GENERAL NOTES

GENERAL

1. WHERE DOCUMENTS ARE REFERENCED IN THE GENERAL AND DESIGN NOTES, THEY SHALL BE THE LATEST EDITIONS, UNLESS OTHERWISE NOTED OR SHOWN.
2. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH SEPARATELY BOUND SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS.
3. BEFORE PROCEEDING WITH WORK, CHECK ALL THE DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS AGAINST ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND EXISTING SITE CONDITIONS. REPORT INCONSISTENCIES TO DEPARTMENTAL REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
4. CHECK AND VERIFY IN THE FIELD ALL SIZES AND DIMENSIONS INVOLVING THE EXISTING STRUCTURE AND COORDINATE WITH NEW CONSTRUCTION.
5. VERIFY AND OBTAIN PRIOR APPROVAL OF DIMENSIONS AND LOCATIONS OF ALL OPENINGS, PIPE SLEEVES, SLOTS, TRENCHES AND ELECTRICAL FLOOR DUCTS AS REQUIRED BY OTHER TRADES.
6. NO OPENINGS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL BE MADE THROUGH SLABS, BEAMS OR BEARING WALLS, UNLESS PRIOR APPROVAL IS OBTAINED FROM THE DEPARTMENTAL REPRESENTATIVE.
7. DO NOT EXCEED DURING CONSTRUCTION, DESIGN LIVE LOADS SHOWN ON PLANS, REDUCED AS NECESSARY UNTIL MATERIALS REACH DESIGN STRENGTH.
8. DIMENSIONS ARE IN MILLIMETRES (INCHES) UNLESS NOTED OTHERWISE. ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
9. SCALES NOTED ON DRAWINGS ARE FOR GENERAL INFORMATION ONLY.
10. DO NOT SCALE DRAWINGS.
11. TYPICAL STRUCTURAL DETAILS SHOWN IN DRAWING SERIES S02 SHALL GOVERN THE WORK. IF DETAILS DIFFER ON OTHER DRAWINGS, THE MOST STRINGENT GOVERNS.
12. ALL MECHANICAL SYSTEM SUSPENDED LOADS EXCEEDING 50 kg SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION UNLESS SPECIFICALLY DETAILED OR NOTED ON THE STRUCTURAL DRAWINGS.
13. UNIT FLOOR AND ROOF LOADINGS GIVEN ON DRAWINGS ARE UNFACTORED. MEMBER FORCES GIVEN ON DRAWINGS ARE FACTORED.
14. DO NOT DISTURB EXISTING FOUNDATIONS ADJACENT TO THE PROPOSED CONSTRUCTION. MAKE GOOD ANY DAMAGE.

CONSTRUCTION

1. THE CONTRACTOR SHALL PROPOSE A FULL METHODOLOGY FOR EXECUTING THE WORK.
2. THE CONTRACTOR SHALL DEMONSTRATE THE STABILITY AND SAFETY OF ALL ELEMENTS OF THE BUILDING DURING EVERY STAGE OF CONSTRUCTION.

MATERIALS

1. SEE SPECIFICATIONS FOR CLASS OF CONCRETE AND OTHER REQUIREMENTS. CONCRETE STRENGTH AS FOLLOWS:

   FOOTINGS.. 25 MPa (F2)
   CONC. FILL, MUD SLABS...................................... 15 MPa
   SIDEWALKS AND SOG EXPOSED TO SALT ...... 32 MPa (C-2)
   STRUCTURAL MEMBERS EXPOSED TO SALT .. 35 MPa (C-1)
   NON-SHRINK GROUT.. 35 MPa
   CANOPY COLUMN PIER .... 35 MPa (C-1)
   WITH WATER PROOFING ADMIXTURE
   OTHER……………... 35MPa

2. STRUCTURAL STEEL:

   STRUCTURAL WIDE FLANGES AND WELDED WIDE FLANGE SHAPES (W, WWF) TO CONFORM TO CSA/CAN-G40.20/G40.21 GRADE 350W.

   CHANNELS AND ANGLES (C, L) CSA/CAN-G40.20/G40.21 GRADE 300W.

   ALL PLATE AND PLATE FABRICATED MEMBERS TO CONFORM TO CSA/CAN-G40.20/G40.21 GRADE 350W.

   HOLLOW STRUCTURAL SECTIONS (HSS) TO CONFORM TO CSA/CAN-G40.20/G40.21 CLASS C UNLESS NOTED OTHERWISE.

3. REINFORCEMENT: CONFORM TO CSA G30 SERIES, fy = 400 MPa FOR ALL CONCRETE REINFORCEMENT EXCEPT fy = 440 MPa FOR WELDED WIRE FABRIC. PROVIDE WELDED WIRE FABRIC IN FLAT SHEETS ONLY. ALL REINFORCEMENT IS TO BE 'BLACK' EXCEPT WHERE THE SUFFIX 'C' IS USED TO DESIGNATE EPOXY COATED REINFORCEMENT.
4. REINFORCING BAR AREAS ARE 100, 200, 300, 500, 700, 1000, 1500 AND 2500 sq. mm FOR BAR DESIGNATIONS 10, 15, 20, 25, 30, 35, 45 AND 55, RESPECTIVELY.
5. ANCHOR BOLTS: CONFORM TO ASTM F1554 GRADE 55 (fy=385MPa, fu=525MPA) UNLESS OTHERWISE NOTED OR SHOWN.
6. STRUCTURAL BOLTS, NUTS AND WASHERS: CONFORM TO ASTM F3125M.
7. NON-SHRINK GROUT: COMPRESSIVE STRENGTH
   - MISCELLANEOUS USE......................... 35MPa(@ 28 DAYS)
8. FOUNDATION INSULATION: EXTRUDED POLYSTYRENE WITH A MINIMUM COMPRESSIVE STRENGTH OF 0.24 MPa UNLESS OTHERWISE NOTED.

SLAB ON GRADE

1. UNDERSLAB FILL SHALL CONSIST OF A MINIMUM OF 200mm (8") OF GRANULAR 'A' MATERIAL COMPACTED TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY UNLESS NOTED OTHERWISE IN DRAWINGS.
2. PLACE SLABS-ON-GRADE ON MATERIAL CAPABLE OF SUSTAINING 25 kPa SURCHARGE WITHOUT SETTLEMENT RELATIVE TO THE BUILDING FOUNDATIONS.

FOUNDATIONS

1. REFER TO GEOTECHNICAL REPORT# 6122-001 BY CAMBIUM DATED MAY 01,2017.
2. DO NOT EXCEED A RISE OF 7 IN A RUN OF 10 IN THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS EXCEPT IN BEDROCK AND AS EXPLICITLY SHOWN ON DRAWINGS. MAXIMUM STEP 600 mm APPROXIMATELY.
3. INSULATION IS SHOWN WHERE REQUIRED FOR PROTECTION OF THE FOUNDATIONS FROM DAMAGE DUE TO FROST ACTION ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR FOUNDATION INSULATION NOT SHOWN ON THE STRUCTURAL DRAWINGS.
4. CONTRACTOR TO PROVIDE ALL NECESSARY TEMPORARY BRACING OF NEW CONSTRUCTION AND MEASURES TO PREVENT DAMAGE TO THE STRUCTURE BY HEAVY EQUIPMENT. USE LIGHT, HAND-OPERATED COMPACTING EQUIPMENT TO COMPACT BACKFILL ADJACENT TO FOUNDATION WALLS OR RETAINING WALLS.
5. IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY THE GEOTECHNICAL INFORMATION AND TO OBTAIN HIS OWN DATA AND TO POINT DISCREPANCIES TO THE DEPARTMENTAL REPRESENTATIVE WHERE THEY OCCUR.
6. ALL SHOP DRAWINGS FOR DESIGN OF EXCAVATION SHORING SYSTEM MUST BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER.

CONCRETE AND REINFORCEMENT

1. UNLESS OTHERWISE NOTED, ALL DOWELS SHALL HAVE A MINIMUM EMBEDMENT EQUIVALENT TO THE STRAIGHT TENSION EMBEDMENT LENGTH CORRESPONDING TO THE SIZE OF BAR. DOWELS FROM WALLS TO SLABS SHALL HAVE A MINIMUM EMBEDMENT OF 600 mm INTO WALLS AND SLABS UNLESS OTHERWISE NOTED OR SHOWN.
2. PROVIDE DOWELS TO WALLS AND COLUMNS SIMILAR IN NUMBER, SIZE AND SPACING TO THE VERTICAL STEEL IN THE WALL OR COLUMN ABOVE UNLESS OTHERWISE NOTED OR SHOWN.
3. TACK WELDING OF REINFORCEMENT IS NOT PERMITTED. WELDED SPLICES IN REINFORCING BARS WILL ONLY BE PERMITTED IF EXPLICITLY SHOWN ON THE STRUCTURAL DRAWINGS OR IF WRITTEN APPROVAL IS GIVEN BY THE DEPARTMENTAL REPRESENTATIVE.
4. ALL REINFORCEMENT SHALL BE SECURELY HELD IN PROPER POSITION WHILE POURING CONCRETE. CHAIRS, TIES, SPACERS, ADDITIONAL BARS AND STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT FOR ALL REINFORCEMENT.
5. CONSTRUCTION JOINTS SHALL BE DOWELED, KEYED AND THOROUGHLY CLEANED. ALL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL CONSTRUCTION JOINT DETAILS SHOWN ON THE STRUCTURAL DRAWINGS.

   CONSTRUCTION JOINTS:

   A. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE MADE IN BEAMS UNLESS SHOWN OR REVIEWED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

   B. VERTICAL CONSTRUCTION JOINTS MAY BE MADE ONLY AT MIDSPAN OF BEAMS OR SLABS UNLESS OTHERWISE NOTED OR SHOWN OR DIRECTED, AND THEIR LOCATION SHALL BE REVIEWED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

   C. REFER TO SPECIFICATIONS FOR POUR LENGTH LIMITATIONS.

6. OPENINGS, SLEEVES, EMBEDDED DUCTS:

   A. NO SLEEVES SHALL BE PLACED VERTICALLY OR HORIZONTALLY THROUGH BEAMS UNLESS REVIEWED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

   B. NO OPENINGS SHALL BE MADE IN FLAT PLATE OR FLAT SLAB COLUMN STRIPS EXCEPT AS SHOWN ON TYPICAL DETAIL AND PLANS OR UNLESS REVIEWED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.

7. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 150 mm (6") OR ONE FULL MESH, WHICHEVER IS GREATER.
8. COORDINATE AND INSTALL ALL REQUIRED EMBEDDED ITEMS, INSETS SLEEVES, POCKETS, ETC. AS REQUIRED PRIOR TO PLACEMENT OF CONCRETE.

FORMWORK

1. FORMWORK SHALL CONFORM TO THE REQUIREMENTS OF C.S.A. SPECIFICATION A23M AND A.C.I. SP.4.
2. FORMWORK SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER OF THE PROVINCE OF PEI TO WITHSTAND ALL SUPERIMPOSED LOADS DURING CONSTRUCTION.
3. SHORING, RE-SHORING AND CONSTRUCTION LOADS SHALL BE CONTROLLED TO ENSURE THAT NO STRUCTURAL ELEMENT IS OVERSTRESSED.
4. MAKE NECESSARY ALLOWANCE FOR FORMWORK CREEP AND DEFLECTION AND ADJUST ACCORDINGLY TO ACHIEVE THE ELEVATION FOR THE COMPLETION OF THE JOB.
5. CONSTRUCTION JOINTS SHALL BE MADE AND LOCATED AND SO AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE.
6. IF CONSTRUCTION JOINTS ARE NOT SPECIFICALLY LOCATED AND THERE IS ANY DOUBT OR DISCREPANCY REGARDING THE LOCATION, THE CONTRACTOR SHALL INFORM AND OBTAIN APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
7. INDICATE THE CONSTRUCTION JOINTS AND POURING SEQUENCES FOR THE REVIEW OF THE DEPARTMENTAL REPRESENTATIVE PRIOR TO PLACING OF CONCRETE.
8. THE CONTRACTOR SHALL MAKE NECESSARY ALLOWANCE FOR ANY VARIATION AND/OR ANY REVISIONS MADE ON ACCOUNT OF SUB-TRADES AND PRODUCT SELECTION FOR THE COMPLETION OF THE PROJECT.

MASONRY WALLS

1. DESIGN OF MASONRY IS IN ACCORDANCE WITH CSA S304.1-04 - "DESIGN OF MASONRY STRUCTURES."
2. CONSTRUCT MASONRY IN ACCORDANCE WITH CSA STANDARD A371-04., "MASONRY CONSTRUCTION FOR BUILDINGS".
3. DO NOT CUT HOLES THROUGH MASONRY BEARING WALLS, OTHER THAN HOLES SHOWN ON STRUCTURAL DRAWINGS, UNLESS APPROVED BY DEPARTMENTAL REPRESENTATIVE.
4. REFER TO SPECIFICATIONS FOR BLOCK MATERIAL, GROUT PROPERTIES AND OTHER REQUIREMENTS.

ANCHOR INSTALLATION IN EXISTING CONCRETE

1. COMPLY WITH MANUFACTURER GUIDELINES FOR ANCHOR INSTALLATION.
2. INSTALLER SHALL BE TRAINED BY ANCHOR MANUFACTURER.
3. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR ALL ADHESIVE ANCHORS AND EXPANSION ANCHORS. INSPECT AND PULL TEST EXPANSION ANCHORS AND ADHESIVE (EPOXY) ANCHORS ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.

DESIGN AND ERECTION OF TEMPORARY WORK

1. DESIGN OF TEMPORARY WORK SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN PEI WITH DEMONSTRATED EXPERIENCE IN SIMILAR SIZE AND SCOPE OF TEMPORARY WORKS.
2. SUBMIT DRAWINGS AND CALCULATIONS SEALED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER SHOWING COMPLETE DESIGN INCLUDING TEMPORARY CONDITIONS, FINAL CONDITIONS AND SEQUENCE OF WORK.
3. PROTECTIVE MEASURES SHALL BE TAKEN TO ENSURE THE SAFETY OF THE TEMPORARY WORK DURING CONSTRUCTION ACTIVITIES.

TESTING AND INSPECTION

1. INSPECTION AND TESTING OF MATERIALS AND WORKMANSHIP WILL BE CARRIED OUT BY TESTING LABORATORY DESIGNATED BY DEPARTMENTAL REPRESENTATIVE.

   GEOTECHNICAL:

   PERFORM ALL TESTING AND INSPECTION (COMPACTION, BEARING CAPACITY PILE INSTALLATION, SUBGRADE PREPARATION ETC.) AS PER THE REQUIREMENTS OF THE DRAWINGS AND THE GEOTECHNICAL REPORT.

   CONCRETE:

   CONCRETE TO BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1 AND A23.2, INCLUDING THE REQUIREMENTS FOR AIR, SLUMP AND AGE PRIOR TO BEING USED. CONTRACTOR TO MAINTAIN RECORDS OF POUR DATES, TESTING PERFORMED, CLASS OF CONCRETE USED AND TEST RESULTS FOR ALL ITEMS POURED. RESULTS OF CYLINDER STRENGTH TESTING TO BE SENT TO OWNER AND DEPARTMENTAL REPRESENTATIVE. ALL MIX DESIGNS TO BE REVIEWED AND APPROVED BY TESTING AGENCY.

   MASONRY:

   SAMPLE AND TEST JOB-MIXED GROUT IN ACCORDANCE WITH CSA A179 AND CSA S304.1. TEST FREQUENCY TO BE IN ACCORDANCE WITH S304.1. CONTRACTOR TO SUBMIT LABORATORY TEST REPORTS OF MANUFACTURER FOR CONCRETE MASONRY UNITS.

   STRUCTURAL STEEL AND STEEL DECK:

   PERFORM VISUAL INSPECTION OF ALL WELDS, TORQUE TESTING OF BOLTED CONNECTIONS AND CHECK ON BEARING, PLUMBNESS, ALIGNMENT AND PAINTING. BASIS OF INSPECTION SHALL BE FINAL REVIEWED SHOP DRAWINGS. PERFORM NON-DESTRUCTIVE TESTING OF WELDS WHERE RESULTS OF VISUAL INSPECTION ARE NOT ACCEPTABLE OR INCONCLUSIVE.

   REINFORCING STEEL:

   INSPECTION OF REBAR PLACEMENT, SIZES AND CONFORMANCE WITH REVIEWED SHOP DRAWINGS SHALL BE MADE BY AN INSPECTION AGENCY. CONTRACTOR SHALL ADDITIONALLY ADVISE DEPARTMENTAL REPRESENTATIVE OF MAIN PLANNED POURS, AT LEAST 24 HOURS PRIOR TO CONCRETE PLACEMENT.

STRUCTURAL STEEL

1. PROVIDE MINIMUM BEARING OF 200 mm FOR ALL STEEL BEAMS BEARING ON CONCRETE AND A MINIMUM OF 100 mm ON STRUCTURAL STEEL, UNLESS OTHERWISE NOTED ON PLAN.
2. CENTRE BEARING PLATES UNDER BEAMS UNLESS OTHERWISE NOTED OR SHOWN.
3. BEARING PLATE DIMENSION GIVEN FIRST INDICATES SIDE PARALLEL TO BEAM WEB.
4. NO STRUCTURAL STEEL SHALL BE CUT IN THE FIELD UNLESS REVIEWED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
5. ALL WELDS EXPOSED TO VIEW SHALL BE GROUND SMOOTH EXCEPT AS NOTED IN THE SPECIFICATIONS.
6. REFER TO TYPICAL DETAIL TD-1 FOR ABBREVIATIONS USED FOR THE CONNECTION FORCES GIVEN ON THE DRAWINGS.
7. WHERE MOMENT CONNECTIONS ARE CALLED FOR BUT VALUES ARE NOT INDICATED, DESIGN CONNECTIONS FOR FULL MOMENT CAPACITY OF THE SMALLER MEMBER JOINED.
8. SPLICES SHALL BE DESIGNED TO DEVELOP THE FULL CAPACITY OF THE MEMBER AT THE POINT OF THE SPLICE. MEMBERS SHALL NOT BE SPLICED AT POINTS OF MAXIMUM STRESS. NO SPLICES SHALL BE MADE UNLESS SHOWN ON THE DRAWINGS OR REVIEWED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
9. PROVIDE WELDED STIFFENER PLATES ON BOTH SIDES OF THE WEB OF BEAMS AT POINTS OF CONCENTRATED LOAD INCLUDING BEAMS SUPPORTING COLUMNS OR RUNNING OVER TOPS OF COLUMNS.
10. CONNECT ALL COLUMNS TO THE BASE PLATES FOR THE LARGER OF THE FOLLOWING FORCES IN ADDITION TO THE OTHER FORCES SHOWN:

    A. AT BRACING FOR THE HORIZONTAL COMPONENT OF THE BRACING LOAD.

    B. FOR 3% OF THE FACTORED VERTICAL COLUMN LOAD APPLIED HORIZONTALLY.

11. SHAPE AND SIZE OF GUSSET PLATES TO CLEAR ARCHITECTURAL FINISHES AND MECHANICAL DUCTS AND PIPES AND ELEVATOR SHAFTS.
12. PROVIDE ALL ANCHOR BOLTS, CAST-IN PLATES WITH STUDS AND DRILLED ANCHORS REQUIRED TO CONNECT STRUCTURAL STEEL TO CAST-IN-PLACE CONCRETE.
13. MAINTAIN TEMPORARY BRACING UNTIL COMPLETION OF ENTIRE STRUCTURE INCLUDING ROOF DECKS AND OTHER ELEMENTS WHICH ARE PART OF THE LATERAL LOAD RESISTING SYSTEM.
14. PROVIDE CAMBER TO BEAMS, GIRDERS AND TRUSSES AS SHOWN ON BEAM SCHEDULES AND DRAWINGS. CAMBERS SHOWN ARE FOR ERECTED IN-PLACE CONDITION OF MEMBERS BEFORE INSTALLATION OF STEEL DECK. WHERE CONCRETE ON STEEL DECK IS CALLED FOR, SCREED SLAB TO SUIT BEAM CAMBERS.
15. INSTALL 75x75x8 mm (3x3x5/16") ANGLE SEATS FOR STEEL DECK AT CONNECTIONS, AT COLUMNS OR OTHER IRREGULARITIES, TO PROVIDE SUPPORT TO THE RIBS OF THE DECK.
16. BOLT HOLES IN STEEL SHALL BE 3 mm (1/8") LARGER IN DIAMETER THAN NOMINAL SIZE OF BOLT USED, EXCEPT AS NOTED. PROVIDE NOT LESS THAN 2-M20 A325 BOLTS IN ANY BOLTED CONNECTION.
17. ALL WELDS SHALL CONFORM TO W59-03 AND ALL WELDERS SHALL BE CERTIFIED IN CONFORMANCE WITH W47.1-03.
18. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE LENGTH OF WELD IS NOT SHOWN IT SHALL BE FULL LENGTH OF JOINT. ALL BUTT WELDS SHALL BE FULL PENETRATION UNLESS NOTED OTHERWISE.
19. ALL STRUCTURAL STEEL INDICATED AS "AESS" ON THE PLANS AND SECTIONS SHALL COMPLY WITH THE PROVISIONS OF THE CISC GUIDELINES FOR SPECIFYING ARCHITECTURAL EXPOSED STRUCTURAL STEEL CATEGORY 3 UNLESS OTHERWISE NOTED.
20. ALL BEAMS, EXCEPT CANTILEVER BEAMS, SHALL BE FABRICATED AND ERECTED WITH NATURAL CAMBER UP. ALL CANTILEVER BEAMS SHALL BE FABRICATED AND ERECTED SO THAT THE NATURAL CAMBER RAISES THE CANTILEVER END.
21. ALL STEEL EXPOSED TO THE EXTERIOR ENVIRONMENT SHALL BE HOT-DIP GALVANIZED UNLESS OTHERWISE NOTED.
22. STRUCTURAL STEEL MEMBERS SUPPORTING LOADS SHALL BE FIREPROOFED IN ACCORDANCE WITH REQUIREMENTS SHOWN ON ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

TEMPORARY SHORING OF EXISTING STRUCTURE

1. PROVIDE TEMPORARY SHORING TO SAFELY SUPPORT THE LOADS SHOWN ON THE STRUCTURAL DRAWINGS.
2. PRE LOAD SHORES TO 75% OF THE INDICATED LOADS.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR TEMPORARY SHORING AND EXCAVATION SUPPORT SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN PEI TO THE DEPARTMENTAL REPRESENTATIVE AT LEAST TWO WEEKS PRIOR TO NOTICE TO PROCEED.
4. PROVIDE TEMPORARY SHORING AS REQUIRED TO SAFELY SUPPORT THE EXISTING STRUCTURE DURING DEMOLITION AND CONSTRUCTION OF NEW ELEMENTS.

EXISTING CONSTRUCTION

1. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS.
2. NOTED DIMENSIONS AND CONDITIONS OF EXISTING BUILDINGS AND OTHER STRUCTURES ARE SHOWN BASED ON THE ORIGINAL DRAWINGS AND HAVE NOT BEEN COMPLETELY FIELD VERIFIED. THE DEPARTMENTAL REPRESENTATIVE TAKE NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING DIMENSIONS SHOWN. FIELD MEASURE EXISTING DIMENSIONS PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE DEPARTMENTAL REPRESENTATIVE IN WRITING.
3. VERIFY CONDITIONS AFFECTING THE WORK; OBTAIN AND VERIFY ALL DIMENSIONS AND ELEVATIONS TO ENSURE THE PROPER STRENGTH, FIT AND LOCATION OF THE WORK; REPORT TO THE DEPARTMENTAL REPRESENTATIVE ANY AND ALL CONDITIONS WHICH MAY INTERFERE WITH OR OTHERWISE AFFECT OR PREVENT THE PROPER EXECUTION AND COMPLETION OF THE NEW WORK. FULLY RESOLVE ALL DISCREPANCIES PRIOR TO COMMENCING WORK.
4. EXISTING CONSTRUCTION NOT UNDERGOING ALTERATION IS TO REMAIN UNDISTURBED. WHERE SUCH CONSTRUCTION IS DISTURBED AS A RESULT OF THE OPERATIONS OF THIS CONTRACT, REPAIR OR REPLACE AS REQUIRED TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
5. VERIFY THE EXISTENCE, LOCATION AND ELEVATION OF EXISTING UTILITIES, SEWERS, DRAINS, ETC. IN DEMOLITION AREAS BEFORE PROCEEDING WITH THE WORK. ALL DISCREPANCIES SHALL BE DOCUMENTED AND REPORTED TO THE DEPARTMENTAL REPRESENTATIVE.
6. SHOULD UNCHARTED OR INCORRECTLY CHARTED PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT THE DEPARTMENTAL REPRESENTATIVE FOR DIRECTION.
7. DURING FIELD CUTTING AND WELDING OPERATIONS, THE CONTRACTOR IS TO PROVIDE FIRE WATCH IN ORDER TO MEET THE DEPARTMENTAL REPRESENTATIVE'S REQUIREMENTS.
8. PROVIDE TEMPORARY PROTECTION OF EXISTING EQUIPMENT DURING EXECUTION OF THE WORK, IN ORDER TO SATISFY THE DEPARTMENTAL REPRESENTATIVE REQUIREMENTS.
9. COORDINATE WORK WITH THE DEPARTMENTAL REPRESENTATIVES TO AVOID ANY INTERFERENCE IN THEIR OPERATIONS.

ALTERATION AND CONNECTIONS TO EXISTING STRUCTURE

1. INFORMATION SHOWN FOR THE EXISTING STRUCTURE ON THESE DRAWINGS WAS TAKEN FROM THE FOLLOWING DRAWINGS:

   a. ARCHITECTURAL DRAWINGS PREPARED BY CONSORTIUM DESIGNER INCORPORATED DATED OCTOBER 29, 1981.

   b. STRUCTURAL CONCRETE DRAWINGS PREPARED BY CONSORTIUM DESIGNER INCORPORATED DATE OCTOBER 07, 1980.

   c. STRUCTURAL STEEL DRAWINGS PREPARED BY CONSORTIUM DESIGNER INCORPORATED DATE UNKNOWN.

2. CHECK ALL DRAWING AGAINST ACTUAL CONDITIONS ON SITE PRIOR TO FABRICATING ANY STRUCTURAL STEEL. REPORT DISCREPANCIES TO THE DEPARTMENTAL REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
3. CONTRACTOR'S SCHEDULE OF WORK SHALL BE COORDINATED WITH ALL SUBTRADES, THE DEPARTMENTAL REPRESENTATIVE.
4. PROPOSED SEQUENCE OF WORK TO BE SUBMITTED TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW PRIOR TO START OF WORK.
5. PRIOR TO FABRICATION OF STRUCTURAL STEEL, OPEN UP ALL AREAS TO ALLOW THE INSTALLATION OF THE NEW STRUCTURAL WORK, AS WELL AS THE CONNECTION OF NEW WORK TO THE EXISTING WORK. TAKE ANY AND ALL NECESSARY FIELD MEASUREMENTS. MODIFY INSTALLATION METHODS AND METHODS FOR CONNECTING TO SUIT SITE CONDITIONS FOUND AND TO THE APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE. CARRY OUT LOCAL. REPAIRS TO THE EXISTING WORK AS NECESSARY AND AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.
6. SHORE EXISTING WORK AS REQUIRED UNTIL ALL NEW WORK HAS BEEN COMPLETED AND REVIEWED BY THE DEPARTMENTAL REPRESENTATIVE.
7. CUTTING OPENINGS AND HOLES IN EXISTING STRUCTURES:

   a. PRIOR TO CUTTING AND CORING ANY OPENINGS IN THE EXISTING BUILDING, PROVIDE THE DEPARTMENTAL REPRESENTATIVE WITH A SLEEVING DRAWING INDICATING THE SIZE AND LOCATION OF PROPOSED OPENING RELATIVE TO A BUILDING GRID LINES. EXISTING OPENINGS IN THE VICINITY OF THE NEW OPENING MUST ALSO BE SHOWN.

   b. UNLESS SPECIFICALLY NOTED OTHERWISE, LOCATE EXISTING REINFORCEMENT AND EMBEDDED SERVICES, BY A POSITIVE MEANS (I.E. X-RAYING, LOCAL CHIPPING OF SLAB - WHERE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE, COVER METER AND THE LIKE).

   c. AFTER ALL REINFORCEMENT AND SERVICES HAVE BEEN LOCATED, NOTIFY DEPARTMENTAL REPRESENTATIVE WHO WILL REVIEW AND APPROVE OF THE PROPOSED OPENING/HOLE LOCATION PRIOR TO CUTTING/DRILLING. MAKE ANY NECESSARY ADJUSTMENTS TO THE HOLE LOCATION AS DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.

   d. CORE DRILL NEW HOLES FOR PIPES TO A DIAMETER NOT LARGER THAN THE OUTSIDE PIPE DIAMETER PLUS 25mm [1"]. DO NOT CUT EXISTING REINFORCEMENT OF SERVICES WITHOUT PRIOR APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE.

   e. WHERE OPENINGS ARE TO BE CUT, PRE-DRILL THE CORNERS USING A 100mm [4"] DIAMETER CORE DRILL OR DRILL A SERIES OF HOLES TO PREVENT OVERCUTTING AT THE CORNERS.

   f. IN ANY AREAS WHERE THE DEPARTMENTAL REPRESENTATIVE PERMITS THE CUTTING OF EXISTING REINFORCEMENT, THE CONTRACTOR IS TO EXAMINE THE CORE/OPENING AFTER DRILLING/CUTTING TO DETERMINE THE SIZE, COVER AND ORIENTATION OF ANY REINFORCEMENT THAT WAS CUT. THE CONTRACTOR IS TO MARK THIS INFORMATION ON THE SLEEVING DRAWING AND FORWARD A COPY OF IT TO THE DEPARTMENTAL REPRESENTATIVE FOR HIS RECORDS.

   g. SHORE FLOORS AS REQUIRED TO SUPPORT CRANES, HOISTS AND OTHER CONSTRUCTION EQUIPMENT.

   h. CONFORM TO ALL APPLICABLE CODES AND BY LAWS CONCERNING SAFETY, NOISE AND VIBRATIONS.

8. DO NOT CUT CONCRETE REINFORCEMENT UNLESS REVIEWED AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
9. MODIFY THE LAYOUT OF NEW THROUGH BOLTS, EXPANSION ANCHORS AND OTHER ANCHORING DEVICES REQUIRED TO AVOID EXISTING CONCRETE REINFORCEMENT.
10. UNLESS NOTED OTHERWISE, ALL DOWELS ARE TO BE EPOXIED INTO THE EXISTING CONCRETE STRUCTURE USING INJECTION ADHESIVE SYSTEM.

DEMOLITION

1. THE CONTRACTOR REQUIRED TO PROVIDE ALL TEMPORARY PLATFORMS, BARRICADES, RAILINGS, SCREENING ETC. NECESSARY TO PROTECT EXISTING FACILITIES, STRUCTURES AND THE PUBLIC DURING DEMOLITION AND ERECTION OF THE NEW CONSTRUCTION AS WELL AS FOR JOB SAFETY. CONSTRUCTION AND DEMOLITION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONS TO MINIMIZE VIBRATION, NOISE, DUST AND DEBRIS IN AREAS ADJACENT TO AREAS OF DEMOLITION.
2. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE OWNER FOR THE TEMPORARY SUSPENSION OF USE OF ANY FACILITY OR PORTION THEREOF, AND THE ASSOCIATED BARRICADING REQUIREMENTS WITHIN A MINIMUM OF 7 DAYS PRIOR TO COMMENCING WORK.
3. THE CONTRACTOR IS REQUIRED TO PERFORM HIS WORK IN A MANNER WHICH WILL NOT CONFLICT WITH ANY OPERATION, WHICH IS TO REMAIN FUNCTIONAL DURING THE COURSE OF THE PROJECT UNTIL SUCH OPERATION IS SCHEDULED TO BE SHUTDOWN.
4. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE OWNER FOR THE TEMPORARY SUSPENSION OF USE OF ANY UTILITY SYSTEM, A MINIMUM OF 3 DAYS PRIOR TO COMMENCING WORK.
5. AT ALL LOCATIONS WHERE NEW CONSTRUCTION WILL INTERFACE WITH EXISTING ELEMENTS, CUT THROUGH EXISTING STRUCTURE IN STRAIGHT AND TRUE LINES TO INSURE A NEAT INTERFACE.
6. AT ALL LOCATIONS WHERE THE DEMOLITION OF CONCRETE MEMBER LEAVES THE ENDS OF REINFORCING STEEL EXPOSED, PROVIDE THE FOLLOWING:

   a. CHIP OF CONCRETE FROM AROUND THE STEEL TO A DEPTH OF 1".

   b. CUT OFF REINFORCING STEEL NOT LESS THAN 3/4" BELOW THE CONCRETE SURFACE.

   c. FILL THE CAVITY FLUSH WITH A HIGH MODULUS GEL EPOXY.

7. BEFORE DEMOLISHING STRUCTURAL ELEMENT, INSTALL ALL REQUIRED TEMPORARY AND/OR PERMANENT BRACING AND SUPPORTS.
8. PROVIDE TEMPORARY CLOSURE OF ALL ROOF FASCIA, WALL AND OTHER OPENINGS TO PROTECT BUILDING FROM EXPOSURE TO UNDESIRABLE ELEMENTS UNTIL NEW CONSTRUCTION IS WEATHERPROOFED, AT WHICH TIME SUCH TEMPORARY CONSTRUCTION SHALL BE REMOVED. ALL TEMPORARY EXTERIOR WALLS THAT ARE SUBJECT TO WIND LOADS ARE TO BE DESIGNED BY A LICENSED ENGINEER.
9. UPON COMPLETION OF NEW CONSTRUCTION UNDER EACH PHASE, ALL DEMOLISHED AREAS SHALL BE RESTORED TO ACCEPTABLE USAGE ACCORDING TO THE CONTRACT DOCUMENTS AS DETERMINED BY THE DEPARTMENTAL REPRESENTATIVE.
10. REMOVE COMPLETELY FROM THE SITE AND LEGALLY DISPOSE ALL DEBRIS GENERATED BY THE DEMOLITION WORK AS THE WORK PROGRESSES. STOCKPILING OF DEBRIS AND BURNING OF DEBRIS ON THE PREMISES IS STRICTLY PROHIBITED.

DESIGN NOTES

1. GENERAL

   THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF CANADA, 2015 EDITION.

   ALL REINFORCED CONCRETE ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA/CAN3-A23.3, "DESIGN OF CONCRETE STRUCTURES".

   ALL STRUCTURAL STEEL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA/CAN3-S16.1, "LIMIT STATES DESIGN OF STEEL STRUCTURES".

   THE STRUCTURAL STEEL DESIGN IS BASED ON "SIMPLE" CONSTRUCTION.

   THE CONNECTIONS ARE ASSUMED TO BE BEARING TYPE JOINTS, UNLESS OTHERWISE NOTED. THE BOLTS SHALL BE BROUGHT TO A SNUG-TIGHT CONDITION AS DEFINED IN ASTM A325-06.
   LIVE LOADS AND OTHER LOADS:
   SUPERIMPOSED DEAD LOADS AND LIVE LOADS ARE SHOWN ON FLOOR PLANS. VALUES GIVEN ARE UNFACTORED SERVICE LOADS UNLESS OTHERWISE NOTED OR SHOWN.

   LIVE LOADS ON STRUCTURAL ELEMENTS HAVE BEEN REDUCED AS PERMITTED BY CODE.

2. SEISMIC LOADS ON STRUCTURAL FRAME.

   - Sa (0.2) = 0.103
   - Sa (0.5) = 0.077
   - Sa (1.0) = 0.051
   - Sa (2.0) = 0.028
   - Sa (5.0) = 0.0074
   - Sa (10.0) = 0.0032
   - PGA = 0.06
   - Ie. Fa. Sa(0.2) = 0.28

   BASE SHEAR, $V = \frac{S * Ta * Mv * Ie * W}{Rd * Ro}$

   - SITE CLASSIFICATION FOR SEISMIC SITE RESPONSE = C
   - SITE COEFFICIENT Fa = Fv = 1
   - STRUCTURE WEIGHT PARTICIPATION W(used) = 215490.0 kN
   - FUNDAMENTAL PERIOD OF - VIBRATION Ta = 0.95
   - MAXIMUM PERIOD OF VIBRATION Tmax = 1.19
   - Tx(used) = 0.95
   - Ty(used) = 0.95

   <u>DESIGN SPECTRAL ACCELERATION</u>
   - Sx(Tx) = 0.0536
   - Sy(Ty) = 0.0536

   <u>MODIFICATION FACTORS</u>
   - Ie = 1
   - Rd = 1.5
   - Ro = 1.3
   - Mv =1

   <u>BASE SHEAR</u>
   - V(min) = 3100
   - V(max) = 8522
   - Vx = 5920
   - Vy = 5920

3. WIND LOADS ON STRUCTURAL FRAME.

   - WIND PRESSURE IN ACCORDANCE WITH NBC 2015
   - THE REFERENCE VELOCITY WIND PRESSURE, q IS EQUAL TO 0.58 kPa

4. LIVE LOADS ON ROOF

   THE ROOF AREAS HAVE BEEN DESIGNED TO RESIST SNOW, RAIN AND WIND LOADS IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA, 2015 EDITION, WHICHEVER PRODUCES THE MORE UNFAVORABLE EFFECT. THE DESIGN PARAMETERS FOR THESE LOADS ARE AS NOTED BELOW:

   SNOW LOAD:

   -THE GROUND SNOW LOAD OF 1.9 kPa, HAVE BEEN CONSIDERED IN THE DESIGN OF THE ROOF AREAS.
   S = Is [Ss (Cb * Cw * Cs * Ca) + Sr]
   = 2.76 kPa
   - ADDITIONAL SNOW ACCUMULATIONS ADJACENT TO HIGHER WALLS, ROOFS AND MECHANICAL UNITS ARE INDICATED ON THE PLANS.

   WIND LOAD:
   SEE S10-01 FOR ROOF UPLIFT.

POST-INSTALLED ANCHORS AND DOWELS

1. EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI INC OR AN APPROVED ALTERNATIVE.
2. (a) BASIS OF DESIGN FOR ANCHORAGE TO CONCRETE:

   ADHESIVE ANCHORS
   - ANCHORING ADHESIVE: HILTI HIT-HY 200
   - DOWELING ADHESIVE: HILTI HIT-HY 100
   - ANCHOR ROD: HIS N B7 - ASTM A 193 GRADE B7

   MECHANICAL ANCHORS:
   - HDA PR UNDERCUT ANCHORS

   (b) BASIS OF DESIGN FOR BRACE AND ATRIUM ROOF HSS 273 COLUMNS CONNECTION WITH CONCRETE:

   ADHESIVE ANCHORS
   - ANCHORING ADHESIVE: HILTI HIT-HY 200
   - DOWELING ADHESIVE: HILTI HIY-HY100
   - HAS E B7 ASTM A 193 GRADE B7

   (c) BASES OF DESIGN FOR ANCHORAGE TO MASONRY HY100 + THREADED ROD ANCHORS.

3. ANCHOR CAPACITY IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE DEPARTMENTAL REPRESENTATIVE PRIOR TO USE. CONTRACTOR TO PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.
4. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS.
5. ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE DEPARTMENTAL REPRESENTATIVE MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
6. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
7. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH THE SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY HILTI FERROSCAN GPR, X-RAY, CHIPPING OR OTHER MEANS.
8. PROOF TESTING OF ADHESIVE ANCHORS SHALL BE PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
9. ALTERNATIVE SYSTEM EQUIVALENT TO OR EXCEEDING THE PROPERTIES OF THE SYSTEMS ABOVE WILL BE CONSIDERED AS A SUBSTITUTION REQUEST. SEE PROJECT SPECIFICATIONS.
10. ANCHORS ARE TO BE MINIMUM 20M DIAMETER WITH A MINIMUM EMBEDMENT OF 150mm, UNO.
11. LOCATE BY NON-DESTRUCTIVE MEANS, AND AVOID ALL EXISTING REINFORCEMENT PRIOR TO INSTALLATION OF ANCHORS. IF EXISTING REINFORCING LAYOUT PROHIBITS THE INSTALLATION OF ANCHORS INDICATED IN THE DRAWINGS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DEPARTMENTAL REPRESENTATIVE.
12. INSTALL MASONRY ANCHORS IN SOLID MASONRY OR IN HOLLOW MASONRY THAT HAS BEEN GROUTED SOLID AT LEAST ONCE COURSE ABOVE AND ONE COURSE BELOW THE ANCHOR UNO.
13. SEE PROJECT SPECIFICATIONS FOR POST-INSTALLED ANCHOR INSPECTION REQUIREMENTS.

STRUCTURAL ABBREVIATIONS — TD-1

A	UNFACTORED AXIAL LOAD
ADJ	ADJUSTABLE
ADD'L	ADDITIONAL
AEC	ARCHITECTURALLY EXPOSED CONCRETE
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
Af	FACTORED AXIAL LOAD
AIFB	ASPHALT IMPREGNATED FIBREBOARD
ALT	ALTERNATE
APPROX	APPROXIMATELY
AR	ANCHOR ROD
ARCH	ARCHITECTURAL OR ARCHITECT
B, BOT	BOTTOM
B/	BOTTOM OF
BAL	BALANCE
B/B	BACK TO BACK
BC	BOT OF CAISSON ELEV
BCH	BOTTOM CHORD
BET, B/W	BETWEEN
BEW	BOTTOM EACH WAY
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BLL	BOTTOM LOWER LAYER
BM	BEAM
BMB	BENDING MOMENT BAR
BOF	BOTTOM OF FOOTING ELEVATION
BPL	BEARING/BASE PLATE
BRDG	BRIDGING
BRG	BEARING
BSMT	BASEMENT
BUL	BOTTOM UPPER LAYER
C	CHANNEL
C	UNFACTORED COMPRESSION
C/C	CENTRE TO CENTRE
C/W	COMPLETE WITH
CA	COLUMN ABOVE
CAM	CAMBER
CANT	CANTILEVER
CB	COLUMN BELOW
CDL	COMPRESSION DEVELOPMENT LENGTH
CF	CONCRETE FIREPROOFED
CIP	CAST-IN-PLACE
Cf	FACTORED COMPRESSION
CJ	CONSTRUCTION JOINT
CLR	CLEAR
C, CL	CENTRE LINE
CLJ	CONTROL JOINT
CMU	CONCRETE MASONRY UNIT
COMP	COMPOSITE
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
DCA	DRILLED CONCRETE ANCHOR
DEMO	DEMOLITION
DEG	DEGREE
DET, DTL	DETAIL
D FIR	DOUGLAS FIR
DIA	DIAMETER
DIM	DIMENSION
DIAG	DIAGONAL
DL	DEAD LOAD
DO, "	DITTO
DP	DEEP
DWG	DRAWING
DWL	DOWEL
DN	DOWN
EA	EACH
EC	EPOXY COATED
ECC	ECCENTRICTY
EE	EACH END
EF	EACH FACE
EJ, EXP JT	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC	ELECTRICAL
EMBED	EMBEDMENT
ENG	ENGINEER
EOA	EDGE OF ANGLE
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
ES	EACH SIDE
EQ	EQUAL
EW	EACH WAY
EX, EXIST	EXISTING
EXT	EXTERIOR
f'c	COMPRESSIVE STRENGTH OF CONC
FD	FLOOR DRAIN
FF	FAR FACE
F/F	FACE TO FACE
FP	FIREPROOF(ING)
FS	FAR SIDE
FFE	FINISHED FLOOR ELEVATION
FFL	FINISHED FLOOR LEVEL
FIN	FINISHED
FLR	FLOOR
FTG	FOOTING
FMC	FULL MOMENT CONNECTION
FND	FOUNDATION
fy	YIELD STRENGTH
GALV	GALVANIZED
GA	GAUGE
GB	GRADE BEAM
GEN	GENERAL
GRD, GR	GROUND, GRADE
GL	GRIDLINE
(H), HI	HIGH
HDG	HOT DIP GALVANIZED
HEE	HOOK EACH END
HEF	HORIZONTAL EACH FACE
HH	HOOK-HOOK (HOOK EACH END)
HIC	HORIZONTAL IN CENTER
HIF	HORIZONTAL INSIDE FACE
HK	HOOK
HOF	HORIZONTAL OUTSIDE FACE
H, HORIZ	HORIZONTAL
HP	H PILE
HPT	HIGH POINT
HSC	HORIZONTAL SLOTTED CONNECTION
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
INT	INTERIOR
JST(S)	JOISTS
JT	JOINT
k	KILO
kN	KILONEWTON
kPa	KILOPASCAL
(L), LO	LOW
L	SINGLE ANGLE
L, 2L	DOUBLE ANGLES
Ld	TENSION DEVELOPMENT LENGTH
LE	LEFT END
LG	LONG/LENGTH
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LLH	LONG LEG HORIZONTAL
LP	LOW POINT
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LW	LIGHT WEIGHT
LWC	LIGHT WEIGHT CONCRETE

m	METRE
m^2, sq. m	SQUARE METRE
M	UNFACTORED MOMENT
MATL	MATERIAL
MAX	MAXIMUM
MC	MOMENT CONNECTION
MCS	MECHANICAL COMPRESSION SPLICE
MECH	MECHANICAL
MEZZ	MEZZANINE
Mf	FACTORED MOMENT
MF	MOMENT FRAME
MFR	MANUFACTURER
MID	MIDDLE
MISC	MISCELLANEOUS
MIN	MINIMUM
ML	MIDDLE LAYER
mm	MILLIMETRE
mm^2, sq. mm	SQUARE MILLIMETRE
MPa	MEGAPASCAL
MTS	MECHANICAL TENSION SPLICE
NBC, NBCC	NATIONAL BUILDING CODE OF CANADA
NCB	NO COLUMN BELOW
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NS	NON-SHRINK
NTS	NOT TO SCALE
NW	NORMAL WEIGHT
NWC	NORMAL WEIGHT CONCRETE
O/C	ON CENTRE
O/O	OUT TO OUT
OBC	ONTARIO BUILDING CODE
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OWSJ	OPEN WEB STEEL JOIST
P	UNFACTORED POINT LOAD
P/C, PC, PRCST	PRECAST
PERP	PERPINDICULAR
Pf	FACTORED POINT LOAD
PG	PLATE GIRDER
PL	PLATE
PRLL	PARALLEL
PROJ	PROJECTION
P/T	POST TENSIONED
PT	POINT
PVC	POLYVINYL CHLORIDE
R, RAD	RADIUS
RA	ROOF ANCHOR
C	REINFORCED CONCRETE
RD	ROOF DRAIN
RE	RIGHT END
REF	REFERENCE
REINF	REINFORCEMENT, REINFORCE
REM	REMAINDER
REQ'D	REQUIRED
REV	REVISION
S	STANDARD SECTION
SAFRM	SPRAY-APPLIED FIRE RESISTIVE MATERIAL
SDF	STEP DOWN FOOTING
SECT	SECTION
SER	STRUCTURAL ENGINEER OF RECORD
SIM	SIMILAR
SL	SLAB
SLS	SERVICEABILITY LIMIT STATE
SOG	SLAB ON GRADE
SP	SPANDREL, SPRUCE, SETTING OUT POINT
SPEC	SPECIFICATION
S-P-F	SPRUCE PINE FIR
STD	STANDARD
STRUCT	STRUCTURAL
STL	STEEL
STIFF	STIFFENER
SQ	SQUARE
SS	STAINLESS STEEL
ST, STR	STRAIGHT
STIR	STIRRUP
SWT	SELF WEIGHT
SYM	SYMMETRICAL
t	THICKNESS
T	UNFACTORED TENSION
T	TOP
T&B	TOP AND BOTTOM
TC	TOP OF CAISSON ELEVATION
TDL	TENSION DEVELOPMENT LENGTH
TEMP	TEMPORARY, TEMPERATURE
TEW	TOP EACH WAY
Tf	FACTORED TENSION
T&G	TONGUE AND GROOVE
THK	THICK
TJ	TIE JOIST
TLE	TOP LEFT END
TLL	TOP LOWER LAYER
T/O	TOP OF
TOS	TOP OF SLAB
TRE	TOP RIGHT END
T/STL	TOP OF STEEL
TSA	TENSION SPLICE CLASS A
TSB	TENSION SPLICE CLASS B
TUL	TOP UPPER LAYER
TYP	TYPICAL
USF	UNDERSIDE OF FOOTING
U/S	UNDERSIDE
U/N	UNLESS NOTED
UON	UNLESS OTHERWISE NOTED
UL	UPPER LAYER
ULS	ULTIMATE LIMIT STATE
UPT	UPTURNED
V	UNFACTORED SHEAR
VERT	VERTICAL
VBF	VERTICAL BRACED FRAME
VEF	VERTICAL EACH FACE
Vf	FACTORED SHEAR
VOF	VERTICAL OUTSIDE FACE
VIC	VERTICAL IN CENTRE
VIF	VERTICAL INSIDE FACE, VERIFY IN FIELD
VSC	VERTICALLY SLOTTED CONNECTION
W	WIDE FLANGE SECTION
WC	WIND COLUMN
WD	WOOD
W/O	WITHOUT
WP	WALL PLATE OR WORKING POINT
WPFG	WATERPROOFING
WS	WATERSTOP
WT	STRUCTURAL TEE
WWF	WELDED WIRE FABRIC
WWF	WELDED WIDE FLANGE
WWR	WELDED WIDE REINFORCEMENT
ZRP	ZINC RICH PAINT
Ø	DIAMETER
ICC-ES	INTERNATIONAL CODE COUNCIL EVALUATION SERVICE

STRUCTURAL SHEET LIST

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S02-02	TYPICAL DETAILS 02	2017-06-26	0
S10-01	WIND UPLIFT AND SHEAR FORCE DIAGRAM	2021-09-17	0
S20-00	PARKING LEVEL PLAN - FOUNDATION PLAN	2017-06-26	0
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S20-04	FOURTH FLOOR FRAMING PLAN	2020-10-07	0
S20-05	FIFTH FLOOR FRAMING PLAN	2020-08-31	0
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S31-01	SHEAR WALL ELEVATION	2017-06-26	0
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S50-02	SECTIONS AND DETAILS 02	2020-10-14	0
S51-01	CANOPY SECTIONS AND DETAILS	2020-08-19	0
S52-01	BRIDGES SECTIONS AND DETAILS 01	2019-01-11	0
S52-02	BRIDGES SECTIONS AND DETAILS 02	2020-11-06	0
S52-03	BRIDGES SECTIONS AND DETAILS 03	2021-09-17	0
S80-00	DEMOLITION - PARKING LEVEL	2017-06-26	0
S80-01	DEMOLITION - MAIN FLOOR LEVEL	2021-09-22	0
S80-06	DEMOLITION - PENTHOUSE LEVEL AND ATRIUM	2021-09-17	0
S81-01	DEMOLITION SECTIONS AND DETAILS 01	2022-01-04	0

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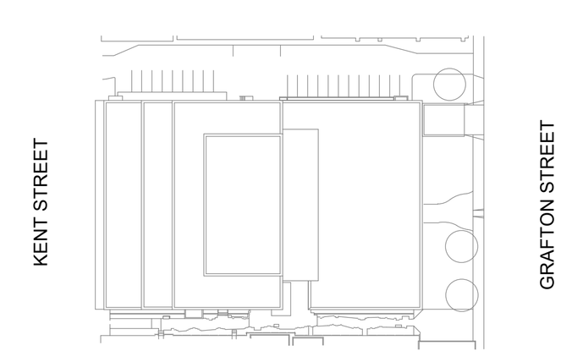
key plan



project and true North

project legend

THE ASSOCIATION OF PROFESSIONAL ENGINEER OF THE PROVINCE OF PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2022

Faisal Jahangir
No. 2558

DATE: 27-05-2022

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

Faisal Jahangir Digitally signed by Faisal Jahangir Date: 2022.05.31 16:25:40-04'00'

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GENERAL NOTES, DESIGN NOTES

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