<u>D01 - GENERAL</u>

D01-1 GENERAL INFORMATION

1. THE INFORMATION PRESENTED ON THESE DRAWINGS HAS BEEN DESIGNED AND ANALYZED IN ACCORDANCE WITH THE 2012 ONTARIO BUILDING CODE AS AMENDED JANUARY 1, 2020. CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE

■ 1.1 CONCRETE STRUCTURE DESIGNED IN ACCORDANCE WITH CSA A23.3-14

■ 1.2 STEEL STRUCTURE DESIGNED IN ACCORDANCE WITH CSA-S16-14 2. CONTRACTOR IS TO VERIFY/COORDINATE ALL DIMENSIONS/PENETRATIONS WITH

ARCHITECTURAL/MECHANICAL/ELECTRICAL DRAWINGS PRIOR TO CONSTRUCTION. REPORT INCONSISTENCIES BEFORE PROCEEDING WITH WORK. ANY OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS ARE TO BE APPROVED BY STRUCTURAL ENGINEER IN WRITING PRIOR TO CONSTRUCTION.

3. DEMOLITION DETAILS THAT AFFECT THE STRUCTURAL ELEMENTS HAVE BEEN REVIEWED IN ACCORDANCE WITH PARTS 2.4.10 AND 11 OF THE 2012 ONTARIO BUILDING CODE AS AMENDED JAN 01, 2020, WHERE REQUIRED SUPPLEMENTARY/TEMPORARY/REMEDIAL FRAMING HAS BEEN PROVIDED.

4. SEISMIC RESTRAINT OF ARCH/MECH/ELECT ELEMENTS NOT NOTED ON THE DRAWINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR'S ENGINEER, RESTRAINT DETAILS ARE TO BE DEVELOPED IN ACCORDANCE WITH THE 2012 OBC. CONTRACTOR'S ENGINEER IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF SEISMIC RESTRAINTS AND ISOLATIONS AS REQUIRED BY SPECIFICATIONS INCLUDING THE VERIFICATION THAT THE EXISTING/NEW STRUCTURE IS CAPABLE OF SAFELY SUPPORTING THE IMPOSED LOADS IN ACCORDANCE WITH THE 2012 OBC. NO ELEMENTS MAY BE CONSTRUCTED WITHOUT WRITTEN CONFIRMATION OF THESE CONDITIONS BY CONTRACTOR'S ENGINEER.

5. NO FOUNDATION ELEMENTS ARE TO BE CONSTRUCTED UNTIL WRITTEN APPROVAL OF THE BEARING SURFACES AND PRESSURES IS PROVIDED BY A GEOTECHNICAL ENGINEER THROUGH ON-SITE INVESTIGATION. FAILURE TO COMPLETE THIS WORK COULD RESULT IN THE REMOVAL/REINSTATEMENT OF ANY/ALL FOUNDATION ELEMENTS AT CONTRACTOR'S

6. DRAWINGS SHOW COMPLETED STRUCTURE ONLY, CONTRACTOR TO PROVIDE PRE-ENGINEERED SHORING AS REQUIRED. TO ACCOMMODATE THE CONTRACTOR'S CONSTRUCTION ACTIVITIES AND TO PREVENT DAMAGE TO ANY ADJACENT PROPERTY. ALL CONSTRUCTION ACTIVITIES TO BE LIMITED TO THE LIMITS OF THE CONSTRUCTION SITE AND ALL DAMAGE TO EXISTING PROPERTIES MUST BE REINSTATED.

7. CONTRACTOR IS RESPONSIBLE FOR CO-ORDINATING & TIMING OF THE CONSTRUCTION WITH RESPECT TO THE VARIOUS

8. PROPRIETARY SYSTEMS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

9. DO NOT SCALE THESE DRAWINGS.

10. DETAILS OF CONSTRUCTION ARE SHOWN BASED ON INFORMATION AVAILABLE AT THE TIME OF PREPARING DESIGN DRAWINGS. IF, DURING CONSTRUCTION, CONDITIONS ARE REVEALED THAT DIFFER FROM THE ASSUMED CONDITIONS, ADVISE THE CONSULTANT BEFORE PROCEEDING.

11. VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE PRIOR TO FABRICATION.

D01-2 DEMOLITION

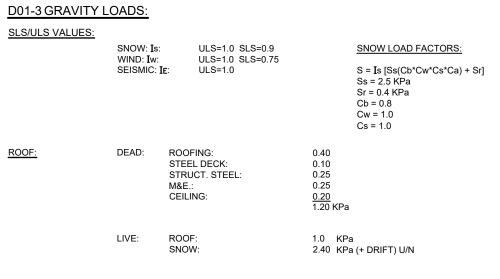
1. CONTRACTOR TO SCAN FOR ALL SERVICES AND CALL FOR LOCATES PRIOR TO DEMOLITION.

2. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHILE DEMOLISHING EXISTING STRUCTURE AS TO NOT DAMAGE THOSE

3. CONTRACTOR SHALL MAKE GOOD, TO THE SATISFACTION OF THE CONSULTANT, ANY DAMAGE THAT OCCURS DUE TO THE

4. ALL DEMOLISHED MATERIALS MUST BE DISPOSED OF OFF-SITE AT THE END OF EACH WORKING DAY

D01-3 GRAVITY LOADS:



D01-4 SEISMIC SYSTEM/LOADING DATA

SEISMIC FORCE RESISTING SYSTEM (SFRS)

SFRS: SYSTEM & CONNECTIONS: (2012 OBC CLAUSE 4.1.8.9/4.1.8.10) LATERAL LOAD RESISTING SYSTEM: CONVENTIONAL CONSTRUCTION - STEEL BRACED FRAMES

 SEISMIC IMPORTANCE FACTOR: (2012 OBC CLAUSE 4.1.8.5) IE = 1.0

■ <u>REFERENCE CITY:</u> OTTAWA (KANATA)

• SITE CLASS: THE NOTED SITE CLASSIFICATION FOR SEISMIC SITE RESPONSE AND SHEAR STRENGTH PARAMETERS INDICATED ARE ASSUMED AND ARE TO BE CONFIRMED BY A GEOTECHNICAL ENGINEER LICENSED TO PRACTICE IN ONTARIO IN WRITING, PRIOR TO CONSTRUCTION. □A □B ■C □D □E □F

• RESPONSE SPECTRUM DATA:

5% DAMPED SPECTRAL RESPONSE
 ACCELERATION VALUES FOR REFERENCE CITY: (2015 NBC APPENDIX C)

Sa(1.0) = 0.110 Sa(2.0) = 0.053 Sa(5.0) = 0.014

Sa(10.0) = 0.0053PEAK GROUND ACCELERATION (2015 NBC APPENDIX C)
 PGA = 0.257

• <u>DESIGN SPECTRAL RESPONSE ACCELERATION VALUES (DSRAV)</u>: (2012 OBC CLAUSE 4.1.8.4)

= 0.401

= 0.218 = 0.110 = 0.053 ■ SYSTEM RESTRICTION VALUE: **IE**FaSa(0.2) = 0.50 ≥ 0.35

■ FUNDAMENTAL PERIOD: (2012 OBC CLAUSE 4.1.8.11.(4) Ta NS = 0.17 sec

Ta EW = 0.21 sec DESIGN FUNDAMENTAL PERIOD

S(Ta)EW = 0.395STRUCTURAL SEPARATION:
 THE ADJACENT STRUCTURES HAVE BEEN SEPARATED IN ACCORDANCE WITH 4.1.8.14(1) OF THE 2012 O.B.C.

■ <u>BUILDING WEIGHT FOR SEISMIC DESIGN</u>: W = 251 kN VSTATIC = S(Ta)Mv**IE**W/(RdRo) = 0.206*W STATIC MAXIMUM/MINIMUM VALUES:

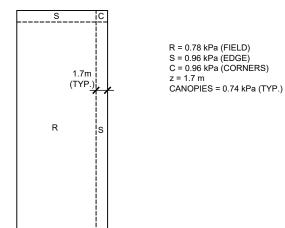
 $V_{MIN} = S(2.0)MV_{IEW}/(RdRo) = 0.027*W$

 $V_{MAX} \ge \left(\frac{2/3 S(0.2)|EW/(RdRo)}{S(0.5)|EW/(RdRo)}\right) = 0.137*W = 34.4kN$

D01-5 WIND LOADING:

WIND: (PRIMARY STRUCTURAL) WIND: (INDIVIDUAL WALLS) $NORTH-SOUTH: (\leftrightarrow)$ w = 1.0 (ULS) w = 0.75 (SLS Vbase = 25 KN q= 0.41 KPa $C_pC_g = +1.6 \text{ TO } -2.0$ <u>EAST-WEST</u>: (<u>↑</u>) Iw = 1.0 (OLS) Iw = 0.75 (SLS) C_pC_g = 1.3 (2.0 AT ENDS) Vbase = 10 KN $C_{pi} = -0.45 \text{ TO } +0.3$ Mbase = 42 KN·m DESIGN = 0.76 KPA p = 1.34 kPa (ULS) 0.72 kPa (SLS SEE ROOF PLAN FOR WIND UPLIFT

WIND LOADS: WIND UPLIFT (NET FACTORED)



D01-6 DEFINITIONS:

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED IN THESE NOTES AND DRAWINGS:

ARCHITECTURAL MECHANICAL BOTTOM LOWER LAYER MINIMUM NTS OF PCO CENTRE TO CENTRE NOT TO SCALE OUTSIDE FACE PILE CUT-OFF CENTRE LINE CONTINUOUS CORE WALL PLATE **ROOF DRAIN** EACH END STANDARD GALVANIZED LADDER MASONRY REINFORCEMENTS ELEVATION SHEARWALL EACH SID TIE JOIST EACH WAY FAR FACE TOP LOWER LAYER HORIZONTAL HEAVY DUTY GALVANIZED TRUSS TOP OF PILE CAP TYPICAL UNLESS OTHERWISE NOTED TYPE MASONRY REINFORCEMENT INSIDE FACE I OWER LAYER UPPER LAYER VERTICAL

D01-7 SHOP DRAWINGS

SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL WORK AND ANY WORK AFFECTING THE STRUCTURE TO THE CONSTRUCTION MANAGER. OBTAIN ARCHITECT'S & ENGINEER'S APPROVAL BEFORE PROCEEDING WITH THE FABRICATION.

EACH OF THE FOLLOWING SHOP DRAWINGS MUST BEAR THE SIGNATURE AND STAMP OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE (PLUS OTHER DRAWINGS AS NOTED). a) DRAWINGS FOR ANY TEMPORARY WORK, INCLUDING SHORING OF EXISTING STRUCTURE DESIGNED BY THE CONTRACTOR'S

DRAWINGS FOR ANY STRUCTURAL PARTS

) STRUCTURAL STEEL d) OPEN WEB STEEL JOISTS "OWS,"
e) STEEL TO STEEL CONNECTIONS.

SHOP DRAWINGS MUST BE REVIEWED AND STAMPED REVIEWED BY THE CONTRACTOR BEFORE ISSUING TO THE ARCHITECT/ENGINEER. SHOP DRAWINGS NOT STAMPED BY THE CONTRACTOR <u>WILL BE REJECTED.</u> ANY DELAYS IN THE CONSTRUCTION SCHEDULE DUE TO NONCOMPLIANCE WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE

. SUBMIT STEEL JOIST AND STEEL DECK SHOP DRAWINGS FOR STRUCTURAL ENGINEER'S REVIEW BEFORE FABRICATION.

. SHOP DRAWINGS ARE REVIEWED FOR CONFORMANCE WITH THE GENERAL DESIGN CONCEPT. THIS REVIEW DOES NOT IMPLY APPROVAL OF THE DETAILED DESIGN OR QUANTITIES DESCRIBED IN THE SHOP DRAWINGS. THE RESPONSIBILITY FOR THE QUANTITIES AND DETAILED DESIGN OF THE MATERIALS AND COMPONENTS AS REQUIRED TO PROVIDE THE COMPLETE AND SATISFACTORY JOB DESCRIBED IN THE DESIGN DOCUMENTS REMAINS WITH THE CONTRACTOR.

D02) EXCAVATION, FOUNDATIONS, AND BACKFILL

ALL FOOTINGS TO BEAR ON UNDISTURBED NATIVE MATERIAL WITH MINIMUM ALLOWABLE BEARING STRENGTHS AS NOTED AND AS PROVIDED BY GEOTECHNICAL ENGINEER ON SITE.
REFERENCE GEOTECHNICAL REPORT: PG6018-1 (DATED NOVEMBER 30, 2021) REPORT AUTHOR: PATERSON GROUP INC.

D02-2 EXCAVATION AND BACKFILL:

REFER TO GEOTECHNICAL REPORT AS INDICATED IN D31-1

. PRIOR TO ANY EXCAVATION, VERIFY LOCATION OF EXISTING SERVICES AND TAKE ALL NECESSARY MEASURES TO MAINTAIN SERVICES WHERE REQUIRED. NOTIFY OWNER AND CONSULTANT IF ANY SERVICES NOT SHOWN ON PLAN OR OTHERWISE EXPECTED ARE ENCOUNTERED. DO NOT PROCEED FURTHER UNTIL DIRECTED.

3. PROTECT SUB-GRADE FROM FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION.

4. FOOTINGS MUST BEAR ON APPROVED BEARING SURFACES.

5. BACKFILL TO WITHIN 200mm OF UNDERSIDE OF SLAB WITH GRANULAR 'B' TYPE II IN LAYERS UP TO 300mm THICK, COMPACTED TO MINIMUM 100% SPMDD

2. CARE MUST BE TAKEN TO AVOID UNDERMINING EXISTING BUILDING FOUNDATIONS OR UNDERGROUND SERVICES.

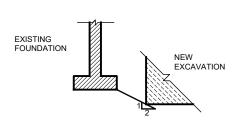
6. FINAL 200mm UNDER SLAB TO BE GRANULAR 'A' COMPACTED TO MINIMUM 100% SPMDD

7. RE-USE OF EXCAVATED GRANULAR MATERIAL IS SUBJECT TO APPROVAL OF A GEOTECHNICAL

8. CONTRACTOR TO RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO PROVIDE WRITTEN CONFORMATION OF THE ${\tt COMPACTED} \ {\tt GRANULAR} \ {\tt MATERIAL} \ {\tt WAS} \ {\tt INSTALL} \ {\tt AS} \ {\tt SPECIFIED} \ {\tt FOR} \ {\tt REVIEW} \ {\tt AND} \ {\tt APPROVAL}.$

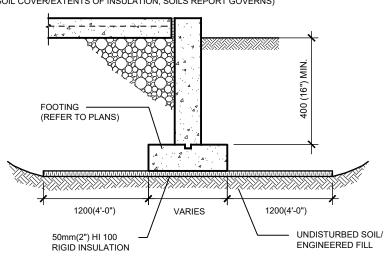
D02-3 PROTECT LATERAL STABILITY OF BEARING STRATA UNLESS NOTED

UNLESS OTHERWISE OUTLINED IN GEOTECTNICAL REPORT DO NOT EXCAVATE BELOW A LINE EXTENDING OWNWARD FROM ANY BEARING STRATA AT A SLOPE OF 1 VERTICAL TO 2 HORIZONTAL. ADJUST FOOTING AND TRENCH ELEVATIONS TO MEET THIS REQUIREMENT (SEE DIAGRAM).



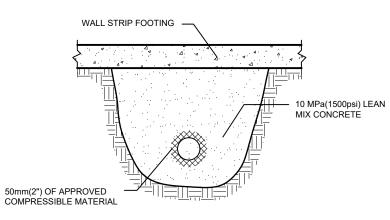
D02-5 ALTERNATE FROST COVER DETAIL

MORE SOIL COVER/EXTENTS OF INSULATION, SOILS REPORT GOVERNS)



D02-6 PIPE CROSSING BELOW STRIP FOOTING

(NOTE: LOCATIONS WHERE PIPES CROSS BELOW FOOTINGS ARE TO BE APPROVED BY ENGINEER IN WRITING PRIOR TO CONSTRUCTION. ENGINEER RESERVES THE RIGHT TO RELOCATE PIPES AS REQUIRED OR LOWER FOOTINGS TO SUIT.)



003) CONCRETE

D03-1 CONCRETE COVER (CLEAR TO REINFORCING):

U/S FOOTINGS, AND SLAB ON GRADE (AGAINST SOIL) FOOTINGS AND SLAB ON GRADE (SIDES & TOP) FOUNDATION WALLS

D03-2 CONCRETE REINFORCING STEEL:

REINFORCING TO BE GRADE 400W DEFORMED BARS TO CSA-G30.18.

SPACING OF BARS SHALL BE APPROXIMATELY UNIFORM WITHIN THE CONCRETE ELEMENTS. DO NOT ELIMINATE OR DISPLACE REINFORCEMENT TO ACCOMMODATE HARDWARE. OBTAIN APPROVAL OF ALL MODIFICATIONS

FROM ENGINEER BEFORE THE PLACING OF CONCRETE. ALL LAPS AND EMBEDMENT OF DOWELS SHALL BE 40 BAR DIAMETERS, BUT NOT LESS THAN 600mm IF NOT SPECIFIED OTHERWISE. WIRE MESH LAPS SHALL BE 150mm MINIMUM. BAR DESIGNATION

METRIC: 10-15M MEANS 10 BARS, SIZE 15M,

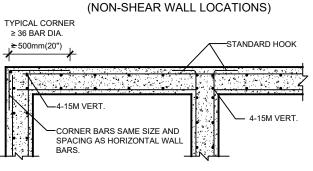
PROVIDE STANDARD HOOKS WHERE TOP AND BOTTOM BARS TERMINATE AT EDGES. ALL DOWELS TO BE IN LINE WITH THE VERTICAL OF HORIZONTAL STEEL WITHIN THE STRUCTURAL ELEMENT

DETAIL FABRICATE AND PLACE ALL REINFORCEMENT IN CONFORMITY TO CURRENT MANUAL OF STANDAD ACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI 315, CSA-A23.3 - LATEST EDITION AND REINFORCING STEEL MANUAL OF STANDARD PRACTICE BY RSIO.

ALL REINFORCING STEEL TO BE CHAIRED AND SECURELY TIED IN PLACE USING STANDARD TIES AND CHAIRS TO THE REQUIRED COVER FOR EXPOSED CONCRETE. CHAIRS AND BOLTERS TO BE PLASTIC TIPPED OR STAINLESS

9. SUBMIT REINFORCING SHOP DRAWINGS FOR STRUCTURAL ENGINEER REVIEW PRIOR TO FABRICATION.

D03-3 HORIZONTAL WALL STEEL DETAIL AT CORNERS U/N



D03-4 CONCRETE MIXES

PROPORTION NORMAL DENSITY CONCRETE IN ACCORDANCE WITH CSA-A23.1, TO GIVE THE FOLLOWING QUALITY FOR ALL

	28 DAY		CLASS OF	
LOCATION	STRENGTH	SLUMP	EXPOSURE	
THICKENED SLAB ON GRADE	35 MPa (5100 psi)	75mm (3")	C-1	
RETAINING WALLS	35 MPa (5100 psi)	75mm (3")	C-1	
FOOTINGS	35 MPa (5100 psi)	75mm (3")	C-1	
* REFER TO CSA A23.1 FOR THE MAXIM	UM WATER/CEMENT RATIO, MIN	IMUM COMPRESSIVE	E STRENGTH, AIR CONT	ENT,
CURING REQUIREMENTS, CHLORIDE IO	N PERMEABILITY AND ALTERNA	TE CEMENT TYPE TO	MEET THE REQUIREM	ENTS
FOR THE NOTED EXPOSURE CLASS.				

READY-MIXED CONCRETE AND CONCRETE PROPORTIONS SHALL BE IN ACCORDANCE WITH CSA A23.1, CLAUSE 12 AND AS

1. PROVIDE CERTIFICATION THAT MIX PROPORTIONS SELECTED WILL PRODUCE CONCRETE OF SPECIFIED QUALITY AND YIELD AND THAT STRENGTH WILL COMPLY WITH CSA-A23.1.

2. USE OF CALCIUM CHLORIDE NOT PERMITTED.

3. DO NOT CHANGE CONCRETE MIX WITHOUT PRIOR APPROVAL OF CONSULTANT. SHOULD CHANGE IN MATERIAL SOURCE BE PROPOSED, NEW MIX DESIGN TO BE APPROVED BY CONSULTANT.

D03-5 CONCRETE COLD WEATHER PROTECTION

1. CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY HEAT. INSULATION MATERIALS OR OTHER MEANS AS REQUIRE TO PROTECT THE MASONRY BLOCKS, GROUT, CONCRETE AND GRANULAR MATERIALS FROM FREEZING DURING THE WORK, IN ACCORDANCE WITH CSA-A23.1

PROTECT SUB-GRADE FROM FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION. DO NOT PLACE CONCRETE ON FROZEN GROUND.

4. ALL CONCRETE EXPOSED TO EXTERIOR CONDITIONS TO BE AIR ENTRAINED AS PER CSA A23.1.

3. CONTRACTOR TO PROVIDE PROPOSED METHOD OF PROTECTION FOR OUR REVIEW PRIOR TO COMMENCING THE WORK 4. CURE CONCRETE TO CSA A23.1/A23.2. TAKE APPROPRIATE PRECAUTIONS FOR COLD WEATHER WORK AS PER CSA

D03-6 CONCRETE WARM WEATHER PROTECTION

1. CARRY OUT HOT WEATHER CONCRETING IN ACCORDANCE WITH CSA A23.1.

2. PROTECT CONCRETE FROM EFFECT OF HOT OR DRYING WEATHER CONDITIONS. PROTECT FORMS AND REINFORCING FROM THE DIRECT RAYS OF THE SUN, OR COOL BY FOGGING AND EVAPORATION.

3. CURE CONCRETE TO CSA A23.1/A23.2. TAKE APPROPRIATE PRECAUTIONS FOR HOT WEATHER WORK AS PER CSA

D03-7 FIELD QUALITY CONTROL

1 INSPECTION AND TESTING OF CONCRETE AND CONCRETE MATERIALS WILL BE CARRIED OUT BY AS TESTING LABORATORY DESIGNATED BY THE CLIENT IN ACCORDANCE WITH CSA-A23.1 AND DIVISION 1. 2. AIR ENTRAINMENT TEST AND SLUMP TEST MADE FROM SAME BATCH OF CONCRETE FROM WHICH TEST CYLINDERS ARE

3. TESTS WILL BE MADE IN ACCORDANCE WITH CSA A23.2.

OPINION OR REASON FOR ANY ABNORMALITIES NOTES THEREON.

4. INSPECTION COMPANY'S REPORTS OF TESTS WILL BE FORWARDED TO THE CONSULTANT AND CONTRACTOR WITH AN

5. COOPERATE WITH AND ASSIST INSPECTION COMPANY'S PERSONNEL DURING INSPECTION AND TESTS.

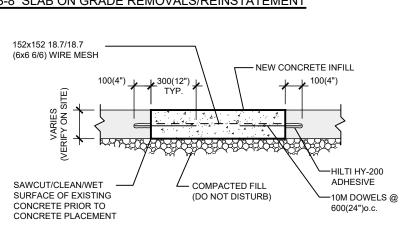
6. REMOVE DEFECTIVE MATERIALS AND COMPLETED WORK WHICH FAILS TESTS AND REPLACE AS DIRECTED BY THE

7. WHERE WORK OR MATERIALS FAIL TO MEET STRENGTH REQUIREMENTS AS INDICATED BY TEST RESULTS, PAY COSTS OF ADDITIONAL INSPECTION AND TESTING REQUIRED FOR NEW REPLACEMENT WORK OR MATERIALS.

8. NON-DESTRUCTIVE METHODS FOR TESTING CONCRETE SHALL BE IN ACCORDANCE WITH CSA-A23.2. 9. INSPECTION OR TESTING BY THE CONSULTANT WILL NOT AUGMENT OR REPLACE CONTRACTOR QUALITY CONTROL NOR

D03-8 SLAB ON GRADE REMOVALS/REINSTATEMENT

RELIEVE HIM OF HIS CONTRACTUAL RESPONSIBILITY.



D04) STEEL D04-1 STRUCTURAL STEEL:

STRUCTURAL STEEL SHALL COMPLY WITH CSA S16 UNLESS OTHERWISE NOTED.

APPLICABLE SPECIFICATION (UNLESS OTHERWISE NOTED)

ROLLED SECTIONS HSS (TUBE) SECTIONS CSA G40.21 - 350W (CLASS C) ASTM A325 (BEARING TYPE CONNECTION BOLTS ASTM F1554 GRADE 36 (U/N NOTED IN BASEPLATE SCHEDULE) ANCHOR BOLTS CSA G40.21-300W CHANNELS, ANGLES, PLATES

1. ALL STEEL WORK SHALL BE GIVEN ONE COAT OF APPROVED PRIMER.

2. FIELD AND SHOP CONNECTIONS SHALL BE WELDED OR HIGH TENSILE BOLTED (ASTM STANDARD A325). 3. WELDING SHALL CONFORM TO LATEST CSA SPECIFICATION W59 AND BE UNDERTAKEN BY A FABRICATOR

APPROVED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA SPECIFICATION W47.1. 4. ALL EXPOSED WELDS SHALL BE CONTINUOUS AND BE GROUND SMOOTH.

5. ALL EXTERIOR EXPOSED STRUCTURAL STEEL SHALL BE GALVANIZED OR PAINTED WITH APPROVED RUST

6. STRUCTURAL STEEL MEMBERS SHALL NOT BE SPLICED UNLESS APPROVED BY THE STRUCTURAL ENGINEER IN 7. WHERE STRUCTURAL STEEL MEMBERS SPECIFIED ON THE STRUCTURAL DRAWINGS ARE UNAVAILABLE TO THE CONTRACTOR. THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE MEMBERS HAVING ALL SECTION

PROPERTIES EQUAL TO OR BETTER THAN THAT OF THE SPECIFIED MEMBERS AT NO ADDITIONAL COST. CONTACT ENGINEER FOR ACCEPTANCE OF ANY AND ALL SUBSTITUTIONS. 8. DESIGN DETAILS AND CONNECTIONS IN ACCORDANCE WITH REQUIREMENTS OF CSA S16 TO RESIST FORCES, MOMENTS, SHEARS AND ALLOW FOR MOVEMENTS INDICATED.

a. SELECT FRAMED BEAM SHEAR CONNECTIONS FROM AN INDUSTRY ACCEPTED PUBLICATION SUCH AS "HANDBOOK OF THE CANADIAN INSTITUTE OF STEEL CONSTRUCTION" WHEN CONNECTION FOR SHEAR ONLY (STANDARD CONNECTION) IS REQUIRED. b. SELECT OR DESIGN CONNECTIONS TO SUPPORT REACTION FROM MAXIMUM UNIFORMLY DISTRIBUTED LOAD

9. DESIGN FORCES FOR CONNECTIONS SHOWN ON DRAWINGS HAVE BEEN AMPLIFIED BY FACTOR LISTED IN CLAUSE

THAT CAN BE SAFELY SUPPORTED BY BEAM IN BENDING, PROVIDED NO POINT LOADS ACT ON BEAM, WHEN

D04-2 STEEL DECK:

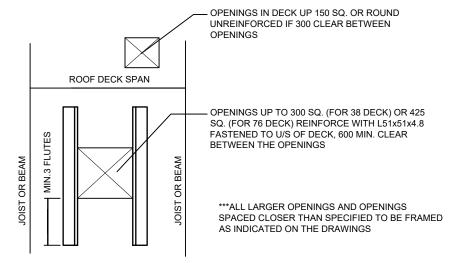
ROOFS: 38x0.91 (1½"x20 ga)

1. ALL METAL DECK SHALL BE A MINIMUM OF 38mm(1 ½") DEEP. WITH DECK FLUTES AT 150mm(6") CENTRES. CONTINUOUS OVER AT LEAST THREE SPANS, AND SHALL BE FORMED FROM SHEET STEEL CONFORMING TO CSSB 10M/12M/20M, MINIMUM GRADE 'A', WITH A BASE STEEL NOMINAL THICKNESS SPECIFIED ON PLANS, AND A MINIMUM ZINC COATING DESIGNATION OF "WIPED COAT MINIMUM SIZES AS FOLLOWS (U/N ON PLANS)

2. DECK CONNECTIONS TO SUPPORTING STRUCTURE TO BE AS FOLLOWS (U/N ON PLANS): HILTI X-EDN-19 POWDER ACTUATED NAILS AT 31/4 (12" c/c) ALONG DECK PERIMETER AND INTERMEDIATE SUPPORTS

#10 SCREWS @ 12" c/c AT SIDELAPS 3. ALL WELDS SHALL BE PRIME PAINTED BY DECK CONTRACTOR.

4. STEEL DECK CONTRACTOR TO REINFORCE ALL OPENINGS AS NOTED BELOW



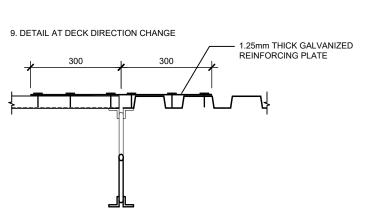
5. ALL DECK CLOSURES SHALL BE SUPPLIED AND INSTALLED BY THE DECK CONTRACTOR. (PROVIDE DECK CLOSURES AT ALL AREAS WHERE DECK EDGES ARE WEAK)

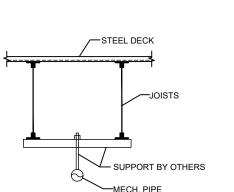
ATTACHED IN BETWEEN STEEL JOISTS TO THE SIDE OF THE DECK FLUTES AND BY LOOPING AND TYING AROUND,

6. WEDGE THE FLUTES OF THE STEEL ROOF DECK UNDER WOOD SLEEPERS CARRYING ROOF TOP UNITS (THIS SHALL ALSO APPLY TO ROOF TOP UNITS WITH METAL CURBS).

BUT ON NO ACCOUNT SHOULD THESE HANGERS BE PUNCHED THROUGH THE BOTTOM FLUTES.

7. NO MECHANICAL OR ELECTRICAL EQUIPMENT/ACCESSORIES SHALL BE HUNG FROM THE STEEL DECK. 8. HANGERS FOR SUSPENSION OF CEILING ARE TO BE ATTACHED TO THE STEEL JOISTS. THESE MAY HOWEVER BE





EQUIPMENT SUPPORTS

DETAIL AT DECK DIRECTION CHANGE

D04-3 STEEL JOISTS AND BRIDGING: S16.1 AND S136:

1. ALL JOISTS ARE TO BE EQUALLY SPACED BETWEEN TIE JOISTS/BEAMS.

2. ALL JOISTS ARE TO BE CAMBERED FOR FULL DEAD LOAD DEFLECTION. LIMIT LIVE LOAD DEFLECTIONS TO NOT MORE THAN L/360 FOR ROOF AREAS AND NOT MORE THAN L/480 FOR FLOOR AREAS. TOTAL LOAD DEFLECTION FOR FLOOR JOISTS NOT TO EXCEED L/240. FLOOR JOISTS TO ALSO MEET VIBRATION CRITERIA OUTLINED IN 2006 OBC CLAUSE 4.1.3.6.

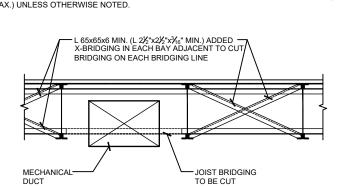
3. IN ORDER TO FACILITATE THE PASSAGE OF MECHANICAL DUCTS AND PIPES THROUGH THE ROOF JOISTS, THE JOIST SUPPLIER SHALL LOCATE THE DIAGONALS SO THAT THEY LINE UP FROM JOIST TO JOIST. 4. SPECIFIED POINT LOADS ARE SHOWN ON PLANS. 5. ALL PIPES MUST BE HUNG FROM TOP CHORD OF JOISTS. IF A LOAD (APPROVED BY THE STRUCTURAL ENGINEER) IS HUNG FROM A JOIST AT A LOCATION OTHER THAN THE PANEL POINT, THEN A WEB DIAGONAL SHALL BE WELDED FROM THE HANGER LOCATION

TO THE NEAREST PANEL POINT ON THE OPPOSITE CHORD. 6. LOADING DIAGRAMS AREAS SHADED ON ROOF PLAN INDICATE EXTENT OF ADDITIONAL SNOW PILING WITH PEAK (SPECIFIED) LOADS NOTED. ROOF

DECK AND JOISTS SHALL BE DESIGNED, MANUFACTURED AND ERECTED TO SUPPORT BASIC SPECIFIED AS WELL AS ADDITIONAL

7. a) PROVIDE 1 ROW OF HORIZONTAL BRIDGING AT FIRST BOTTOM CHORD PANEL POINT AT EACH END OF JOIST. PROVIDE ADDITIONAL CROSS BRIDGING AS INDICATED ON PLAN. b) STEEL CONTRACTOR SHALL DESIGN, SUPPLY AND ERECT REMAINDER OF HORIZONTAL JOIST BRIDGING OF SUFFICIENT SIZE AND SPACING IN ACCORDANCE WITH CSA S16.1 LATEST EDITION.

8. DESIGN JOISTS FOR ALL LOADING CONDITIONS SPECIFIED IN THE NATIONAL BUILDING CODE IN ADDITION TO THE SNOW LOADS 9. PROVIDE ADDITIONAL X-BRIDGING BETWEEN THE OUTSIDE PERIMETER BEAMS AND THE FIRST ROW OF JOIST RUNNING PARALLEI ADDITIONAL BRIDGING IS SHOWN AS ——— ON PLAN. MINIMUM SIZE TO BE L 38x38x4 (L 1½"x1½"x1½"x½") SPACED @ 1800(6'-8") c/c



COLUMN SCHEDULE SIZE NOTES CLASS 'C' SS 6"x6"x1/4" **BASEPLATE SCHEDULE** SIZE NOTES

12"x12"x¾" PROVIDE ¾"Ø x 16" LONG HEAVY HEX UT ANCHOR BOLTS (F1554 GRADE 36)

2. ALL ANCHORS TO BE CAST-IN PLACE. 3. PROVIDE MIN. 25(1") THICK GROUT BED BELOW BASE PLATE

TOLERANCES, ETC.

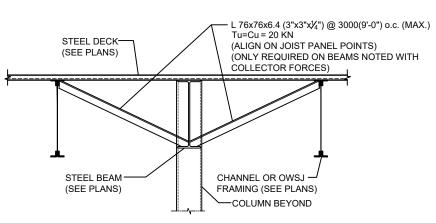
LENGTH OF ANCHORS IS EMBEDMENT LENGTH, MEASURED FROM

CONCRETE SURFACE TO EDGE OF EMBEDDED BOLT HEAD, FABRICATOR TO PROVIDE ADDITIONAL LENGTH AS REQUIRED FOR THREADS/NUTS/

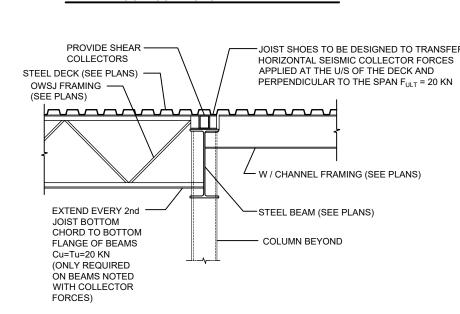
FOOTING SCHEDULE			
MARK	SIZE	REINFORCING	
F1	52"x52"x10"	SEE DETAILS	
F2	VARIES - REFER TO DETAILS	SEE DETAILS	
F3	VARIES - REFER TO DETAILS	SEE DETAILS	
-		COVER TO BOTTOM OF ALL FOOTINGS ITIONS OR AS PER GEOTECH REPORT	

FOUNDATION WALL SCHEDULE				
MARK	SIZE	REINFORCING		
FW1	VARIES - REFER TO DETAILS	SEE DETAILS		
FW2	VARIES - REFER TO DETAILS	SEE DETAILS		

D04-4 TYPICAL JOIST/BEAM/EDGE DETAILS (CONT'D



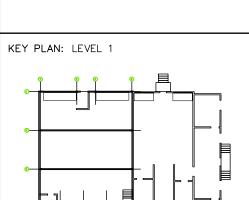
DETAIL: ROOF: COLLECTOR BEAM STABILIZERS

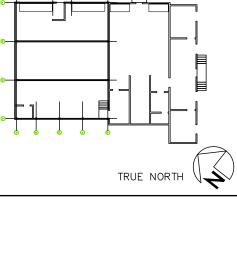


DETAIL: ROOF: BEAM / JOIST SUPPORTS



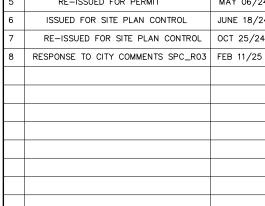


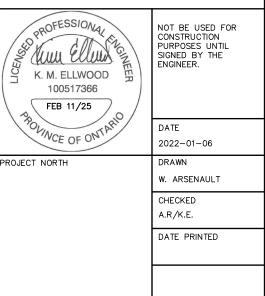




CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY OMISSIONS OF DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS.

REVISIONS DESCRIPTION ISSUED FOR COORDINATION ISSUED FOR COORDINATION ISSUED FOR PERMIT JAN 21/2 ISSUED FOR REVIEW JAN 04/24 RE-ISSUED FOR PERMIT MAY 06/24





CARDEVCO WAREHOUSE

ADDRESS:129 John Cavanaugh Dr, Carp, ON KOA 1L0 DRAWING TITLE

GENERAL NOTES & DETAILS

AS SHOWN

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