

GENERAL NOTES:

- 1. THE DESIGN AND CONSTRUCTION OF ALL WORK ON THIS PROJECT IS TO CONFORM TO THE ONTARIO BUILDING CODE - 2012 INCLUDING ALL AMENDMENTS, AND THE RELEVANT LISTED C.S.A. STANDARDS INCLUDING THE LATEST EDITIONS.
2. READ THESE DRAWINGS IN CONJUNCTION WITH ALL RELATED ARCHITECTURAL, MECHANICAL, ELECTRICAL AND CIVIL DRAWINGS AND CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL CHECK AND VERIFY ALL CONDITIONS AND MEASUREMENTS AT THE SITE AND REPORT TO THE ENGINEER ANY DISCREPANCIES OR UNSATISFACTORY CONDITIONS WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE JOB BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE THE DRAWINGS.
4. DESIGN LIVE LOADS FOR EACH PORTION OF THE STRUCTURE ARE AS INDICATED ON THE DRAWINGS. DO NOT EXCEED THESE LOADS DURING CONSTRUCTION.
5. DESIGN LOADS INDICATED ARE UNFACTORED UNLESS NOTED.
6. CONSTRUCTION, FABRICATION AND SHOP DRAWING REVIEW MUST BE PROVIDED AS PER CODE.
7. REFERENCE ELEVATIONS SHOWN CORRESPOND TO ACTUAL GEODETIC ELEVATION.
8. ALL DIMENSIONS ON DRAWINGS ARE IN MILLIMETERS U.N.O.
9. DELIVER, HANDLE AND STORE MATERIALS TO AVOID DAMAGE IN ANY MANNER.
10. MAINTAIN A SET OF DRAWINGS ON SITE & UPDATE FREQUENTLY WITH CONSTRUCTION RECORD INFORMATION
11. STRUCTURAL DRAWINGS ARE FOR THE COMPLETED PROJECT. STABILITY OF THE EXISTING AND NEW STRUCTURE DURING CONSTRUCTION REMAINS THE RESPONSIBILITY OF THE CONTRACTOR.

MATERIALS:

UNLESS NOTED OTHERWISE ON THE DRAWINGS THE FOLLOWING MATERIALS SHALL BE USED FOR CONSTRUCTION:

- 1. CONCRETE SHALL BE PROPORTIONED AS FOLLOWS TYPICAL UNLESS NOTED OTHERWISE

Table with 5 columns: CONCRETE, FOOTINGS, FOUNDATION WALLS, GRADE BEAMS, AND PILE CAPS, SLAB ON GRADE (INTERIOR), OTHER (FREEZING & THAWING) PAVEMENTS, SIDEWALKS, CURBS & GUTTERS. Rows include 28 DAYS MIN. STRENGTH (MPa), AIR CONTENT, MAX. AGGREGATE SIZE (mm), and EXPOSURE CLASS.

- 2. BEARING GROUT: 35MPa - 28 DAY MIN. COMP. STRENGTH NON SHRINK, NON METALLIC.
3. REINFORCING STEEL: BILLET STL. BARS TO G30.18-GRADE 400F, GRADE 400W WHERE WELDING IS REQUIRED.
4. WELDED STEEL WIRE FABRIC: G30.5
5. ANCHOR BOLTS, NUTS & WASHERS: ASTM A307 & A36
6. HIGH STRENGTH ANCHOR BOLTS: ASTM A325
7. PLATES, ANGLES, CHANNELS: G40.21-300W
8. WIDE FLANGE BEAMS AND WWF SECTIONS: G40.21-350W
9. MISC. ROLLED SECTIONS AND ROLLED PLATES: G40.21-300W
10. HSS: G40.21-300W
11. GALVANIZING: CSA G164 & ASTM A153 CLASS B2
12. WELDING: CSA W59, W55 AND W47 SERIES E480XX ELECTRODES.
13. BLOCK: 15MPa CONCRETE ON NET AREA TO CSA A165 SERIES AND AS REQUIRED TO PRODUCE SPECIFIED FINISHES. UNLESS NOTED OTHERWISE ON MASONRY WALL SCHEDULE.
14. MORTAR: TYPE S TO CSA A179.
15. GROUT MASONRY: TO CSA A179 AND TO STRENGTH OF 15MPa MIN. U.N.O.
16. WIRE REINF. MASONRY: CSA G30.3 & ASTM A82 (HOT DIP GALV.)

CONSTRUCTION JOINTS:

- 1. CONSTRUCTION JOINTS SHALL BE MADE AND LOCATED SO AS NOT TO IMPAIR THE STRENGTH OF THE STRUCTURE. IF CONSTRUCTION JOINTS ARE NOT SPECIFICALLY LOCATED AND THERE IS ANY DOUBT CONCERNING THE LOCATION, THE CONTRACTOR MUST CONSULT WITH THE ENGINEER.
2. WHERE A CONSTRUCTION JOINT IS TO BE MADE, THE SURFACE OF THE SET CONCRETE SHALL BE THOROUGHLY CLEANED OF FOREIGN MATTER AND LAITANCE, SATURATED WITH WATER AND LEFT IN A DAMP CONDITION WITH NO FREE WATER ON THE SURFACE, IMMEDIATELY BEFORE PLACING ADJACENT CONCRETE.
3. REINFORCING STEEL PROJECTING THROUGH CONSTRUCTION JOINT SHALL BE THOROUGHLY CLEANED OF FLAKY RUST, MUD, OIL, DRIED CONCRETE OR OTHER COATINGS WHICH WOULD DESTROY OR REDUCE THE BOND.
4. PROVIDE CONSTRUCTION JOINTS IN WALLS AT 10M (MAX.) OR AT 20M (MAX.) c/c WHEN ALTERNATING WITH CONTROL JOINTS.

DELEGATED DESIGN:

- 1. PORTIONS OF THE DETAILED DESIGN ARE DELEGATED TO THE CONTRACTOR. RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO TO COMPLETE THE DESIGN.
2. SUBMIT SHOP DRAWINGS FOR COMPONENTS REQUIRING DELEGATED DESIGN UNDER THE SEAL AND SIGNATURE OF THE ENGINEER RESPONSIBLE FOR THE DESIGN.
3. THE FOLLOWING COMPONENTS REQUIRE DELEGATED DESIGN:
3.1. MORTAR, GROUT, AND CONCRETE MIX DESIGNS
3.2. MICROPILES
3.3. STRUCTURAL COMPOSITE LUMBER MEMBERS INCLUDING WOOD TO WOOD CONNECTIONS.
3.4. STRUCTURAL STEEL CONNECTIONS.
3.5. ENGINEERED WOOD TRUSSES.
3.6. WOOD DECK DIAPHRAGM.
4. THE ENGINEER RESPONSIBLE FOR THE DESIGN IS ALSO RESPONSIBLE FOR REVIEW OF FABRICATION AND INSTALLATION OF THE COMPONENTS. UPON COMPLETION OF THE WORK, CERTIFY IN WRITING TO THE CONSULTANT THAT SUCH REVIEW HAS BEEN COMPLETED.
5. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS

FOUNDATION AND GEOTECHNICAL NOTES:

- 1. FOUNDATION DESIGN IS BASED ON THE FOUNDATION INVESTIGATION SOILS REPORT PREPARED BY PINCHIN FOR PROPOSED COMMERCIAL DEVELOPMENT, 2375 ST LAURENT BOULEVARD, CITY OF OTTAWA, ONTARIO AND DATED SEPTEMBER 30, 2022. ENSURE THAT THE REQUIREMENTS OUTLINED IN THE REPORT ARE READ AND UNDERSTOOD PRIOR TO COMMENCING WITH FOUNDATION WORK.
2. FOOTINGS HAVE BEEN DESIGNED TO A GEOTECHNICAL REACTION AT SLS OF 200 kPa AND A FACTORED GEOTECHNICAL RESISTANCE AT ULS OF 300 kPa. SOIL IMPROVEMENT CONTRACTOR TO PROVIDE SUITABLE BEARING SURFACE.
3. FOUND ALL FOOTINGS WHICH WILL EXPOSED TO FROST ACTION IN THE COMPLETED BUILDING AT A MINIMUM OF 1800mm BELOW FINISHED GRADE.
4. REMOVE ALL ORGANIC MATERIAL FROM THE BUILDING AREA AS OUTLINED IN THE GEOTECHNICAL REPORT.
5. REMOVE ALL LOOSE OR SATURATED MATERIAL AND GROUNDWATER FROM THE BASE OF FOOTING EXCAVATIONS BY APPROVED METHODS PRIOR TO PLACING FOUNDATIONS.
6. PROTECT EXCAVATIONS FOR FOOTINGS FROM RAIN, SNOW, FREEZING TEMPERATURES, STANDING WATER, LOSS OF MOISTURE AND DEGRADATION BY APPROVED METHODS.
7. BEARING SURFACES TO BE INSPECTED IN THE FIELD BY A PROFESSIONAL GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO PRIOR TO PLACING CONCRETE.
8. GEOTECHNICAL TESTING AGENCY TO BE APPROVED BY AND RESPONSIBLE TO THE ENGINEER AND PAID FOR BY THE OWNER.
9. UNLESS OTHERWISE SHOWN ON PLAN, FOUNDATION ELEMENTS ARE TO BE CENTERED UNDER WALLS AND COLUMNS.
10. PROVIDE DOWELS FROM FOOTINGS TO MATCH ALL VERTICAL WALL REINFORCEMENT OR AS NOTED ON THE DRAWINGS.
11. FOUNDATION WALLS HAVE BEEN DESIGNED ASSUMING AN EFFECTIVE DRAINAGE SYSTEM IS PROVIDED BEHIND THE WALLS, WHICH DOES NOT PERMIT THE BUILD UP OF HYDROSTATIC PRESSURE.
12. BACKFILL MATERIAL FOR FOUNDATION AND RETAINING WALLS TO CONSIST OF FREE-DRAINING GRANULAR MATERIALS WITH LESS THAN 8% SILT PARTICLES (OPSS GRANULAR 'B') AND BE COMPACTED TO 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY IN MAXIMUM LIFTS OF 200 mm.
13. DO NOT BACKFILL BEHIND FOUNDATION WALLS UNTIL THE FLOOR SLAB(S) TO WHICH IT IS TIED ARE COMPLETE AND CONCRETE HAS REACHED 28-DAY DESIGN STRENGTH. PROVIDE SUPPORT AT TOP & BOTTOM OF WALLS WHERE SLABS CANNOT BE POURED UNTIL BACKFILL HAS BEEN PLACED.
14. BACKFILL WALLS BELOW GRADE EVENLY ON BOTH SIDES ENSURING THAT NO PORTION OF THE FILL IS PLACED MORE THAN 600 mm ABOVE ANY OTHER PORTION OF THE FILL DURING BACKFILLING.

CONCRETE AND REINFORCEMENT STEEL

- 1. REINFORCEMENT STEEL TO CONFORM TO CSA-G30.18 GRADE 400.
2. DO NOT WELD REINFORCEMENT UNLESS APPROVED IN WRITING BY THE ENGINEER. REINFORCEMENT TO BE WELDED TO CONFORM TO CSA-G30.18, GRADE 400W. WELDING ONLY PERMITTED BY AN ORGANIZATION CERTIFIED TO CSA-W186.
3. NOTIFY THE ENGINEER PRIOR TO CONCRETE PLACEMENT TO ALLOW FOR REVIEW OF REINFORCEMENT.
4. SUBMIT SHOP DRAWINGS AND DETAILS FOR ALL REINFORCEMENT FOR REVIEW PRIOR TO FABRICATION.
5. THE CLEAR DISTANCE BETWEEN REINFORCING STEEL AND SURFACE OF CONCRETE SHALL BE AS FOLLOWS:
SLABS (INTERIOR) 25mm TO TOP AND BOTTOM
SLABS (EXTERIOR) 50mm TO TOP AND BOTTOM
BEAMS 40mm TO STIRRUPS
COLUMNS 40mm TO TIES
WALLS 50mm TO EXT. FACE; 25mm TO INT. FACE
CONCRETE PIERS 50mm TO MAIN STEEL
FOOTINGS 75mm TO MAIN STEEL

- 6. STANDARD END HOOK LENGTHS FOR REINFORCEMENT - REFER TO STANDARD END HOOKS TABLE.

Table titled 'STANDARD END HOOKS' showing hook lengths for various bar sizes (10M to 55M) for 90 and 180 degree hooks.

- 7. REINFORCEMENT SPLICES - REFER TO REINFORCEMENT SPLICES TABLE.
7.1. WHERE SPLICES ARE INDICATED ON THE DRAWINGS, SUCH DIMENSIONS SHALL APPLY.
7.2. WHERE THE DRAWINGS INDICATE TENSION OR COMPRESSION SPLICES, IT SHALL BE AS INDICATED IN REINFORCEMENT SPLICES TABLE.
7.3. WHERE NO SPLICE OR SPLICE TYPE IS INDICATED ON THESE DRAWINGS, IT SHALL BE A TENSION SPLICE EXCEPT FOR COLUMNS WHICH SHALL BE A COMPRESSION SPLICE.
8. EMBEDMENT OF DOWELS - REFER TO REINFORCEMENT SPLICES TABLE
8.1. WHERE EMBEDMENT IS DIMENSIONED ON THE DRAWINGS, SUCH DIMENSIONS SHALL APPLY.
8.2. WHERE THE DRAWINGS INDICATE TENSION OR COMPRESSION EMBEDMENT, IT SHALL BE AS NOTED IN THE REINFORCEMENT SPLICES TABLE.
8.3. WHERE NO EMBEDMENT OR EMBEDMENT TYPE IS INDICATED ON THESE DRAWINGS, IT SHALL BE A TENSION EMBEDMENT EXCEPT FOR COLUMNS WHICH SHALL BE A COMPRESSION EMBEDMENT.
9. WELDED WIRE MESH TO CONFORM TO ASTM A497/A497M.
10. SIDEWALKS AND SMALL SLABS TO BE REINFORCED WITH 15M AT 300 mm ON CENTRE UNLESS NOTED OTHERWISE.
11. OPENINGS IN WALLS AND SLABS - PROVIDE TWO 20M BARS EACH SIDE, ONE EACH FACE, EXTENDING 600 mm PAST THE OPENINGS, PLUS TWO 15M DIAGONAL BARS 1.5 TIMES THE LENGTH OF SHORTEST SIDE OF OPENING OR MINIMUM 500 mm AND MAXIMUM 1500 mm IN LENGTH AT EACH CORNER.
12. DO NOT CUT REINFORCEMENT AT OPENINGS WHERE IT CAN BE SPREAD CONTINUOUS AROUND OPENING.
13. ALL REINFORCING BARS SHALL BE SUPPORTED IN THE FORMS AND SPACED WITH STANDARD ACCESSORIES.
14. REINFORCING IS TO BE GENERALLY DETAILED IN ACCORDANCE WITH R.S.I.C. MANUAL OF STANDARD PRACTICE (LATEST EDITION).
15. CONCRETE PLACING, CURING AND TESTING TO CONFORM TO CAN3-A23.1 AND A23.2 (LATEST EDITION).
16. FORMWORK AND TOLERANCES TO CONFORM TO ACI 347-78 (LATEST EDITION).
17. NO CUTTING OR DRILLING IN HARDENED CONCRETE IS PERMITTED WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
18. GROUT UNDERSIDE OF BEARING PLATES OF STEEL COLUMNS AND STEEL BEAMS WITH DRY-PACK NON-SHRINKING GROUT TO MANUFACTURERS INSTRUCTIONS.
19. CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF ALL SLOTS, PIPE SLEEVES, ANCHOR BOLTS, ETC. AS REQUIRED FOR MECHANICAL TRADES BEFORE CONCRETE IS POURED. AT OPENINGS IN CONCRETE WALLS, ADD 2-25M BARS IN HEADS AND SILLS, 2-20M BARS IN JAMBS, UNLESS OTHERWISE NOTED ON THE DRAWINGS FOR THICKNESS OF SLAB ON GRADE. SEE FOUNDATION PLAN AND MAINTAIN SLAB THICKNESS AT ALL DEPRESSIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF FINISHES AND DEPRESSIONS. AT ALL DEPRESSIONS REINFORCE SLAB ON GRADE WITH W/M 305x305 MM37.4xMM37.4 U.N.O.
20. ALL EMBEDDED STEEL EXPOSED TO THE EXTERIOR OR EXTERIOR WALL CAVITIES SHALL BE GALVANIZED.

STRUCTURAL STEEL:

- 1. ALL STRUCTURAL STEEL SHALL BE DESIGNED TO COMPLY TO THE REQUIREMENTS OF C.S.A. SPECIFICATIONS S16.1 (LATEST EDITION), AND FOLLOW CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL.
2. AN INDEPENDENT INSPECTION AND TESTING COMPANY IS TO BE ENGAGED BY THE CONTRACTOR, TO ENSURE THAT SHOP AND FIELD WORK IS IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS. COPIES OF THE INSPECTIONS ARE TO BE SENT TO THE CLIENT, THE ENGINEER AND THE MUNICIPALITY.
3. PROVIDE MILL TEST REPORTS, CO-RELATED TO MATERIAL IN ORDER TO IDENTIFY STEEL.
4. THE FABRICATOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE OPEN WEB STEEL JOISTS WHICH SHALL BE OF THE SIZE AND SPACING SHOWN ON THE DRAWINGS. THE DESIGN SHALL BE IN ACCORDANCE WITH THE LOADS SHOWN ON THE DRAWINGS. SHOP DRAWINGS BEARING THE STAMP OF THE ENGINEER(S) RESPONSIBLE FOR THE DESIGN OF THE JOISTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
5. ALL STEEL TO BE SHOP PRIMED WITH AN APPROVED ANTI-CORROSIIVE PRIMER (EXCEPT IN THE CONTACT AREAS OF CONNECTIONS) AND TOUCHED UP IN THE FIELD AS REQUIRED.
6. COORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS AND ALL SUB-TRADES WHOSE WORK AFFECTS THE DETAILING, FABRICATION AND ERECTION OF THE STRUCTURAL STEEL. DO NOT CUT OPENINGS IN STRUCTURAL STEEL MEMBERS WITHOUT ENGINEERS REVIEW.
7. PROVIDE AND REMOVE AFTERWARDS TEMPORARY BRACING NECESSARY TO KEEP THE STRUCTURE TRUE AND PLUMB DURING CONSTRUCTION.
8. VARIATIONS FROM PLUMB AND LEVEL, EXTERIOR COLUMNS, SPANDREL BEAMS AND ANGLES: 1000 - (±) 1 OTHER PIECES: IN 1000 - (±) 2
9. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR U.N.O. ALL CONNECTIONS TO BE STANDARD FRAME CONNECTIONS OR EQUIVALENT U.N.O. WHERE MOMENT CONNECTIONS ARE CALLED FOR BUT VALUES ARE NOT INDICATED, DESIGN CONNECTIONS FOR THE FULL MOMENT CAPACITY OF THE SMALLER MEMBER JOINED. DESIGN END CONNECTIONS FOR A SHEAR LOAD OF 50% TOTAL UNFORMLY DISTRIBUTED LOAD - PROVIDED NO POINT LOADS ARE ACTING ON THE BEAM AND NO DESIGN VALUE IS INDICATED.
10. SEAL ALL TUBE MEMBERS AND PROVIDE DRAINAGE HOLES SO WATER IS NOT ENTRAPPED IN ANY MEMBERS.
11. BOLTED CONNECTIONS SHALL BE MADE USING HIGH TENSILE BOLTS.
12. BRIDGING SHALL BE PROPORTIONED AND DESIGNED ACCORDING TO C.S.A. S16.1. PROVIDE CROSS BRIDGING FOR ALL L.S.S.J. AND AT ENDS OF BRIDGING LINES.
13. COPIES OF THE ERECTION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. ERECTION DRAWINGS SHALL BE SEALED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR CONNECTION DESIGN.
14. THE COLUMN BASE SHALL BE SET TO PROPER ELEVATION ON STEEL LEVELING PLATES READY FOR GROUTING. WOOD WEDGES SHALL NOT BE USED.
15. UNLESS NOTED OTHERWISE PROVIDE CONTINUOUS L100x100x10 AS CLOSURE ANGLE OR AS SUPPORTING OF STEEL DECK EDGES AT BUILDING PERIMETER LOCATIONS AND AT INTERIOR LOCATIONS WHERE STEEL DECKS CHANGE BEARING DIRECTIONS. ENSURE THAT ANGLE IS WELDED TO BEAM OR CWS WITH 6mm THICK CONTINUOUS FILLET WELD. THIS CONNECTION IS ALSO VALID AT LOCATIONS WHERE SPECIFIC ANGLE SIZES ARE SHOWN ON DRAWINGS.
16. ALL ANCHOR BOLTS SHALL BE SET BY TEMPLATE.
17. ALL REINFORCING STEEL IN PLACE TO BE INSPECTED BY ENGINEER BEFORE POURING CONCRETE.
18. ISOLATION JOINT MATERIAL SHALL BE MIN. 10mm THICK ASPHALT IMPREGNATED FIBREBOARD, STERNBOARD BY STERNSON OR EQUAL.
19. SAW CUT JOINT SEALANT FILLER SHALL BE AN ELASTOMERIC SEMI-RIGID MATERIAL WITH A DUROMETER SHORE HARDNESS NUMBER OF 40+.
20. ISOLATION JOINT SEALANT SHALL BE FLEXIBLE JOINT SEALANT WITH A DUROMETER SHORE HARDNESS NUMBER OF 25-40. EXTERIOR CONSTRUCTION AND CONTROL JOINT FILLER SEALANT TO BE HOT POURED RUBBERIZED ASPHALT JOINT SEALANT COMPOUND CONFORMING TO ASTM D1190 OR SELF-LEVELLING, NON SAG, LOW MODULUS SILICONE SEALANT.
21. EXPOSED STEEL TO BE GALVANIZED
22. CONNECTION DETAILS SHOWN ON THE STRUCTURAL DRAWINGS ARE ONLY TO INDICATE DESIGN INTENT.

TIMBER:

- 1. ALL WOOD MATERIALS, FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH CAN/CSA-086.1-M89-ENGINEERING DESIGN IN WOOD (LIMIT STATES DESIGN). ALL TIMBER GRADING TO BE IN ACCORDANCE WITH NLGA INCLUDING ALL LATEST EDITIONS.
2. ALL TIMBER FOR RAFTERS, LINTELS, BEAMS, AND POSTS TO BE SPF No. 1 & 2 MIXED UNLESS NOTED ON PLAN.
3. ALL TIMBER SHALL CONFORM TO RECOGNIZED NOMINAL SIZES SHOWN ON PLAN AND STRESS RATING FOR APPROPRIATE SPECIES. NO TIMBER SHALL BE USED THAT DOES NOT CONFORM TO DIMENSIONS AND SPECIES.
4. ALL LSL STUDS TO BE 1.55E TIMBER STRAND MATERIAL BY WEYERHAEUSER.
5. ALL TRUSSES MUST BE FABRICATED IN ACCORDANCE WITH O.B.C. / N.B.C. (LATEST EDITION) PART 4 AND TRUSS PLATE INSTITUTE REQUIREMENT. ACCOUNT FOR PARTIAL LOADING PATTERNS AS SPECIFIED IN THE CODE.
6. FLAT JOIST AND PROFILED TRUSS FABRICATOR SHALL SUPPLY ERECTION DRAWINGS SHOWING LOCATION, LOADING, ALLOWABLE STRESSES, WIND UPLIFT FORCES, REQUIRED BEARING AND TEMPORARY AND PERMANENT BRACING, CONNECTIONS AND SHALL BEAR A SEAL OF THE PROFESSIONAL DESIGN ENGINEER REGISTERED WITH THE P.E.O.
7. ALL HANDLING AND ERECTION OF TRUSSES TO BE IN ACCORDANCE WITH TRUSS SUPPLIER'S REQUIREMENTS.
8. ALL TRUSSES MUST BE ANCHORED TO SUPPORTS WITH THE DOWN METAL ANCHORS.
9. PROVIDE ALL TEMPORARY AND PERMANENT BRACING NECESSARY FOR PROPER PERFORMANCE OF ROOF SYSTEM, WITH THE DESIGN ASSUMPTION THAT THE TOP TRUSS CHORD IS LATERALLY RESTRAINED BY THE ROOF SHEATHING.
10. ALL HANGER CONNECTIONS MUST CORRELATE ALL CONNECTIONS AND TRUSSES WITH APPROPRIATE HARDWARE AND FASTENING DETAILS. METAL CONNECTORS TO BE BY SIMPSON STRONG TIE OR APPROVED EQUAL.
11. PROVIDE DOUBLE JOIST UNDER ALL PARALLEL PARTITIONS.
12. MAXIMUM BRIDGING SPACING:
STANDARD WOOD JOISTS 2000mm
STUD WALLS 1220mm TO MATCH SHEATHING JOINTS
FRAMING INTO FLUSH BEAMS MUST BE FASTENED WITH METAL JOIST OR BEAM HANGERS.
12. SPIKE ALL BUILT-UP SAWN LUMBER BEAMS @ 300mm O.C. (12") IN ROWS NOT EXCEEDING 75mm c/c (3").
13. SPIKE & GLUE BUILT-UP COLUMNS @ 150mm c/c (6") IN ROWS NOT EXCEEDING 75mm c/c (3").
14. SPIKE & GLUE BUILT-UP SAW LUMBER BEAM @ 300mm O.C. (12") IN ROW NOT EXCEEDING 75mm c/c (3").
15. SEPARATE ALL WOOD FROM CONCRETE WITH WATERPROOF BARRIER O USE PRESSURE - TREATED WOOD.
16. PREMANUFACTURED SPECIALTY WOOD PRODUCTS SUCH AS 'PARALLAM' PARALLEL STRAND LUMBER, 'MICRO - LAM' LAMINATED VENEER LUMBER, OR WOOD I OR TRUSS JOIST MANUFACTURED I JOISTS, MUST BE STORED HANDLED, MODIFIED AND ERECTED AS PER MANUFACTURERS DETAILED GUIDELINES. AN INDEPENDENT TESTING AGENCY RETAINED BY THE MANUFACTURER WILL PROVIDE PRODUCT CERTIFICATION DOCUMENTS IF REQUIRED.

CONCRETE FORMWORK:

- 1. DESIGN, FABRICATION, ERECTION, AND OTHER CONSTRUCTION PRACTICES TO CONFORM TO CAN/CSA S269.3.
2. PROVIDE CAMBER OF SPAN/600 FOR ALL BEAMS AND GIRDERS WITH A SPAN GREATER THAN OF EQUAL TO 8 m. CAMBER BOTH THE TOP AND UNDERSIDE OF CONCRETE TO MAINTAIN SPECIFIED DEPTH UNLESS NOTED OTHERWISE.
3. LEAVE FORMS IN PLACE OR PROVIDE SHORING FOR ALL BEAMS UNTIL CONCRETE HAS REACHED SPECIFIED 28-DAY COMPRESSIVE STRENGTH.
4. REFER TO SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR CHAMFERS ON CORNERS FOR BEAMS, COLUMNS, AND WALLS.

SLAB ON GRADE NOTES:

- 1. SEE PLAN FOR SLAB THICKNESS.
2. PLACE SLAB ON-GRADE ON 150mm OF GRANULAR 'A' COMPACTED TO 98% STANDARD PROCTOR DRY DENSITY, FOLLOWED BY 300mm OF GRANULAR 'B' TYPE I SAND AND / OR GRAVEL OR GRANULAR 'B' TYPE II CRUSHED STONE.
3. PRIOR TO PLACING GRANULAR FILL MATERIALS, PROOF-ROLL EXISTING SUB-GRADE TO IDENTIFY INCONSISTENCIES OR SOFT AREAS. PROCEED WITH GRANULAR PLACEMENT ONLY AFTER THESE AREAS HAVE BEEN REWORKED AND COMPACTED TO THE SATISFACTION OF THE SOILS ENGINEER.
4. DO NOT POUR CONCRETE UNTIL ALL ELECTRICAL AND MECHANICAL CONDUITS, PIPING OR OTHER EMBEDDED SERVICES ARE INSTALLED AND VERIFIED.
5. AGREE LOCATION OF CONSTRUCTION JOINT WITH ENGINEER PRIOR TO CONSTRUCTION.
6. PROVIDE SAWCUTS AND CONTROL JOINTS AS SHOWN ON PLANS.
7. PROVIDE INTERIOR COLUMN ISOLATION JOINTS AND SAWCUTTING AS PER DETAILS SHOWN.
8. SLAB ON-GRADE CONTROL JOINTS SHALL BE SPACED NO GREATER THAN 4.5m SPANS IN EITHER DIRECTION OR AS SHOWN ON PLAN.
9. PERFORM SAWCUTTING FOR CONTROL JOINTS USING DRY METHOD (SOFF-CUT SAW) AS SOON AS POSSIBLE AFTER CONCRETE PLACEMENT WITHOUT LEAVING TREAD MARKS, DISLODGING AGGREGATE AND BEFORE UNCONTROLLED SHRINKAGE OCCURS. FILL CONTROL JOINTS, AS SPECIFIED, NO SOONER THAN 120 DAYS AFTER CONCRETE PLACEMENT.
10. FLOOR FINISH: REFER TO SPECIFICATIONS.

CLIMATIC DATA - OTTAWA (INTERNATIONAL AIRPORT)

Table with 2 columns: SEISMIC DATA and CLIMATIC DATA. Includes importance factor, seismic hazard index, and site class information.

2) SNOW LOAD DESIGN DATA

- BASIC FACTORS : Sg = 2.4 Sf = 0.4
-BASIC ROOF LOAD : 2.32 kPa + SNOW PILE UP AS SHOWN ON THE PLAN.

3) WIND LOAD DESIGN DATA

- BASIC FACTORS : q150 = 0.42 kPa q110 = 0.31 kPa

TENSION DEVELOPMENT LENGTH AND TENSION LAP SPLICES (Fy=400 MPa)

Table showing tension development length and tension lap splices for concrete classes 25 MPa, 30 MPa, and 35 MPa across different bar sizes and classes.

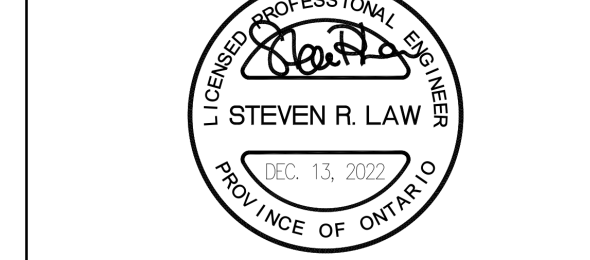
- 1. USE FOLLOWING TENSION LAP SPLICE LENGTHS UNLESS NOTED OTHERWISE ON DRAWINGS.
2. TENSION DEVELOPMENT LENGTH, Ld DENOTES AS TENSION LAP SPLICE CLASS A.
3. FOR COLUMNS, USE COLUMN TENSION SPLICE TYPICAL DETAIL.
4. TOP BARS ARE BARS WITH MORE THAN 300 (12") OF CONCRETE CAST BELOW SPLICE.
5. CLEAR COVER NOT LESS THAN 40, CLEAR SPACING NOT LESS THAN 2.4d.
6. FOR STRUCTURAL LOW-DENSITY CONCRETE, INCREASE SPLICE LENGTHS BY 30%.
7. FOR STRUCTURAL SEMI-LOW-DENSITY CONCRETE, INCREASE SPLICE LENGTH BY 20%.
8. DIMENSION ARE mm EXCEPT DIMENSION IN BRACKETS ARE INCHES

Table with 3 columns: no., revisions, date, init.

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DO NOT SCALE THESE DRAWINGS. ANY ERROR OR DISCREPANCY IS TO BE REPORTED IMMEDIATELY TO: REINDERS + LAW LTD.

date plotted : 2022-12-13 plot scale : 1:1



drawn : J.M.
designed : P.F.
reviewed : S.L.
date : 2022-12-13
scale : 1 : 100
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drawing : GENERAL NOTES



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