

**GENERAL NOTES:**

- 1.CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ALL DISCREPANCIES TO CONTRACT ADMINISTRATOR. PRINTS ARE NOT TO BE SCALED.
- 2.WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE (LATEST EDITION) AND ALL AMENDMENTS AND ALL LOCAL, MUNICIPAL AND PROVINCIAL BUILDING BY-LAWS AND ORDINANCES.
- 3.NATIONAL FIRE CODE (LATEST EDITION)
- 4.OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- 5.CSA STANDARD S350 CODE PRACTICE FOR SAFETY IN DEMOLITION OF STRUCTURES.

**MATERIAL:**

**DEMOLITION**

- 1.DO DEMOLITION WORK IN ACCORDANCE WITH CSA STANDARD S350 CODE PRACTICE FOR SAFETY IN DEMOLITION OF STRUCTURES.
- 2.DISCONNECT AND RE-ROUTE ELECTRICAL LINES AFFECTED BY THE DEMOLITION. POST WARNING SIGNS ON ELECTRICAL LINES AND EQUIPMENT, WHICH MUST REMAIN ENERGIZED TO SERVE OTHER PROPERTIES DURING PERIOD OF DEMOLITION. DO NOT DISRUPT ACTIVE OR ENERGIZED UTILITIES TRAVERSING PREMISES DESIGNATED TO REMAIN UNDISTURBED.
- 3.DEMOLISH PARTS OF STRUCTURE IN ACCORDANCE WITH APPROVED SCHEDULE AND CONSTRUCTION PHASING OPTION. STOCKPILE MATERIALS AS DIRECTED BY CONTRACT ADMINISTRATOR.

**GRANULAR MATERIAL**

- 1.BASE COURSE MATERIAL WILL BE APPROVED BY THE CONTRACT ADMINISTRATOR.
- 2.BASE COURSE MATERIAL WILL CONSIST OF SOUND, HARD, CRUSHED ROCK, CRUSHED GRAVEL, OR CRUSHED CONCRETE. CRUSHED ROCK AND CRUSHED GRAVEL WILL BE FREE FROM ORGANIC OR SOFT MATERIAL THAT WOULD DISINTEGRATE THROUGH DECAY OR WEATHERING. THE BASE COURSE MATERIAL WILL BE WELL GRADED AND CONFORM TO THE GRADING REQUIREMENTS OF TABLE CW 3110.2 - BASE COURSE MATERIAL GRADING REQUIREMENTS.

**LANDSCAPING**

- 1.TOPSOIL MIXTURE OF PARTICULATES, MICRO ORGANISMS AND ORGANIC MATTER WHICH PROVIDES SUITABLE MEDIUM FOR SUPPORTING INTENDED PLANT GROWTH. SOIL TEXTURE BASED ON THE CANADIAN SYSTEM OF SOIL CLASSIFICATION, TO CONSIST OF 20 TO 70% SAND, MINIMUM 7% CLAY, AND CONTAIN 2 TO 10% ORGANIC MATTER BY WEIGHT. CONTAIN NO TOXIC ELEMENTS OR GROWTH INHIBITING MATERIALS.
- 2.NUMBER ONE TURF GRASS NURSERY SOD: SOD THAT HAS BEEN ESPECIALLY SOWN AND CULTIVATED IN NURSERY FIELDS AS TURF GRASS CROP.
- 3.TO CANADA "FERTILIZERS ACT" AND "FERTILIZERS REGULATIONS".COMPLETE, SYNTHETIC, SLOW RELEASE WITH 65% OF NITROGEN CONTENT IN WATER INSOLUBLE FORM.

**FORMWORK**

- 1.GENERAL: MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF CSA A23.1, EXCEPT AS AMENDED OR EXTENDED HEREIN.
- 2.FORMWORK LUMBER: PLYWOOD AND WOOD FORMWORK MATERIALS TO CSA O121, CSA O86.1.
- 3.FALSEWORK MATERIALS: TO CSA S269.1.

**REINFORCING STEEL**

- 1.REINFORCING STEEL: NEW BILLET STEEL, GRADE 400 R OR 400 W, DEFORMED BARS TO CAN/CSA-G30.18.
- 2.WHERE SPECIFIED ON DRAWINGS: EPOXY COATED REINFORCING STEEL SHALL BE NEW BILLET STEEL, GRADE 400 R OR 400 W, DEFORMED BARS TO CAN/CSA-G30.18. EPOXY COATING TO ASTM A 775.

**CONCRETE**

- 1.DO CAST IN PLACE CONCRETE WORK IN ACCORDANCE WITH CSA-A23.1/A23.2.
- 2.CONCRETE ADMIXTURES SHALL BE COMPATIBLE WITH ONE ANOTHER, AND USED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, AND CAN3-A266.4, "GUIDELINES FOR USE OF ADMIXTURES IN CONCRETE".
- 3.CONCRETE TOPPING: TO CAN3-A23.1, EXPOSURE CLASS: C-1, UNLESS MODIFIED HEREIN. USE TYPE 10 CEMENT TO GIVE MINIMUM COMPRESSIVE STRENGTH OF 35 MPA IN 28 DAYS WITH 10MM NOMINAL AGGREGATE SIZE, 7.5%±1.5% ENTRAINED AIR 1 TO 2 KG/M3 OF POLYPROPYLENE FIBER.
- 4.TOP SURFACE REPAIR CONCRETE TO BE CAN3-A23.1, EXPOSURE CLASS: C-1, UNLESS MODIFIED HEREIN. USE TYPE 10 CEMENT TO GIVE MINIMUM COMPRESSIVE STRENGTH OF 35 MPA IN 28 DAYS WITH 10MM NOMINAL AGGREGATE SIZE, 7.5%±1.5% ENTRAINED AIR.
- 5.THROUGH SLAB REPAIR CONCRETE TO BE CAN3-A23.1, EXPOSURE CLASS: C-1, UNLESS MODIFIED HEREIN. USE TYPE 10 CEMENT TO GIVE MINIMUM COMPRESSIVE STRENGTH OF 35 MPA IN 28 DAYS WITH 20MM NOMINAL AGGREGATE SIZE, 6.5%±1.5% ENTRAINED AIR.
- 6.STAIR AND LANDING CONCRETE TO BE CAN3-A23.1, EXPOSURE CLASS: C-1, UNLESS MODIFIED HERIN. USE TYPE 10 CEMENT TO GIVE MINIMUM COMPRESSIVE STRENGTH OF 35 MPA IN 28 DAYS WITH 20MM NOMINAL AGGREGATE SIZE, 6.5%±1.5% ENTRAINED AIR.
- 7.CORROSION INHIBITER SHALL BE CATEXOL 1000 CI AS MANUFACTURED BY AXIM ITALCEMENTI GROUP OR APPROVED EQUIVALENT IN ACCORDANCE WITH B6. THE MINIMUM DOSAGE SHALL BE 15 L/M3 IN ACCORDANCE THE MANUFACTURERS INSTRUCTIONS AND RECOMMENDATION OF APPENDIX C CORROSION INHIBITORS-CAN/CSA S413
- 8.NON SHRINK-GROUT SIKA Z12 AS MANUFACTURED BY SIKA CANADA INC.
- 9.CEMENT BONDING SLURRY BE MADE OF A 1:1 RATIO OF PORTLAND CEMENT TO FINE AGGREGATE BY WEIGHT WITH SUFFICIENT WATER TO FORM A CREAM LIKE CONSISTENCY.
- 10.NON SHRINK GROUT BONDING AGENT SHALL BE SIKA TOP-ARMATEC 110 AS MANUFACTURED BY SIKA CANADA INC. OR APPROVED EQUIVALENT IN ACCORDANCE WITH B6.
- 11.STAIR NOSING SHALL BE NON-SLIP CT-22/34A STAIR NOSING AS MANUFACTURED BY K.N. CROWDER OR APPROVED EQUIVALENT IN ACCORDANCE WITH B6. INSTALL AS PER MANUFACTURERS INSTRUCTIONS.

**MISCELLANEOUS METALS**

- 1.SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SECTION 01 33 00 SUBMITTAL PROCEDURES. SUBMIT SHOP DRAWING BEARING STAMP OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA.
- 2.STEEL SECTIONS: TO CAN/CSA\_G40.20/G40.21 GRADE 350 W.
- 3.STEEL TUBING: TO CAN/CSA\_G40.20/G40.21, GRADE 300 W, SQUARE, RECTANGULAR, ROUND WALL THICKNESS, SIZES AND DIMENSIONS AS INDICATED.
- 4.WELDING MATERIALS: TO CSA W59.
- 5.BOLTS: TO ASTM A307.
- 6.FABRICATE TO NAAMM, METAL STAIR MANUAL.

**TRAFFIC TOPPING SYSTEM**

- 1.VULKUM 360 NF/950NF AND/OR 951NF AS MANUFACTURED BY TREMCO.
- 2.AUTO-GARD II AS MANUFACTURED BY NEOGARD.
- 3.CONIPUR II DECK COATING SYSTEM AS MANUFACTURED BY BASF.
- 4.CONIPUR E, AS MANUFACTURED BY BASF.
- 5.APPROVED EQUIVALENT IN ACCORDANCE WITH B6.

**WATERPROOFING MEMBRANE**

- 1.HYDROTECH 6125 AS MANUFACTURED BY HYDROTECH MEMBRANE CORPORATION
- 2.790-11 AS MANUFACTURED BY BAKOR
- 3.APPROVED EQUIVALENT IN ACCORDANCE WITH B6.

**SEALANT**

- 1.CAN/CGSB-19.24 MULTI-COMPONENT, CHEMICAL CURING SEALING COMPOUND.
- 2.SEALANT SHALL BE DYMERIC 240 AS MANUFACTURED BY TREMCO, OR APPROVED EQUIVALENT IN ACCORDANCE WITH B6.

**PAINT**

- 1.PAINT MATERIALS LISTED IN LATEST EDITION OF MPI APPROVED PRODUCT LIST (APL) ARE ACCEPTABLE FOR USE ON THIS PROJECT.
- 2.PAINT MATERIALS FOR REPAINT SYSTEMS TO BE PRODUCTS OF SINGLE MANUFACTURER.
- 3.INTERIOR SURFACES: 100% ACRYLIC LATEX-SEMI GLOSS. PRIMER AS RECOMMENDED BY PAINT MANUFACTURER
- 4.STEEL STAIRS, HANDRAILS AND MISCELLANEOUS METALS: PRIMER SHALL BE M06 ALKYD METAL PRIMER AS MANUFACTURED BY BENJAMIN MOORES & CO LIMITED. PAINT SHALL BE TWO COATS M22 URETHANE ALKYD GLOSS ENAMEL AS MANUFACTURED BY BENJAMIN MOORES & CO LIMITED OR APPROVED EQUIVALENT IN ACCORDANCE WITH B6.
- 5.ZINC RICH COATING: GALVANIZED PAINT: CGSB 1-GP-181: ORGANIC ZINC RICH PRIMER FOR GALVANIZED FABRICATIONS WHERE TORCH UP IS TO REMAIN UNPAINTED IN FINISH WORK SHALL BE GALVAFROID BY W. R. MEADOWS OF CANADA LTD

6.COMPLIANCE: COMPLY WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS OR SPECIFICATIONS, INCLUDING PRODUCT TECHNICAL BULLETINS, HANDLING, STORAGE AND INSTALLATION INSTRUCTIONS, AND DATA SHEETS.

**PLUMBING**

- 1.LEVEL P1 DRAINS: ZAL-625-HY AS MANUFACTURED BY ZURN WITH REMOVABLE SEDIMENT BUCKET OR APPROVED EQUIVALENT IN ACCORDANCE WITH B6
- 2.LEVEL P2 DRAINS: ZX-211Y AS MANUFACTURED BY ZURN WITH REMOVABLE SEDIMENT BUCKET OR APPROVED EQUIVALENT IN ACCORDANCE WITH B6.
- 3.PLUMBING FITTINGS SHALL BE CAST IRON THAT MEETS CAN3-B125-M85.
- 4.LEVEL P1 DRAIN PIPE: CAST IRON PIPE 100MM IN DIAMETER. PIPE SHALL HAVE CSA MARK OF APPROVAL. PIPE HANGERS SHALL BE FABRICATE HANGERS AND SUPPORTS IN ACCORDANCE WITH ANSI B31.1 AND MSS-SP58.
- 5.LEVEL P2 DRAIN PIPE: TYPE PSM POLY VINYL CHLORIDE (PVC): TO CSA\_B182.2. EXCAVATING, TRENCHING AND BACKFILLING TO SECTION 31 23 33.

**MISCELLANEOUS MATERIAL**

- 1.CURBS: TO BE RUBBER PARKING STOPS AS MANUFACTURED BY ECO-FLEX OR APPROVED EQUIVALENT IN ACCORDANCE WITH B6.

**CONCRETE STAIR STRUCTURAL DESIGN:**

**DESIGN LOADS:**

|             |          |
|-------------|----------|
| DEAD LOADS: |          |
| SELF WEIGHT | 5.5 kPa  |
| FINISHES    | 0.6 kPa  |
| LIVE LOADS  | 4.8 kPa  |
| TOTAL       | 10.9 kPa |

**NEW GUARD RAIL STRUCTURAL DESIGN:**

**DESIGN LOADS:**

HORIZONTAL LOADS  
 DISTRIBUTED LOAD OF 0.75KN/M OR;  
 CONCENTRATED LOAD OF 1.0KN OR;  
 CONCENTRATED LOAD OF 0.5KN ON INDIVIDUAL ELEMENTS WITHIN THE GUARD

VERTICAL LOADS  
 DISTRIBUTED LOAD OF 1.5KN/M

**EMBEDMENT/DEVELOPMENT LENGTHS AND SPLICE LENGTHS**

| REBAR DESIGNATION | FUNCTION  | CONCRETE STRENGTH |              |                 |
|-------------------|-----------|-------------------|--------------|-----------------|
|                   |           | 20 MPA            | 25 MPA       | 30MPA & GREATER |
| 10M<br>11.3mmø    | (SPLICE)  | (620) [24"]       | (550) [22"]  | (502) [20"]     |
|                   | EMBEDMENT | 480 [19"]         | 430 [17"]    | 390 [15"]       |
| 15M<br>16mmø      | (SPLICE)  | (880) [35"]       | (780) [31"]  | (711) [28"]     |
|                   | EMBEDMENT | 680 [27"]         | 600 [24"]    | 550 [22"]       |
| 20M<br>19.5mmø    | (SPLICE)  | (1070) [42"]      | (950) [37"]  | (866) [34"]     |
|                   | EMBEDMENT | 830 [33"]         | 740 [29"]    | 670 [26"]       |
| 25M<br>25.2mmø    | (SPLICE)  | (1720) [68"]      | (1540) [61"] | (1400) [55"]    |
|                   | EMBEDMENT | 1330 [52"]        | 1190 [47"]   | 1080 [43"]      |
| 30M<br>29.9mmø    | (SPLICE)  | (2040) [80"]      | (1819) [72"] | (1670) [66"]    |
|                   | EMBEDMENT | 1570 [62"]        | 1400 [55"]   | 1290 [51"]      |

**BASED IN CAN/CSA-A23.3-04**

1. WHERE EMBEDMENT OR SPLICES ARE DIMENSIONED ON THE DRAWINGS, SUCH DIMENSION SHALL APPLY.
2. ALL LENGTHS ARE FOR Fy = 400MPa REBAR.
3. ALL TENSION SPLICE LENGTHS ARE CLASS 'B'.



| NO. | REVISION                | DATE         |
|-----|-------------------------|--------------|
| 1   | ISSUED FOR COORDINATION | JULY 3, 2012 |
| 2   | ISSUED FOR 66% REVIEW   | SEPT 6, 2012 |
| 3   | ISSUED FOR BID          | NOV 7, 2012  |
| 4   | ISSUED FOR ADDENDUM # 2 | NOV 29, 2012 |
| 5   |                         |              |
| 6   |                         |              |
| 7   |                         |              |

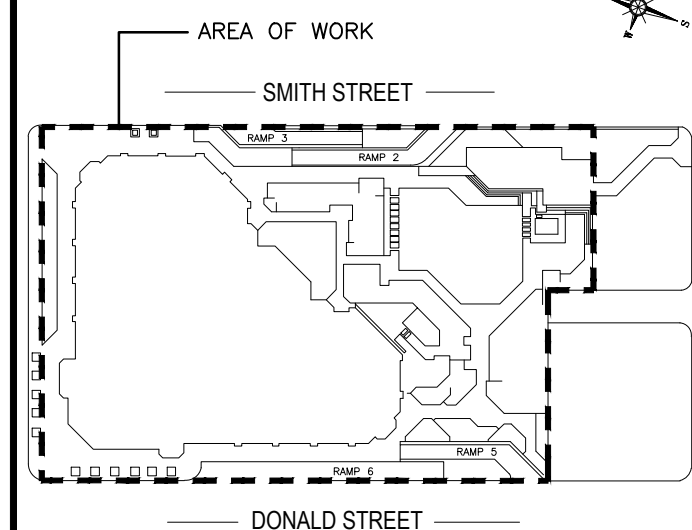
**NOTES:**

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR REPORTING ALL DISCREPANCIES TO CITY AND/OR CONTRACT ADMINISTRATOR PRIOR TO BID CLOSING

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

PRINTS ARE NOT TO BE SCALED.

**KEY PLAN:**



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**CLIENT NAME:**

CITY OF WINNIPEG

**PROJECT ADDRESS:**

251 DONALD STREET  
WINNIPEG, MANITOBA

**PROJECT NAME:**

REHAB OF MILLENNIUM LIBRARY PARKADE

**DRAWING TITLE:**

GENERAL NOTES

|                |                  |
|----------------|------------------|
| DESIGN: PSM    | SCALE: AS SHOWN  |
| DRAWN: JAW     | DATE: OCT/12     |
| APPVD: PSM/ADM | FILE No: 11-4145 |

**SHEET No.**

S10