

PLUMBING FIXTURE SCHEDULE				
REFER	DESCRIPTION	SAN	VENT	HOT COLD
W1	WATER CLOSET - F.V.,W.H.	100	40	-- 32
W2H	WATER CLOSET - F.V.,W.H.,ELEC. BARRIER FREE	100	40	-- 32
U1	URINAL - F.V.,W.H.	50	40	-- 25
L1	LAVATORY - CTR. MTD.	32	32	15 15
L2H	LAVATORY - CTR. MTD., ELEC., BARRIER FREE	32	32	15 15
MS	MOP SINK	75	40	20 20
S1	S.S. SINK SINGLE COMPARTMENT	40	32	15 15
S2	S.S. SINK DOUBLE COMPARTMENT	40	32	15 15
S3	S.S. SINK TRIPLE COMPARTMENT	40	32	15 15
HS	HYDRATION STATION	32	32	-- 15
HW	HOSE WASH	--	--	20 20
SH	SHOWER	75	40	15 15
WS	WASHING MACHINE	50	40	20 20
EW	EYEWASH AND FACE WASH. UNIT.	32	32	15 TEMP
DS	COMBINATION DRENCH SHOWER EYEWASH/FACE WASH. UNIT.	--	--	40 TEMP

**LEGEND**  
 F.T. = FLUSH TANK                      W.H. = WALL HUNG  
 F.M. = FLOOR MOUNTED              ELEC. = ELECTRONIC  
 CTR. MTD. = COUNTER MOUNTED

LEGEND OF SYMBOLS	
SYMBOL	DESCRIPTION
—E—	EXISTING PIPING
— — — —	DOMESTIC COLD WATER PIPING
— · — · —	DOMESTIC HOT WATER PIPING
— · — · — · —	DOMESTIC HOT WATER RECIRC. PIPING
— · — · — · — · —	VENT PIPING
— — — —	SANITARY PIPING ABOVE FLOOR
— · — · — · —	SANITARY PIPING BELOW GRADE OR FLOOR
—S—	STORM PIPING ABOVE FLOOR
— · — · — · —	STORM PIPING BELOW GRADE OR FLOOR
—FM—	FORCEMAIN PIPING
—C—	CONDENSATE PIPING
—T—	TEMPERED WATER PIPING
—SP—	SPRINKLER PIPING
—F—	STANDPIPE PIPING
—G—	GAS PIPING
~~~~~	HEAT TRACED PIPE
— ] —	CAPPED PIPE
⊙ FD	FLOOR DRAIN
⊙ FFD	FUNNEL FLOOR DRAIN
⊙ HD	HUB DRAIN
⊙ RD	ROOF DRAIN
⊙ RD	ROOF DRAIN ABOVE
— □ — CO	CLEANOUT IN FLOOR
—   — CO	CLEANOUT IN LINE OR STACK
⊙ M	WATER METER
⊙ G	GAS METER
⊙ NFWH	NON-FREEZE WALL HYDRANT c/w VACUUM BREAKER
—   —	CHECK VALVE c/w BALL DRIP VALVE
⊙	GAS VALVE
—   —	REDUCED PRESSURE BACKFLOW PREVENTER
—   — PRV	PRESSURE REDUCING VALVE (WATER)
⊙ VTR	VENT THROUGH ROOF
⊙ PG	PRESSURE GAUGE
⊙ CB	CATCH BASIN
—   — ESV	ELECTRICALLY SUPERVISED VALVE
—   — D/T	DRAIN/TEST VALVE
—   — FS	FLOW SWITCH
⊙	PUMP
⊙ FEX	FIRE EXTINGUISHER - SURFACE MOUNTED
⊙ FEC	FIRE EXTINGUISHER - CABINET
— ○ —	PIPE DOWN
— ○ —	PIPE UP
— ● —	PIPE UP & DOWN
⊙	SOLENOID VALVE
CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
RWL	RAIN WATER LEADER

NOTE: NOT ALL SYMBOLS USED IN THIS PROJECT

LEGEND OF SYMBOLS	
SYMBOL	DESCRIPTION
—HWS—	HOT WATER HEATING SUPPLY
— · — · — · —	HOT WATER HEATING RETURN
— ○ —	PIPING RISER UP
— ○ —	PIPING DROP
—   —	UNION
—   —	FLANGE
— WW —	FLEXIBLE CONNECTOR
—   —	EXPANSION LOOP
—   —	EXPANSION JOINT & PIPE GUIDES
— X —	ANCHOR
⊙	VERTICAL INLINE PUMP
⊙	INLINE PUMP
—   —	STRAINER
⊙	3-WAY CONTROL VALVE
⊙	2-WAY CONTROL VALVE
⊙	ISOLATING (SHUT-OFF) VALVE
⊙	THROTTLING (BALANCING) VALVE
⊙ CBV	CIRCUIT BALANCING VALVE
⊙	CHECK (FLOW CONTROL)
⊙	PRESSURE REDUCING VALVE (STEAM)
⊙	SAFETY (S) OR RELIEF (R) VALVE
⊙ DC	DRAIN COCK
⊙ HB	HOSE BIBB
⊙	SOLENOID ELECTRIC VALVE
⊙ VB	VACUUM BREAKER
⊙	BACKFLOW PREVENTOR
⊙	THERMOMETER
⊙	PRESSURE GAUGE
⊙	AIR SEPARATOR
⊙	MANUAL AIR VENT
⊙	POSITIVE PRESSURE (SUPPLY) DUCT UP
⊙	NEGATIVE PRESSURE (RETURN) DUCT UP
⊙	POSITIVE PRESSURE (SUPPLY) DUCT DOWN
⊙	NEGATIVE PRESSURE (RETURN) DUCT DOWN
⊙	NEW DUCTWORK
⊙	SUPPLY AIR DIFFUSER (SQUARE)
⊙	RETURN/EXHAUST GRILLE
⊙	SHADING INDICATES DIFFUSER TO HAVE BLANK OFF PANEL
⊙	FULL RADIUS DUCT CONNECTION
⊙	TAP-IN DUCT CONNECTION
⊙	ROUND DUCT CONNECTION
⊙	TURNING VANES
⊙	FIRE DAMPER
⊙	CROSSHATCHING ON DUCTWORK INDICATES DUCT LINING
⊙ M	MOTORIZED DAMPER
⊙ VD	VOLUME DAMPER
⊙ BDD	BACK DRAFT DAMPER
⊙	THERMOSTAT
⊙ OED	OPEN ENDED DUCT
⊙ U/C	UNDER CUT DOOR
⊙ (#)	FRESH AIR QUANTITY (L/S)
⊙ DWG	DRAWING
⊙ C/W	COMPLETE WITH
⊙ TYP.	TYPICAL
⊙	TEMPERATURE SENSOR
⊙	NORMALLY OPEN
⊙	PRESSURE SENSOR
⊙	PRESSURE GAUGE
⊙	HIGH CAPACITY VENT
⊙	AUTOMATIC AIR VENT
⊙	PRESSURE DIFFERENTIAL SENSOR
⊙	SENSOR
⊙ HWTC	HIGH WATER TEMPERATURE CUT-OFF
⊙ LWFC	LOW WATER FLOW CUT-OFF

NOTE: NOT ALL SYMBOLS USED ON THIS PROJECT

**MECHANICAL DRAWING LIST:**

M1.1	MECHANICAL DRAWING LIST, LEGENDS AND NOTES
M2.1	FLOOR PLAN - UNDER GROUND PLUMBING
M2.2	FLOOR PLAN - PLUMBING
M3.1	FLOOR PLAN - PIPING
M4.1	FLOOR PLAN - AIR DISTRIBUTION
M5.1	PIPING SCHEMATIC
M6.1	SCHEDULES
M7.1	MECHANICAL DETAILS

**GENERAL PLUMBING NOTES:**

PROVIDE A CLEANOUT AT THE BOTTOM OF EVERY SOIL AND WASTE STACK THAT CONNECTS TO A HORIZONTAL DRAINAGE PIPE.

PROVIDE A CLEANOUT FROM EACH PLUMBING FIXTURE WHERE REQUIRED BY MANITOBA BUILDING CODE, PART 7 - PLUMBING.

CLEANOUTS FOR WALL HUNG URINALS TO BE EXTENDED ABOVE THE FLOOD LEVEL AND BE ACCESSIBLE.

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE. REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

ALL PLUMBING FIXTURES INCLUDING FLOOR DRAINS (HUB, FUNNEL FLOOR DRAINS) TO BE TRAPPED AND VENTED AS REQUIRED BY MANITOBA BUILDING CODE, PART 7 - PLUMBING.

ALL CONDENSATE LINES TO BE TRAPPED AT FAN COIL UNITS.

PROVIDE MIN. 2% SLOPE ON ALL HORIZONTAL CONDENSATE LINES.

FOR MOUNTING HEIGHT OF ALL PLUMBING FIXTURES REFER TO ARCHITECTURAL DRAWINGS.

ALL VENT PIPING ASSOCIATED WITH ACID WASTE IS TO BE ACID RESISTANT FOR A DISTANCE OF 1/2" FT FROM THE FIXTURE IT IS SERVING.

PROVIDE ACCESS DOOR FOR ALL VALVES LOCATED ABOVE DRY WALL CEILING.

PROVIDE ACCESS DOOR FOR ALL CLEANOUTS LOCATED ABOVE DRY WALL CEILING.

IN ALL INSTANCES THE NEED FOR ACCESS DOORS IN CEILINGS SHOULD BE AVOIDED IF POSSIBLE. WHERE INSTALLATION OF COMPONENTS ABOVE FIXED CEILINGS WHICH REQUIRE ACCESS CANNOT BE AVOIDED, SUBMIT (DIMENSIONED) LAYOUT ON ARCHITECTURAL REFLECTED CEILING PLANS TO CONSULTANTS FOR APPROVAL PRIOR TO INSTALLATION OF COMPONENT. CONTRACTOR TO VERIFY CEILING TYPE. REFER TO ARCHITECTURAL DRAWINGS.

PROVIDE SIGN IDENTIFYING LOCATION OF ALL VALVES INSTALLED IN CEILING SPACE.

WHENEVER COLD AND HOT WATER DISTRIBUTION TO LAVATORIES IS TO RUN UNDER COUNTER, PIPING DISTRIBUTION IS TO BE INSTALLED AS TIGHT TO UNDER SIDE OF THE COUNTER AS POSSIBLE.

ALL WATER, SANITARY, SEWER AND VENT COPPER PIPING WITH SOLDER JOINTS SHALL BE LEAD FREE. DO NOT INSTALL WATER LINES IN OUTSIDE WALL WHERE THEY MAY FREEZE, UNLESS BOTH THE WALL AND THE PIPES ARE PROPERLY INSULATED.

INSTALL SHUT-OFF VALVES AT EACH PLUMBING FIXTURE.

DO NOT INSTALL WATER LINES IN OUTSIDE WALL WHERE THEY MAY FREEZE, UNLESS BOTH THE WALL AND THE PIPES ARE PROPERLY INSULATED.

PROVIDE BACKFLOW PREVENTERS AND VACUUM BREAKERS AS REQUIRED BY MANITOBA BUILDING CODE AND AUTHORITIES HAVING JURISDICTION.

PLUMBING VENTS THROUGH ROOF SHALL BE AT LEAST 900MM (2'-11") HIGHER OR 3.5M (11'-6") AWAY FROM AIR INTAKES, OPENABLE WINDOWS OR DOORS.

FOR EYEWASH (EW) WATER PIPING IS EXPOSED ON WALL WITH MIXING VALVE AT 6'-6" ABOVE FLOOR WITH INSULATED TEMPERED LINE TO FIXTURE.

**GENERAL NOTES**

- PENETRATIONS OF EITHER FIRE OR SMOKE BARRIER RESISTANT WALLS SHALL BE SLEEVED & SEALED AGAINST THE PASSAGE OF FLAME OR SMOKE W/SUITABLE NON-COMBUSTIBLE MATERIALS EQUAL TO THE CONSTRUCTION TO BE PENETRATED.
- CONTRACTOR SHALL VERIFY ALL CEILING FINISHES WITH ARCHITECTURAL DRAWINGS. CONTRACTOR AND DIFFUSER/GRILLE SUPPLIER ARE RESPONSIBLE TO PROVIDE ALL PLASTER AND FINISHING FRAMES, MOUNTING HARDWARE, AND ACCESSORIES TO SUIT ARCHITECTURAL CEILING TYPES. MECHANICAL CONTRACTOR SHALL CO-ORDINATE AND PROVIDE DETAILS OF MOUNTING REQUIREMENTS OF DIFFUSERS AND GRILLES IN DRYWALL CEILINGS TO DRYWALL TRADE AND ENSURE EDGES OF OPENINGS ARE FRAMED BY DRYWALL TRADE TO SUPPORT DIFFUSERS AND GRILLES PROPERLY. DIFFUSERS AND GRILLES MUST NOT BE SUPPORTED SOLELY BY HANGER WIRES.
- THE CONTRACTOR SHALL HAVE ROOF PENETRATIONS MADE AND SEALED BY AN APPROVED ROOFING CONTRACTOR IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS.
- PENETRATIONS OF CONCRETE SHALL BE SAW-CUT OR CORE BORED - IMPACT HAMMERS ARE NOT ALLOWED, SEAL ALL DUCTWORK & SLEEVES TO PREVENT LEAKAGE THRU FLOOR.
- CONTRACTORS SHALL COORDINATE ALL CEILING FINISHES WITH OWNER AND MATCH EXISTING. CONTRACTOR SHALL REVIEW MECHANICAL DRAWINGS, ARCHITECTURAL REFLECTED CEILING PLANS AND ARCHITECTURAL ROOM FINISH SCHEDULES AS SOON AS CONTRACT DOCUMENTS ARE SIGNED. ADVISE CONSULTANT OF ANY CONFLICTS BETWEEN CEILING TYPE AND DIFFUSER/GRILLE TYPE.
- DO NOT SCALE DRAWINGS FOR INSTALLATION PURPOSES. OBTAIN ALL DIMENSIONS FROM ARCHITECTURAL PLANS, MANUFACTURER'S SHOP DRAWINGS, AND ON SITE INSPECTIONS.
- ALL TRADES SHALL COORDINATE WORK WITH ONE ANOTHER TO AVOID INTERFERENCE BETWEEN PIPING, DUCTWORK, CONDUIT, LIGHTING FIXTURES, ETC.
- WORK SHALL BE COORDINATED THROUGH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION OF ANY EQUIPMENT, DUCTWORK AND CONTROLS. COORDINATE WITH ARCHITECTURAL ELEVATIONS FOR ARCHITECTURAL, MECHANICAL, AND ELECTRICAL SPACE ALLOCATIONS.
- PROPERLY SUPPORT CEILING MOUNTED EQUIPMENT AND ANY OTHER EQUIPMENT INDEPENDENT OF CEILING SUPPORT SYSTEM. REFER TO ARCHITECTURAL DETAILS AND COORDINATE WITH STRUCTURAL TRADE.
- REFER TO ARCHITECTURAL FOR OWNER SUPPLIED EQUIPMENT. CONFIRM ALL MECHANICAL REQUIREMENTS AND PROVIDE TO SUIT.
- ALL DUCTWORK FITTINGS SHALL BE RIGID GALVANIZED IRON.
- FLEXIBLE DUCTWORK SHALL BE LIMITED TO 3'-0" IN LENGTH TOTAL FOR ANY RUNOUT.
- NO FLEXIBLE DUCTWORK SHALL BE PERMITTED FOR OFFSETTING.
- ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH CODES, AMENDMENTS, BULLETINS ETC. AND REQUIREMENTS OF ALL INSPECTION AUTHORITIES FOR THE CITY OF WINNIPEG.

ISSUES:		
NO.	DATE	DESCRIPTION
1	MAY 14, 2010	ISSUED FOR CLIENT REVIEW
2	MAY 19, 2010	ISSUED FOR CLIENT REVIEW
3	SEPT. 14, 2010	ISSUED FOR BUILDING PERMIT
4	DEC. 10, 2010	ISSUED FOR TENDER

REVIEW ALL DRAWINGS AND VERIFY ALL DIMENSIONS AT THE SITE. DO NOT SCALE THE DRAWINGS. REPORT ALL DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH ANY CONSTRUCTION OR SHOP FABRICATION. ALL DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS ARE THE COPYRIGHT PROPERTY OF VANDERWESTEN RUTHERFORD MANTECON AND MUST BE RETURNED UPON REQUEST. REPRODUCTION OF DRAWINGS, SPECIFICATIONS AND RELATED DOCUMENTS IN PART OR WHOLE IS FORBIDDEN WITHOUT THE CONSULTANT'S WRITTEN PERMISSION.

PROJECT NAME:  
**NEW WINNIPEG STATION No. 27 PROJECT**

SAGE CREEK, WINNIPEG, MANITOBA

DRAWING TITLE:  
**MECHANICAL DRAWING LIST, LEGENDS AND NOTES**

PROJECT NORTH:

STAMP:  
VRM P10-013

SCALE:  
NTS

DATE:  
DECEMBER 10, 2010

ISSUED:  
DECEMBER 10, 2010

DRAWN BY:  
AP

CHECKED BY:  
WAR

PROJECT NO.:  
**2261**

FILE NAME:  
**M1.1**

DRAWING NO.:  
**M1.1**

NOT VALID FOR CONSTRUCTION UNLESS SIGNED