

TECHNICAL SPECIFICATIONS

DEMOLITION

- ALL WORK SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF ALL APPLICABLE STANDARDS AND CODES.

REFERENCE STANDARDS

- CSA S350-M1980, CODE OF PRACTICE FOR SAFETY IN DEMOLITION OF STRUCTURES.

EXECUTION:

- THE CONTRACTOR SHALL CARRY OUT THE WORK AS INDICATED ON THIS DRAWING.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS, ELEVATIONS, SLOPES AND/OR WORK DETAILS. REPORT ANY DISCREPANCIES TO THE CONSULTANT.
- ALL EQUIPMENT USED IN DEMOLITION OPERATIONS SHALL BE SUBJECT TO THE APPROVAL OF THE CONSULTANT.
- REMOVAL OF CONCRETE BEYOND THE SPECIFIED LIMITS SHALL ONLY BE CARRIED OUT WHEN DIRECTED BY CONSULTANT.
- CONCRETE SHALL BE REMOVED IN SUCH A MANNER AS TO PREVENT DAMAGE TO ADJACENT CONCRETE AND OTHER COMPONENTS THAT ARE TO REMAIN IN PLACE.
- UPON COMPLETION OF WORK, PLACE WASTED GRANULAR MATERIALS IN AREAS DESIGNATED ON-SITE BY OWNER. REMOVE CONSTRUCTION DEBRIS FROM SITE, TRIM SLOPES AND REINSTATE BUILDING AND SITE AREAS AFFECTED BY WORK AS DIRECTED BY OWNER.
- ALL REMOVED MATERIALS GENERATED AS A RESULT OF THE WORK SHALL BE DISPOSED OF OFF-SITE AND IN ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION AND APPLICABLE REGULATIONS.

STRUCTURAL DESIGN:

- STRUCTURAL MATERIALS METHODS AND DESIGN IN CONFORMANCE WITH THE LATEST EDITION OF ALL APPLICABLE STANDARDS AND CODES.
- STRUCTURAL DESIGN IN CONFORMANCE WITH THE PROVINCIAL BUILDING CODE LATEST EDITION, AND THE NATIONAL BUILDING CODE OF CANADA 2015, LATEST EDITION, PART 9 - HOUSING AND SMALL BUILDINGS, UNLESS NOTED OTHERWISE.

DESIGN CRITERIA:

- IMPORTANCE CATEGORY OF BUILDING: NORMAL
- INTERNAL PRESSURE COEFFICIENT, C_{pi}: CATEGORY 2
- WIND EXPOSURE FACTOR (C_w): 1.0
- WIND EXPOSURE FACTOR (C_e): OPEN TERRAIN
- ALL = L/360

ENVIRONMENTAL LOADS:

- SNOW: S_s = 3.5 kPa
S_r = 0.6 kPa
- WIND: q₃₀ = 0.38 kPa

BUILDING EXCAVATING, TRENCHING AND BACKFILLING:

PROTECTION OF EXISTING FEATURES (IF APPLICABLE):

- PRIOR TO COMMENCING EXCAVATION WORK, NOTIFY APPLICABLE OWNER OR AUTHORITIES HAVING JURISDICTION, ESTABLISH LOCATION AND STATE OF USE OF BURIED UTILITIES AND STRUCTURES. WHERE UTILITY LINES OR STRUCTURES EXIST IN AREA OF EXCAVATION, OBTAIN DIRECTION OF THE APPLICABLE OWNER OR AUTHORITIES HAVING JURISDICTION BEFORE REMOVING OR RE-ROUTING.
- PROTECT EXISTING BUILDINGS AND SURFACE FEATURES FROM DAMAGE WHILE WORK IS IN PROGRESS. IN EVENT OF DAMAGE, IMMEDIATELY MAKE REPAIR TO APPROVAL OF OWNER/CONSULTANT OF DAMAGED STRUCTURE(S).

MATERIALS:

- A SOIL INVESTIGATION FIRM SHALL BE EMPLOYED TO CONFIRM THE FOLLOWING GRANULAR MATERIALS BEFORE BEING PLACED AT THE SITE. GRANULAR MATERIALS AS PER NBDT STANDARD SPECIFICATIONS.
 - GRANULAR BASE MATERIAL: CRUSHED STONE OR GRAVEL.
 - GRANULAR SUB-BASE MATERIAL: CRUSHED PIT RUN COMPOSED OF CLEAN, HARD, DURABLE, UNCOATED PARTICLES FREE FROM LUMPS OF CLAY, ORGANIC MATERIAL OR OTHER DELETERIOUS SUBSTANCES.
 - SELECTED EXCAVATION MATERIALS (IF APPLICABLE): MATERIALS APPROVED FOR INTENDED, UNFROZEN AND FREE FROM ROCKS LARGER THAN 200 mm, CINDERS, ASHES, SODS, REFUSE OR OTHER DELETERIOUS MATERIALS.

EXECUTION:

- EXCAVATE 150mm BELLOW NEW FOOTINGS ELEVATION LEAVING SOIL UNDERNEATH UNDISTURBED.
- TEMPORARY EXCAVATION SLOPES SHALL MEET THE REQUIREMENTS OF THE NEW BRUNSWICK REGULATION 91-191 (O-0.2) UNDER OCCUPATIONAL HEALTH AND SAFETY ACT (O.C. 91-1035) SECTION PART XIII - EXCAVATION AND TRENCHES. WHERE INSTABILITIES ARE NOTED, TRENCH WALLS CAN BE STABILIZED BY TAPERED SLOPE AND/OR SUPPORTED EXCAVATION WALLS.
- EXCAVATE TO LINES, GRADES, ELEVATIONS AND DIMENSIONS AS INDICATED.
- EARTH BOTTOMS OF EXCAVATIONS TO BE LEVEL, FREE FROM LOOSE, SOFT OR ORGANIC MATTER.
- KEEP EXCAVATIONS FREE OF WATER WHILE WORK IS IN PROGRESS. UPON REQUEST, SUBMIT DETAILS OF PROPOSED DEWATERING METHODS TO OWNER/CONSULTANT FOR APPROVAL.
- A GEOTECHNICAL ENGINEER OR A QUALIFIED REPRESENTATIVE ON THE ENGINEER'S BEHALF SHALL APPROVE THE BOTTOM OF THE EXCAVATION PRIOR CONCRETING AND BACKFILLING OPERATIONS.
- A CERTIFIED TESTING LABORATORY DESIGNATED BY THE OWNER SHALL CARRY OUT INSPECTION AND TESTING OF COMPACTION DURING ALL BACKFILLING OPERATIONS. RESULTS OF TESTING SHALL BE SUBMITTED TO THE ENGINEER FOR RECORD.
- PLACE A 150mm THICK BEDDING LAYER OF 20-0 MM CRUSHED ROCK BASE MATERIAL UNDERNEATH THE FOOTINGS AND SLABS. THIS MATERIAL MUST BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MAXIMUM MODIFIED PROCTOR DRY DENSITY (ASTM D1557).

- BACKFILL AROUND FOUNDATIONS USING GRANULAR SUB-BASE MATERIAL OR SELECTED EXCAVATION MATERIALS COMPACTED TO 95% OF THE MAXIMUM MODIFIED PROCTOR DRY DENSITY (ASTM D1557).
- PLACE BACKFILL MATERIAL IN UNIFORM LAYERS NOT EXCEEDING 300 mm COMPACTED THICKNESS UP TO GRADES INDICATED, OR AS REQUIRED TO OBTAIN SPECIFIED PERCENTAGE OF THE MAXIMUM MODIFIED PROCTOR DRY DENSITY (ASTM D1557, LATEST REVISION). COMPACT EACH LAYER BEFORE PLACING SUCCEEDING LAYER.
- DO NOT BACKFILL AROUND OR OVER CAST-IN-PLACE CONCRETE WITHIN A MINIMUM OF 24 HOURS AFTER REMOVAL OF CONCRETE FORMS OR UNTIL CONSULTANT'S APPROVAL.
- PLACE LAYERS SIMULTANEOUSLY ON BOTH SIDES OF INSTALLED WORK TO EQUALIZE LOADING. DIFFERENCE NOT TO EXCEED 300mm.
- UPON COMPLETION OF WORK, PLACE WASTED GRANULAR MATERIALS IN AREAS DESIGNATED ON-SITE BY OWNER. REMOVE CONSTRUCTION DEBRIS FROM SITE, TRIM SLOPES AND REINSTATE BUILDING AND SITE AREAS AFFECTED BY WORK AS DIRECTED BY OWNER.

CONCRETE SPECIFICATIONS:

GENERAL:

- ALL CONCRETE, REINFORCEMENT, ACCESSORIES AND PROCEDURES SHALL MEET OR EXCEED THE APPLICABLE CSA STANDARDS FOR THAT PRODUCT. USE ONLY PRODUCTS SUITABLE FOR THE INTENDED FINAL USE AND CONDITIONS PREVALENT DURING CONSTRUCTION. PROTECT ALL MATERIALS FROM THE WEATHER DURING STORAGE AND INSTALLATION.
- PORTLAND CEMENT: TO CAN/CSA A3001, TYPE GU - GENERAL USE HYDRAULIC CEMENT.
- AGGREGATES: CLEAN, WELL-GRADED, UNCOATED SAND AND COARSE AGGREGATES FROM AN APPROVED SOURCE CONFORMING TO CAN/CSA-A23.1/A23.2.
- WATER: POTABLE FROM AN APPROVED MUNICIPAL SOURCE.
- CHEMICAL ADMIXTURES: SHALL CONFORM WITH ASTM C494.
- THE COEFFICIENT FOR VARIATION OF 28 DAY COMPRESSIVE TEST RESULTS SHALL BE IN THE "GOOD OR BETTER" RANGE (15% MAXIMUM VARIATION) AS PER ACI STANDARD 214.
- PROVIDE AN APPROVED WATER REDUCING AGENT IN ALL CONCRETE MIX DESIGNS. FLY-ASH SHALL NOT BE USED IN SUSPENDED SLABS OR BEAMS. THE CONTRACTOR USES FLY-ASH AT HIS OWN RISK ON SLAB-ON-GRADE APPLICATIONS.
- CONCRETE SHALL BE PLACED IN ACCORDANCE WITH CSA-A23.1 TO PREVENT SEGREGATION OF THE MIX.
- ALL CONCRETE SHALL BE PLACED IN ITS FINAL POSITION WITHIN 2 HOURS OF ORIGINAL BATCHING.
- THE CONTRACTOR SHALL TEST THE CONCRETE FOR EACH POUR AND TYPE OF CONCRETE PLACED IN A GIVEN WAY. LARGE POURS SHALL HAVE A TEST CONDUCTED ON EACH 40m³ OF CONCRETE PLACED. INSPECTION AND TESTING OF CONCRETE AND CONCRETE MATERIALS TO BE CARRIED OUT BY A TESTING LABORATORY APPROVED BY ENGINEER IN ACCORDANCE WITH CAN/CSA-A23.1. TEST RESULTS TO BE FORWARDED TO THE ENGINEER IN A TIMELY MANNER. COST OF TESTING TO BE PAID BY OWNER.
- CURING PROCEDURES AND PROTECTION OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARDS CAN/CSA-A23.1. NEW CONCRETE SHALL NOT BE ALLOWED TO FREEZE UNDER ANY CIRCUMSTANCES. THE CONTRACTOR SHALL PAY THE COSTS RELATED TO DAMAGE UNDER STRENGTH OR IMPROPERLY REINFORCEMENT.
- CONCRETE COVER SHALL BE 40 mm UNLESS NOTED OTHERWISE ON DRAWINGS.
- DEVELOPMENT OF COLD JOINTS IS NOT ALLOWED DURING CONCRETING OPERATIONS.
- DO NOT PLACE LOAD UPON NEW CONCRETE UNTIL AUTHORIZED BY THE ENGINEER.
- DO CAST-IN-PLACE CONCRETE WORK TO CSA-A23.1/A23.2.
- GROUT UNDER BASE PLATES USING PROCEDURES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS WHICH RESULT IN 100% CONTACT OVER GROUTED AREA.

CONCRETE MIX:

- FOR WALLS AND FOOTINGS:
 - MAXIMUM WATER / CEMENTING MATERIAL RATIO: 0.55
 - 20mm NOMINAL SIZE OF COARSE AGGREGATES
 - MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 25 MPa
 - CLASS OF EXPOSURE: F-2
 - SLUMP AT TIME AND POINT OF DISCHARGE: 80 mm ± 30 mm
 - AIR CONTENT: 4% TO 7%
 - CURING: TYPE 1 - BASIC CURING (3d AT ≥ 10°C AND TIME NECESSARY TO ATTAIN 40% OF THE SPECIFIED STRENGTH)
- FOR INTERIOR AND EXTERIOR STRUCTURAL SLABS:
 - MAXIMUM WATER / CEMENTING MATERIAL RATIO: 0.40
 - 20mm NOMINAL SIZE OF COARSE AGGREGATES
 - MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 35 MPa
 - CLASS OF EXPOSURE: C-1 FOR EXTERIOR, N FOR INTERIOR
 - SLUMP AT TIME AND POINT OF DISCHARGE: 80 mm ± 30 mm
 - AIR CONTENT: 5% TO 8% FOR EXTERIOR, 0% TO 3% FOR INTERIOR
 - EXTERIOR CURING: TYPE 2 - ADDITIONAL CURING (7d AT ≥ 10°C AND TIME NECESSARY TO ATTAIN 70% OF THE SPECIFIED STRENGTH)
 - INTERIOR CURING: TYPE 3 - EXTENDED WET CURING (7d AT ≥ 10°C AND TIME NECESSARY TO ATTAIN 70% OF THE SPECIFIED STRENGTH)
- FOR INTERIOR SLAB ON GRADE:
 - MAXIMUM WATER / CEMENTING MATERIAL RATIO: 0.55
 - 20mm NOMINAL SIZE OF COARSE AGGREGATES
 - MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 25 MPa
 - CLASS OF EXPOSURE: NORMAL
 - SLUMP AT TIME AND POINT OF DISCHARGE: 80 mm ± 30 mm
 - AIR CONTENT: 0% TO 3%
 - CURING: TYPE 3 - EXTENDED WET CURING (7d AT ≥ 10°C AND TIME NECESSARY TO ATTAIN 70% OF THE SPECIFIED STRENGTH)

CONCRETE FINISH:

- FINISH CONCRETE TO CSA-A23.1/A23.2.
- INTERIOR CONCRETE FLOORS TO BE LEFT EXPOSED OR TO RECEIVE COVERING REQUIRING A SMOOTH SURFACE: INITIAL FINISHING OPERATIONS FOLLOWED BY FINAL FINISHING COMPRISING MECHANICAL FLOATING AND STEEL TROWELLING AS SPECIFIED IN CAN/CSA-A23.1 TO PRODUCE HARD, SMOOTH, DENSE TROWELLED SURFACE FREE FROM BLEMISHES.
- EXTERIOR SLABS TO HAVE A BRUSHED NON-SLIP FINISH.

FORMWORK:

- FABRICATE AND ERECT FORMWORK IN ACCORDANCE WITH CSA-S269.1 AND CSA-A23.1/A23.2 TO PRODUCE FINISHED CONCRETE CONFORMING TO SHAPE, DIMENSIONS, LOCATIONS AND LEVELS INDICATED.
- ALL WALLS SHALL BE FORMED USING NUDURA ICF PRODUCTS AS SHOWN ON DRAWINGS. ALL MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS SHALL BE FOLLOWED IN ADDITION TO THE NATIONAL BUILDING CODE 2015, PART 9 REQUIREMENTS FOR ICF PRODUCTS.
- LEAVE FORMWORK IN PLACE FOR FOLLOWING MINIMUM PERIODS OF TIME AFTER PLACING CONCRETE.
 - 1 DAY FOR FOOTINGS.
 - 7 DAYS FOR STRUCTURAL SLABS OR UNTIL CONCRETE HAS REACHED 75% OF ITS DESIGN STRENGTH, WHICHEVER COMES LATER.

REINFORCEMENT:

- ALL REINFORCING BARS SHALL BE MANUFACTURED AND MEET THE REQUIREMENTS OF CSA-G30.18, BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT, GRADE 400W.
- ALL SMOOTH DOWELS AND PLAIN ROUND BARS SHALL CONFIRM TO CSA-G40.20/G40.21, GRADE 300W.
 - PLAIN ROUND BARS AS SLIP DOWELS SHALL HAVE THEIR PORTION INTENDED TO MOVE WITHIN HARDENED CONCRETE PAINTED WITH ONE COAT OF ASPHALT PAINT AND COATED WITH A THICK EVEN FILM OF MINERAL LUBRICATING GREASE ONCE PAINT IS DRY.
- SPLICES, BENDS, AND PLACEMENT SHALL CONFORM TO CSA-A23.1 AND CSA-A23.3.
- REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST VERSION OF THE ACI DETAILING MANUAL, RSC MANUAL OF STANDARD PRACTICE, CSA-A23.1/A23.2 AND TO CORRESPOND WITH REVIEWED SHOP DRAWINGS. ALL FABRICATOR DRAWINGS TO BE STAMPED AND SIGNED BY QUALIFIED PROFESSIONAL ENGINEER LICENSED IN PROVINCE OF NEW BRUNSWICK, CANADA.
- REINFORCING STEEL SHALL NOT BE FIELD BENDED, WELDED OR HEATED WITHOUT THE PRIOR APPROVAL OF THE CONSULTANT.
- ALL REINFORCING STEEL SHALL BE CHAIRED AND SECURELY TIED IN PLACE USING STANDARD TIES AND CHAIRS AND IN ACCORDANCE WITH CSA-A23.1/A23.2.
- ENSURE COVER TO REINFORCEMENT IS MAINTAINED DURING CONCRETE POUR.
- ALL WELDED WIRE MESH SHALL BE MANUFACTURED AND MEET THE REQUIREMENTS OF CSA-G30.5 - WELDED STEEL WIRE FABRIC FOR CONCRETE REINFORCEMENT.
- ALL WELDED WIRE MESH SHALL BE SUPPLIED IN FLAT SHEETS. ALL WWM SHALL BE CHAIRED IN PLACE TO THE REQUIRED COVER AS SPECIFIED.
- ALL REINFORCEMENT SHALL BE REVIEWED IN PLACE, PRIOR TO PLACING THE CONCRETE, BY THE ENGINEER. ALL REINFORCEMENTS SHALL BE IN PLACE AND SECURED AT THE TIME OF THE REVIEW. PROVIDE 24 HOURS NOTICE PRIOR TO POURS.

FOUNDATION DESIGN REQUIREMENTS:

- ALL FOOTING SHALL BEAR ON SOIL HAVING AN ALLOWABLE BEARING CAPACITY OF 150 kPa AT SERVICEABILITY LIMIT STATE AND 300 kPa AT ULTIMATE LIMIT STATE AND HAVE A MODULUS OF SUBGRADE REACTION OF 75 MN/m³. PRIOR TO PLACEMENT OF CONCRETE FOR FOOTINGS AND SLABS, THE OWNER SHALL RETAIN THE SERVICES OF SOIL INVESTIGATION FIRM TO CONFIRM THAT THE SOIL IS ACCEPTABLE TO ACHIEVE THESE SPECIFIC REQUIREMENTS. A LETTER STAMPED AND SIGNED BY A QUALIFIED PROFESSIONAL GEOTECHNICAL ENGINEER LICENSED IN THE PROVINCE OF NEW BRUNSWICK, CANADA, CONFIRMING THESE REQUIREMENTS SHALL BE ISSUED TO THE DESIGN ENGINEER PRIOR TO THE PLACEMENT OF CONCRETE. COST OF TESTING TO BE PAID BY OWNER.
- FOOTING ELEVATIONS AND WALL DEPTHS SHALL BE CONFIRMED AND ADJUSTED IN ACCORDANCE WITH THE SOILS CONSULTANTS REQUIREMENTS. IN NO CASE SHALL THE DEPTH BE REDUCED WITHOUT WRITTEN INSTRUCTIONS FROM THE ENGINEER AND THE GOVERNING AUTHORITIES.
- UNLESS SHOWN OTHERWISE, FOUNDATIONS SHALL BE BACKFILLED EVENLY ON BOTH SIDES TO PREVENT MOVEMENT. BACKFILL HEIGHTS SHALL NOT VARY BY MORE THAN 300 mm FROM ONE SIDE TO THE OTHER. EXERCISE EXTREME CAUTION DURING BACKFILL OPERATIONS TO PREVENT DAMAGE TO THE CONCRETE.
- SUPPLY AND PLACEMENT OF ALL TEMPORARY SHORING AND BRACING IS THE CONTRACTORS RESPONSIBILITY AND SHALL MEET ALL APPLICABLE STANDARDS AND LAWS.
- ALL DISCREPANCIES IN DETAILS AND DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCING RELATED WORK. DRAWINGS ARE NOT TO BE SCALED.

OTHER MATERIALS:

- NON-SHRINKABLE GROUT: MASTERFLOW 928 BY MASTER BUILDERS (BSF CANADA INC.) OR APPROVED EQUAL.
- ANCHORING ADHESIVE: HILTI HIT-HY 200 ADHESIVE (U.N.O.), INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
- ADHESIVE ANCHORS: HILTI HAS-V-36 THREADED ROD (U.N.O.), INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
- EXPANSION ANCHORS: HILTI KWIK BOLT 3, (U.N.O.), INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
- SEALANT:
 - FOR JOINTS ON VERTICAL SURFACES: NON-SAG ONE-PART HIGH-PERFORMANCE POLYURETHANE SEALANT CONFORMING TO CAN/CGSB-19.13, TYPE 2.
 - FOR JOINTS ON HORIZONTAL SURFACES: ONE-PART SELF-LEVELING POLYURETHANE SEALANT CONFORMING TO CAN/CGSB-19.13, MC-1-25-B-N.

STRUCTURAL STEEL:

GENERAL:

- ALL STRUCTURAL STEEL, MISCELLANEOUS STEEL, ACCESSORIES AND PROCEDURES SHALL MEET OR EXCEED THE CSA S16 STANDARD FOR THAT PRODUCT.
- WELDING, MATERIALS AND PROCEDURES CONFORMING TO CSA-W59. ALL WELDING TO BE PERFORMED BY CERTIFIED WELDERS UNDER THE REQUIREMENTS OF THE CANADIAN WELDING BUREAU. A COPY OF CERTIFICATE SHALL BE FORWARDED TO THE ENGINEER AT THE START OF THE PROJECT WITH THE SHOP DRAWINGS AND AT THE START OF FIELD ERECTION FOR FIELD WELDING.

MATERIALS:

- TO ASTM A500, GRADE C, OR TO ASTM A1085 FOR HOLLOW STRUCTURAL SECTIONS.
- TO CSA G40.20/G40.21, GRADE 350W, FOR CHANNELS AND ANGLES.
- TO CSA G40.20/G40.21, GRADE 300W, FOR OTHER SHAPES AND PLATE, UNLESS NOTED OTHERWISE.
- ANCHOR RODS: TO ASTM F1554, GRADE 36 (U.N.O.).
- LEG ANCHORS: CONFORMING TO CSA G40.20/G40.21, GRADE 300W.

- WELDING MATERIALS TO CSA W48.

EXECUTION AND FABRICATION:

- ALL DIMENSIONS AND ERECTION DETAILS TO BE VERIFIED BY FABRICATOR BEFORE FABRICATION AND REPORT ANY DISCREPANCIES TO THE OWNER.
- FABRICATE STEEL MEMBERS IN ACCORDANCE TO CAN/CSA S16 AND TO CORRESPOND WITH REVIEWED SHOP DRAWINGS.
- ALL HSS MEMBERS SHALL HAVE WEEP HOLES AT BOTTOM (ORIENTED TOWARDS BUILDING EXTERIOR) AND SHALL BE CAPPED WITH A 3 mm (MIN.) TOP PLATE. PROVIDE CONTINUOUS SEAM WELD AROUND TOP PLATE.
- NO PAINT SHALL BE APPLIED PRIOR TO THE INSTALLATION WHERE FIELD WELDING IS REQUIRED.
- APPLY PAINT SYSTEM AS PER MANUFACTURER'S RECOMMENDATIONS.
- ALL STRUCTURAL MEMBERS SHALL BE PROTECTED AGAINST LOADS EXCEEDING THE DESIGN CAPACITY DURING ERECTION.
- USE QUALIFIED FABRICATOR IN ACCORDANCE WITH CSA W47.1.
- ERECT STEEL FRAME TRUE AND PLUMB TO MINIMUM TOLERANCES.
- AFTER ERECTION, TOUCH-UP PAINTED SURFACES DAMAGED DURING ERECTION.
- CONTRACTOR SHALL SUPPLY ALL TEMPORARY BRACING REQUIRED TO MAINTAIN PLUMBNESS AND STABILITY OF STEEL DURING ERECTION.
- NO OPENINGS SHALL BE CUT IN STRUCTURAL MEMBERS U.N.O. ON DRAWINGS OR PROPER APPROVAL IS RECEIVED FROM THE STRUCTURAL CONSULTANT.

STRUCTURAL STEEL PAINT SYSTEM:

- SURFACE PREPARATION: SOLVENT CLEAN IN ACCORDANCE TO SSPC SP1 TO REMOVE OIL, GREASE AND OTHER FORMS OF SURFACE CONTAMINATION PRIOR TO ABRASIVE BLAST CLEANING TO SSPC SP 6 COMMERCIAL STANDARD AND ACHIEVING A MINIMUM BLAST PROFILE OF 1.5 MILS.
- PRIMER FOR INTERIOR STEEL: ONE COAT OF CISC/CPMA STANDARD 1-73A PRIMER IN SHOP TO ALL STEEL SURFACES TO ACHIEVE MINIMUM DRY FILM THICKNESS OF 3.0 MILS.

TIMBER NOTES:

- ALL LUMBER, SHEATHING AND MANUFACTURED WOOD PRODUCTS SHALL MEET OR EXCEED THE APPLICABLE CSA STANDARD FOR THAT PRODUCT. USE ONLY PRODUCTS SUITABLE FOR THE INTENDED FINAL USE AND CONDITIONS PREVAILING DURING CONSTRUCTION. PROTECT ALL MATERIALS FROM THE WEATHER DURING STORAGE AND INSTALLATION.
- ALL STUDS AND LUMBER SHALL BE SPF #2 OR BETTER AND KILN DRIED TO A MOISTURE CONTENT OF LESS THAN 19% AT THE TIME OF MANUFACTURE.
- ALL WOOD FRAMING TO CONFORM TO PART 9 OF THE NATIONAL BUILDING CODE 2015, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL WOOD PRODUCTS AND LUMBER IN CONTACT WITH CONCRETE SHALL BE PROTECTED USING ISOLATION GASKETS.
- ENGINEERED WOOD STEEL CAPS AND BASES SHALL BE ORIENTED IN A WAY TO HAVE THEIR FASTENERS INSTALLED IN THE WIDE FACE OF THE COLUMN (FASTENERS INSTALLED PERPENDICULAR TO WOOD STRANDS. LEG ORIENTATION OF COLUMN CAPS AND BASES SHALL BE CHOSEN ACCORDINGLY).
- ALL 2 (TWO)-STOREY WALLS AND SPLIT LEVEL WALLS WITHOUT INTERMEDIATE FLOORS SHALL BE BALLOON FRAMED TO PREVENT HINGING. NO SPLICE UNLESS DETAILED OTHERWISE.
- ALL SUB-FLOOR SHEATHING SHALL BE GLUED TO THE JOISTS IN ADDITION TO SCREW UTILIZING A PRODUCT SUITABLE FOR CONSTRUCTION AND PREVALENT WEATHER CONDITIONS.
- THE CONTRACTOR SHALL BRING ANY DISCREPANCIES IN DIMENSIONS ETC. TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
- ALL TEMPORARY BRACING AND GUARDS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- LAG SCREWS: TO ASME B18.2.1 WITH STEEL MEETING OR EXCEEDING SAE J429, GRADE 1. ALL FASTENERS TO BE HOT-DIP GALVANIZED.
- PREFABRICATED FLOOR JOIST SHALL BE TRIFORCE OPEN JOISTS. FLOOR JOIST SHALL BE INSTALLED FOLLOWING ALL MANUFACTURER/SUPPLIER'S INSTRUCTIONS, RECOMMENDATIONS AND DETAILS.

WOOD ROOF TRUSSES:

- ALL TRUSSES SHALL BE DESIGNED FOR THE LOADS APPLIED, INCLUDING DRIFT AND ROOF OR FLOOR FINISH AND TO THE REQUIREMENTS OF THE NATIONAL BUILDING CODE (2015) PART 4 REQUIREMENTS. TRUSSES SHALL BE DESIGNED FOR A MAXIMUM LIVE LOAD DEFLECTION OF L/360.
- ENGINEER SEALED SHOP DRAWINGS INCLUDING LAYOUT, DESIGN CRITERIA, CONNECTIONS AND DETAILS SHALL BE SUBMITTED PRIOR TO FABRICATION FOR REVIEW BY THE OWNER'S REPRESENTATIVE.
- THE ERECTION CONTRACTOR SHALL BE SUPPLIED WITH DETAILED INSTRUCTIONS FOR THE CARE, STORAGE, HANDLING, AND ERECTION OF THE TRUSSES, INCLUDING A LAYOUT PLAN AND DETAILS.
- ALL TRUSSES SHALL BE CONNECTED TO THE SUPPORTING BEAMS AND WALLS UTILIZING GAUGE METAL CLIPS CAPABLE OF RESISTING LOAD REACTIONS AND SPECIFIED BY THE TRUSS MANUFACTURER.
- CONTRACTOR SHALL NOT CUT, DRILL, NOTCH OR MODIFY THE TRUSSES EXCEPT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
- ALL TEMPORARY BRACING AND GUARDS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

STRUCTURAL FIELD REVIEW:

- THE CONTRACTOR SHALL COOPERATE WITH ALL TESTING, INSPECTION AND QUALITY CONTROL PERSONNEL REQUIRED ON THE SITE AND WILL PROVIDE CASUAL LABOUR FORCES, AS REQUIRED, TO ASSIST IN ALL FIELD REVIEW PROCEDURES. THE CONTRACTOR SHALL GIVE REASONABLE NOTICE TO THESE AGENCIES PRIOR TO REQUIRING THEIR SERVICES.

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NO.	REVISION	DATE
0	ISSUED FOR TENDER	2022/03/04

	A DETAIL NUMBER
	B REFERENCE DWG NO.

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TCFSA Administration Building Addition

Tobique First Nation, NB

- STRUCTURAL -
TECHNICAL SPECIFICATIONS

SCALE: AS SHOWN

October, 2021

A2135