

1. **Addenda:** The following items are to be included and this addendum forms part of the Tender Documents.
  
2. **Clarification common to both sites:**
  1. Specification section 00330 subsection 9.2.3 uses the wording supplementary specifications when in fact the list is intended to indicate the Municipal Standards sections that are appropriate through to the 11500 and subsequent which are enclosed within the document. Supplementary specifications are only those as referenced in section 00810. Note that section numbering is referenced to the 2008 standard as the just released 2009 edition has been substantially altered in section numbering.
  2. Supplementary specifications for section 01002 Environmental Protection section 7 includes several bulleted items relating to Migratory Birds' nesting, breeding, and fledglings having left the parental territories. Considering the areas where this forest cutting is occurring, and the anticipated commencement by mid May, the contractor need not allow for any delays in undertaking the work due to this restraint.
  3. Contractor providing electrical and control is responsible for all control wiring. The attached list for each site is provided as clarification of discrete conductors required for the tag devices. The general performance spec in section 15900 should be read in conjunction with this requirement as to control functionality.
  4. Permitting required of the contractor will not include the water extraction permits which are already being processed and on-site disposal system. Any pertaining to municipal building permits, DOT breaking of soil, well drilling and stemming from the contractor's submitted erosion control plan are his responsibility within the contract.
  5. Pre-selected Snowguns come with hoses and camloc coupling. So where "T" are indicated the contractor is to provide the concrete base as per detail 3 on F-MW1. Total number to sum to the total of tower guns indicated in spec section 11500 (ie 52 at Martock and 50 at Wentworth).
  6. Hydrant suppliers to be HTM Hydro-Tech H series; Ratnik 200C; Rogers series 20; or acceptable equal. On new pipe the spacing is generally 25m spacing; there is some infilling on existing piping indicated on drawings as per legend symbol. Any laterals are 2" diameter; hydrant positioning can be moved upslope as necessary to assure sloped drainage back to mains at 1% minimum.
  7. Buried water and air snowmaking pipe does not need any sand bedding.
  8. The bid price is to be based on all new material; however a substantial quantity of .250 A53-B DLR bevelled end pipe, stored outdoors for two years but unused, exists at the Talisman Resort in Ontario and is being put forth as a cost saving supply item for this project. A visual inspection has been made of this pipe and it is considered acceptable for use on this project. Note this is not a pre-select approved item and as such can only be carried as an alternate breakout price submission to the tender for consideration for inclusion after approval.
  9. Butterfly valves for class 300 service shall have Teflon seat or other suitable material for this pressure rating as recommended by the equipment manufacturer.
  10. Delete the requirement for insulation on exterior piping as noted on M-M3 and M-W3.

11. Service entrance and distribution switchboards, disconnect switches, variable speed drives, electronic starters, etc. by Siemens or Schinder Groupe (Square D, Federal Pioneer) will be accepted as equal to the Eaton Yale Cutter Hammer equipment specified provided it is manufactured to same quality, features, and of approximately equal dimensions (to conform to room layouts) as the Cutter Hammer equipment.
12. The electrical contractor is cautioned to refer to the (attached) instrumentation and control wiring list for Martock and Wentworth so as to include for 120 Volt connections to devices and for control connection details within the various drives and starters.

### 3. Clarification and changes for Martock site:

1. Arrangements have been made with Mary Harvey the owner of the pit on the right hand side just before the entrance to the Ski Mattock site for approximately 4260 cu m of fill at a lump sum price of \$5000.00. Contact for pit operations is **Paul Shaw 902-798-2846 (h) or 902-798-1233 (cell)**.
2. Vegetation cut, grub, & shape areas indicated on drawings S-M4 –S-M6 were replaced by noted areas on addenda #1 issued drawings PP-M4 to PP-M6 rev 2 which combined this information with piping corrections. Note that drawing PP-M5 correctly shows vegetation being cut to just beyond the end of the new Expressway pipe interconnection on skier's left; drawing M6 meant to reflect clearing and piping on Glades, incorrectly shows some extended cutting beyond that point for Expressway in the plan view.
3. Drawing PP-M3 should be a scale of 1:500 and PP-M6 should be a scale of 1:1250
4. Drawing PP-M9 new buried air and water piping is to be 100mm of 0.25 grade A53-B grooved ends for Victaulic coupled. Within stadium allow 200m chainage and 7 hydrants at 25m spacing; within Nordic park new trails 475m length with 16 hydrants as indicated.
5. To improve surface drainage the new Martock compressor/pumphouse is indicated on attached sketch SK-A2 Rev 1 with a higher floor slab elevation and stepped foundation wall. Drawing M-M2: Supply and install one manual vent at high point and one manual drain at low point, ¾ NPS size, complete with threaded nipples and ball valves.
6. Drawing M-M2 and SK-M1: To allow room for a flow meter between the last pump and the first tee, move the 100, 200 and 200 underground discharge pipes approx. five feet closer to the 150 pipe (Nordic Supply).
7. Drawing M-M2: Supply and install three pipe stands for discharge header and two pipe stands for the intake header (see M-W2 for detail).
8. Drawing M-M2: For extent of removal for underground pipe see drawing PP-M2.
9. Drawing M-M3: To allow for locating the water/air separator indoors, route 150mm pipe from discharge of the after-cooler back to the building. The separator is to be mounted indoors near the overhead door. Discharge pipe from separator to exit the new wall and enter the ground between the overhead doors. In detail 1/E-M2 on drawing 8351-1E-M2: add a 32 mm (1 ¼") corline PVC conduit between inside and main (existing) electrical room in compressor building and the pull box in the new

compressor room extension (refer to detail 3/E-M2); terminate both ends of this conduit in a 200 mm square x 150 mm deep PVC box at 450 mm above the floor inside each building. This conduit is to be used to monitor compressor amps plus cooler performance under instrumentation and control wiring at Martock.

10. Cell #3 in detail 1/E1-M1 can be separated from cells #1 & 2 if it is more practical to be manufactured that way; one of the two 400 AF 250 A trip breakers in cell #1 is used to feed the Danfoss VF drive and the other is to feed the electronic starter for the pumps.
11. In detail 3/E-1-M1 change the voltage of the electric heater from 600 Volts to 208 volts to be feed from 30 A 2 pole breaker on distribution panel in cell #2 as the 15 A 2 pole breaker in cell #1 is to be used on the TVSS.
12. Electrical service to the Nordic Stadium Technical Building shown as overhead on E-M4 should be underground as on E-M3.

#### 4. Changes for Wentworth site:

1. Because of the existing Compressor Building fire damage the existing 150mm pipe from the Wallace River existing supply must be disconnected at chainage 0+395 on drawing PP-W2. Allow 20m new pipe alignment from chainage 0+375 to the building exit point.
2. Hydrant relocation from the middle of the Beaver trail have 6 indicated on drawing PP-W3; however two more are required beyond the drawing limits.
3. Drawing M-W2: Supply and install one manual vent at high point and one manual drain at low point, ¾" NPS size complete with threaded nipples and ball valves.
4. Drawing M-W3: To allow for locating the two water/air separators indoors, route 150mm pipe from discharge of the after-cooler back into the building. The separator is to be mounted indoors between the compressors. Discharge pipe from separators to exit the new wall and enter the ground just outside the building. No change to valve and flexible joint arrangement.
5. In detail 1/E-W2 and 2/E-W2 the hp for pump W-PP-1A should be 250 hp rather than 350 hp. The hp for the electronic starter (in separate cell #5) should be 250 hp and not 350 hp (365 amp) as was indicated.

Acknowledge receipt of this addenda #2 in subsection 2.4 of the Form of Tender 00330.

Closing date and time is **extended to Monday May 4, 2009 at 2:00 PM**

-----END of Addenda #2-----

### Martock Instrumentation and Control Wiring List

Tag	Device	Characteristics	Control Wire		To
			Discrete Conductors	Shielded, twisted pairs	
<b>River Pump Building</b>					
RP 1A VFD	VFD for RP 1A	Variable Frequency Drive, RP 1A	6 -#18 AWG	3 pair--#20	PLC
RB 1B Start	Starter for RP 1B	Soft Start, RP 1B	6 -#18 AWG	1 pair--#20	PLC
LT-1	Level Transmitter	Pump Inlet Pit Level Transmitter (0-10')		1 pair--#20	PLC
PT-1	Pressure Transmitter	Pump Discharge Pressure Transmitter (0-200 psig)		1 pair--#20	PLC
TT-1	Temp Transmitter	River Pumphouse Building Temperature		1 pair--#20	PLC
<b>Primary Pump Building</b>					
PP-1A VFD	VFD for PP-1	Variable Frequency Drive, PP-1	6 -#18 AWG	3 pair--#20	PLC
PP-0A Start	Starter for PP-2	Soft Start, PP-0A	6 -#18 AWG	1 pair--#20	PLC
PP-0B Start	Starter for PP-3	Soft Start, PP-0B	6 -#18 AWG	1 pair--#20	PLC
AC-1 Start	Starter for Comp AC-1	Soft Start AC-1	6 -#18 AWG	1 pair--#20	PLC
AC-1 Cool VFD	VFD for AC1 Cool	VFD for control of AC-1 cooler	6 -#18 AWG	3 pair--#20	PLC
PT-2	Pressure Transmitter	Compressor Discharge Pressure (0-150 psig)		1 pair--#20	PLC
TT-2	Pressure Transmitter	Compressor Discharge Temperature (0-150 deg F)		1 pair--#20	PLC
PT-3	Pressure Transmitter	Suction Pressure Transmitter, 0-200 psig		1 pair--#20	PLC
FM-1	Flow Meter	Suction Flow meter, 0-2500 gpm	120 VAC supply	1 pair--#20	PLC
PS-1	Pressure Switch	Suction Pressure Switch for PP-1A, 10 psig set	2 -#18 AWG		PLC
PS-1	Pressure Switch	Suction Pressure Switch for PP-1A, 10 psig set	2-#18 AWG		PP-1 starter
PS-2	Pressure Switch	Suction Pressure Switch for PP-0A, 10 psig set	2 -#18 AWG		PLC
PS-2	Pressure Switch	Suction Pressure Switch for PP-0A, 10 psig set	2-#18 AWG		PP-0A starter
PS-3	Pressure Switch	Suction Pressure Switch for PP-0B, 10 psig set	2 -#18 AWG		PLC
PS-3	Pressure Switch	Suction Pressure Switch for PP-0B, 10 psig set	2-#18 AWG		PP-0B starter
TT-3	Temp Transmitter	PP-1A Seal or Packing Temperature (0-150 deg F)		1 pair--#20	PLC
TT-4	Temp Transmitter	PP-0A Seal or Packing Temperature (0-0A deg F)		1 pair--#20	PLC
TT-5	Temp Transmitter	PP-0B Seal or Packing Temperature (0-150 deg F)		1 pair--#20	PLC
PT-4	Pressure Transmitter	Discharge Pressure Transmitter, 0-1000 psi		1 pair--#20	PLC
TT-6	Temp Transmitter	Building Temperature (0-100 deg F)		1 pair--#20	PLC
TT-7	Temp Transmitter	Ambient Temperature		1 pair--#20	PLC
RH-1	Temp Transmitter	Ambient RH		1 pair--#20	PLC
<b>Existing Compressor Building</b>					
AC-2 Start	Starter for AC-2	Soft Start for AC-2		1 pair--#20	PLC
AC-3 Start	Starter for AC-3	Soft Start for AC-3		1 pair--#20	PLC
AC-4 Start	Starter for AC-4	Soft Start for AC-4		1 pair--#20	PLC
AC-2 Cool VFD	VFD for AC 2 Cool	Variable Frequency Drive for AC Cooler 2	6 -#18 AWG	3 pair--#20	PLC
TT-8	Temp Transmitter	Cool 2 Discharge Air Temperature (0-150 deg F)		1 pair--#20	PLC
PT-5	Pressure Transmitter	Compressor Discharge Pressure (0-150 psig)		1 pair--#20	PLC

### Wentworth Instrumentation and Control Wiring List

Tag	Device	Characteristics	Control Wire		To
			Discrete Conductors	Shielded, twisted pairs	
<b>River Pump Building</b>					
RP 1 VFD	VFD for RP 1	Variable Frequency Drive, RP 11	6 -#18 AWG	3 pair--#20	PLC
LT-1	Level Transmitter	Pump Inlet Pit Level Transmitter (0-10')		1 pair--#20	PLC
PT-1	Pressure Transmitter	Pump Discharge Pressure Transmitter (0-200 psig)		1 pair--#20	PLC
TT-1	Temp Transmitter	Building Temperature (0-100 deg F)		1 pair--#20	PLC
<b>Primary Pump Building</b>					
PP-1A VFD	VFD for PP-1A	Variable Frequency Drive for PP-1A	6 -#18 AWG	3 pair--#20	PLC
PP-1B Start	Starter for PP-1B	Soft Start, PP 1B	6 -#18 AWG	1 pair--#20	PLC
PP-0A Start	Starter for PP-0A	Soft Start, PP 0A	6 -#18 AWG	1 pair--#20	PLC
PP-0B Start	Starter for PP-0B	Soft Start, PP 0B	6 -#18 AWG	1 pair--#20	PLC
LT-2	Level Transmitter	Pump Sump Level Transmitter (0-20')		1 pair--#20	PLC
FM-1	Flow Meter	Discharge Flow meter, 0-2500 gpm	120 VAC supply	1 pair--#20	PLC
PT-2	Pressure Transmitter	Discharge Pressure Transmitter, 0-1000 psi		1 pair--#20	PLC
TT-2	Temp Transmitter	Building Temperature (0-100 deg F)		1 pair--#20	PLC
TT-3	Temp Transmitter	Ambient Temperature		1 pair--#20	PLC
RH-1	Temp Transmitter	Ambient RH		1 pair--#20	PLC
TT-4	Temp Transmitter	Water Discharge Temperature Transmitter		1 pair--#20	PLC
<b>New Compressor Building</b>					
AC-1A VFD	VFD for AC-1A	Variable Frequency Drive for AC-1	6 -#18 AWG	3 pair--#20	PLC
AC-1B VFD	VFD for AC-1B	Variable Frequency Drive for AC-2	6 -#18 AWG	3 pair--#20	PLC
TT-5	Temp Transmitter	AC-1A Discharge Air Temperature (0-150 deg F)		1 pair--#20	PLC
TT-6	Temp Transmitter	AC-1B Discharge Air Temperature (0-150 deg F)		1 pair--#20	PLC
PT-3	Pressure Transmitter	Hill System Discharge Pressure (0-150 psig)		1 pair--#20	PLC

Correction to Schedule on Drawing M-W6 (Wentworth Control Schematic) separating Compressor Building devices out from the River Pumphouse

PRIMARY PUMPHOUSE

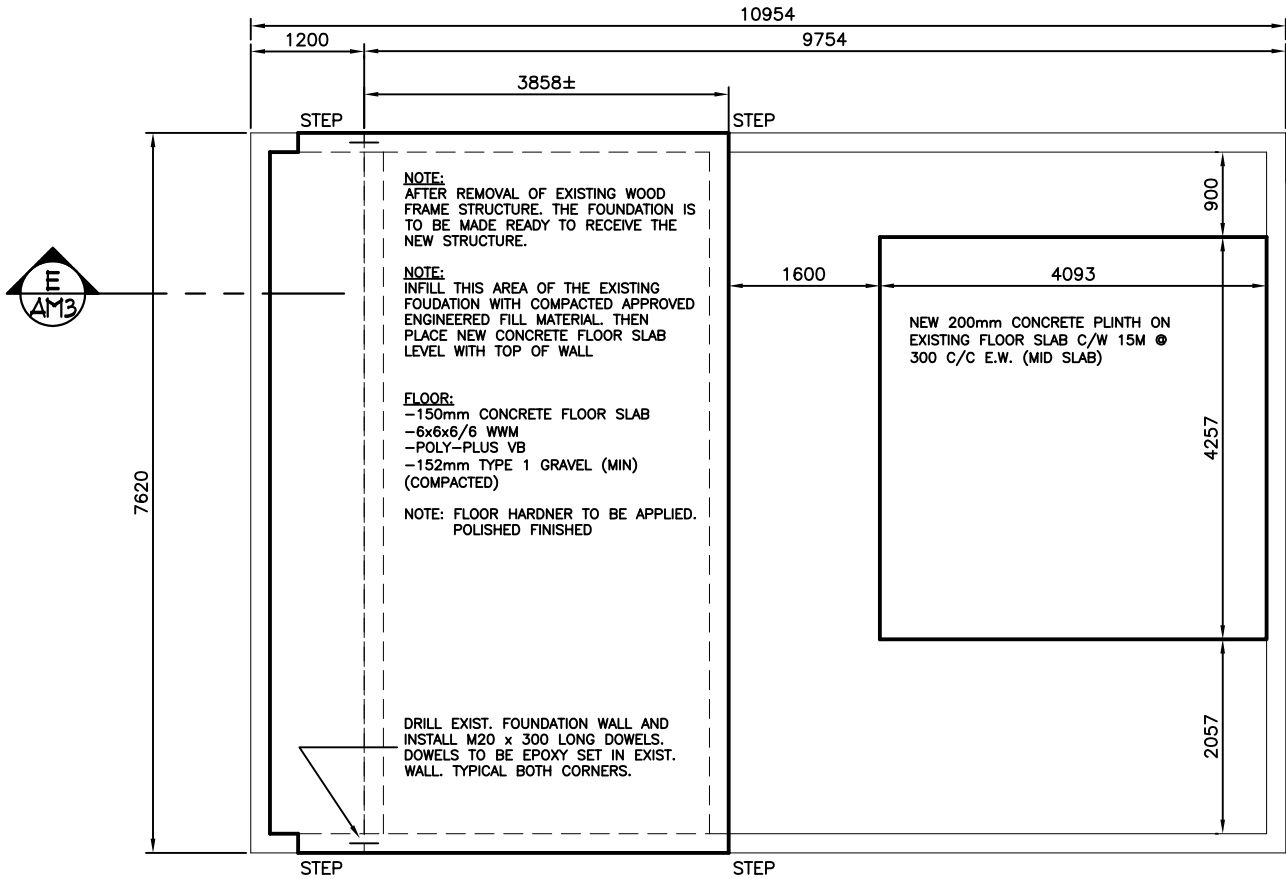
PP-1A	Primary Pump 1	Vertical Pump, 800 GPM/1213' TDH, 350 HP	pre-select
PP-1B	Primary Pump 2	Vertical Pump, 600 GPM/1213' TDH, 250 HP	pre-select
PP-0A	Primary Pump 3	Vertical Pump, 600 GPM/1213' TDH, 250 HP--exist	exist
PP-0B	Primary Pump 4	Vertical Pump, 600 GPM/1213' TDH, 250 HP--exist	exist
PP-1A VFD	VFD for PP-1A	Variable Frequency Drive for PP-1A	new
PP-1B Start	Starter for PP-1B	Soft Start, PP 1B	new
PP-0A Start	Starter for PP-0A	Soft Start, PP 0A	exist
PP-0B Start	Starter for PP-0B	Soft Start, PP 0B	exist
LT-2	Level Transmitter	Pump Sump Level Transmitter (0-20')	new
FM-1	Flow Meter	Discharge Flow meter, 0-2500 gpm	new
PT-2	Pressure Transmitter	Discharge Pressure Transmitter, 0-1000 psi	new
TT-2	Temp Transmitter	Building Temperature (0-100 deg F)	new
TT-3	Temp Transmitter	Ambient Temperature	new
RH-1	Temp Transmitter	Ambient RH	new
TT-4	Temp Transmitter	Water Discharge Temperature Transmitter	new
PG-2	Pressure Gage	Pump Discharge Pressure, 0-1000 psi	new

COMPRESSOR BUILDING

AC-1A	Compressor 1	Rotary Screw Compressor, 1875 cfm, 350 HP	pre-select
AC-1B	Compressor 2	Rotary Screw Compressor, 1875 cfm, 350 HP	pre-select
Cool 1A	AC 1A Aftercooler	Radiator Cooler for AC1 compressor, 10 HP	new
Cool 1B	AC 1B Aftercooler	Radiator Cooler for AC2 compressors, 10 HP	new
Cool 1A VFD	VFD 10 hp	Variable Frequency Drive	new
Cool 1B VFD	VFD 10 hp	Variable Frequency Drive	new
TT-5	Temp Transmitter	AC-1A Discharge Air Temperature (0-150 deg F)	new
TT-6	Temp Transmitter	AC-1B Discharge Air Temperature (0-150 deg F)	new
PT-3	Pressure Transmitter	Hill System Discharge Pressure (0-150 psig)	new
PG-3	Pressure Gage	AC-1A Discharge Air Pressure	new
PG-4	Pressure Gage	AC-1B Discharge Air Pressure	new
TG-1	Temperature Gage	AC-1A Inlet Temperature	new
TG-2	Temperature Gage	AC-1B Inlet Temperature	new
TG-3	Temperature Gage	AC-1A Outlet Temperature	new
TG-4	Temperature Gage	AC-1B Outlet Temperature	new

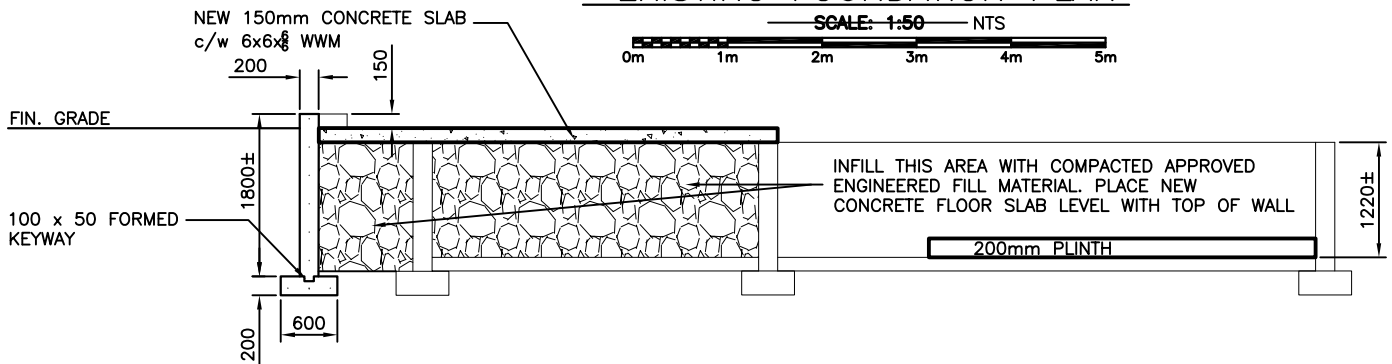
RIVER PUMPHOUSE

RP 1	River Pump 1	Vertical Turbine Pump, 2400 GPM/45' TDH, 40 HP	pre-select
RP 1 VFD	VFD for RP 1	Variable Frequency Drive, RP 11	new
LT-1	Level Transmitter	River Stage Level Transmitter (0-10') ultrasonic	new
PT-1	Pressure Transmitter	Pump Discharge Pressure Transmitter (0-200 psig)	new
TT-1	Temp Transmitter	Building Temperature (0-100 deg F)	new
PG-1	Pressure Gage	Pump Back Pressure	new



**EXISTING FOUNDATION PLAN**

SCALE: 1:50 NTS



**FOUNDATION SECTION**

SCALE: 1:50 NTS



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DWG. TITLE COMPRESSOR & PROCESS WATER PUMPHOUSE  
Ref. Dwg. 8351-1 A-M3

PROJECT CANADA WINTER GAMES SKI MARTOCK

Scale AS NOTED		
Date APRIL 22, 2009		
Designed BJJ	Drawn By RGH	
Checked	Electronic File 8351 BASE	
Project 8351-1	Dwg SK-A2	Rev 1