

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 STRUCTURAL ENGINEER.
- PERIODIC AND DISCRETIONARY SITE OBSERVATIONS ARE MADE AT THE JOB SITE BY THE STRUCTURAL ENGINEER AND ARE NECESSARILY LIMITED IN SCOPE TO OBSERVATION OF WORK IN PROGRESS AT THE TIME OF THE SITE OBSERVATION. THESE SITE OBSERVATIONS 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 STRUCTURAL ENGINEER FOR REVIEW:
 - CONCRETE REINFORCING STEEL.
 - CONCRETE MIX DESIGNS.
 - STRUCTURAL STEEL FABRICATIONS INCLUDING ALL CONNECTION DETAILS.
 - STRUCTURAL STEEL ROOF DECK.
 - 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.
 - 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 UNLESS NOTED OTHERWISE.
- 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 HIY-HY 200 INJECTABLE ADHESIVE c/w HILTI HAS-E RODS
 - AC100 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".

FOUNDATIONS:

- FOUNDATIONS ARE DESIGNED TO BEAR ON UNDISTURBED NATIVE MATERIAL OR FULLY COMPACTED ENGINEERED FILL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 3,000 psf (150 kPa). THIS IS AN ASSUMED BEARING CAPACITY AND SHALL BE VERIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO POURING ANY CONCRETE.
- ALL ENGINEERED (STRUCTURAL) FILL AND BACKFILLING IS TO BE PLACED UNDER THE CONTINUOUS SUPERVISION OF THE GEOTECHNICAL ENGINEER.
- THE GEOTECHNICAL ENGINEER SHALL INSPECT ALL PROPOSED BEARING SURFACES AND CONFIRM THAT THE ASSUMED ALLOWABLE BEARING RESISTANCE IN NOTE 1, CAN BE ACHIEVED PRIOR TO PLACEMENT OF ANY CONCRETE IN FOOTINGS, AND THAT BEARING SURFACE IS FREE FROM FROST AND WATER. IF THE GEOTECHNICAL ENGINEER DEEMS BEARING SURFACE CAN NOT PROVIDE THE ALLOWABLE BEARING CAPACITY, THE CONTRACTOR IS TO LOWER FOOTINGS AS DIRECTED BY 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 OR OUT OF THE ZONE OF INFLUENCE 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.
- PROVIDE SHEAR KEYS IN THE TOP OF ALL CONCRETE WALL FOOTINGS, CENTERED UNDER WALL LOCATIONS.

REINFORCED CONCRETE:

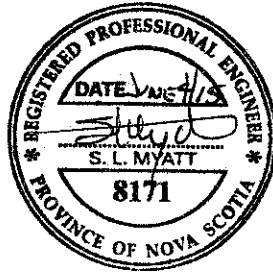
- ALL CONCRETE, CONCRETE MATERIALS, FORMS, WORKING PROCEDURES AND THE LIKE SHALL CONFORM TO CSA A23.1, LATEST EDITION, UNLESS NOTED OTHERWISE.
- MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS AND CLASS OF EXPOSURE SHALL BE AS FOLLOWS:
 - BUILDING FOUNDATIONS, FROST WALLS 25 MPa/F-2
 - INTERIOR SLABS ON GRADE 25 MPa/N
 - CURBS, EXTERIOR PADS AND WALKWAYS 32 MPa/C-2
- CONCRETE PROTECTIVE COVER TO REINFORCING STEEL SHALL BE AS FOLLOWS:
 - CAST AGAINST GROUND - NO FORMWORK 75mm (3")
 - EXPOSED TO EARTH OR WEATHER 60mm (2³/₈")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 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 STRUCTURAL ENGINEER'S APPROVAL. CONSTRUCTION JOINTS SHALL BE KEYED 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, GRADE 350W OR ASTM A572, GRADE 345 MPa WHERE APPLICABLE.
 - HOLLOW STRUCTURAL SECTIONS - CAN/CSA-G40.21, GRADE 350W CLASS C OR ASTM A500, GRADE 345 MPa, CLASS C WHERE APPLICABLE.
 - ANGLES, CHANNELS AND PLATES - CAN/CSA-G40.21, GRADE 300W.
- 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 UNLESS NOTED OTHERWISE.
- 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 UNLESS NOTED OTHERWISE. TOUCH UP SCRATCHES, BOLTS AND WELDS AFTER ALL STEEL IS ERECTED.
 - FOR ALL OTHER STEEL, PRIMER TO CISC/CPMA 1-73A UNLESS NOTED OTHERWISE. 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 STRUCTURAL ENGINEER.
- 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 UNLESS NOTED OTHERWISE.
- STEEL DECK FASTENING REQUIREMENTS:
 - ROOF DECK:
 - 4 - 19mm (3/4") EFFECTIVE DIAMETER PUDDLE WELDS PER TRANSVERSE SUPPORT FOR EACH SHEET UNLESS NOTED OTHERWISE.
 - BUTTON PUNCH (CLINCH) SIDE LAPS AT 600mm (24") c/c.
 - WELD DECK TO PERIMETER ANGLE OR BEAMS WITH 19mm (3/4") EFFECTIVE DIAMETER PUDDLE WELDS AT 600mm (24") c/c.
- ALL DESIGN LOADS NOTED ON DRAWINGS ARE WORKING LOADS UNLESS NOTED OTHERWISE.
- PROVIDE MINIMUM 6mm (1/4") THICK CAP PLATE AT ALL COLUMNS TYPICAL UNLESS NOTED OTHERWISE.
- 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/C6SB 1.181.

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.
- 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 ENGINEER HAS REVIEWED PLACEMENT OF REINFORCING STEEL.



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