

GENERAL NOTES

- 1. READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER PERTINENT CONTRACT DOCUMENTS. IN THE EVENT OF A CONFLICT, THE SPECIFICATIONS SHALL GOVERN.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS. ALL INFORMATION CONCERNING EXISTING STRUCTURES HAVE BEEN TAKEN FROM ORIGINAL DRAWINGS AND SITE MEASUREMENTS. CONTRACTOR TO CONFIRM ON SITE ALL EXISTING DIMENSIONS, ELEVATIONS AND DETAILS PRIOR TO COMMENCING WORK. SHOULD INFORMATION DIFFER SIGNIFICANTLY FROM THAT SHOWN, CONTACT ENGINEER PRIOR TO PROCEEDING.
3. THE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA 1995, ITS SUPPLEMENTS AND THE LATEST EDITIONS (UNLESS OTHERWISE NOTED) OF REFERENCED CODES AND STANDARDS THEREIN. WATER RETAINING STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH ACI 350-01.
4. REFER TO THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, SLEEVES AND OTHER BUILDING COMPONENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REPORT DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
5. NOTIFY THE ENGINEER A MINIMUM 48 HOURS IN ADVANCE FOR REVIEWS.
6. CONSTRUCTION METHODS REQUIRING TEMPORARY SHORING, OR BRACING, SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER, REGISTERED IN THE PROVINCE OF MANITOBA, TO PERFORM AND TAKE RESPONSIBILITY FOR ANY SHORING OR OTHER DESIGNS REQUIRED TO COMPLETE THE CONSTRUCTION.
7. VERIFY LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCING CONSTRUCTION AND BE RESPONSIBLE FOR DISRUPTIONS.

DESIGN LOADS:

- 1. DEAD LOADS: .1) STRUCTURE SELF WEIGHT .2) ROOFING = 1.0 kPa .3) MECHANICAL LOAD (SUSPENDED FROM JOIST) MAX. CONCENTRATED LOAD AT ANY PANEL POINTS UNLESS OTHERWISE NOTED ON STRUCT./MECH. DWG'S = 1.3 kN .4) BELOW GRADE ROOF SLABS: SOIL UNIT WEIGHT SEE GEOTECHNICAL REPORT = 17.5 kN/m^3
2. LIVE LOADS .1) GROUND SNOW LOAD - Sg = 1.7 kPa Sf = 0.2 kPa MODIFY FOR EXPOSURE AND DRIFT AS PER NBC 1995. .2) RAIN LOAD: 0.0 kPa AT PARAPETS VARYING UNIFORMLY TO 0.5 kPa AT DRAINS .3) WIND q(1/30) = 0.42 kPa .4) MAIN FLOOR U/N = 9.6 kPa .5) MEZZANINE U/N = 4.8 kPa .6) FLOOR HATCH COVER = 2.4 kPa .7) SAMPLING BUILDING FLOOR = 4.8 kPa

FOUNDATION NOTES

- 1. GENERAL .1 ALL FOUNDATION CONSTRUCTION TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT BY DYREGROV CONSULTANTS, DATED DECEMBER 15, 2004. .2 THE CONTRACTOR IS RESPONSIBLE FOR SHORING AND UNDERPINNING. DOCUMENTS RELATING TO THE WORK SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA.
2. PRECAST PILE FOUNDATION NOTES: .1 BUILDING FOUNDATIONS ARE DESIGNED AS DRIVEN, END BEARING, PRESTRESSED PRECAST CONCRETE PILES WITH THE FOLLOWING DESIGN LOADS: 300 DIAMETER = 445kN 350 DIAMETER = 625kN 400 DIAMETER = 800kN

CONCRETE NOTES

- 1. PROVIDE CLEAR CONCRETE AND PERFORM WORK TO CSA A23.1-00. TEST CONCRETE TO CSA A23.2-00. THE CONTRACTOR SHALL HAVE COPIES OF THESE STANDARD ON SITE AT ALL TIMES. TEST RESULTS WILL BE ISSUED TO ENGINEER AND OWNER.
2. PROVIDE CLEAR CONCRETE COVER OVER REBAR AS FOLLOWS: A) SURFACE POURED AGAINST GROUND 75 mm B) FORMED SURFACES EXPOSED TO GROUND OR WEATHER: 50 mm C) FORMED SURFACES NOT EXPOSED TO GROUND OR WEATHER: BEAMS, COLUMNS (TO STIRRUPS OR TIES) 40 mm WALLS 25 mm SLABS 25 mm
3. PROVIDE 20mm CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
4. ALL STRUCTURAL CONCRETE TO BE MINIMUM 30 MPa
5. CONSTRUCTION JOINTS MAXIMUM SPACING IS TO BE 14m. MINIMUM 2m FROM WALL CORNERS AND INTERSECTIONS.

MASONRY NOTES

- 1. ALL MASONRY WORK SHALL CONFORM TO CSA S304.1, A371 AND TO DETAILS SHOWN ON DRAWINGS.
2. MASONRY BLOCK UNITS SHALL CONFORM TO CSA A165. CLASSIFICATION H/15/C/M WITH A MINIMUM UNIT STRENGTH OF 15 MPa, UNLESS NOTED OTHERWISE. (COMPRESSIVE STRENGTH IS BASED ON LOST AREA)
3. ALL MORTAR SHALL CONFORM TO CSA A179 AND SHALL BE TYPE 'S', MORTAR WITH MINIMUM STRENGTH OF 12 MPa AT 28 DAYS.
4. ALL LINTELS, BOND BEAMS, AND PILASTERS SHALL BE FILLED WITH CONCRETE HAVING A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa.
5. PROVIDE DOWELS FROM CONCRETE BEAMS OR WALLS TO MATCH MASONRY REINFORCING.

STRUCTURAL STEEL NOTES

- 1. FABRICATE AND ERECT STRUCTURAL STEEL TO CSA-S16.1.
2. PROVIDE STRUCTURAL STEEL SHAPES AND PLATES TO CSA-G40.21, GRADE 350W.
3. WELD TO CSA-W59 BY FABRICATORS CERTIFIED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA-W47.1, IN DIVISION 1 OR DIVISION 2.1.

STEEL JOIST SCHEDULE

Table with 5 columns: MARK, DEPTH, SPACING, FINISH, REMARKS. Rows J-1, J-2, J-3.

OPEN WEB STEEL JOIST NOTES

- 1. DESIGN AND FABRICATE OPEN WEB STEEL JOISTS TO CSA S16.1 FOR DEPTHS, DETAILS, AND LOADING SHOWN ON THE DRAWINGS. REFER TO MECHANICAL DRAWINGS FOR WEIGHT AND LOCATION OF EQUIPMENT AND CONFIRM WITH MECHANICAL CONTRACTOR. DESIGN AND SUPPLY STEEL FRAMING FOR EQUIPMENT SUPPORT.
2. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS SHALL BE SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA. SHOP DRAWINGS SHALL SHOW DETAILS, MATERIALS, UNIFORM AND CONCENTRATED DESIGN LOADS, BRIDGING AND ACCESSORIES.
3. CAMBER REQUIREMENTS AND DEFLECTION LIMITATIONS TO CSA S16 UNLESS NOTED ON DRAWINGS.
4. PROVIDE PERMANENT BRIDGING FOR ALL JOISTS IN ACCORDANCE WITH CSA S16, UNLESS NOTED OTHERWISE.

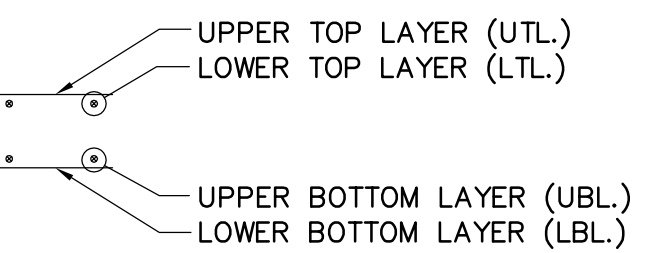
STEEL DECKING NOTES

- 1. DESIGN, FABRICATE AND INSTALL STEEL DECK TO CSA-S136 (LATEST EDITION) AND THE CANADIAN SHEET STEEL BUILDING INSTITUTE STANDARDS.
2. DECKING PROFILE: .38mm DEEP, MINIMUM 0.76mm (22Ga), OR AS SHOWN ON THE DRAWINGS, ZINC COATED STEEL CONFORMING TO ASTM A446. ZINC COATING TO ASTM A525 WIPE COAT 75 g/square meter FOR INTERIOR EXPOSURE OR 275 g/square meter FOR EXTERIOR EXPOSURE.
3. WELD DECK TO SUPPORTING STEEL WITH 20mm DIAMETER FUSION WELDS USING WELD WASHERS WHERE NECESSARY. SIDE LAPS FASTENED BY BUTTON PUNCHING @ 600 o/c. CLINCHING, TRANSVERSE WELDS, LONGITUDINAL WELDS AND PERIMETER WELDS @ 300 o/c.
5. INSTALL STEEL DECK CONTINUOUS OVER MINIMUM 3 SPANS EXCEPT WHERE OTHERWISE ACCEPTED. THE MINIMUM BEARING IS EQUAL TO THE DEPTH OF THE STEEL DECK, LAP JOINTS 75mm AT STRUCTURAL SUPPORTS.

MISCELLANEOUS METALS - ALUMINUM

- 1. DESIGN, FABRICATION AN INSTALLATION IN ACCORDANCE WITH CSA S157-M83 (R2002)
2. PERFORM WELDING OF ALUMINUM IN ACCORDANCE WITH REQUIREMENTS OF CSA W59.2.
3. ALUMINUM: CONFORMING TO ALUMINUM ASSOCIATION ALLOY AND TEMPER DESIGNATION 6061-T6 OR 6351-T6.
4. BOLTS AND ANCHOR BOLTS: CONFORMING TO STAINLESS STEEL C/W ISOLATION WASHERS.
5. BITUMINOUS PAINT: TO CAN/CGSB-1.108.
6. ISOLATE ALUMINUM FROM FOLLOWING COMPONENTS, BY MEANS OF BITUMINOUS PAINT: .1 DISSIMILAR METALS EXCEPT STAINLESS STEEL, ZINC, OR WHITE BRONZE OF SMALL AREA. .2 CONCRETE, MORTAR AND MASONRY.

REINFORCING LEGEND:



STANDARD ABBREVIATIONS:

- ADDITIONAL
AT
ANCHOR BOLT
ALTERNATE
ALUMINUM
APPROXIMATE
ARCHITECTURAL
AVERAGE
BOTTOM
BETWEEN BUILDING
BENCH MARK
B.E.M.
BRG.
BY (Between dims)
CENTERLINE
CAST IN PLACE
CONCRETE MASONRY UNIT
CONSTRUCTION JOINT
COMPLETE WITH
COLUMN
CONCRETE
CONTINUOUS
DEAD LOAD
DOWN
DRAWING
DOWEL
EACH FACE
EXPANSION JOINT
EACH WAY
ELEVATION
ELECTRICAL
EQUAL
EXISTING
EXP.
EXT.
F. to F.
F.O.C.
FDN.
FOOTING
GALVANIZE
HANGER
HORIZONTAL
HOLLOW STRUCTURAL STEEL
HEIGHT
INSIDE FACE
INSIDE DIAMETER
INTERIOR
KILONEWTON
LIVE LOAD
MATERIAL
MAXIMUM
MECHANICAL
MINIMUM
MISCELLANEOUS
NUMBER
NOT TO SCALE
ON CENTER
OUTSIDE FACE
OUT TO OUT
OUTSIDE DIAMETER
OPENING
OPPOSITE
ORIGINAL
PLATE
PRELIMINARY
PROJECTION
REINFORCE WITH
REINFORCING
REQUIRED
REVISION
SECTION
SHEET
SIMILAR
SPECIFICATION
STAINLESS STEEL
STANDARD
STIFFENER
STIRRUP
STRUCTURAL
SYMMETRICAL
TOP OF
TYPICAL
UNLESS NOTED
VERTICAL
WIND LOAD

CONCRETE WALL SCHEDULE

Table with 7 columns: MARK, WIDTH, HEIGHT, REINFORCING (VERTICAL, HORIZONTAL, ADDITIONAL), REMARKS. Rows CW-1 to CW-9.

CONCRETE SLAB SCHEDULE

Table with 6 columns: MARK, DEPTH, REINFORCING (TOP, BOTTOM, ADDITIONAL), REMARKS. Rows S-1 to S-11.

CONCRETE GRADE BEAM SCHEDULE

Table with 7 columns: MARK, WIDTH, DEPTH, REINFORCING (TOP, MIDDLE, BOTTOM, STIRRUPS, ADDITIONAL), REMARKS. Rows GB-1, GB-2.

CONCRETE BEAM SCHEDULE

Table with 7 columns: MARK, WIDTH, DEPTH, REINFORCING (TOP, MIDDLE, BOTTOM, STIRRUPS, ADDITIONAL), REMARKS. Rows CB-1 to CB-5.

CONCRETE COLUMN SCHEDULE

Table with 5 columns: MARK, SIZE, REINFORCING (VERT., TIES, ADDITIONAL), REMARKS. Rows CC-1, CC-2.

MASONRY WALL SCHEDULE

Table with 5 columns: MARK, SIZE, REINFORCING, TYPE, REMARKS. Rows MW-1, MW-2.



Project information block including Earth Tech logo, engineer details (R.B. ERIC), city of Winnipeg logo, project name (NEWPCC - SECONDARY EFFLUENT UV DISINFECTION FACILITY), and drawing number (66303D-CS1.01).