



333-2014 ADDENDUM 3

Contract 1 – Site Preparation Works – South End Water Pollution Control Centre (SEWPCC) Upgrading/Expansion Project

URGENT

PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE BID OPPORTUNITY

ISSUED: July 30, 2014
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TELEPHONE NO. (204) 896-1209

THIS ADDENDUM SHALL BE INCORPORATED INTO THE BID OPPORTUNITY AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS

Template Version: A20131129

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid Opportunity, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid non-responsive.

PART A – BID SUBMISSION

Replace: 333-2014 Addendum 2 - Bid Submission with 333-2014 Addendum 3 - Bid Submission. The following is a summary of changes incorporated in the replacement Bid Submission:

- Form B(R3): Change in quantity - Item E.6 ii).
- Form B(R3): Change in quantity - Item F.11.
- Form B(R3): Added – Section “I – Depressurization Well System“.
- Form B(R3): Added – Items I.1 i) to I.1 iii) inclusive and Items I.2 i) to I.2 iii) inclusive.
- Form B(R3): Revised - Summary item labelled “F.22 Reflective Channel Posts” revised to read “G Electrical Work”.
- Form B(R3): Added - Summary item labelled “I – Depressurization Well System”.
- Form G2(R2): Revise expiry date on Page 2 of 2.

Page numbering on some forms may be changed as a result.

PART B – BIDDING PROCEDURES

Revise: B2.1 to read: The Submission Deadline is 12:00 noon Winnipeg time, August 06, 2014.

PART D – SUPPLEMENTAL CONDITIONS

Revise: D16.4 to read: The City intends to award this Contract by October 5, 2014.

PART E – SPECIFICATIONS

- Revise: NMS Division 01
Section 01 50 00
Clause 3.2 A.1
to read: Power is available for Contractor's temporary trailers (up to 4 trailers) as shown on the drawings. Power requirements in addition to that provided for as part of this Contract shall be the responsibility of the Contractor. Supply and Install all temporary electric power service, metering equipment, and pay all costs for the electric power used during the Work period.
- Add: NMS Division 01
Section 01 50 00
Clause 3.2 A.4: The Contractor shall provide their own source of power (propane or other) for heating their construction trailers. Temporary electricity from the City is not available.
- Add: NMS Division 31
Section 31 62 13.23
Clause 1.5 C.: Pile Manufacturer: CPCI certified. Provide proof of certification as part of Manufacturer's Certification Compliance.
- Add: NMS Division 31
Section 31 62 13.23
Clause 2.2 A.1.c.: If the pile designer considers 30MPa at transfer to be unnecessary, 20MPa at transfer of prestress will be allowed provided that a stamped letter from the pile designer is submitted identifying that the such deviation from the previous clause of this specification is acceptable.
- Add: NMS Division 31
Section 31 62 13.23
Clause 2.3 C.4.c.: Stressing strands to 75% of ultimate strength will be allowed provided that a stamped letter from the pile designer is submitted identifying that the proposed deviation from the rest of this specification is acceptable.
- Add: NMS Division 31
Section 31 62 13.23
Clause 2.3 E.2.e.: Steam curing minimum of 16 hours will be allowed provided that a stamped letter from the pile designer is submitted identifying that deviation from the rest of this specification is acceptable.
- Revise: NMS Division 31
Section 31 62 13.23
Clause 3.4. O. 1.: Not more than 2 percent from vertical or 2 percent from inclination shown. Additionally, piles shall not be more than 50mm out of position laterally at the top.
- Add: E.7.8: The Contractor shall maintain operation of dewatering systems of site excavations for the duration of the Contract and up to one month following completion of the Work within this Contract to facilitate transfer of dewatering excavations to the Contractor of a subsequent SEWPCC project contract.

Add: E.8.6: Shoring shall be designed for a lifespan of at least 3 years.

Add: E41.0 **E41. GROUNDWATER DEPRESSURIZATION**

E41.1 Description

E41.1.1 This Specification covers all requirements, if deemed necessary by the Contract Administrator, for depressurization of the bedrock aquifer and till unit at the SEWPCC including but not limited to mobilization and demobilization of equipment for drilling, drilling of wells, supply and installation of pumps and piping, the operation, and the decommissioning of groundwater depressurization wells. The extent of depressurization depends on the piezometric levels in the bedrock aquifer and tills at the time of construction, and the aquifer characteristics. Depressurization throughout the excavation period may be necessary to protect against blowout (basal heave), and possible seepage losses into the excavation.

- (a) Excavations are expected to an invert of El. 225.0 m as required for the work.
- (b) Existing standpipe wells are installed in the till, granulars, and bedrock at the SEWPCC site. Pneumatic piezometers are installed within the overlying clays.
- (c) Current piezometric conditions at the site, within the bedrock and tills, vary between El. 225.8 m and El. 227.4 m, and are continuing to be monitored. Should depressurization of the aquifer be required to protect the excavations, the total number of wells required will depend on the aquifer conditions and pumping necessary to achieve the drawdown.
- (d) The wells and pumping rate targets specified are intended to allow for design flexibility in achieving the targets for aquifer depressurization at the site. The Contractor shall verify the effectiveness of the installed depressurization system, if required, using the existing network of standpipe and pneumatic piezometers.

E41.1.2 Refer to Data Drawings and the Soils Investigation Report referred to in E2 for drill logs for existing wells and monitors, and all other reference sections and drawings of the contract. Ongoing monitoring by the Contract Administrator will be made available to the Contractor. The Contractor shall also be responsible to maintain the dewatering system, as required for excavation, and supplement the monitoring to suit the needs of the Contractor.

E41.2 Materials – Depressurization System

E41.2.1 200 mm (8 inch) Diameter Depressurization Well Casing

- (a) Black Carbon Steel casing pipe to ASTM 53-b and the following:
 - (i) Nominal size: O.D. 219.075 mm.
 - (ii) Wall thickness: 6.350 mm (0.250 inches)
 - (iii) Mass: 33.28 kg/m
- (b) Use pipe fittings of same standard as pipe casing.
- (c) Joints: Welded

E41.2.2 250 mm (10 inch) Diameter Depressurization Well Casing

- (a) Black Carbon Steel casing pipe to ASTM 53-b and the following:
 - (i) Nominal size: O.D. 273.00 mm.

- (ii) Wall thickness: 9.271 mm (0.365 inches)
- (iii) Mass: 60.24 kg/m
- (b) Use pipe fittings of same standard as pipe casing.
- (c) Joints: Welded

E41.2.3 305 mm (12 inch) Diameter Depressurization Well Casing

- (a) Black Carbon Steel casing pipe to ASTM 53-b and the following:
 - (i) Nominal size: O.D. 323.8 mm.
 - (ii) Wall thickness: 9.525 mm (0.375 inches)
 - (iii) Mass: 73.76 kg/m
- (b) Use pipe fittings of same standard as pipe casing.
- (c) Joints: Welded

E41.2.4 Pump(s)

- (a) Submersible pump(s) complete with safety lines, capable of the required sustained pumping rates, ranging 140 USgpm to 475 USgpm (200 mm diameter wells), from 476 USgpm to 650 USgpm (250 mm diameter wells); and from 651 USgpm to 1,100 USgpm (305 mm diameter wells) each, including all anticipated head and friction losses. One (1) spare submersible pump must be available on the construction site at all times for each type of actively deployed pump, available as a replacement pump for the depressurization well. This backup pump is incidental to the Work and there will be no separate payment for this pump.
- (b) A power supply source capable of providing continuous and stable power supply to all active pumps, and an independent back-up power source.

E41.2.5 Drop Piping, Well Head Connections

- (a) Pump drop piping to meet the recommendations of the pump manufacturer.
- (b) Well head connection(s) compatible with drop piping, well seal, ball-type valve to control flow, and quick-disconnect flexible discharge hose from well head connections to well system header discharge piping

E41.2.6 Well System Header Discharge Piping

- (a) Single header pipe of sufficient diameter and construction to convey cumulative flow, under gravity, from the series of depressurization wells to the authorized discharge facility, including all connections. Header pipe location shall be set back from the construction excavation(s). Grouping of depressurization well(s) on a single header system will be determined by construction staging and discharge diversion(s) required during construction.
- (b) Header system connection(s) compatible with quick disconnect flexible discharge hose from each depressurization well.
- (c) Capability to measure total discharge from the header discharge piping system(s) on a daily basis, to an accuracy of $\pm 10\%$.

E41.2.7 Bentonite/Cement Grout and Backfill

- (a) Bentonite/Cement grout shall consist of Enviroplug Grout, or approved equivalent, normal Portland cement, and potable water mixed in the following proportions:

Item	Mass	Ratio by Mass
Enviroplug Grout	5 lbs	1
Normal Portland Cement	94 lbs	19
6 US Gallons Water	±50 lbs	10

E41.2.8 Well Caps

- (a) The watertight well cap for each depressurization well, when not in use, shall be supplied complete with a compression gasket to secure it to the casing and shall seal the well from surface water infiltration. Suitable products shall be supplied by Baker Manufacturing or approved equivalent.

E41.3 Submittals

- E41.3.1 Prior to commencement of the work, the Contractor shall submit in accordance with specification section "01 33 00 Submittal Procedures", the pump models, sizes, rated capacities and delivery dates, for all pumps that may be required for the groundwater depressurization and in accordance with the construction methods below.

E41.4 Construction Methods

E41.4.1 General – Depressurization System

- (a) Access to the well construction locations will be the responsibility of the Contractor.
- (b) The Contractor shall provide access for the drill rig and support vehicles at the time of well installations. Typical vehicle loadings are as follows, although these may vary depending on the equipment utilized by the drilling Contractor:
 - i) Gross Vehicle Weight – 25,000 kg
 - ii) Rear Tires – 18,000 kg over eight 280 mm tires
 - iii) Front Tires – 7,000 kg over two 460 mm tires
- (c) The City will obtain the permit(s) required for groundwater withdrawal, and discharge.
- (d) The Contractor is advised that the Contract Administrator shall be permitted access to the site to oversee the drilling, installation, operation and monitoring of the depressurization wells and all associated works.
- (e) The Contractor shall drill, supply, install and develop cased depressurization bedrock wells, with layout provided by the Contract Administrator.
- (f) The Contractor shall complete short term (1 hour) pumping tests on each installed cased well, and on combinations of up to three (3) wells as required, to determine the cumulative drawdown from static conditions, using equipment provided by the Contractor, including submersible pumps to establish the maximum pumping rate. The Contractor shall monitor groundwater levels during all testing at other available depressurization wells, and monitor wells, as specified by the Contract Administrator.
- (g) The Contractor shall supply and install submersible pumps for all depressurization wells complete with a power supply system plus independent backup power, and all necessary components including pump starter and electrical disconnect enclosed in approved weatherproof enclosure, drop piping, connections, well seal, discharge hose, and ball-type valve to control flow. Total discharge from each

- submersible pump must be measurable at the wellhead. Each submersible pump shall be capable of pumping at the required rate, including all anticipated head and friction losses. Final pump selection must be to the satisfaction of the Contract Administrator. Final design of pump capacities and quantities of pumps within each size range will vary, and will be selected by the Contract Administrator, based on the overall depressurization requirements, and 1 hour pumping tests completed on each installed depressurization well.
- (h) Supply and install watertight and lockable well caps, or approved equivalent, to provide a secure and watertight seal on the depressurization wells when not in use.
 - (i) Supply and install piping and connections to convey flow from each depressurization well into a single header pipe for each line of depressurization wells, with discharge to the authorized location. The total rate and cumulative discharge from each header pipe must be measurable on a daily basis.
 - (j) The Contractor shall undertake site preparation at the discharge location for erosion control and pumped water aeration at the end of each discharge header pipe.
 - (k) The Contractor shall undertake depressurization system testing and monitoring. This testing will involve simultaneous operation of all wells at the excavation locations, or as directed by the Contract Administrator.
 - (l) Operation and maintenance of the depressurization system on a continuous basis for the duration of the construction period requiring aquifer depressurization, as directed and to the satisfaction of the Contract Administrator.
 - (m) Operation of the depressurization system will include monitoring of the system(s) to maintain depressurization levels within the ranges specified by the Contract Administrator. No changes to the operation of the depressurization system will be made without prior acceptance by the Contract Administrator. The Contractor shall notify the Contract Administrator prior to any depressurization activities. The Contractor shall cooperate and provide the Contract Administrator access for monitoring as required.
 - (n) The Contractor shall be responsible for all depressurization system alterations during excavation deepening, or during any other construction-related activities that require alterations to the depressurization system(s). These alterations shall include re-setting submersible pumps, cutting down or extending casings, as construction excavation depth increases or backfilling activities commence, and relocating depressurization system header connection and discharge piping as required during construction sequencing. During system alterations, no more than one (1) well per site may be out of service at any time. The Contractor shall be responsible for any damage to any depressurization system or monitoring system components during any and all construction activities. Damaged components will be replaced at the Contractor's cost, to the satisfaction of the Contract Administrator.

E41.4.2 Depressurization Wells

- (a) The depressurization wells shall be installed by a licensed water well driller. The Contractor shall be responsible for providing site access for the drill rig and support vehicles. The total depth of depressurization wells shall be up to twenty five (25) metres below grade each and comprised of:

- (i) Drill hole for 200 mm, 250 mm, or 305 mm diameter steel casing.
- (ii) Steel casings socketed into competent rock (from 0.5 m to 1.0 m) and grouted at each site and protruding 1 m above surface grade.
- (iii) Open hole drilling within the bedrock.
- (iv) Supply and installation of lockable well caps, or approved equivalent, for wells when not in use.
- (v) Pumping test on new depressurization wells and cleanup and restoration of affected areas around well site to the satisfaction of the Contract Administrator.

E41.4.3 Grouting and Sealing

- (a) The well casing shall be driven into the consolidated formation until a seal is obtained, where practicable.
- (b) The casing of well extending into consolidated formation shall be sealed into the upper 0.5 to 1 m of the formation by grouting with neat cement grout, as per this specification, or approved equivalent.
- (c) For the depressurization wells, the annular space shall be sealed from the base to the top of the drill hole.
- (d) Grout shall be placed from bottom up by tremie or other methods approved by the Contract Administrator. Grout shall be placed in one continuous operation with the entire amount placed before initial set occurs.

E41.4.4 Pump Settings and Piping

- (a) The groundwater level at the time of construction and individual depressurization well capacity shall dictate the appropriate pump depth settings and piping requirements within the individual wells. It is estimated that the pump setting depth will be near the base of the well casing, and it is anticipated that pump setting initial depths will not exceed approximately 20 m. The Contract Administrator shall oversee the setting of pumps.
- (b) The drop pipe shall be connected to a wellhead seal, equipped with a ball-type valve to control flow rate.
- (c) The individual well discharge shall be extended from the wellhead to the discharge header system using a flexible discharge hose connection and quick-disconnect fitting.
- (d) The header pipe shall be of sufficient diameter and construction to convey cumulative flow, under gravity, from the depressurization wells to the discharge area, including all connections. Grouping of depressurization well(s) on a single header system shall be determined by construction staging and discharge diversion(s) required during construction.
- (e) Changes to initial pump settings, drop piping requirements, cutting down or extension of well casings and drop piping, re-setting pumps, and other modifications to the depressurization wells and discharge header system piping due to construction excavation and staging, shall be the responsibility of the Contractor.

E41.4.5 Erosion Control and Groundwater Aeration at Discharge Header Outlet(s)

- (a) At all location(s) where pumping header piping is discharged (temporarily relocated or final), the header discharge shall be directed to energy dissipation mats, and/or a combination of energy dissipation matting, or other aeration device for sediment/erosion control and aeration of discharged groundwater, as approved by the Contract Administrator.

- (b) Relocation of energy dissipation, sediment/erosion control, and groundwater aeration materials due to changes in configuration of the depressurization pumping system discharge headers(s) during construction staging, shall be the responsibility of the Contractor
- (c) The Contractor shall include provision for discharge piping from the well to a location up to 10 metres radius away from the well.

E41.4.6 Depressurization System Testing

- (a) Depressurization System testing shall be as follows:
 - (i) Monitoring of static conditions at all SEWPCC depressurization wells, and other monitoring wells, as specified by Contract Administrator.
 - (ii) Concurrent pumping of all depressurization wells or as directed by the Contract Administrator, at maximum individual well yield rates determined by field monitoring in conjunction with Contract Administrator.
 - (iii) Monitoring of drawdown performance of each depressurization well and other available monitors, as specified by the Contract Administrator.
 - (iv) Depressurization system testing shall be of adequate duration to determine stabilized pumping elevations in all depressurization wells, and corresponding groundwater elevations in monitoring wells, as directed by the Contract Administrator.

E41.4.7 Depressurization System Operation

- (a) The Contractor shall maintain the depressurization system, (if required) on a 24-hour per day basis for the duration of construction requiring depressurization, including an on-site representative for after-hours monitoring. The required total pumping rate to achieve the required depressurization will depend on groundwater elevations at the time of construction. If additional depressurization is required, additional infill wells may be added, at Contract Pricing, subject to authorization by the Contract Administrator.
- (b) The Contractor shall be responsible for monitoring groundwater levels in the monitoring wells at the site, to ensure he maintains sufficient groundwater level depressurization for the construction requirements. Monitoring is anticipated to include all depressurization wells and standpipes at the SEWPCC site. Measurements shall be recorded twice daily initially or as necessary, and provided to the Contract Administrator as requested.
- (c) The Contractor shall provide full cooperation and access to the Contract Administrator to perform additional monitoring of the depressurization system throughout the duration of the Work.
- (d) During non-operational periods, the Contractor shall ensure well cap seals are in place and maintained in all wells.

E41.4.8 Depressurization System Carry-Over

- (a) If installed under this Contract, the depressurization system shall be left in place and maintenance and operation transferred over to the next General Contractor assuming responsibility over the site or to the City. Decommissioning of the system, if installed, will not be required under this Contract.
- (b) If the depressurization system is installed under this Contract, the Contractor shall be responsible for maintaining operation of the system for a period of up to one (1) month following Total Performance on the Contract, after which maintenance and operation of the system will be

transferred to the General Contractor assuming responsibility over the site or the City.

E41.4.9 Reports

- (a) During the work, the Contractor shall assist the Contract Administrator in documenting information relative to the construction of the depressurization system (and groundwater recharge system, if required) including:
 - (i) Log of well drilling.
 - (ii) Record of well including:
 - Geodetic elevations (supplied by the Contract Administrator).
 - Size and length of each casing section installed.
 - Grouting details.
 - Depth of changes in formation.
 - Description of formations encountered.
 - Elevations at which aquifers are encountered, sudden changes in water level, loss of drilling fluid or other indications of permeable strata.
- (b) Records of all static water level measurements, and monitoring data, including times at which they were taken and any observable changes in water level(s).
- (c) Well pumping test and development data.

E41.5 Measurement and Payment

E41.5.1 Estimated Quantities

- (a) The estimated quantities for each item are provided in Form B: Prices. The Contract Administrator may change the actual quantities to suit site conditions. There shall be no claim by the Contractor with respect to any changes to the actual quantities provided in Form B.

E41.5.2 Mobilization and Demobilization

- (a) Mobilization and demobilization for the Groundwater Depressurization is considered incidental to the Work, and no separate payment will be made.

E41.5.3 Construction of New 200 mm Diameter Depressurization Wells

- (a) Construction of new 200 mm diameter depressurization wells shall be measured and paid for in accordance with the following:
 - (i) Well construction through overburden material and bedrock will be measured on a unit basis and paid for at the Contract Unit Price for "200 mm diameter Depressurization wells". The unit price shall include up to 25 metres depth of 200 mm diameter well constructed through both the overburden material and bedrock in accordance with this Specification including drilling, well development, the supply and installation of steel casing, well caps, grouting and related works, measured and accepted by the Contract Administrator.
- (b) Well Pump Testing shall be incidental to the unit price for "200 mm diameter Depressurization wells". Pump tests shall be completed in accordance with this Specification and accepted by the Contract Administrator.
- (c) The supply and installation of scour and erosion protection measures such as heavy duty erosion control mats and silt fence for the pump tests

is considered incidental to the Work and no separate measurement or payment will be made.

E41.5.4 Construction of New 250 mm Diameter Depressurization Wells

- (a) Construction of new 250 mm diameter depressurization wells shall be measured and paid for in accordance with the following:
 - (i) Well construction through overburden material and bedrock will be measured on a unit basis and paid for at the Contract Unit Price for “250 mm diameter Depressurization wells”. The unit price shall include up to 25 metres depth of 250 mm diameter well constructed through both the overburden material and bedrock in accordance with this Specification including drilling, well development, the supply and installation of steel casing, well caps, grouting and related works, measured and accepted by the Contract Administrator.
- (b) Well Pump Testing shall be incidental to the unit price for “250 mm diameter Depressurization wells”. Pump tests shall be completed in accordance with this Specification and accepted by the Contract Administrator.
- (c) The supply and installation of scour and erosion protection measures such as heavy duty erosion control mats and silt fence for the pump tests is considered incidental to the Work and no separate measurement or payment will be made.

E41.5.5 Construction of New 305 mm Diameter Depressurization Wells

- (a) Construction of new 305 mm diameter depressurization wells shall be measured and paid for in accordance with the following:
 - (i) Well construction through overburden material and bedrock will be measured on a unit basis and paid for at the Contract Unit Price for “305 mm diameter Depressurization wells”. The unit price shall include up to 25 metres depth of 305 mm diameter well constructed through both the overburden material and bedrock in accordance with this Specification including drilling, well development, the supply and installation of steel casing, well caps, grouting and related works, measured and accepted by the Contract Administrator.
- (b) Well Pump Testing shall be incidental to the unit price for “305 mm diameter Depressurization wells”. Pump tests shall be completed in accordance with this Specification and accepted by the Contract Administrator.
- (c) The supply and installation of scour and erosion protection measures such as heavy duty erosion control mats and silt fence for the pump tests is considered incidental to the Work and no separate measurement or payment will be made.

E41.5.6 Groundwater Depressurization Well Equipment

- (a) Submersible pumps 140 USgpm to 475 USgpm will be measured on a unit basis and paid for at the Contract Unit Price for “Depressurization Equipment Supply and Installation – 140 USgpm to 475 USgpm”. The amount to be paid for shall be the total number of pumps (140USgpm to 475 USgpm) supplied and installed complete with all necessary electrical connections, components, drop piping, well head fittings and adapters to connect depressurization well discharge hose from well head to header system in accordance with this Specification, measured and accepted by the Contract Administrator.

- (b) Submersible pumps 476 USgpm to 650 USgpm will be measured on a unit basis and paid for at the Contract Unit Price for "Depressurization Equipment Supply and Installation – 476 USgpm to 650 USgpm". The amount to be paid for shall be the total number of pumps (476 USgpm to 650 USgpm) supplied and installed complete with all necessary electrical connections, components, drop piping, well head fittings and adapters to connect depressurization well discharge hose from well head to header system in accordance with this Specification, measured and accepted by the Contract Administrator.
- (c) Submersible pumps 651 USgpm to 1,100 USgpm will be measured on a unit basis and paid for at the Contract Unit Price for "Depressurization Equipment Supply and Installation – 651 USgpm to 1,100 USgpm". The amount to be paid for shall be the total number of pumps (651 USgpm to 1,100 USgpm) supplied and installed complete with all necessary electrical connections, components, drop piping, well head fittings and adapters to connect depressurization well discharge hose from well head to header system in accordance with this Specification, measured and accepted by the Contract Administrator.
- (d) The backup submersible pump(s) shall be provided incidental to the Work, with no separate payment.
- (e) Supply and set-up of the power supply system for the pumps shall be incidental to the Contract Unit Prices for submersible pumps. It shall be for the supply of electrical generation or electrical connections sufficient to operate all submersible pumps, in accordance with this Specification, accepted by the Contract Administrator.
- (f) Depressurization well header piping shall be incidental to the unit price for depressurization equipment supply and installation. The well header piping shall be capable of handling the discharge flow supplied and installed in accordance with this Specification, measured and accepted by the Contract Administrator. No additional payment shall be made for well header piping.

E41.5.7 Erosion Control Measures and Groundwater Aeration

- (a) Erosion control measures and groundwater aeration for each header discharge shall be incidental to the installation of depressurization well header pipe. The work to be paid for shall be the total Work in accordance with this Specification including supply, construction, relocation as necessary and decommissioning of erosion control measures for discharge, aeration devices, and sediment control devices, accepted by the Contract Administrator.

E41.5.8 Depressurization System Testing

- (a) Depressurization system testing shall be incidental to the installation of the wells. No additional payment shall be made for testing of the system performed in accordance with this Specification.

E41.5.9 Operation and Maintenance of Depressurization System

E41.5.10 Operation and maintenance of the depressurization system shall be incidental to the installation of the wells. The Contractor shall assume six (6) months of continuous operation.

E41.5.11 Water sampling and Laboratory Testing

- (a) Water sample assistance on obtaining samples and payment for laboratory testing shall be paid for by the City.

DRAWINGS

Replace: 333-2014 _Drawing_4-0102-DGAD-S004_R00 with 333-2014 _Addendum_3 Drawing_4-0102-DGAD-S004_R01

333-2014 _Drawing_4-0102-SGAD-U001-001_R00 with Drawing 333-2014 _Drawing_4-0102-SGAD-U001-001_R01

333-2014 _Drawing_1-0102-CGAD-A003-004_R01 with Drawing 333-2014 _Drawing_1-0102-CGAD-A003-004_R02

333-2014 _Drawing_1-0102-CGAD-A003-005_R01 with Drawing 333-2014 _Drawing_1-0102-CGAD-A003-005_R02

333-2014 _Drawing_1-0102-CGAD-A003-006_R01 with Drawing 333-2014 _Drawing_1-0102-CGAD-A003-006_R02