

SECTION 15005 SCOPE OF WORK

1. CONTRACTOR – PRIME
1. SUPPLY AND INSTALLATION OF ALL POOL WATER DISCHARGE AND SUPPLY PIPING FOR RECIRCULATING SYSTEM AND POOL DRAINAGE SYSTEM.
  2. SUPPLY AND INSTALLATION OF ALL POLYETHYLENE SCHEDULE 80 PIPING FROM WATER METER IN MAINTENANCE BUILDING TO IN-GROUND DISTRIBUTION SYSTEM, INCLUDING ALL BLOW-OUT CONNECTIONS/PITS.
  3. CO-ORDINATION AND INSTALLATION OF ALL WATER FEATURE BASES AND WATER PIPING CONNECTIONS.
  4. SUPPLY AND INSTALLATION OF ALL PVC WASTE PIPING, DRAINS, ETC. WITHIN BOUNDARIES OF WATER PARK DRAINAGE BASIN AND TO EXISTING MANHOLE.
  5. INSTALLATION OF NEW DOMESTIC WATER METER AND TRANSITION FITTINGS.
  6. ALL TRENCHING AND BACK FILLING FOR ABOVE AS PER SECTION 15450 OUTSIDE SERVICES.
2. CONTRACTOR
1. SUPPLY AND INSTALLATION OF ALL MANHOLES/CATCH BASINS AND VALVE PITS AS REQUIRED.
  2. SUPPLY AND INSTALLATION OF WASTE WATER SEWER FROM WATER PARK DRAINAGE BASIN TO VALVE PIT THEN TO EXISTING CATCH BASIN.

SECTION 15010 GENERAL CONDITIONS

1. PROVIDE ALL LABOUR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHOWN ON DRAWINGS AND AS SPECIFIED HEREIN.
2. ALL NECESSARY PERMITS SHALL BE OBTAINED AND ALL FEES SHALL BE PAID TO CARRY OUT THE SPECIFIED WORK.
3. ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF COMPLETED WORK ACCEPTANCE BY THE CONTRACT ADMINISTRATOR. SUBMIT DOCUMENTATION IDENTIFYING ADDITIONAL EQUIPMENT WARRANTY COVERAGE AND TIME FRAMES.
4. ALL WORK SHALL COMPLY IN EVERY RESPECT WITH ALL NATIONAL, PROVINCIAL AND LOCAL CODES AND BY-LAWS, WHICH SHALL BE CONSIDERED PART OF THIS SPECIFICATION. IN THE CASE OF CONFLICTING REQUIREMENTS, BE GOVERNED BY THE MOST STRINGENT REGULATIONS.
5. THE CONTRACTOR SHALL INSTALL DOMESTIC/POOL WATER PIPING AND DRAINAGE SYSTEMS IN COMPLETE ACCORDANCE WITH THE RECOMMENDATIONS OF THE NATIONAL/PROVINCIAL BUILDING CODE, LOCAL PLUMBING CODES, AND CITY OF WINNIPEG HEALTH DEPT. STANDARDS.
7. COORDINATE WORK WITH WORK OF OTHER TRADES TO AVOID CONFLICT.
8. ALTER THE LOCATION OF PIPES AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR WITHOUT CHARGE TO THE CONTRACT ADMINISTRATOR, PROVIDED THE CHANGE IS MADE BEFORE INSTALLATION AND DOES NOT NECESSITATE ADDITIONAL MATERIALS.
9. THE CONTRACTOR SHALL PROVIDE SIX (6) SETS OF SHOP DRAWINGS FOR ALL EQUIPMENT FOR REVIEW AND APPROVAL BY CONTRACT ADMINISTRATOR. CONTRACTOR SHALL STAMP SHOP DRAWINGS REVIEWED BY THE CONTRACT ADMINISTRATOR PRIOR TO SUBMISSION. FAILURE TO COMPLY WILL RESULT IN SHOP DRAWINGS BEING RETURNED "UNREVIEWED" BY CONTRACT ADMINISTRATOR.
10. FURNISH TO THE CONTRACT ADMINISTRATOR THREE (3) HARD-COVERED LOOSE-LEAF BINDERS CONTAINING THEREIN ONE (1) COMPLETE SET OF MANUFACTURERS' OPERATING AND MAINTENANCE INSTRUCTIONS SHOWING ALL MAJOR EQUIPMENT AND APPARATUS REQUIRING MAINTENANCE. INSTRUCTIONS SHALL BE COMPLETE FOR INSTALLATION, OPERATION AND MAINTENANCE AND SHALL INCLUDE PERTINENT INFORMATION SUCH AS DETAILED DRAWINGS AND OPERATION CURVES. SPARE PARTS, SUPPLIER LISTS AND ADDRESSES SHALL BE SUPPLIED. INSTRUCTION SHALL BE REQUIRED WITH THE CONTRACT ADMINISTRATOR TO ENSURE A THOROUGH UNDERSTANDING OF THE EQUIPMENT AND ITS OPERATION.
11. ALL WIRING, SUPPLY AND INSTALLATION OF DISCONNECT SWITCHES FOR EQUIPMENT SPECIFIED HEREIN SHALL BE PERFORMED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
12. CONTRACTOR SHALL EXAMINE THE SITE AND CONDITIONS AFFECTING WORK, METHODS OF CONNECTION AND LOCATION OF ALL SERVICES INVOLVED UNDER THIS CONTRACT. FAILURE TO MAKE THIS VISIT IN NO WAY ALLEVIATES THE CONTRACTOR FROM RESPONSIBILITY FOR COMPLETING THE MECHANICAL WORK OF THIS CONTRACT IN A WORKMANLIKE MANNER. NO ALLOWANCE WILL BE MADE AFTER CONTRACT AWARD FOR ANY EXPENSE INCURRED THROUGH A FAILURE TO MAKE THIS EXAMINATION AND INVESTIGATION.
13. SCHEDULING OF ALL WORK SHALL BE ARRANGED WITH THE CITY OF WINNIPEG, AND THE CITY OF WINNIPEG SHALL BE NOTIFIED AND APPROVAL OBTAINED PRIOR TO SHUTTING OFF EXISTING SERVICES FOR PURPOSES OF CONNECTING NEW WORK. WORK WITHIN THE BUILDING MAY HAVE TO BE PERFORMED DURING NON-REGULAR WORKING HOURS AND MUST CONFORM TO WORK RULES OF THE BUILDING AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
14. AS-BUILT DRAWINGS:
  1. OBTAIN SETS OF WHITE PRINTS (ONE FOR EACH SYSTEM IE. PLUMBING) AND KEEP AT JOB SITE AT ALL TIMES.
  2. RECORD ALL ADDITIONS OR DEVIATIONS FROM THE CONTRACT DOCUMENTS INCLUDING ALL CHANGES INCURRED BY ADDENDA, CHANGE ORDERS, FIELD CHANGES, JOB CONDITIONS, ETC.
  3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRODUCTION OF AS-BUILT RECORD DRAWINGS WHICH SHALL PROVIDE A COMPLETE AND ACCURATE RECORD OF THE ACTUAL MECHANICAL INSTALLATION. ALL PRINCIPLE BELOW GRADE OR INACCESSIBLE PIPING OR DUCT SYSTEMS, ETC. SHALL BE DIMENSIONED AT EACH CHANGE IN DIRECTION. INCLUDE ALL ROUTING OF SERVICES NOT INDICATED ON ORIGINAL DRAWINGS.
  4. PROJECT RECORD DRAWINGS SHALL BE TRANSFERRED BY CONTRACTOR TO REPRODUCIBLE BOND DRAWINGS AND LABELLED "AS-BUILT".
  5. SUBMIT REPRODUCIBLE BOND DRAWINGS TO CONTRACT ADMINISTRATOR FOR REVIEW UPON COMPLETION IF CORRECTIVE MEASURES ARE REQUIRED AFTER THE SECOND CONTRACT ADMINISTRATOR REVIEW (DUE TO MISSING INFORMATION AND/OR IMPROPER DRAFTING STANDARDS), THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACT ADMINISTRATOR'S TIME COSTS FOR CORRECTIVE MEASURES, COURIER AND PRINTING COSTS.
  6. CONTRACTOR SHALL EMPLOY CAD DRAFTING SERVICE TO PRODUCE ELECTRONIC COPY AS-BUILT DRAWINGS. CONTRACTOR SHALL BEAR ALL COSTS OF PRODUCTION.
  7. COPY OF FINAL "AS-BUILT" DRAWING SHALL BE SUBMITTED TO CONTRACT ADMINISTRATOR.
  8. ALL COSTS OF "AS-BUILT" DRAWINGS PRODUCTION SHALL BE BORNE BY CONTRACTOR.

15. VERIFY SIZES, INVERTS AND LOCATIONS OF ALL SERVICES PRIOR TO COMMENCEMENT OF WORK. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO SANITARY SEWER, DOMESTIC WATER MAINS, ETC.
16. ASSUME FULL RESPONSIBILITY FOR LAYING OUT ALL WORK AND ENSURING THAT NO DAMAGE IS CAUSED TO THE CITY OF WINNIPEG EQUIPMENT AND PREMISES DUE TO IMPROPER LOCATION AND EXECUTION OF WORK IN THIS CONTRACT. PROTECT AND MAINTAIN ALL WORK UNTIL WORK HAS BEEN COMPLETED AND ACCEPTED BY THE CONTRACT ADMINISTRATOR. STORE ALL MATERIALS AS REQUIRED, AND CLEAN UP REFUSE CAUSED BY ALL WORK.
17. IN THE CASE OF DISCREPANCY BETWEEN STRUCTURAL/CIVIL AND MECHANICAL DRAWINGS TO NUMBER, TYPE, OR LOCATION OF EQUIPMENT AND SYSTEMS COMPONENTS, OBTAIN WRITTEN RULING.
18. CONTRACTOR SHALL COORDINATE PROVISION OF POWER TO BUILDING CONTROL TRANSFORMERS WITH DIVISION 16 AND CARRY ALL INCREMENTAL COSTS.
19. COORDINATE THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH DIVISION 16. DIVISION 16 SHALL PROVIDE THE FOLLOWING:
  1. ALL POWER WIRING TO EQUIPMENT.

SECTION 15400 PLUMBING

1. PROVIDE COMPLETE FUNCTIONAL PLUMBING SYSTEM COMPRISED OF DOMESTIC WATER PIPING, SANITARY AND DRAINAGE PIPING, ETC.
2. ALL WATER PIPING BELOW GROUND SHALL BE PVC OR POLYETHYLENE SCHEDULE 80. SEE PLANS.
3. DRAINS AND PIPING UNDERGROUND SHALL BE PVC PLASTIC. FITTINGS SHALL BE SOLVENT CEMENT FOR PVC.
4. CONTRACTOR SHALL VERIFY ON SITE ALL CONNECTION POINTS TO EXISTING BUILDING SERVICES. COORDINATE ALL NEW PIPING RUNS WITH CONTRACT ADMINISTRATOR.
5. USE 95/5 TIN-ANTIMONY BRAZING SOLDER ON ALL COPPER TYPE 'L' COLD WATER PIPING AT WATER METER. USE NON-CORROSIVE NON-LEADED FLUX.
6. ALL VALVES TO BE BY ONE MANUFACTURER. STANDARD OF ACCEPTANCE.
7. CONTRACTOR SHALL ALLOW FOR IN BID OPPORTUNITY ANY ADDITIONAL LABOUR, MATERIALS, ETC. DEEMED NECESSARY DUE TO EXACT SITE CONDITIONS WHICH HAVE NOT BEEN REFLECTED IN MECHANICAL DRAWING OR IN MECHANICAL SPECIFICATION. NOTIFY CONTRACT ADMINISTRATOR OF ALL DISCREPANCIES PRIOR TO TENDER CLOSE.
8. ON COMPLETION, ALL PIPING SYSTEMS SHALL BE CLEANED & FLUSHED OUT TO REMOVE ANY FOREIGN MATERIAL IN THE PIPING.
9. CONTRACTOR SHALL COORDINATE SERVICE INSTALLATIONS AND/OR MODIFICATIONS WITH LOCAL UTILITY PRIOR TO COMMENCEMENT OF WORK. PAY ALL COSTS AND/OR FEES.
10. PROVIDE PROPER COUPLINGS WHEREVER PIPES OF DISSIMILAR METALS ARE JOINED.

SECTION 15450 OUTSIDE SERVICES

1. PROVIDE PIPING SYSTEMS INCLUDING ALL NECESSARY CONNECTIONS TO STREET MAINS FOR STORM/DRAINAGE SEWER.
2. RESPONSIBILITY FOR RESTORATION OF PAVED PUBLIC STREETS TO ORIGINAL CONDITION IF THEY HAVE BEEN AFFECTED AS A RESULT OF THE WORK IN THIS SECTION.
3. CONFIRMATION OF EXACT LOCATION AND INVERT ELEVATIONS OF SERVICES PRIOR TO COMMENCING WORK. IF ANY DISCREPANCIES SHOULD BE DISCOVERED, THEN NOTIFY THE CONTRACT ADMINISTRATOR IMMEDIATELY.
4. CONFORM WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATION, THE LOCAL AUTHORITIES HAVING JURISDICTION AND THE CITY OF WINNIPEG CONSTRUCTION SPECIFICATIONS. IN THE CASE OF CONFLICTING REQUIREMENTS, BE GOVERNED BY THE MOST SEVERE REGULATIONS.
5. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SPECIFICATIONS.
6. THE CONTRACTOR SHALL CO-ORDINATE WITH CONTRACTOR FOR ALL CONNECTIONS, SIZE AND TYPE.
7. PIPE FITTINGS AND JOINTS
  1. SANITARY SEWER PIPING 6" AND OVER IPEX CLASS PVC CLASS 150 TO AWWA C900 AND C905 AND CSA B137.0 AND B137.3. \*RIGID POLYCHLORIDE (PVC) PIPING FOR PRESSURE APPLICATIONS.
  2. SANITARY SEWER PIPING 4" AND UNDER SHALL PVC CLASS 150.
8. EXAMINE AREA WHERE WORK IS TO BE PERFORMED FOR:
  1. ANYTHING THAT AFFECTS EXECUTION AND QUALITY OF WORK.
  2. PIPING CLEARANCES.

9. WHERE, UNDER THIS CONTRACT, IT IS NECESSARY TO CONNECT EXISTING WATER MAINS TO THOSE WHICH ARE TO BE LAID, ALL PRECAUTIONARY MEASURES DEEMED NECESSARY BY THE CONTRACTOR TO PROTECT EXISTING MAINS, AND TO CAUSE THE LEAST INCONVENIENCE TO USERS OF EXISTING MAINS, SHALL BE CARRIED OUT BY THE CONTRACTOR AT NO ADDITIONAL CHARGE TO THE CITY OF WINNIPEG. THIS CHARGE, IF ANY, TO BE INCLUDED. NO VALVE OR OTHER CONTROL ON THE SYSTEM SHALL BE OPERATED FOR ANY PURPOSE BY THE CONTRACTOR, WITHOUT APPROVAL OF THE CONTRACT ADMINISTRATOR, AND ALL CONSUMERS AFFECTED BY SUCH OPERATIONS SHALL BE NOTIFIED BY THE CONTRACTOR, AT LEAST ONE HOUR BEFORE THE OPERATION AND ADVISED OF THE PROBABLE TIME WHEN SERVICE WILL BE RESTORED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO ANY UNDERGROUND OR SURFACE UTILITY STRUCTURES, DRAIN, SEWER, WATER SERVICE, VALVE, SERVICE BOX OR OTHER OBSTRUCTION ENCOUNTERED IN THE PROGRESS OF THE WORK. ANY SERVICE OR OTHER UTILITY DAMAGE, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE ENTIRE SATISFACTION OF THE CONTRACT ADMINISTRATOR.
11. PROCURE ALL PERMITS FOR CROSSING STREETS AND SIDEWALKS AND PERFORM NO EXCAVATION WITHOUT APPROVAL BY CONTRACT ADMINISTRATOR.
12. WHERE THE SURFACE OF A STREET, DRIVEWAY, BOULEVARD, OR SIDEWALK HAS BEEN CUT TO INSTALL PIPE, THE CROSSING SHALL BE BACKFILLED WITH GRANULAR FILL AND TAMPERED IN LIFTS AND RESURFACED TO THE ORIGINAL CONDITION, TO THE SATISFACTION OF THE AUTHORITIES HAVING JURISDICTION.
13. THIS CONTRACTOR SHALL MAKE APPLICATION AND PAY FOR ALL PERMITS, ASSESSMENTS, INSPECTION FEES, CONNECTION CHARGES, STREET CUT PERMITS AND ALL OTHER CHARGES PERTAINING TO THE COMPLETION OF INSTALLATION, TO ALL APPROPRIATE GOVERNMENTAL AUTHORITIES.

14. SEWER PIPES SHALL BE LAID ACCORDING TO THE GRADE AND ALIGNMENT SHOWN ON THE PLANS, WITHIN A TOLERANCE OF 1" (38 MM) VERTICAL AND 12" (300 MM) HORIZONTAL. THE CONTRACTOR TO ESTABLISH OWN BATTER BOARDS FOR LINE AND GRADE.
15. ALL PIPES SHALL BE LEFT UNCOVERED FOR INSPECTION AND NO PIPES SHALL BE COVERED UNTIL PERMISSION HAS BEEN GIVEN BY THE CONTRACT ADMINISTRATOR. THE CONTRACTOR SHALL ALLOW 48 HRS. NOTIFICATION PRIOR TO COMMENCEMENT OF WORK. SHOULD ANY PIPE BE COVERED BY THE CONTRACTOR BEFORE THE PERMISSION OF THE CONTRACT ADMINISTRATOR HAS BEEN OBTAINED, THE TRENCH SHALL BE REOPENED AT THE CONTRACTOR'S EXPENSE.

PIPE BEDDING SHALL CONSIST OF A MINIMUM OF 4" (100 MM) SAND SHALL BE SPREAD AND GRADED OVER THE BOTTOM OF THE TRENCH BEFORE PLACING ANY PIPE. AFTER THE PIPE IS PLACED, FREE RUNNING SAND SHALL BE PLACED TO THE TOP OF THE PIPE AND THEN COMPACTED. PARTICULAR CARE SHALL BE TAKEN IN COMPACTING THIS MATERIAL TO GIVE PROPER SUPPORT TO THE PIPE. MORE SAND SHALL THEN BE PLACED AND THOROUGHLY COMPACTED TO 24" (600 MM) ABOVE THE PIPE IN 6" (150 MM) LIFTS. THE REMAINDER OF THE TRENCH WHERE GOING UNDER SIDEWALK PAVING, FLOOR SLABS, ETC. SHALL BE BACKFILLED WITH GRANULAR MATERIAL COMPACTED IN 12" (300 MM) LIFTS TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR. WHERE THE TRENCHES RUN THROUGH GRASSED AREAS, OR NON-PAVED AREAS, THE REMAINDER OF THE TRENCH MAY THEN BE BACKFILLED WITH CLEAN EARTH MECHANICALLY COMPACTED IN 12" (300 MM) LIFTS. ALL EXCAVATION SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH ALL GOVERNING CODES AND PROVINCIAL DEPARTMENT OF LABOUR REGULATIONS. ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE OR BE PLACED AS DIRECTED BY THE CONTRACT ADMINISTRATOR AFTER INSTALLATION OF THE BURIED SERVICE.

EQUIPMENT SCHEDULE

CIRC PUMP P-1: HAYWARD POOL PRODUCTS, MAX-FLO, MODEL SP2815X29, 2 HP, 115/230-1-60, 1-1/2" NPS CONNECTION, C/W INTEGRAL BASKET STRAINER, SELF PRIMING, POLYCARBONATE SEE-THRU STRAINER COVER, 131 (US) GPM @ 40 FT. HEAD.

POOL FITTINGS: INLET FITTING: RECROEONCS (OR EQUAL) MODEL: 34-115 2" IPS CAST BRASS, CHROME PLATED, C/W ADJUSTABLE PLATES AND GROUNDING SCREWS.

SUCTION FITTING: RECROEONCS (OR EQUAL) MODEL 34-215 NON-ADJUSTABLE EQUALIZER-SUCTION FITTING. SOLVENT WELD WITH 2" CONNECTIONS.

POOL DRAIN: JAY R SMITH MODEL 6050 LARGE CAPACITY – BOTTOM OUTLET – 6" OUTLET, ANTI-VORTEX TYPE, STAINLESS STEEL BODY AND FRAME WITH LOOSE SET CHROME PLATED BRONZE GRATES- GRATE SIZE 25/4" X 25/4", FREE AREA 296 SQ.IN.

APRON DRAIN: JAY R SMITH MODEL 2210 DUCO CAST IRON BODY WITH NICKEL BRONZE TOP AND SEDIMENT BUCKET, VANDAL-PROOF GRATE.

SECTION 02622 FOUNDATION AND UNDERSLAB DRAINAGE

1.1 BEDDING AND SURROUND MATERIALS

1. COARSE FILTER AGGREGATE: TO CAN/CSA-A23.1, TABLE 2, GROUP 1 20-5 MM.
2. FINE FILTER AGGREGATE: TO CAN/CSA-A23.1, TABLE 1.
3. FLEXIBLE PLASTIC TUBING AND FITTINGS: TO CGSB-41-GP-25M, CORRUGATED, PERFORATED, GEOTEXTILE FILTER FABRIC COVERED, NOMINAL INSIDE DIAMETER 4" DIA INCLUDING COUPLINGS, SLEEVES AND ELBOWS.
4. CLEANOUTS: AS RECOMMENDED BY TUBING MANUFACTURER, COMPLETE WITH SOLID CAPS AND BAYCO BRONZE CLEANOUT COVER IN POOL DECK.

1.2 BACKFILL MATERIAL

1. TYPE 2
2. EXCAVATED OR GRADED MATERIAL EXISTING ON SITE MAY BE SUITABLE TO USE IF APPROVED BY CONTRACT ADMINISTRATOR.

1.3 INSPECTION

1. ENSURE GRADED SUBGRADE CONFORMS WITH REQUIRED DRAINAGE PATTERN BEFORE PLACING BEDDING MATERIALS.
2. ENSURE IMPROPER SLOPES, UNSTABLE AREAS, AREAS REQUIRING ADDITIONAL COMPACTION OR OTHER UNSATISFACTORY CONDITIONS ARE CORRECTED TO APPROVAL OF CONTRACT ADMINISTRATOR.
3. ENSURE FOUNDATION WALL AND DAMPPROOFING HAVE BEEN INSTALLED AND APPROVED BY CONTRACT ADMINISTRATOR BEFORE PLACING BEDDING MATERIAL.

1.4 BEDDING PREPARATION

1. CUT TRENCHES IN SUBGRADE AND PLACE BEDDING MATERIAL IN UNIFORM LAYERS NOT EXCEEDING 6" COMPACTED THICKNESS TO DEPTH AS INDICATED.
2. SHAPE BED TRUE TO GRADE AND TO PROVIDE CONTINUOUS, UNIFORM BEARING SURFACE FOR TUBING.
3. SHAPE TRANSVERSE DEPRESSIONS, AS REQUIRED, TO SUIT JOINTS.
4. COMPACT EACH LAYER FULL WIDTH OF BED TO AT LEAST 95% MAXIMUM DENSITY TO ASTM D 698.
5. FILL EXCAVATION BELOW DESIGN ELEVATION OF BOTTOM OF SPECIFIED BEDDING WITH LEAN MIX CONCRETE.

1.5 PIPE OR TUBING INSTALLATION

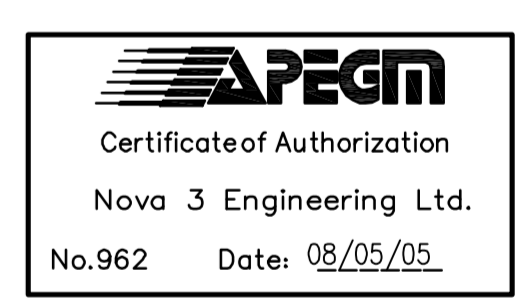
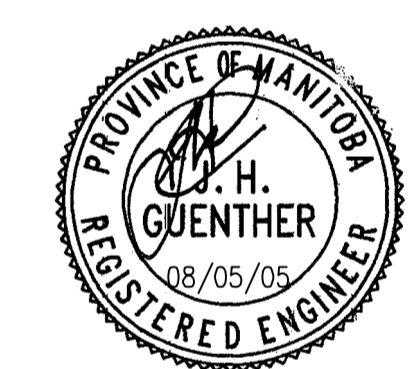
1. ENSURE TUBING INTERIOR AND COUPLING SURFACES ARE CLEAN BEFORE LAYING.
2. LAY PERFORATED TUBING MINIMUM SLOPE OF 1 IN 100. FACE PERFORATIONS AND COUPLING SLOTS DOWNWARD.
3. GRADE BEDDING TO ESTABLISH TUBING SLOPE.
4. INSTALL END PLUGS AT ENDS OF COLLECTOR DRAINS TO PROTECT TUBING ENDS FROM DAMAGE AND INGRESS OF FOREIGN MATERIALS.
5. CONNECT TUBING TO DRAIN SUMP PIT BY APPROPRIATE ADAPTERS MANUFACTURED FOR THIS PURPOSE.
6. PROVIDE CLEANOUTS ON TUBING AT CHANGES OF TUBING DIRECTION AND IN RUNS GREATER THAN 50FT.

1.6 PIPE OR TUBING SURROUND MATERIAL

1. UPON COMPLETION OF TUBING LAYING AND AFTER INSPECTION, SURROUND AND COVER TUBING AS INDICATED.
2. HAND PLACE SURROUND MATERIAL IN UNIFORM LAYERS NOT EXCEEDING 150MM COMPACTED THICKNESS, AS INDICATED. DO NOT DROP MATERIAL WITHIN 12" OF TUBING.
3. PLACE LAYERS UNIFORMLY AND SIMULTANEOUSLY ON EACH SIDE OF TUBING.
4. COMPACT EACH LAYER FROM TUBING INVERT TO MID-HEIGHT OF TUBING TO AT LEAST 95% MAXIMUM DENSITY TO ASTM D 698.
5. COMPACT EACH LAYER FROM MID-HEIGHT OF TUBING TO UNDERSIDE OF BACKFILL TO AT LEAST 90% MAXIMUM DENSITY TO ASTM D 698.

1.7 BACKFILL MATERIAL

1. PLACE BACKFILL MATERIAL ABOVE TUBING SURROUND IN UNIFORM LAYERS NOT EXCEEDING 6" COMPACTED THICKNESS UP TO GRADES AS INDICATED.
2. UNDER PAVING AND WALKS, COMPACT BACKFILL TO AT LEAST 95% MAXIMUM DENSITY TO ASTM D 698. IN OTHER AREAS, COMPACT TO AT LEAST 90% MAXIMUM DENSITY TO ASTM D 698.



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C	TEXT REVISIONS TO SPECIFICATIONS	JHG	MAY 5/08
B	ISSUED FOR PERMIT	JHG	APRIL 30/08
A	ISSUED FOR REVIEW	JC	APRIL 18/08
NO.	REVISIONS	BY	DATE
CLIENT	CITY OF WINNIPEG		
PROJECT	SHAUGHNESSY PARK WADING POOL		
LOCATION	WINNIPEG, MANITOBA		
DRAWING TITLE	SITE PLAN - MECHANICAL		
DESIGNED BY: JC	DATE: APPROB	DWS NO.	REVISED
CHECKED BY: JAK	DATE	M-2	-