	A. FOR FIRE						(SEE ALSC 1.
	GENERAL	L (AREAS NO	FI	RE RATIN	GS		
FO	ETAINING / DUNDATION WALLS 2 EXPOSURE)	INSIDE FACE	0-2 HOURS GREATER OF 40mm AND 1.5db	3 HOURS N/A	<u> </u>	N/A	
(1 -		GROUND OR EARTH SIDE	GREATER OF 40mm AND 1.5db	N/A		N/A	
	THROUGH	OTED OTHERWIS		1	.0d <sub>b</sub>		
	D. CONCRET	E CAST AGAINST E WITH NO MEMB DSED TO CHLORID	RANE (NON-PARI	<ing) 6<="" td=""><td>0 mm (</td><td>OR 2.0d₀ IEVER</td><td></td></ing)>	0 mm (	OR 2.0d₀ IEVER	
	C-XL, C1, A	AND C3. FINISHED CONCRE	TE EXPOSED TO	is 4 4	6 GRE	ATER) OR 1.5d⊳	
	OR EARTH	E IN PARKING ARI		is RANE, 4	6 GRE		2.
		/ERTICAL BARS E IN PARKING ARI	AS WITH MEMBE	Ì	GRE/	IEVER ATER) OR 1.5db	
	AND SEVE ACCESS, E	E EXPOSURE (R ETC.) AS NOTED C E IN PARKING ARI	AMPS, TRUCK N PLAN, TOP BAI	(\ RS IS	WHICH GRE	IEVER ATER)	
	BOTTOM E		-A3,	(\	VHICH	IEVER ATER)	
		URAL DRAWINGS			INGS	FOR	
		AL DRAWINGS FO			D) or (	E) ABOVE	3.
DE	ESIGNATI	ON OF R	EINFOR	CING	BA	RS	コ
1.	OR IN FAR FACE						
2. 3.	BARS SHOWN T IN NEAR FACE C STRAIGHT BARS		IN TOP O	FBEAMS	OR SL	ABS OR	
J.	6-10M4200 MEAN	NS 6-10M BARS 42					
	1-15M 3800 mm l	200 ALT. @ 200 MI _ONG BAR THEN 1 CED 200 mm O/C A	-15M 3200 mm				
	FOR EACH 20M4 IF STAGGER NO	STAG. 600 MEANS 000 BAR SPACED T SPECIFIED SEE	AT 300 mm O/C. GENERAL NOTE				
4.		ETAILS FOR DIMEN REINFORCING LAY		DIMENSIC	)N.	***	(TOL
	6-C15M4000 @ 3 (LENGTH INCLU	00 MEANS 6-15M E DES HOOK LENGT DARD HOOK AND S	H) HOOKED ONE	END		J	OR C WHE
	8-A15M3000 @ 3 (LENGTH INCLU	00 MEANS 8-15M E DES HOOK LENGT	ARS 3000 mm LC H) HOOKED ONE	– NG END			AND OTHE FOR BY T
	15M @ 300 H.2.E	DARD HOOK AND MEANS 15M BAR DARD HOOK AND S	S HOOKED BOTH			)	1.
5.	REINFORCING B	AR HARDWARE: AR TERMINATOR	(WITH 5 x Ab GR0	OSS HEAD	))		
	OR HEADED BAI PROVIDE BAR T	R (WITH 10 x Ab GI ERMINATOR U.N.C	ROSS HEAD). ).				
	REINFORCING E	AR MECHANICAL AR MECHANICAL I JOINT OR FOR F	SPLICE AT				
	(TYPE 2 U.N.O.) REBAR HALF CC	OUPLER WELDED - IBED PLATE (TYPE	TO STRUCTURAL				
6.	EPOXY COATED	STRAIGHT AND H	OOKED BARS:				
	SPACED AT 400 BOTH DIRECTIO		OM OF SLAB IN	-			
	4000 mm LONG (	250 MEANS 7-15M LENGTH INCLUDE ND WITH 90° STAN	S HOOK LENGTH	l)		I	2.
	5. AULU AT 200	0,0.					-
							3.
							4.
							5.
							6.
							<b>AN</b> 1.
							2.
							3.
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							4.
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							CC
							CC
							<b>CC</b> 1.
							<b>СС</b> 1. 3.
							<b>CC</b> 1. 3. 4.
							<b>CC</b> 1. 3. 4. 5.
							<b>CC</b> 1. 3. 4. 5.

### **CRETE COLD WEATHER CONCRETE - GENERAL** NON **UIREMENTS (CAST-IN-PLACE** UNLESS NOTED OTHERWISE, ALL CONCRETE IS TO BE CAST-IN-PLACE. 1. "NC PORTLAND CEMENT SHALL BE TYPE GU OR GUL UNLESS NOTED OTHERWISE. ALL CONCRETE MIX SUBMITTALS MUST CLEARLY INDICATE CSA A23.1, EXCEPT THE FOLLOWING MINIMUM REQUIREMENTS MUST THE SPECIFIC CEMENT TYPE TO BE UTILIZED, OR THE PROPORTIONS WHEN MULTIPLE CEMENT TYPES ARE UTILIZED IN THE SAME MIX. RECASTED AIR TEMPERATURE AT OR BELOW 5°C CEMENT TYPE AND SUPPLEMENTARY CEMENTING MATERIALS FOR PR EXPOSURE CLASSES S-1, S-2, AND S-3 SHALL BE AS OUTLINED IN CSA A23.1. THE AGGREGATE OR MIXING WATER SHALL BE HEATED TO 2. EX MAINTAIN A MINIMUM CONCRETE TEMPERATURE OF 10°C AT POINT CONCRETE SHALL HAVE A UNIT WEIGHT OF 23±1 kN/m<sup>3</sup> (145±5 PCF) UNLESS OF POUR. NOTED OTHERWISE. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE THE CONCRETE PROPERTIES USED IN DESIGN ARE BASED ON A NOMINAL WHICH IS AT A TEMPERATURE LESS THAN 5°C. COARSE AGGREGATE SIZE OF 20 mm (3/4") ACCORDING TO TABLE 11 OF CSA A23.1, UNLESS NOTED OTHERWISE. ALL LOCATIONS PROPOSED BY THE CONTRACTOR SHALL BE PREPARED TO COVER SLABS [AND CONTRACTOR FOR USE OF CONCRETE MIX DESIGNS WITH A NOMINAL SHOTCRETE WALLS] IF UNEXPECTED DROP IN AIR TEMPERATURE COARSE AGGREGATE SIZE DIFFERENT THAN 20 mm (3/4") SHALL BE SHOULD OCCUR. SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. ANY INCREASE IN REQUIRED CONCRETE STRENGTH OR INCREASE IN CONCRETE EXPOSURE CLASSES REQUIRING CURING TYPE 1 (BASIC) QUANTITY OF REINFORCEMENT DUE TO PROPOSED USE OF CONCRETE MIX IN ACCORDANCE WITH CSA A23.1 SHALL HAVE THE THE CONCRETE WITH DIFFERENT NOMINAL COARSE AGGREGATE SIZE TO BE PAID FOR BY TEMPERATURE MAINTAINED ABOVE 10°C FOR AT LEAST 7 DAYS OR THE CONTRACTOR. UNTIL THE CONCRETE REACHES 70% OF SPECIFIED STRENGTH. RECYCLED AGGREGATE IS NOT TO BE USED WITHOUT WRITTEN APPROVAL CONCRETE EXPOSURE CLASSES REQUIRING CURING TYPE 2 BY THE STRUCTURAL ENGINEER. (ADDITIONAL CURING) OR CURING TYPE 3 (EXTENDED WET CURING) IN ACCORDANCE WITH CSA A23.1 SHALL HAVE THE THE CONCRETE SLUMP AND AGGREGATE SIZE TO BE DETERMINED BY THE GENERAL TEMPERATURE MAINTAINED ABOVE 10°C FOR AT LEAST THE CONTRACTOR AND SUPPLIER TO MEET PLACEMENT, AND FINISHING DURATION INDICATED IN THE STANDARD. REQUIREMENTS WITHOUT SEGREGATION WHILE MEETING ALL OWNER SPECIFICATIONS. RECASTED AIR TEMPERATURE BELOW 2°C BUT NOT BELOW -4°C MAXIMUM WATER/CEMENT RATIO AND AIR CONTENT TO MEET THE TE - FOR THESE CONDITIONS STRUCTURAL CONCRETE TOPPINGS ON REQUIREMENTS FOR THE EXPOSURE CLASS AS OUTLINED IN CSA A23.1. TAL DECK SHALL SATISFY THE REQUIREMENTS OF NOTE 3). REQUIRED AIR CONTENT FOR EXPOSURE CLASSES F-1, F-2, C-1, C-2, AND C-XL SHALL BE BASED ON CONCRETE EXPOSED TO FREEZE-THAW CYCLES LOW REQUIREMENTS OF NOTES 1A, 1B, 1D, 1E, AND: UNLESS NOTED OTHERWISE. FORMS AND STEEL SHALL BE FREE FROM ICE AND SNOW. CHLORIDE ION PENETRABILITY FOR EXPOSURE CLASS C-1 AND C-XL SHALL MEET THE REQUIREMENTS OF CSA A23.1. SLABS SHALL BE COVERED WITH CANVAS OR SIMILAR, KEPT A FEW INCHES CLEAR OF SURFACE. C.O **CONCRETE - STRENGTH AND EXPOSURE** IN WINDY WEATHER, STOREY BELOW SLAB SHALL BE ENCLOSED CO PROTECTION SHALL BE MAINTAINED FOR AT LEAST THE SPECIFIED CURING PERIOD. GENERAL (AREAS NOT INCLUDING PARKING) COMPRESSIVE EXPOSURE COMMENTS ELEMENT SH STRENGTH (MPa) CLASS 28 DAY U.N.O. . JOI RECASTED AIR TEMPERATURE BELOW -4°C FOOTINGS 30 MPa F-1 LOW REQUIREMENTS OF NOTES 1A, 1B, 2A, 2B, AND: FA (56 DAY) WI **RETAINING WALLS /** PR STOREY BELOW SHALL BE ENCLOSED AND ARTIFICIAL HEAT 30 MPa F-1 FOUNDATION WALLS PROVIDED. HEATING TO BE STARTED AT LEAST ONE HOUR AHEAD OF POURING AND MAINTAINED FOR A MINIMUM OF THE SPECIFIED CURING PERIOD. **FRE** MIN. 5 MPa TEMPERATURE OF THE CONCRETE AT ALL SURFACES SHALL BE LEAN MIX NOT (REFER TO CONCRETE KEPT AT A MINIMUM OF 20°C FOR 3 DAYS, OR 10°C FOR 7 DAYS. GEOTECH) CONCRETE SHALL BE KEPT ABOVE FREEZING TEMPERATURES UNTIL IT REACHES 70% OF ITS SPECIFIED STRENGTH. RF NOTES: ENCLOSURE MUST BE CONSTRUCTED SO THAT AIR CAN RE CIRCULATE OUTSIDE THE OUTER EDGES AND MEMBERS. GEI . WHERE EXPOSURE CLASS LISTED AS N/F-1/F-2: VEF REINFORCING TO BE COVERED AND WARMED TO MAINTAIN ITS NO A. USE N EXPOSURE FOR INTERIOR CONCRETE LOCATED WITHIN TEMPERATURE AT 0°C OR HIGHER AT THE TIME OF CONCRETE AN INSULATED BUILDING ENVELOPE (E.G. DRY AND NOT PLACEMENT. RE SUBJECTED TO FREEZING AND THAWING). B. USE F-1 EXPOSURE FOR HORIZONTAL AND SLOPED CONCRETE CRETE CONSTRUCTION TOLERANCES MEMBERS EXTERIOR TO THE BUILDING INSULATION AND NOT SEE PROTECTED BY A MEMBRANE AND DRIP EDGE (E.G. WET AND DAI SUBJECT TO FREEZING AND THAWING). VCES AS PER CSA A23.1, EXCEPT AS NOTED BELOW) 4. SEE C. USE F-2 EXPOSURE FOR HORIZONTAL AND SLOPED CONCRETE FOLERANCES SHALL BE MAINTAINED WHERE ARCHITECTURAL DETAILS OF F MEMBERS EXTERIOR TO THE BUILDING INSULATION AND RS REQUIRE. PROTECTED BY A MEMBRANE AND DRIP EDGE (E.G. DRY AND BAC SUBJECT TO FREEZING AND THAWING). NY DEVIATION OCCURS, AND IT IS ACCEPTABLE TO THE ENGINEER CO HITECT, THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENT OF AS D. USE F-2 FOR VERTICAL CONCRETE MEMBERS EXTERIOR TO JILDING ELEMENTS TO ACCOMMODATE SUCH DEVIATION. COSTS THE BUILDING INSULATION. EDIAL WORK FOR DEVIATIONS NOT ACCEPTED SHALL BE BORNE DES ONTRACTOR. NO 2. CONCRETE STRENGTH AND EXPOSURE CLASS OF STAIRS AND RAMPS SHALL MEET THE MOST STRINGENT CRITERIA OF THE RIATION FROM THE PLUMB. 7. UNL ADJOINING SLABS AND BEAMS UNLESS NOTED OTHERWISE. ALL IN THE LINES AND SURFACES OF COLUMNS, PIERS, WALLS AND HA۱ IN ARRISES: 0.25% OF HEIGHT (1 IN 400), MAXIMUM 40 mm OVER JOIN **CONCRETE - SUPPLY, TESTING AND** THE ENTIRE HEIGHT OF THE STRUCTURE. OF C SUE **SUBMITTALS** ONLY ONE CURVATURE ALLOWED PER 3000 mm. 8. VER THE TOLERANCE GIVEN IS THE MAXIMUM VARIATION FROM A TYF CONCRETE IS SPECIFIED AS PER THE "PERFORMANCE" ALTERNATE AS PLUMB LINE. OUTLINED IN CSA A23.1. EXC ALL MEASUREMENTS SHALL BE TO THE SAME SIDE OF THE THE GENERAL CONTRACTOR IS RESPONSIBLE FOR WORKING WITH THE PLUMB LINE. CONCRETE SUPPLIER TO ENSURE THAT THE PLASTIC AND HARDENED MIX PROPERTIES MEET SITE REQUIREMENTS FOR PLACING, FINISHING, AND UNLESS SPECIFIED ELSEWHERE IN THE CONSTRUCTION 1. DES THE OWNERS' SPECIFIED PERFORMANCE REQUIREMENTS. THE GENERAL DOCUMENTS - THE TOLERANCES FOR EXPOSED CORNER COLUMNS, NO CONTRACTOR SHALL MEET THE DOCUMENTATION AND QUALITY CONTROL JOINT GROOVES, AND OTHER CONSPICUOUS LINES CONTROL REQUIREMENTS OUTLINED UNDER THE "PERFORMANCE" SHALL BE: (SEE ALSO ELEVATOR SHOP DRAWINGS, ETC.) FOU ALTERNATE OF CSA A23.1. 0.125% OF HEIGHT (1 IN 800), MAXIMUM 20 mm. THE SUPPLIER SHALL MEET ALL CERTIFICATION AND DOCUMENTATION 1. FOO REQUIREMENTS AS OUTLINED UNDER THE "PERFORMANCE" ALTERNATIVE ONLY ONE CURVATURE ALLOWED PER 6000 mm. OF CSA A23.1. RF MAXIMUM VARIATION IN WINDOW BAYS 0.2% OF OPENING. SUBMIT A MIX DESIGN REVIEW LETTER SIGNED AND SEALED BY A RF PROFESSIONAL ENGINEER CONFIRMING THAT THE PROPOSED MIX PF ESS SPECIFIED ELSEWHERE, FLOOR FINISHES SHALL BE CLASS A DESIGNS WILL ACHIEVE THE REQUIRED STRENGTH, DURABILITY, AND DA NVENTIONAL SLAB ON GRADE AND ELEVATED FLOORS" WITH AN PERFORMANCE REQUIREMENTS INDICATED UNDER SUPPLIER ERALL F-NUMBER OF $F_F=20 \& F_L=15$ . RESPONSIBILITY - ITEM (g) OF TABLE 5 (ALTERNATIVE 1) OF CSA A23.1. DSER TOLERANCES MAY BE REQUIRED TO GIVE THE QUALITY OF AT THE REQUEST OF THE OWNER, THE SUPPLIER WILL FURNISH TEST 2. A MC SH FLOOR SURFACES CALLED FOR ELSEWHERE IN THE CONTRACT DATA RESULTS (LESS THAN 3 MONTHS OLD) FOR EACH PROPOSED MIX ASS UMENTS. DESIGN DEMONSTRATING THAT THEY MEET THE STRENGTH, DURABILITY, AND SHRINKAGE REQUIREMENTS SPECIFIED. RF RIATIONS OF STRUCTURAL CONCRETE ELEMENTS RELATED TO EACH SP HER AND RELATIVE TO A REFERENCED GRID SYSTEM FOR PLAN FOR 56 DAY [OR 90 DAY] STRENGTH SPECIFICATIONS, THE SUPPLIER WILL ENSIONS TO MEET CSA A23.1. FURNISH THE OWNER WITH ACCELERATED STRENGTH TEST DATA FOR 4. BEA EACH PROPOSED MIX DESIGN, OR OTHER DOCUMENTATION ACCEPTABLE EN RIATION IN CROSS-SECTIONAL DIMENSIONS OF COLUMNS AND BEAMS TO THE OWNER. SUCH THAT THE ANTICIPATED 56 DAY IOR 90 DAY CO ) IN THE THICKNESS OF SLABS AND WALLS: AS IN CSA A23.1. STRENGTH OF THE MIX AS PLACED ON SITE CAN BE EVALUATED WITHIN 14 DAYS OF PLACEMENT. Y ONE CURVATURE ALLOWED PER 3000 mm. BF. THE CONCRETE SUPPLIER SHALL BE CERTIFIED BY THE [READY MIXED AF TINGS: CONCRETE ASSOCIATION OF ONTARIO][ALBERTA READY MIXED CONCRETE ASSOCIATION]. PR VARIATION IN DIMENSIONS IN PLAN: FO OT MINUS ----- 10 mm **CONCRETE - FINISHING AND ADMIXTURES** PLUS --------- 50 mm CURING OF CONCRETE TO MEET THE REQUIREMENTS FOR THE RF MISPLACEMENT OR ECCENTRICITY: EXPOSURE CLASS AS OUTLINED IN CSA A23.1. CURING COMPOUNDS ARE I A' NOT PERMITTED FOR SUSPENDED PARKING SLABS OR EXPOSURE CLASS TWO (2) PERCENT OF THE FOOTING WIDTH IN THE DIRECTION C-XL CONCRETE. PARKING SLABS AND REINFORCED SLAB ON GRADES IN 8. FOC OF MISPLACEMENT BUT NOT MORE THAN ------ 50 mm PARKING AREAS ARE TO BE CURED FOR MINIMUM 7 DAYS. OF DR **REDUCTION IN THICKNESS:** CORROSION INHIBITORS ARE TO BE USED IN CONCRETE IN AREAS NOTED UN ON THE STRUCTURAL DRAWINGS, AS WELL AS IN STAIRS AND STAIR PE MINUS ------ 5% OF SPECIFIED THICKNESS LANDINGS WITHIN PARKADES. USE 10 L/m<sup>3</sup> OF "DCI S" BY GRACE CONSTRUCTION PRODUCTS OR "MASTERLIFE CI 30" BY BASF VA ABOVE REQUIREMENTS DO NOT RELIEVE THE CONTRACTOR OF THEIR CONSTRUCTION CHEMICALS. ALTERNATIVELY, USE C-XL CONCRETE WITH ST SPONSIBILITY OF MEETING MORE RIGID REQUIREMENTS SPECIFIED CURING TYPE 3 (EXTENDED) PER CSA A23.1. EWHERE IN THE CONSTRUCTION DOCUMENTS OR AS REQUIRED BY 10. UNI JIPMENT SHOP DRAWINGS OR SPECIFICATIONS SUCH AS THOSE FOR ALL BOTTOM EDGES OF EXPOSED SLABS AND BEAMS, AS WELL AS EDGES WA VATORS, ETC. OF WALLS AND COLUMNS, TO BE CHAMFERED 20 mm X 20 mm. ALL TOP EDGES OF EXPOSED SLABS, BEAMS, UPSTANDS AND STAIRS TO BE 11. DOV **CRETE FORMWORK STRIPPING** TOOLED UNLESS NOTED OTHERWISE. SEE ALSO ARCHITECTURA SH DRAWINGS AND SPECIFICATIONS FOR OTHER FINISH REQUIREMENTS. SHORING 12. CON NO CALCIUM CHLORIDE IS PERMITTED, IN ANY FORM, IN ANY CONCRETE RE MIX WITHOUT THE EXPRESS WRITTEN CONSENT OF READ JONES CHRISTOFFERSEN LTD. 13. FOO E DESIGN AND FIELD REVIEW OF FORMWORK, SHORING AND SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR. RESHORING SH CURING AND PROTECTION OF CONCRETE FOR HOT, COLD OR DRY WINGS SHALL BE SUBMITTED TO RJC FOR THE EFFECT ON THE BASE WEATHER IS TO BE AS PER CSA A23.1 AS A MINIMUM. SEE ALSO LDING STRUCTURE ONLY. "CONCRETE COLD WEATHER REQUIREMENTS" IN THE STRUCTURAL DRAWINGS. COLUMN OR WALL FORMS SHALL BE REMOVED BEFORE CONCRETE REACHED 10 MPa FOR ARCHITECTURAL CONCRETE OR 8 MPa FOR HER COLUMNS OR WALLS. RENGTH OF CONCRETE FOR STRIPPING TO BE DETERMINED USING INDERS STORED ON SITE IN A PROTECTED ENCLOSURE THAT TAINS A SIMILAR TEMPERATURE AND HUMIDITY AS THE STRUCTURAL MENTS REPRESENTED. ALTERNATE METHODS, IF ACCEPTABLE TO 14. SUE , MAY BE USED. AC CONCRETE MAY BE REMOVED WITH PERCUSSIVE METHODS SUCH AS 15. WH PPING OR JACK-HAMMERING WITHOUT PRIOR APPROVAL BY RJC. EXI **CRETE REINFORCEMENT** INI WI NFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS: AN DR 10M AND LARGER (U.N.O.) - CSA G30.18 GRADE 400R WELDED WIRE REINFORCEMENT - ASTM A1064M ALL REINFORCING THAT WILL BE - CSA G30.18 GRADE 400W SUB<sup>-</sup> WELDED EPOXY REINFORCING ASTM A775M AND ASTM D3963M GALVANIZED REBAR ASTM A767M 1. REF TE: CSA G30.18 W GRADES MAY BE SUBSTITUTED FOR A G30.18 R GRADES) 2 FO NFORCING BARS WITH 5 x Ab MECHANICAL ANCHOR HEADS TO HAVE A & ( EAR SPACING BETWEEN PARALLEL BARS OF NOT LESS THAN 4db WITHIN E SAME LAYER AND BETWEEN LAYERS. RF IN T NOT SUBSTITUTE DEFORMED WIRE FOR REINFORCING BARS WITHOUT OR APPROVAL OF THE RJC. REN TH PPORT REINFORCING WITH CHAIRS, ACCESSORIES, OR REINFORCING PL/ RS AS REQUIRED. BARS USED AS SUPPORT BARS SHALL BE NSIDERED AS ACCESSORIES.

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OVIDE SUFFICIENT SUPPORTS TO MAINTAIN CONCRETE COVER AS CIFIED. ALL SUPPORTS AND BARS MUST BE TIED TOGETHER TO NTAIN REINFORCING STEEL SECURELY IN PLACE DURING CONCRETE

E STRUCTURAL DRAWINGS FOR EXTENT OF EPOXY COATED REBAR. TING OF REINFORCING STEEL SHALL CONFORM TO THE SPECIFICATIONS.

N-STRUCTURAL ELEMENTS	DESIGN CODE	LIST OF STRUCTUR
NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT ART OF THE STRUCTURAL DESIGN SHOWN ON THESE DRAWINGS. SUCH LEMENTS ARE DESIGNED, DETAILED AND REVIEWED IN THE FIELD BY THERS. THEY APPEAR ON DRAWINGS OTHER THAN THESE DRAWINGS OF EAD JONES CHRISTOFFERSEN LTD. WHERE STRUCTURAL ENGINEERING ESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, THIS SHALL BE ROVIDED BY SPECIALTY STRUCTURAL ENGINEERS, WHO SHALL PREPARE LL SUBMITTALS UNDER THEIR SEAL AND SIGNATURE AND ALSO	<ol> <li>THE COMPLETED BASE BUILDING STRUCTURE SHOWN ON THE STRUCTURAL DRAWINGS HAS BEEN DESIGNED IN SUBSTANTIAL ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012 O.REG 88/19 AND SUBSEQUENT REVISIONS WHICH IS BASED ON THE NATIONAL BUILDING CODE OF CANADA 2015.</li> </ol>	S-001 GENERAL NOTES AND TYPI S-002 GENERAL NOTES AND TYPI
ROVIDE ANY LETTERS REQUIRED BY BUILDING PERMIT AUTHORITIES. XAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT MITED TO:	DESIGN LOADS	
<ul> <li>ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, FLAG POSTS, CANOPIES, CEILINGS, MILLWORK, ETC.</li> <li>LANDSCAPE ELEMENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.</li> <li>CLADDING, GLAZING, WINDOW MULLIONS, INTERIOR STUD WALLS AND EXTERIOR STUD WALLS.</li> <li>ARCHITECTURAL PRECAST, PRECAST CLADDING.</li> <li>SKYLIGHTS.</li> <li>MECHANICAL AND ELECTRICAL EQUIPMENT, COMPONENTS, AND THEIR ATTACHMENT DETAILS.</li> <li>WINDOW WASHING EQUIPMENT AND ITS ATTACHMENTS.</li> <li>FALL PROTECTION AND FALL ARREST SYSTEMS AND THEIR ATTACHMENTS.</li> <li>ESCALATORS, ELEVATORS, AND CONVEYING SYSTEMS.</li> <li>GLASS BLOCK AND ITS ATTACHMENTS.</li> <li>BRICK OR BLOCK VENEERS AND THEIR ATTACHMENTS.</li> <li>DESIGN AND FIELD REVIEW OF SEISMIC RESTRAINT FOR SECONDARY STRUCTURAL ELEMENTS AND OPERATIONAL AND FUNCTIONAL COMPONENTS INCLUDING MECHANICAL AND ELECTRICAL EQUIPMENT.</li> <li>NON-STRUCTURAL CONCRETE TOPPINGS.</li> <li>DESIGN AND FIELD REVIEW OF NON-LOAD BEARING MASONRY</li> </ul>	<ol> <li>LATERAL LOADS ON FOUNDATION WALLS.</li> <li>A. FOUNDATION WALLS RETAINING EARTH ARE DESIGNED TO RESIST A HORIZONTAL PRESSURE AT ANY DEPTH PER THE GEOTECHNICAL REPORT BASED ON FOLLOWING:</li> <li>EARTHQUAKE SOIL PRESSURE</li></ol>	<ol> <li>THIS SET OF DRAWINGS SHOWS DRAWINGS DO NOT SHOW COMP CONSTRUCTION SAFETY. THE GE FOR SAFETY IN AND ABOUT THE THE DESIGN AND ERECTION OF A FORMWORK, FALSE WORK, SHOP WORK.</li> <li>THE USE OF THESE DRAWINGS IS REVISIONS COLUMN. DO NOT CO UNLESS MARKED "ISSUED FOR O COLUMN, BY READ JONES CHRIS NOT BE USED FOR PRICING, COS IN THE REVISION COLUMN. PRICI COMPLETE AND ANY PRICES BAS MUST INCLUDE ALLOWANCES FO 3. THE INFORMATION ON THESE DR OTHER PROJECT OR WORKS. TH APPLIES SOLELY TO THIS PROJE</li> <li>GENERAL NOTES SHALL BE READ</li> </ol>
TRENGTH, STABILITY, SERVICEABILITY AND INTEGRITY REQUIREMENTS NDER GRAVITY AND SEISMIC LOADING IN ACCORDANCE WITH THE URRENT EDITION OF APPLICABLE DESIGN CODES AND ALL OTHER DESIGN EQUIREMENTS INDICATED IN THE DRAWINGS AND SPECIFICATIONS.	2. <u>WATER TABLE:</u> THIS BUILDING IS NOT DESIGNED AS A TANKED STRUCTURE.	DETAILS AND PROJECT SPECIFIC
ONTRACTOR SHALL COORDINATE THE DESIGN OF ALL NON-STRUCTURAL LEMENTS DESIGNED BY ONE OR MORE SPECIALTY ENGINEERS AND ONNECTING TO ELEMENTS DESIGNED BY OTHER SPECIALTY ENGINEERS O ENSURE THE STRENGTH, STABILITY, SERVICEABILITY AND INTEGRITY of THE FINAL CONSTRUCTION. HOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT HE PRIMARY STRUCTURAL SYSTEM SHALL BE SUBMITTED TO READ ONES CHRISTOFFERSEN LTD. INDICATE CLEARLY THE METHOD OF TTACHMENT AND MAGNITUDE OF ALL FORCES (SPECIFIED AND ACTORED) THAT THE STRUCTURE MUST WITHSTAND. THESE DRAWINGS IILL BE REVIEWED ONLY FOR THE EFFECT OF THE ELEMENT ON THE RIMARY STRUCTURAL SYSTEM.	<ol> <li>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.</li> <li>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.</li> <li>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 &amp; ENGINEER.</li> </ol>	<ol> <li>SECTION MARK SHOWN THUS DRAWING S-3.</li> <li>SEE ARCHITECTURAL, MECHANIC SLEEVES, NAILERS, INSERTS, ET</li> <li>SEE ARCHITECTURAL DRAWINGS RECESSES, DRAINAGE SLOPES,</li> <li>THE GENERAL CONTRACTOR SHA CHECK DIMENSIONS BEFORE CO BETWEEN STRUCTURAL AND OTH CLARIFICATION.</li> <li><u>CONCRETE WORK</u> SHALL CONFORM TO CSA A23.1, O REFERENCED DOCUMENTS.</li> </ol>
ETAINING WALLS ARE DESIGNED IN ACCORDANCE WITH THE	4. COSTS OF ALL TEMPORARY WORKS ARE DEEMED TO HAVE BEEN INCLUDED IN THE CONTRACT PRICE.	<ul> <li>6. <u>STRUCTURAL STEEL WORK</u> SHALL CONFORM TO CSA S16 AN</li> </ul>
ETAINING WALLS ARE DESIGNED IN ACCORDANCE WITH THE ECOMMENDATIONS OF THE SOILS REPORT NOTED UNDER FOUNDATION ENERAL NOTESPLUS A 4.8 kPa LATERAL LOAD ALLOWANCE FOR A ERTICAL SURCHARGE OF 12 kPa. SEE ALSO DESIGN LOADS IN GENERAL OTES. ETAINING WALLS ARE DESIGNED FOR A FREE DRAINING AND WELL RAINED BACKFILL. SEE ARCHITECTURAL AND PLUMBING PECIFICATIONS AND DRAWINGS FOR DRAINAGE REQUIREMENTS. EE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR AMPROOFING OR WATERPROOFING REQUIREMENTS. EE ALSO ARCHITECTURAL AND CIVIL/ LANDSCAPING DWGS FOR EXTENT F FOR RETAINING STRUCTURES. ACKFILL MATERIALS AND METHODS TO BE REVIEWED BY SOILS ONSULTANT TO BE ENSURE COMPLIANCE TO THE RECOMMENDATIONS S NOTED IN THE GEOTECHNICAL REPORT.	<ol> <li>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 ENGINEER REGISTERED AND LICENSED TO PRACTICE BY THE PROFESSIONAL ENGINEERING ASSOCIATION HAVING JURISDICTION IN THE AREA WHERE THE STRUCTURE IS TO BE BUILT.</li> <li>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 THE CONTRACTOR DEEMS APPROPRIATE, BUT AT NO TIME SHALL THE SAFETY AND INTEGRITY OF THE WORKS AND THE STRUCTURE BE COMPROMISED. IF THE CONTRACTOR ADOPTS 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 THE CONTRACTOR WISHES TO DEVIATE FROM ANY SUGGESTED SEQUENCE.</li> <li>SEE ALSO CONCRETE FORMWORK STRIPPING AND SHORING NOTES.</li> </ol>	<ol> <li>FIRE RESISTANCE RATINGS SEE ARCHITECTURAL DRAWINGS LOCATION OF REQUIRED FIRE RE</li> <li>DO NOT CUT OR DRILL ANY OPEN WITHOUT WRITTEN PERMISSION</li> <li>REFER TO ARCHITECTURAL, MEC DRAWINGS FOR LOCATIONS, COI ALL CURBS, UPSTANDS, DOWNTU FLOORS AND WALLS FOR DUCTS SAME.</li> <li>DEFINITIONS:         <ul> <li>A. <u>RJC</u>: READ JONES CHRISTO</li> <li><u>SPECIALTY STRUCTURAL E</u> REGISTERED AND LICENSE</li> </ul> </li> </ol>
ESIGN AND FIELD REVIEW OF BACKFILL IS BY SOILS CONSULTANT AND OT BY READ JONES CHRISTOFFERSEN. NLESS NOTED OTHERWISE, ALL RETAINING WALLS BELOW GRADE AND LL EXTERIOR WALLS EXPOSED TO THE WEATHER ABOVE GRADE SHALL AVE CONTROL JOINTS. SEE CONTROL JOINT DETAIL. CONSTRUCTION DINT MAY REPLACE CONTROL JOINT WHERE REQUIRED. THE LOCATION F CONTROL JOINTS IN EXPOSED CONCRETE WALLS SHALL BE JBMITTED TO THE ARCHITECT FOR REVIEW. ERTICAL CONTROL JOINTS AND CONSTRUCTION JOINTS PER WALL YPICAL DETAILS.	<ul> <li>DELEGATED DESIGN OF PRIMARY STRUCTURE COMPONENTS</li> <li>1. THE CONTRACTOR SHALL ENGAGE A SPECIALTY ENGINEER FOR THE DESIGN OF REQUIRED STRUCTURAL ELEMENTS AND REQUIRED STRUCTURAL CONNECTIONS NOT INDICATED IN THE DRAWINGS.</li> <li>2. STRUCTURAL COMPONENTS REQUIRING DESIGN COMPLETED BY THE CONTRACTOR'S SPECIALTY ENGINEER INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:</li> </ul>	ENGINEERING ASSOCIATIO WHERE THE STRUCTURE IS FOR THE DESIGN AND FIEL - STRUCTURAL ELEME SUBCONTRACTORS, S PRECAST DOUBLE TE STEEL CONNECTIONS ETC. - SECONDARY STRUCT ELEMENTS. SEE ALSO GENERAL NOTES.
ESIGN AND FIELD REVIEW OF EXCAVATION, SHORING, AND BACKFILL IS	<ul> <li>A. MISCELLANEOUS STEEL</li> <li>B. MORTAR, GROUT AND CONCRETE MIX DESIGNS</li> <li>1. DESIGNS PRODUCED BY THE SPECIALTY ENGINEER SHALL CONSIDER</li> </ul>	C. <u>CONTINUOUS</u> : FULL TENSIO LENGTH. D. EMBEDMENT: UNLESS NOT
JNDATIONS         OOTINGS HAVE BEEN DESIGNED FOR THE FOLLOWING BEARING ESISTANCE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.         EPORT NO: 02310769.000 GEO BLD ADDITION UXBRIDGE HOSPITAL FINAL . REPARED BY: ENGLOBE ATED: FEBRUARY 20, 2024         .       STRIP FOOTINGS:       ULS:	<ul> <li>UNDER GRAVITY AND SEISMIC LOADING AND THE DURABILITY FOR PREVAILING ENVIRONMENTAL AND EXPOSURE CONDITIONS. ALL DESIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF APPLICABLE DESIGN CODES AND ALL OTHER DESIGN REQUIREMENTS INDICATED IN THE DRAWINGS AND SPECIFICATIONS. DESIGNS SHALL INCLUDE SUITABLE LETTERS OF ASSURANCE.</li> <li>2. DESIGN OF COMPONENTS AND CONNECTIONS THAT RELY ON SUPPORT BY THE PRIMARY STRUCTURE DESIGNED BY RJC OR COMPONENTS DESIGNED BY OTHER SPECIALTY ENGINEERS MUST CLEARLY INDICATE THE MEANS AND METHOD OF ATTACHMENT AND THE MAGNITUDE OF ALL FORCES (SPECIFIED AND FACTORED) THAT THE PRIMARY STRUCTURE MUST WITHSTAND. REVIEW BY THE STRUCTURAL ENGINEER OF RECORD MAY REQUIRE REVISION TO THE METHOD OF CONNECTION WITH REDESIGN BY THE SPECIALTY ENGINEER.</li> <li>3. SPECIALTY ENGINEERS ENGAGED BY THE CONTRACTOR SHALL BE REGISTERED AS PROFESSIONAL ENGINEERS IN THE PROVINCE OF ONTARIO AND ALL SUBMITTALS OR SHOP DRAWINGS PREPARED BY OR UNDER THE SUPERVISION OF THIS ENGINEERS SHALL BE SIGNED. UNSEALED PROGRESS DOCUMENTS WILL BE REJECTED BY RJC WITHOUT REVIEW UNLESS PRIOR AGREEMENT IS OBTAINED.</li> <li>4. WHERE STRUCTURAL COMPONENTS OR CONNECTIONS DESIGNED BY THE SPECIALTY ENGINEER ARE TO BE FABRICATED IN A DIFFERENT JURISDICTION, THE SPECIALTY ENGINEER SHALL SUBMIT A SEALED LETTER CONFIRMING PROOF OF PROFESSIONAL REGISTRATION IN THE JURISDICTION OF FABRICATION.</li> <li>5. THE SPECIALTY ENGINEER RESPONSIBLE FOR THE DESIGN IS ALSO RESPONSIBLE FOR REVIEW OF FABRICATION, INSTALLATION AND APPLICABLE TESTING REPORTS. UPON COMPLETION OF THE WORK, SUBMIT LETTER OF GENERAL CONFORMITY AND FIELD REVIEW TO THE ENGINEER OF RECORD.</li> <li>6. REFER TO THE DRAWINGS AND SPECIFICATIONS FOR OTHER REQUIREMENTS.</li> </ul>	TENSION EMBEDMENT MEA PER CAN/CSA-A23.3 AND AS DRAWINGS. E. <u>GENERAL CONTRACTOR</u> : F THE USE OF THE TERM "CC SHALL REFER TO THE PRIM FOR CONSTRUCTION OF TH TRADES AND SUBCONTRAC CONTRACTOR, OR A CONS <b>ABBREVIATIONS</b> ACCOM ACCOMMODATE AESS ACCOMMODATE AESS ACCOMMODATE AESS ACCOMMODATE AESS FACTORED AXIAL FORCE ALT FACTORED AXIAL FORCE ALT ALTERNATE ALUM ALTERNATE ALUM ALTERNATE ALUM ALTERNATE ALUM ACHITECTURAL B.C.E BOTTOM CHORD EXTENSIO B.E.W BOTTOM CHORD EXTENSIO B.E.W BOTTOM LONG WAY B.L.L BOTTOM LONG WAY B.M BUCKLING PREVENTION THE B.S.W BOTTOM SHORT WAY B.U.L BUCKLING PREVENTION THE B.S.W BOTTOM SHORT WAY B.U.L BOTTOM SHORT WAY B.U.L BOTTOM UPPER LAYER B.W BOTTOM UPPER LAYER B.W BOTTOM UPPER LAYER B.W BOTTOM UPPER LAYER B.W BOTTOM BELOW CANT COLUMN BELOW CBM COUPLING BEAM C.CPL COMPRESSION COUPLER Cf COMPRESSION COUPLER Cf FACTORED AXIAL COMPRESSION FORCE
ARY FOOTING ELEVATIONS WHERE REQUIRED IN ACCORDANCE WITH	FIELD REVIEW BY	C.I.P CAST IN PLACE C.J CONTROL JOINT CL CENTER LINE CLR CLEAR
TEPPED FOOTING DETAIL CF010/ CF011. NLESS OTHERWISE SHOWN, CENTER FOOTINGS UNDER COLUMNS AND VALLS. OWELS SHALL BE PLACED BEFORE CONCRETE IS PLACED. TEMPLATES HALL BE USED TO ENSURE CORRECT PLACEMENT OF DOWELS. ONCRETE PLACED UNDER WATER SHALL CONFORM TO CSA A23.1. EQUIREMENTS FOR THIS PLACEMENT CONDITION. OOTINGS CAST DIRECTLY INTO EXCAVATIONS (WITHOUT SIDE FORMS) HALL NOT BE LARGER THAN SHOWN BELOW:	<ol> <li>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.</li> <li>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.</li> <li>THE WORK TO BE REVIEWED SHALL BE GENERALLY COMPLETE.</li> </ol>	COL COLUMN COMP COMPRESSION CONC CONCRETE CONT CONTINUOUS C.P COMPLETE PENETRATION C.S COMPLETE PENETRATION C.S COMPLETE WITH DBM DIVIDER BEAM DET DETAIL D.L DEAD LOAD D.O DEAD LOAD D.O DEEP (E.G. DEPTH OF BEAM D.T.S DEPTH TO SUIT DWG DRAWING DWLS DOWELS EA EACH E.E EACH END E.F ELEVATION ELEV ELEVATOR ELEC ELECTRICAL EQ EQUAL E.W EACH WAY
UB-BASE DESIGN OF SOIL UNDER THE SLAB ON GRADE SHALL BE IN CCORDANCE WITH THE SOIL REPORT. /HERE NEW FOOTINGS ARE ADJACENT OR ABUT EXISTING FOUNDATIONS, AREFULLY HAND EXCAVATE AND DETERMINE THE BOTTOM OF THE	SHOP DRAWINGS	EXIST EXISTING EXP. JT EXPANSION JOINT EXT EXTERIOR F.D FLOOR DRAIN F.F FAR FACE
XISTING STRUCTURE. NO CASE SHALL THE NEW FOOTING BE LOWER THAN THE EXISTING //THOUT PROTECTION AGAINST UNDERMINING. NY DISCREPANCIES BETWEEN THE EXISTING FOUNDATIONS AND DESIGN RAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER. B-GRADE NOTES EFER TO GEOTECHNICAL REPORT FOR OTHER SPECIFIC DESIGN EQUIREMENTS FOR FOUNDATIONS, SOIL SLOPES, FROST PROTECTION, INIMUM COVER, ETC. OR GROUND ELEVATIONS AND DRAINAGE SLOPES, SEE ARCHITECTURAL CIVIL DRAWINGS. EMOVE ALL ORGANIC MATERIAL FROM THE BUILDING AREA AS OUTLINED THE GEOTECHNICAL REPORT. EMOVE ALL LOOSE OR SATURATED MATERIAL AND GROUNDWATER FROM HE BASE OF FOOTING EXCAVATION BY APPROVED METHODS PRIOR TO LACING FOUNDATIONS. EARING SURFACES MUST BE APPROVED BY THE GEOTECHNICAL NGINEER IMMEDIATELY BEFORE CASTING OF CONCRETE FOR OUNDATIONS OR SLAB ON GRADE. RJC IS NOT RESPONSIBLE FOR ONFIRMING BEARING CAPACITIES OF SOILS. ROTECT EXCAVATIONS FOR FOOTINGS FROM RAIN, SNOW, FREEZING EMPERATURES, STANDING WATER, LOSS OF MOISTURE AND EGRADATION BY APPROVED METHODS. HOULD WATER OR FROST, ENTER A FOOTING EXCAVATION AFTER SUB-	<ol> <li>AS PART OF OUR CONSTRUCTION PHASE 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.</li> <li>REVIEW OF SHOP DRAWINGS IS FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT AND IS NOT AN APPROVAL OF THE DETAILED DESIGN INHERENT IN THE SHOP DRAWINGS, RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS AND FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DRAWINGS AND FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DRAWINGS AND FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DRAWINGS THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INFORMATION PERTAINING TO THE FABRICATION PROCESS, TECHNIQUES FOR CONSTRUCTION AND INSTALLATION, AND FOR CO-ORDINATION OF THE WORK OF ALL SUB-TRADES.</li> <li>FOR SPECIFIC SHOP DRAWING SUBMITTAL REQUIREMENTS, SEE APPROPRIATE MATERIAL SECTIONS AND THE SPECIFICATIONS.</li> <li>SHOP DRAWINGS SHALL BE COMPLETE AND INCLUDE ANY REQUIRED SEALS FROM A PROFESSIONAL ENGINEER REGISTERED IN THE JURISDICTION WHERE THE PROJECT IS LOCATED PRIOR TO SUBMISSION.</li> <li>ALL SHOP DRAWINGS COMPRISING A REVISED SUBMISSION SHALL INDICATE THE REVISED CONTENT BY MEANS OF CLOUDING OR OTHER SUITABLE MARKINGS.</li> </ol>	F.S FAR SIDE F.G GAUGE GALV GAUGE GALV GAUGE GALV GRID LINE GR. BM GRADE BEAM G.W.B GYPSUM WALL BOARD H., HORIZ HORIZONTAL H.1.E HOOK ONE END H.2.E HOOK TWO ENDS H&V HORIZONTAL AND VERTICA H.D.G HORIZONTAL AND VERTICA H.S.C HORIZONTALLY SLOTTED CONNECTION HT HIGH POINT H.S.C HORIZONTALLY SLOTTED CONNECTION HT HIGHT I.F INSIDE FACE INT JOINT LG LONG L.L.B.B LONG LEGS BACK TO BACK L.L.H LOW POINT L.S.H LOW POINT L.S.H LOW POINT L.S.H LOW POINT L.S.H LONG SIDE HORIZONTAL L.S.V LONG SIDE VERTICAL

## **ST OF STRUCTURAL DRAWINGS**

GENERAL NOTES AND TYPICAL DETAILS

GENERAL NOTES AND TYPICAL DETAILS

### AWINGS

THIS SET OF DRAWINGS SHOWS THE COMPLETED PROJECT. 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

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.

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. GENERAL NOTES SHALL BE READ IN CONJUNCTION WITH THE TYPICAL

DETAILS AND PROJECT SPECIFICATIONS.

## INERAL

SECTION MARK SHOWN THUS A MEANS SECTION #4 ON DRAWING S-3.

SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, NAILERS, INSERTS, ETC., TO BE ENCASED IN CONCRETE. SEE ARCHITECTURAL DRAWINGS FOR FLOOR AND ROOF ELEVATIONS, RECESSES, DRAINAGE SLOPES, ETC.

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

SHALL CONFORM TO CSA A23.1, CSA A23.2, CSA A23.3 AND REFERENCED DOCUMENTS.

STRUCTURAL STEEL WORK SHALL CONFORM TO CSA S16 AND REFERENCED DOCUMENTS.

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

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

## A. <u>RJC</u>: READ JONES CHRISTOFFERSEN OR ITS REPRESENTATIVE.

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, FTC

SECONDARY STRUCTURAL ELEMENTS AND NON-STRUCTURAL ELEMENTS. SEE ALSO "NON-STRUCTURAL ELEMENTS" GENERAL NOTES. CONTINUOUS: FULL TENSION SPLICE AND TENSION DEVELOPMENT

EMBEDMENT: UNLESS NOTED OTHERWISE COMPRESSION MBEDMENT 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.

GENERAL CONTRACTOR: FOR THE PURPOSES OF THESE DRAWINGS, IE 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.

### BREVIATIONS

ACCOMMODATE L.T.S LENGTH TO SUIT ARCHITECTURALY EXPOSED L.V LENGTH VARIES STRUCTURAL STEEL L.W LONG WAY - FACTORED AXIAL FORCE MANUF MANUFACTURED ALTERNATE MAX MAXIMUM ALUMINUM MECH MECHANICAL ANCHOR ROD Mf FACTORED MOMEN	
ARCHITECTURALY EXPOSED STRUCTURAL STEEL - FACTORED AXIAL FORCE - ALTERNATE ALUMINUM ANCHOR ROD ARCHITECTURALY EXPOSED L.V LENGTH VARIES L.W LONG WAY MANUF MANUFACTURED MAX MAXIMUM MECH MECHANICAL Mf FACTORED MOMEN	
STRUCTURAL STEELL.WLONG WAY- FACTORED AXIAL FORCEMANUFMANUFACTURED- ALTERNATEMAXMAXIMUM- ALUMINUMMECHMECHANICALANCHOR RODMfFACTORED MOMEN	
STRUCTURAL STEELL.WLONG WAY- FACTORED AXIAL FORCEMANUFMANUFACTURED- ALTERNATEMAXMAXIMUM- ALUMINUMMECHMECHANICALANCHOR RODMfFACTORED MOMEN	
<ul> <li>FACTORED AXIAL FORCE</li> <li>ALTERNATE</li> <li>ALUMINUM</li> <li>ANCHOR ROD</li> <li>MANUF MANUFACTURED</li> <li>MAX MAXIMUM</li> <li>MECH MECHANICAL</li> <li>Mf FACTORED MOMEN</li> </ul>	
- ALTERNATE MAX MAXIMUM - ALUMINUM MECH MECHANICAL ANCHOR ROD Mf FACTORED MOMEN	
ALUMINUM MECH MECHANICAL ANCHOR ROD Mf FACTORED MOMEN	
ANCHOR ROD Mf FACTORED MOMEN	
	Т
ARCHITECTURAL Mfx STRONG AXIS BENE	DING
- BOTTOM CHORD EXTENSION MOMENT	-
- BOTTOM EACH WAY Mfy WEAK AXIS BENDIN	C
	9
- BOTTOM LOWER LAYER MOMENT	
- BOTTOM LONG WAY MIN MINIMUM	
BEAM Mtf FACTORED TORSIO	N
- BOTTOM N.F NEAR FACE	
BUCKLING PREVENTION TIE N.I.C NOT IN CONTRACT	
- BOTTOM SHORT WAY N.S NEAR SIDE	
BOTTOM UPPER LAYER N.T.S NOT TO SCALE	
- BOTH WAYS O.C ON CENTER	
- COLUMN ABOVE O/C ON CENTER	
- CANTILEVER O.FOUTSIDE FACE	
- COLUMN BELOW OPP OPPOSITE	
- COUPLING BEAM O.W.S.J OPEN WEB STEEL J	
- COMPRESSION COUPLER Pf FACTORED POINT L	
- FACTORED AXIAL P.P PARTIAL PENETRAT	TION
COMPRESSION FORCE P/T POST-TENSIONING	
- CAST IN PLACE R.D ROOF DRAIN	
- CONTROL JOINT REQ'D REQUIRED	
- CENTER LINE R.O ROUGH OPENING	
- CLEAR RTN RETURN	
- COLUMN R/W REINFORCED WITH	
- COMPRESSION R.W.L RAIN WATER LEADE	-R
- CONCRETE S.A.M SELF-ADHERED ME	
CONTINUOUS S.D.F STEP DOWN FOOTI	
- COMPLETE PENETRATION S.D.L SUPERIMPOSED DE	AD LOAD
- COMPRESSION SPLICE SIM SIMILAR	
- CENTERS S.L SNOW LOAD	
- COMPLETE WITH S.L.B.B SHORT LEGS BACK	TO BACK
- DIVIDER BEAM SLSSERVICEABILITY LIN	
- DETAIL S.O.G SLAB ON GRADE	
- DEAD LOAD SPEC SPECIFICATIONS	
· DO OVER - (DITTO) SR HEADED STUD ASS	EMBLY
- DEEP (E.G. DEPTH OF BEAM) S.S STAINLESS STEEL	
- DEPTH TO SUIT S.S.T SIMPSON STRONG-	TIE
DRAWING ST STAGGER	
- DOWELS STAG STAGGER	
- DOWELS STAG STAGGER	
- EACH STIR STIRRUP	
- EACH STIR STIRRUP - EACH END STL STEEL	
- EACHSTIRSTIRRUP- EACH ENDSTLSTEEL- EACH FACES.WSHORT WAY	
- EACHSTIRSTIRRUP- EACH ENDSTLSTEEL- EACH FACES.WSHORT WAY- ELEVATIONSYMSYMMETRICAL	
- EACHSTIRSTIRRUP- EACH ENDSTLSTEEL- EACH FACES.WSHORT WAY	
- EACHSTIRSTIRRUP- EACH ENDSTLSTEEL- EACH FACES.WSHORT WAY- ELEVATIONSYMSYMMETRICAL- ELEVATORT&BTOP AND BOTTOM	PRESSION
- EACHSTIRSTIRRUP- EACH ENDSTLSTEEL- EACH FACES.WSHORT WAY- ELEVATIONSYMSYMMETRICAL- ELEVATORT&BTOP AND BOTTOM- ELECTRICALT&CTENSION AND COM	
- EACHSTIRSTIRRUP- EACH ENDSTLSTEEL- EACH FACES.WSHORT WAY- ELEVATIONSYMSYMMETRICAL- ELEVATORT&BTOP AND BOTTOM- ELECTRICALT&CTENSION AND COM- EQUALT&GTONGUE AND GROOT	OVE
- EACHSTIRSTIRRUP- EACH ENDSTLSTEEL- EACH FACES.WSHORT WAY- ELEVATIONSYMSYMMETRICAL- ELEVATORT&BTOP AND BOTTOM- ELECTRICALT&CTENSION AND COMI- EQUALT&GTONGUE AND GROOD- EACH SIDET.D.CTRAFFIC DECK COA	OVE
- EACHSTIRSTIRRUP- EACH ENDSTLSTEEL- EACH FACES.WSHORT WAY- ELEVATIONSYMSYMMETRICAL- ELEVATORT&BTOP AND BOTTOM- ELECTRICALT&CTENSION AND COMI- EQUALT&GTONGUE AND GROOD- EACH SIDET.D.CTRAFFIC DECK COA- EACH WAYTENSTENSION	OVE ATING
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**EARLY WORKS GENERAL NOTES** 

**S100** 

As indicated

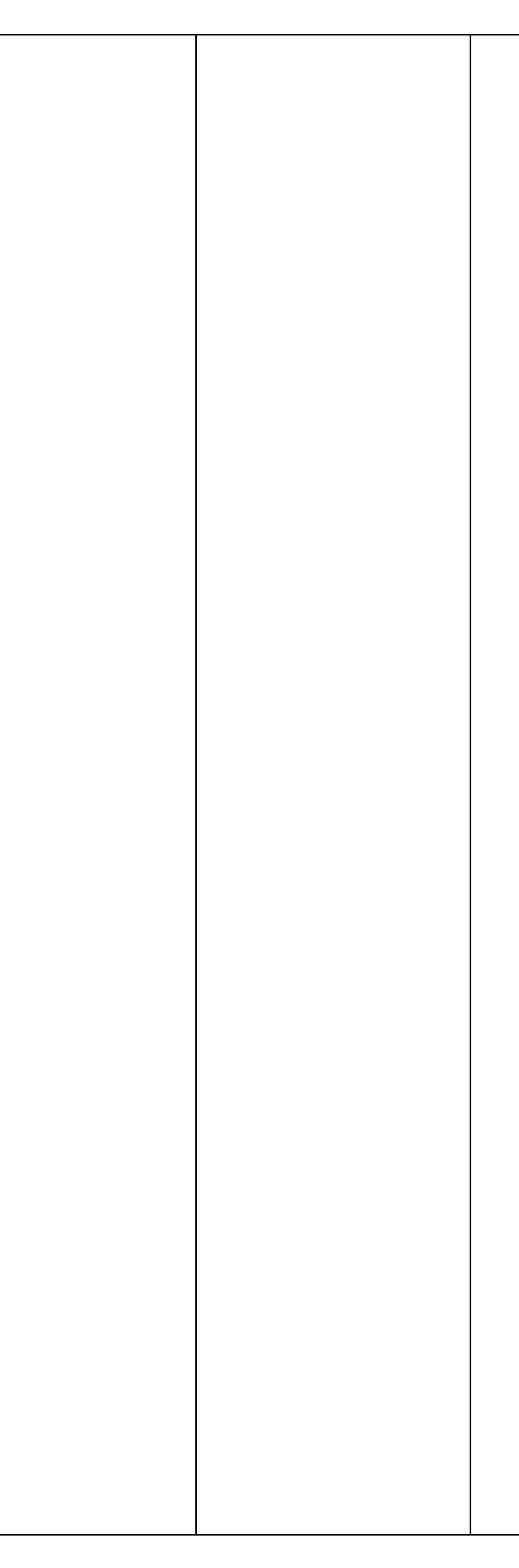
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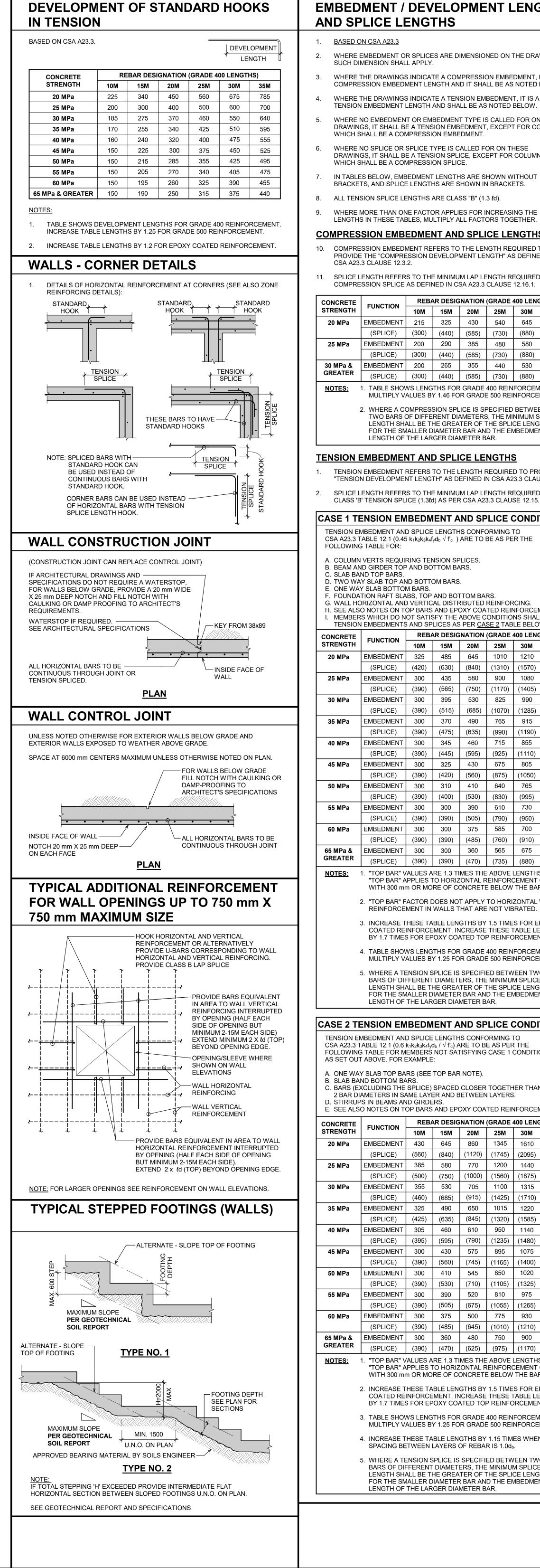
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Description 2024-07-11 OWNER REVIEW 2024-07-31 ISSUED FOR 50% DD 2024-09-19 ISSUED FOR SITE PLAN APPROVAL 2024-11-28 ISSUED FOR SITE PLAN APPROVAL

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# EMBEDMENT / DEVELOPMENT LENGTHS

WHERE EMBEDMENT OR SPLICES ARE DIMENSIONED ON THE DRAWINGS, SUCH DIMENSION SHALL APPLY. WHERE THE DRAWINGS INDICATE A COMPRESSION EMBEDMENT, IT IS A COMPRESSION EMBEDMENT LENGTH AND IT SHALL BE AS NOTED BELOW.

WHERE THE DRAWINGS INDICATE A TENSION EMBEDMENT, IT IS A TENSION EMBEDMENT LENGTH AND SHALL BE AS NOTED BELOW.

WHERE NO EMBEDMENT OR EMBEDMENT TYPE IS CALLED FOR ON THESE DRAWINGS, IT SHALL BE A TENSION EMBEDMENT, EXCEPT FOR COLUMNS WHICH SHALL BE A COMPRESSION EMBEDMENT.

WHERE NO SPLICE OR SPLICE TYPE IS CALLED FOR ON THESE DRAWINGS, IT SHALL BE A TENSION SPLICE, EXCEPT FOR COLUMNS WHICH SHALL BE A COMPRESSION SPLICE.

IN TABLES BELOW, EMBEDMENT LENGTHS ARE SHOWN WITHOUT BRACKETS, AND SPLICE LENGTHS ARE SHOWN IN BRACKETS. ALL TENSION SPLICE LENGTHS ARE CLASS "B" (1.3 ld).

9. WHERE MORE THAN ONE FACTOR APPLIES FOR INCREASING THE LENGTHS IN THESE TABLES, MULTIPLY ALL FACTORS TOGETHER.

**COMPRESSION EMBEDMENT AND SPLICE LENGTHS** 10. COMPRESSION EMBEDMENT REFERS TO THE LENGTH REQUIRED TO PROVIDE THE "COMPRESSION DEVELOPMENT LENGTH" AS DEFINED IN

CSA A23.3 CLAUSE 12.3.2. 11. SPLICE LENGTH REFERS TO THE MINIMUM LAP LENGTH REQUIRED FOR A

CONCRETE	FUNCTION	REBAR DESIGNATION (GRADE 400 LENGTHS)							
STRENGTH	FUNCTION	10M	15M	20M	25M	30M	35M		
20 MPa	EMBEDMENT	215	325	430	540	645	755		
	(SPLICE)	(300)	(440)	(585)	(730)	(880)	(1025)		
25 MPa	EMBEDMENT	200	290	385	480	580	675		
	(SPLICE)	(300)	(440)	(585)	(730)	(880)	(1025)		
30 MPa &	EMBEDMENT	200	265	355	440	530	620		
GREATER	(SPLICE)	(300)	(440)	(585)	(730)	(880)	(1025)		
NOTES:	1. TABLE SHOW								

MULTIPLY VALUES BY 1.46 FOR GRADE 500 REINFORCEMENT. 2. WHERE A COMPRESSION SPLICE IS SPECIFIED BETWEEN TWO BARS OF DIFFERENT DIAMETERS, THE MINIMUM SPLICE LENGTH SHALL BE THE GREATER OF THE SPLICE LENGTH FOR THE SMALLER DIAMETER BAR AND THE EMBEDMENT LENGTH OF THE LARGER DIAMETER BAR.

**TENSION EMBEDMENT AND SPLICE LENGTHS** 

1. TENSION EMBEDMENT REFERS TO THE LENGTH REQUIRED TO PROVIDE A "TENSION DEVELOPMENT LENGTH" AS DEFINED IN CSA A23.3 CLAUSE 12.2. 2. SPLICE LENGTH REFERS TO THE MINIMUM LAP LENGTH REQUIRED FOR A CLASS 'B' TENSION SPLICE (1.3ld) AS PER CSA A23.3 CLAUSE 12.15.

**CASE 1 TENSION EMBEDMENT AND SPLICE CONDITIONS** TENSION EMBEDMENT AND SPLICE LENGTHS CONFORMING TO CSA A23.3 TABLE 12.1 (0.45  $k_1k_2k_3k_4f_yd_b \sqrt{f}c_$  ) ARE TO BE AS PER THE

A. COLUMN VERTS REQUIRING TENSION SPLICES. B. BEAM AND GIRDER TOP AND BOTTOM BARS.

D. TWO WAY SLAB TOP AND BOTTOM BARS. E. ONE WAY SLAB BOTTOM BARS

F. FOUNDATION RAFT SLABS, TOP AND BOTTOM BARS. G. WALL HORIZONTAL AND VERTICAL DISTRIBUTED REINFORCING. H. SEE ALSO NOTES ON TOP BARS AND EPOXY COATED REINFORCEMENT. I. MEMBERS WHICH DO NOT SATISFY THE AROVE CONDITIONS SHALL HAVE

	EMBEDMENTS						
FUNCTION         REBAR DESIGNATION (GRADE 400 LENGTHS)							
	FUNCTION	10M	15M	20M	25M	30M	35M

	10M	15M	20M	25M	30M	35M
EMBEDMENT	325	485	645	1010	1210	1410
(SPLICE)	(420)	(630)	(840)	(1310)	(1570)	(1835)
EMBEDMENT	300	435	580	900	1080	1260
(SPLICE)	(390)	(565)	(750)	(1170)	(1405)	(1640)
EMBEDMENT	300	395	530	825	990	1155
(SPLICE)	(390)	(515)	(685)	(1070)	(1285)	(1500)
EMBEDMENT	300	370	490	765	915	1065
(SPLICE)	(390)	(475)	(635)	(990)	(1190)	(1385)
EMBEDMENT	300	345	460	715	855	1000
(SPLICE)	(390)	(445)	(595)	(925)	(1110)	(1295)
EMBEDMENT	300	325	430	675	805	940
(SPLICE)	(390)	(420)	(560)	(875)	(1050)	(1225)
EMBEDMENT	300	310	410	640	765	895
(SPLICE)	(390)	(400)	(530)	(830)	(995)	(1160)
EMBEDMENT	300	300	390	610	730	850
(SPLICE)	(390)	(390)	(505)	(790)	(950)	(1105)
EMBEDMENT	300	300	375	585	700	815
(SPLICE)	(390)	(390)	(485)	(760)	(910)	(1060)
EMBEDMENT	300	300	360	565	675	790
	(000)	(000)	(170)	(705)	(0.0.0)	((005)

(SPLICE) (390) (390) (470) (735) (880) (1025) **NOTES:** 1. "TOP BAR" VALUES ARE 1.3 TIMES THE ABOVE LENGTHS. "TOP BAR" APPLIES TO HORIZONTAL REINFORCEMENT CAST WITH 300 mm OR MORE OF CONCRETE BELOW THE BAR.

> 2. "TOP BAR" FACTOR DOES NOT APPLY TO HORIZONTAL WALL REINFORCEMENT IN WALLS THAT ARE NOT VIBRATED.

3. INCREASE THESE TABLE LENGTHS BY 1.5 TIMES FOR EPOXY COATED REINFORCEMENT. INCREASE THESE TABLE LENGTHS

BY 1.7 TIMES FOR EPOXY COATED TOP REINFORCEMENT. 4. TABLE SHOWS LENGTHS FOR GRADE 400 REINFORCEMENT.

MULTIPLY VALUES BY 1.25 FOR GRADE 500 REINFORCEMENT. 5. WHERE A TENSION SPLICE IS SPECIFIED BETWEEN TWO BARS OF DIFFERENT DIAMETERS, THE MINIMUM SPLICE

LENGTH SHALL BE THE GREATER OF THE SPLICE LENGTH FOR THE SMALLER DIAMETER BAR AND THE EMBEDMENT LENGTH OF THE LARGER DIAMETER BAR.

CASE 2 TENSION EMBEDMENT AND SPLICE CONDITIONS TENSION EMBEDMENT AND SPLICE LENGTHS CONFORMING TO CSA A23.3 TABLE 12.1 (0.6 k<sub>1</sub>k<sub>2</sub>k<sub>3</sub>k<sub>4</sub>f<sub>v</sub>d<sub>b</sub> /  $\sqrt{f'_c}$ ) ARE TO BE AS PER THE FOLLOWING TABLE FOR MEMBERS NOT SATISFYING CASE 1 CONDITIONS

AS SET OUT ABOVE. FOR EXAMPLE:

A. ONE WAY SLAB TOP BARS (SEE TOP BAR NOTE). B. SLAB BAND BOTTOM BARS. C. BARS (EXCLUDING THE SPLICE) SPACED CLOSER TOGETHER THAN

2 BAR DIAMETERS IN SAME LAYER AND BETWEEN LAYERS. D. STIRRUPS IN BEAMS AND GIRDERS.

	<b>REB</b>	AR DESIG	NATION	(GRADE	400 LENG	STHS)
FUNCTION	10M	15M	20M	25M	30M	35M
EMBEDMENT	430	645	860	1345	1610	1880
(SPLICE)	(560)	(840)	(1120)	(1745)	(2095)	(2445)
EMBEDMENT	385	580	770	1200	1440	1680
(SPLICE)	(500)	(750)	(1000)	(1560)	(1875)	(2185)
EMBEDMENT	355	530	705	1100	1315	1535
(SPLICE)	(460)	(685)	(915)	(1425)	(1710)	(1995)
EMBEDMENT	325	490	650	1015	1220	1420
(SPLICE)	(425)	(635)	(845)	(1320)	(1585)	(1850)
EMBEDMENT	305	460	610	950	1140	1330
(SPLICE)	(395)	(595)	(790)	(1235)	(1480)	(1730)
EMBEDMENT	300	430	575	895	1075	1255
(SPLICE)	(390)	(560)	(745)	(1165)	(1400)	(1630)
EMBEDMENT	300	410	545	850	1020	1190
(SPLICE)	(390)	(530)	(710)	(1105)	(1325)	(1545)
EMBEDMENT	300	390	520	810	975	1135
(SPLICE)	(390)	(505)	(675)	(1055)	(1265)	(1475)
EMBEDMENT	300	375	500	775	930	1085
(SPLICE)	(390)	(485)	(645)	(1010)	(1210)	(1410)
EMBEDMENT	300	360	480	750	900	1050
(SPLICE)	(390)	(470)	(625)	(975)	(1170)	(1365)

"TOP BAR" APPLIES TO HORIZONTAL REINFORCEMENT CAST WITH 300 mm OR MORE OF CONCRETE BELOW THE BAR. 2. INCREASE THESE TABLE LENGTHS BY 1.5 TIMES FOR EPOXY

COATED REINFORCEMENT. INCREASE THESE TABLE LENGTHS BY 1.7 TIMES FOR EPOXY COATED TOP REINFORCEMENT.

3. TABLE SHOWS LENGTHS FOR GRADE 400 REINFORCEMENT. MULTIPLY VALUES BY 1.25 FOR GRADE 500 REINFORCEMENT.

4. INCREASE THESE TABLE LENGTHS BY 1.15 TIMES WHEN SPACING BETWEEN LAYERS OF REBAR IS 1.0db.

5. WHERE A TENSION SPLICE IS SPECIFIED BETWEEN TWO BARS OF DIFFERENT DIAMETERS, THE MINIMUM SPLICE LENGTH SHALL BE THE GREATER OF THE SPLICE LENGTH FOR THE SMALLER DIAMETER BAR AND THE EMBEDMENT LENGTH OF THE LARGER DIAMETER BAR.



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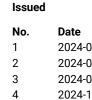
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EARLY WORKS GENERAL NOTES

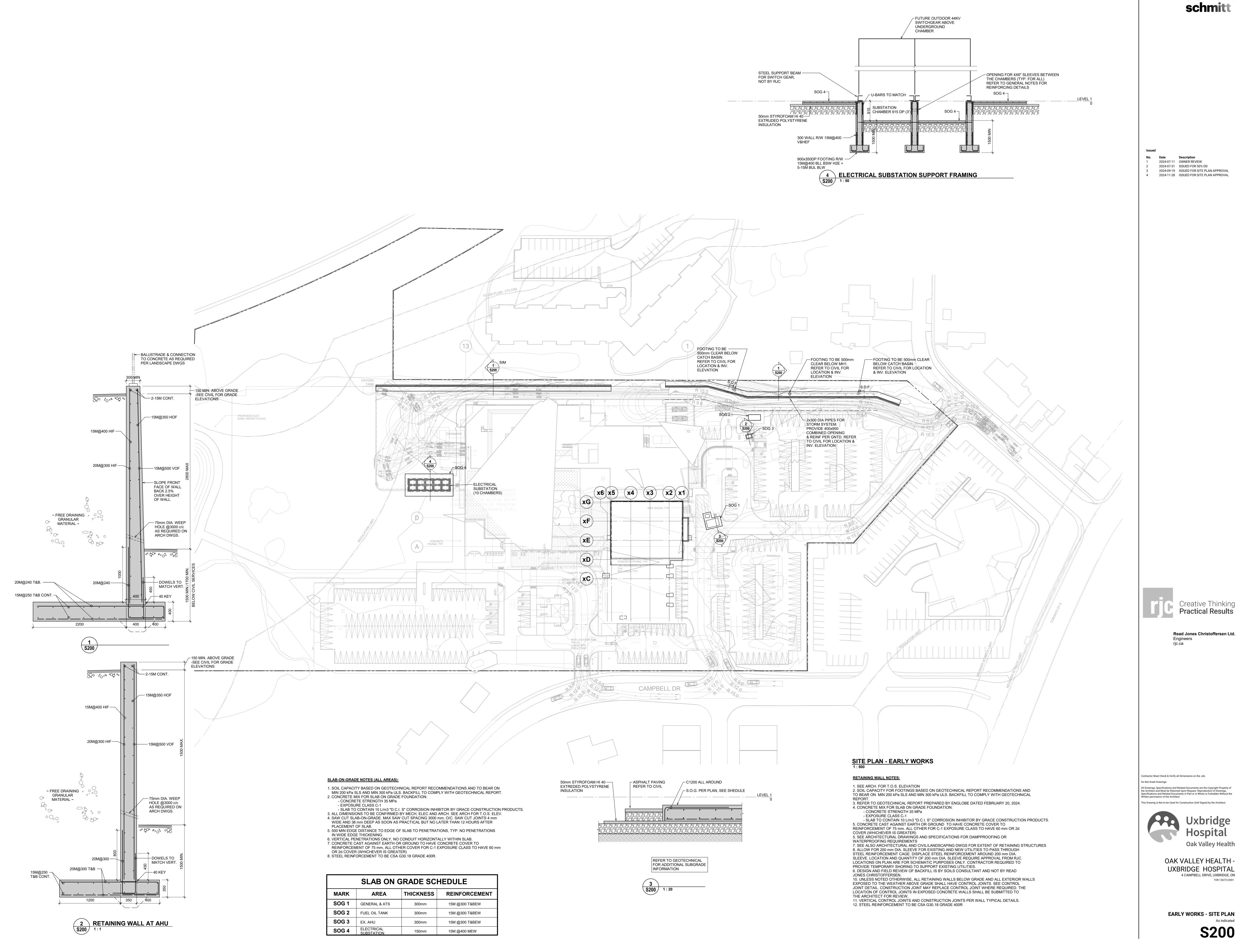


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diamond

SLAB ON GRADE SCHEDULE								
MARK AREA THICKNESS REINFORCEMEN								
SOG 1	GENERAL & ATS	300mm	15M @300 T&BEW					
SOG 2	FUEL OIL TANK	300mm	15M @300 T&BEW					
SOG 3	EX. AHU	300mm	15M @300 T&BEW					
SOG 4	ELECTRICAL SUBSTATION	150mm	15M @400 MEW					