

FILE NAME: 17-0107-007_M02.dwg DATE: 2017.06.15 PROJECT No: 17-0107-007 SHEET TITLE: SPECIFICATIONS ADDRESS: 590 RUE LANGEVIN

MECHANICAL SPECIFICATIONS:

1.0 GENERAL:
1.1 SCOPE OF WORK:
 1. REMOVE EXISTING SUMP PIT AND PUMPING SYSTEM.
 2. INSTALL NEW SUMP PIT AND PUMPING SYSTEM AND TIE-IN TO EXISTING PIPING.

1.2 SITE COORDINATION:
 ACCESS TO THE SITE SHALL BE COORDINATED WITH CONTRACT ADMINISTRATOR.

1.3 DESCRIPTION OF WORK:
 THE CONTRACTOR SHALL INCLUDE THE FURNISHING OF ALL LABOR, NEW MATERIALS, EQUIPMENT AND INSTALLATION OF EQUIPMENT AND SERVICES NECESSARY FOR AND INCIDENTAL TO THE COMPLETE INSTALLATION OF THE WORK SHOWN AND DESCRIBED ON THESE DRAWINGS AND TO THE SATISFACTION OF CONTRACT ADMINISTRATOR.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FOR REQUIRED WORK AND PAY ALL FEES.

WORK SHALL BE PERFORMED IN ACCORDANCE TO ALL APPLICABLE LOCAL CODES, STANDARDS AND REGULATIONS. CONTRACTOR TO COORDINATE ACCESS TO THE SITE WITH CONTRACT ADMINISTRATOR AND FOLLOW THEIR INSTRUCTIONS.

1.4 SUBMITTALS:
 - SUBMIT SHOP DRAWINGS FOR APPROVAL FOR EQUIPMENT SPECIFIED.
 - SUBMIT THREE (3) SETS OF O & M MANUALS. INCLUDE AN ELECTRONIC PDF COPY IN EACH SET (CD OR USB STICK).
 - PROVIDE O & M TRAINING TO THE CONTRACT ADMINISTRATOR.
 - AS-BUILTS OF INSTALLED SYSTEM. SUBMIT AS-BUILTS TO CONTRACT ADMINISTRATOR.

1.5 WORKMANSHIP:
 WORKMANSHIP SHALL BE OF BEST QUALITY, EXECUTED BY WORKERS EXPERIENCED AND SKILLED IN RESPECTIVE DUTIES FOR WHICH THEY ARE EMPLOYED.

1.6 EXECUTION:
 INSTALLATION OF EQUIPMENT:
 TO MANITOBA BUILDING CODE, PLUMBING CODE, AND ALL LOCAL CODES, STANDARDS AND REGULATIONS.

INSTALL ALL EQUIPMENT SPECIFIED OR INDICATED ON DRAWINGS IN A MANNER THAT WILL ENSURE ITS SATISFACTORY OPERATION UPON COMPLETION AND ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

THE SAFE DELIVERY TO THE SITE OF ALL MATERIALS SHALL BE ENTIRELY THE CONTRACTOR'S RESPONSIBILITY. MATERIALS AND EQUIPMENT SHALL BE HANDLED AT ALL TIMES WITH CARE TO AVOID DAMAGE.

FOLLOW APPROVED MANUFACTURER'S RECOMMENDATIONS FOR SAFETY, EASY ACCESS FOR INSPECTION, AND MANUFACTURER'S REPAIRS.

PERMIT EQUIPMENT MAINTENANCE AND DISASSEMBLY WITH MINIMUM DISTURBANCE TO ADJACENT EQUIPMENT AND WITHOUT INTERFERENCE WITH BUILDING STRUCTURE OR OTHER EQUIPMENT.

BEFORE COMMENCING THE INSTALLATION, THE CONTRACTOR SHALL CONFIRM RECEIPT OF AN APPROVED COPY OF THE MANUFACTURER'S DRAWINGS AND INSTALLATION MANUAL FOR THE INSTALLATION THEREOF.

DISCREPANCIES OR IRREGULARITIES IN THE WORK OR DEFECTS OR DAMAGES TO THE EQUIPMENT, ATTRIBUTABLE TO FAULTY OR INCORRECT INSTALLATION, SHALL BE RECTIFIED BY THE CONTRACTOR AT HIS OWN EXPENSE.

MAINTAIN ADEQUATE ACCESS TO PROJECT SITE. COORDINATE WORK TO MINIMIZE INTERFERENCE OR DISRUPTION TO THE CITY'S OPERATION.

MAINTAIN WORK IN TIDY CONDITION, FREE FROM ACCUMULATION OF WASTE PRODUCTS AND DEBRIS.

PROTECT EQUIPMENT AND DUCTWORK FROM ACCUMULATION OF DUST ETC. SEAL ALL DUCT OPENINGS DURING DUST PRODUCING ACTIVITIES.

1.7 PROJECT WARRANTY:
 CONTRACTOR TO PROVIDE A COMPLETE ONE YEAR WARRANTY ON PARTS AND LABOR AFTER SUCCESSFUL START-UP.

1.8 INSPECTION AND TESTING:
 THE WORK SHALL BE AT ALL TIMES AVAILABLE FOR INSPECTION BY THE CONTRACT ADMINISTRATOR. ALL WORK SHALL BE ACCORDANCE WITH AND SHALL BE INSPECTED TO MEET THE REQUIREMENTS OF THIS SPECIFICATION.

ALL STARTUP AND TESTING SHALL BE PERFORMED IN THE PRESENCE OF CONTRACT ADMINISTRATOR. NOTICE OF THE DATE OF WHEN TESTS SHALL BE PERFORMED MUST BE RECEIVED BY CONTRACT ADMINISTRATOR.

WORK SHALL BE NOT INSULATED OR CONCEALED PRIOR TO BEING TESTED OR APPROVED.

OPERATE SYSTEM FOR A SUFFICIENT PERIOD OF TIME TO INSURE COMPLETE ACCEPTANCE; DEFECTS SHALL BE REMEDIATED AT CONTRACTOR'S EXPENSE.

2.0 PLUMBING PRODUCTS:
2.1 PIPING:
 SCH40 PVC PIPING TO: ASTM D1785

2.2 POOL DRAIN CONTROL VALVE:
 100mm (4") RESILIENT SEATED CAST HEAVY DUTY KNIFE GATE VALVE TO ANSI B16.5, 316 STAINLESS STEEL BODY TO ASTM A351 CF8M, 316 STAINLESS STEEL GATE TO ASTM A240, FLANGE DRILLED TO ASME 125150, SMP PTFE BRAIDED PACKING TO 280°C (500°F) (PH RANGE 0-14), SEAT MATERIAL- CHLOROPRENE TO 85°C (180°F), ALL SEAT RETAINING HARDWARE TO BE 316 STAINLESS STEEL. ACTUATOR TYPE - 50mm (2") SQUARE NUT, 304 STAINLESS STEEL YOKE WITH STAINLESS STEEL EXTENSION WITH S1 ACTUATOR YOKE (LENGTH TO SUIT), 50mm (2") OPERATING NUT WITH T-BAR WRENCH OPENING COUNTER-CLOCKWISE, SUITABLE FOR CHLORINATED POOL WATER APPLICATION.

ACCEPTABLE PRODUCT: "DEZURIK", MODEL KGC-8D OR APPROVED EQUAL IN ACCORDANCE WITH B7.

2.3 PUMP CHECK/CONTROL VALVE:
 VERTICAL OR HORIZONTAL INSTALLATION, FULL-FLOW DESIGN, 50mm (2") FEMALE NPT, NEOPRENE POLYESTER REINFORCED FLAPPER CW SMOOTH EDGE DESIGN WITH CAST IRON AND NON-CORROSIVE METAL BACKING PLATES AND STAINLESS STEEL FASTENER, CORROSION-RESISTANT POWDER COATED EPOXY FINISH, RATED AT 335 kPa (50 PSI) (35 M (115) OF HEAD) AT 54 °C (130 °F), STAINLESS STEEL BOLTS, SUITABLE FOR INSTALLATION BELOW BASIN COVER.

ACCEPTABLE PRODUCT: "ZOELLER", MODEL UNICHECK OR APPROVED EQUIVALENT IN ACCORDANCE WITH B7.

2.4 PUMP ISOLATION VALVE:
 50mm (2") BALL VALVE, TWO PIECE FORGED BRASS BODY, BLOWOUT PROOF STEM, PTFE SEATS/SEALS, VENTED CHROME PLATED BALL AND FULL PORT DESIGN. PRESSURE RATED TO 150 WSP/800 WOG, CONFORM TO MSS-SP 110 AND CERTIFIED TO CSA, UL & FM.

ACCEPTABLE PRODUCT: "KITZ", CODE # 88 (AKTAF) THREADED ENDS OR APPROVED EQUIVALENT IN ACCORDANCE WITH B7.

2.5 PUMPS:
 SUBMERSIBLE SOLIDS HANDLING EFFLUENT PUMPS, EPOXY COATED CAST IRON CONSTRUCTION, 0.75 kW (1 HP), 230V/60, THERMAL OVERLOAD PROTECTED MOTOR, NON CLOGGING VORTEX IMPELLER DESIGN, STAINLESS STEEL SHAFT, DUAL MECHANICAL SHAFT SEALS, SILICON CARBIDE FACES ON LOWER SEAL, POOL WATER MATERIAL UPGRADE, (5m (50 FT.) POWER CABLE, 19mm (3/4") SOLIDS HANDLING CAPABILITY, 50mm (2") NPT DISCHARGE, 4 L/s @ 128.5 kPa (18.5 USGPM @ 43 FT TDH).

ACCEPTABLE PRODUCT: "ZOELLER", MODEL E180 OR APPROVED EQUIVALENT IN ACCORDANCE WITH B7. (LIBERTY PUMPS FL 102 M-2 CW SPECIFIED ACCESSORIES IS APPROVED AS EQUAL.)

2.6 PUMP GUIDE RAIL ASSEMBLY: CAST IRON CONSTRUCTION, POWDER COATED GUIDE PLATE, STAINLESS STEEL UPPER RAIL SUPPORT, STAINLESS STEEL CABLE KIT, STAINLESS STEEL LIFTING BALL, 50mm X 50mm CONNECTIONS, SUITABLE FOR CHLORINATED POOL WATER APPLICATION.

ACCEPTABLE PRODUCT: "ZOELLER", MODEL 30-0129 OR APPROVED EQUIVALENT IN ACCORDANCE WITH B7. (LIBERTY PUMPS GR 22 - FL CW SPECIFIED ACCESSORIES IS APPROVED AS EQUAL.)

2.7 PUMP CONTROLS SYSTEM:
 DUPLEX DUAL CUSTOM CONTROL PANEL, DOOR MOUNTED DISCONNECT SWITCH, THERMOMAGNETIC MOTOR PROTECTORS, ACROSS THE LINE CONTACTORS, CONTROL TRANSFORMER CW SECONDARY FUSE, POWER ON PILOT LIGHT, RUN PILOT LIGHTS, H-O-A SELECTOR SWITCHES, 4 FLOAT SWITCHES, AUTOMATIC TRANSFER TO NON OPERATING PUMP ON MOTOR OVERLOAD OR SHORT CIRCUIT, ELECTRIC ALTERNATING RELAY, NEMA 1 ENCLOSURE, HIGH LEVEL ALARM BUZZER CW SILENCER AND PILOT LIGHT, HIGH LEVEL ALARM RELAY FOR SIGNAL TO DCC.

ACCEPTABLE PRODUCT: "NOTHART", MODEL NES-SPS OR APPROVED EQUIVALENT IN ACCORDANCE WITH B7.


2.8 VALVE STEM EXTENSION GUIDE:
 STEM GUIDES SHALL BE CONSTRUCTED OF 316 STAINLESS. STEM GUIDES FABRICATED BY WELDING CARBON STEEL SHALL NOT BE PERMITTED. STEM GUIDES SHALL INCLUDE A BRONZE BUSHING WITH AN INSIDE DIAMETER 1.5mm (1/16") LARGER THAN THE OUTSIDE DIAMETER OF THE EXTENSION STEM AND SHALL BE RETAINED WITH TWO STAINLESS STEEL SCREWS. THE STEM GUIDE SHALL BE OF THE ADJUSTABLE DESIGN FOR PLUMB ALIGNMENT. THE ADJUSTING BOLT AND WASHER SHALL BE TYPE 316 STAINLESS. STEM GUIDES SHALL BE SPACED SO THAT THE UNSUPPORTED LENGTH BETWEEN EXTENSION STEMS SHALL NOT EXCEED 2.1m (7').

ACCEPTABLE PRODUCT: "TRUMBULL", ADJUSTABLE STEM GUIDE OR APPROVED EQUIVALENT IN ACCORDANCE WITH B7.

NOTES:
 THESE DRAWINGS SHALL NOT BE SCALED.
 THE CONTRACTOR SHALL VISIT THE SITE AND SATISFY ONESELF ALL DIMENSIONS, DATUM, AND DETAILED INFORMATION SHOWN ARE CORRECT.
 THE CONTRACTOR IS TO REVIEW AND COORDINATE ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL OPENINGS THROUGH FLOORS, WALLS, AND CEILINGS FOR DUCT, PIPE & ELECTRICAL RISERS AND ALL OPENINGS NOT SHOWN ON DRAWINGS.
 ALL OPENINGS THROUGH FIRE ASSEMBLIES ARE TO BE FIRE STOPPED AND SEALED WITH ULC APPROVED FIRE STOPPING TO MAINTAIN THE INTEGRITY OF THE FIRE SEPARATION, AND PROVIDE A SMOKE-TIGHT BARRIER.
 ALL PRODUCTS AND MATERIALS TO BE USED AND INSTALLED SHALL CONFORM WITH MANUFACTURER'S SPECIFICATIONS & APPLICABLE CODES.
 THE CONTRACTOR SHALL BE RESPONSIBLE TO PATCH AND MAKE GOOD ALL EXISTING CONSTRUCTION AFFECTED BY THE REMOVAL OF ALL ITEMS FORMING THE PART OF THE RENOVATION WORK.
 WHERE NEW FLOORING AND BASE IS TO BE INSTALLED IN EXISTING AREAS (REFER TO FLOOR PLAN AND ROOM SCHEDULE) THE EXISTING FLOORING SURFACE AND BASE MUST BE REMOVED, UNLESS OTHERWISE NOTED. ALL FLOOR SURFACES SHALL BE PREPARED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION OF NEW FLOOR.
 WHERE PAINTING OF EXISTING WALLS IS INDICATED ON THE ROOM SCHEDULE, THESE WALLS MUST BE CLEANED OF ANY EXISTING WALL COVERING, PATCHED & PREPARED TO ACCEPT NEW MATERIAL, UNLESS OTHERWISE NOTED.

No.	REVISION/DESCRIPTION	BY	DATE
1	RE-ISSUED FOR CONSTRUCTION	PS	17.09.06
0	ISSUED FOR CONSTRUCTION	PSS	17.07.26

SEAL



DRAWN: LNM | CHECKED: LNM | DESIGNED: LNM | APPROVED: PS
 DATE: 2017.06.15 | USER APPROVAL

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

PROJECT
**PROVENCHER POOL
 SUMP PIT REPLACEMENT**

590 RUE LANGEVIN

APEGM
 Certificate of Authorization
 KGS Group
 No. 245

KGS GROUP
 CONSULTING ENGINEERS

SCALE VERIFIED BY: N/A

SHEET TITLE
MECHANICAL SPECIFICATIONS

SCALE AS SHOWN	PROJECT No: 17-0107-007	SHEET No: M02
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