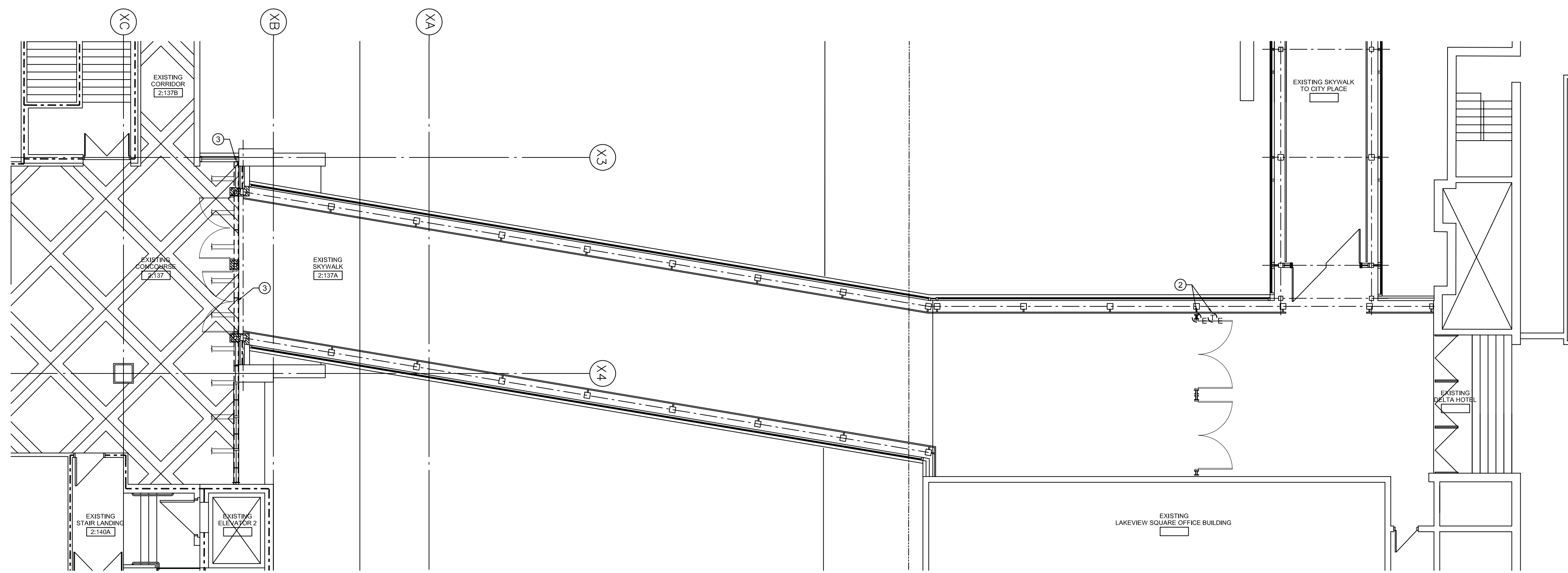
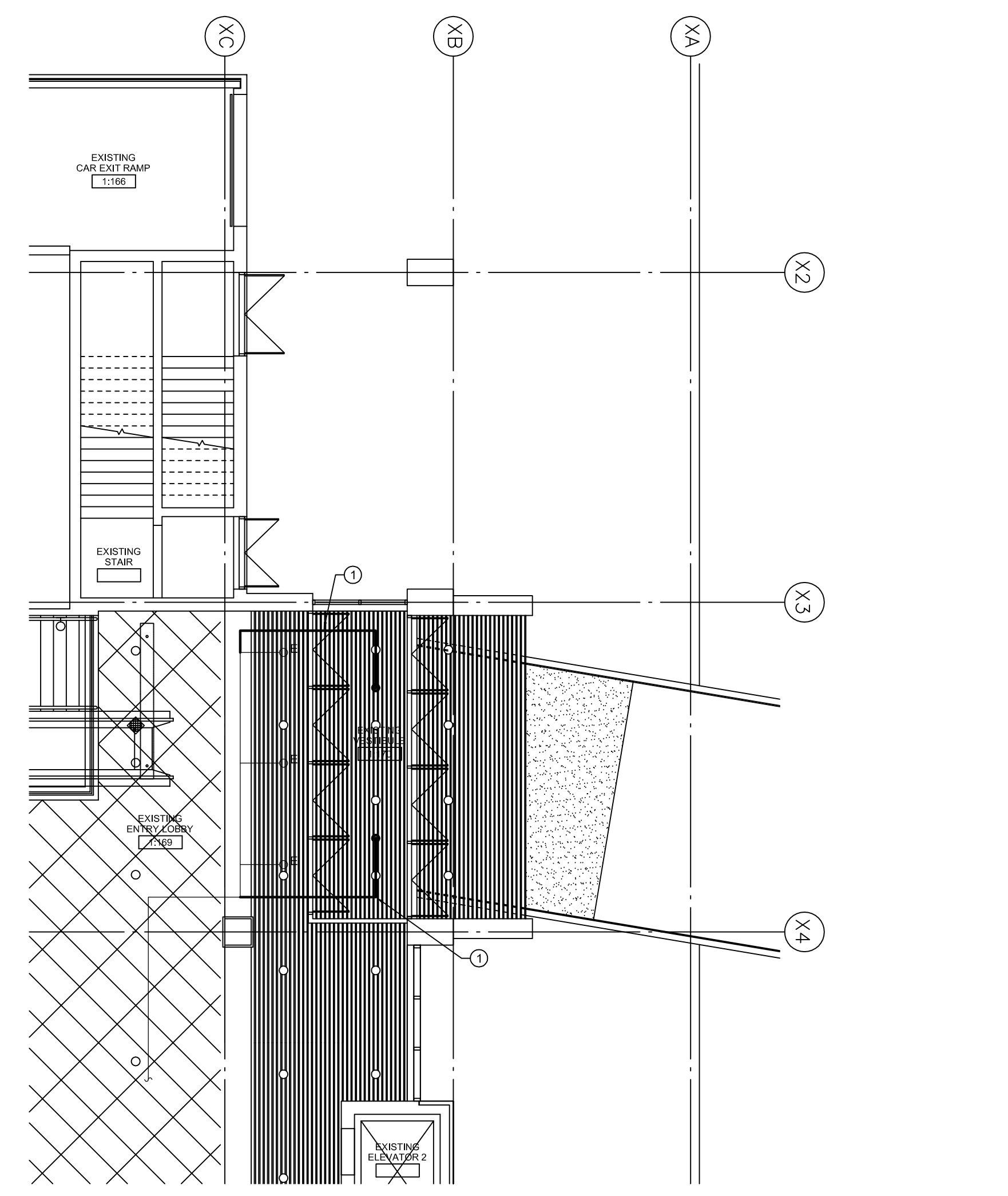


FILE NAME: 218-2016-Drawing\_M1-R3.pdf  
 DATE: 2016.03.18  
 SHEET TITLE: LEVEL 01 & 02 - NORTHEAST ENTRANCE - FLOOR PLAN - MECHANICAL  
 PROJECT No: 2015-075  
 ADDRESS: 375 YORK AVENUE, WINNIPEG, MB



**2**  
 M1  
 SCALE: 1:100  
**LEVEL 02 NORTH SKYWALK CONNECTION - MECHANICAL**

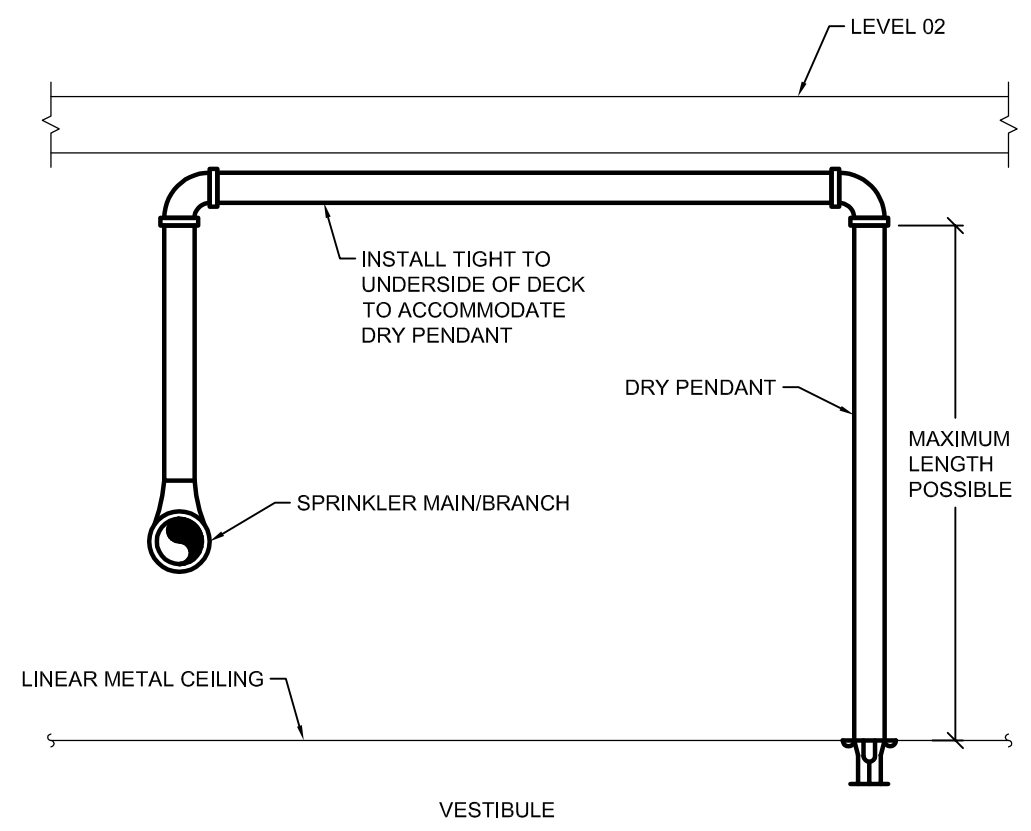


**1**  
 M1  
 SCALE: 1:100  
**LEVEL 01 NORTHEAST ENTRANCE - MECHANICAL**

MECHANICAL LEGEND	
— SP —	WET SYSTEM SPRINKLER MAIN LINE PIPING
—	FIRE PROTECTION EXISTING PIPING TO REMAIN
●	RECESSED SPRINKLER HEAD
⊗	SPRINKLER HEAD TO BE REMOVED
○ E	EXISTING SPRINKLER HEAD
— R —	EQUIPMENT RELOCATION
⊖ E	EXISTING THERMOSTAT

**MECHANICAL SPECIFICATION**

- 1.0 GENERAL**
- CONTRACTOR TO VISIT JOBSITE DURING BID OPPORTUNITY. DRAWINGS INDICATE APPROXIMATE LOCATION OF EXISTING MECHANICAL EQUIPMENT AND SERVICES. VERIFY EXACT LOCATIONS OF EXISTING MECHANICAL EQUIPMENT AND SERVICES AND ALLOW FOR NECESSARY RELOCATING OF NOTED SERVICES (OR RECONNECTION TO EXISTING SERVICES) TO SUIT NEW CONSTRUCTION.
  - ALL WORK SHALL CONFORM TO MANITOBA BUILDING CODE AND LOCAL AUTHORITIES. APPLY FOR, OBTAIN AND PAY FOR ALL NECESSARY PERMITS.
  - INSTALLATION OF WORK SHALL BE COORDINATED WITH THE CONTRACTOR AND SHALL BE SCHEDULED SO AS NOT TO DISTURB THE USERS OF THE BUILDING. SHUTDOWN OF EXISTING BUILDING SYSTEMS SHALL BE COORDINATED WITH THE CONTRACT ADMINISTRATOR.
  - MECHANICAL SUBCONTRACTOR SHALL PERFORM COORDINATION OF MECHANICAL DIVISION INSTALLATION WITH ALL RELATED CONTRACTORS, SUBCONTRACTORS, ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS. VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING EQUIPMENT AND SERVICES PRIOR TO PROCEEDING WITH WORK.
  - REFER TO INSTRUCTIONS TO BIDDERS FOR REQUIREMENTS REGARDING BUILDING STANDARD WORKMANSHIP, PROJECT PHASING, WORKING HOURS, SHUT-DOWN PROCEDURES, ACCESS, ETC.
  - REFER TO SPECIFICATION SECTION B7 FOR REQUEST FOR EQUAL PROCEDURE.
  - SUBMIT SHOP DRAWINGS FOR ALL EQUIPMENT TO CONTRACT ADMINISTRATOR.
  - ALL CONNECTIONS TO EXISTING BUILDING MECHANICAL SERVICES SHALL BE COORDINATED WITH THE CONTRACT ADMINISTRATOR.
  - ALL NECESSARY CUTTING AND PATCHING SHALL BE PERFORMED BY THE CONTRACTOR. MECHANICAL SUBCONTRACTOR TO CO-ORDINATE ON SITE.
  - ALL DUCTWORK AND PIPING TO BE INSTALLED STRAIGHT, PARALLEL TO THE BUILDING WALLS.
  - PIPE HANGERS SHALL BE ANVIL FIG. 65 FOR STEEL PIPE AND FIG. CT65 FOR COPPER PIPE. ALL WITH FIG. 140 THREADED ROD ATTACHED TO FIG. 117 EXPANSION CASE SET IN HOLES DRILLED IN CONCRETE, OR ATTACHED TO FIG. Z25 OR Z27 CLAMP ATTACHED TO JOISTS OR BEAMS.
  - PRIOR TO DRILLING HOLES AND/OR OPENINGS IN EXISTING STRUCTURE, CONTRACTOR SHALL RETAIN SERVICES OF A STRUCTURAL REINFORCING SCANNING AGENCY TO LOCATE AND MARK ALL STRUCTURAL REINFORCING STEEL LOCATED IN AREA WHERE CUTTINGS OR DRILLING IS PROPOSED. AT NO TIME SHALL REINFORCING STEEL BE CUT WITHOUT PRIOR WRITTEN APPROVAL FROM THE CONTRACT ADMINISTRATOR. NO HOLES OR OPENINGS WILL BE PERMITTED WITHIN AREA OF STRUCTURAL DROP PANELS LOCATED AT COLUMNS.
  - FURNISH TO THE CONTRACT ADMINISTRATOR THREE (3) COMPLETE SETS OF MANUFACTURER'S OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT REQUIRING MAINTENANCE. REVIEW INSTRUCTIONS WITH CONTRACT ADMINISTRATOR TO ENSURE A THOROUGH UNDERSTANDING OF THE EQUIPMENT AND ITS OPERATION.
  - PROVIDE A MARK-UP OF THE CONTRACT DRAWINGS FOR "RECORD DRAWINGS". REVISED AS REQUIRED TO SHOW ANY CHANGES FROM THAT ORIGINALLY SHOWN. RECORD DRAWINGS TO BE KEPT ON SITE AND UPDATED WEEKLY. CONTRACT ADMINISTRATOR WILL REVIEW PROGRESS DURING SITE OBSERVATIONS.
  - AT COMPLETION OF PROJECT PROVIDE RECORD DRAWINGS IN AUTOCAD 2013 FORMAT. COMPLETE WITH DISK PAID FOR BY MECHANICAL SUBCONTRACTOR.
  - FIRESTOPPING PROVIDED UNDER ARCHITECTURAL SECTION.
  - ALL WIRING FOR EQUIPMENT SPECIFIED HEREIN SHALL BE BY THE ELECTRICAL SUBCONTRACTOR, UNLESS OTHERWISE NOTED.
  - MECHANICAL SUBCONTRACTOR SHALL REVIEW ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTION WITH ELECTRICAL SUBCONTRACTOR AND ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT. ENSURE PROPER ELECTRICAL CHARACTERISTICS ARE DETERMINED FOR ALL AFFECTED AND RELATED WORK.
  - PRIOR TO INSTALLATION OF THE CEILING, NOTIFY THE CONTRACT ADMINISTRATOR AND ARRANGE FOR A FINAL REVIEW OF THE WORK. FOR UNDERTAKING THIS REVIEW, THE FOLLOWING SHALL BE COMPLETED:
    - ALL SYSTEMS TO BE FULLY OPERATIONAL. AS-BUILT DRAWINGS SUPPLIED AND OPERATING AND MAINTENANCE MANUALS SUBMITTED. TWO (2) DAYS NOTIFICATION (IN WRITING) IS REQUIRED TO BE GIVEN TO THE CONTRACT ADMINISTRATORS PRIOR TO REVIEWS BEING UNDERTAKEN.
    - ALL DEFICIENCIES SHALL BE COMPLETED WITHIN TWO (2) WEEKS OF AN AGREED PERIOD OF TIME AFTER FINAL REVIEW AND A LETTER SHALL BE SUBMITTED TO THE CONTRACT ADMINISTRATOR WITHIN THAT TIME ADVISING OF SUCH.
  - WHERE MECHANICAL SERVICES ARE CONCEALED WITHIN WALLS, FLOORS OR CEILINGS AND CANNOT BE VISUALLY IDENTIFIED, PROVIDE ELECTRONIC SCANNING DEVICES OR OTHER APPROVED MEANS TO LOCATE AND IDENTIFY CONCEALED SERVICES PRIOR TO WORK START. MAKE GOOD ANY DAMAGE TO EXISTING MECHANICAL SERVICES AT NO COST TO THE CONTRACT.
- 2.0 FIRE PROTECTION**
- PROVIDE LABOUR, MATERIAL, PLANS, TOOLS, EQUIPMENT AND SERVICES NECESSARY TO COMPLETION OF SPRINKLER SYSTEM AS SHOWN ON DRAWINGS.
  - COMPLY WITH ALL REQUIREMENTS OF THE CITY'S FIRE INSURANCE UNDERWRITER AND AUTHORITIES HAVING JURISDICTION. DESIGN AND INSTALLATION SHALL COMPLY WITH THE MOST RECENT EDITION OF NFPA #13 AND ALL APPLICABLE PROVINCIAL AND LOCAL LAWS AND ORDINANCES.
  - SUBMIT SHOP DRAWINGS TO THE CONTRACT ADMINISTRATOR AND AUTHORITY HAVING JURISDICTION AND OBTAIN APPROVAL PRIOR TO INSTALLATION. SHOP DRAWINGS SHALL SHOW NEW PIPING AND SPRINKLER HEADS, CEILING CONSTRUCTION, HEIGHTS, LIGHTS, MECHANICAL DIFFUSERS, AND CEILING DROPS.
- 2.1 MATERIALS**
- ALL MATERIALS SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF NFPA #13 - SPRINKLER SYSTEMS.
  - PIPE
    - STEEL PIPE TO MEET REQUIREMENTS OF NFPA #13 IN ALL RESPECTS AND MEETS REQUIREMENTS OF ASTM A53 - WELDED AND SEAMLESS PIPE.
    - ALL PIPE SHALL BE SCHEDULE 40 BLACK STEEL PIPE.
      - PIPE 2" AND SMALLER SHALL BE JOINED BY THREADED CONNECTIONS OR WELDED
      - PIPE 2-1/2" AND LARGER SHALL BE JOINED BY ROLL GROOVE MECHANICAL COUPLINGS OR BY WELDING.
  - FITTINGS
    - WELD FITTINGS UP TO INCLUDING 1-1/2" SHALL BE 13,790 KPA (2,000 PSI) SOCKET, 2" AND LARGER SHALL BE BUTT WELD.
    - GROOVED PIPE COUPLINGS SHALL BE VICTAULIC ZERO FLEX STYLE 07 RIGID COUPLINGS.
    - THREADED FITTINGS SHALL BE STANDARD WEIGHT CAST IRON. SADDLE TYPE FITTINGS NOT ACCEPTABLE. ALL FITTINGS TO BE SUITABLE FOR A WORKING PRESSURE OF 1,210 KPA (175 PSI).
    - PIPE FLANGES SHALL BE CLASS 150 FORGED STEEL EXCEPT FOR WELDED PIPE CONNECTIONS. FLANGES FOR PIPE 64MM (2-1/2") OR LARGER SHALL HAVE GROOVED EXTENSION FOR CONNECTION TO PIPE USING VICTAULIC COUPLING; FLANGES FOR PIPE 50MM (2") AND LESS SHALL BE THREADED. SLIP ON OR WELDING NECK FLANGES MAY BE USED ON SHOP FABRICATED COMPONENTS. VALVE COMPANION FLANGES TO BE FLAT OR RAISED FACE TO SUIT VALVE FLANGE. PROVIDE SUITABLE RED RUBBER RING OR FULL FACE GASKET, MACHINE BOLTS AND HEX NUTS UNLESS OTHERWISE RECOMMENDED BY MANUFACTURER OF CONNECTING VALVE OR EQUIPMENT.
    - VICTAULIC F.I.T. FITTINGS VICTAULIC STYLE 922 HOOKER, AND VICTAULIC SNAP-LET SPRINKLER HEAD CONNECTION FITTINGS SHALL NOT BE USED.
- 2.2 INSTALLATION**
- RUN ALL SPRINKLER PIPING AS HIGH AS POSSIBLE ABOVE SUSPENDED CEILING SYSTEM. MAINTAIN MINIMUM OF 6" CLEARANCE BETWEEN SUSPENDED CEILING SYSTEM AND MAIN AND/OR BRANCH PIPING RUNS.
  - ADJUST, RELOCATE AND ADD SPRINKLER HEADS AND PIPING TO SUIT PARTITION LAYOUT IN ACCORDANCE WITH NFPA 13, AND AUTHORITY HAVING JURISDICTION REQUIREMENTS.
  - THE SPRINKLER SUBCONTRACTOR SHALL VISIT SITE TO CONFIRM SPRINKLER HEAD CHANGES AND REQUIREMENTS PRIOR TO PRICE SUBMITTAL. NO EXTRA COST SHALL BE PAID FOR WORK DONE THAT HAS TO BE RECTIFIED AS A RESULT OF THE CONTRACTOR'S FAILURE TO EITHER COORDINATE THE WORK OR IDENTIFY ANY POTENTIAL PROBLEMS PRIOR TO INSTALLATION.
  - NEW SPRINKLER HEADS SHALL MATCH EXISTING SPRINKLER HEADS AND SHALL BE UL-C APPROVED. STANDARD OF ACCEPTANCE: TYCO DRY PENDANT, RELIABLE DRY PENDANT, VICTAULIC DRY PENDANT.
  - NOTIFY CONTRACT ADMINISTRATOR PRIOR TO DRAINING AND/OR REFILLING SPRINKLER SYSTEM. DISCONNECT EXISTING SYSTEM FROM MAIN SYSTEM, PERFORM THE WORK, TEST, AND RECONNECT TO THE MAIN SYSTEM.



**3**  
 M1  
 SCALE: NTS  
**SPRINKLER DETAIL**

- NOTES:**
- GENERAL NOTES**
- THE SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH MANITOBA BUILDING CODE, MANITOBA FIRE CODE, LOCAL BUILDING BY-LAWS, NFPA13.20, REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION, AND THE CONTRACT ADMINISTRATOR.
  - DRAWING IS A SCHEMATIC DRAWING ONLY. CONTRACTOR SHALL CONFIRM ALL INFORMATION AND DIMENSIONS ON SITE. ALL DISCREPANCIES SHALL BE RESOLVED BEFORE PERFORMING THE INSTALLATION.
  - WHERE DISCREPANCIES APPEAR BETWEEN THE DRAWINGS AND SITE CONDITIONS, THE CONTRACTOR WILL NOTIFY THE CONTRACT ADMINISTRATOR PRIOR TO PERFORMING ANY WORK. WHERE MODIFICATIONS ARE WITHIN 3m OR REASONABLY INCIDENTAL, WORK SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE CONTRACT.
  - CONTRACTOR TO NOTIFY CONTRACT ADMINISTRATOR OF ANY SERVICE INTERRUPTIONS AND SHALL COORDINATE WITH THE FACILITY TO CAUSE THE LEAST IMPACT TO BUILDING OPERATION.
- KEY NOTES**
- PROVIDE NEW DRY PENDANT FOR VESTIBULE. COORDINATE HEAD LOCATION WITH ARCHITECTURAL DRAWINGS. RUN BRANCHES TIGHT TO UNDERSIDE OF LEVEL 2 AS THE LINES PASS ABOVE THE VESTIBULE. PROVIDE THE LONGEST DRY PENDANT ARM POSSIBLE. SIZE ALL PIPING TO PROVIDE SUFFICIENT FLOW TO NEW HEADS. REFER TO DETAIL 3 ON THIS DRAWING.
  - REMOVE THERMOSTAT. REFER TO ARCHITECTURAL DRAWINGS FOR PATCHING AND PAINTING.
  - REMOVE EXISTING LINEAR GRILLE AND PLENUM BOX AND DISCONNECT ALL SUPPLY DUCTWORK CONNECTIONS. STORE LINEAR GRILLE AND PROTECT FROM DAMAGE. RE-INSTALL LINEAR GRILLE ONCE WALL CONSTRUCTION IS COMPLETE. RE-CONNECT SUPPLY DUCTWORK CONNECTIONS TO PLENUM BOX. SHOULD DAMAGE OCCUR TO LINEAR GRILLE REPLACE DAMAGED SECTION WITH MATCHING GRILLE AT NO ADDITIONAL COST TO THE CONTRACT.

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**SMS ENGINEERING**

3	ISSUED FOR CONSTRUCTION	GOS 2016.03.29
2	ISSUED FOR 95% REVIEW SUBMISSION	GOS 2016.03.18
1	ISSUED FOR 60% REVIEW SUBMISSION	GOS 2016.03.10

No.	REVISION/DESCRIPTION	BY	DATE

PROVINCE OF MANITOBA  
 2016-03-31  
**STEWART**  
 Member  
 31816  
 REGISTERED PROFESSIONAL ENGINEER

**APEGM**  
 Certificate of Authorization  
 SMS Engineering Ltd.  
 No. 166 Expiry: April 30, 2016

DRAWN JC  
 CHECKED GOS  
 DESIGNED GOS  
 APPROVED GOS

DATE 2016.03.18  
 USER APPROVAL

Winnipeg  
 THE CITY OF WINNIPEG  
 PLANNING, PROPERTY AND  
 DEVELOPMENT DEPARTMENT  
 MUNICIPAL ACCOMMODATIONS DIVISION  
 3-65 GARRY STREET, R3C 4K4

PROJECT  
**RBC CONVENTION CENTRE**  
**ARCHITECTURAL RESTORATION OF THE**  
**NORTH RBC CONVENTION CENTRE SKYWALK**  
 375 YORK AVENUE

SHEET  
 TITLE  
**LEVEL 01 & 02 - NORTHEAST ENTRANCE -**  
**FLOOR PLAN - MECHANICAL**

SCALE  
 AS SHOWN

PROJECT  
 No: 2015-075

SHEET  
 No: **M1**

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1