

GENERAL NOTES:

- ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF CANADA, 2010.
- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT OF NOVA SCOTIA.
- NO ALTERATIONS TO STRUCTURAL DETAILS SHALL BE MADE WITHOUT THE WRITTEN PERMISSION OF THE DEPARTMENT REPRESENTATIVE. ALL OPENINGS IN SLABS OR WALLS ARE TO BE PRE-FORMED AND ALL HOLES SLEEVED. CONSTRUCTION ERRORS ARE TO BE DOCUMENTED AND REPORTED TO THE DEPARTMENT REPRESENTATIVE BEFORE PROCEEDING WITH SUBSEQUENT WORK.
- PERIODIC AND DISCRETIONARY INSPECTIONS ARE MADE AT THE JOB SITE BY THE DEPARTMENT REPRESENTATIVE AND ARE NECESSARILY LIMITED IN SCOPE TO OBSERVATION OF WORK IN PROGRESS AT THE TIME OF THE INSPECTION. THESE INSPECTIONS DO NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE CONTINUOUS ON-SITE SUPERVISION OF ALL STRUCTURAL WORK TO ENSURE THAT BOTH THE INTENT AND DETAILS OF THE DRAWINGS AND SPECIFICATIONS ARE BEING FOLLOWED.
- THE CONTRACTOR SHALL COORDINATE DETAILS SHOWN ON THE STRUCTURAL DRAWINGS WITH ALL OTHER DISCIPLINES DRAWINGS AND SPECIFICATIONS.
- THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED TO THE DEPARTMENT REPRESENTATIVE FOR REVIEW:
 - CONCRETE REINFORCING STEEL.
 - CONCRETE MIX DESIGNS.
 - STRUCTURAL STEEL FABRICATIONS INCLUDING ALL CONNECTION DETAILS.
 - OPEN WEB STEEL JOISTS.
 - STRUCTURAL STEEL FLOOR & ROOF DECK.
 - PROPOSED STEPPED FOOTING LOCATIONS & ELEVATIONS & INTERIOR FOOTINGS REQUIRED TO BE LOWERED TO ALLOW PIPING/DUCTBANKS/CONDUIT TO PASS OVER.
- STRUCTURAL STEEL FABRICATION DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER, REGISTERED OR LICENSED TO PRACTICE IN THE PROVINCE OF NOVA SCOTIA, WHO WILL BE RESPONSIBLE FOR THE DESIGN OF CONNECTIONS.
- OPEN WEB STEEL JOIST CALCULATIONS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED OR REGISTERED TO PRACTICE IN THE PROVINCE OF NOVA SCOTIA, WHO WILL BE RESPONSIBLE FOR THE DESIGN OF THE OPEN WEB STEEL JOISTS.
- STRUCTURAL STEEL ROOF DECK SHALL BE STAMPED BY A PROFESSIONAL ENGINEER, REGISTERED OR LICENSED TO PRACTICE IN THE PROVINCE OF NOVA SCOTIA.
- ALL DESIGN LOADINGS SHOWN ON THE STRUCTURAL DRAWINGS, FOR THE PURPOSES OF MEMBER AND CONNECTION DESIGN, ARE WORKING LOADS U.N.O..
- ALL CHEMICAL ANCHORS TO HAVE THE DIAMETER AND EMBEDMENT AS NOTED ON THE DRAWINGS. IF EMBEDMENT IS NOT NOTED, PROVIDE THE STANDARD EMBEDMENT AS NOTED BY THE MANUFACTURER. ALL ANCHORS TO BE INSTALLED AS PER THE MANUFACTURERS RECOMMENDATIONS AND THE INSTALLER SHALL BE TRAINED ON HOW TO INSTALL THE ANCHORS BY A MANUFACTURERS REPRESENTATIVE.

APPROVED CHEMICAL ADHESIVES ANCHORS ARE:

 - HILTI HIT-HY 200 INJECTABLE ADHESIVE c/w HILTI HAS - E RODS
 - AC108 CHEMICAL ADHESIVE BY POWERS FASTENERS c/w A307 THREADED ROD
 - SET EPOXY BY SIMPSON STRONG-TIE c/w A307 THREADED ROD
- ALL EXPANSION ANCHORS TO HAVE THE DIAMETER AND EMBEDMENT AS NOTED ON THE DRAWINGS. IF EMBEDMENT IS NOT NOTED, PROVIDE THE STANDARD EMBEDMENT AS NOTED BY THE MANUFACTURER. ALL ANCHORS TO BE INSTALLED AS PER THE MANUFACTURERS RECOMMENDATIONS AND THE INSTALLER SHALL BE TRAINED ON HOW TO INSTALL THE ANCHORS BY A MANUFACTURERS REPRESENTATIVE.

APPROVED EXPANSION ANCHORS ARE:

 - KWIK BOLT 3 BY HILTI
 - HEX HEAD POWER BOLT BY POWERS FASTENERS
 - WEDGE-ALL BY SIMPSON STRONG-TIE
- ALL STANDARDS AND SPECIFICATIONS NOTED SHALL REFLECT "LATEST EDITION".
- REFER TO ARCHITECTURAL DRAWINGS FOR THE SIZES AND LOCATIONS OF ALL EXTERIOR AND INTERIOR DOOR & WINDOW OPENINGS THROUGH ALL WALLS.

FOUNDATIONS:

- FOUNDATIONS ARE DESIGNED TO BEAR ON UNDISTURBED NATIVE MATERIAL OR FULLY COMPACTED ENGINEERED FILL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 3000 psf (150 kPa). THESE BEARING PRESSURES ARE ASSUMED AND SHALL BE VERIFIED BY A DEPARTMENT REPRESENTATIVE GEOTECHNICAL ENGINEER PRIOR TO POURING ANY CONCRETE
- ALL ENGINEERED (STRUCTURAL) FILL AND BACKFILLING IS TO BE PLACED UNDER THE CONTINUOUS SUPERVISION OF THE DEPARTMENT REPRESENTATIVE GEOTECHNICAL ENGINEER.
- THE DEPARTMENT REPRESENTATIVE GEOTECHNICAL ENGINEER SHALL INSPECT ALL PROPOSED BEARING SURFACES AND CONFIRM THAT THE ASSUMED ALLOWABLE BEARING RESISTANCE STATED IN NOTE 1, CAN BE ACHIEVED PRIOR TO PLACEMENT OF ANY CONCRETE IN FOOTINGS, AND THAT BEARING SURFACE IS FREE FROM FROST & WATER. IF THE DEPARTMENT REPRESENTATIVE GEOTECHNICAL ENGINEER DEEMS BEARING SURFACE CAN NOT PROVIDE THE ALLOWABLE BEARING CAPACITY, THE CONTRACTOR IS TO LOWER FOOTINGS AS DIRECTED BY DEPARTMENT REPRESENTATIVE GEOTECHNICAL ENGINEER TO A LEVEL THAT CAN PROVIDE THE ALLOWABLE BEARING CAPACITY.
- BACKFILLING AGAINST WALLS OR GRADE BEAMS SHALL PROCEED IN APPROXIMATELY EQUAL LIFTS ON BOTH SIDES OF THE WALL OR GRADE BEAM, UNLESS NOTED OTHERWISE.
- NO PIPING/DUCTBANKS/CONDUIT ARE TO PASS UNDER ANY LOAD BEARING FOUNDATIONS OR WITHIN THEIR ASSOCIATED ZONE OF INFLUENCE. STEP/LOWER FOUNDATIONS TO ALLOW PIPES/DUCTBANKS/CONDUIT TO BE SLEEVED THROUGH THE FOUNDATION WALL OR PASS OVER TOP OF THE ISOLATED FOOTING. CONTRACTOR TO COORDINATE WITH MECHANICAL/ELECTRICAL/CIVIL DRAWINGS. THE LAYOUT OF STEPPED/LOWERED FOOTINGS SHOWN ON THE STRUCTURAL DRAWINGS IS SCHEMATIC ONLY, AND MAY NOT SHOW ALL LOCATIONS WHERE STEPPED/LOWERED FOOTINGS ARE REQUIRED. CONTRACTOR IS TO COORDINATE ALL STEPPED/LOWERED FOOTING LOCATIONS AND DEPTHS WITH ALL SUB-TRADES AND SUBMIT ALL PROPOSED FOOTING LOCATIONS AND DEPTHS TO ENGINEER PRIOR TO EXCAVATION FOR FOOTINGS, REINFORCING AND FORMWORK FABRICATION. REFER TO TYPICAL FOOTING DETAILS.

REINFORCED CONCRETE:

- ALL CONCRETE, CONCRETE MATERIALS, FORMS, WORKING PROCEDURES AND THE LIKE SHALL CONFORM TO CSA A23.1, LATEST EDITION, UNLESS NOTED OTHERWISE.
- MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS & CLASS OF EXPOSURE SHALL BE AS FOLLOWS:

.1 BUILDING FOUNDATIONS, FROST WALLS	25 MPa/F-2
.2 INTERIOR SLABS ON GRADE	25 MPa/N
.3 MUD SLABS	20 MPa/N
.4 SUSPENDED SLABS & CONCRETE COLUMNS	35 MPa/N
.5 CURBS, EXTERIOR PADS & WALKWAYS	32 MPa/C-2
.6 CONCRETE GROUT FOR MASONRY CELLS	20 MPa/N
.1 MAXIMUM AGGREGATE SIZE	3/8" (10mm)
.2 MAXIMUM SLUMP	6" (150mm)
- CONCRETE PROTECTIVE COVER TO REINFORCING STEEL SHALL BE AS FOLLOWS:

.1 CAST AGAINST GROUND - NO FORMWORK	3" (75mm)
.2 EXPOSED TO EARTH OR WEATHER	2" (50mm)
.3 SLABS - TOP BARS	1" (25mm)
BOTTOM BARS	1 1/4" (30mm)

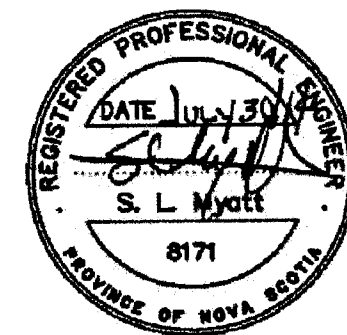
OTHER SPECIFIC REQUIREMENTS ARE AS NOTED ON THE DRAWINGS.
- ALL REINFORCING BARS MUST BE ACCURATELY SUPPORTED ON PLASTIC COATED STEEL HIGH CHAIRS TO MAINTAIN EXACT CONCRETE COVER.
- CONSTRUCTION JOINTS SHALL BE LOCATED SO AS TO AT LEAST IMPAIR THE STRENGTH OF THE STRUCTURE. LOCATIONS SHALL BE AS SHOWN ON THE DRAWINGS OR CONTRACTOR IS TO SUBMIT PROPOSED CONSTRUCTION JOINTS FOR THE DEPARTMENT REPRESENTATIVE APPROVAL. CONSTRUCTION JOINTS SHALL BE KEVED AND REINFORCEMENT SHALL NOT BE INTERRUPTED.
- ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD POINT STRENGTH OF 400 MPa AND SHALL CONFORM TO CSA G30.18-M, LATEST EDITION.
- ALL W.W.F. SHALL CONFORM TO ASTM A82 AND ASTM A185, LATEST EDITIONS.
- UNLESS NOTED OTHERWISE, REINFORCING STEEL SHALL BE PROVIDED WITH A CLASS 'B' TENSION LAP TO CSA A23.3, LATEST EDITION AT ALL SPLICE LOCATIONS.

STRUCTURAL STEEL:

- ALL STRUCTURAL STEEL SHALL BE NEW STOCK AND CONFORM TO THE FOLLOWING GRADES AND STANDARDS.
 - STEEL SECTIONS - CAN/CSA-G40.21-04, GRADE 350W OR ASTM A572, GRADE 345 MPa WHERE APPLICABLE.
 - HOLLOW STRUCTURAL SECTIONS - CAN/CSA-G40.21-04, GRADE 350W CLASS C OR ASTM A500, GRADE 345 MPa, CLASS C WHERE APPLICABLE.
 - ANGLES, CHANNELS AND PLATES - CAN/CSA-G40.21-04, GRADE 300W.
 - BARS - CAN/CSA-G40.21-04, GRADE 300W OR ASTM A36, GRADE 300 MPa, WHERE APPLICABLE.
- ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH CSA S16, LATEST EDITION.
- ALL WELDING AND WELD MATERIALS SHALL COMPLY WITH CSA-W59, LATEST EDITION, AND BE PERFORMED BY A FABRICATOR FULLY APPROVED UNDER CSA-W47.1, LATEST EDITION, DIVISIONS NO. 1 AND NO. 2.
- ALL BOLTS, NUTS AND WASHERS FOR STRUCTURAL STEEL CONNECTIONS SHALL CONFORM TO ASTM A325, LATEST EDITION.
- ALL ANCHOR RODS, NUTS AND WASHERS SHALL CONFORM TO ASTM A307 OR ASTM A449, LATEST EDITION.
- STRUCTURAL STEEL PRIMER:
 - FOR STEEL TO BE COATED WITH ARCHITECTURAL PAINT. PRIMER TO CISC/CPMA 2-75 U.N.O.. TOUCH UP SCRATCHES, BOLTS AND WELDS AFTER ALL STEEL IS ERECTED.
 - FOR ALL OTHER STEEL. PRIMER TO CISC/CPMA 1-73A U.N.O.. TOUCH UP SCRATCHES, BOLTS AND WELDS AFTER ALL STEEL IS ERECTED.
 - REFER TO ARCHITECTURAL FOR LOCATIONS TO BE PAINTED OR UNPAINTED.
- SPLICES IN STRUCTURAL STEEL MEMBERS, OTHER THAN THOSE SHOWN ON THE DRAWINGS, MUST HAVE THE WRITTEN APPROVAL OF THE DEPARTMENT REPRESENTATIVE.
- ALL WELDED JOINTS IN ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL BE GROUND SMOOTH AND HAVE ALL WELD SPATTER REMOVED.
- BOLTS IN SLOTTED HOLE CONNECTIONS MUST BE INSTALLED CONCENTRICALLY WITH THE SLOTTED PLATE TO PERMIT FREE MOVEMENT IN THE DIRECTION OF THE SLOT. SET THE NUTS WITH A COLD CHISEL OR PROVIDE PERMANENT RESTRAINT BY OTHER MEANS.
- TYPICAL SHEAR CONNECTIONS ARE TO BE DESIGNED TO RESIST 50% OF THE TOTAL UNIFORMLY DISTRIBUTED FACTORED LOAD CAPACITY OF THE MEMBERS.
- ALL STEEL DECK SHALL BE GRADE 'A' STRUCTURAL QUALITY TO ASTM A653/A653M FABRICATED FROM ZINC-IRON ALLOY (ZF) WIPE COATED STEEL.
- ALL STEEL DECK SHALL BE DOUBLE SPAN MINIMUM U.N.O..
- STEEL DECK FASTENING REQUIREMENTS U.N.O. ON PLAN:
 - ROOF DECK:
 - 4 - 3/4" (19mm) EFFECTIVE DIA. PUDDLE WELDS PER TRANSVERSE SUPPORT FOR EACH SHEET U.N.O.
 - BUTTON PUNCH (CLINCH) SIDE LAPS AT 6" (150mm) c/c.
 - WELD DECK TO PERIMETER ANGLE OR BEAMS WITH 3/4" (19mm) EFFECTIVE DIA. PUDDLE WELDS AT 6" (150mm) c/c.
 - COMPOSITE FLOOR DECK:
 - 4 - 3/4" (19mm) EFFECTIVE DIA. PUDDLE WELDS PER TRANSVERSE SUPPORT FOR EACH SHEET U.N.O.
 - BUTTON PUNCH (CLINCH) SIDE LAPS AT 12" (300mm) c/c.
 - WELD DECK TO PERIMETER ANGLE OR BEAMS WITH 3/4" (19mm) EFFECTIVE DIA. PUDDLE WELDS AT 24" (600mm) c/c.
- OPEN WEB STEEL JOIST DESIGN AND BRIDGING TO BE IN ACCORDANCE WITH S16, LATEST EDITION.
- PROVIDE CAMBER FOR DEAD LOAD DEFLECTION OF STEEL JOISTS IN ACCORDANCE WITH S16, LATEST EDITION.
- LIVE LOAD DEFLECTION OF STEEL JOISTS AND STEEL DECK SHALL NOT EXCEED L/360.
- ALL STEEL NOTED TO BE GALVANIZED SHALL BE BY HOT DIP METHOD WITH MINIMUM ZINC COATING OF 2.0 oz/sq.ft. (600g/m²) AND CONFORMING TO CSA G164 OR ASTM A123/123M.
- GRIND ALL FIELD WELD AREAS FREE OF GALVANIZING BEFORE WELDING. COAT ALL FIELD WELDS, NICKS/SCRATCHES AND BOLTED CONNECTIONS WITH ZINC RICH PRIMER IN ACCORDANCE WITH CAN/CGSB 1.181.
- STEEL FABRICATOR TO COORDINATE THE NOTCHING/BOXING OUT OF TOP OF FOUNDATION WALLS AT BRACED FRAME LOCATIONS, TO ALLOW FOR BRACE CONNECTIONS AT COLUMN LOCATIONS.

MASONRY NOTES:

- ALL CONCRETE BLOCK WALLS SHALL BE OF STANDARD CONCRETE MASONRY UNITS, TYPE A TO CSA CAN3-A165, LATEST EDITION, CLASSIFICATION H/15/A/M.
- ALL MASONRY MORTAR FOR CORE FILLED CONCRETE BLOCK WALLS SHALL BE TYPE 'S' TO CSA-A179, LATEST EDITION. AT ALL OTHER LOCATIONS MASONRY MORTAR SHALL BE TYPE 'N' TO CSA-A179, LATEST EDITION.
- ALL REINFORCING IN MASONRY CORE FILLS SHALL BE LAPPED A MINIMUM CLASS 'B' TENSION LAP U.N.O. PROVIDE REINFORCEMENT FROM FOUNDATIONS TO MATCH CORE FILL REINFORCEMENT DIAMETER AND SPACING.
- REINFORCING BARS TO CONFORM TO CSA G30.18M, LATEST EDITION, GRADE 400.
- FOR DOWELS INTO FOUNDATIONS, SEE FOUNDATION DRAWINGS FOR DETAILS.
- MINIMUM WALL REINFORCING AS PER MASONRY WALL REINFORCING SCHEDULE.
- ALL MASONRY LINTELS TO BE SHORED UNTIL ENTIRE MASONRY WALL IS FULLY CURED.
- PROVIDE 1 - 20M VERTICAL FULL HEIGHT AT EACH END OF WALL AND AT EACH SIDE OF OPENINGS U.N.O.
- GROUT INSPECTION PORTS AT THE BOTTOM OF WALLS SHALL BE PROVIDED IN THE FACE SHELL OF THE BLOCK AT ALL VERTICAL REINFORCING LOCATIONS. GROUTING OF WALLS SHALL NOT TAKE PLACE UNTIL THE DEPARTMENT REPRESENTATIVE HAS REVIEWED PLACEMENT OF REINFORCING STEEL.
- THE CONTRACTOR SHALL PROVIDE SUCH TEMPORARY BRACING AS IS REQUIRED BY THEIR ERECTION PROCEDURES AND THE ARRANGEMENT OF LOAD BEARING UNITS UNTIL THE FLOOR FRAMING/ ROOF FRAMING AND FLOOR DECK/ROOF DECK HAVE BEEN INSTALLED.



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