE STRUCTURAL ENGINEER.
- E. NO CONDUITS, IN-SLAB DUCTS, SLEEVES, ETC., SHALL BE PLACED NEAR POST-TENSIONING ANCHORAGES
- F. METAL CONDUIT, PIPES, ETC., SHALL NOT BE PLACED IN PARKING SLABS. NO CONDUIT, PIPES, ETC. SHALL BE PLACED IN PARKING TOPPING.
- G. SLEEVES, PIPES OR CONDUITS OF UNCOATED ALUMINUM SHALL NOT BE USED.
- H. CONDUITS AND PIPES ARE NOT ALLOWED IN THE CONCRETE TOPPING ON TOP OF STEEL DECK UNLESS APPROVED BY THE STRUCTURAL ENGINEER. FOR TOPPINGS ON STEEL DECK, THE CONCRETE THICKNESS IS MEASURED FROM THE TOP OF THE DECK FLUTE. SHOP DRAWINGS OF PROPOSED EMBEDDED ELEMENTS TO BE SUBMITTED TO RJC FOR REVIEW PRIOR TO CONSTRUCTION



RJC TO REVIEW CONDUIT DRILLED/ CORED LOCATIONS PRIOR TO CONSTRUCTION VIA SLEEVE DWGS SUBMISSION

SLAB ON STEEL DECK

2. SLABS - CONDUITS IN THE PLANE OF THE SLAB:

- A. LOCATE BETWEEN TOP AND BOTTOM REINFORCING.
- B. MAXIMUM SIZE IN ONE LAYER TO BE NOT MORE THAN 1/4 CONCRETE THICKNESS.
- C. THREE LAYERS OR MORE CROSSING WILL NOT BE PERMITTED.
- D. DO NOT LOCATE CONDUIT CLOSER THAN:
1. BEAM DEPTH OR 800mm MIN FROM COLUMN FACE AT BEAMS.
2. CAPITAL DEPTH OR 800mm MIN. FROM COL. CAPITAL EDGE BELOW.
3. 3 X SLAB THICKNESS OR 600mm MIN. FROM STUD RAILS.

3. SLABS - THROUGH SLAB

- A. SPACING OF SLEEVES THROUGH SLABS TO BE NOT LESS THAN THE FOLLOWING:
- B. ADD 1-15M T EXTEND 500 MIN. PAST SLEEVE WHERE TOP BARS OF SLAB REINFORCING GO BETWEEN SLEEVES.
- C. SLEEVES IN FLAT SLABS AND FLAT PLATES NOT TO BE LOCATED NEXT TO COLUMNS UNLESS APPROVED BY RJC IN WRITING.
- D. CLEAR DIMENSION FOR SLEEVES TO COLUMNS TO BE 1200 mm MINIMUM UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.

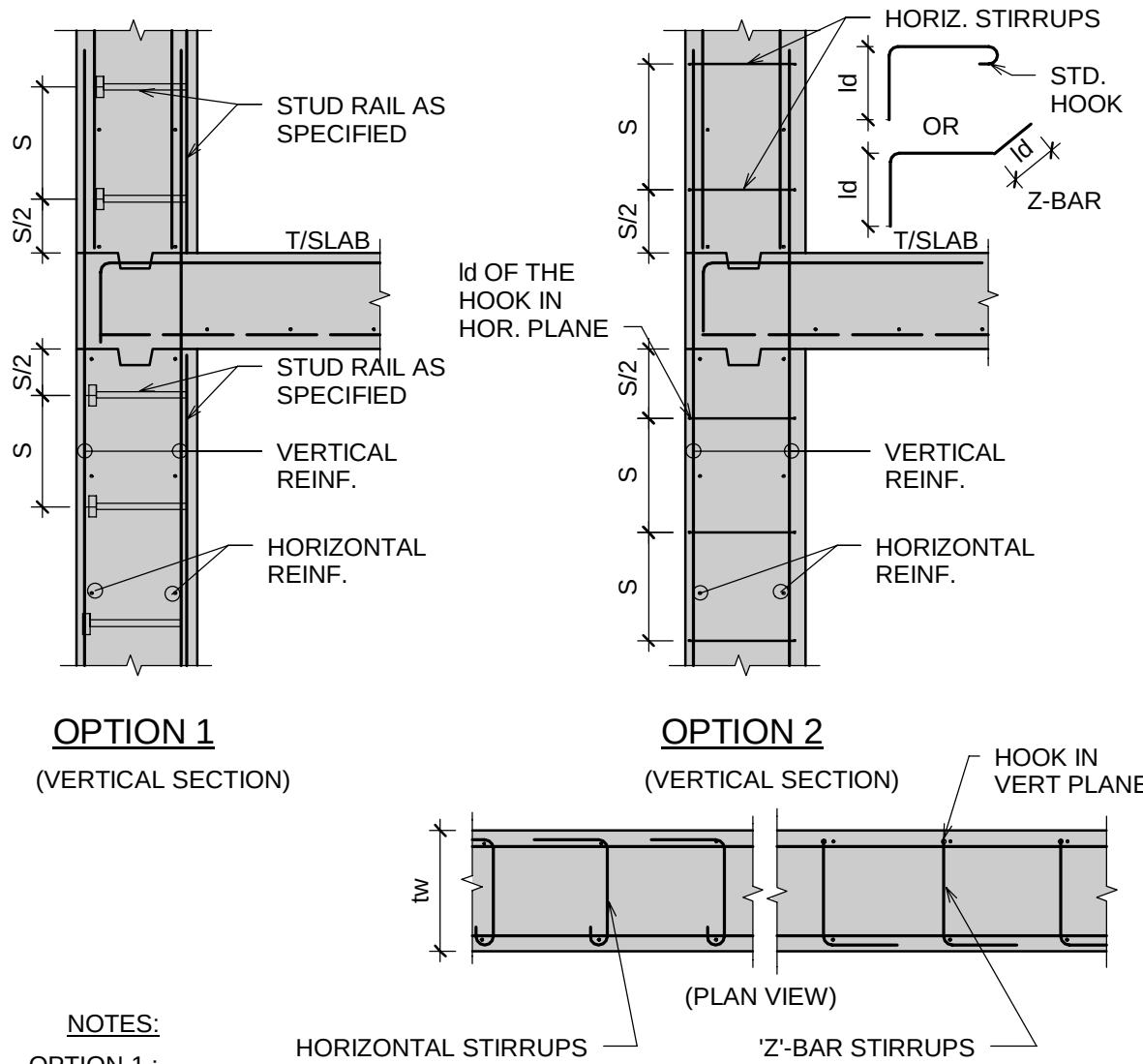
4. COLUMNS

- A. FOR COLUMNS - BOXES, CONDUIT, SLEEVES OR EMBEDDED PIPES ARE NOT ALLOWED WITHOUT THE WRITTEN APPROVAL OF RJC.
- B. WHERE ACCEPTED BY RJC, THE TOTAL AREA OF EMBEDDED CONDUITS OR FITTINGS SHALL NOT EXCEED 1% OF GROSS COLUMN AREA. SECURE CONDUITS TO COLUMN TIES. LOCATE AS CLOSE TO CENTRE OF SECTION AS POSSIBLE. DO NOT TIE ALONG VERTICAL BAR. ADD 1-10M TIE @600 c/c MIN. FOR COLUMN WITH NO STRUCTURAL TIES REQUIREMENTS ACROSS CENTRE OF SECTION
- PLAN
5. **BEAMS - THE TOTAL MAXIMUM SIZE OF HORIZONTAL CONDUIT OR PIPES PARALLEL TO THE BEAM NOT TO EXCEED 4% OF THE AREA. NO SLEEVES THROUGH ANY BEAMS OR SLAB BANDS UNLESS APPROVED IN WRITING BY RJC.**

SHOP DRAWING REVIEW RESPONSIBILITIES

AS PART OF FIELD SERVICES, RJC WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON RJC'S DRAWINGS BY MEANS OF APPROPRIATE RATIONAL SAMPLING PROCEDURES AND COMMENT ON THE ACCURACY WITH WHICH THE CONTRACTOR PREPARED THE DRAWINGS. REVIEW OF SHOP DRAWINGS IS FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT AND IS NOT AN APPROVAL OF THE DETAIL DESIGN 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. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INFORMATION PERTAINING TO THE FABRICATION PROCESS TECHNIQUES OF CONSTRUCTION AND INSTALLATION AND FOR CO-ORDINATION OF THE WORK OF ALL SUB-TRADES.

FOUNDATION WALL CROSS-DIRECTIONAL SHEAR REINFORCEMENT



NOTES:

OPTION 1:

- INSTALL STUD RAIL LAST. ENSURE THAT STUD RAIL IS IN PLANE WITH THE INSIDE FACE VERTICAL BARS.
- STUD HEADS TO BE IN PLANE WITH OUTSIDE FACE VERTICALS.
- OPTIONALLY, STUDRAIL COULD BE LOCATED AT OUTSIDE FACE.

OPTION 2:

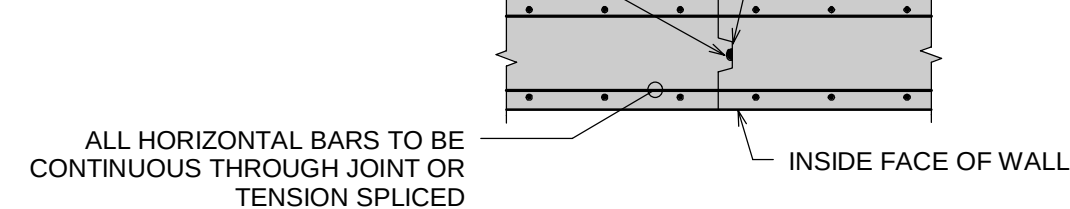
- INSTALL SHEAR REINFORCEMENT BY HOOKING THEM AROUND THE VERTICALS. HOOKS TO BE PLACED IN HORIZONTAL PLANE.

WALL CONSTRUCTION JOINT

(CONSTRUCTION JOINT CAN REPLACE CONTROL JOINT)

IF ARCHITECTURAL DRAWINGS AND SPECIFICATIONS DO NOT REQUIRE A WATERSTOP, FOR WALLS BELOW GRADE, PROVIDE A 20 mm WIDE X 25 mm DEEP NOTCH AND FILL NOTCH WITH CAULKING OR DAMP PROOFING TO ARCHITECT'S REQUIREMENTS.

WATERSTOP IF REQUIRED. SEE ARCHITECTURAL SPECIFICATIONS

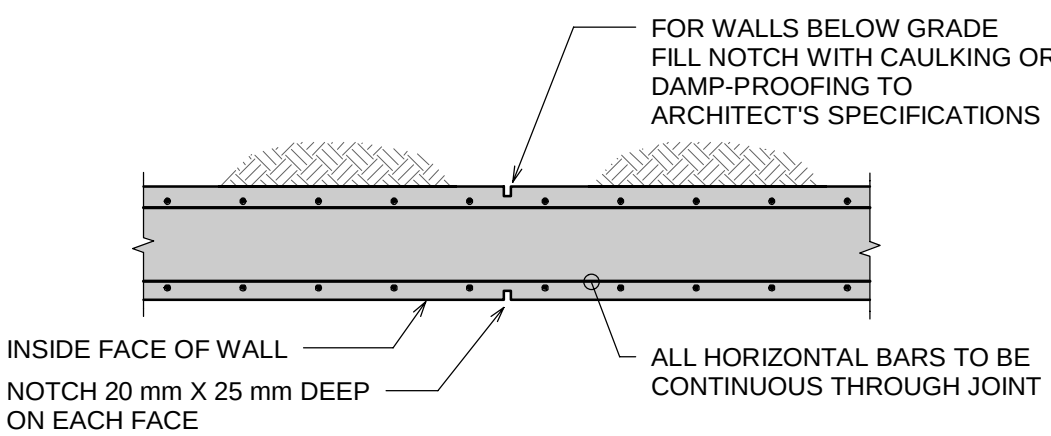


PLAN

WALL CONTROL JOINT

UNLESS NOTED OTHERWISE FOR EXTERIOR WALLS BELOW GRADE AND EXTERIOR WALLS EXPOSED TO WEATHER ABOVE GRADE.

SPACE AT 6000 mm CENTERS MAXIMUM UNLESS OTHERWISE NOTED ON PLAN.



PLAN

CONCRETE

- CONCRETE IS SPECIFIED AS PER THE "PERFORMANCE" ALTERNATE AS OUTLINED IN TABLE 5 OF CAN/CSA-A23.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR WORKING WITH THE CONCRETE SUPPLIER TO ENSURE THAT THE PLASTIC AND HARDENED MIX PROPERTIES MEET SITE REQUIREMENTS FOR PLACING, FINISHING, AND THE OWNERS' SPECIFIED PERFORMANCE REQUIREMENTS. THE GENERAL CONTRACTOR SHALL MEET THE DOCUMENTATION AND QUALITY CONTROL REQUIREMENTS OUTLINED UNDER THE "PERFORMANCE" ALTERNATE OF TABLE 5 OF CAN/CSA-A23.
- THE SUPPLIER SHALL MEET ALL CERTIFICATION AND DOCUMENTATION REQUIREMENTS AS OUTLINED UNDER THE "PERFORMANCE" ALTERNATE OF TABLE 5 OF CAN/CSA-A23.
- THE CONCRETE SUPPLIER SHALL BE CERTIFIED BY THE [READY MIXED CONCRETE ASSOCIATION OF ONTARIO
- PORTLAND CEMENT SHALL BE TYPE GU UNLESS NOTED OTHERWISE.
- CONCRETE SHALL HAVE A UNIT WEIGHT OF 23±1 kN/m³ (145±5 PCF) UNLESS NOTED OTHERWISE.
- CONCRETE PROPERTIES:

GENERAL (AREAS NOT INCLUDING PARKING)

ELEMENT	COMPRESSIVE STRENGTH (MPa) 28 DAYS U.N.O.	EXPOSURE CLASS	COMMENTS
FOOTINGS	30 MPa (56 DAYS)	N	.
CAST-IN-PLACE DRILLED PILES	32 MPa (56 DAYS)	F-2	.
SLAB ON GRADE (INTERIOR)	25 MPa	N	.
SLAB ON GRADE (EXTERIOR)	32 MPa	C-2	.
RETAINING/ FOUNDATION WALLS	25 MPa	F-2	.
SHEAR WALLS	SEE SCHEDULE (56 DAYS)	N/F-2	.
OTHER WALLS	25 MPa	N/F-2	.
COLUMNS	SEE SCHEDULE (56 DAYS)	N/F-2	.
TOPPING ON STEEL DECK	20 MPa	N	.
MECHANICAL HOUSEKEEPING PADS	20 MPa	N	.
NON-POST-TENSIONED SLABS, BEAMS, AND SLAB BANDS	25 MPa	N	.
POST-TENSIONED SLABS, BEAMS, AND SLAB BANDS	35 MPa	N	.
EXPOSED BALCONIES	35 MPa	C-1	SEE PLANS & ARCH. DWGS.
EXPOSED OVERHANGING ROOFS	25 MPa	F-2	SEE PLANS & ARCH. DWGS.

NOTE: USE F-2 EXPOSURE FOR EXTERIOR CONCRETE ELEMENTS. USE N EXPOSURE FOR INTERIOR CONCRETE, OR ELEMENTS PROTECTED BY A MEMBRANE.

- SLUMP AND AGGREGATE SIZE TO BE DETERMINED BY THE GENERAL CONTRACTOR AND SUPPLIER TO MEET PLACEMENT, AND FINISHING REQUIREMENTS WITHOUT SEGREGATION WHILE MEETING ALL OWNER SPECIFICATIONS.
- MAXIMUM WATER/CEMENT RATIO AND AIR CONTENT TO MEET THE REQUIREMENTS FOR THE EXPOSURE CLASS AS OUTLINED IN TABLE 2, 4 AND 20 OF CAN/CSA-A23.
- CEMENT TYPE FOR EXPOSURE CLASSES S-1, S-2, AND S-3 SHALL BE AS OUTLINED IN TABLE 3 OF CAN/CSA-A23.
- CHLORIDE ION PENETRABILITY FOR EXPOSURE CLASS C-1 AND C-XL SHALL MEET THE REQUIREMENTS OF TABLE 2 OF CAN/CSA-A23.
- AT THE REQUEST OF THE OWNER, THE SUPPLIER WILL FURNISH TEST DATA RESULTS FOR EACH PROPOSED MIX DESIGN DEMONSTRATING THAT THEY MEET THE STRENGTH, DURABILITY, AND SHRINKAGE REQUIREMENTS SPECIFIED.
- FOR 56 DAYS STRENGTH SPECIFICATIONS, THE SUPPLIER WILL FURNISH THE OWNER WITH ACCELERATED STRENGTH TEST DATA FOR EACH PROPOSED MIX DESIGN, OR OTHER DOCUMENTATION ACCEPTABLE TO THE OWNER, SUCH THAT THE ANTICIPATED 56 DAYS STRENGTH OF THE MIX AS PLACED ON SITE CAN BE EVALUATED WITHIN 14 DAYS OF PLACEMENT.
- CURING OF CONCRETE TO MEET THE REQUIREMENTS FOR THE EXPOSURE CLASS AS OUTLINED IN CLAUSE 7.4.1.7 AS WELL AS TABLES 2 AND 20 OF CAN/CSA-A23. CURING COMPOUNDS ARE NOT PERMITTED FOR SUSPENDED PARKING SLABS OR EXPOSURE CLASS C-XL CONCRETE. PARKING SLABS AND REINFORCED SLAB ON GRADES IN PARKING AREAS ARE TO BE CURED FOR 7 DAYS.
- CORROSION INHIBITORS ARE TO BE USED IN CONCRETE IN AREAS NOTED ON THE STRUCTURAL DRAWINGS, AS WELL AS IN STAIRS AND STAIR LANDINGS WITHIN PARKADES. USE 10 L/m³ OF "DCI S" BY GRACE CONSTRUCTION PRODUCTS OR "MASTER BUILDERS RHEOCRETE CN" BY BASF CONSTRUCTION CHEMICALS. ALTERNATIVELY, USE C-XL CONCRETE WITH CURING TYPE 3 (EXTENDED) PER TABLE 20 OF CAN/CSA-A23.
- ALL BOTTOM EDGES OF EXPOSED SLABS AND BEAMS, AS WELL AS EDGES OF WALLS AND COLUMNS, TO BE CHAMFERED 20 mm X 20 mm. ALL TOP EDGES OF EXPOSED SLABS, BEAMS, UPSTANDS AND STAIRS TO BE TOOLED UNLESS NOTED OTHERWISE. SEE ALSO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR OTHER FINISH REQUIREMENTS.
- NO CALCIUM CHLORIDE IS PERMITTED, IN ANY FORM, IN ANY CONCRETE MIX WITHOUT THE EXPRESS WRITTEN CONSENT OF READ JONES CHRISTOFFERSEN LTD.
- CURING AND PROTECTION OF CONCRETE FOR HOT, COLD OR DRY WEATHER IS TO BE AS PER CLAUSES 7.4.1.8 AND 7.4.2 OF CAN/CSA-A23. AS A MINIMUM.

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

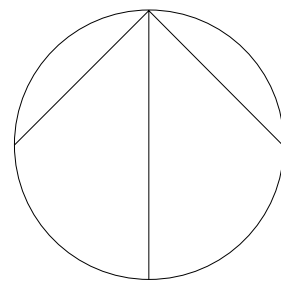
The work "as constructed" may vary from what is shown on these drawings.
- Use of these drawings is limited to that identified in the Issued/Revision column.

Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-12-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

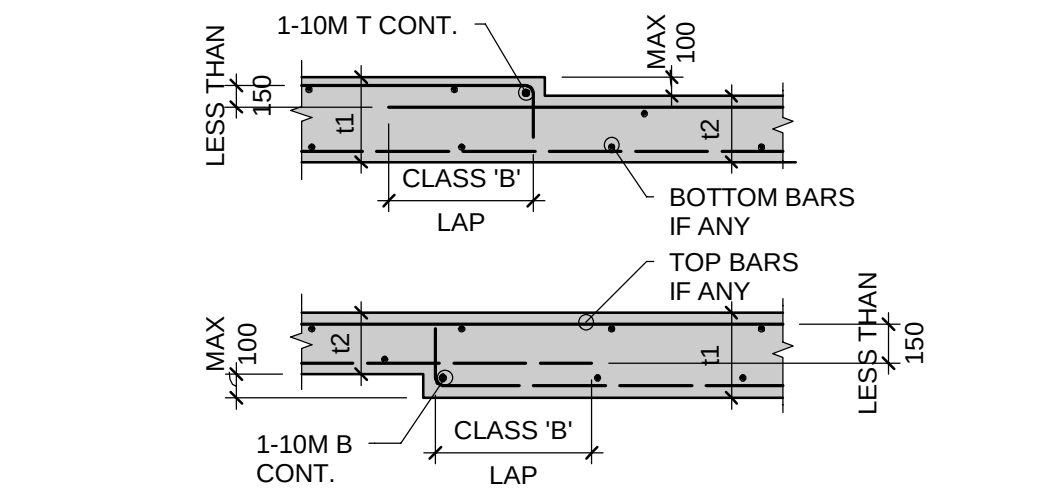
Title:

GENERAL NOTES & TYPICAL DETAILS

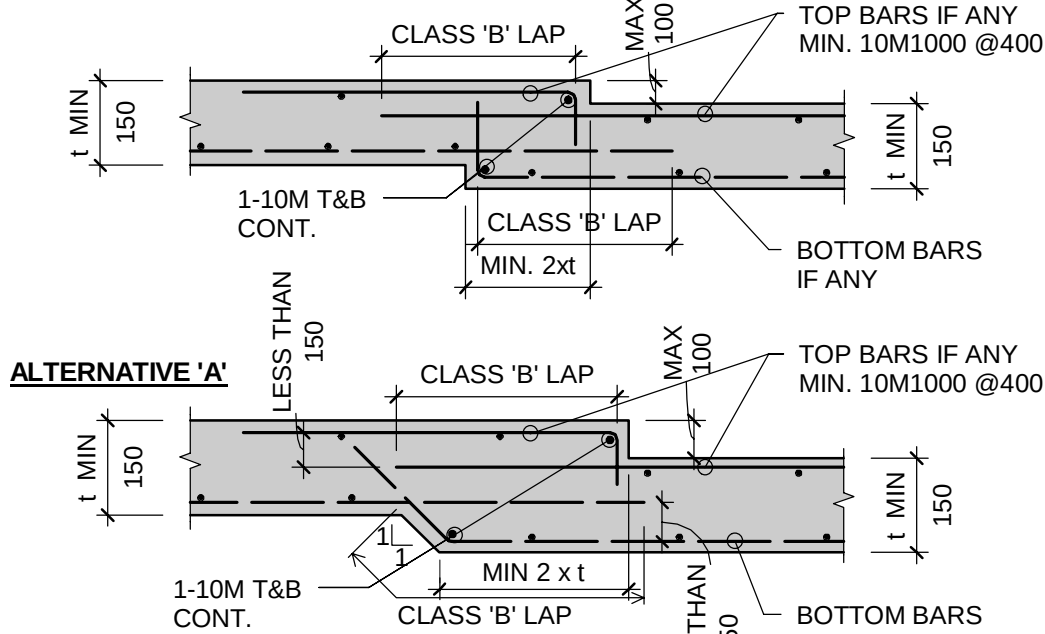
Drawn :	Scale :	Date :
Project Number : TOR.111805.0001 Drawing Stage: CD	Drawing Number :	S-103

SUSPENDED SLAB STEP DETAILS

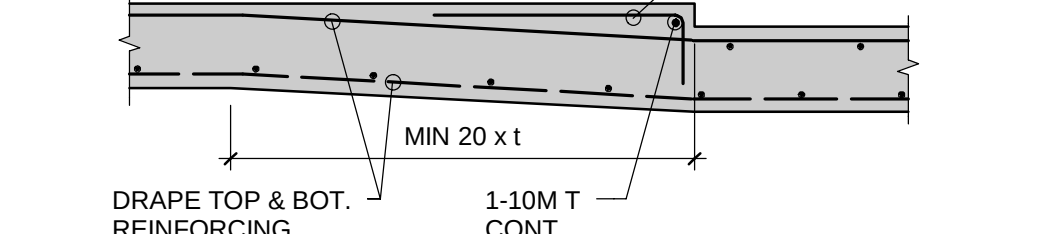
SLAB STEP UP TO 100mm (TOP OR BOTTOM SURFACE FLAT)



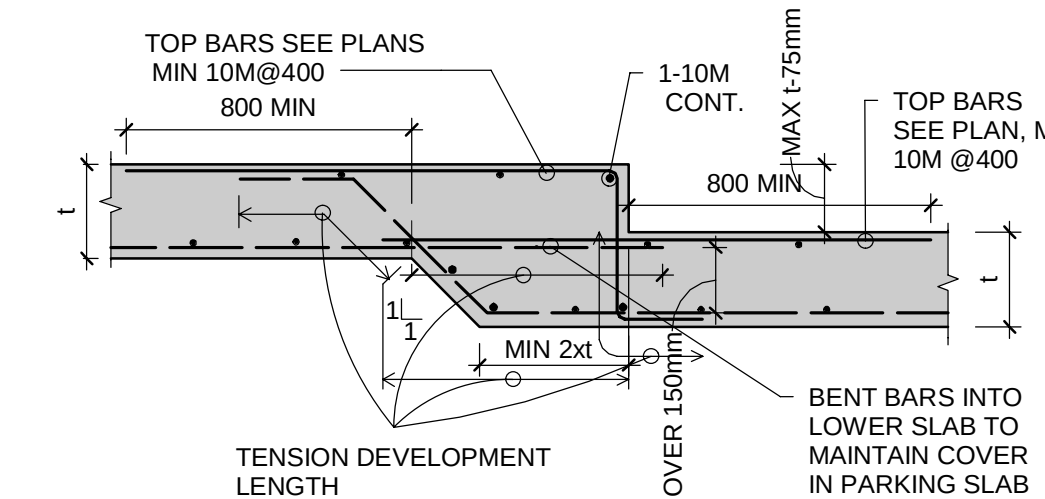
SLAB STEP UP TO 100mm



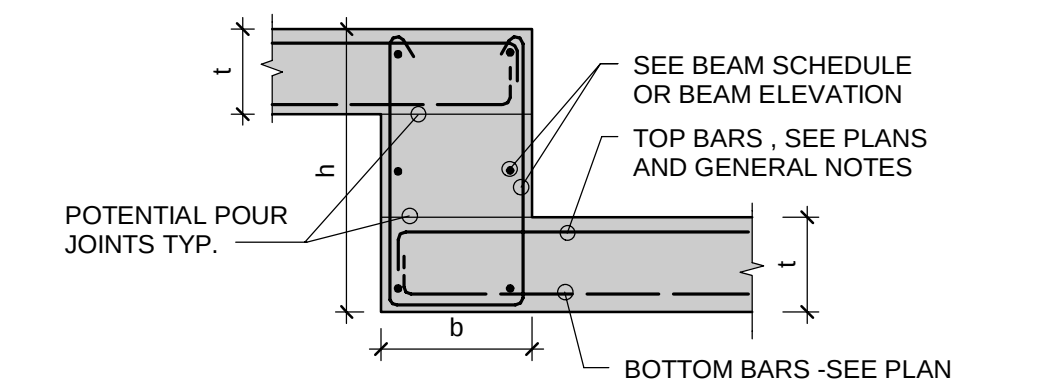
ALTERNATIVE 'A'



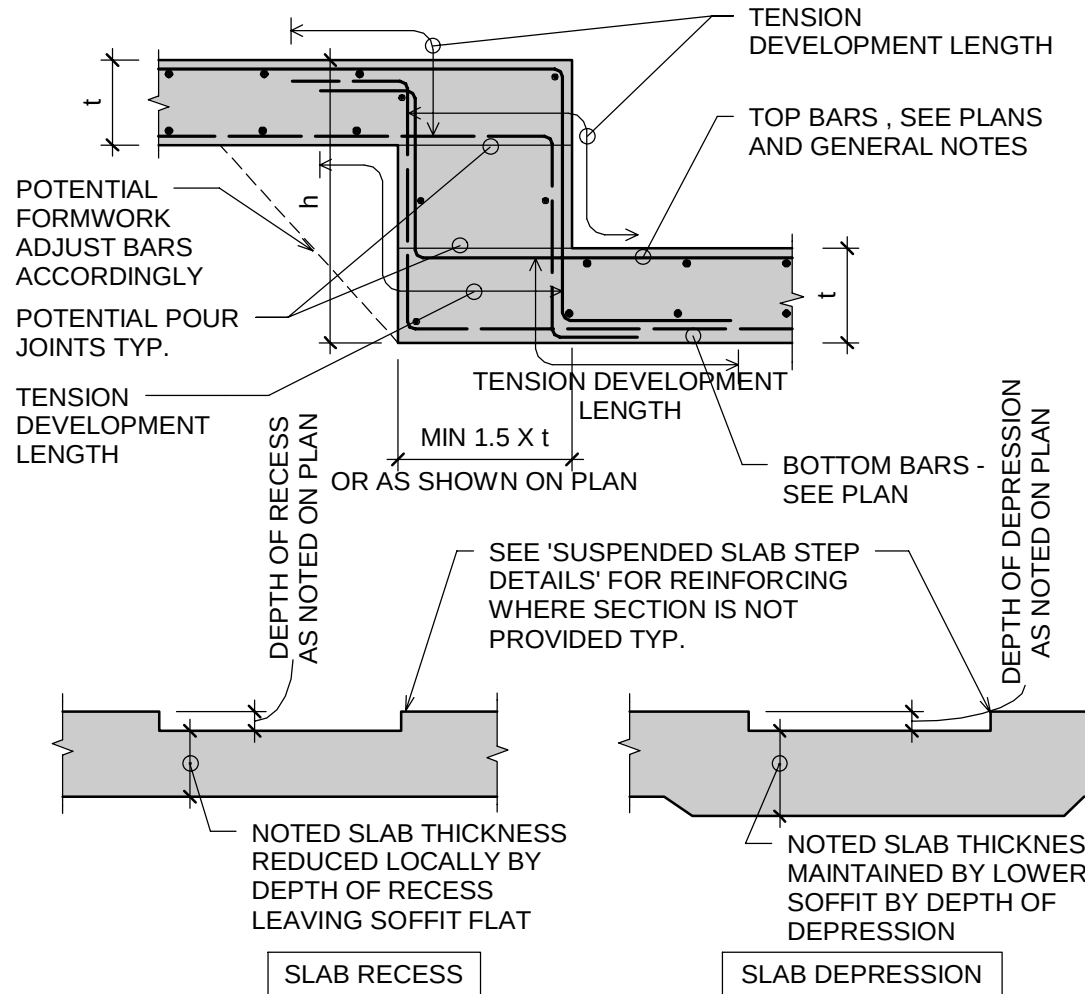
SLAB STEPS OVER 100mm UP TO & INCL. t-75mm



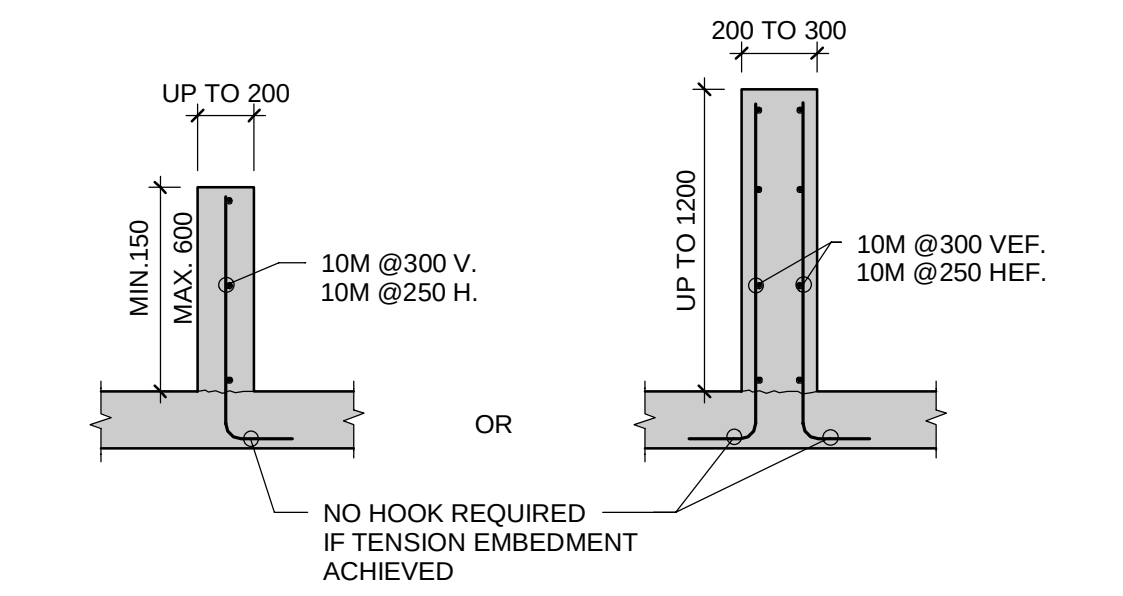
SLAB SUPPORTED BY BEAMS



FOLDED SLAB - STEP OVER t-75mm



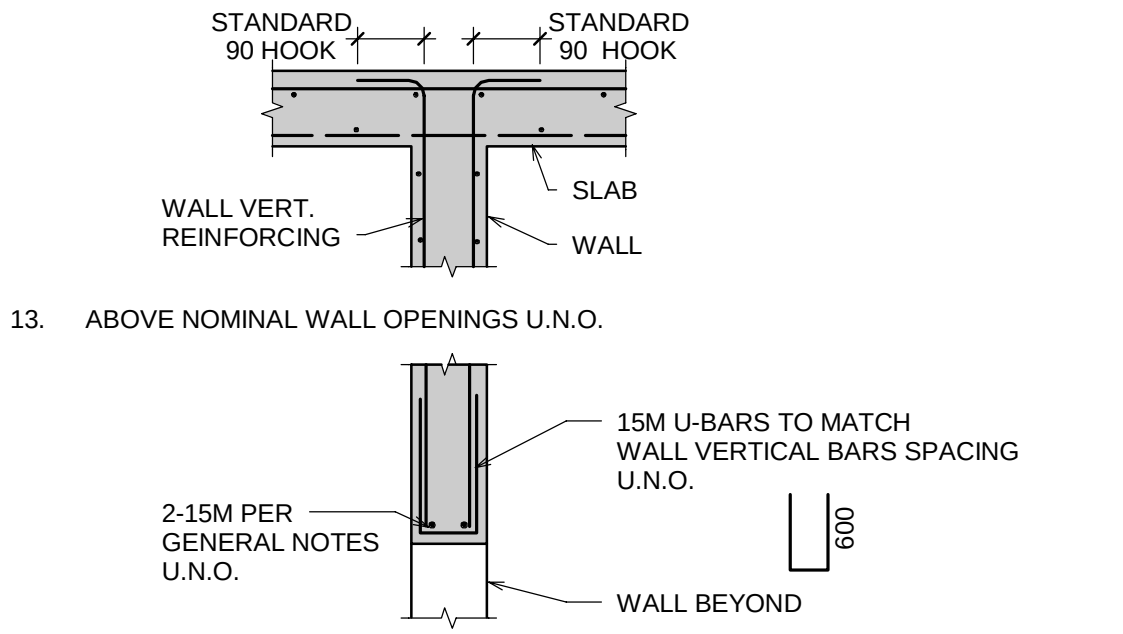
9. SEE ARCHITECTURAL DRAWINGS FOR EXTENT, THICKNESS AND LOCATION OF CONCRETE UPSTAND WALLS, PLANTER WALLS AND CURBS. BELOW ARE TYPICAL DETAILS WHERE NOT INDICATED ON PLAN.



10. UNLESS NOTED OTHERWISE, ALL RETAINING WALLS BELOW GRADE AND ALL EXTERIOR WALLS EXPOSED TO THE WEATHER ABOVE GRADE SHALL HAVE CONTROL JOINTS. SEE CONTROL JOINT DETAIL. CONSTRUCTION JOINT MAY REPLACE CONTROL JOINT WHERE REQUIRED. THE LOCATION OF CONTROL JOINTS IN EXPOSED CONCRETE WALLS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW.

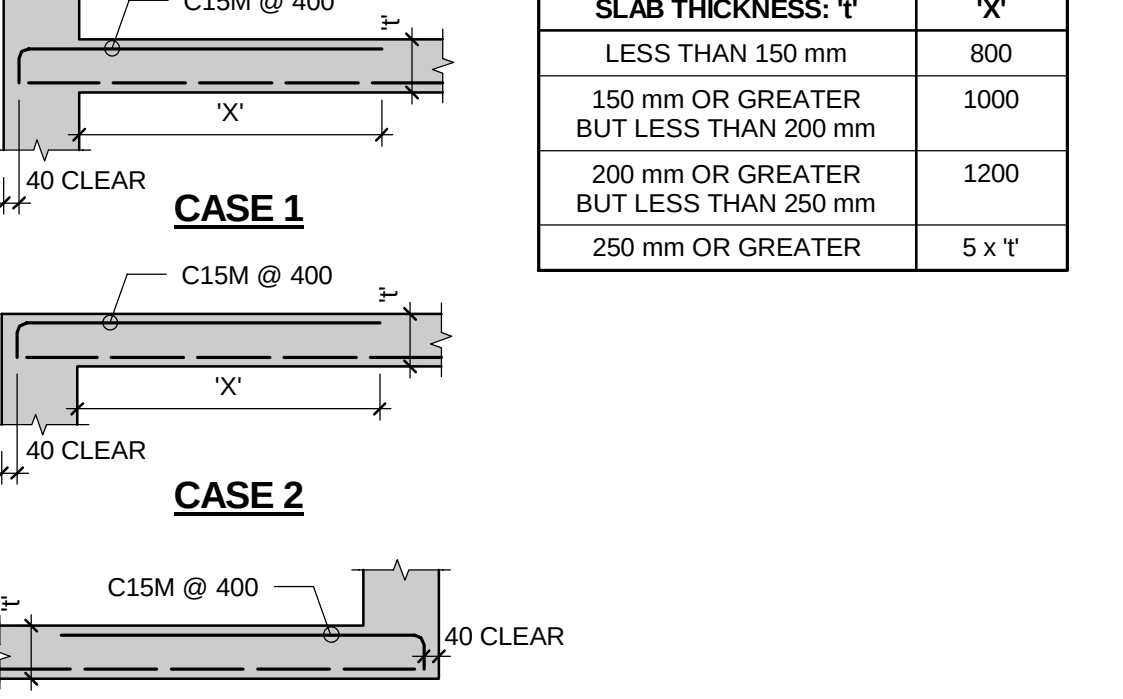
11. UNLESS NOTED OTHERWISE, PLACE TOP OF WALLS 0 mm TO 12 mm BELOW SOFFIT OF SUPPORTED CONCRETE STRUCTURE. IF TOP OF WALL PLACED ABOVE SOFFIT, CAREFULLY CHIP DOWN MIN. 3 DAYS AFTER ELEMENT POURED AND AS REQUIRED BY RJC.

12. TOP OF WALL TRANSITION U.N.O.



TYPICAL SLAB EDGE HOOK BARS - U.N.O.

1. UNLESS OTHERWISE NOTED ON THE STRUCTURAL DRAWINGS, ALL SLAB EDGES TO HAVE 15M HOOK BARS AS SHOWN ON EITHER CASE 1, CASE 2, OR CASE 3:



2. FOR THINNER SLABS, STANDARD 90° HOOK TO BE ANGLED TO FIT WITHIN SLAB THICKNESS. HOOK LENGTH NOT TO BE CUT.

CONCRETE WALLS

1. THESE NOTES APPLY SPECIFICALLY TO CONCRETE WALLS NOT CLASSIFIED AS SHEAR WALLS. SEE ALSO CONC. SHEAR WALL NOTES.

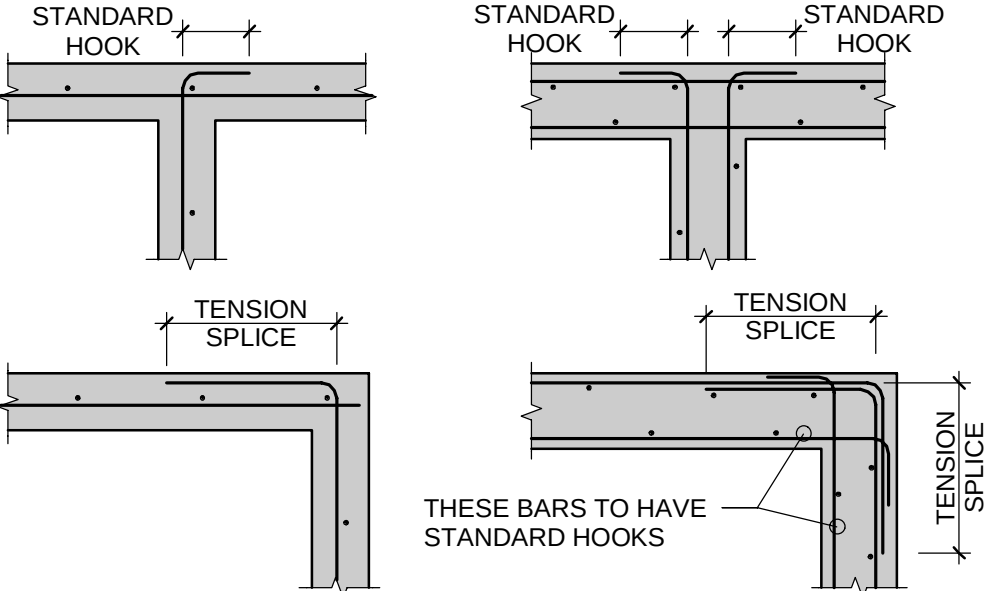
UNLESS OTHERWISE NOTED, WALLS SHALL BE REINFORCED AS FOLLOWS:

WALL THICKNESS	REINFORCING	
150mm	10M @450 V.	10M @330 H.
200mm	10M @330 V.	10M @250 H. OR 15M @500 H.
200mm	10M @500 VEF.	10M @500 HEF.
250mm	10M @500 VEF.	10M @400 HEF.
300mm	10M @440 VEF.	10M @330 HEF.
350mm	10M @380 VEF.	10M @280 HEF.
400mm	10M @330 VEF.	10M @250 HEF. OR 15M @500 HEF.

FOR OTHER THICKNESSES, REINFORCEMENT TO BE PROPORTIONAL TO ABOVE.

15M @ 500 MAY BE SUBSTITUTED FOR 10M @ 330 ONLY WITH THE APPROVAL OF RJC. FOR WALLS WITH A SINGLE LAYER OF STEEL, THE WALL REINFORCING SHALL BE PLACED IN THE CENTRE OF THE WALL U.N.O.

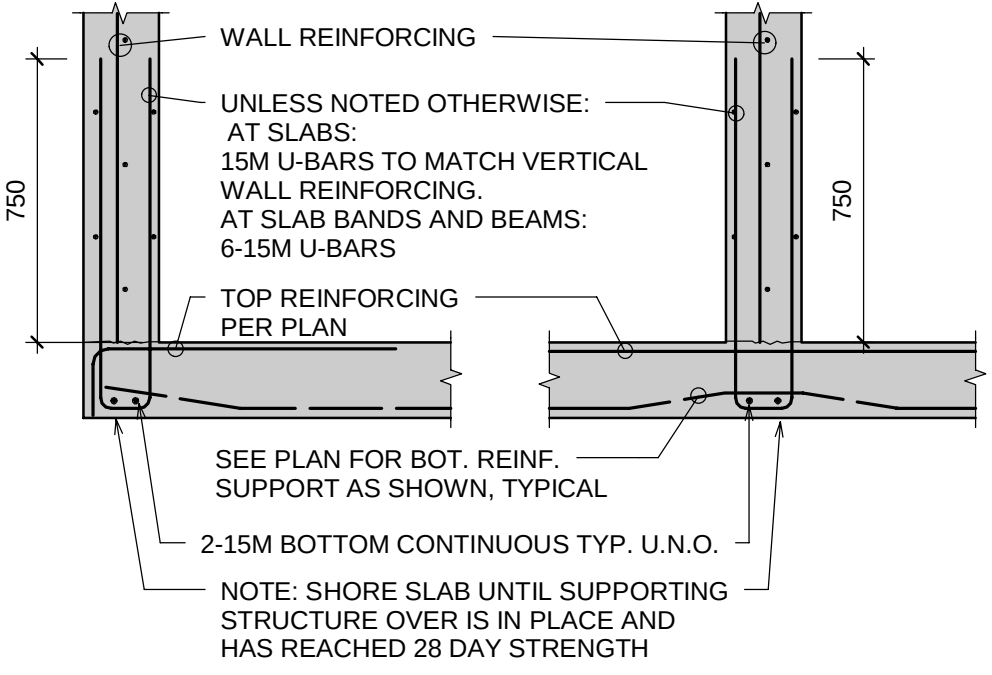
2. PLACE HORIZONTAL REINFORCEMENT IN OUTER LAYERS OF THE CURTAINS AND VERTICALS AS 2ND INSIDE LAYER (BEHIND HORIZONTALS).
3. ALL WALL REINFORCING SHALL BE CONTINUOUS, WITH HOOKS OR CORNER BARS USED AT ALL WALL JUNCTIONS. EXTEND HOOKS TO FAR FACE OF WALL. CORNER BARS TO BE LOCATED ON OUTSIDE FACE OR CENTRE OF WALL.
4. HORIZONTAL AND VERTICAL SPLICES SHALL BE CASE 1 TENSION SPLICES. U.N.O. HORIZONTAL BARS NEED NOT BE CONSIDERED TOP BARS.
5. DETAILS OF HORIZONTAL REINFORCEMENT AT CORNERS (SEE ALSO ZONE REINFORCING DETAILS):



NOTE: SPLICED C BARS CAN BE USED INSTEAD OF HORIZONTAL BARS WITH STANDARD HOOK.

CORNER BARS CAN BE USED INSTEAD OF HORIZONTAL BARS WITH TENSION SPLICE LENGTH HOOK.

5. ENDS OF ALL WALLS SHALL HAVE 2-15M VERTICAL LAPPED 625 UNLESS OTHERWISE NOTED ON DRAWINGS.
6. ADD 2-15M PARALLEL TO ALL EDGES AND EXTENDING 625 BEYOND CORNERS AT OPENINGS IN WALLS.
7. UNLESS NOTED OTHERWISE, PROVIDE DOWELS AT BOTTOM OF WALLS (I.E. AT FOOTINGS OR WHEREVER WALL BEGINS) AS SHOWN BELOW. DOWELS TO MATCH VERTICAL STEEL.
8. UNLESS NOTED OTHERWISE, PROVIDE U-BARS AS SHOWN WHERE FLOORS ARE SUPPORTED FROM THE BOTTOM OF WALLS.



CONCRETE REINFORCEMENT

1. REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS:

- A. CAN/CSA-G30.18R - GRADE 400 MPa - 10M AND LARGER (U.N.O.)
- B. CSA STANDARD G30.5 - GRADE 400 MPa - WELDED WIRE REINFORCEMENT
- C. CAN/CSA-G30.18W - GRADE 400 MPa - ALL REINFORCING THAT WILL BE WELDED OR IS PART OF THE SEISMIC RESISTING ELEMENTS: REINFORCING FOR SHEAR WALLS, HEADERS AND ZONES (INCLUDING ZONE TIES AND HEADER TIES/STIRRUPS) AND MOMENT FRAME COLUMNS AND BEAMS (INCLUDING COLUMN TIES AND BEAM STIRRUPS).
- D. CSA STANDARD G279 - PRESTRESSING STRANDS
- E. EPOXY REINFORCING - ASTM A775M AND ASTM D3963
- F. GALVANIZED REBAR

(NOTE: G30.18W MAY BE SUBSTITUTED FOR G30.18R)

2. UNLESS OTHERWISE NOTED CONCRETE COVER TO REINFORCEMENT SHALL BE:

- A. FOR FIRE RATINGS:

ELEMENT	FIRE RATINGS	
	0-2 HOURS	3 HOURS
BEAMS, GIRDERS, COLUMNS, FORMED PILES (TO TIES OR STIRRUPS)	40 mm	40 mm
SLABS AND SLAB BANDS (NON-PARKING), STIRRUPS IN SLAB BANDS, ZONE TIES, NON RETAINING WALLS	25 mm (30M = 30 mm)	35 mm
SLABS AND SLAB BANDS (PARKING WITH MEMBRANE)	TOP COVER	40 mm
	BOT. COVER	30 mm
STRUCTURAL SLAB ON GRADE (NON PARKING)	TOP COVER	25 mm (30M = 30 mm)
	BOT. COVER	30 mm
STRUCTURAL SLAB ON GRADE (PARKING)	TOP COVER	55 mm
	BOT. COVER	55 mm
RETAINING/FOUNDATION WALLS (F-2 EXPOSURE)	INSIDE FACE	25 mm (30M = 30 mm)
	GROUND OR EARTH SIDE	40 mm (30M = 45 mm)
RETAINING/FOUNDATION WALLS - PARKING (C-1 EXPOSURE)	INSIDE FACE	40 mm (30M = 45 mm)
	GROUND OR EARTH SIDE	40 mm (30M = 45 mm)

- B. CONCRETE CAST AGAINST EARTH OR GROUND ----- 75 mm
- C. CONCRETE WITH NO MEMBRANE (NON-PARKING) --- 60 mm OR 2d AND EXPOSED TO CHLORIDES - EXPOSURE CLASS (WHICHEVER IS GREATER)
- D. FORMED FINISHED CONCRETE EXPOSED TO WEATHER, EXPOSURE CLASS F1, F2, S1, S2 OR EARTH ----- 40 mm OR 1.5d (WHICHEVER IS GREATER)
- E. COLUMNS AND INTERIOR WALLS IN PARKING AREAS ----- 40 mm OR 1.5d (WHICHEVER IS GREATER)

NOTES:

LARGEST COVER REQUIRED GOVERNS.

SEE ARCHITECTURAL DRAWINGS AND STRUCTURAL DRAWINGS FOR AREAS WHICH MAY REQUIRE 3 HOUR RATINGS.

SEE STRUCTURAL DRAWINGS FOR AREAS CLASSIFIED AS (C) or (D) ABOVE FOR WEATHER EXPOSURE.

3. DESIGNATION OF REINFORCING BARS:

- A. BARS SHOWN THUS _____ IN BOTTOM OF BEAMS OR SLABS OR IN FAR FACE OF WALL
- BARS SHOWN THUS _____ IN TOP OF BEAMS OR SLABS OR IN FAR FACE OF WALL
- B. STRAIGHT BARS:
- E.G. **6-10M4200** MEANS 6-10M BARS 4200 mm LONG. _____
- E.G. **20M4000 @ 300 ST 600** MEANS 600 END OFFSET FOR EACH 20M4000 BAR SPACED AT 300mm c/c IF STAGGER NOT SHOWN SEE SLAB REINFORCING LAYOUT TYP. DETAILS.
- BENT BARS:
- E.G. **6-C15M4000 @300** MEANS 6-15M BARS 4000 mm LONG INCLUDING HOOK LENGTH H.1.E. 90° AND SPACED AT 300mm c/c
- E.G. **6-A15M3000 @300** MEANS 6-15M BARS 3000 mm LONG INCLUDING HOOK LENGTH H.1.E. 180° AND SPACED AT 300mm c/c
- E.G. **15M @300 H2E** MEANS 15M BARS SPACED AT 300mm c/c WITH H.1.E. 90° AT EACH END.

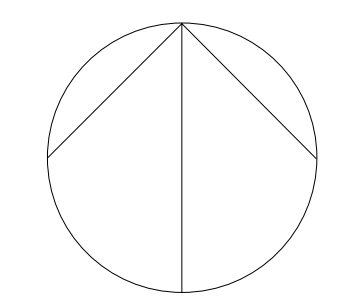
4. DO NOT SUBSTITUTE DEFORMED WIRE FOR REINFORCING BARS WITHOUT PRIOR APPROVAL OF THE RJC.
5. SUPPORT REINFORCING WITH CHAIRS, ACCESSORIES, OR REINFORCING BARS AS REQUIRED. BARS USED AS SUPPORT BARS SHALL BE CONSIDERED AS ACCESSORIES.
6. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN CONCRETE COVER AS SPECIFIED. ALL SUPPORTS AND BARS MUST BE TIED TOGETHER TO MAINTAIN REINFORCING STEEL SECURELY IN PLACE DURING CONCRETE PLACEMENT.
8. TESTING OF REINFORCING STEEL SHALL CONFORM TO THE SPECIFICATIONS.

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or purpose without the prior written consent of RJC.
2. These drawings are "design drawings" only.
- They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.
- The work "as constructed" may vary from what is shown on these drawings.
- Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.
- The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-12-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title:

GENERAL NOTES & TYPICAL DETAILS

Drawn :	Scale :	Date :
Project Number : TOR.111805.0001	Drawing Number :	S-104
Drawing Stage: CD		

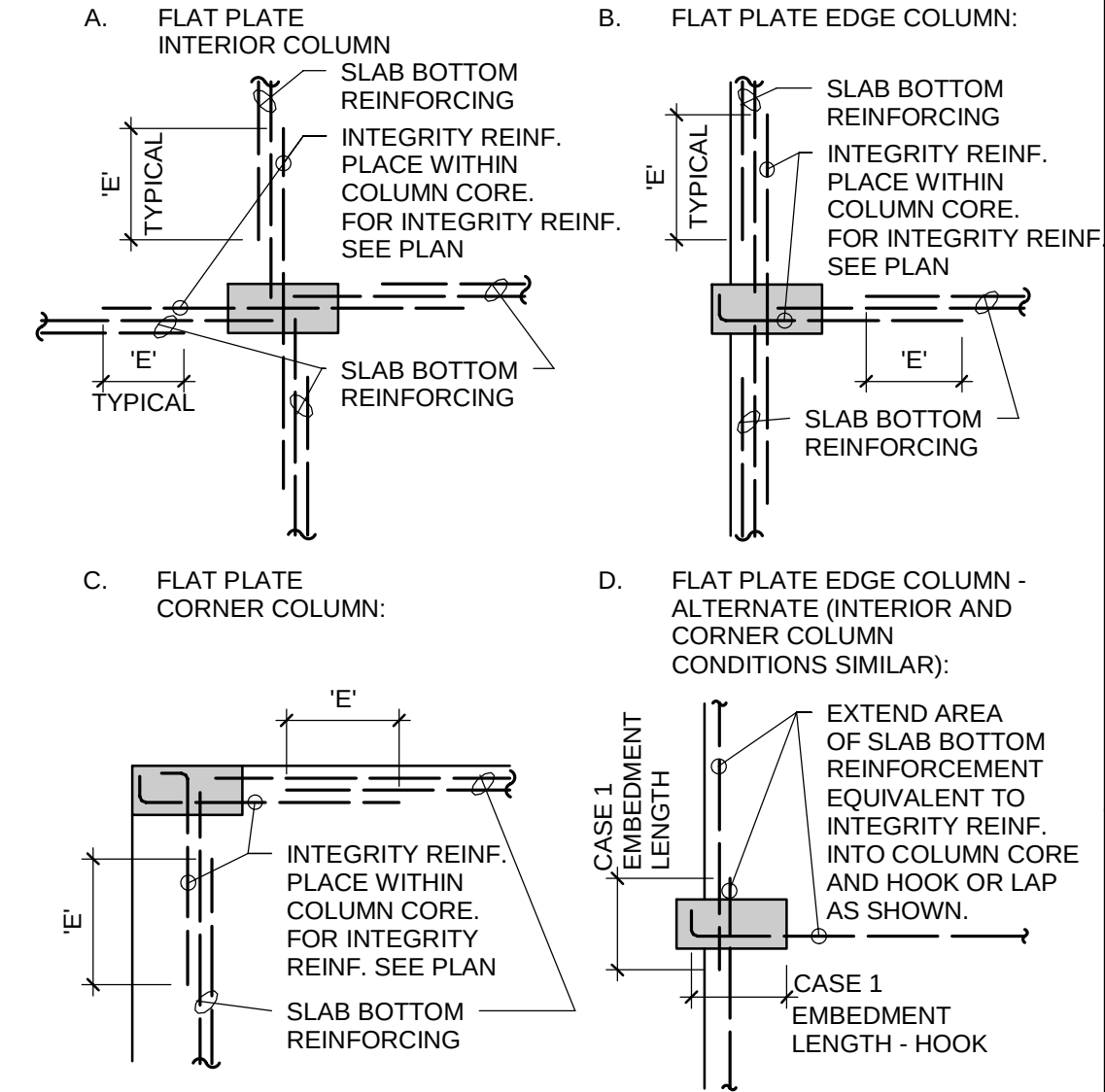
TYPICAL SLAB INTEGRITY REINFORCEMENT

INTEGRITY REINFORCEMENT FOR FLAT PLATE SLABS

- UNLESS NOTED OTHERWISE ON PLAN, ALL FLATE PLATE SLABS TO HAVE THE FOLLOWING INTEGRITY REINFORCEMENT:

SLAB THICKNESS	REINFORCING
150 mm TO 175 mm	2-15M EACH WAY
180 mm TO 200 mm	3-15M EACH WAY
210 mm TO 225 mm	4-15M EACH WAY
230 mm TO 250 mm	3-20M EACH WAY

- TYPICAL FLAT PLATE SLAB INTEGRITY REINFORCEMENT BAR ARRANGEMENTS: (NOTE: UNLESS NOTED OTHERWISE, 'E' = 2 TIMES CASE 1 EMBEDMENT LENGTH)



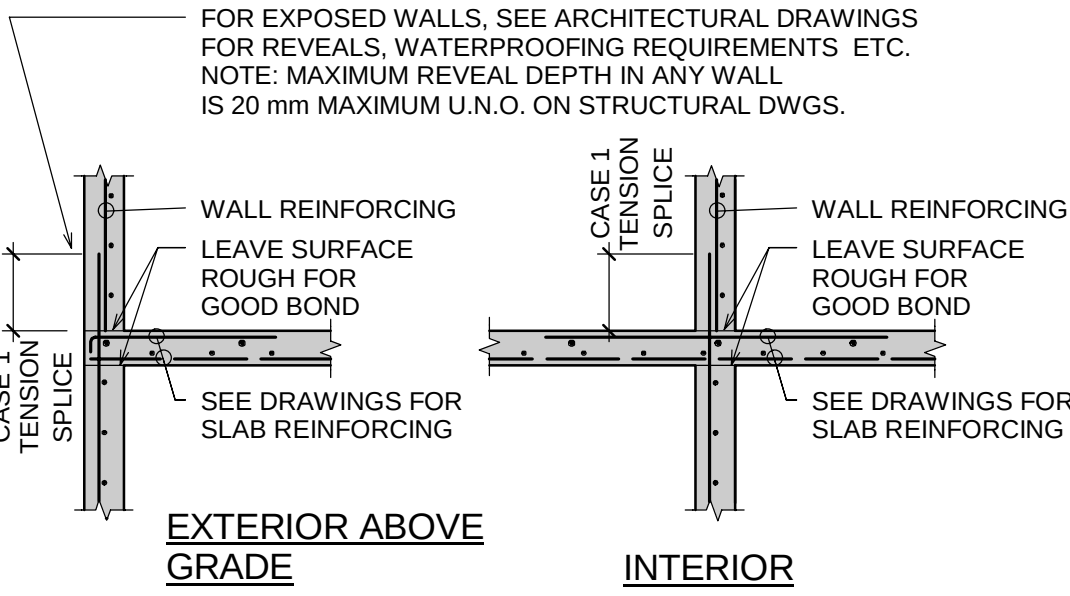
SLAB TEMPERATURE REINFORCING

- MINIMUM REINFORCEMENT BOTTOM EACH WAY (UNLESS NOTED OTHERWISE)

SLAB THICKNESS (mm)	TEMPERATURE REINFORCING INTERIOR SLAB	TEMPERATURE REINFORCING EXPOSED EXTERIOR SLAB	SLAB THICKNESS (mm)	TEMPERATURE REINFORCING INTERIOR SLAB	TEMPERATURE REINFORCING EXPOSED EXTERIOR SLAB
125(5")	10M @ 400	10M @ 270	230	15M @ 440	15M @ 290
130	10M @ 390	10M @ 260	240	15M @ 420	15M @ 280
140	10M @ 360	10M @ 240	250(10")	15M @ 400	15M @ 270
150(6")	10M @ 330	15M @ 440	260	15M @ 390	15M @ 260
160	10M @ 320	15M @ 420	270	15M @ 380	15M @ 250
170	10M @ 300	15M @ 400	275(11")	15M @ 360	20M @ 360
175(7")	10M @ 290	15M @ 380	280	15M @ 360	20M @ 360
180	10M @ 280	15M @ 380	290	15M @ 350	20M @ 350
190	10M @ 270	15M @ 360	300(12")	20M @ 500	20M @ 330
200(8")	15M @ 500	15M @ 330			
210	15M @ 480	15M @ 320			
220	15M @ 460	15M @ 310			
225(9")	15M @ 440	15M @ 300			

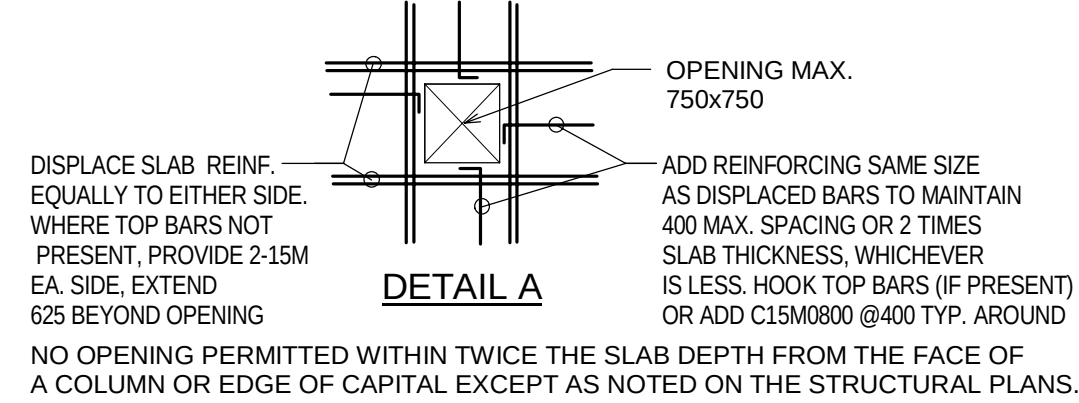
SLAB POUR JOINTS

(UNLESS NOTED OTHERWISE)



SLABS

- UNLESS OTHERWISE NOTED, THE MINIMUM BOTTOM REINFORCING IN BOTH DIRECTIONS IN SLABS SHALL BE AS SHOWN ON SLAB TEMPERATURE REINFORCING NOTES. THIS DOES NOT APPLY TO POST-TENSIONED SLABS IN THE DIRECTION OF POST-TENSIONING.
- UNLESS OTHERWISE NOTED, EDGES OF ALL SLABS SHALL HAVE 2-15M BOTTOM CONTINUOUS LAPPED 625 mm. AT RE-ENTRANT CORNER EXTEND 625 mm BEYOND THE CORNER.
- ALL OPENINGS IN SLAB SHALL HAVE 2-15M BARS T&B PARALLEL TO ALL EDGES EXTENDING 625 mm BEYOND CORNERS - SEE DETAIL A.
- UNLESS OTHERWISE NOTED, SLAB REINFORCING SHALL NOT BE CUT AT PLUMBING OR OTHER OPENINGS. SPREAD REINFORCING AROUND OPENINGS.
- CAMBERS: FOR SLABS, BEAMS, GIRDERS
 - CIRCLED NUMBERS, E.G. (16) INDICATES POSITION AND MAGNITUDE OF POINTS WHERE SLABS SHALL BE CAMBERED 16 mm.
 - FOR SPANS OVER 7000 mm WHEN CAMBERS ARE NOT INDICATED ON DRAWINGS, SPANS SHALL BE CAMBERED 0.002 OF SPAN.
 - UNLESS NOTED OTHERWISE, POST-TENSIONED SLABS AND BEAMS NEED NOT BE CAMBERED.
- LOCATIONS AND DETAILS OF CONSTRUCTION JOINTS TO BE SUBMITTED TO RJC FOR REVIEW AND APPROVAL, PRIOR TO CONSTRUCTION.
- UNLESS OTHERWISE NOTED, SLAB TEMPERATURE REINFORCING SHALL BE SPLICED USING A CASE 1 TENSION SPlice SEE "EMBEDMENT / DEVELOPMENT LENGTHS AND SPlice LENGTHS" GENERAL NOTE.
- WHERE NOTED ON PLAN SLAB RECESSES TO HAVE SLAB THICKNESS LOCALLY REDUCED VERSUS SLAB DEPRESSION TO HAVE SLAB THICKNESS MAINTAINED. SEE ALSO SUSPENDED SLAB STEP DETAILS FOR REINFORCING REQUIREMENTS.

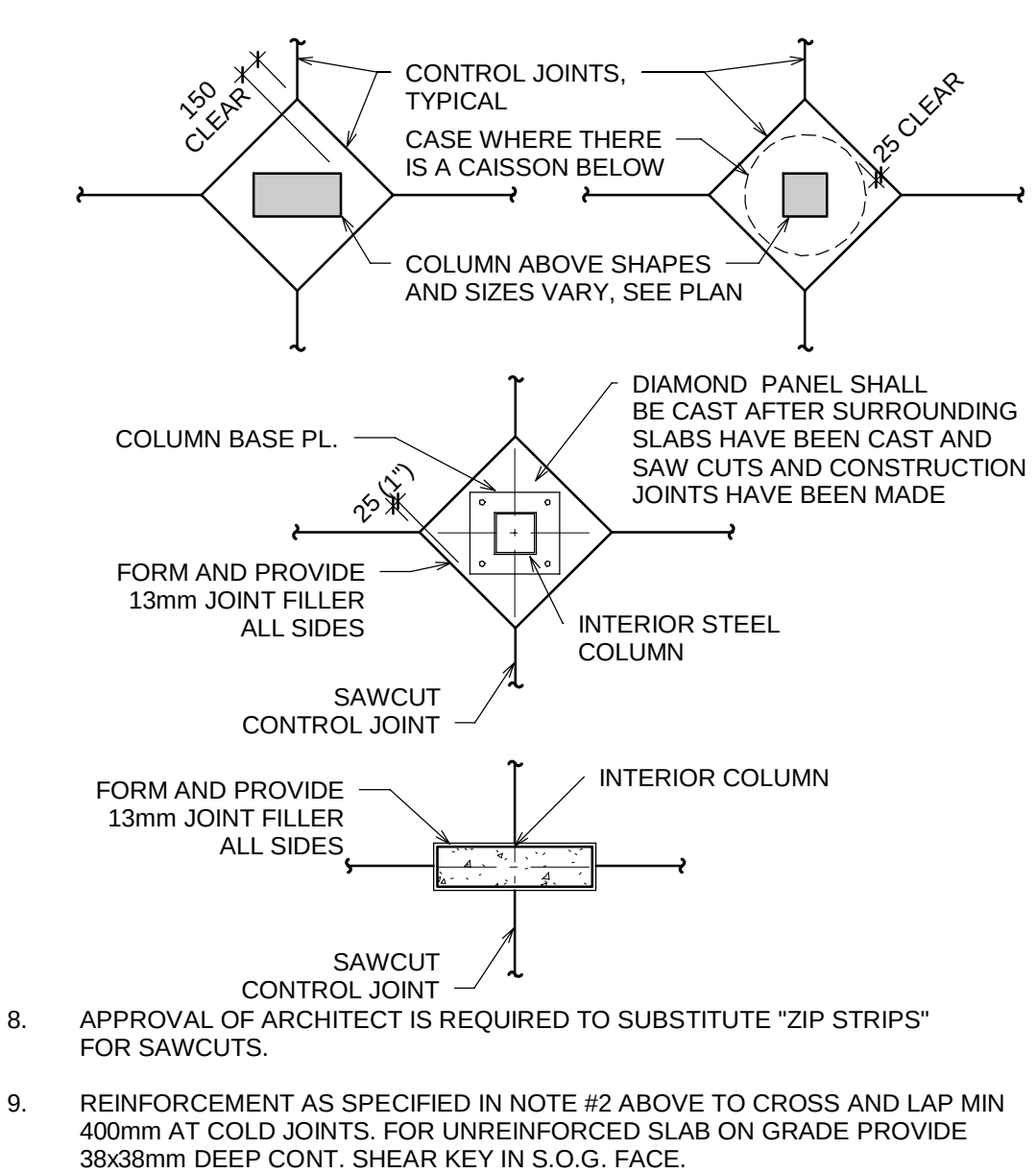


SLAB ON GRADE REINF. & CONTROL JOINTS

- SLAB ON GRADE SHALL BE PLACED ON SOIL CAPABLE OF SUSTAINING 25.0 kPa MIN. WITHOUT SETTLEMENT RELATIVE TO THE BUILDINGS FOOTINGS. IN AREAS WHERE S.O.G. USED TO SUPPORT TEMPORARY SHORING LOADS, LARGER SUBGRADE CAPACITIES MAY BE REQUIRED PER LOADS SUPPLIED BY TEMPORARY WORKS ENGINEER.
- REINFORCE SLAB ON GRADE PER TABLE BELOW LOCATED 40mm FROM SLAB WITH PROPER CHAIRS.

S.O.G. THICKNESS	MIN. REINFORCING U.N.O. ON PLAN
≤ 125mm	152x152 MW 18.7 x MW 18.7
126mm TO 175mm	10M @400 E.W.
>176mm	15M @400 E.W.

- UNLESS MORE RIGOROUS REQUIREMENTS ARE INDICATED ELSEWHERE ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS, SPACE CONTROL JOINTS AT 4500 mm O/C MAXIMUM.
- SAWCUT JOINTS 4mm WIDE AND 38 mm DEEP AS SOON AS PRACTICAL, NOT LATER THAN 12 HOURS AFTER PLACEMENT OF SLAB. USE EQUIPMENT DOES NOT "RAVEL" THE EDGES OF THE CUT, SEAL AS REQUIRED.
- UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, RUN ANY SLAB ON GRADE REINFORCEMENT THROUGH THE JOINTS.
- UNLESS NOTED OTHERWISE, SAWCUT DIAMOND PATTERN AROUND COLUMNS, 150 mm CLEAR OF COLUMNS.
- UNLESS NOTED OTHERWISE, FORM A DIAMOND SHAPE AROUND COLUMNS, 150 mm CLEAR, AND DO NOT RUN REINFORCEMENT THROUGH. PLACE INFILL AROUND COLUMN 28 DAYS AFTER SLAB ON GRADE PLACED.



COLUMN TIE ARRANGEMENTS - U.N.O.

TYPE	TYPE 1	TYPE 2	TYPE 3	TYPE 4
4 BAR COL.				
6 BAR COL.				
8 BAR COL.				
10 BAR COL.				
12 BAR COL.				
14 BAR COL.				
16 BAR COL.				
20 BAR COL.				
WALL LIKE COLUMN				

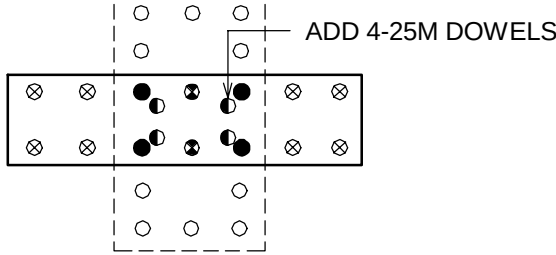
NOTES:

- SEE TABLE 3 FOR VERTICAL TIE SPACING REQUIREMENTS.
 - MAXIMUM CLEAR DISTANCE BETWEEN VERTICAL BARS ENCLOSED BY THE CORNER OF A TIE, AND WITHOUT AN INTERMEDIATE BAR, IS 500 mm.
 - MAXIMUM ONE BAR MAY BE PLACED BETWEEN TIED BARS. MAXIMUM CLEAR DISTANCE BETWEEN TIED VERTICAL BARS FOR THIS CASE IS 300 mm.
 - ALL TIES SHALL HAVE 135° HOOKS, EXCEPT FOR SINGLE CROSS TIES WHERE ONE HOOK IS 135° AND THE OTHER IS 90°.
 - CLOSED TIES MAY ALWAYS BE SUBSTITUTED FOR CROSS-TIES.
 - ADD SINGLE CROSS TIES WHEN D > 150mm.
 - THE 90° HOOKS OF SUCCESSIVE TIES HORIZONTALLY AND VERTICALLY SHALL BE ALTERNATED END FOR END.
 - ALL COLUMN TIE ARRANGEMENTS ARE TYPE 1 U.N.O. IN COLUMN SCHEDULE.
1. 'A', 'C' = 500 MAX. 'B' = 300 MAX. TYPICAL AT ALL TIES - ANY SIDE OF COLUMN
- TYPICAL ROUND OR OCTAGONAL COLUMN TIES 6 VERTICAL BARS MIN.
- 300 MINIMUM BETWEEN HOOKS

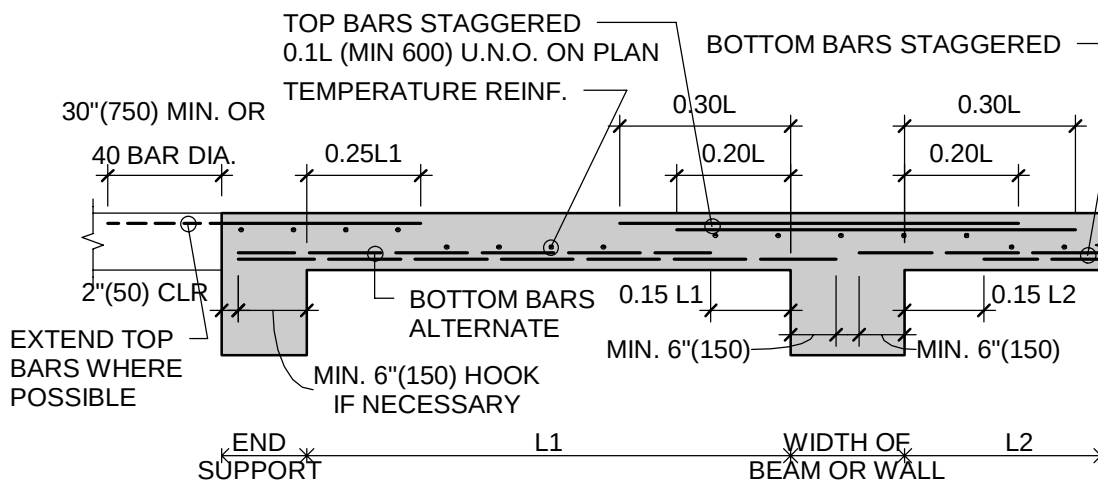
KEY FOR COLUMN TRANSITION DETAILS

	COLUMN VERTICALS FROM COLUMN BELOW (PROJ. STANDARD COMPRESSION SPlice EXCEPT WHERE OTHERWISE INDICATED)
	TERMINATED VERTICALS FROM COLUMN BELOW.
	ADDITIONAL STRAIGHT COMPRESSION DOWELS FROM COLUMN BELOW TO COLUMN ABOVE, LENGTH AS STANDARD COLUMN SPlice DETAILS.
	DOWELS TO FLOOR SLAB, SIZE TO MATCH UPPER COLUMN VERTICALS. PROJ. STANDARD COMPRESSION SPlice STD STRAIGHT COLUMN DOWELS FOR SLAB THICKNESS GREATER THAN 600mm OTHERWISE PROVIDE STANDARD HOOK.
	DOWELS TO COLUMN BELOW, SIZE TO MATCH UPPER COLUMN VERTICALS. STRAIGHT COMPRESSION DOWEL, LENGTH AS STD COL. SPlice DETAILS

NOTES: (H) IN COL. SCHEDULE INDICATE UNIQUE COL. TRANSITION DETAIL.



TYPICAL ONE WAY SLAB

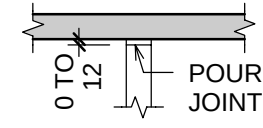


NOTES:

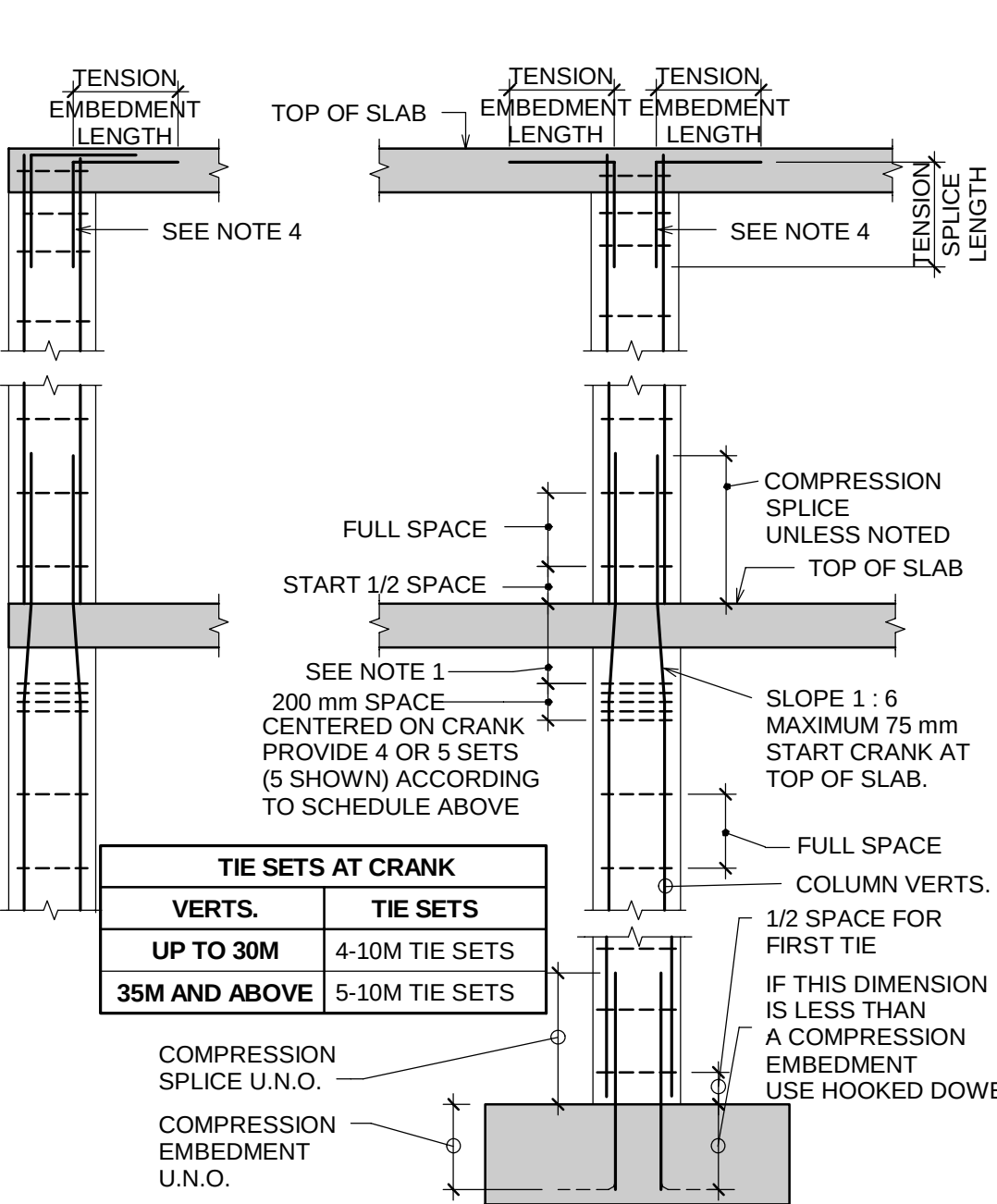
- "L" IS LONGER OF 2 ADJACENT CLEAR SPANS "L1" AND "L2"
- PROVIDE BAR SUPPORTS AND ACCESSORIES TO THE REQUIREMENTS OF REINFORCING STEEL INSTITUTE OF ONTARIO MANUAL.

COLUMNS - U.N.O.

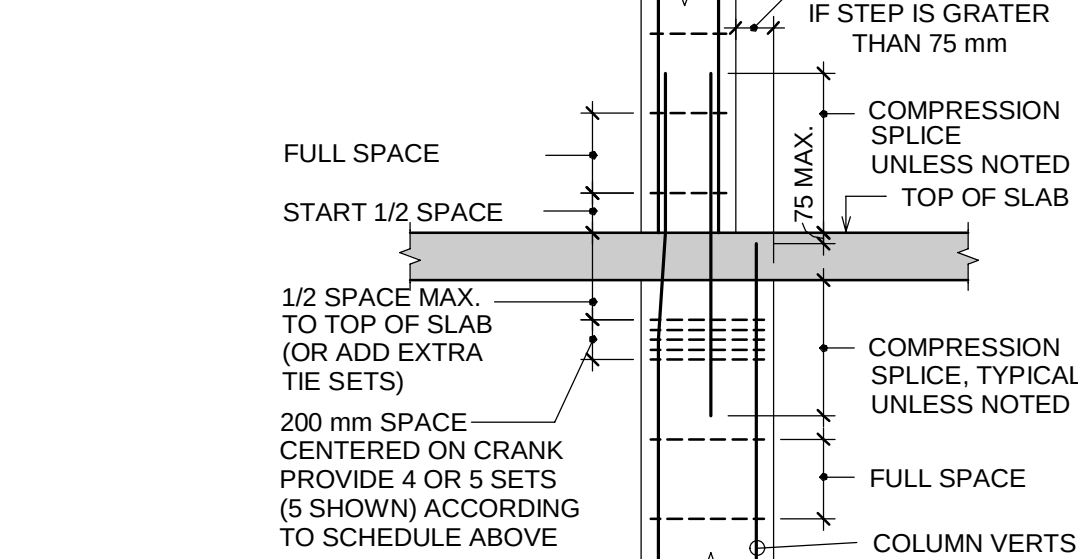
- CONCRETE STRENGTH IN COLUMNS IS INDICATED IN COLUMN SCHEDULE.
- TIE COLUMN CAGES TO FORMS AND SQUARE BEFORE PLACING CONCRETE.
- CONDUITS, BOXES OR OTHER INSERTS SHOULD BE REVIEWED BY RJC.
- UNLESS OTHERWISE NOTED ON COLUMN SCHEDULE, ALL COLUMN SPLICES SHALL BE AS STANDARD DETAILS SHOWN ON THE STRUCTURAL DRAWINGS.
- UNLESS OTHERWISE NOTED, PARKADE COLUMNS SHALL BE CHAMFERED (20 mm X 20 mm).
- UNLESS OTHERWISE NOTED, ALL COLUMN SPLICES SHALL BE COMPRESSION SPLICES.
- WHERE COLUMNS DO NOT EXTEND OVER, EXTEND VERTICAL REINFORCING 600 mm INTO UNDERSIDE OF BEAMS OR TO WITHIN 25 mm OF TOP OF SLABS. DO NOT BEND. ADD HOOK BARS PER SPlice DETAILS.
- UNLESS NOTED OTHERWISE, COLUMNS SHOULD BE CENTRED ON COLUMNS BELOW.
- UNLESS NOTED OTHERWISE, COLUMNS SHALL BE CENTRED ON GRID LINES.
- UNLESS NOTED OTHERWISE, PLACE TOP OF COLUMNS 0 mm TO 12 mm BELOW SOFFIT OF SUPPORTED CONCRETE STRUCTURE, IF TOP OF COLUMN PLACED ABOVE SOFFIT, CAREFULLY CHIP DOWN MIN. 3 DAYS AFTER ELEMENT POURED AND AS REQUIRED BY RJC.



COLUMN SPlice DETAILS - U.N.O.



- WHERE COLUMN STARTS ON BEAM, SLAB, OR WALL PROVIDE DOWELS WITH PROPER EMBEDMENT LENGTH AT THE BASE TO MATCH THE COLUMN VERTICAL REINFORCING.
- ADD ADDITIONAL SETS OF TIES AT 1/2 TIE SPACING MAX. IF THIS DISTANCE IS MORE THAN 1/2 TIE SPACE.
- PROJECT DOWELS EQUAL IN AREA TO VERTICAL COLUMN STEEL ABOVE UNLESS NOTED OTHERWISE. AREA OF VERTICAL REINFORCEMENT IN EXCESS OF THIS NEED ONLY PROJECT THE COMPRESSION DEVELOPMENT LENGTH ABOVE BOTTOM OF CAPITAL, DROP OR WALL.
- CONTINUE COLUMN TIES WITHIN BEAM FRAMING INTO COLUMN IN ADDITION TO TIES AT CRANKED COLUMN BARS.



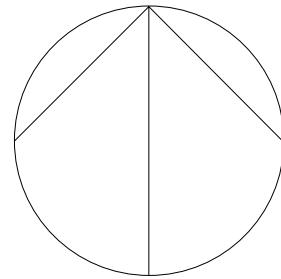
- DOWELS SAME SIZE AND NUMBER AS VERTICAL COLUMN REINFORCEMENT UNLESS NOTED OTHERWISE IN COLUMN SCHEDULE. PLACE THESE BARS IN SAME LAYER AS SLAB STEEL PARALLEL TO SLAB REINFORCING. NOT REQUIRED WHEN COLUMN VERTICALS CAN PROJECT AT LEAST THE TENSION DEVELOPMENT LENGTH INTO CAPITAL OR WHEN COLUMN VERTICALS ARE EXTENDED INTO TOP OF SLAB AND HOOKED EQUAL TO THE TENSION DEVELOPMENT LENGTH IS PROVIDED.

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or purpose without the written consent of RJC.
- These drawings are "design drawings" only.
- They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.
- The work "as constructed" may vary from what is shown on these drawings.
- Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.
- The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-12-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

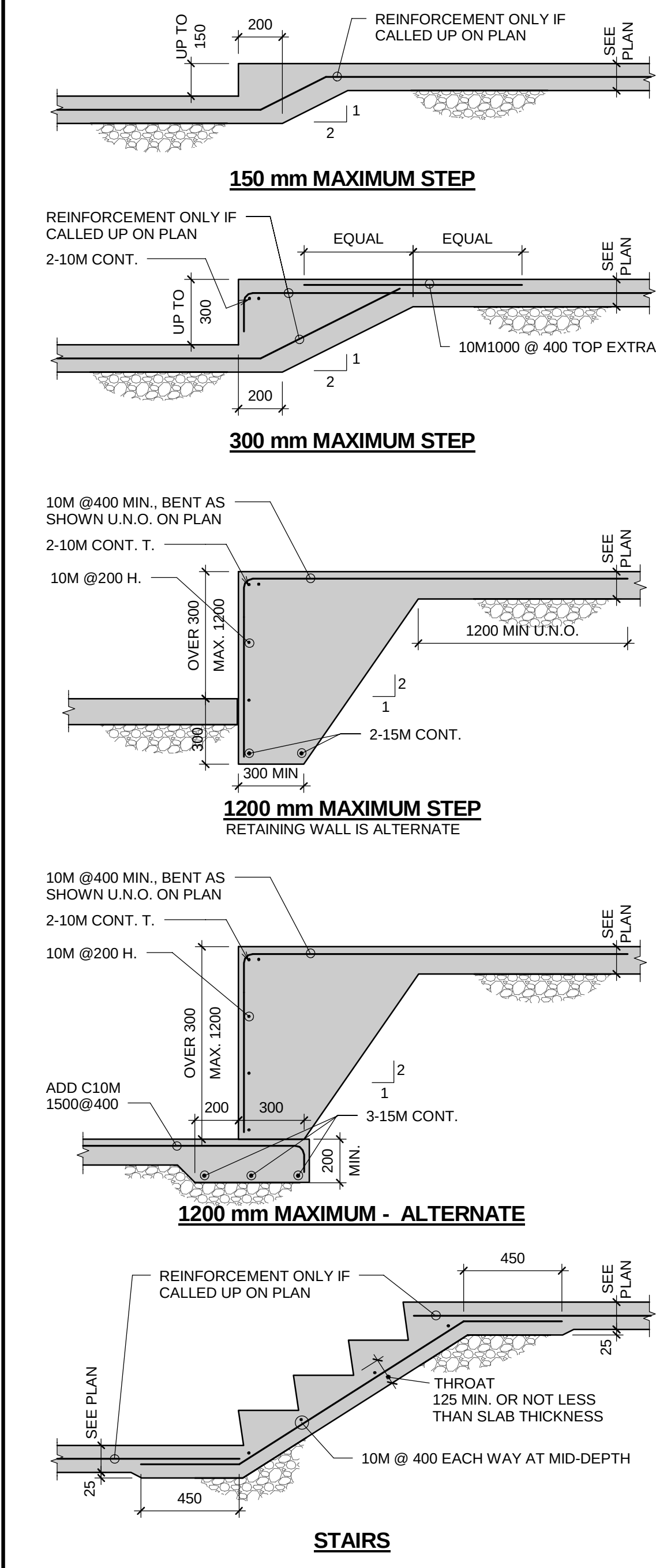
Title:

GENERAL NOTES & TYPICAL DETAILS

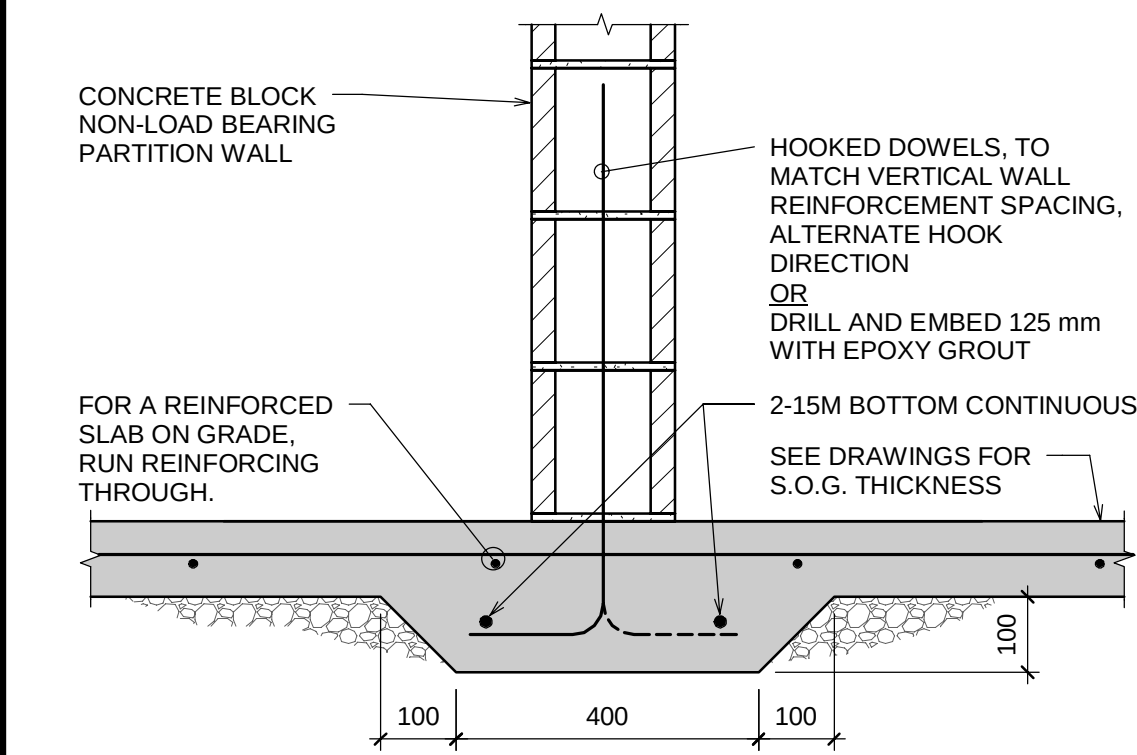
Drawn :	Scale :	Date :
Project Number : TOR.111805.0001	Drawing Number :	
Drawing Stage: CD		

S-105

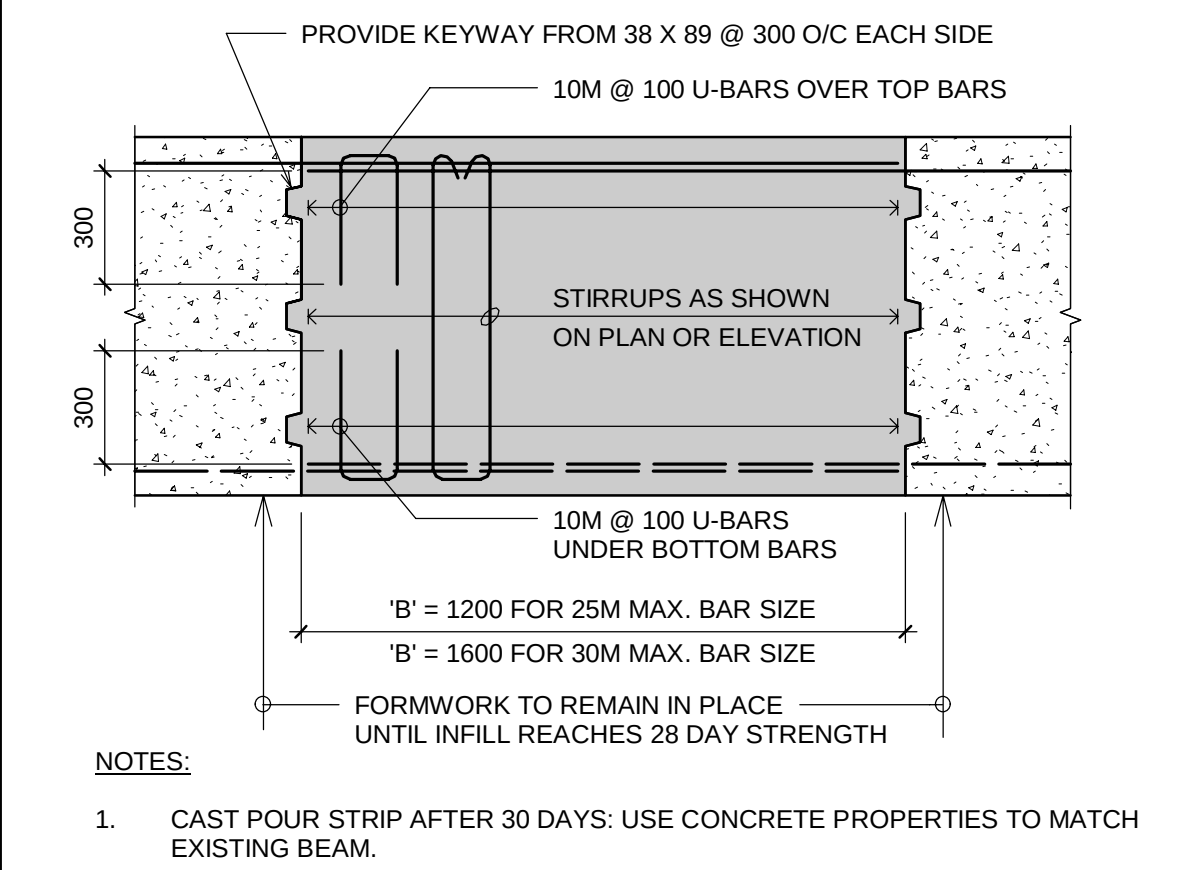
TYPICAL SLAB ON GRADE STEP DETAILS - U.N.O.



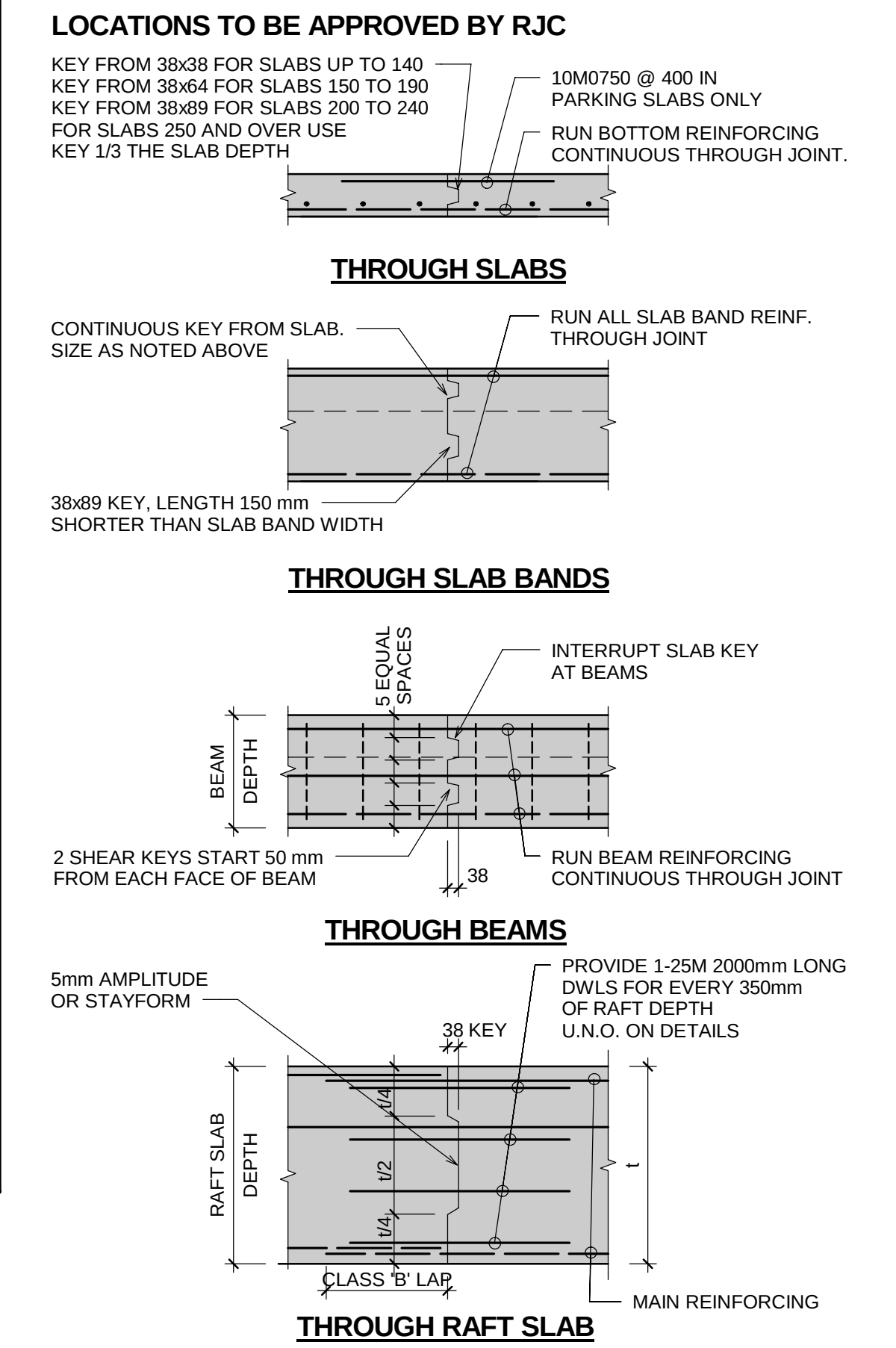
TYPICAL SLAB ON GRADE THICKENING UNDER NON-LOAD BEARING BLOCK PARTITION - U.N.O.



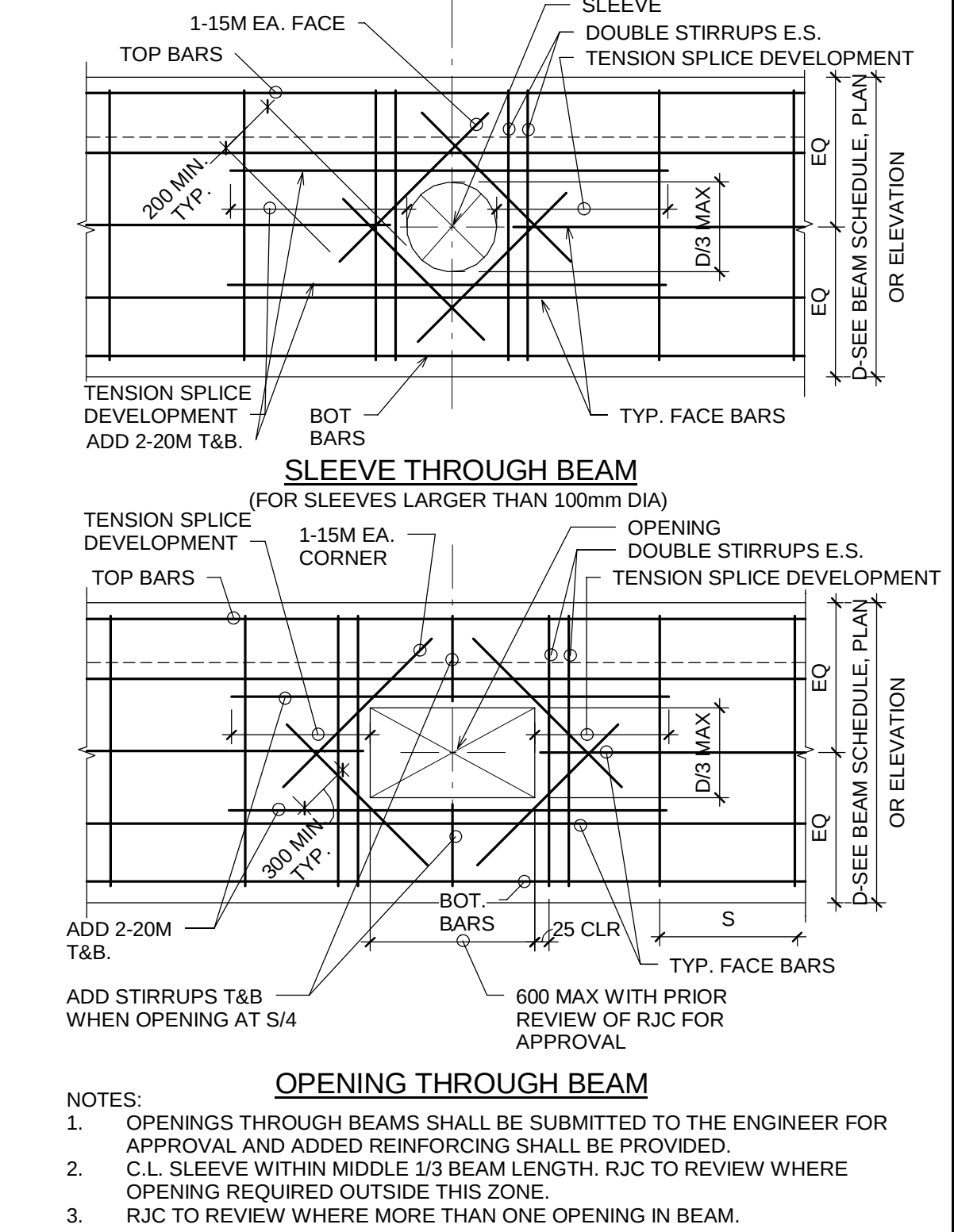
TYPICAL POUR STRIP THROUGH BEAMS U.N.O. ON PLANS OR DETAILS



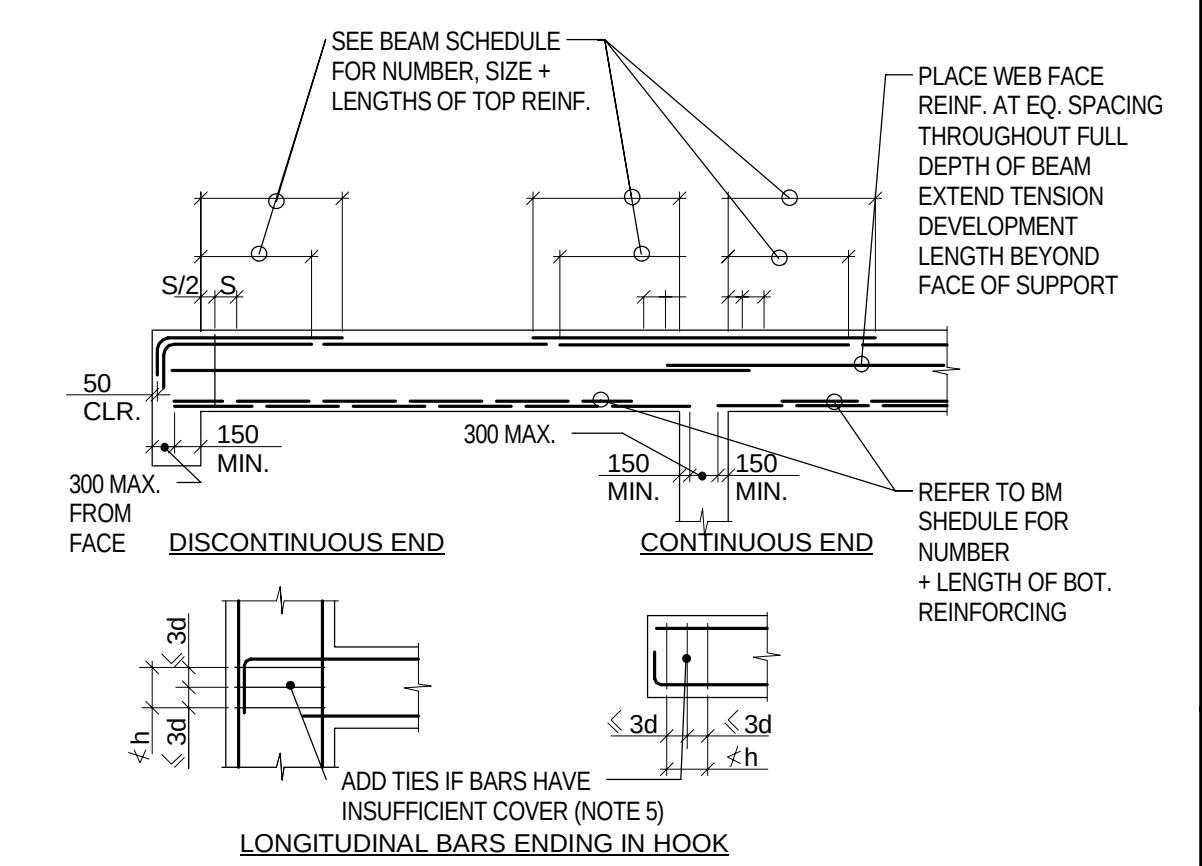
CONSTRUCTION JOINTS THROUGH SLABS, SLAB BANDS, AND BEAMS



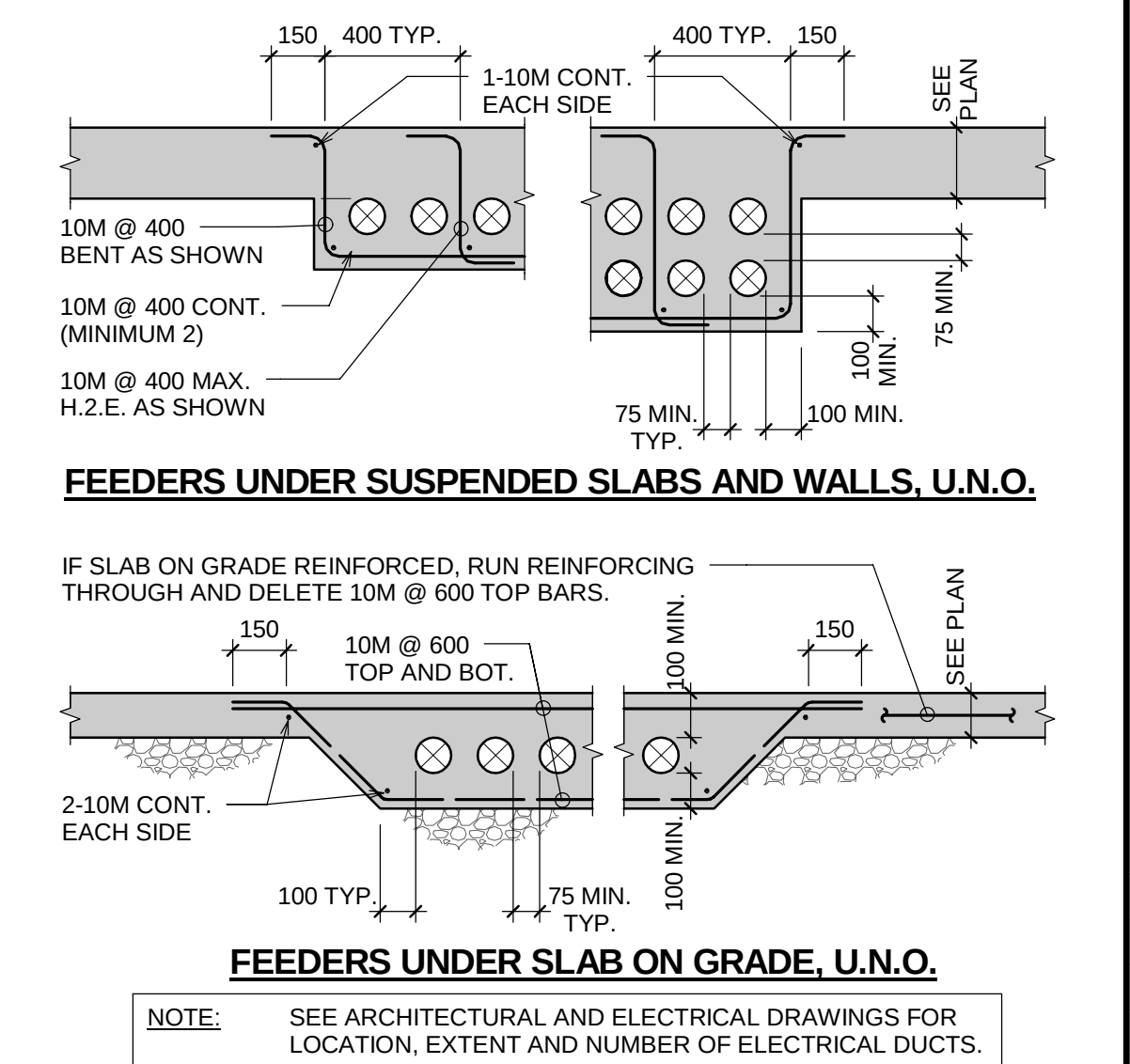
TYPICAL REINFORCING AT BEAM OPENING



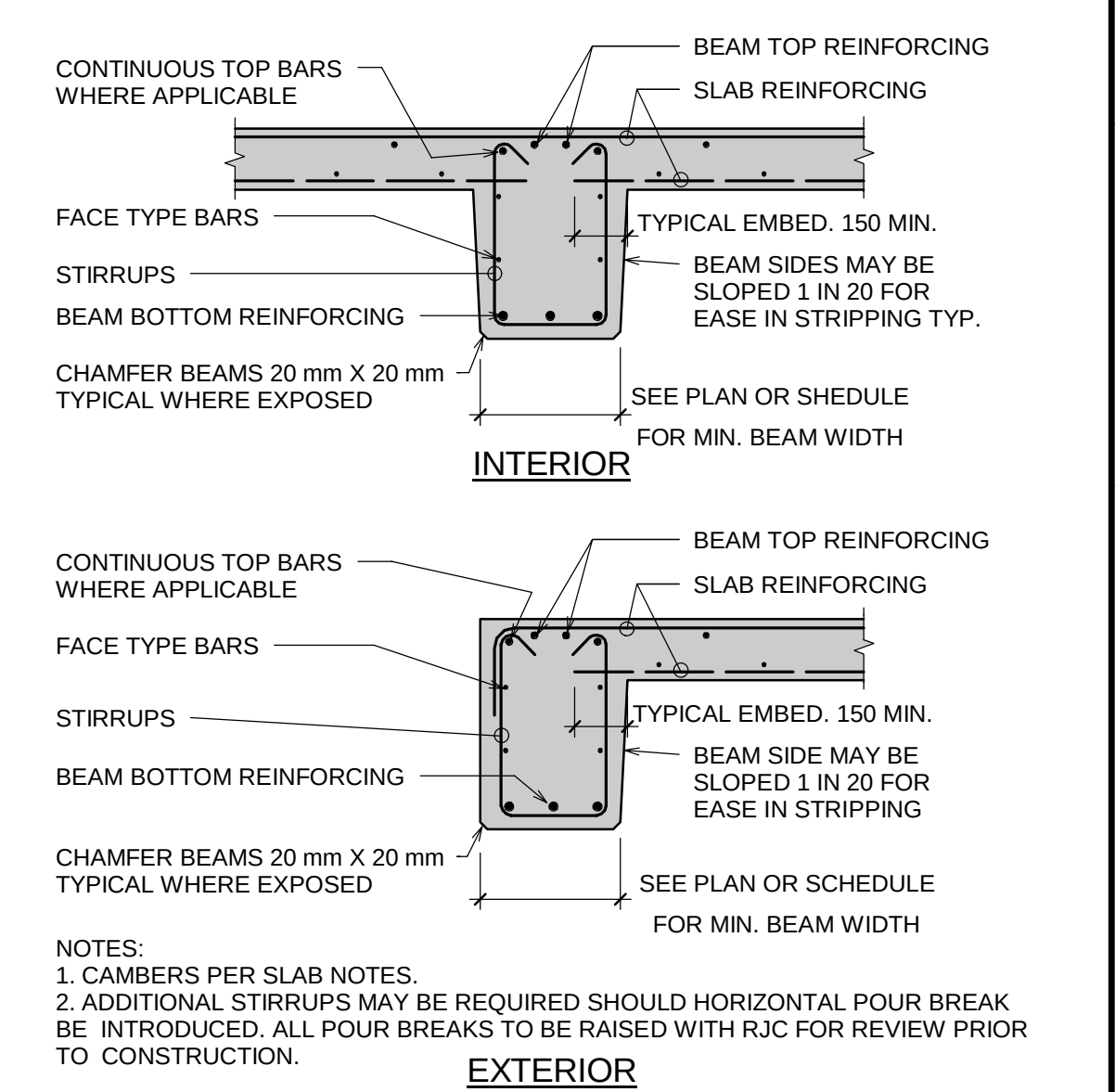
PLACEMENT OF REINFORCING IN CONCRETE BEAMS



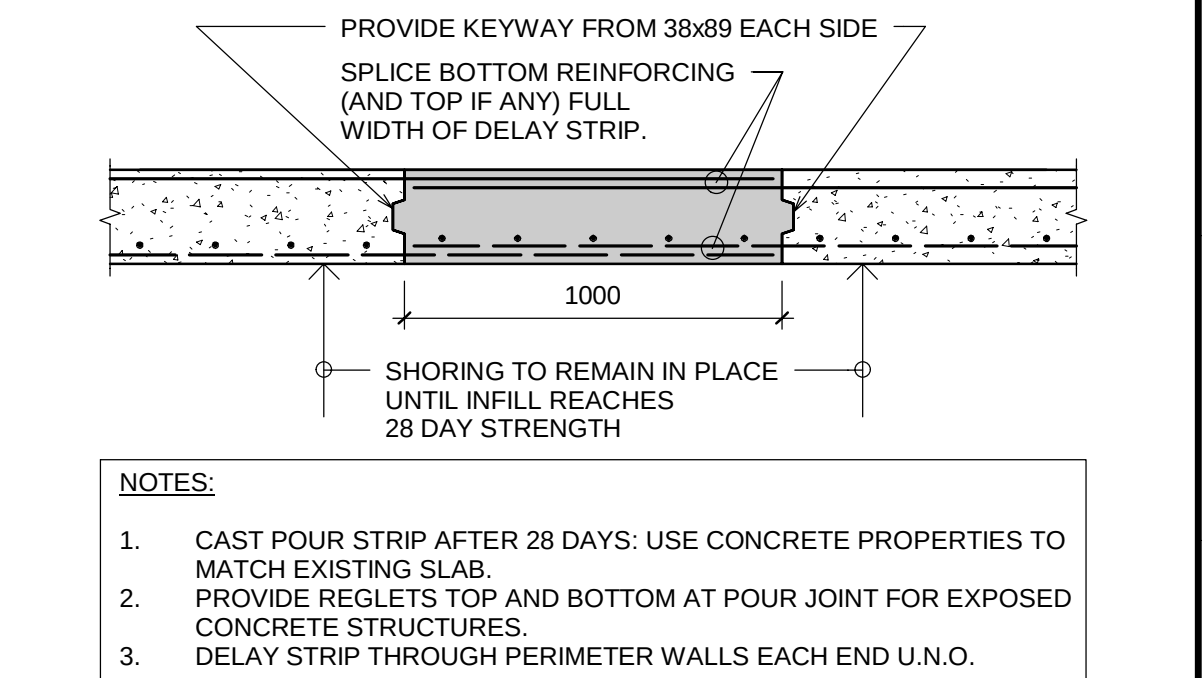
TYPICAL CONCRETE ENCASEMENT OF ELECTRICAL MAIN FEEDERS - U.N.O.



CONCRETE BEAMS

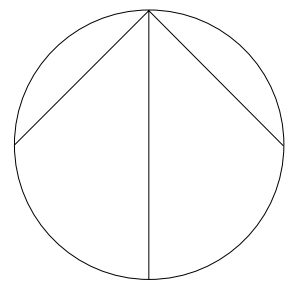


TYPICAL POUR STRIP IN SLABS U.N.O. ON PLANS OR DETAILS



Drawing Notes		
1. All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or purpose without the written consent of RJC.		
2. These drawings are "design drawings" only.		
They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.		
The work "as constructed" may vary from what is shown on these drawings.		
3. Use of these drawings is limited to that identified in the Issued/Revision column.		
Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.		
The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.		
2	2015-12-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2



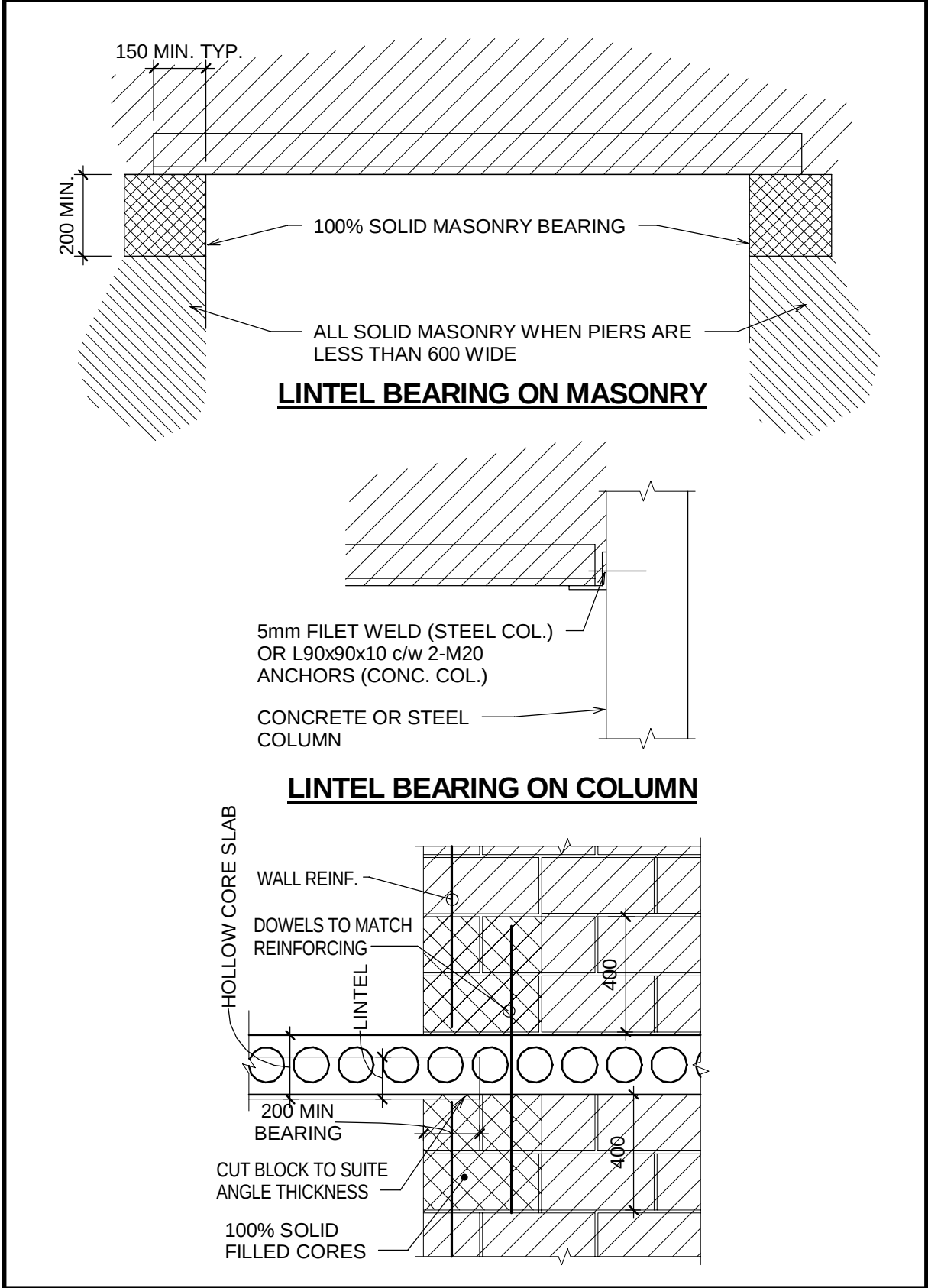
Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 **Fax** 416 977-1427 www.rjc.ca

Title:

GENERAL NOTES & TYPICAL DETAILS

Drawn :	Scale :	Date :
Project Number : TOR.111805.0001	Drawing Number :	S-106
Drawing Stage: CD		



CONCRETE TOPPING NOTES (ON STEEL DECK)

- ALL CONCRETE TOPPING ON STEEL DECK WHICH IS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE STRUCTURAL CONCRETE TOPPING. TOPPING OR COVER SLAB THICKNESSES SHOWN ARE MEASURED FROM TOP OF DECK. TOTAL THICKNESS IS MEASURED FROM BOTTOM OF DECK TO TOP OF COVER SLAB.

CONCRETE TOPPING THICKNESSES ON DRAWINGS ARE FROM TOP OF FLUTE TO TOP OF SLAB
- CONCRETE IS TO BE WELL VIBRATED, ESPECIALLY AT COLUMNS AND AROUND EMBEDDED METAL.
- ALL POUR JOINT LOCATIONS SHALL BE PRE-APPROVED, EXCEPT AT SLAB EDGES AND EXPANSION JOINTS. POUR JOINTS SHALL GENERALLY BE AT LOCATIONS WHICH ARE AT THE MID-SPAN OF BOTH BEAM AND DECK.
- SCREEDING SHALL CONFORM TO CAMBERS IN STRUCTURAL STEEL, TO MAINTAIN THE REQUIRED CONCRETE THICKNESSES. HOWEVER, ALLOWANCE SHOULD BE MADE FOR ADDITIONAL CONCRETE REQUIRED DUE TO STEEL DECK DEFLECTION AND STRUCTURAL STEEL TOLERANCES.
- ALL CONCRETE TOPPING SHALL BE REINFORCED. WHERE NO REINFORCING IS SHOWN ON THE DRAWINGS, USE THE FOLLOWING:

65 mm COVER SLAB	-	WWR 152 X 152 - MW9.1 X MW9.1
75 mm COVER SLAB	-	WWR 152 X 152 - MW11.1 X MW11.1
90 mm COVER SLAB	-	WWR 152 X 152 - MW13.3 X MW13.3
100 mm COVER SLAB	-	WWR 152 X 152 - MW16.0 X MW16.0 OR 10M @ 400 EACH WAY (25 mm COVER FROM TOP)
- WELDED WIRE REINFORCEMENT SHALL BE SUPPORTED 25 mm ABOVE STEEL DECK. LAP WIRE REINFORCEMENT A MINIMUM OF 2 CROSS WIRES + 50 mm.
- U.N.O. PROVIDE 15M1000 @ 300 ADDITIONAL TOP REINFORCING CENTERED OVER ALL SUPPORTS WHERE THE STEEL DECK IS NOT A CONTINUOUS SHEET. THIS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING LOCATIONS:
 - AT SUPPORTS WHERE THE DECK IS LAPPED.
 - AT SUPPORTS WHERE THE DECK CHANGES DIRECTION.
 - AT SUPPORTS WHERE CHANGES IN DECK ELEVATION OCCUR.
 - AT SUPPORTS WHERE THE CONCRETE TOPPING MEETS A FORMED CONCRETE SLAB.
- U.N.O. PROVIDE 15M1500 @ 500 ADDITIONAL TOP REINFORCING CENTERED OVER ALL INTERIOR GIRDERS.
- AT ALL OPENINGS GREATER THAN 150 mm, REINFORCE EACH SIDE OF THE OPENING WITH REINFORCING BARS, SEE ALSO STANDARD DETAIL AND FLOOR PLANS.
- OPENINGS SMALLER THAN 150 mm X 150 mm WHICH ARE CLOSER THAN 600 mm SPACING SHALL HAVE 2-15M1500 PLACED BETWEEN THEM.
- ALL EXTRA REINFORCING SHOWN ON PLANS, TOP AND BOTTOM, SHALL BE CHAIRED, U.N.O.
- AT ALL RE-ENTRANT CORNERS OF BUILDING PERIMETER, PROVIDE 2-15M1500 ALONG EACH EDGE EXTENDING 600 mm BEYOND THE CORNER.
- CONDUITS AND PIPES ARE NOT ALLOWED IN THE CONCRETE TOPPING ON TOP OF STEEL DECK UNLESS APPROVED BY THE STRUCTURAL ENGINEER.

LINTELS

OVER ALL OPENINGS IN MASONRY WALLS PROVIDE THE FOLLOWING LINTELS, UNLESS OTHERWISE SHOWN.

BLOCK WYTHES

STEEL LINTELS

CLEAR SPAN mm (ft-in)	140 (6") WALL	190 (8") WALL	240 (10") WALL	290 (12") WALL
UP TO 1200 (4'-0)	2 - L64x64x6.4	2 - L89x89x7.9	L89x89x7.9 + L127x 89 x 7.9 LLV	3 - L89x89x7.9
1201 TO 1800 (4'-0 TO 6'-0)	2 - L89x64x6.4 LLV	2 - L127x89x7.9 LLV	L127x89x7.9 LLV + L127x127x7.9	3 - L127x89x7.9 LLV
1801 TO 2400 (6'-0 TO 8'-0)	2 - L89x64x7.9 LLV	2 - L127x89x9.5 LLV	L127x89x9.5 LLV + L127x127x9.5	3 - L127x89x9.5 LLV
2401 TO 3000 (8'-0 TO 10'-0)	2 - L89x64x9.5 LLV	2 - L152x89x9.5 LLV	L152x89x9.5 LLV + L127x127x9.5	3 - L152x89x9.5 LLV

OR BLOCK LINTELS

CLEAR SPAN mm (ft-in)	WALL THICKNESS mm (inches)	DEPTH mm (inches)	REINFORCING (TOP AND BOTTOM)
UP TO 1200 (4'-0)	140 (6")	200 (8")	1-10M
	190 (8")	200 (8")	1-15M
	240 (10")	200 (8")	1-15M
	290 (12")	200 (8")	1-15M
1201 TO 1800 (4'-0 TO 6'-0)	140 (6")	300 (12")	1-15M
	190 (8")	300 (12")	1-15M
	240 (10")	300 (12")	1-15M
	290 (12")	300 (12")	1-15M
1801 TO 2400 (6'-0 TO 8'-0)	140 (6")	400 (16")	1-15M
	190 (8")	400 (16")	2-15M
	240 (10")	400 (16")	2-15M
	290 (12")	300 (12")	2-15M
2401 TO 3000 (8'-0 TO 10'-0)	140 (6")	600 (24")	1-20M
	190 (8")	600 (24")	2-15M
	240 (10")	400 (16")	2-15M
	290 (12")	400 (16")	2-15M

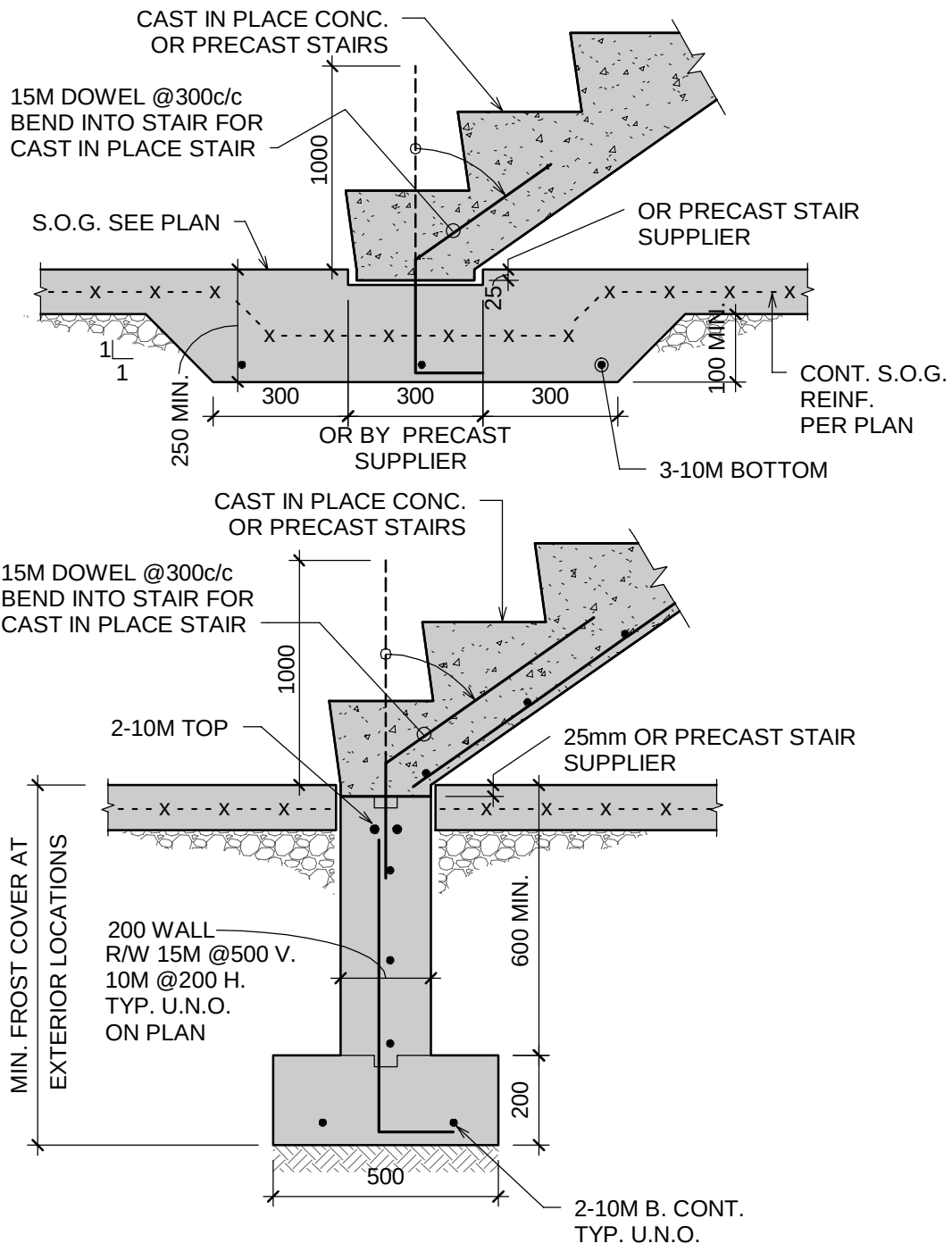
BRICK WYTHES

FOR EACH 100mm (4") LENGTH OF WALL

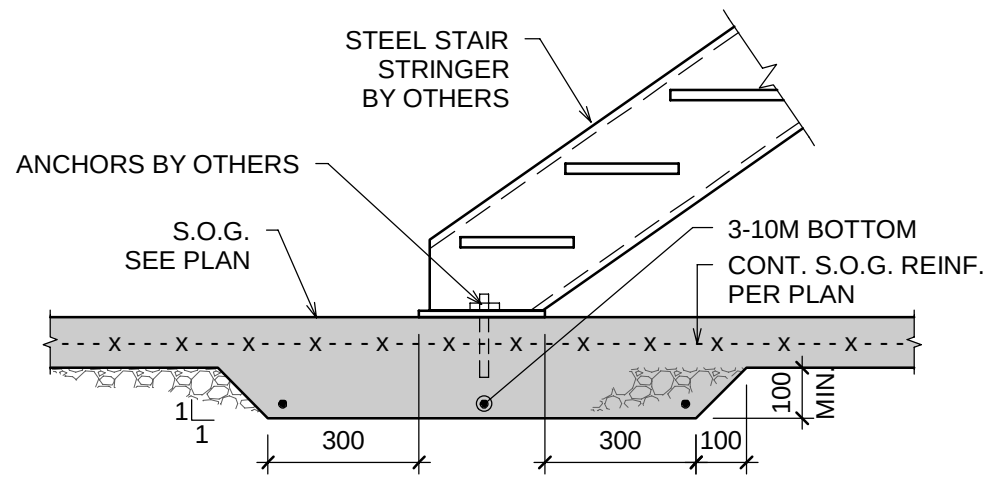
CLEAR SPAN mm (ft-in)	SIZE
UP TO 1200 (4'-0)	L 89 x 89 x 7.9
1201 TO 1800 (4'-0 TO 6'-0)	L 127 x 89 x 7.9 (LLV)
1801 TO 2400 (6'-0 TO 8'-0)	L 152 x 89 x 7.9 (LLV)

- WELD BACK TO BACK ANGLES TOGETHER TOP AND BOTTOM WITH 5mm (3/16") FILLET 50mm (2") LONG AT 450mm (18") MAXIMUM CENTERS.
- MINIMUM BEARING FOR STEEL LINTELS SHALL BE 150mm (6") AND BLOCK LINTELS SHALL BE 200mm (8").
- FOR WALLS OVER 300mm (12") THICK ADD ONE ANGLE FOR EACH ADDITIONAL 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
- FOR LINTELS ABUTTING STEEL COLUMNS, CONC WALL OR COLUMNS PROVIDE L 90x90x10 SHELF ANGLE.
- FILL VOIDS OF LINTEL BLOCK WITH 12.5 MPa GROUT MIN.
- USE MASONRY LINTELS IN ALL FIRE RATED MASONRY WALLS - SEE ARCH DWG. FOR WALL RATINGS.
- FOR 140 BLOCK USE BLOCK LINTELS.
- ALL STEEL LINTELS AND SHELF ANGLES IN THE EXTERIOR MASONRY SHALL BE HOT DIP GALVANIZED.

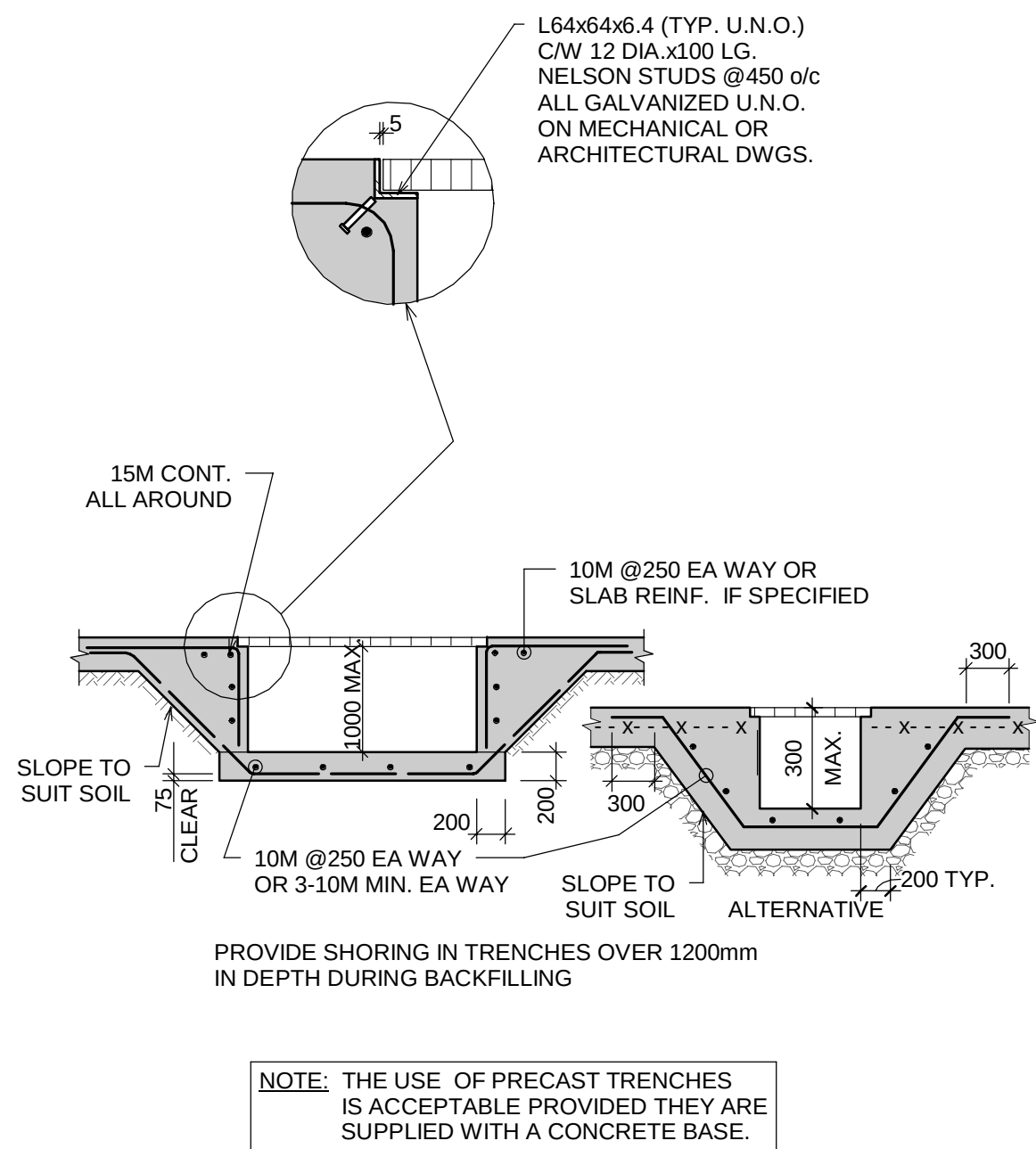
THICKENING SLAB ON GRADE AT CONCRETE STAIRS



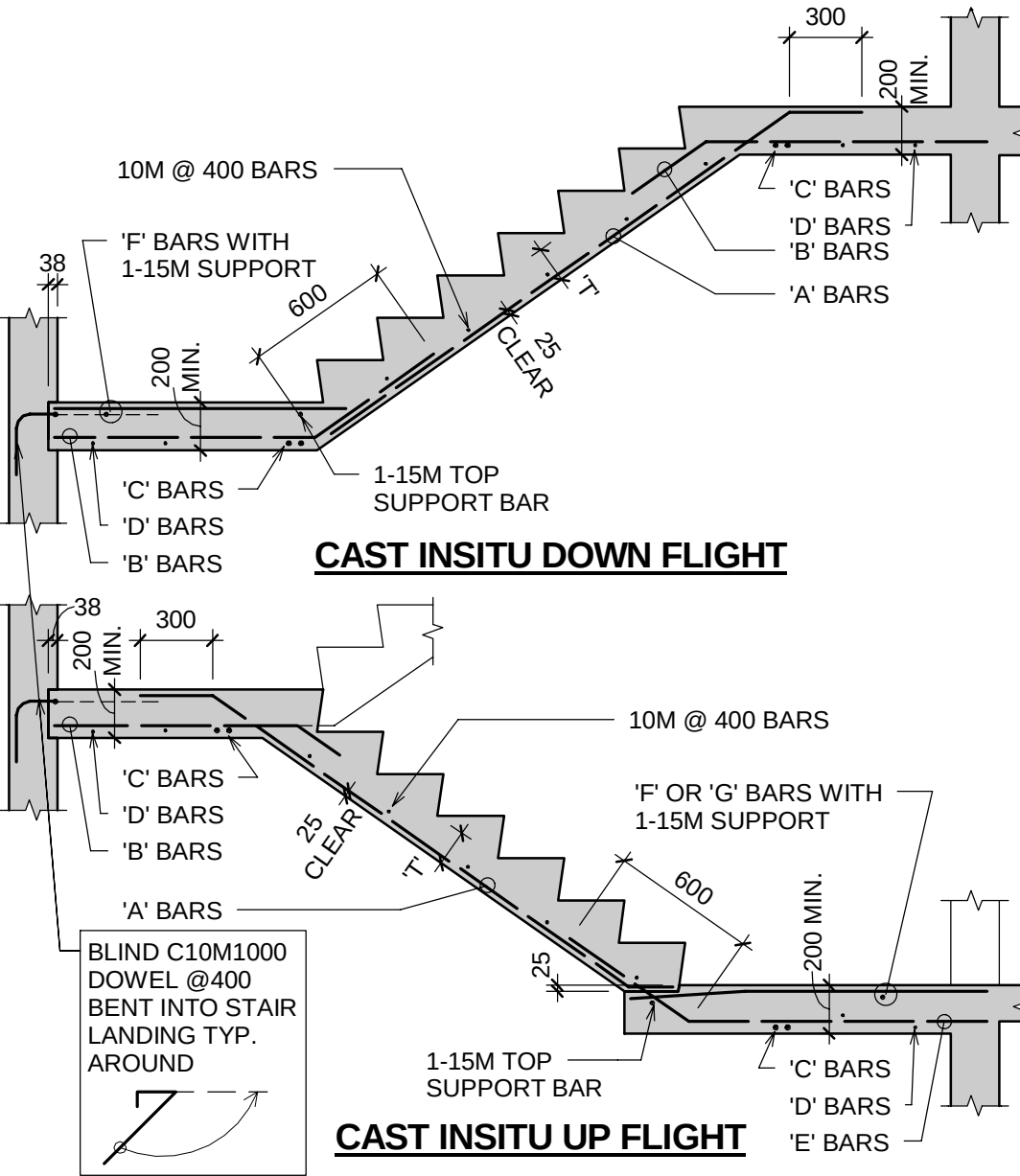
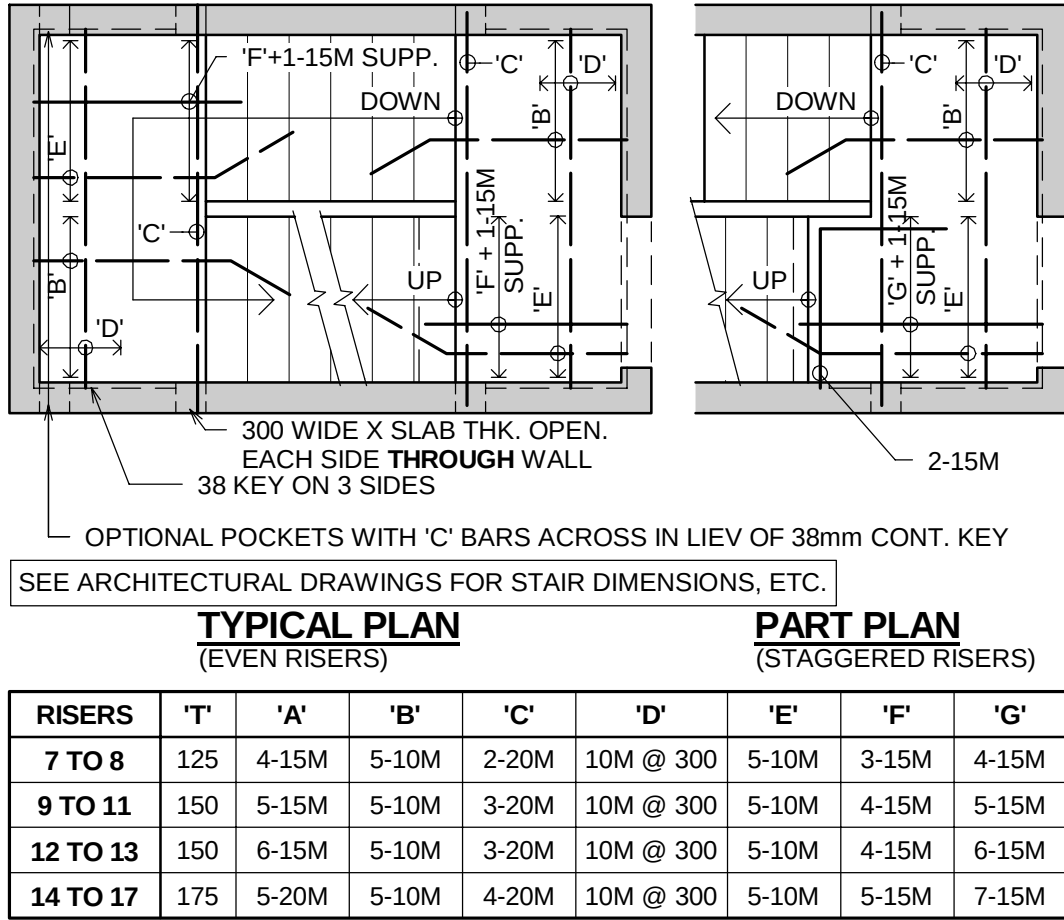
THICKENING SLAB ON GRADE AT STEEL STAIRS



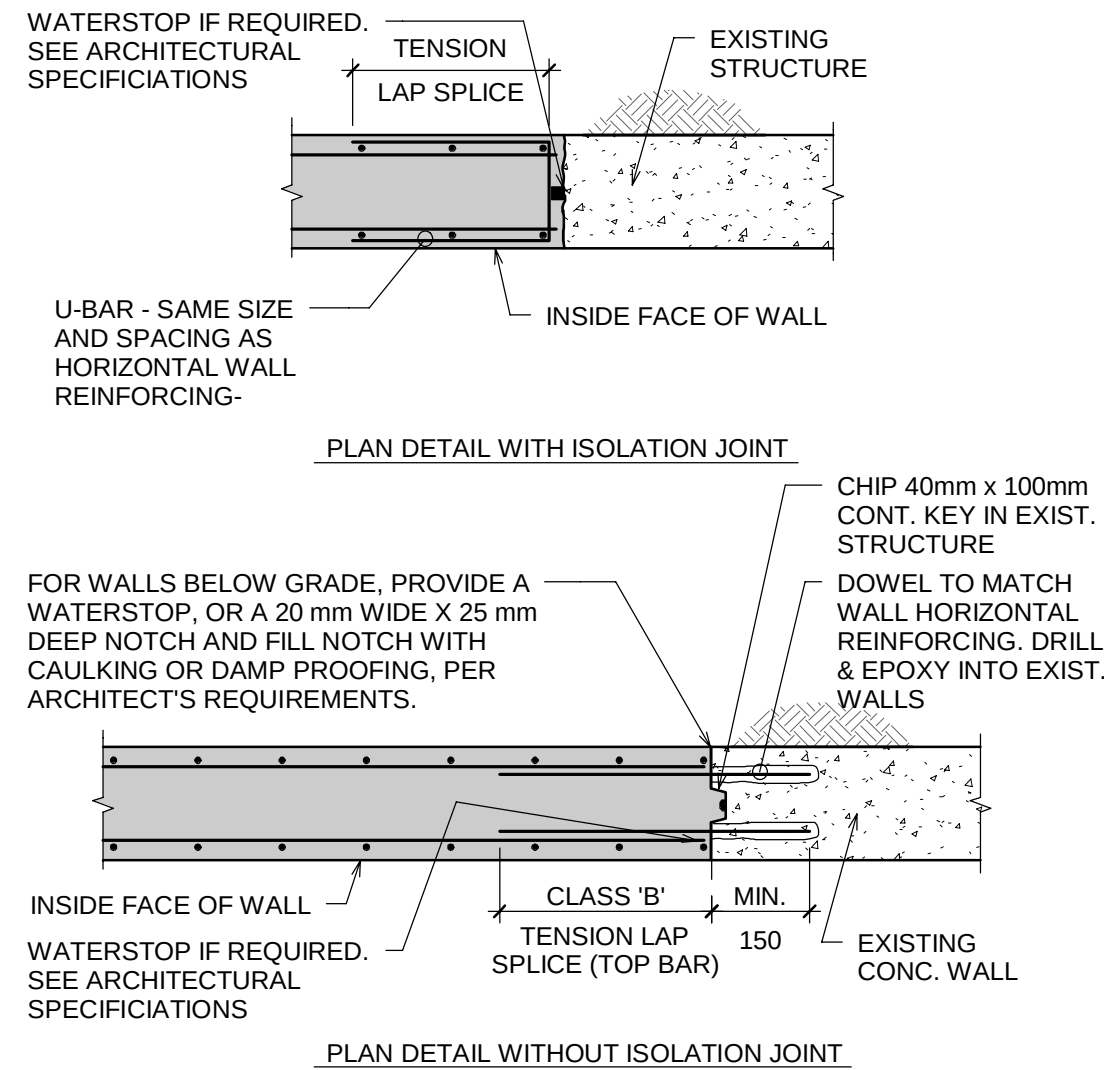
TYPICAL PIT OR TRENCH DETAIL-U.N.O.



TYPICAL CAST INSITU STAIRS HALF FLIGHT AND LANDING - U.N.O.



CONNECTION BETWEEN NEW AND EXISTING CONCRETE WALL



Drawing Notes

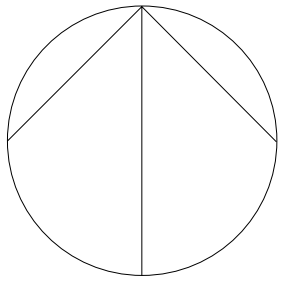
- All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 - These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

The work "as constructed" may vary from what is shown on these drawings.
 - Use of these drawings is limited to that identified in the Issued/Revision column.
- Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.
- The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-12-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title:

GENERAL NOTES & TYPICAL DETAILS

Drawn :	Scale :	Date :
Project Number : TOR.111805.0001	Drawing Number :	S-107
Drawing Stage: CD		

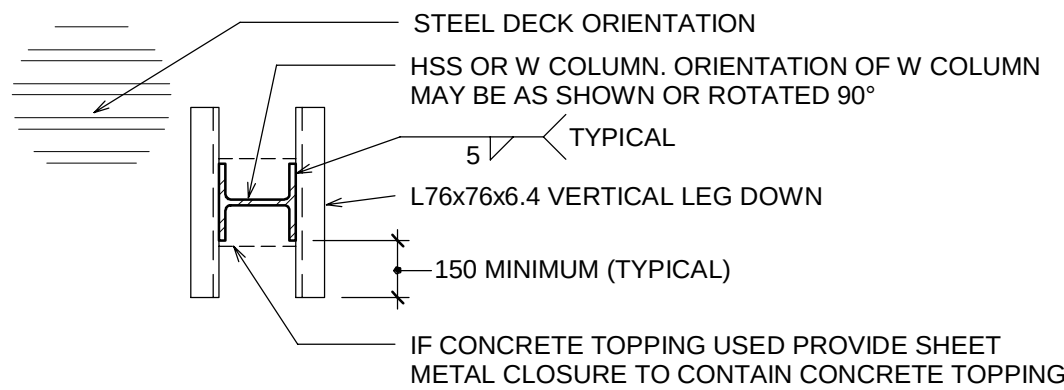
STEEL DECK

1. STEEL DECKING SHALL CONFORM TO CAN/CSA-S136.
2. STEEL DECKING SHALL CONFORM TO CSSBI SPECIFICATION 10M MINIMUM GRADE 230 ZINC COATED STRUCTURAL QUALITY STEEL FOR ROOF AND FLOOR DECK. BASE STEEL NOMINAL THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUM REQUIREMENTS ONLY.
3. INTERIOR EXPOSURE DECK SHALL BE ZINC COATED WIPE COAT ZF075 FOR FLOORS AND FOR ROOFS. EXTERIOR EXPOSURE DECK SHALL BE Z275 ZINC COATED UNLESS NOTED OTHERWISE.
4. FOR DECKS WITH CONCRETE TOPPING, SEE ALSO "STEEL DECK (WITH CONCRETE TOPPING)" NOTES.
5. STEEL DECKING SHALL BE INSTALLED SUCH THAT SHEETS ARE SET FOR A MINIMUM OF THREE SPANS CONTINUOUS UNLESS NOTED OTHERWISE. LAPS OF DECKING SHALL BE LIMITED OR DETAILED TO PREVENT UNDUE VERTICAL DEFORMATIONS AT THE END OF THE DECK DUE TO END ROTATIONS.
6. SEE DRAWINGS FOR DECK THICKNESSES OR DESIGN LOADS.
7. WHERE DECK IS CALLED UP ON THE DRAWINGS, ALTERNATES MUST BE THE SAME DEPTH, BE EQUIVALENT FOR DEFLECTIONS, VERTICAL LOAD, AND SHEAR CAPACITY, AND BE PRE-APPROVED.
8. SUBMIT SHOP DRAWINGS INDICATING THE DECK SPANS, THICKNESSES, PROFILES, AND DETAILS. WHERE THE DECK THICKNESSES AND CONNECTIONS ARE NOT SHOWN ON THE DRAWINGS, THE FABRICATOR SHALL DESIGN THE DECK AND CONNECTIONS FOR THE VERTICAL LOADS AND THE SHEAR/DIAPHRAGM LOADS NOTED ON THE DRAWINGS AND HAVE THE SHOP DRAWINGS SEALED BY THE CONTRACTOR'S SPECIALTY STRUCTURAL ENGINEER.
9. FASTENERS - MINIMUM REQUIREMENTS UNLESS NOTED OTHERWISE ON DRAWINGS:
 - A. SIDE LAPS MECHANICALLY FASTENED (CLINCHED) AT NOT MORE THAN 300 mm O/C.
 - B. 20 mm Ø FUSION WELDS AT DECK SUPPORTS SHALL BE AT 300 mm O/C ALONG SIDE EDGES AND AT EVERY 2nd FLUTE.
10. REMOVE WATER BETWEEN THE DECK AND SUPPORTING STEEL BEFORE WELDING DECK.
11. IF NOT SHOWN OTHERWISE, ALL EDGES OF STEEL DECKING SHALL BE SUPPORTED ON CONTINUOUS ANGLE L76x76x4.8.
12. SEE ALSO MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR ALL OPENINGS IN DECK.
13. STEEL DECK TO BE DESIGNED FOR A MINIMUM DIAPHRAGM SHEAR OF 3.5 kN/m, U.N.O.

STEEL DECK NOTES (WITH CONCRETE TOPPING)

1. STEEL DECK TO BE AS NOTED ON DRAWINGS. UNLESS NOTED OTHERWISE ALL DECK RECEIVING CONCRETE TOPPING TO BE COMPOSITE DECK.
2. IT IS INTENDED THAT ALL STEEL DECK BE UNSHORED DURING CONSTRUCTION U.N.O.
3. THE STEEL DECK THICKNESS SHALL BE AS REQUIRED TO CARRY THE WET CONCRETE WITHOUT SHORING AND TO MEET THE LOADING REQUIREMENTS LISTED BELOW, AND WILL DEPEND ON THE ACTUAL PROFILE AND LAYOUT OF DECK USED. TOPPING THICKNESS ON THE DRAWINGS ARE MEASURED FROM THE TOP OF DECK FLUTE (SEE "CONCRETE TOPPING ON STEEL DECK" NOTES).
4. DESIGN FLOOR LOADS (SPECIFIED OR UNFACTORED):
CONSTRUCTION DEAD LOAD = WEIGHT OF WET CONCRETE
CONSTRUCTION LIVE LOAD = 1 kPa
SUPERIMPOSED DEAD LOAD = AS INDICATED ON DRAWINGS
SERVICE LIVE LOAD = AS INDICATED ON DRAWINGS
5. ALL DECK TO BE THREE SPAN MINIMUM WHERE POSSIBLE.
6. THE STEEL DECK PROFILES SHALL BE AS REQUIRED TO ACHIEVE FIRE SEPARATIONS AS SPECIFIED ON THE ARCHITECTURAL DRAWINGS. IN ADDITION, ALL COMPOSITE FLOOR DECK PROFILES SHALL HAVE AN AVERAGE BOTH MINUTE WIDTH AT LEAST 2 X DECK DEPTH WHERE USED ON COMPOSITE BEAMS WITH SHEAR STUDS.
7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH SUBTRADES FOR PROVIDING STEEL DECK AS INDICATED ON THE DRAWINGS, AND ALL NECESSARY FORMING AT THE DECK EDGES FOR THE FULL DECK AND CONCRETE DEPTH TO PREVENT LEAKING OF THE CONCRETE TOPPING. THIS INCLUDES, BUT IS NOT LIMITED TO, ALL EDGES AT THE BUILDING EXTERIOR AND ALL SLAB OPENINGS FRAMED BY STRUCTURAL STEEL, INCLUDING ELEVATOR SHAFTS AND STAIRWELLS AND AROUND THE WEBS AND FLANGES OF ALL COLUMNS.
8. BEAMS NOTED AS COMPOSITE ON THE DRAWINGS REQUIRE STUD SHEAR CONNECTIONS, SEE ALSO SHEAR CONNECTOR NOTES. SEE ALSO PLANS, SECTIONS, DETAILS AND SCHEDULES FOR STUDS SHOWN ON BEAM END RIBS/DRAFLS ETC. OTHER THAN COMPOSITE BEAMS. THE CONTRACTOR SHALL CO-ORDINATE THE DESIGN, SUPPLY, AND INSTALLATION OF ALL STUDS.
9. FOR OPENINGS THAT MAY BE CUT AFTER TOPPING PLACED, SEE STANDARD DETAILS ON STRUCTURAL DRAWING.
10. SEE ALSO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR OPENINGS, HOLES ETC. IN DECKING.
11. SUBMIT SHOP DRAWINGS SEALED BY A SPECIALTY STRUCTURAL ENGINEER FOR DESIGN OF DECK AND SHEAR STUDS.

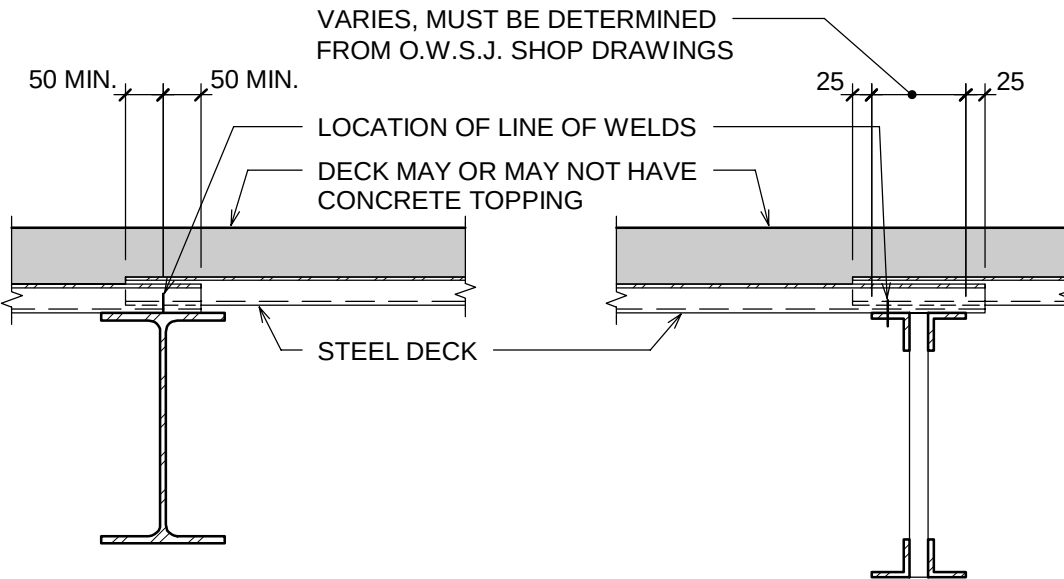
TYPICAL DECK SUPPORT AT COLUMNS



ARCHITECTURALLY EXPOSED STRUCTURAL STEEL NOTES - U.N.O.

- DRAWINGS**
- A. SEE ALSO REQUIREMENTS IN ARCHITECTURAL AND STRUCTURAL PLANS, DETAILS, AND SPECIFICATIONS, WHICH MAY HAVE MORE RIGOROUS REQUIREMENTS THAN NOTED BELOW.
2. **FABRICATION**
- A. SHALL BE COMPLETED WITH SPECIAL CARE AND NECESSARY STRAIGHTENING TO MAINTAIN THE CONDITION OF THE MATERIAL.
- B. SHOP DETAILS SHALL SHOW CLEARLY THE REQUIRED FABRICATION TOLERANCES. ERECTION PLANS AND/OR ANCHOR BOLT PLANS SHALL SHOW THE REQUIRED TOLERANCES FOR SETTING EMBEDDED ITEMS.
- C. ALL COPELS, MITRES AND BUTT CUTS IN SURFACES EXPOSED TO VIEW SHALL BE MADE WITH UNIFORM GAPS OF 3 mm IF SHOWN BY THE ARCHITECT TO BE OPEN JOINTS, OR IN UNIFORM CONTACT IF SHOWN WITHOUT A GAP.
3. **WELDING**
- A. FILLET WELDS
- FACES OF WELDS EXPOSED TO VIEW SHALL HAVE AS-WELDED SURFACE THAT ARE REASONABLY SMOOTH AND UNIFORM. NO FINISHING OR GRINDING SHALL BE REQUIRED EXCEPT WHERE CLEARANCES OR FIT OF OTHER ITEMS MAY SO NECESSITATE, OR AS SPECIFICALLY REQUIRED BY DESIGN DRAWINGS (SEE ITEM 1 ABOVE).
- B. BUTT AND PLUG WELDS
- FACES OF BUTT AND PLUG WELDS EXPOSED TO VIEW SHALL HAVE AS-WELDED SURFACES THAT ARE REASONABLY SMOOTH AND UNIFORM AND SHALL NOT PROJECT MORE THAN 1.5 mm ABOVE SURFACES JOINED. NO FINISHING OR GRINDING SHALL BE REQUIRED EXCEPT WHERE CLEARANCES OR FIT OF OTHER ITEMS MAY SO NECESSITATE, OR AS SPECIFICALLY REQUIRED BY DESIGN DRAWINGS (SEE ITEM 1 ABOVE).
4. **PAINTING**
- A. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND SPECIFICATIONS
- B. SURFACES WITHIN 50 mm OF ANY FIELD WELD LOCATION SHALL BE FREE OF MATERIALS THAT WOULD PREVENT PROPER WELDING OR PRODUCE OBJECTIONABLE FUMES WHILE WELDING IS BEING DONE. IF SHOP PAINTED, SURFACES TO BE WELDED SHALL BE WIRE BRUSHED IN THE FIELD BEFORE WELDING TO REDUCE THE PAINT FILM TO A MINIMUM.
5. **ERECTION**
- A. THE ERECTOR SHALL USE SPECIAL CARE IN UNLOADING, HANDLING, AND ERECTING THE STEEL TO AVOID BENDING, TWISTING, OR OTHERWISE DISTORTING THE STEEL MEMBERS. THE ERECTOR SHALL HANDLE THE MATERIAL IN SUCH A WAY AS TO MINIMIZE THE DAMAGE TO SHOP COAT OF PAINT.
- B. THE ERECTOR SHALL PLAN AND EXECUTE THE ERECTION IN SUCH A WAY THAT THE CLOSE FIT AND NEAT APPEARANCE OF THE JOINTS AND THE STRUCTURE AS A WHOLE WILL NOT BE IMPAIRED.
- C. IF TEMPORARY BRACES OR ERECTION CLIPS ARE EMPLOYED, CARE SHALL BE TAKEN TO AVOID UNSIGHTLINESS UPON REMOVAL. TACK WELDS SHALL BE GROUND SMOOTH AND HOLES SHALL BE FILLED WITH WELD METAL OR BODY SOLDER AND SMOOTHED BY GRINDING OR FILING.
- D. PAINT ALL AREAS SCRATCHED, MARRED, OR LEFT UNPAINTED FOR ERECTION PURPOSES.

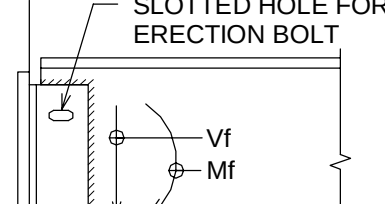
STEEL DECK LAP OVER SUPPORTING MEMBERS



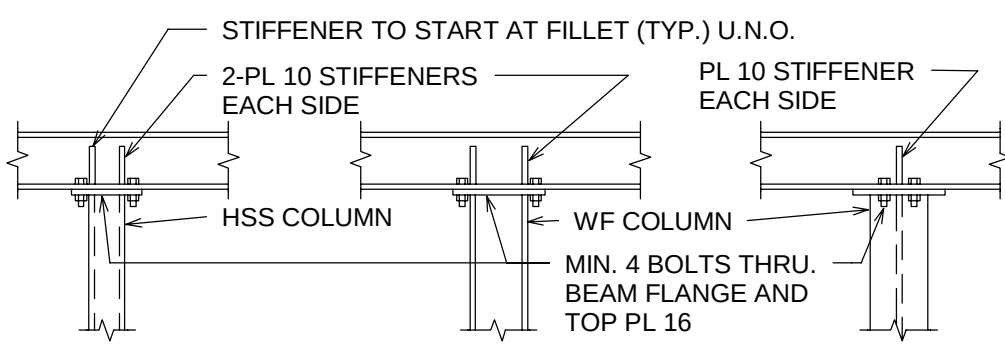
TYPICAL DETAIL AT
SUPPORTING MEMBER WITH
UNBROKEN TOP SURFACE

TYPICAL DETAIL AT
MEMBER WITH
INTERRUPTED TOP SURFACE

STEEL BEAMS AND GIRDERS

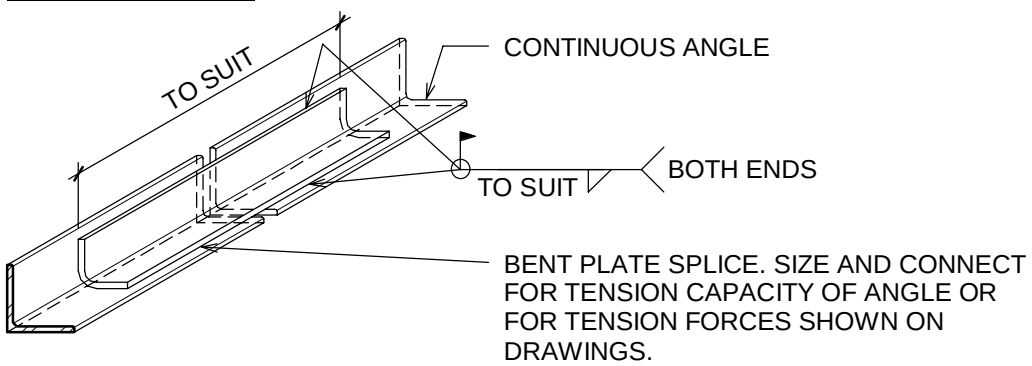
1. UNLESS NOTED, BEAM AND GIRDER CONNECTIONS TO EMBEDDED PLATES SHALL BE DOUBLE ANGLE FRAMING CONNECTIONS WELDED TO THE BEAM WEB THUS:

2. UNLESS NOTED OTHERWISE ALL CONNECTIONS FOR BEAMS AND GIRDERS SHALL BE DESIGNED FOR A SHEAR BASED ON HALF THE SHEAR CAPACITY OF THE BEAM ($V_f/2$)
3. STEEL BEAM CAMBERS SHOWN THUS (75) MEAN CAMBER BEAMS 75 mm AT CENTRE.

4. TOP FLANGES OF BEAMS TO BE FREE OF ALL PAINT, DIRT, HEAVY RUST, MILL SCALE, SAND AND OTHER MATERIALS WHICH WILL INTERFERE WITH WELDING OF STUD SHEAR CONNECTIONS AND STEEL DECK TO BEAMS.
5. BEAMS NOTED AS COMPOSITE ON THE DRAWINGS REQUIRE STUD SHEAR CONNECTIONS, SEE ALSO SHEAR CONNECTOR NOTES. SEE ALSO PLANS, SECTIONS, DETAILS AND SCHEDULES FOR STUDS SHOWN ON BEAMS/GIRDERS/DIAG-STRUTS ETC. OTHER THAN COMPOSITE BEAMS. THE CONTRACTOR SHALL CO-ORDINATE THE DESIGN, SUPPLY, AND INSTALLATION OF ALL STUDS.
6. UNLESS NOTED OTHERWISE WHERE BEAMS SIT OVER COLUMNS, PROVIDE FULL HEIGHT, FULL WIDTH PL 10 STIFFENERS EACH SIDE OVER COLUMN.

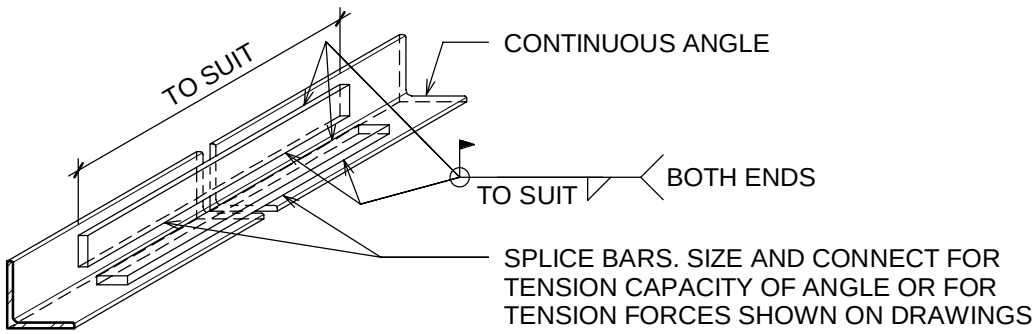


TYPICAL TENSION SPLICE FOR ANGLES

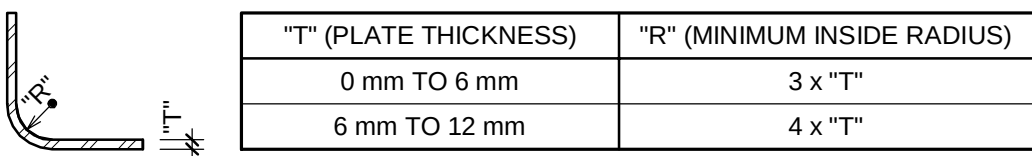
ALTERNATE 1



ALTERNATE 2



MINIMUM BEND RADIUS FOR STEEL PLATES



400 MPa THREADED REINFORCING BAR ANCHOR BOLTS

T1 (kN)	REQUIRED Ø (TURNED TO SUIT NUT)	USE THIS BAR SIZE	A325 NUT SIZE (mm)	WASHER (mm)	EMBEDMENT. SEE DRAWINGS BUT NOT LESS THAN (mm)
50	15 ±	20M	15.9	38 X 38 X 6	650
73	20 ±	25M	19.0	50 X 50 X 10	900
129	25 ±	30M	25.4	60 X 60 X 10	1400
164	30 ±	35M	28.6	70 X 70 X 10	1600
245	35 ±	45M	34.9	85 X 85 X 10	1900
384	45 ±	55M	44.5	100 X 100 X 10	2400

REINFORCING BARS TO BE TURNED DOWN TO A SMOOTH, CONSISTENT DIAMETER AT END BEFORE THREADING.

BAR SIZE —  — REQUIRED Ø

STRUCTURAL STEEL

- STRUCTURAL STEEL SECTIONS SHALL BE NEW AND CONFORM TO THE FOLLOWING:
- | | | |
|----|--|------------------------------------|
| A. | WIDE FLANGE BEAMS AND WWF SECTIONS ---- | CSA G40.21 350W |
| B. | MISCELLANEOUS ROLLED SECTIONS
(EXCEPT WIDE FLANGES) ----- | CSA G40.21 300W |
| C. | HOLLOW STRUCTURAL SECTIONS
(CLASS C U.N.O.) ----- | CSA G40.21 350W
CSA G40.21 300W |
| D. | ROLLED PLATES ----- | ASTM A325 OR |
| E. | BOLTS (SEE PLANS AND DETAILS) ----- | ASTM A490 |
| F. | STRUCTURAL STEEL ANCHOR RODS (U.N.O.) ----- | ASTM F1554
GRADE 36 MINIMUM |
| G. | REINFORCING BAR ANCHOR BOLTS ----- | CAN/CSA-G30.18R,
GRADE 400 |
2. DESIGN FORCES INDICATED ON DRAWINGS FOR STRUCTURAL STEEL WORK ARE FACTORED FORCES UNLESS NOTED OTHERWISE. FORCES ARE VERTICAL SHEAR FORCES U.N.O.
- METRIC
- | | | |
|----|-------------------------|------|
| A. | FORCES ----- | kN |
| B. | MOMENTS ----- | kN-m |
| C. | LINE LOADS ----- | kN/m |
| D. | DISTRIBUTED LOADS ----- | kPa |
- SEE "GENERAL NOTES - LOADS" FOR DEFINITIONS AND VALUES OF LIVE LOAD, DEAD LOAD AND SUPERIMPOSED DEAD LOAD. SEE ALSO PLANS FOR OTHER LOAD/FORCE REQUIREMENTS.
3. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE. ALL BEAM CONNECTIONS TO BE STANDARD FRAME BEAM CONNECTIONS OR EQUIVALENT, UNLESS NOTED OTHERWISE.
4. PRIOR TO SUBMITTING SHOP DRAWINGS THE CONTRACTOR SHALL NOTIFY RJC IN WRITING THAT THE FABRICATOR IS CERTIFIED TO A MINIMUM OF DIVISION 2 OF CSA W47.1.
5. DRAWINGS OF COMPONENTS AND CONNECTIONS DESIGNED BY THE FABRICATOR'S SPECIALTY STRUCTURAL ENGINEER SHALL BE SIGNED AND SEALED BY THIS ENGINEER OR A LETTER SHALL BE SUBMITTED AT THE END OF SHOP DRAWING PRODUCTION SIGNED AND SEALED BY THIS ENGINEER, IDENTIFYING WHAT WAS DESIGNED AND LISTING THE FINAL DRAWINGS WITH DATES AND REVISION NUMBERS.
6. CONNECTIONS AND SPLICES NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUESTED BY THE FABRICATOR MUST BE ACCEPTABLE TO RJC AND DETAILED ON THE SHOP DRAWINGS. TESTING OF THESE CONNECTIONS SHALL BE AT THE DISCRETION OF RJC AND TO THE CONTRACTORS ACCOUNT.
7. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO START OF STEEL FABRICATION.
8. FABRICATION, ERECTION, STRUCTURAL DESIGN, AND DETAILING OF ALL STEEL SHALL BE IN ACCORDANCE WITH CAN/CSA-S16.
9. FILLET WELDS SHALL BE 5 mm MINIMUM U.N.O.
10. BOLTS SHALL BE A325 19 mm Ø MINIMUM U.N.O.
11. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH CONNECTED PIECE AND BE DESIGNED AS BEARING CONNECTIONS, U.N.O.
12. ALL WELDED HEADED STUDS AND WELDED DEFORMED BAR ANCHORS SHALL BE INSTALLED AS PER THE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS OR SHOP FILLET WELDED. ANY FIELD FILLET WELDED DEFORMED BARS OR STUDS WILL BE REJECTED. SEE PLANS, SECTIONS, DETAILS, AND SCHEDULES FOR LOCATIONS ETC., THE CONTRACTOR SHALL CO-ORDINATE THE DESIGN, SUPPLY, AND INSTALLATION OF ALL STUDS AND ANCHORS, INCLUDING, BUT NOT LIMITED TO STUDS AND DEFORMED BAR ANCHORS ON COMPOSITE BEAMS, DRAG STRUTS, EMBEDDED PLATES, ETC.
13. UNLESS NOTED OTHERWISE, COLUMN CAP PLATES SHALL BE 16 mm THICK AND COLUMN BASE PLATES SHALL BE 20 mm MINIMUM THICK.
14. PROVIDE 6 mm CAP PLATES FOR ALL HSS MEMBERS U.N.O.
15. CONNECTION DETAILS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE ALTERED BY THE CONTRACTOR WITHOUT WRITTEN APPROVAL FROM READ JONES CHRISTOFFERSEN LTD.
16. THIS SYMBOL:  MEANS BEAM IS MOMENT CONNECTED THROUGH SUPPORTING BEAM OR COLUMN. PROVIDE FULL STRENGTH MOMENT CONNECTION U.N.O.
17. FRAME ROOF AND FLOOR OPENINGS GREATER THAN 450 mm IN ACCORDANCE WITH THE DETAILS IN THE GENERAL NOTES UNLESS NOTED OTHERWISE ON THE PLANS.
18. UNLESS NOTED OTHERWISE ON THE PLANS, REFER TO THE DETAILS IN THE GENERAL NOTES FOR FRAMING FOR SUPPORT OF ROOF TOP MECHANICAL EQUIPMENT.
19. STEEL TO BE EXPOSED IN FINISHED WORK SHALL BE CLEANED, PREPARED, PRIMED AND PAINTED IN ACCORDANCE WITH CSA STANDARD S16 AND THE ARCHITECTURAL DRAWINGS AND PAINTING SPECIFICATION.
20. DESIGN DRAWINGS INCLUDE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. SEE ALSO ARCHITECTURAL DRAWINGS FOR ROOF AND FLOOR ELEVATIONS, ROOF SLOPES, EAGE DETAILS, AND ADDITIONAL DIMENSIONS AND DETAILS. WHERE ELEVATIONS, ROOF SLOPES, ETC., ARE SHOWN ON THE STRUCTURAL DRAWINGS, THEY MUST BE CONFIRMED WITH THE ARCHITECTURAL DRAWINGS.
21. UNLESS NOTED OTHERWISE, DO NOT OVERSIZE HOLES IN STEEL TO FIT ANY ANCHOR LOCATIONS. FOR COLUMN BASE PLATE HOLES, UNLESS NOTED OTHERWISE ON DRAWINGS, FOLLOW STANDARD PRACTICE WHICH IS TO USE SLIGHTLY OVERSIZED HOLES. USE 6 mm OVERSIZED HOLE DIAMETER FOR COLUMN ANCHOR RODS UP TO AND INCLUDING 27 mm DIAMETER, AND 12 mm OVERSIZED HOLE DIAMETER FOR COLUMN ANCHOR RODS GREATER THAN 27 mm DIAMETER.
22. GENERAL SEISMIC REQUIREMENTS
- | | |
|----|--|
| A. | WHERE CONNECTION FORCES ARE NOT SHOWN ON THE DRAWINGS, THE CONNECTION DESIGN SHALL SATISFY THE REQUIREMENTS OF CAN/CSA-S16 - CLAUSE 27. |
| B. | STEEL IN THE ENERGY DISSIPATION SYSTEM SHALL SATISFY THE LIMITS OF F _y , F _u , AND CHARPY V-NOTCH IMPACT REQUIREMENTS AS NOTED IN CAN/CSA-S16 - CLAUSE 27.1.5. |
| C. | WELDS AND WELD MATERIAL SHALL SATISFY CAN/CSA-S16 - CLAUSE 27.1.5.3 (CHARPY REQUIREMENTS). |
| D. | BOLTED CONNECTIONS SHALL SATISFY CAN/CSA-S16 - CLAUSE 27.1.6. |

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown on them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or ~~other~~ drawings are "design drawings" only.
2. They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

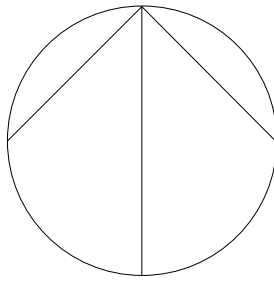
The work "as constructed" may vary from what is shown on these drawings.
3. Use of these drawings is limited to that identified in the Issued/Revision column.

Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for the

2	2015-12-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

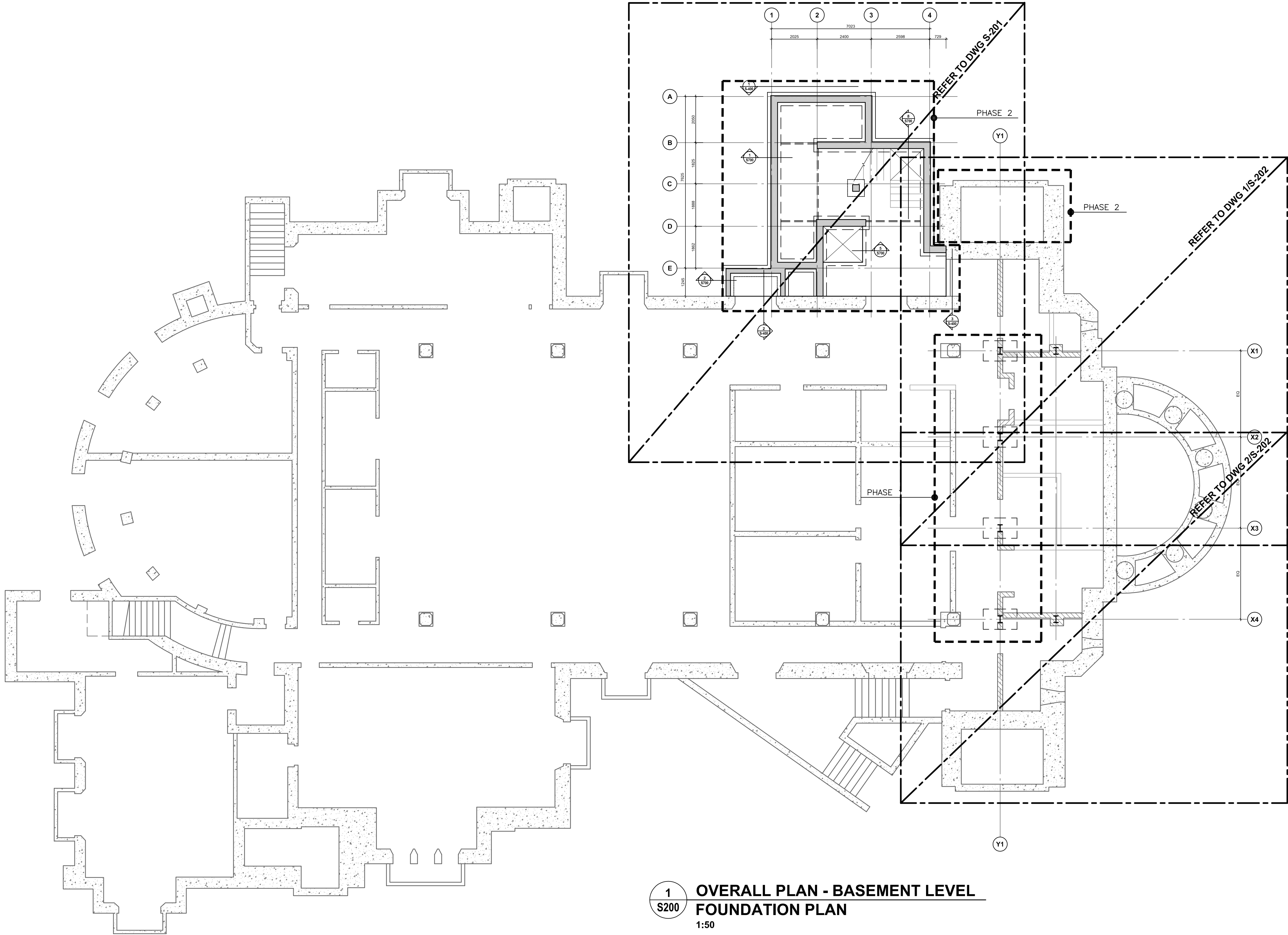


Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rij.ca

Title :

GENERAL NOTES & TYPICAL DETAILS

Drawn :	Scale :	Date :
Project Number : TOR.111805.0001	Drawing Number :	S-108
Drawing Stage: CD		



1

S200

OVERALL PLAN - BASEMENT LEVEL

FOUNDATION PLAN

1:50

1.

REFER TO ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS, SLOPES AND DIMENSIONS. TOP OF STRUCTURAL SLAB IS 0mm FROM FINISHED FLOOR DATUM ELEVATION (-3.22m). TOP OF STRUCTURAL SLAB CROSSED AND NOTED IS REFERENCED FROM EL. (-3.22m)

2.

FOUNDATION ELEVATIONS AND BEARING STRATA TO BE VERIFIED BY GEOTECHNICAL ENGINEER ON SITE AND MAY HAVE TO BE ADJUSTED. FURTHER TO GENERAL NOTES. FOUND UNDERSIDE OF FOOTINGS A MIN. OF 790mm BELOW TOP OF SLAB-ON-GRADE ELEVATION UNO ON PLAN

3.

ALL FOOTINGS SHALL BE PLACED ON SOIL CAPABLE OF SUSTAINING 150kPa SLs.

4.

CENTER ALL CAPS AND FOOTINGS UNDER COLUMNS/WALLS EXCEPT AS NOTED ON PLAN.

5.

MAINTAIN SLAB-ON-GRADE THICKNESS SHOWN.

6.

DESIGN LIVE LOADS ARE (in kPa):

• BASEMENT

4.8 kPa

• STAIRS

4.8 kPa

• OTHERWISE CROSSED AND NOTED ON PLANS.

6.

SEE GENERAL NOTES/DETAILS FOR CONTROL JOINT REQUIRING UNO ON PLAN : C.J. CONTROL JOINTS MAY BE REPLACED WITH CONSTRUCTION JOINTS.

7.

REFER TO THE GENERAL NOTES - S100 SERIES

8.

WALL TYPES INDICATED THUS, W300, INDICATED A 300MM (12") THICK WALL. REFER TO GENERAL NOTES FOR REINF. AND DETAILS.

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.

2. These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

The work "as constructed" may vary from what is shown on these drawings.

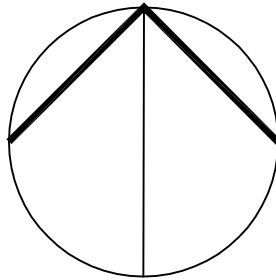
3. Use of these drawings is limited to that identified in the Issued/Revision column.

Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-11-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH
RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2



Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title :

OVERALL PLAN
BASEMENT LEVEL
FRAMING PLAN

Drawn :	EF	Scale :	1:100	Date :	2015/04/07
Project Number :	TOR.111805.0001				
Drawing Stage:	CD	Drawing Number :	S-200		



Drawings Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Read James Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are, and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and the Work executed from them, and shall not be used for any other work or project.
2. These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as basic drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

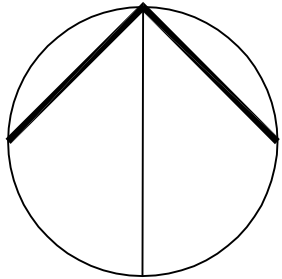
The work "as constructed" may vary from what is shown on these drawings.
3. Use of these drawings is limited to that identified in the Issued/Revision column.

Do not read from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revision column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-11-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2



Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title :

**PART PLAN
BASEMENT LEVEL
FOUNDATION PLAN**

Drawn : EF	Scale : 1:50	Date : 2015/04/07
Project Number : TOR.111805.0001	Drawing Number : S-201	
Drawing Stage: CD		



1 PART PLAN - BASEMENT LEVEL
S202 FOUNDATION PLAN
1:50

- 2.1. PROVIDE SHORING BELOW GALLERY AND BELOW GROUND FLOOR AS INDICATED ON RESPECTIVE FLOOR PLANS. SHORING BELOW GROUND LEVEL MAY BE OMITTED PROVIDED THAT OSWS TO BE SHORED BEARS FULLY ON EXISTING BRICK WALL FREE OF OPENINGS / EDGE FOR 2'-0" ON EITHER SIDE OF JOIST. (I.E. LOAD WILL BE ASSUMED TO BE TAKEN BY BRICK WALL) SEE ALSO NOTE 2.4.
- 2.2. FOR GROUND LEVEL FRAMING:
IF EXISTING STEEL BEAMS ON GRID LINES X1 & X4 BEARS ON BRICK WALL ON GRID LINE Y1, PROVIDE SHORING FOR BEAMS.
- 2.3. DEMO WALL ABOVE GROUND LEVEL.
- 2.4. REMOVE PORTIONS OF BLOCK WALL ABOVE BASEMENT LEVEL AS REQUIRED TO POUR FOOTING AS SHOWN ON BASEMENT LEVEL FRAMING PLAN. ENSURE EXISTING BLOCK WALLS ADJ. TO NEW FOOTINGS ARE UNDERPINNED AS REQUIRED. SEE GENERAL NOTES FOR UNDERPINNING DETAILS.

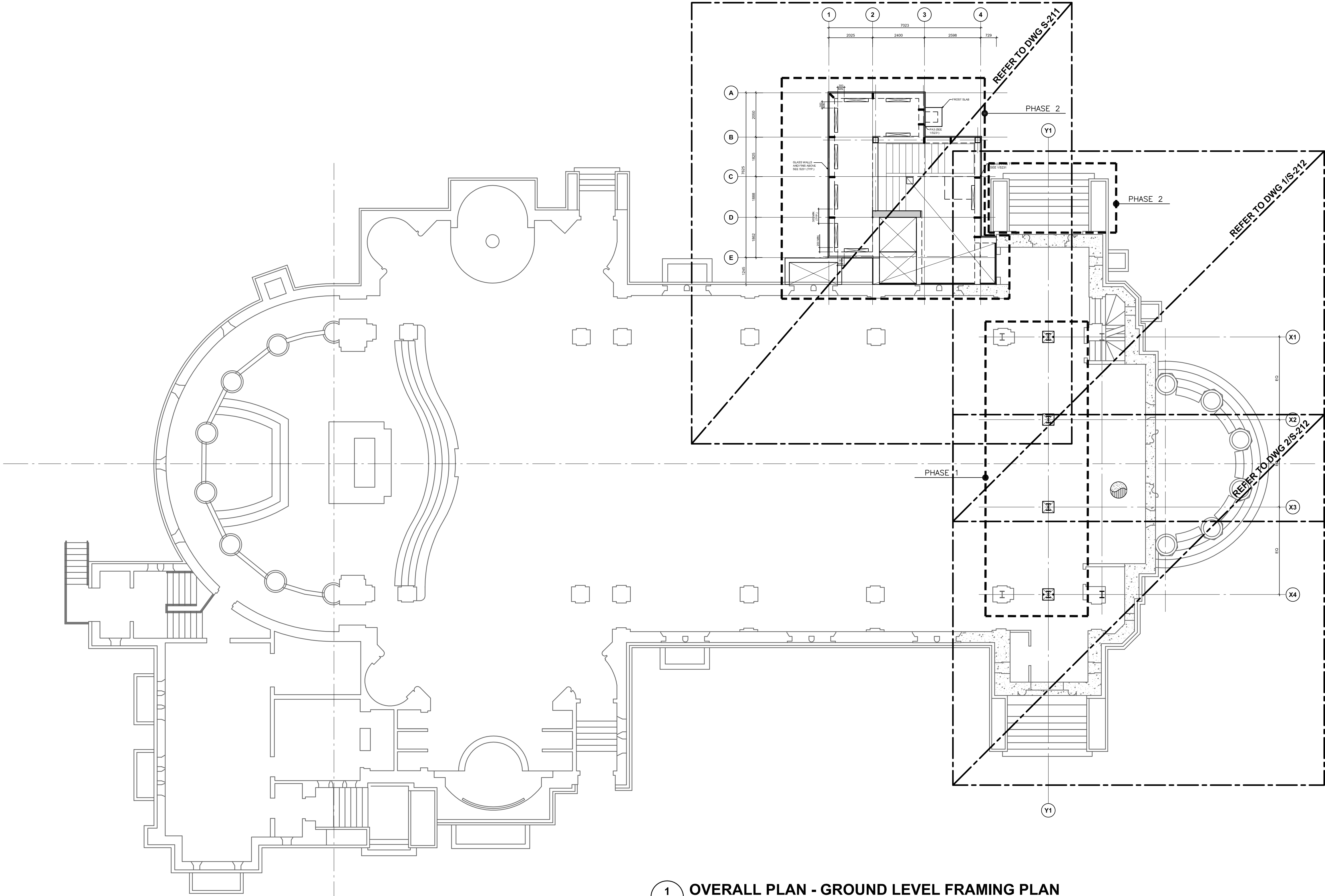


- 2.1. PROVIDE SHORING BELOW GALLERY AND BELOW GROUND FLOOR AS INDICATED ON RESPECTIVE FLOOR PLANS. SHORING BELOW GROUND LEVEL MAY BE OMITTED PROVIDED THAT OSWS TO BE SHORED BEARS FULLY ON EXISTING BRICK WALL FREE OF OPENINGS / EDGE FOR 2'-0" ON EITHER SIDE OF JOIST. (I.E. LOAD WILL BE ASSUMED TO BE TAKEN BY BRICK WALL) SEE ALSO NOTE 2.4.
- 2.2. FOR GROUND LEVEL FRAMING:
IF EXISTING STEEL BEAMS ON GRID LINES X1 & X4 BEARS ON BRICK WALL ON GRID LINE Y1, PROVIDE SHORING FOR BEAMS.
- 2.3. DEMO WALL ABOVE GROUND LEVEL.
- 2.4. REMOVE PORTIONS OF BLOCK WALL ABOVE BASEMENT LEVEL AS REQUIRED TO POUR FOOTING AS SHOWN ON BASEMENT LEVEL FRAMING PLAN. ENSURE EXISTING BLOCK WALLS ADJ. TO NEW FOOTINGS ARE UNDERPINNED AS REQUIRED. SEE GENERAL NOTES FOR UNDERPINNING DETAILS.

SOIL BEARING CAPACITY ASSUMED:
FACTORED = 300 kPa
SERVICE = 200 kPa
CONTRACTOR VERIFY SOIL CAPACITY PRIOR TO WORK.

S-202

c:\bttner P:\TOR\111800\TOR.111805.0001 - Our Lady of Perpetual Help Glass Addition\Drafting\Structural\TOR.111805.0001 S-210 Overall Plan - Ground Level.dwg 15-10-29 15:29:40



1 S210 **OVERALL PLAN - GROUND LEVEL FRAMING PLAN**
1:50

- REFER TO ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR ELEVATIONS, SLOPES AND DIMENSIONS. TOP OF STRUCTURAL SLAB IS 0mm FROM FINISHED FLOOR DATUM ELEVATION (0m). TOP OF STRUCTURAL SLAB CROSSED AND NOTED IS REFERENCED FROM EL. 0m.
- DESIGN LIVE LOADS ARE:
 - VESTIBULE 4.8 kPa
 - OR OTHERWISE CROSSED AND NOTED ON PLAN.
- DESIGN SUPERIMPOSED DEAD LOADS ARE:
 - INTERIOR FINISHES 0.6 kPa
 - SUSPENDED MECH/CEILING 0.5 kPa
 - OR OTHERWISE CROSSED AND NOTED ON PLAN.
- REFER TO THE FOLLOWING DRAWINGS:
 - GENERAL NOTES - S100 SERIES
- PROVIDE WATER STOPS AT ALL EXTERIOR POUR JOINTS.
- SEE GENERAL NOTES FOR CAST-IN SLAB THICKNESS AND REINFORCING OF MID-LANDINGS. SEE ARCH FOR ELEVATION.
- CONTRACTOR TO VERIFY EX. JOIST/ BEAM LOCATIONS PRIOR TO CONSTRUCTION.

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

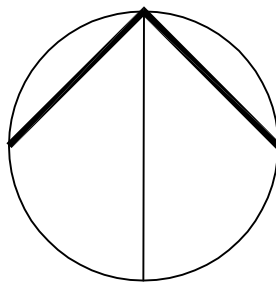
The work "as constructed" may vary from what is shown on these drawings.
- Use of these drawings is limited to that identified in the Issued/Revision column.

Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

REV.	DATE	ISSUED
2	2015-11-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2



Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title :

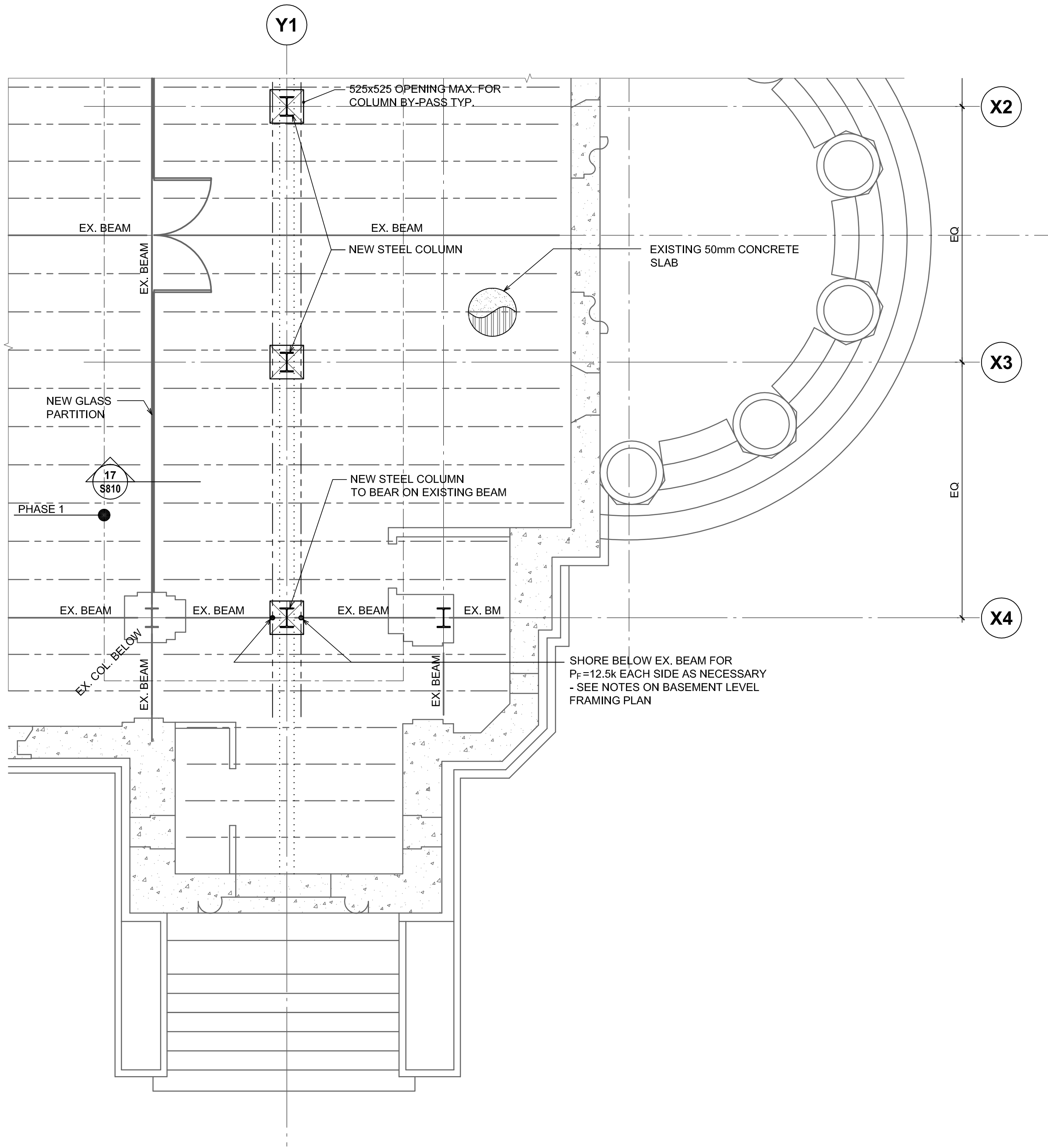
**OVERALL PLAN
GROUND LEVEL
FRAMING PLAN**

Drawn : EF	Scale : 1:100	Date : 2015/04/07
Project Number : TOR.111805.0001	Drawing Number :	S-210
Drawing Stage: CD		



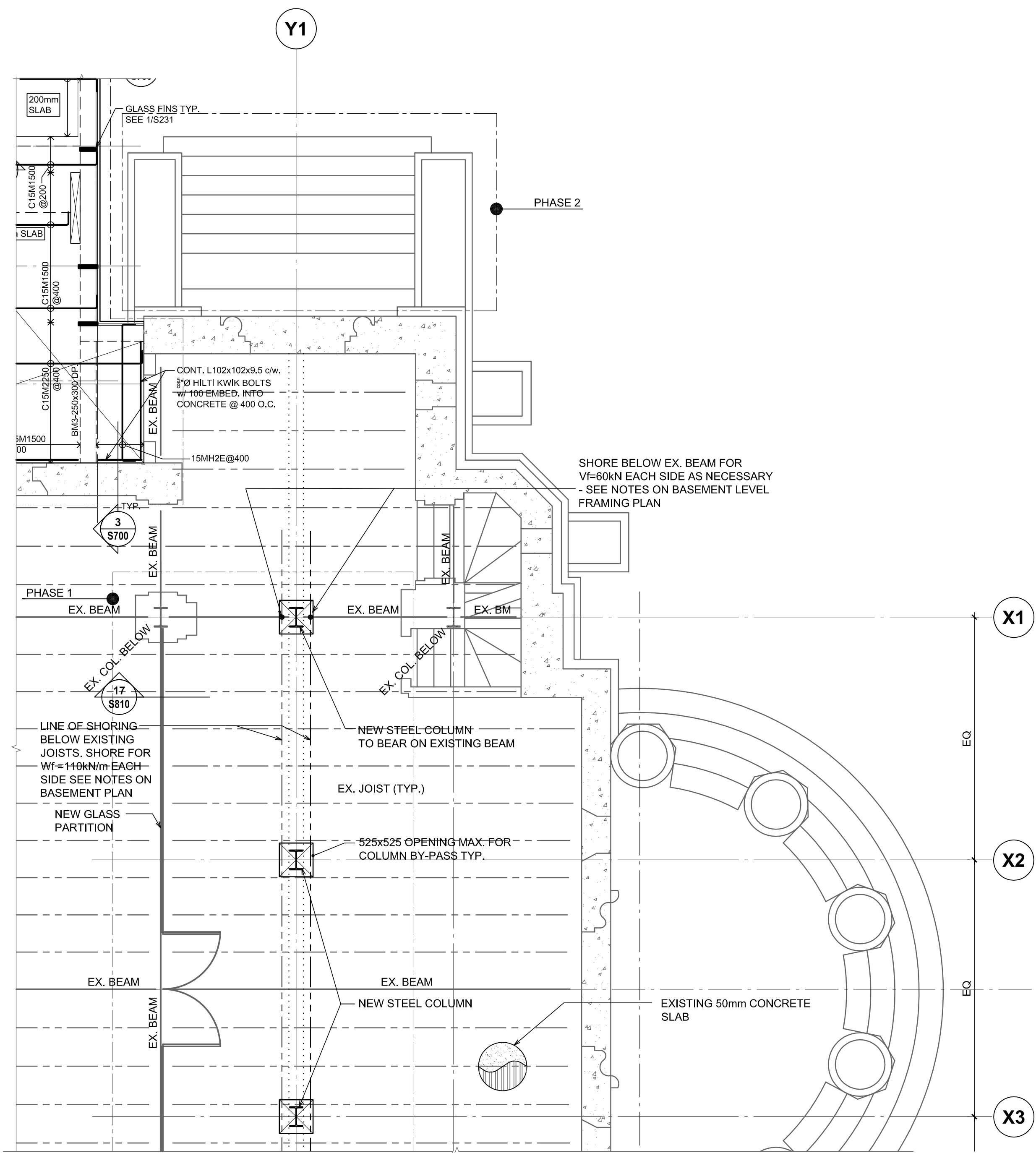
S-211

c:\bttner\p\tor\111800\tor.111805.0001 - Our Lady of Perpetual Help Glass Addition\Drafting\Structural\TOR.111805.0001 S-212 Part Plans - Ground Levels_50.dwg 15-12-04 15:52:16



2
S212 **PART PLAN - GROUND LEVEL FRAMING PLAN**
1:50

NOTES:
1. REFER TO NOTES ON S210
2. ASSUMED LOBBY LOADS.
DL=4.25kPa
LL=4.8kPa.



1
S212 **PART PLAN - GROUND LEVEL FRAMING PLAN**
1:50

NOTES:
1. REFER TO NOTES ON S210
2. ASSUMED LOBBY LOADS.
DL=4.25kPa
LL=4.8kPa.

Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

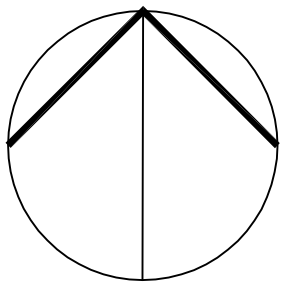
The work "as constructed" may vary from what is shown on these drawings.
- Use of these drawings is limited to that identified in the Issued/Revision column.

Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

REV.	DATE	ISSUED
2	2015-11-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

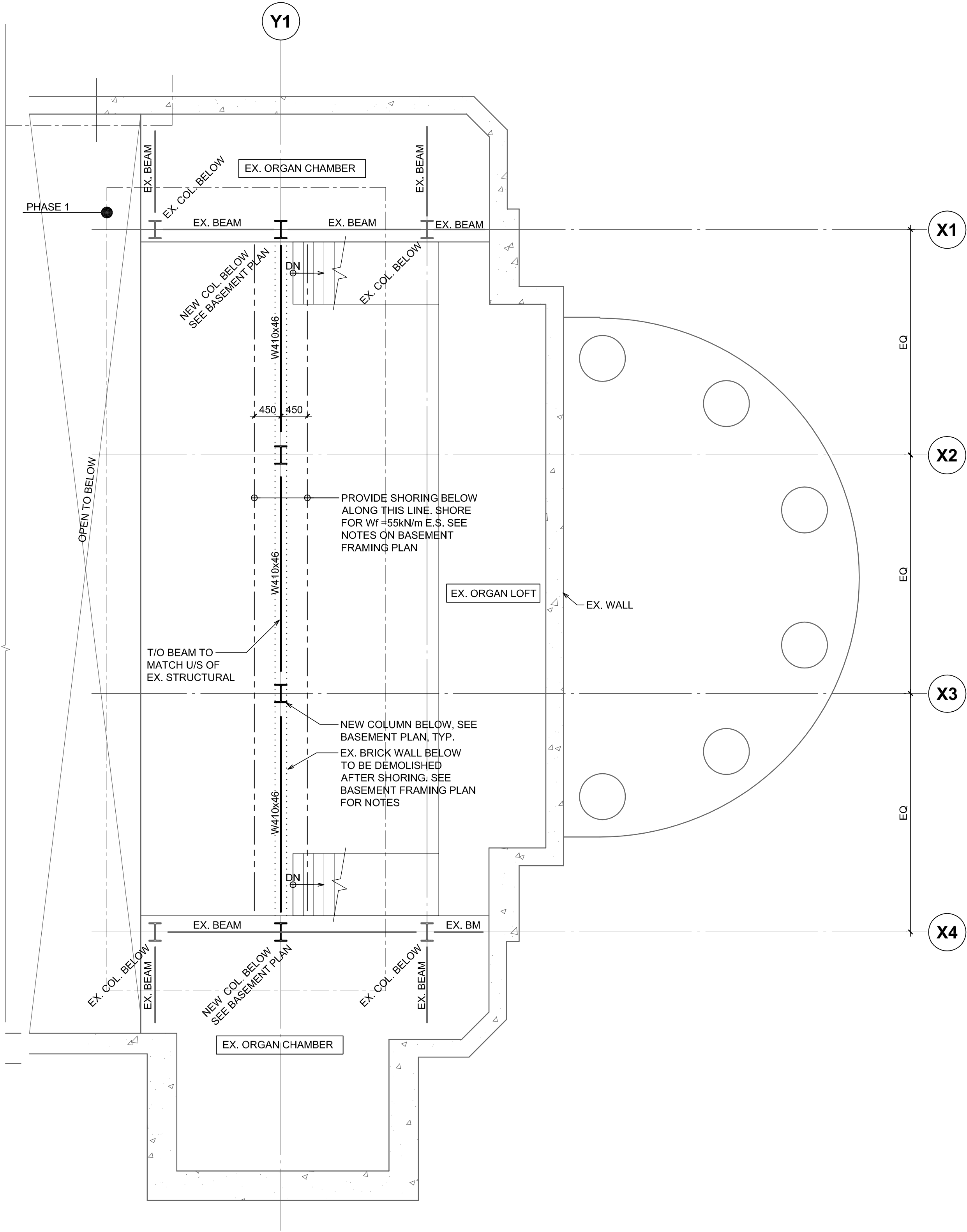
Title:

PART PLANS GROUND LEVEL FRAMING PLAN

Drawn : EF	Scale : 1:50	Date : 2015/04/07
Project Number : TOR.111805.0001	Drawing Number : S-212	
Drawing Stage: CD		

c:\dttnr P:\TOR\111800\TOR.111805.0001 - Our Lady of Perpetual Help Glass Addition\Drafting\Structural\TOR.111805.0001 S-220 Part Plans - Gallery Level_50.dwg 15-12-04 16:40:49

22" x 34"



1 PART PLAN - GALLERY LEVEL FRAMING PLAN

- S220** 1:50
1. REFER TO NOTES ON S210.
2. ASSUMED FLOOR LOADS

ORGAN CHAMBER/LOFTS
DL=6.25 kPa
LL= 4.8 kPa

TYPICAL GALLERY SPACE
DL=4.25 kPa
LL= 4.8 kPa

- Drawing Notes**
- All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
 - These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

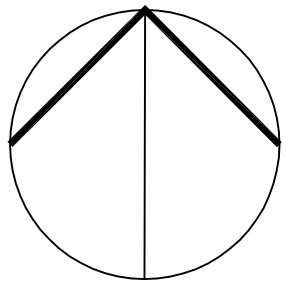
The work "as constructed" may vary from what is shown on these drawings.
 - Use of these drawings is limited to that identified in the Issued/Revision column.

Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-11-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc **Read Jones Christoffersen**
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 **Fax** 416 977-1427 www.rjc.ca

Title :
**PART PLAN
GALLERY LEVEL FRAMING PLAN**

Drawn : EF	Scale : 1:50	Date : 2015/04/15
Project Number : TOR.111805.0001	Drawing Number : S-220	
Drawing Stage: CD		



Drawn : EF	Scale : 1:50	Date : 2015/04/07
Project Number : OR.111805.0001	Drawing Number : S-230	
Drawing Stage: CD		

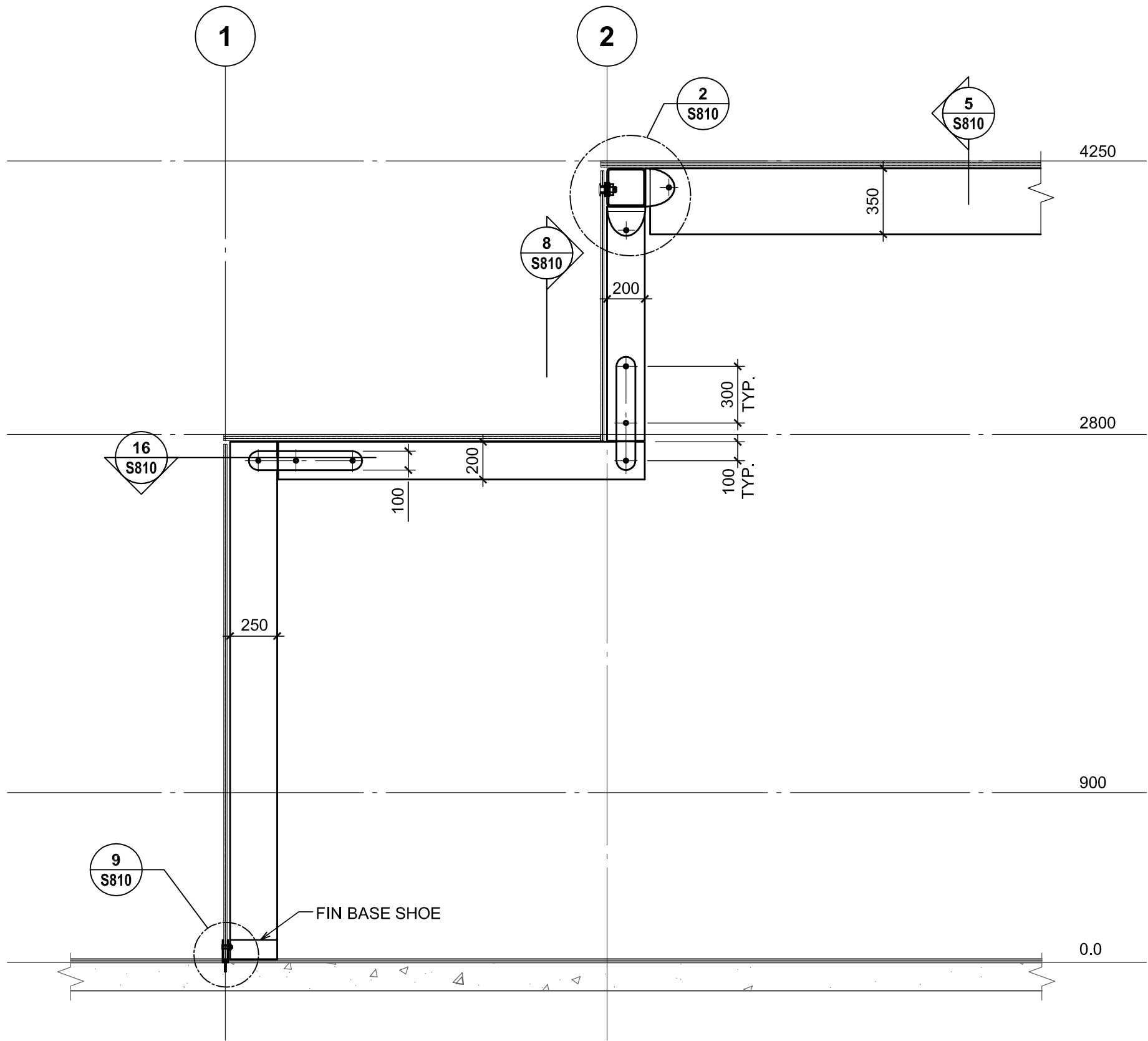
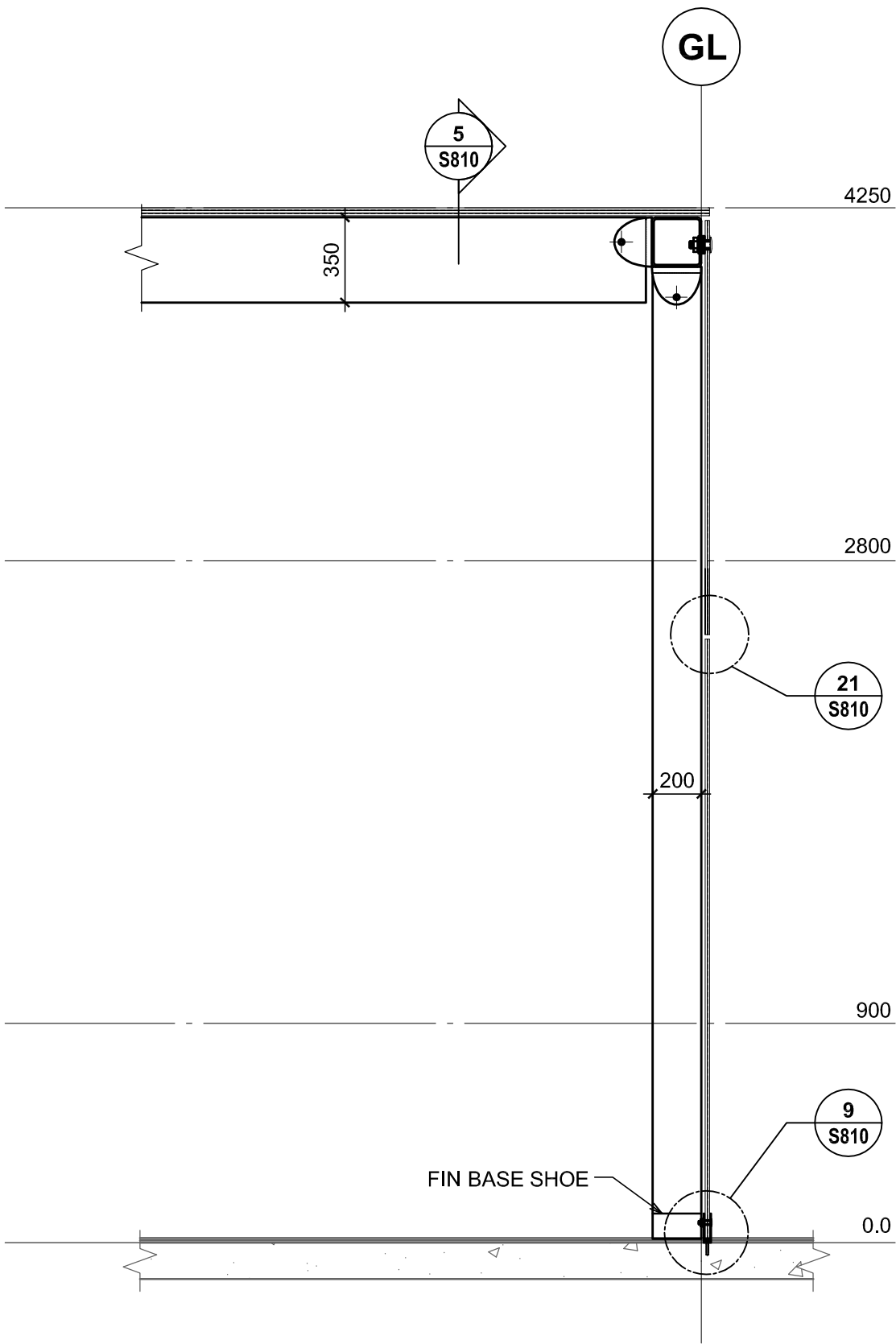
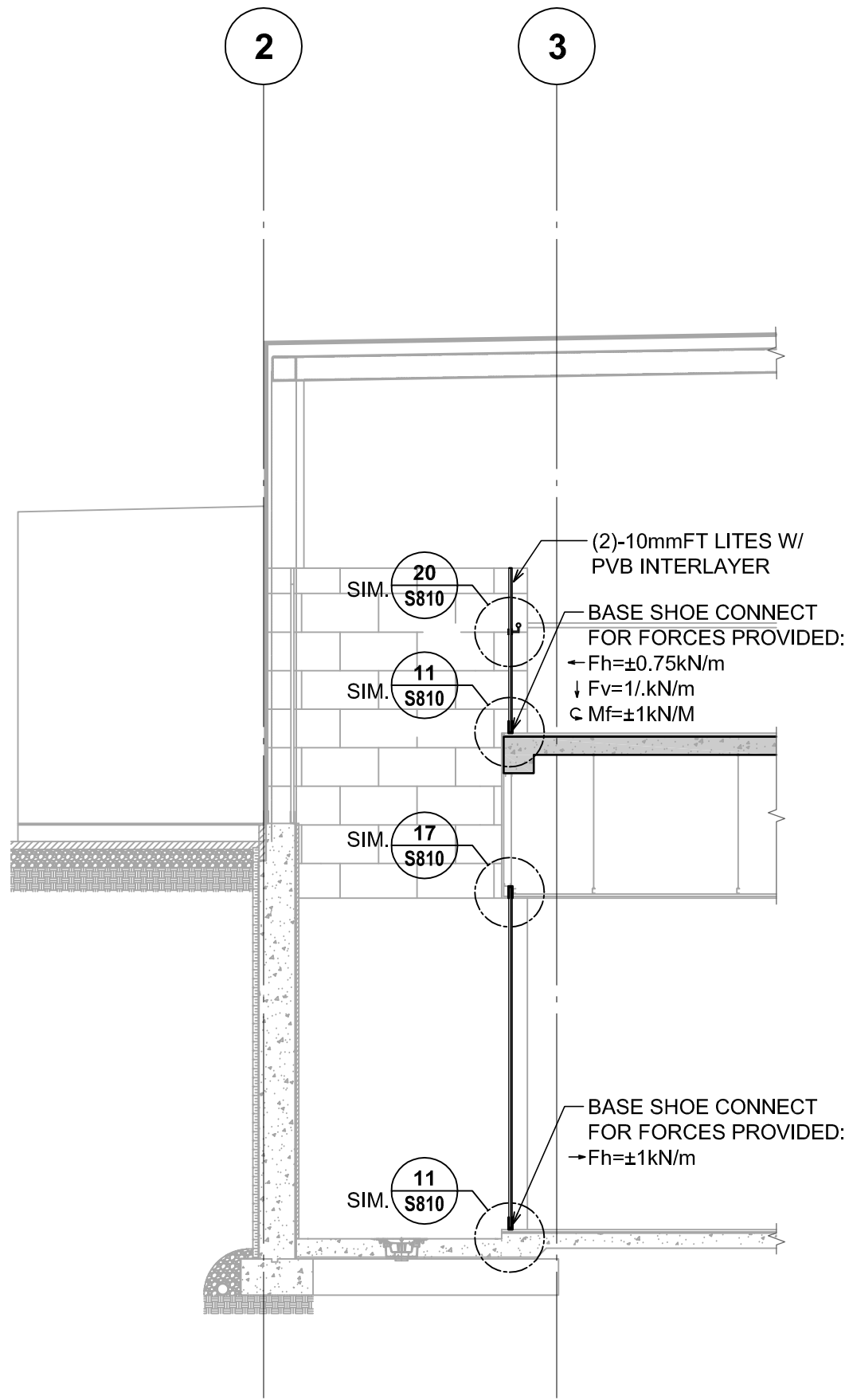
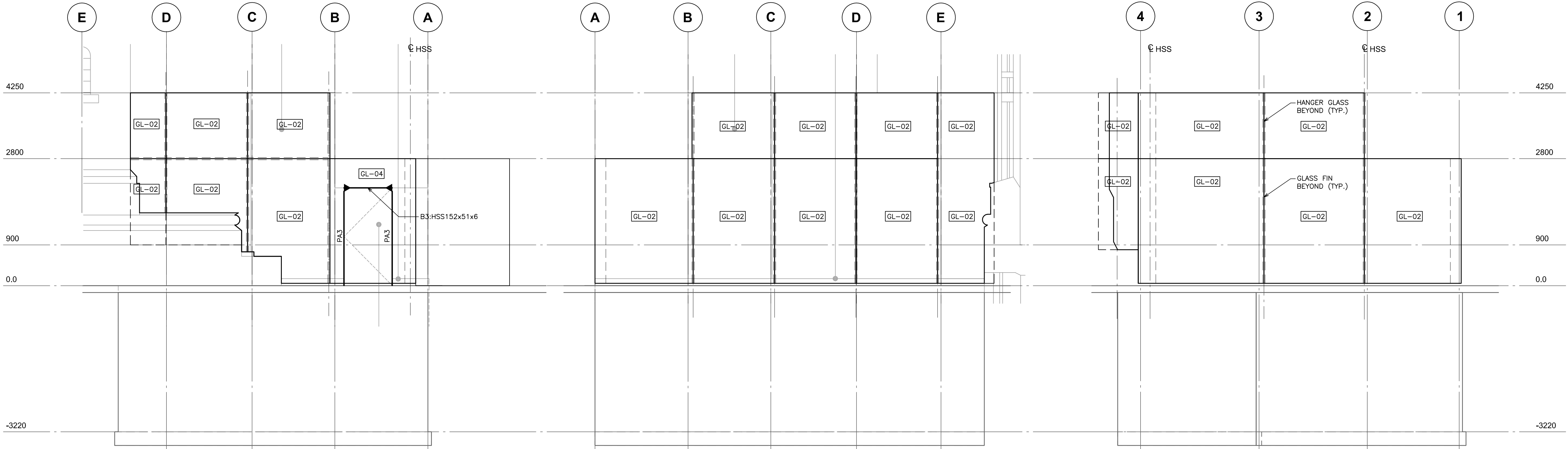
Drawn : EF	Scale : 1:50	Date : 2015/04/07
----------------------	------------------------	-----------------------------

Project Number : COR.111805.0001	Drawing Number : S 220
-------------------------------------	----------------------------------

Drawing Stage: CD

Drawn : EF	Scale : 1:50	Date : 2015/04/07
Project Number : TOR.111805.0001	Drawing Number : S-231	
Drawing Stage: CD		

cb\lthner P:\TOR\111800\TOR:111805.0001 - Our Lady of Perpetual Help Glass Addition\Drafting\Structural\TOR:111805.0001 S-400 Wall Elevations_50.dwg 15-10-29 15:39:31

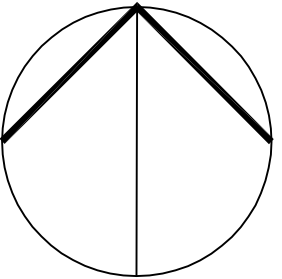


Drawing Notes

- All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.
- These drawings are "design drawings" only.
- They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.
- The work "as constructed" may vary from what is shown on these drawings.
- Use of these drawings is limited to that identified in the Issued/Revision column.
- Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.
- The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

REV.	DATE	ISSUED
2	2015-11-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2

rjc Read Jones Christoffersen Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title:
WALL ELEVATION

Drawn : EF	Scale : 1:50	Date : 2015/04/07
Project Number : TOR.111805.0001	Drawing Number : S-400	
Drawing Stage: CD		

CONCRETE BEAM SCHEDULE											
BEAM		REINFORCING BARS							STIRRUPS		REMARKS
MARK NO. SIZE	T = TOP B = BOTTOM M = MIDDLE HEF = HORIZONTAL EACH FACE			LEFT SUPPORT	CLEAR SPAN "L"		RIGHT SUPPORT	L = LEFT END R = RIGHT END REM = REMAINDER T = THROUGHOUT CANT. = CANTILEVER			
	NO.	SIZE	LOCN		U.L. = UPPER LAYER L.L. = LOWER LAYER ML. = MIDDLE LAYER			TYPE	SPACING	LOCN	
BM1 250x300 DP.	3	20M	T	↘ EMBED ↙			↗	□	15M@400	T	
	3	25M	B								
BM3 250x300 DP.	3	15M	T	↘ SEE SECTION 3/S700 ↙			↗ EMBED ↘	□	15M@400	T	
	3	20M	B								

Drawing Notes

1. All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.

2. These drawings are "design drawings" only.

They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.

The work "as constructed" may vary from what is shown on these drawings.

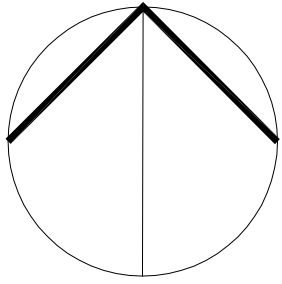
3. Use of these drawings is limited to that identified in the Issued/Revision column.

Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.

The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.

2	2015-11-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2



Read Jones Christoffersen
Consulting Engineers

Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 **Fax** 416 977-1427 www.rjc.ca

Title :

CONCRETE BEAM SCHEDULE

Drawn : AZ

Scale : AS SHOWN

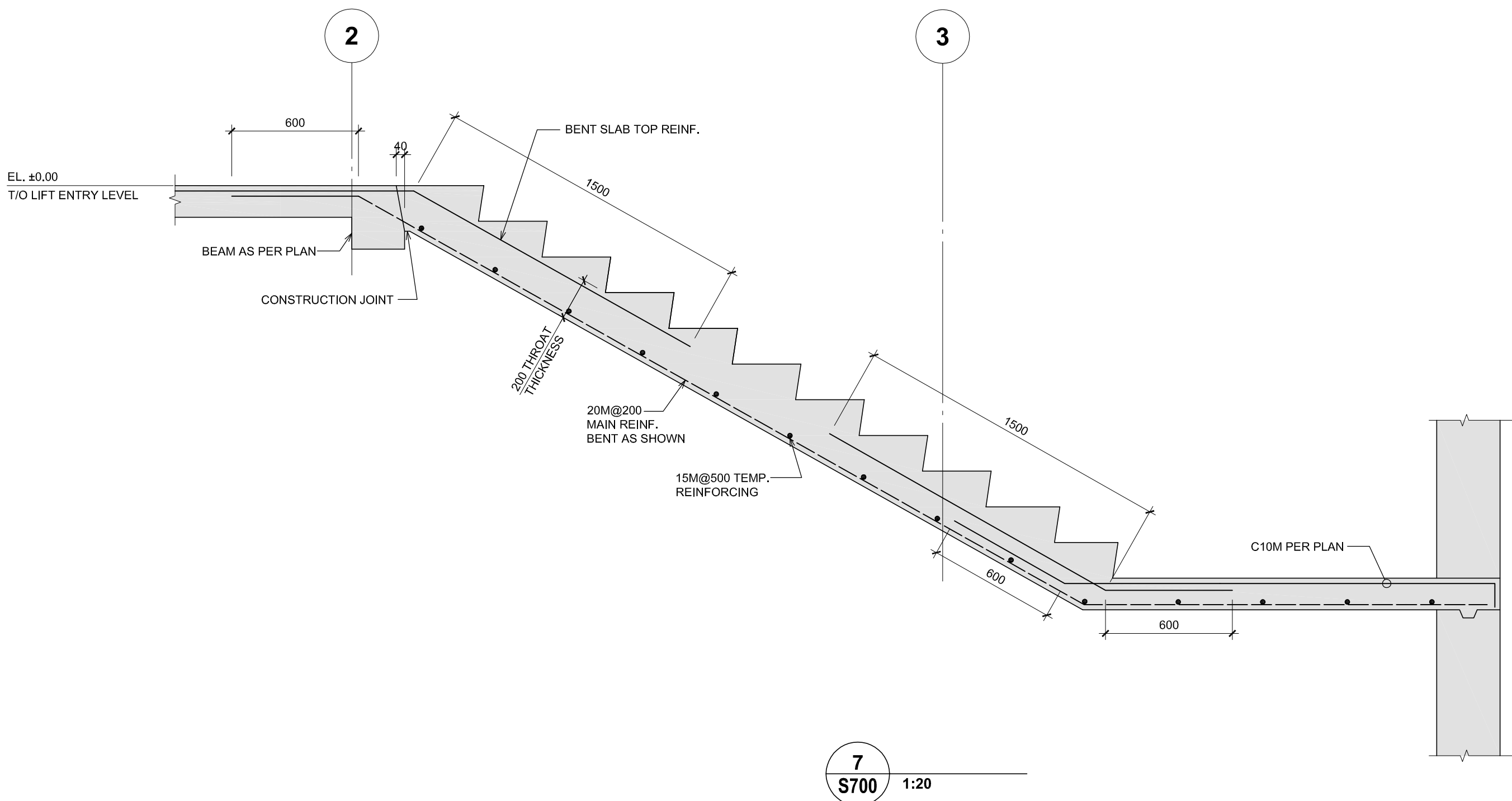
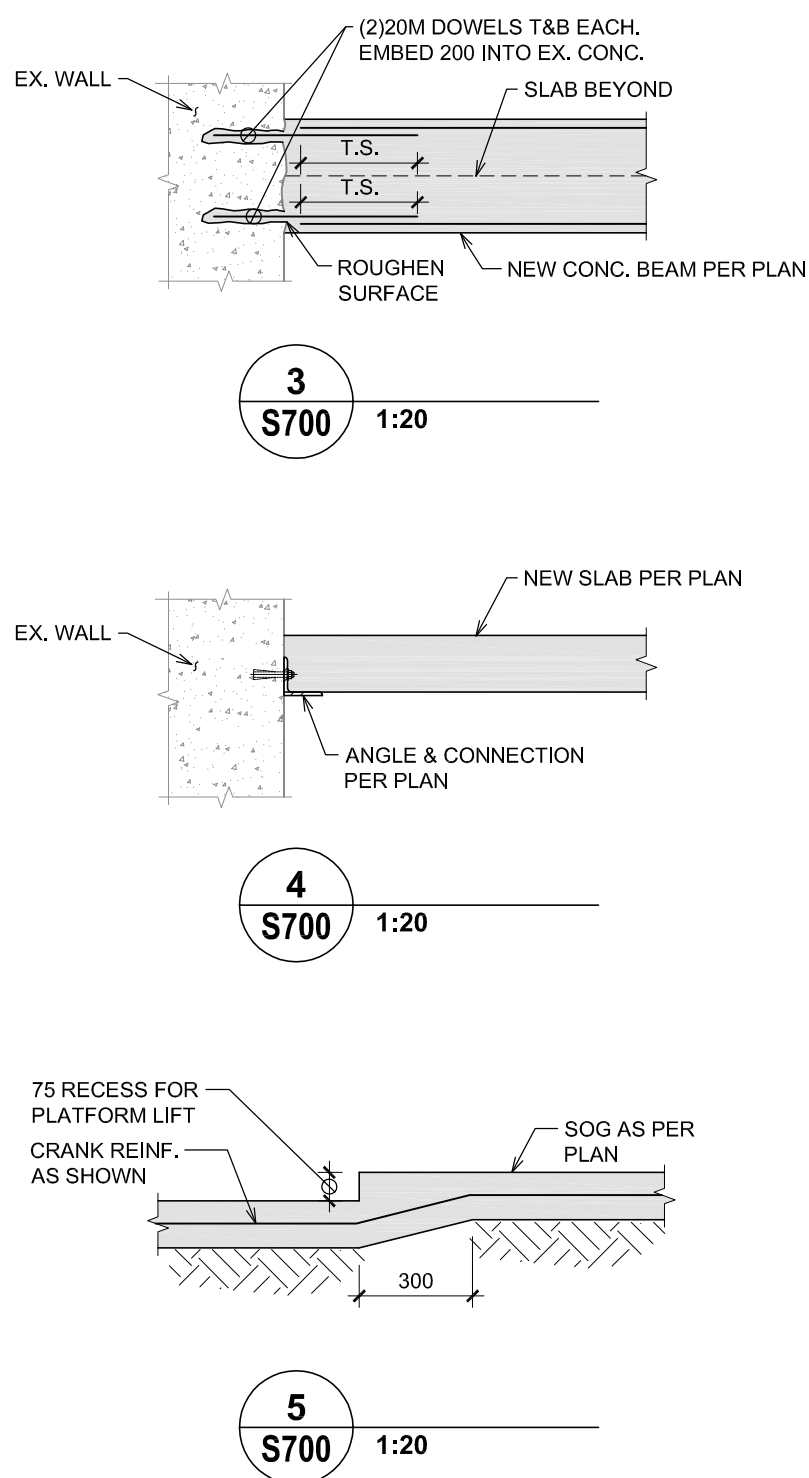
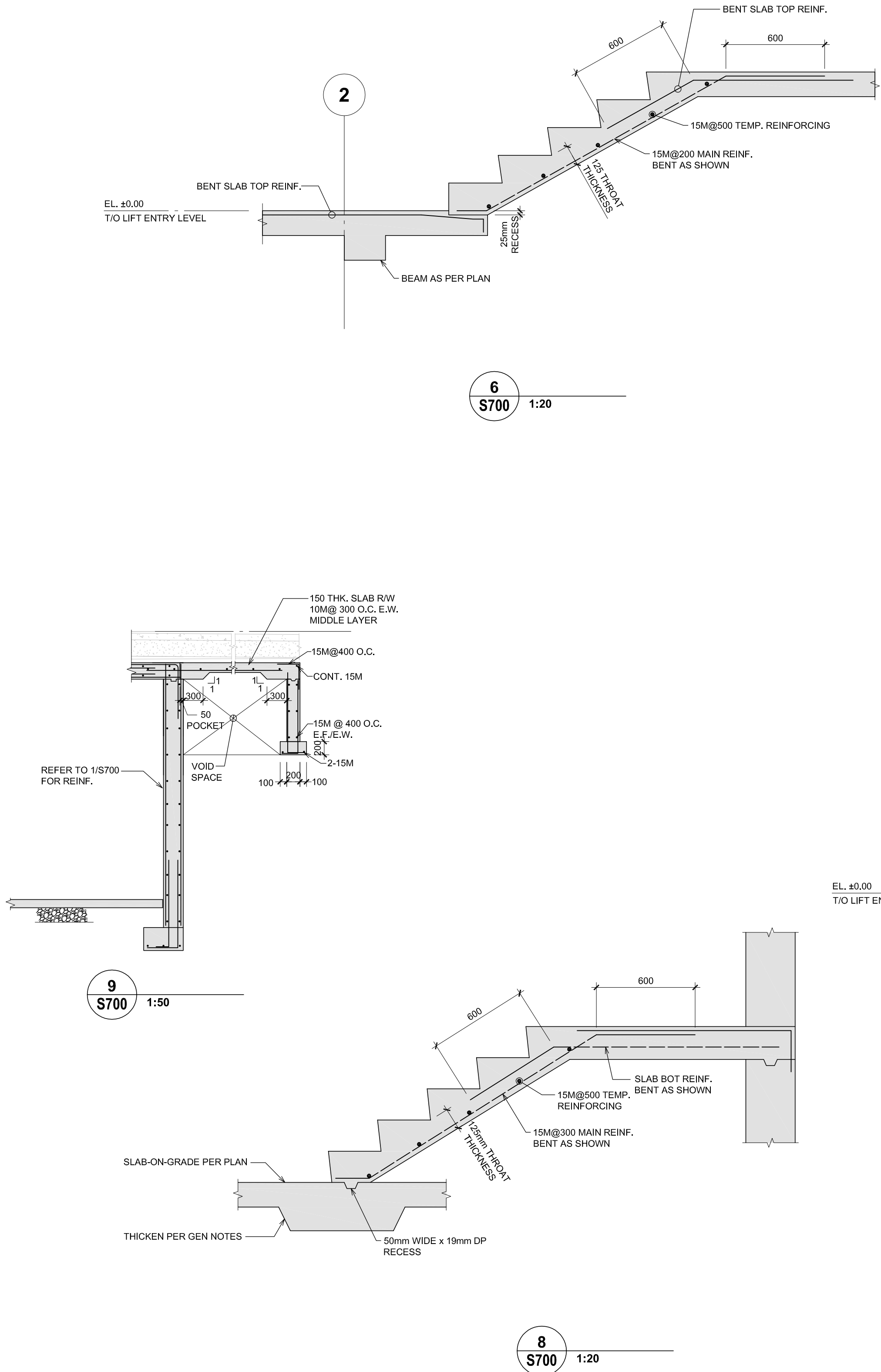
Date : 2015/04/14

Project Number : TOR.111805.0001

Drawing Number : S-500

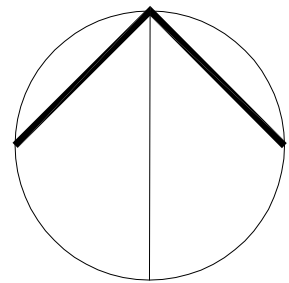
Drawing Stage: CD

cblltner P:\TOR\111800\TOR:111805.0001 - Our Lady of Perpetual Help Glass Addition\Drafting\Structural\TOR:111805.0001 S-700 Foundation Sections.dwg 15-10-29 15:39:25



Drawing Notes		
1. All drawings, plans, models, designs, specifications and other documents prepared by Read Jones Christoffersen Ltd. ("RJC") and used in connection with this project are instruments of service for the work shown in them (the "Work") and as such are and remain the property of RJC whether the Work is executed or not, and RJC reserves the copyright in them and in the Work executed from them, and they shall not be used for any other work or project.		
2. These drawings are "design drawings" only.		
They may not be suitable for use as shop drawings. Use of these drawings as base drawings for "shop drawings" is not permitted unless written permission containing certain conditions and limitations is obtained from RJC.		
The work "as constructed" may vary from what is shown on these drawings.		
3. Use of these drawings is limited to that identified in the Issued/Revision column.		
Do not construct from these drawings unless marked "Issued for Construction" by RJC in the Issued/Revision column, and then only for the parts noted.		
The drawings shall not be used for "pricing" / "costing" or "tender" unless so indicated in the Issued/Revisions column. "Pricing" or "Costing" drawings are not complete and any prices based on such drawings must allow for this.		
2	2015-11-04	ISSUED FOR PHASE 1 TENDER
1	2015-10-29	ISSUED FOR BUILDING PERMIT
REV.	DATE	ISSUED

ALL MEASUREMENTS MUST BE CHECKED ON THE JOB BY THE CONTRACTOR. DRAWINGS MUST NOT BE SCALED. ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON REQUEST.



OUR LADY OF PERPETUAL HELP CHURCH RENOVATIONS & ADDITIONS

TORONTO, ONTARIO

Our Lady of Perpetual Help Parish
78 Clifton Road
Toronto, ON M4T 2G2



Suite 500, 144 Front Street West, Toronto, ON M5J 2L7 Canada
Office 416 977-5335 Fax 416 977-1427 www.rjc.ca

Title :

SECTIONS

Drawn : AZ	Scale : AS SHOWN	Date : 2015/04/14
Project Number : TOR.111805.0001	Drawing Number : S-700	
Drawing Stage: CD		

cblttnr P:\TOR111800\TOR:111805.0001 - Our Lady of Perpetual Help Glass Addition\Drafting\Structural\TOR:111805.0001 S-810 Glass Sections & Details.dwg 15-10-29 15:39:15

