

PIPING/PLUMBING SYMBOLS	
	NEW PLUMBING EQUIPMENT
	NEW PIPING
	FUTURE EQUIPMENT/PIPING
	EXISTING PLUMBING EQUIPMENT/PIPING
	UNDER SLAB PIPING
	INSULATED PIPE
	PIPE UP (DOUBLE LINE)
	PIPE DOWN (DOUBLE LINE)
	PIPE DOWN (SINGLE LINE)
	PIPE UP (SINGLE LINE)
	3-WAY VALVE
	BALANCE VALVE
	BALL VALVE (NORMALLY CLOSED)
	BALL VALVE
	BUTTERFLY VALVE
	CAP
	CHECK VALVE
	CHEMICAL POT FEEDER
	2-WAY CONTROL VALVE
	DRAIN
	FILTER
	FLANGE
	FLEXIBLE CONNECTION
	GATE VALVE (NORMALLY CLOSED)
	GATE VALVE
	HOSE BIBB
	PRESSURE REDUCING VALVE (PRV)
	REDUCER
	RELIEF VALVE
	SITE GLASS
	SOLENOID VALVE
	STRAINER
	SUCTION DIFFUSER VALVE
	THERMOMETER
	PRESSURE GAUGE
	TRIPLE DUTY VALVE (90°)
	TRIPLE DUTY VALVE (HORIZONTAL)
	UNION
	PLUMBING FIXTURE TAG
	TIE-IN POINT TAG
	ARROW FLOW DIRECTION
	LOW WATER CUT OFF

HVAC SYMBOLS	
	NEW HVAC EQUIPMENT
	NEW DUCTWORK
	FUTURE EQUIPMENT/PIPING
	EXISTING HVAC EQUIPMENT/DUCTWORK
	EXTERNALLY INSULATED DUCTWORK
	ACOUSTICALLY LINED DUCTWORK
	RETURN/EXHAUST DUCT DOWN
	RETURN/EXHAUST DUCT UP
	SUPPLY DUCT DOWN
	SUPPLY DUCT UP
	BACKDRAFT DAMPER C/W DUCT ACCESS DOOR
	BALANCE DAMPER C/W DUCT ACCESS DOOR
	FIRE DAMPER C/W DUCT ACCESS DOOR
	FIRE/SMOKE DAMPER C/W DUCT ACCESS DOOR
	MOTORIZED DAMPER C/W DUCT ACCESS DOOR
	SMOKE DAMPER C/W DUCT ACCESS DOOR
	AIR FLOW DIRECTION
	GRILLE NO. NECK SIZE AIR FLOW RATE
	LOUVER NO. LOUVER SIZE AIR FLOW RATE

CONTROLS	
	CARBON MONOXIDE SENSOR
	CARBON DIOXIDE SENSOR
	CONTROL WIRING
	DIRECT DIGITAL CONTROL
	DIFFERENTIAL PRESSURE SENSOR
	FLOW SWITCH
	HUMIDISTAT
	HUMIDITY SENSOR
	LIMIT SWITCH
	PRESSURE SENSOR
	SILICONE CONTROL RECTIFIER
	TEMPERATURE SENSOR
	THERMOSTAT
	VARIABLE FREQUENCY DRIVE
	DEHUMIDISTAT

ABBREVIATIONS LIST	
C	CONDENSATE
CA	COMPRESSED AIR
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRCULATION
TW	TEMPERED WATER
TWS	TEMPERED WATER SUPPLY
TWR	TEMPERED WATER RETURN
E/A	EXHAUST AIR
GS	GLYCOL SUPPLY
GR	GLYCOL RETURN
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
NG	NATURAL GAS
O/A	OUTDOOR AIR
R	REFRIGERANT PIPING
R/A	RETURN AIR
RWL	RAIN WATER LEADER
S	STEAM
S.S.	SANITARY SEWER
S/A	SUPPLY AIR
WM	WATER METER

EQUIPMENT TAGS	
AHU-#	AIR HANDLING UNIT
B-#	BOILER
BB-#	BASEBOARD HEATER
BFP-#	BACKFLOW PREVENTER
CH-#	CHILLER
EF-#	EXHAUST FAN
ERV-#	ENERGY RECOVERY VENTILATOR
EXP-#	EXPANSION TANK
FF-#	FORCE FLOW
GMU-#	GLYCOL MAKE-UP UNIT
HRV-#	HEAT RECOVERY VENTILATOR
HWT-#	HOT WATER TANK
MUA-#	MAKE-UP AIR UNIT
PU-#	PUMP
PHC-#	PRE-HEAT COIL
RAD-#	RADIATOR
RF-#	RETURN FAN
RH-#	RANGE HOOD
RHC-#	REHEAT COIL
RPP-#	REDUCED PRESSURE PRINCIPAL
RTU-#	ROOFTOP UNIT
SF-#	SUPPLY FAN
UH-#	UNIT HEATER
VAV-#	VARIABLE AIR VOLUME BOX

FIRE PROTECTION LEGEND	
	NEW SPRINKLER PIPING/EQUIPMENT
	EXISTING SPRINKLER PIPING/EQUIPMENT
	SPRINKLER HEAD
	HORIZONTAL SIDEWALL
D	DRY
U	UPRIGHT
BD	BLOW DUCT OBSTRUCTION
EC	EXTENDED COVERAGE
R	EXISTING SPRINKLER HEAD TO BE REPLACED
C	CONCEALED
WG	WIRE GUARD
LAT	LAY-IN ACOUSTIC TILE
PL	PLASTER
GB	GIPSUM BOARD

DEMOLITION GENERAL NOTES	
1.	PERFORM WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
2.	EQUIPMENT LOCATIONS AND PIPE ROUTING INDICATED ON THE DRAWINGS IS APPROXIMATE ONLY. CONFIRM IN THE FIELD. REROUTE PIPING AS REQUIRED TO ELIMINATE FIELD INTERFERENCES, WITH BUILDING STRUCTURES, ELECTRICAL, ETC.. CONFIRM CHANGES WITH CONTRACT ADMINISTRATOR. CO-ORDINATE WORK WITH ALL SUBTRADES, WHERE DIMENSIONS ARE INDICATED FOR PIPING EQUIPMENT SIZES, ETC. THESE ARE FOR BIDDING PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO ORDERING EQUIPMENT AND COMMENCING INSTALLATION WITHOUT EXTRA CHARGES TO THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE ALL EQUIPMENT, DUCTWORK AND PIPING FITS IN THE SPACE AVAILABLE AND TO MAINTAIN THE GENERAL DESIGN INTENT FOR THE SYSTEMS.
3.	ALL REMOVED EQUIPMENT SHALL BE DISPOSED OFF SITE. CONFIRM WORK WITH OWNER IF ANY MATERIAL SHALL BE TURNED OVER TO OWNER.
4.	SEAL ALL OPENINGS REMAINING FROM REMOVED EQUIPMENT, DUCTWORK, AND PIPING AND MAKE GOOD.
5.	IN THE EVENT THERE ARE DISCREPANCIES ON THE DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE CONTRACT ADMINISTRATOR PRIOR TO CLOSE OF TENDERS AND PRIOR TO PROCEEDING WITH CONSTRUCTION. CLARIFICATION WILL BE PROVIDED WITH THE INTENT OF ELIMINATING EXTRA COST TO THE CONTRACT.

FIRE PROTECTION GENERAL NOTES	
1.	SPRINKLER AND FIRE SUPPRESSION SYSTEM TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS: - NATIONAL BUILDING CODE OF CANADA. - NFPA 13, STANDARD FOR INSTALLATION OF SPRINKLER SYSTEMS.
2.	THE SPRINKLER SYSTEM SHALL BE DESIGNED, SUPPLIED AND INSTALLED BY A LICENSED FIRE PROTECTION CONTRACTOR WHO SHALL SUBMIT DRAWINGS FOR REVIEW TO CONTRACT ADMINISTRATOR AND AUTHORITIES HAVING LOCAL JURISDICTION.
3.	SYSTEM LAYOUTS, HYDRAULIC CALCULATIONS, PIPE SIZING AND SPRINKLER HEAD SELECTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
4.	SPRINKLER CONTRACTOR SHALL PROVIDE FIRE STOPPING TO ENSURE ALL PENETRATIONS THROUGH FIRE SEPARATIONS ARE FIRE STOPPED, INCLUDING PENETRATIONS BY NEW PIPING NOT SHOWN ON THIS DRAWING SINCE THIS DRAWING SHOWS ONLY MAINS. COST OF FIRE STOPPING TO BE CARRIED BY SPRINKLER CONTRACTOR. REFER TO ARCHITECTURAL FOR FIRE RATED SEPARATIONS.
5.	RUN ALL NEW SPRINKLER PIPING INSIDE CEILINGS WHERE CEILINGS EXIST. PROVIDE DRYWALL ACCESS DOORS WHERE REQUIRED TO INSTALL AND SERVICE SPRINKLER SYSTEMS. PAINT AND MAKE GOOD.
6.	ALL HORIZONTAL SPRINKLER PIPING TO BE MOUNTED AS HIGH AS POSSIBLE IN CEILING SPACES. OBTAIN APPROVAL TO RUN EXPOSED PIPING ONLY WHERE NECESSARY. EXPOSED PIPING SHALL BE STRAPPED TIGHT TO THE CEILINGS AND WALLS TO MINIMIZE INFRINGEMENT ON SPACES.
7.	SPRINKLER MAINS ONLY ARE SHOWN. CONTRACTOR IS TO DETERMINE LAYOUT OF CROSSMAINS AND SPRINKLER HEAD LOCATIONS. COORDINATE WITH LIGHTING AND HVAC DIFFUSER LAYOUT TO ELIMINATE INTERFERENCES. SHOW ALL DETAIL ON SHOP DRAWINGS.
8.	IN THE EVENT THERE ARE DISCREPANCIES ON THE DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE CONTRACT ADMINISTRATOR PRIOR TO CLOSE OF TENDER. NO EXTRA COSTS WILL BE ENTERTAINED FOR REQUESTS FOR CLARIFICATION ONCE THE PROJECT IS AWARDED.
9.	FINISHED COLORS OF ALL SPRINKLER HEADS (ALL TYPES) TO BE COORDINATED WITH ARCHITECT.

PLUMBING GENERAL NOTES	
1.	CONFORM TO MANITOBA PLUMBING CODE AND ALL LOCAL CODES AND AUTHORITY HAVING JURISDICTION FOR DESIGN, SUPPLY AND INSTALLATION OF PLUMBING AND VENT SYSTEM. VENT CONCEALED INSIDE WALLS ACCORDING TO CODE. MINIMIZE ROOF PENETRATIONS.
2.	EQUIPMENT LOCATIONS AND PIPE ROUTING INDICATED ON THE DRAWINGS IS APPROXIMATE ONLY. CONFIRM IN THE FIELD. REROUTE PIPING AS REQUIRED TO ELIMINATE FIELD INTERFERENCES, WITH BUILDING STRUCTURES, ELECTRICAL, ETC.. CONFIRM CHANGES WITH CONTRACT ADMINISTRATOR. CO-ORDINATE WORK WITH ALL SUBTRADES, WHERE DIMENSIONS ARE INDICATED FOR PIPING EQUIPMENT SIZES, ETC. THESE ARE FOR BIDDING PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO ORDERING EQUIPMENT AND COMMENCING INSTALLATION WITHOUT EXTRA CHARGES TO THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE ALL EQUIPMENT, DUCTWORK AND PIPING FITS IN THE SPACE AVAILABLE AND TO MAINTAIN THE GENERAL DESIGN INTENT FOR THE SYSTEMS.
3.	CONFIRM ADEQUATE PIPE SLOPES EXIST FOR ALL NEW DRAINAGE PIPING.
4.	PROVIDE TRAP PRIMERS FOR ALL NEW FLOOR DRAINS.
5.	PROVIDE CLEANOUTS AS PER PLUMBING CODE.
6.	INSULATE DOMESTIC HOT WATER (DHW), DOMESTIC WATER RECIRCULATION (DHW) AND DOMESTIC COLD WATER (DCW) PIPING. RUN PIPING IN CEILING SPACE DOWN TO FIXTURES INSIDE PLUMBING WALLS.
7.	PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR NEW PIPING (WATER AND DRAINAGE). FINISH ALL PENETRATIONS AND MAKE GOOD.
8.	PROVIDE SHUT-OFF VALVES AT ALL FIXTURES, WATER TANKS, AND WATER HAMMER ARRESTERS AT ENDS OF ALL PIPE RUNS.
9.	IN THE EVENT THERE ARE DISCREPANCIES ON THE DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE CONTRACT ADMINISTRATOR PRIOR TO CLOSE OF TENDERS AND PRIOR TO PROCEEDING WITH CONSTRUCTION. CLARIFICATION WILL BE PROVIDED WITH THE INTENT OF ELIMINATING EXTRA COST TO THE CONTRACT.

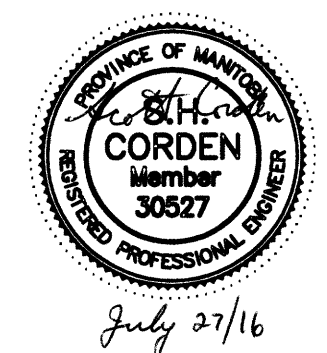
HVAC GENERAL NOTES	
1.	PERFORM WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
2.	REVIEW EQUIPMENT LOCATIONS WITH CONTRACT ADMINISTRATOR PRIOR TO INSTALLATION.
3.	EQUIPMENT LOCATIONS, DUCT, AND PIPE ROUTING INDICATED ON THE DRAWINGS IS APPROXIMATE ONLY. CONFIRM IN THE FIELD. REROUTE DUCTWORK AND PIPING AS REQUIRED TO ELIMINATE FIELD INTERFERENCES, WITH BUILDING STRUCTURES, ELECTRICAL, ETC. CONFIRM CHANGES WITH CONTRACT ADMINISTRATOR. COORDINATE WORK WITH ALL SUBTRADES, WHERE DIMENSIONS ARE INDICATED FOR PIPING, DUCTWORK, DUCT SIZES, EQUIPMENT SIZES, ETC. THESE ARE FOR BIDDING PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO ORDERING EQUIPMENT AND COMMENCING INSTALLATION WITHOUT EXTRA CHARGES TO THE PROJECT. THE CONTRACTOR IS RESPONSIBLE TO ENSURE ALL EQUIPMENT, DUCTWORK, AND PIPING FITS IN THE SPACE AVAILABLE AND TO MAINTAIN THE GENERAL DESIGN INTENT FOR THE SYSTEMS.
4.	CONFORM TO SMACNA STANDARDS FOR SUPPLY AND INSTALLATION OF DUCTWORK. SEAL ALL DUCT JOINTS.
5.	SEAL ALL FLOOR, ROOF AND WALL PENETRATIONS WATER AND AIR TIGHT.
6.	FIRE SEAL ALL PENETRATIONS THROUGH FIRE SEPARATIONS.
7.	MAINTAIN SERVICE CLEARANCES FOR ALL EQUIPMENT AS PER SUPPLIER RECOMMENDATIONS.
8.	CONFORM TO NATIONAL GAS INSTALLATION CODE CAN/CGA-B149.1 AND MANITOBA GAS NOTICES FOR INSTALLATION OF GAS PIPING. OBTAIN APPROVAL FOR INSTALLATION OF EQUIPMENT FROM THE OFFICE OF THE FIRE COMMISSIONER PRIOR TO INSTALLATION.
9.	IN THE EVENT THERE ARE DISCREPANCIES ON THE DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE CONTRACT ADMINISTRATOR PRIOR TO CLOSE OF TENDERS AND PRIOR TO PROCEEDING WITH CONSTRUCTION. CLARIFICATION WILL BE PROVIDED WITH THE INTENT OF ELIMINATING EXTRA COST TO THE CONTRACT.
10.	THERMALLY INSULATE ALL OUTSIDE AIR, SUPPLY AIR AND EXHAUST AIR DUCTWORK AS CALLED FOR IN THE SPECIFICATIONS OR SHOWN ON THE DRAWING.

DRAWING LIST	
M0-00	DRAWING LIST AND MASTER LEGEND
M1-00	BASEMENT FLOOR PLAN - PLUMBING & HVAC DEMO
M1-01	MAIN FLOOR PLAN - PLUMBING & HVAC DEMO
M1-02	MEZZANINE FLOOR PLAN - HVAC DEMO
M1-03	BASEMENT/MAIN FLOOR PLAN - FIRE PROTECTION DEMO
M2-00	BASEMENT FLOOR PLAN - NEW PLUMBING
M2-01	MAIN FLOOR PLAN - NEW PLUMBING
M2-02	ROOF PLAN - NEW PLUMBING
M3-00	BASEMENT FLOOR PLAN - NEW HVAC
M3-01	MAIN FLOOR PLAN - NEW HVAC
M3-02	MEZZANINE FLOOR PLAN - NEW HVAC
M3-03	ROOF PLAN - NEW HVAC
M3-04	ENLARGE MEZZANINE PLAN - NEW HVAC
M4-00	BASEMENT FLOOR PLAN - NEW FIRE PROTECTION
M4-01	MAIN FLOOR PLAN - NEW FIRE PROTECTION
M4-02	MEZZANINE FLOOR PLAN - NEW FIRE PROTECTION
M5-00	SECTIONS AND DETAILS
M5-01	SECTIONS AND DETAILS
M5-02	SECTIONS AND DETAILS
M6-00	PLUMBING SCHEMATIC
M6-01	PIPING SCHEMATICS
M6-02	GAS PIPING SCHEMATIC
M6-03	HVAC CONTROL SCHEMATIC

issue / rev.

1	2016/07/27	RE-ISSUED FOR CONSTRUCTION
0	2016/07/15	ISSUED FOR CONSTRUCTION
#	date	issue notes

professional seals



project information

SEVEN OAKS POOL

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drawing information

MECHANICAL DRAWING LIST AND MASTER LEGEND

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scale: AS NOTED

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