

ADDENDUM No. 1

DATE: October 12, 2018

PROJECT: City of St. Charles – S. 7th Avenue & Division Street Lift Station

PROJECT NUMBER: STC-112

OWNER: City of St. Charles, Illinois

ENGINEER: Trotter and Associates, Inc.
40W201 Wasco Road, Suite D
St. Charles, Illinois 60175

TO: Prospective Bidders

The Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated September 7th, 2018, with amendments and additions noted below.

Return the provided Receipt of Addendum Acknowledgement to Trotter and Associates, Inc. and acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may disqualify the Bidder.

This Addendum consists of five (5) pages, plus attachments consisting of fifty (50) pages.

General Comments

A Mandatory Pre-Bid Conference was held at 10:00 AM on Tuesday September 25, 2018 at the City of St. Charles Public Works Building. The sign-in sheet and minutes of the Pre-Bid conference can be found as separate documents, enclosed separately, and shall be considered part of Addendum No. 1.

Modifications to Project Specifications

1. Section 00 11 13 – ADVERTISEMENT FOR BIDS

Section 00 11 13 is hereby modified:

1.4 Bonds

- B. The successful bidder will be required to furnish Performance and Completion and Payment Bonds on forms provided in the Specifications and Contract Documents, each in an amount equal to 110 and 100 percent of the contract sum, respectively.

2. Section 32 31 29 – WOOD FENCE AND GATES

Section 32 31 29 is hereby modified:

1.3 SYSTEM DESCRIPTION

- A. Fence Height: ~~as indicated on Drawings~~ 8 FT nominal

~~2.1~~ MANUFACTURERS

~~A. Manufacturers:~~

- ~~1. Fence and Gate system shall conform to materials indicated on IDOT "Standard 641001-01 Sight Screen Cedar Stockade Fence Type S" and Ameristar "AdapTrack" with modifications noted under article 2.2 of this Specification.~~
- ~~2. Substitutions: Section 01-60-00 Product Requirements.~~

2.2 MATERIALS AND COMPONENTS

A. Wood Fence:

1. ~~8-foot tall fence for fence panels and posts shall conform to the requirements of IDOT "Standard 641001-01 Sight Screen Cedar Stockade Fence Type S" with steel posts.~~
 - a. ~~Concrete shall be substituted for aggregate utilized for post hole fill.~~
 - b. Fence posts shall be 4 IN square, 12 GA painted steel tubing with pre-galvanized pressed-steel caps, set in 10 IN x 42 IN deep concrete footings. Steel shall be coated per Table 1 below.
 - c. South fence posts where supporting cantilever gate panels shall be 2.5 IN 6 IN square x 1/4" steel tubing with pre-galvanized pressed-steel caps, set in 24 IN x 42 IN deep concrete footings. Steel shall be coated per Table 1 below:
2. ~~Pickets, rails and posts shall be pre-cut to specified lengths. Pickets shall be 2.25 IN 3 IN diameter cedar pickets 1 IN x 6 IN ACQ-treated pine. Rails shall be wood ACQ-treated pine, 3 2 IN x 4 IN. Posts shall be wood, 8 IN x 8 IN x 14 FT. Pickets shall be fastened triple-nailed to rails with galvanized common wire nails as indicated on Plan and Detail A of Standard 641001-01. Rails shall be fastened to posts with hardware indicated on Plan and Detail B of Standard 641001-01 two galvanized tapping screws per rail end.~~

B. Wood Cantilever Gate:

1. ~~The gate system shall include a rigid gate panel (supplied by others) that employs an AdapTrack™ cantilever gate adapter kit, manufactured by Ameristar Fence Products, Inc. containing all components necessary (i.e., track, truck brackets and truck assemblies, lower guide roller assemblies, fittings and fasteners) to convert the rigid gate panel to a cantilever gate system. ;~~

- a. 8-foot tall, 10 FT wide trussed double leaf swing-gate with 20 FT minimum clear gate opening.
 - b. ~~Coordinate track placement on interior of fenced-in lift station area with other site improvements, including grading, generator equipment pad, underground utilities, etc.~~
 - c. Coordinate installation of gate with clearance required for generator access.
 - d. Facing of gate shall utilize ~~cedar~~ pine pickets to match fencing. Pickets, rails and posts shall be pre-cut to required lengths.
 - e. Design gates for operation by one person.
 - f. ~~The top track shall conform to the Ameristar® AdapTrack™ cross section, manufactured by Ameristar Fence Products, Inc., in Tulsa, Oklahoma.~~
 - g. ~~The material used for the AdapTrack™ shall be manufactured from ASTM B221 aluminum (designation 6005-T5) with a yield strength of 35,000 PSI.~~
 - h. Contractor to verify with manufacturer ~~if requirements for diagonal truss bracing is necessary.~~ Adjustable truss rod required on inside face of each gate leaf for tensioning and adjusting.
 - i. ~~2-3/8" gate panel frame brackets shall be supplied with each kit. Two upper suspension rollers and two lower guide rollers shall be included with each kit.~~
- 2. Materials as required for fence framework.
 - 3. Hardware:
 - a. Per manufacturer recommendation.
 - b. Heavy-duty pioneer latch, padlockable. Gate must be lockable with City-supplied padlock. Contractor to coordinate selection of hardware with City, accordingly.
 - c. One steel caned drop rod, 40" minimum, for each gate leaf. One receiver sleeve cast into pavement for each leaf at open and closed positions. West leaf to have 180-degree, open-in hinge. East leaf to have 90-degree, open-in hinge.

3.2 FENCE INSTALLATION

- A. Fence post shall be ~~spaced according to Standard 641001-01, plus or minus 1/2 IN at 8 FT maximum spacing.~~ For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. ~~Fence panels shall be attached to posts with hardware according to Standard 641001-01.~~ Posts shall be set in concrete footers having a minimum depth of 42 IN. See Related Sections for Specifications that shall govern material requirements for the concrete footer. Posts setting by other methods such as plated posts or grouted core-drilled footers are permissible only if shown by engineering analysis to be sufficient for strength for the intended application. Four rails shall be evenly spaced, with 6" between the bottom rail and the finished grade and 6" between the top rail and the top of the post.
- B. Post-holes must be approved by engineer prior to placement of concrete.

3.4 GATE INSTALLATION

- A. Gate shall be installed at south side of fenced-in lift station area as indicated on the Drawings.
- B. Gate posts shall be spaced according to the manufacturers' gate Drawings, dependent on standard out-to-out gate dimensions and gate hardware selected.
- C. Post-holes must be approved by engineer prior to placement of concrete.
- D. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles.
 - 1. The manufacturers' gate Drawings shall identify the necessary gate hardware required for the application.
 - 2. ~~Gate hardware shall be provided by the manufacturer of the gate and shall be installed per manufacturer's recommendations.~~
 - 3. ~~The AdapTrack™ extrusion shall be mechanically fastened to gate panel framing as shown in manufacturer's literature.~~
 - 4. ~~Set gate posts in accordance with the gate elevation drawing.~~
 - 5. ~~Attach truck brackets and upper suspension rollers to gate posts per end view (crosssection) in construction drawings; slide AdapTrack™ toprail onto rollers.~~
 - 6. ~~Install lower guide rollers and gate stops.~~

2 Section 40 05 51 – COMMON REQUIREMENTS FOR PROCESS VALVES

Section 00 31 00 is hereby modified:

2.2 SUMMARY

- E. Provide actuators with position indicators for shutoff valves 6 8 IN and larger:

Modifications to Project Drawings

1. Drawing D.1

- A. Revision to removal requirements for existing structures.
- B. Removed call-out to cut and cap the lines between the existing wet wells.

2. Drawing C.1

- A. Added landscaping.

3. Drawing P.1

- A. Revision to clean-out detail to refer to P.4, not C.3.

4. Drawing P.3

- A. Revise lid thickness for meter vault.

5. Drawing E.2

A. Removed Node 4 from one-line diagram, renumber nodes.

ALL ITEMS IN CONFLICT WITH THIS ADDENDUM ARE HEREBY DELETED.

THIS ADDENDUM IS HEREBY MADE PART OF THE CONTRACT DOCUMENTS AND SHALL BE NOTED ON THE PROPOSAL.

END ADDENDUM No. 1

Attachments:	Pre-Bid Conference Sign-In Sheet	2 pages
	Pre-Bid Conference Meeting Minutes	9 pages
	Uncontaminated Soil Certification (LPC-663)	13 pages
	Section 00 11 13 – Advertisement for Bids	4 pages
	Section 32 31 29 – Wood Fence and Gates	6 pages
	Section 40 05 51 – Common Requirements for Process Valves	10 pages
	Plan Sheet Revision Exhibits	5 pages
	Addendum No. 1 Acknowledgement	1 page



City of St. Charles
S. 7th Avenue & Division Street Lift Station

Pre-Bid Conference
Tuesday, September 25, 2018, 10:00 a.m.
Minutes

Attendees: Sign-In Sheet
Introductions

Jerry Ruth, P.E.	Trotter and Associates, Inc.	Project Manager
<i>Tim Wilson (not present)</i>	<i>City of St. Charles</i>	<i>Environmental Services Manager</i>
Mike Burnett	City of St. Charles	Environmental Services Div. Mgr.
Chris Rebone	City of St. Charles	Wastewater Asst. Div. Manager

Receipt of Bids

Sealed proposals will be received by the City of St. Charles for the project entitled “S. 7th Avenue & Division Street Lift Station – City of St. Charles, Illinois” until 10:00 am on Tuesday, October 23rd, 2018 at Office of the Purchasing Department, located at 2 East Main Street, St. Charles, Illinois 60174. The sealed bids will be publicly opened and read aloud immediately afterwards in the City Council Chambers, on the same date. Sealed bids shall be addressed to the City of St. Charles, Purchasing Manager’s Office, 2 East Main Street, St. Charles, Illinois 60174 and shall be labeled “Bid for S. 7th Avenue & Division Street Lift Station – City of St. Charles, Illinois”.

Funding

Any contract or contracts awarded under this invitation for bids are expected to be funded in part by a loan from the Illinois Environmental Protection Agency (Illinois EPA). Neither the State of Illinois nor any of its departments, agencies, or employees is or will be a party to this invitation for bids or any resulting contract. The procurement will be subject to regulations contained in the Procedures for Issuing Loans from the Water Pollution Control Loan Program (35IAC Part 365), the Davis-Bacon Act (40 USC 276a through 276a-5) as defined by the United States Department of Labor, and the Employment of Illinois Workers on Public Works Act (30 ILCS 570) and DBE Policy per 40 CFR Part 33, as amended. This procurement is also subject to the loan recipient’s policy regarding the increased use of disadvantaged business enterprises. The loan recipient’s policy requires all bidders to undertake specified affirmative efforts at least sixteen (16) days prior to bid opening. The policy is contained in the specifications. Bidders are also required to comply with the President’s Executive Order No. 11246, as amended. The requirements for bidders and contractors under this order are explained in 41 CFR 60-4. In addition, this

procurement is subject to the “Use of American Iron and Steel” requirements as contained in Section 436 (a) – (f) of the Consolidated Appropriations Act, 2014.

NOTE: Please ensure that affirmative efforts are taken at least sixteen (16) days prior to bid opening.

NOTE: Use of American Iron and Steel will require certifications from manufacturers. These letters must include the following items:

- 1. Identify the specific products(s) being delivered to the project site.**
- 2. Identify the location(s) of the foundry/mill/factory where the product was manufactured (include City and State).**
- 3. Identify the name of the project and jurisdiction where the product was delivered.**
- 4. Letter must be signed by a company representative.**
- 5. Letter must reference American Iron and Steel requirements.**

NOTE: Notice of Intent to Award, Notice of Award, and Notice to Proceed will be contingent on City approval process and IEPA loan application review process. The following is an anticipated approval schedule for the project and is subject to change:

Bid Opening	10/23/2018
NOI	10/24/2018
Bid Review & Certs to IEPA	10/24/2018
NOI to Gov't. Services	11/26/2018
NOI to City Council	12/3/2018
NOI signed	12/10/2018
Loan Agreement	1/10/2019
NOI to Gov't. Services	1/28/2019
NOA, NTP & Agmnt. to Council	2/4/2019
NTP	2/28/2019
Pre-Con	3/5/2019
Start Construction	3/6/2019

Bid Security

A Bid Bond payable to the OWNER must accompany each BID for ten percent (10%) of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. When the Agreement is executed the bonds of the two remaining unsuccessful BIDDERS will be returned. The BID BOND of the successful BIDDER will be retained until the payment BOND and performance BOND have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID BOND.

Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

A performance BOND in the amount of one hundred ten percent (110%) and a payment BOND in the amount of one hundred percent (100%) of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

NOTE: The performance bond requirement was indicated in the advertisement for bids as only 100% of the contract price. However, this was in error and must be 110% of the contract price. The payment bond will still need to be 100% of the contract price.

Bidder Certification

Bidders must complete all of the certifications within Division 00. These Certifications are required by the Illinois EPA and the City of St. Charles.

To demonstrate qualifications to perform the WORK, each BIDDER must be prepared to submit within five (5) days of OWNER'S request written evidence of the types set forth in the Supplementary Conditions, such as financial data, previous experience and evidence of authority to conduct business in the jurisdiction where the Project is located. Each BID must contain evidence of BIDDER'S qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.

Owner intends to award the contract only to a Bidder that furnishes satisfactory evidence that it has the requisite experience, ability, capital, facilities, plant, organization and staffing to enable it to perform the work in a satisfactory manner and to complete the work for the contract price and within the contract time.

Instructions to Bidders

The Project Specifications provides instructions to bidders on the requirements of the bid package.

Contract Time

All WORK shall be substantially complete within **Two Hundred Thirty (230) calendar days** after the date when the Contract Time commences to run as indicated in the Notice to Proceed and provided in Paragraph 2.03 of the General Conditions. All work shall be at Final Completion and ready for Final Payment in accordance with Paragraph 14.07 of the General Conditions within **Two Hundred Sixty (260) calendar days** of the date when Contract Time commences to run.

Standard General Conditions

The Standard General Conditions of the Construction Contract, as prepared by the Engineers Joint Contract Documents Committee, will apply to the contract and is included in the Project Specifications as Section 00 72 00. Section 00 73 00 – Supplementary Conditions amends and supplements Section 00 72 00.

Wage Provisions

The contractor shall pay prevailing wages in accordance with the federal Davis-Bacon wage provisions (40 USC 276a through 276a-5) as defined by the U.S. Department of Labor and the Illinois Department of Labor Prevailing Wages for Kane County, whichever is greater.

Comment: Detailed wage provisions are provided in Section 00 43 43, Federal Wage Rates. One of the requirements of this Section is weekly submission of Certified Payroll.

Liquidated Damages

Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the WORK is not completed within the time specified in Paragraph 3 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the WORK is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER **Five Hundred dollars and zero cents (\$500.00)** for each day that expires after the time specified in Paragraph 3 for Substantial Completion until the work is fully operational and tested. The CONTRACTOR shall pay the OWNER an additional **Five Hundred dollars and zero cents (\$500.00)** for each day that expires after the time specified in Article 3 for final completion until the work is accepted by the OWNER. Aggregate damages for time expired, past the time of final completion shall then be **One Thousand dollars and zero cents (\$1,000.00)**. At the option of the ENGINEER and OWNER damage amounts may be deducted, on a monthly basis, from the contract balance.

The contract time may be changed only by a change order. For each change order, CONTRACTOR shall submit to the Engineer for review, sufficient reason for delay to enable the Engineer to ascertain the necessity and reasonableness of the delay, and the allowability and eligibility of delay proposed.

Section 00 31 00 Available Project Information

The geotechnical report for the project is included in the Specifications. This report notes requirements for construction, dewatering, backfill, etc. There is also a Specifications Section 31 23 19 – Dewatering that addresses additional dewatering requirements including the submittal of a dewatering plan. The contractor shall be responsible for providing a dewatering system necessary to successfully complete compaction and construction requirements. Dewatering shall be considered incidental to the Contract.

Section 00 31 16 IEPA Guidelines

Each of the forms and certifications shall be complete and signed by the appropriate officer. Any bid that is not accompanied by the appropriate forms and certifications may be considered non-responsive.

Section 00 43 33 – Schedule of Manufacturers of Major Equipment Items

Section 00 43 33 requires that bidders provide prices for each of the named manufacturers. The bidders are also required to provide prices for mandatory alternate manufacturers. The bidder is also encouraged to provide similar information for any other alternate.

The Total Project Base Bid stated in the Proposal includes the furnishing and installation of the equipment items of the named Base Bid manufacturers,

The CONTRACTOR shall provide the price for each Base Bid Item and Alternate proposed. The differential between the Base Bid and Alternate will be determined based on the amounts provided within this Section,

The consideration of alternate equipment offered will not occur until after the determination of the low responsive responsible bidder,

The OWNER may select items of equipment of the Base Bid or accepted alternate equipment manufacturers as may be in his best interest. The bidder agrees to furnish and install any accepted alternate equipment for the Contract Price adjusted by the difference in cost noted in the following tabulation,

The equipment to be supplied will be by the manufacturers selected by OWNER from those Base Bid manufacturers or accepted alternate equipment manufacturers, and that said equipment by the Base Bid and alternate manufacturers fully complies with the performance, material and functional requirements of the Contract Documents,

The cost difference offered for Alternate Major Equipment includes a complete operating installation including the furnishing and installation of any and all changes or additions in structures, process piping, buildings, accessories, controls, or all other work necessary to accommodate the equipment,

The alternate equipment manufacturers named in the tabulation shall be the persons or organizations who supply materials or equipment for the work, including that fabricated to special design, but who do not perform labor at the site, and

If any of the referenced items are left blank on the Base Bid list, CONTRACTOR may be considered unresponsive at the discretion of OWNER.

Subcontractor List

Section 00 43 36 must be completed, signed by the bidder and included as part of the bid package.

Project Summary:

The proposed improvement consists primarily of the following:

A. Demolition:

1. Concrete Sidewalk
2. Lift Station – pipe, pumps, control panel and enclosures, etc.

B. Site Work:

1. Site grading and earthwork.
2. Paving and restoration.
3. Site piping (sanitary force main, sanitary sewer).
4. Site electrical and gas.
5. Storm Water Pollution Prevention Plan (SWPPP).

C. Lift Station Replacement

1. Installation of a new lift station structure.
2. Installation of a new valve vault structure.
3. Installation of a new meter vault structure.
4. Installation of new lift station control panel, electrical support systems, and enclosure.

Submittal Exchange

The project will be using Submittal Exchange as the project management collaborative software tool for transmitting submittals between construction team members. This tool is referred to hereafter as the “Project Website.”

The Contractor is required to utilize Submittal Exchange for the duration of this project, including project closeout (i.e. Contract Duration + 90 days) and shall provide all project information via this program. This includes, but is not limited to contracts, applications for payment, contract modification requests, change orders, requests for information, submittals, daily reports, closeout documentation etc. The electronic submittal process is not intended for color samples, color charts or physical material samples.

The Contractor is required to include the full cost of Submittal Exchange project subscription in their proposal. The subscription and all associated fees shall be included by the Contractor in the General Conditions costs for this project.

For additional submittal and Project Website information see Section 01 33 00.

Addenda

Failure to acknowledge receipt of addenda within the project Bid Documents may result in the Bid being declared Non-responsive. Addendum 1 will be issued within the next week and will include, at a minimum, the following items:

- Copy of Pre-Bid Meeting Minutes
- Copy of Pre-Bid Meeting Sign-in Sheet

Questions/Clarifications from Bidders

Questions and/or clarifications regarding this project should be directed in writing to Jerry Ruth, at the office of the Engineer, by facsimile to 630/587-0475 or by email to j.ruth@trotter-inc.com. Clarifications requested by Bidders must be in writing not less than 7 days prior to the date set for receipt of Bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to all plan holders who have attended the Mandatory Pre-Bid Meeting. Verbal answers are not binding on any party.

Comment: *For additional site visits, please contact Jerry Ruth at j.ruth@trotter-inc.com.*

Questions/Answers Asked During the Prebid Conference:

Who is responsible for staking and layout?

Response: *The contractor will be responsible for this work as indicated in Section 01 70 00 Article 1.2.*

Who is responsible for developing the CCDD forms for the site?

Response: *The City will provide this as a result of the soil boring done at the site. This is generally described in the soils report that is included as Section 00 31 32.*

What allowances are to be included in the bid, and what are they to be used for?

Response: *There are three cash allowances to be included in the bid; The Electrical Service Allowance is intended to be used for relocating electrical service for the lift station including any work that may need to be performed by the City Electric Utility; The Gas Service Allowance is intended to be used for relocating the gas service for the lift station including any work that may need to be performed by Nicor Gas; The Conflict Allowance is intended to address any unforeseen conflicts that may arise during completion of the work. See Section 01 20 00 Article 1.3 regarding these allowances.*

Who provides the Davit Crane and Pedestals for the project?

Response: The contractor will be responsible for providing the pedestals for the City's Portable Davit Crane, which is model no. DH-72P, as indicated on P.3.

Are more bid documents available?

Response: More bid documents are currently being developed, and should be available this afternoon at the address below:

*Trotter and Associates, Inc.
40W201 Wasco Rd. Suite D
St. Charles, Illinois 60175
630/587-0470*

Is the contractor able to shut down lanes of traffic during construction?

Response: The City noted that 7th Avenue does not have a middle lane for redirecting traffic and so lanes would need to be shut down with flaggers. Division Street does have a turning lane on the westbound traffic that might be able to be shut down, but at this time we do not have confirmation of this. Either way, traffic control procedures would need to be coordinated with City staff and Trotter & Associates well ahead of time. See Section 01 50 00 regarding temporary traffic control requirements.

Are all trees in the vicinity of the existing lift station to be removed? Is there an allowance for this work?

Response: All trees indicated on D.1 are to be removed as part of the base bid – there is not an allowance for this work. It is anticipated that landscaping, including several new trees, will be added to the scope of work via Addendum.

The drawings indicate that the piping connecting the two existing wet wells is to be cut and capped, is this the intent?

Response: This is in error and will be corrected via Addenda. The general intent is to abandon the west wet well in place and convert the east wet well to a manhole.

Is there an easement for the lift station?

Response: There is a Blanket Utility Easement granted to the City of St. Charles (93K82421) that contains the project limits, but generally excludes areas within 10 feet of the existing homes north and east of the project site.

How will the contractor bypass the existing pump station?

Response: The contractor may bypass the existing pump station through the existing bypass quick connect located along the north fence line of the existing site or utilize the proposed cleanout structure indicated on the Drawings.

How do the discharge pipes leave the wet wells?

Response: One force main from each wet well converges within the existing valve vault to the northwest. From here, the force main runs to a discharge manhole approximately one block north.

Is the existing ATS and natural gas generator to be replaced or re-used?

Response: Both are to be re-used. The ATS will be located within the new Traffic Box, and the existing generator will be relocated to the west as indicated on the Drawings.

What needs to be removed in the existing wet wells prior to abandoning them?

Response: All pumps and support systems (cables, support brackets, guide rails, etc.) are to be removed, along with all portions of the existing wet wells above elevation 727.00. See D.1 for more information on abandoning these structures.

What does "Undertaking of Insurance" mean in Section 00 21 13?

Response: This is referring to the Certificate of Insurance required by Section 00 72 00 and Section 00 73 00.

What permits are required for completion of the work?

Response: A permit to construct has been obtained from the IEPA. The Contractor will need to complete and submit the Kane-DuPage Soil and Water Conservation District form on Sheet C.3. No other permits are required for this work.

What is the estimated value of this project?

Response: The engineer's estimate is \$550,000 - \$650,000.



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Proposed Lift Station Replacement Project Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

NEC of Intersection of South 7th Avenue & Division Street

City: St. Charles State: IL Zip Code: 60174

County: Kane Township: St. Charles

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.898755 Longitude: -88.292227

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: City of St. Charles

Name: City of St. Charles

Street Address: 2 E. Main Street

Street Address: 2 E. Main Street

PO Box: _____

PO Box: _____

City: St. Charles State: IL

City: St. Charles State: IL

Zip Code: 60174 Phone: (630) 377-4405

Zip Code: 60174 Phone: (630) 377-4405

Contact: Peter Suhr - Public Works Director

Contact: Peter Suhr - Public Works Director

Email, if available: psuhr@stcharlesil.gov

Email, if available: psuhr@stcharlesil.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Proposed Lift Station Replacement Project

Latitude: 41.898755 Longitude: -88.292227

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

SEECO performed 1 boring (B-1) to 35 feet and chemical laboratory test was performed on one sample (S-2, 4-6) at this project site. Materials certified herewith as CCDD material must be free of rebar, garbage, etc. and any said materials must be segregated from CCDD materials and disposed of in other legal means.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

SEECO screened for volatile organics using a Photo Ionization Detector which indicates the presence of volatile organics in parts per million (ppm). No readings indicated the presence of volatile organics associated with contamination at the locations tested. Laboratory analysis were within the MAC range set forth by the IEPA and soil pH range is acceptable (results attached).

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Garrett Gray, P.E. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: SEECO Environmental Services Inc.

Street Address: 7350 Duvan Drive

City: Tinley Park State: IL Zip Code: 60477

Phone: (708) 429-1666

Garrett Gray

Printed Name:

Garrett W. Gray

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

6/27/18

Date:





**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

June 19, 2018

Mr. Don Cassier
SEECO ENVIRONMENTAL SERVICES
7350 Duvan Drive
Tinley Park, IL 60477

Project ID: 11960
First Environmental File ID: 18-3322
Date Received: June 14, 2018

Dear Mr. Don Cassier:

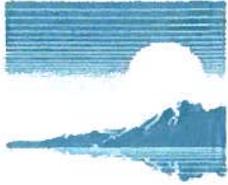
The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 004324: effective 02/27/2018 through 02/28/2019.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Neal Cleghorn
Project Manager



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **18-3322**

Project ID: **11960**

Date Received: **June 14, 2018**

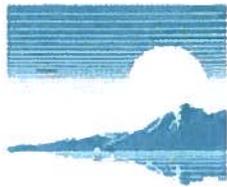
All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
18-3322-001	B-1 4-6	06/12/18

Sample Batch Comments:

Time of sample collection was not provided.



**First
Environmental
Laboratories, Inc.**

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

IL ELAP / NELAC Accreditation # 100292

Case Narrative

SEECO ENVIRONMENTAL SERVICES

Project ID: 11960

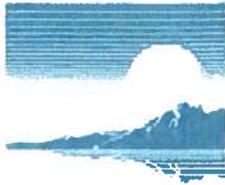
Lab File ID: 18-3322

Date Received: June 14, 2018

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 11960
Sample ID: B-1 4-6
Sample No: 18-3322-001

Date Collected: 06/12/18
Time Collected:
Date Received: 06/14/18
Date Reported: 06/19/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total		Method: 2540B		
Analysis Date: 06/14/18 14:17				
Total Solids	71.71		%	
Volatile Organic Compounds		Method: 5035A/8260B		
Analysis Date: 06/15/18				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 11960
Sample ID: B-1 4-6
Sample No: 18-3322-001

Date Collected: 06/12/18
Time Collected:
Date Received: 06/14/18
Date Reported: 06/19/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds		Method: 5035A/8260B		
Analysis Date: 06/15/18				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds		Method: 8270C		Preparation Method 3540C
Analysis Date: 06/15/18				
Preparation Date: 06/14/18				
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	< 90	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 11960
Sample ID: B-1 4-6
Sample No: 18-3322-001

Date Collected: 06/12/18
Time Collected:
Date Received: 06/14/18
Date Reported: 06/19/18

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds				
Analysis Date: 06/15/18				
	Method: 8270C		Preparation Method 3540C	
			Preparation Date: 06/14/18	
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

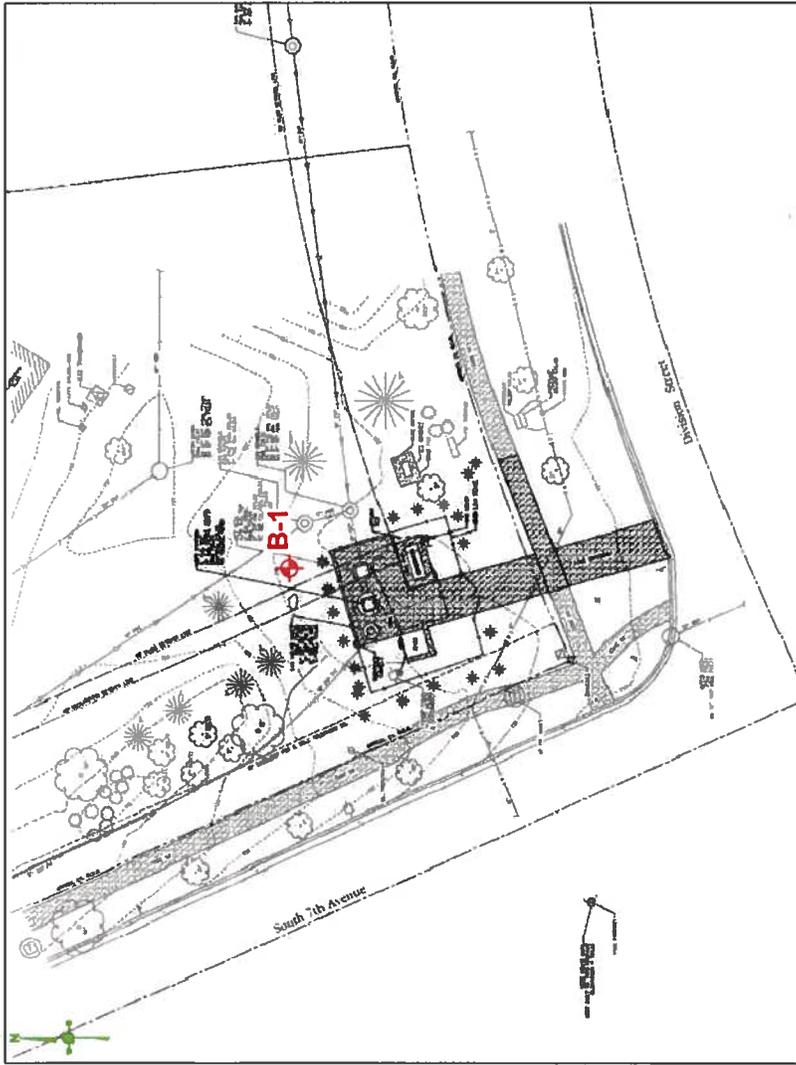
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES	Date Collected: 06/12/18
Project ID: 11960	Time Collected:
Sample ID: B-1 4-6	Date Received: 06/14/18
Sample No: 18-3322-001	Date Reported: 06/19/18

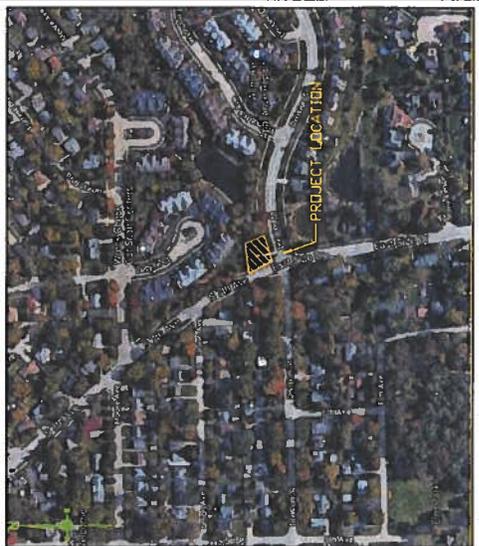
Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds				
Method: 8270C		Preparation Method 3540C		
Analysis Date: 06/15/18		Preparation Date: 06/14/18		
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Total Metals				
Method: 6010C		Preparation Method 3050B		
Analysis Date: 06/15/18		Preparation Date: 06/15/18		
Arsenic	3.4	1.0	mg/kg	
Barium	32.2	0.5	mg/kg	
Cadmium	< 0.5	0.5	mg/kg	
Chromium	13.6	0.5	mg/kg	
Lead	6.9	0.5	mg/kg	
Selenium	< 1.0	1.0	mg/kg	
Silver	0.3	0.2	mg/kg	
Total Mercury				
Method: 7471B				
Analysis Date: 06/15/18				
Mercury	< 0.05	0.05	mg/kg	
pH @ 25°C, 1:2				
Method: 9045D 2004				
Analysis Date: 06/15/18 8:55				
pH @ 25°C, 1:2	8.48		Units	



LEGEND
 ◆ B-1 = APPROXIMATE BORING LOCATION
 ▨ Project Site

VICINITY MAP
 SCALE: NONE



DATE	9/13/2018	BY	1 OF 1
REVISION	NONE		
SCALE	NONE		
PROJECT NO.	119606		
BORING LOCATION PLAN			
PROPOSED S. 7th Ave. & Division Street Lift Station Project St. Charles Township, Kane County, IL			
Trotter & Associates, Inc.		OWNER	
 SECO Consultants, Inc. 2420 S. Waukegan Ave., Suite 200 Waukegan, IL 60087 OFFICE: (815) 499-1400 FAX: (815) 499-1400			
DESIGNED BY	SD	DATE	
CHECKED BY	SD	DATE	
APPROVED BY	SD	DATE	
DATE		DATE	

SECTION 00 11 13 ADM1 - ADVERTISEMENT FOR BIDS

PART 1 GENERAL

1.1 Receipt of Bids

- A. Sealed proposals will be received by the City of St. Charles for the project entitled “S. 7th Avenue & Division Street Lift Station – City of St. Charles, Illinois” until 10:00 am on Tuesday, October 23rd, 2018 at Office of the Purchasing Department, located at 2 East Main Street, St. Charles, Illinois 60174. The sealed bids will be publicly opened and read aloud immediately afterwards in the City Council Chambers, on the same date. Sealed bids shall be addressed to the City of St. Charles, Purchasing Manager’s Office, 2 East Main Street, St. Charles, Illinois 60174 and shall be labeled “Bid for S. 7th Avenue & Division Street Lift Station – City of St. Charles, Illinois”.
- B. Any Contract or Contracts awarded under this invitation for bids are expected to be funded in part by a loan from the Illinois Environmental Protection Agency (Illinois EPA). Neither the State of Illinois nor any of its departments, agencies, or employees is or will be a party to this invitation for bids or any resulting contract. The procurement will be subject to regulations contained in the Procedures for Issuing Loans from the Water Pollution Control Loan Program (35IAC Part 365), the Davis-Bacon Act (40 USC 276a through 276a-5) as defined by the United States Department of Labor, the Employment of Illinois Workers on Public Works Act (30 ILCS 570) and DBE Policy per 40 CFR Part 33, as amended. This procurement is also subject to the loan recipient’s policy regarding the increased use of disadvantaged business enterprises. The loan recipient’s policy requires all bidders to undertake specified affirmative efforts at least sixteen (16) days prior to bid opening. The policy is contained in the specifications. Bidders are also required to comply with the President’s Executive Order No. 11246, as amended. The requirements for bidders and contractors under this order are explained in 41 CFR 60-4. In addition, this procurement is subject to the “Use of American Iron and Steel” requirements as contained in Section 436 (a) – (f) of the Consolidated Appropriations Act, 2014.

1.2 Work Description

- A. Demolition
 - 1. Concrete sidewalk.
 - 2. Lift Station – pipe, pumps, control panel and enclosure, etc.
- B. Site Work
 - 1. Site grading and earthwork.
 - 2. Paving and restoration.
 - 3. Site piping (sanitary force main, sanitary sewer).
 - 4. Site electrical and gas.
 - 5. Stormwater pollution prevention plan (SWPPP).
- C. Lift Station Replacement
 - 1. Installation of a new lift station structure.

2. Installation of a new valve vault structure.
3. Installation of a new meter vault structure.
4. Installation of new lift station control panel, electrical support systems, and enclosure.

1.3 Document Inspection and Procurements

- A. The Contract Documents may be inspected and purchased at the following locations.

1. Trotter and Associates, Inc.
40W201 Wasco Rd. Suite D
St. Charles, Illinois 60175
630/587-0470

Payment for Contract Documents is non-refundable and shall be payable to Trotter and Associates, Inc. in the form of cash, certified check or money order. No partial sets of specifications or drawings will be issued. The non-refundable cost for plans and specifications is \$90.00. Addenda will be issued only to plan holders.

1.4 Bonds

- A. Each bid shall be accompanied by a bid bond, bank draft, cashier's check or certified check payable to the order of the City of St. Charles, Illinois in an amount not less than ten (10) percent of the amount of the bid, as a guaranty that the bidder will execute the contract, if it is awarded, in conformity with the bid form.
- B. The successful bidder will be required to furnish Performance and Completion and Payment Bonds on forms provided in the Specifications and Contract Documents, each in an amount equal to 110 and 100 percent of the contract sum, respectively.

1.5 Mandatory Pre-Bid Conference

- A. A Mandatory Pre-Bid Conference will be held on Tuesday, September 25th, 2018 at 10:00 am at St. Charles Public Works Building, 200 Devereaux Way, St. Charles, IL 60174. Bidders/Contractors not attending the Pre-Bid Conference shall have their bids rejected.

1.6 Wage Rates

- A. The contractor shall pay prevailing wages in accordance with the Davis-Bacon Act (40 USC 276a through 276a-5) as defined by the U.S. Department of Labor, Local Ordinance and the Illinois Department of Labor Prevailing Wages for Kane Counties, whichever is greater.
- B. Rates can be obtained online at www.wdol.gov and www.state.il.us/Agency/idol/.

1.7 Rejection of Bids

- A. Per the IEPA's Procedures for Issuing Loans from the Water Pollution Control Revolving Fund Part 365.620, Section b, the City of St. Charles may reserve the right to reject any and/or all bids if it has documented sound business reasons.

1.8 Award of Bid

- A. Final award of bid shall be contingent on the City of St. Charles receiving financing from the Water Pollution Control Loan Program as administered by the Illinois Environmental Protection Agency. Per the IEPA's Procedures for Issuing Loans from the Water Pollution Control Revolving Fund Part 365.620, Section b, unless all bids are rejected, award shall be made to the low, responsive, responsible bidder after the bid evaluation has been submitted to the IEPA and written notice of IEPA approval has been received by the City of St. Charles.

City of St. Charles, Illinois

Raymond Rogina
Mayor

PART 2 PRODUCTS- (not APPLICABLE to this section)

PART 3 EXECUTIONS- (not APPLICABLE to this section)

END OF SECTION 00 11 13

This Page Left Blank Intentionally

SECTION 32 31 29 ADM1 - WOOD FENCE AND GATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Fence framework, and accessories.
2. Excavation for post bases.
3. Concrete foundation for posts and center drop for gates.
4. Gates and related hardware.

B. Related Sections:

1. Division 00 Procurement and Contracting Requirements.
2. Division 01 General Requirements.
3. 03 31 30 - Concrete, Materials and Proportioning.
4. 03 31 31 - Concrete Mixing, Placing, Jointing, and Curing.
5. 31 05 13 - Soils for Earthwork.
6. 31 05 16 - Aggregates for Earthwork.
7. 31 22 13 - Rough Grading.
8. 31 23 16 - Excavation.

1.2 REFERENCES

A. ASTM International:

1. C94/C94M - Standard Specification for Ready-Mixed Concrete.
2. F626 - Standard Specification for Fence Fittings.
3. F1083 - Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures.
4. A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
5. B117 - Practice for Operating Salt-Spray (Fog) Apparatus.
6. B221 - Aluminum and Aluminum Alloy Extruded Bars, Shapes and Tubes.
7. D523 - Test Method for Specular Gloss.
8. D714 - Test Method for Evaluating Degree of Blistering in Paint.
9. D822 - Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus.
10. D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
11. D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
12. D2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
13. D3359 - Test Method for Measuring Adhesion by Tape Test.

B. American Welding Society (AWS):

- C. Illinois Administrative Code.

1.3 SYSTEM DESCRIPTION

- A. Fence Height: ~~as indicated on Drawings~~ 8 FT nominal.
- B. Line Post Spacing: At 8 FT intervals or as recommended by manufacturer.
- C. Fence Post and Rail Strength: Conform to ASTM F1043 Light Industrial Fence quality.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Approval Submittals:
 - 1. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, gates and schedule of components prior to installation.
 - 2. Product Data: Acknowledgement that products submitted meet requirements of standards referenced.
 - 3. Installation instructions: Submit manufacturer's installation instructions for this specific project prior to installation.
 - 4. Manufacturer's completed warranty registration.
- C. Quality Control Submittals:
 - 1. Source quality control test results.

1.5 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Closeout procedures.
- B. Project Record Documents: Accurately record actual locations of property perimeter posts relative to property lines and easements.
- C. Operation and Maintenance Data: Provide O&M manual documentation
- D. Standard Manufacturer Warranty: Provide two (2) executed copies of the standard manufacturer's warranties required by this Section.

1.6 QUALITY ASSURANCE

- A. The Contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified for fence installation.
- B. Perform Work according to the Standard Specifications for Road and Bridge Construction in Illinois, Current Edition (IDOT) standards. Maintain one copy of document on site.

1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this Section with minimum three years documented experience.
- B. Installer: Company specializing in performing work of this Section with minimum 5 years documented experience or approved by manufacturer.
- C. Installer bonded and licensed in the State of Illinois.
- D. Utilize only AWS certified welder.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Identify each package with manufacturer's name.
- C. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism, and theft.

PART 2 - PRODUCTS

~~2.1~~ MANUFACTURERS

~~A. Manufacturers:~~

- ~~1. Fence and Gate system shall conform to materials indicated on IDOT "Standard 641001-01 Sight Screen Cedar Stockade Fence Type S" and Ameristar "AdapTrack" with modifications noted under article 2.2 of this Specification.~~
- ~~2. Substitutions: Section 01 60 00 Product Requirements.~~

2.2 MATERIALS AND COMPONENTS

A. Wood Fence:

- 1. 8-foot tall fence for fence panels and posts shall conform to the requirements of IDOT ~~"Standard 641001-01 Sight Screen Cedar Stockade Fence Type S"~~ with steel posts.
 - a. Concrete shall be ~~substituted for aggregate~~ utilized for post hole fill.
 - b. Fence posts shall be 4 IN square, 12 GA painted steel tubing with pre-galvanized pressed-steel caps, set in 10 IN x 42 IN deep concrete footings. Steel shall be coated per Table 1 below.
 - c. South fence posts where supporting cantilever gate panels shall be 2.5 IN 6 IN square x 1/4" steel tubing with pre-galvanized pressed-steel caps, set in 24 IN x 42 IN deep concrete footings. Steel shall be coated per Table 1 below:

Table 1 – Steel Coating Performance Requirements		
Quality Characteristics	ASTM Test Method	Performance Requirements
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117, D714 & D1654	Corrosion Resistance over 1,500 HRS (Scribed per ASTM D1654; failure mode is accumulation of 1/8 IN coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 IN LBS (Forward impact using 0.625 IN ball).
Weathering Resistance	D822 D2244, D523 (60° Method)	Weathering Resistance over 1,000 HRS (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

2. Pickets, rails and posts shall be pre-cut to specified lengths. Pickets shall be ~~2.25 IN—3 IN diameter cedar pickets~~ 1 IN x 6 IN ACQ-treated pine. Rails shall be ~~wood~~ ACQ-treated pine, 3 2 IN x 4 IN. Posts shall be ~~wood, 8 IN x 8 IN x 14 FT~~. Pickets shall be ~~fastened triple-nailed to rails with galvanized common wire nails as indicated on Plan and Detail A of Standard 641001-01~~. Rails shall be fastened to posts with ~~hardware indicated on Plan and Detail B of Standard 641001-01~~ two galvanized tapping screws per rail end.

B. Wood Cantilever Gate:

1. The gate system shall include ~~a rigid gate panel (supplied by others) that employs an AdapTrack™ cantilever gate adapter kit, manufactured by Ameristar Fence Products, Inc. containing all components necessary (i.e., track, truck brackets and truck assemblies, lower guide roller assemblies, fittings and fasteners) to convert the rigid gate panel to a cantilever gate system. :~~
 - a. 8-foot tall, 10 FT wide trussed double leaf swing-gate with 20 FT minimum clear gate opening.
 - b. ~~Coordinate track placement on interior of fenced in lift station area with other site improvements, including grading, generator equipment pad, underground utilities, etc.~~
 - c. Coordinate installation of gate with clearance required for generator access.
 - d. Facing of gate shall utilize ~~cedar pine~~ pickets to match fencing. Pickets, rails and posts shall be pre-cut to required lengths.
 - e. Design gates for operation by one person.
 - f. ~~The top track shall conform to the Ameristar® AdapTrack™ cross section, manufactured by Ameristar Fence Products, Inc., in Tulsa, Oklahoma.~~
 - g. ~~The material used for the AdapTrack™ shall be manufactured from ASTM B221 aluminum (designation 6005-T5) with a yield strength of 35,000 PSI.~~
 - h. Contractor to verify with manufacturer ~~if requirements for diagonal truss bracing is necessary~~. Adjustable truss rod required on inside face of each gate leaf for tensioning and adjusting.
 - i. ~~2-3/8" gate panel frame brackets shall be supplied with each kit. Two upper suspension rollers and two lower guide rollers shall be included with each kit.~~
2. Materials as required for fence framework.
3. Hardware:
 - a. Per manufacturer recommendation.
 - b. Heavy-duty pioneer latch, padlockable. Gate must be lockable with City-supplied padlock. Contractor to coordinate selection of hardware with City, accordingly.

- c. One steel caned drop rod, 40” minimum, for each gate leaf. One receiver sleeve cast into pavement for each leaf at open and closed positions. West leaf to have 180-degree, open-in hinge. East leaf to have 90-degree, open-in hinge.

PART 3 - EXECUTION

3.1 PREPARATION

- A. All new installation shall be laid out by the Contractor in accordance with the construction plans.

3.2 FENCE INSTALLATION

- A. Fence post shall be ~~spaced according to Standard 641001-01, plus or minus 1/2 IN~~ at 8 FT maximum spacing. For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. ~~Fence panels shall be attached to posts with hardware according to Standard 641001-01.~~ Posts shall be set in concrete footers having a minimum depth of 42 IN. See Related Sections for Specifications that shall govern material requirements for the concrete footer. Posts setting by other methods such as plated posts or grouted core-drilled footers are permissible only if shown by engineering analysis to be sufficient for strength for the intended application. Four rails shall be evenly spaced, with 6” between the bottom rail and the finished grade and 6” between the top rail and the top of the post.
- B. Post-holes must be approved by engineer prior to placement of concrete.

3.3 FENCE INSTALLATION MAINTENANCE

- A. When cutting/drilling steel posts adhere to the following steps to seal the exposed steel surfaces:
 1. Remove all metal shavings from cut area.
 2. Apply zinc-rich primer to thoroughly cover cut edge and/or drilled hole; let dry (for steel fence).
 3. Apply 2 coats of custom finish paint matching fence color.
 4. Manufacturer cans or paint pens shall be used to prime and finish exposed surfaces; it is recommended that paint pens be used to prevent overspray
- B. Use of non-manufacturer recommended parts or components will not be permitted.

3.4 GATE INSTALLATION

- A. Gate shall be installed at south side of fenced-in lift station area as indicated on the Drawings.
- B. Gate posts shall be spaced according to the manufacturers’ gate Drawings, dependent on standard out-to-out gate dimensions and gate hardware selected.
- C. Post-holes must be approved by engineer prior to placement of concrete.

- D. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles.
1. The manufacturers' gate Drawings shall identify the necessary gate hardware required for the application.
 2. ~~Gate hardware shall be provided by the manufacturer of the gate and shall be installed per manufacturer's recommendations.~~
 3. ~~The AdapTrack™ extrusion shall be mechanically fastened to gate panel framing as shown in manufacturer's literature.~~
 4. ~~Set gate posts in accordance with the gate elevation drawing.~~
 5. ~~Attach truck brackets and upper suspension rollers to gate posts per end view (cross-section) in construction drawings; slide AdapTrack™ top rail onto rollers.~~
 6. ~~Install lower guide rollers and gate stops.~~

3.5 CLEANING

- A. The Contractor shall clean the jobsite of excess materials.
- B. Post-hole excavations shall be scattered uniformly away from posts.

END OF SECTION 32 31 19

SECTION 40 05 51 ADM1 - COMMON REQUIREMENTS FOR PROCESS VALVES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Valves.
2. Valve actuators.

B. Related Requirements:

1. Section 03 31 30 - Concrete, Materials and Proportioning.
2. Section 03 31 31- Concrete Mixing, Placing, Jointing and Curing.
3. Section 03 35 00 - Concrete Finishing and Repair of Surface Defects.
4. Section 09 96 00 - High Performance Industrial Coatings.
5. Section 40 05 06 - Couplings, Adapters and Specials for Process Piping.
6. Section 40 05 07 - Process Pipe Support Systems.
7. Section 40 05 93 - Common Motor Requirements for Process Equipment.

1.2 REFERENCE STANDARDS

A. American Water Works Association:

1. AWWA C541 - Hydraulic and Pneumatic Cylinder and Vane-Type Actuators for Valves and Slide Gates.
2. AWWA C542 - Electric Motor Actuators for Valves and Slide Gates.
3. AWWA C550 - Protective Interior Coatings for Valves and Hydrants.

B. ASTM International:

1. ASTM B62 - Standard Specification for Composition Bronze or Ounce Metal Castings.
2. ASTM B584 - Standard Specification for Copper Alloy Sand Castings for General Applications.

C. Manufacturers Standardization Society:

1. MSS SP-25 - Standard Marking System for Valves, Fittings, Flanges, and Unions.

D. National Electrical Manufacturers Association:

1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

E. NFPA:

1. NFPA 70 - National Electrical Code (NEC).

F. NSF International:

1. NSF 61 - Drinking Water System Components - Health Effects.
2. NSF 372 - Drinking Water System Components - Lead Content.

G. UL:

1. Equipment Directory.

1.3 COORDINATION

- A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.
- B. Coordinate Work of this Section with piping, equipment, and appurtenances.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Product Data:
 1. Manufacturer information for actuator with model number and size indicated.
 2. Valve cavitation limits.
 3. Acknowledgement that products submitted meet requirements of standards referenced.
 4. Manufacturer's installation instructions.
 5. Valve pressure and temperature rating.
 6. Material of construction.
 7. Special linings.
 8. Valve dimensions, class and weight.
 9. Valve flow coefficient and non-shock shutoff.
 10. Quantity of valves and operators.
 11. Indicator attachments.
 12. Wiring and control diagrams for electric or cylinder actuators.
 13. Test reports.

1.5 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.

1.6 QUALITY ASSURANCE

- A. Maintain clearances as indicated on Drawings.
- B. Ensure that materials of construction of wetted parts are compatible with process liquid.
- C. Materials in Contact with Potable Water: Certified to NSF 61 and NSF 372.

- D. Perform Work according to manufacturer's standards.
- E. Maintain a copy of each standard affecting Work of this Section on Site.

1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum five years' documented experience.
- B. Licensed Professional: Professional Engineer experienced in design of specified Work and licensed in State of Illinois.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

1.9 EXISTING CONDITIONS

- A. Field Measurements:
 - 1. Verify field measurements prior to fabrication.
 - 2. Indicate field measurements on Shop Drawings.

1.10 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for warranties.
- B. Furnish manufacturer's standard warranty for valves and actuators.

PART 2 - PRODUCTS

2.1 VALVES

- A. Description: Valves, operator, actuator, handwheel, chainwheel, extension stem, floor stand, worm and gear operator, operating nut, chain, wrench, and other accessories as required. All valves of the same type shall be supplied by the same manufacturer.
- B. Valve Ends:
 - 1. Compatible with adjacent piping system. Refer to valve schedule.
 - 2. Comply with the following standards:
 - a. Threaded: ANSI B1.20.1.
 - b. Flanged: ANSI B16.1 Class 125 unless otherwise noted or AWWA C207.
 - c. Bell and spigot or mechanical (gland) type: AWWA C111.

- d. Soldered: ANSI B16.18.
- e. Grooved: Rigid joints per Table 5 of AWWA C606.

C. Operation:

- 1. Open by turning counterclockwise; close by turning clockwise.
- 2. Cast directional arrow on valve or actuator with OPEN and CLOSE cast on valve in appropriate location.

D. Valve Marking and Labeling:

- 1. Marking: Comply with MSS SP-25.
- 2. Labeling: As specified in Section 10 14 00 - Identification Devices and valve schedule.
- 3. Provide buried valves with valve boxes, covers, and extensions:
 - a. Extension kits shall be installed to raise the valve and valve box to grade.
 - b. Valve box shall be Tyler 6850 Series – Screw Type or approved equal and have a valve box stabilizer installed, which shall be Valve Box Adaptor #2 Type A, as manufactured by Adaptor, Inc. or approved equal.
 - c. Center and plumb valve box over valve. Set box cover flush with finished grade.

E. Valve Construction:

- 1. Bodies: Rated for maximum temperature and pressure to which valve will be subjected as specified in valve Sections.
- 2. Bonnets:
 - a. Screwed, or flanged to body and of same material and pressure rating as body.
 - b. Furnish glands, packing nuts, or yokes as specified in valve Sections.
- 3. Stems and Stem Guides:
 - a. Materials and Seals: As specified in valve Sections.
 - b. Bronze Valve Stems: According to ASTM B62.
 - c. Space stem guides: 10 FT OC.
 - d. Submerged Stem Guides: Type 304 stainless steel.
- 4. Nuts and Bolts:
 - a. Wetted or internal to be bronze or stainless steel. Exposed to be zinc or cadmium plated.

2.2 VALVE ACTUATORS

- A. Provide actuators with position indicators for shutoff valves ≥ 8 IN and larger.
- B. Comply with AWWA C542.
- C. Provide chain actuators for shutoff valves mounted 5 FT above floor level.
- D. Provide gear and power actuators with position indicators.

- E. Counter clockwise opening as viewed from the top.
- F. Gear-Assisted Manual Actuators:
 - 1. Provide totally enclosed gears.
 - 2. Maximum Operating Force: 60 LBS/FT.
 - 3. Bearings: Permanently lubricated bronze.
 - 4. Packing: Accessible for adjustment without requiring removal of actuator from valve.
- G. Chain Actuator:
 - 1. Description: Chain guides and hot-dip galvanized operating chain extending to 3 FT above floor level.
 - 2. Chain Wheels: Sprocket-rim type.
 - 3. Furnish chain storage if chains may interfere with pedestrian traffic.
- H. Buried Actuators:
 - 1. Provide screw or slide type adjustable cast iron valve box, 5 IN minimum diameter, 3/16 IN minimum thickness and identifying cast iron cover.
 - 2. Box base to enclose buried valve gear box or bonnet.
 - 3. Provide 2 IN standard actuator nuts complying with Section 3.16 of AWWA C500.
 - 4. Provide at least two tee-handle keys for actuator nuts, with 5 FT extension between key and handle.
 - 5. Extension stem shall be provided for buried valves, extended to within 6 IN of finish grade.
 - 6. Provide concrete pad encasement of valve box as shown for all buried valves unless shown otherwise.
- I. Exposed Manual Actuators:
 - 1. Provide for all exposed valves not having electric or cylinder actuators.
 - 2. Provide handwheels for gate and globe valves, sized for valves in accordance with AWWA C500.
 - 3. Provide lever actuators for plug valves, butterfly valves and ball valves 3 IN and smaller.
 - a. Lever actuators for butterfly valves shall have a minimum of 5 intermediate lock positions between full open and full close.
 - b. Provide at least two levers for each type and size of valve furnished.
 - 4. Gear actuators required for plug valves, butterfly valves and ball valves 4 IN and larger.
 - 5. Provide gearing for gate valves 20 IN and larger in accordance with AWWA C500.
 - 6. Gear actuators to be totally enclosed, permanently lubricated and with sealed bearings.
 - 7. Provide chain actuators for valves 6 FT or higher from finish floor to valve centerline.
 - a. Cadmium-plated chain looped to within 3 FT of finish floor.
 - b. Equip chain wheels with chain guides to permit rapid operation with reasonable side pull without “gagging” the wheel.
 - 8. Provide cast iron floor stands where shown on Drawings. Stands to be furnished by valve manufacturer with actuator. Stand or actuator to include thrust bearings for valve operation and weight of accessories.
- J. Submerged Actuators:

1. The valve actuator shall be mounted on top of an extension bonnet, 3 FT above any adjacent personnel access.
 2. The valve and bonnet connection shall be flanged and watertight.
 3. Provide a top brace support for the bonnet. Mount the brace 6 IN below the top of wall as shown on the Drawings.
 4. Materials:
 - a. Extension bonnet: Cast iron ASTM A126 or steel.
 - b. Brace and anchor bolts: Type 304 stainless steel.
- K. Valve Actuators in NEC Class I, Group D, Division 1 or 2 Hazardous Locations: UL approved.
- L. Accessories:
1. Handwheel:
 - a. Furnish permanently attached handwheel for emergency manual operation.
 - b. Rotation: None during powered operation.
 - c. Permanently affix directional arrow and cast OPEN and CLOSE on handwheel to indicate appropriate direction to turn handwheel.
 - d. Maximum Operating Force: 60 LBS/FT.
 - e. Positive declutch mechanism to engage and disengage handwheel.
 - f. Inoperable motor shall not prevent manual operation.

2.3 FINISHES

- A. Valve Lining and Coating: Comply with AWWA C550.
- B. ANSI/NSF 61 approved where noted in the Valve Schedule or as required.
- C. Exposed Valves: As specified in Section 09 96 00 – High Performance Industrial Coatings.
- D. Do not coat flange faces of valves unless otherwise specified.

2.4 SOURCE QUALITY CONTROL

- A. Section 01 40 00 - Quality Requirements: Requirements for testing, inspection, and analysis.
- B. Testing: Test valves according to manufacturer's standard testing protocol, including hydrostatic, seal, and performance testing.
- C. Owner Inspection:
 1. Make completed valves available for inspection at manufacturer's factory prior to packaging for shipment.
 2. Owner inspections will be at the Owner's discretion, and will be paid for by the Owner and coordinated by the Contractor.
 3. Notify Owner at least seven days before inspection is allowed.

D. Owner Witnessing:

1. Allow witnessing of factory inspections and test at manufacturer's test facility.
2. Owner witnessing will be at the Owner's discretion, and will be paid for by the Owner and coordinated by the Contractor.
3. Notify Owner at least seven days before inspections and tests are scheduled.

E. Certificate of Compliance:

1. If manufacturer is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at manufacturer's facility conforms to Contract Documents.
2. Specified shop tests are not required for Work performed by approved manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 01 30 00 - Administrative Requirements: Requirements for installation examination.
- B. Verify that piping system is ready for valve installation.

3.2 INSTALLATION

- A. Install valves, actuators, extensions, valve boxes, and accessories according to manufacturer instructions.
- B. Firmly support valves to avoid undue stresses on piping. Support exposed valves and piping adjacent to valves independently to eliminate pipe loads being transferred to valve and valve loads being transferred to the piping.
- C. For grooved coupling valves, install rigid type couplings.
- D. For threaded valves, provide union on one side within 2 FT of valve to allow valve removal.
- E. Install electric or cylinder actuators above or horizontally adjacent to valve and gear box to optimize access to controls and external handwheel.
- F. Coat studs, bolts and nuts with anti-seizing lubricant.
- G. Clean field welds of slag and splatter to provide a smooth surface.
- H. Install valves with stems upright or horizontal, not inverted.

- I. Install brass male adapters on each side of valves in copper-piped system and solder adapters to pipe.
- J. Install 3/4 IN ball valves with cap for drains at main shutoff valves, low points of piping, bases of vertical risers, and equipment.
- K. Install valves with clearance for installation of insulation and to allow access.
- L. Provide access where valves and fittings are not accessible.
- M. Setting buried valves:
 - 1. Locate valves installed in pipe trenches where buried pipe indicated on Drawings.
 - 2. Set valves and valve boxes plumb.
 - 3. Place valve boxes directly over valves with top of box being brought to surface of finished grade.
 - 4. Install in closed position.
 - 5. Place valve on firm footing in trench to prevent settling and excessive strain on connection to pipe.
 - 6. After installation, backfill up to top of box for a minimum distance of 4 FT on each side of box.
- N. Pipe Hangers and Supports: As specified in Section 40 05 07 - Process Pipe Support Systems.
- O. Comply with Division 40 - Process Interconnections for piping materials applying to various system types.
- P. Valve Applications:
 - 1. Install shutoff and drain valves at locations as indicated on Drawings and as specified in this Section.
 - 2. Install shutoff and isolation valves.
 - 3. Isolate equipment, part of systems, or vertical risers as indicated on Drawings.
 - 4. Install valves for throttling, bypass, or manual flow control services as indicated on Drawings.
 - 5. Install valves in sanitary systems for shutoff service.

3.3 FIELD QUALITY CONTROL

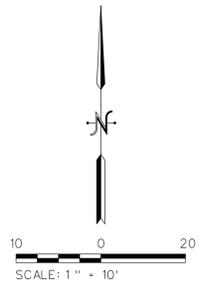
- A. Section 01 40 00 - Quality Requirements: Requirements for inspecting and testing.
- B. Section 01 70 00 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.
- C. Adjust valves, actuators and appurtenant equipment to comply with specifications. Operate valve, open and close at system pressures.
- D. Valve Field Testing:
 - 1. Test for proper alignment.

2. If specified by valve Section, field test equipment to demonstrate operation without undue noise, vibration, or overheating.
3. Engineer will witness field testing.

END OF SECTION 40 05 51

This Page Left Blank Intentionally

BORING LOG									
CLIENT		City of St. Charles, IL							
ENGINEER		Trotter & Associates, Inc.							
PROJECT		Proposed S. 7th Avenue & Division Street Lift Station Project							
LOCATION		South 7th Avenue & Division Street, St. Charles Township, Kane County, IL							
BORING NUMBER		B-1							
SURFACE ELEVATION (M.S.L.)		735.50							
STATION		OFFSET from CL							
DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)		Unconfined Compressive Strength, Tons/Ft ²							
		1 2 3 4 5							
		PL MC LL							
		▲ STD "N" PENETRATION BLOWS PER FT.							
		10 20 30 40 50							
DEPTH ELEVATION		REMARKS							
SAMPLE NO.									
SAMPLE TYPE									
SAMPLE REC. (S)									
SOIL GRAPHIC LOG									
1 SS 58		12" FILL: CLAY TOPSOIL, Dark Brown and Black (CL)							
2.5									
2 HS 67		FILL: SILTY CLAY: Brown, Gray, Trace Dark Brown, Trace Sand and Gravel, Very Stiff, Moist (CL)							
5.0									
3 HS 54		FILL: SILTY CLAY: Brown, Gray, Trace Dark Brown, Stiff to Medium, Moist (CL)							
7.5									
4 HS 71		SILTY CLAY: Brown, Trace Sand, Hard, Moist (CL)							
10.0									
5 HS 33		(Saturated Below 13 feet) WELL GRADED GRAVEL AND SAND: Brown, Contains Cobble Pieces, Medium Dense, Saturated (GW-SV)							
12.5									
6 HS 79		SILTY CLAY: Gray, Trace Sand and Gravel, Very Stiff, Moist (CL)							
15.0									
7 HS 46									
17.5									
19.0									
20.5									
22.0									
23.5									
25.0									
26.5									
28.0									
29.5									
31.0									
32.5									
34.0									
35.5									
37.0									
38.5									
40.0									
41.5									
43.0									
44.5									
46.0									
47.5									
49.0									
50.5									
52.0									
53.5									
55.0									
56.5									
58.0									
59.5									
61.0									
62.5									
64.0									
65.5									
67.0									
68.5									
70.0									
71.5									
73.0									
74.5									
76.0									
77.5									
79.0									
80.5									
82.0									
83.5									
85.0									
86.5									
88.0									
89.5									
91.0									
92.5									
94.0									
95.5									
97.0									
98.5									
100.0									
101.5									
103.0									
104.5									
106.0									
107.5									
109.0									
110.5									
112.0									
113.5									
115.0									
116.5									
118.0									
119.5									
121.0									
122.5									
124.0									
125.5									
127.0									
128.5									
130.0									
131.5									
133.0									
134.5									
136.0									
137.5									
139.0									
140.5									
142.0									
143.5									
145.0									
146.5									
148.0									
149.5									
151.0									
152.5									
154.0									
155.5									
157.0									
158.5									
160.0									
161.5									
163.0									
164.5									
166.0									
167.5									
169.0									
170.5									
172.0									
173.5									
175.0									
176.5									
178.0									
179.5									
181.0									
182.5									
184.0									
185.5									
187.0									
188.5									
190.0									
191.5									
193.0									
194.5									
196.0									
197.5									
199.0									
200.5									
202.0									
203.5									
205.0									
206.5									
208.0									
209.5									
211.0									
212.5									
214.0									
215.5									
217.0									
218.5									
220.0									
221.5									
223.0									
224.5									
226.0									
227.5									
229.0									
230.5									
232.0									
233.5									
235.0									
236.5									
238.0									
239.5									
241.0									
242.5									
244.0									
245.5									
247.0									
248.5									
250.0									
251.5									
253.0									
254.5									
256.0									
257.5									
259.0									
260.5									
262.0									
263.5									
265.0									
266.5									
268.0									
269.5									
271.0									
272.5									
274.0									
275.5									
277.0									
278.5									
280.0									
281.5									
283.0									
284.5									
286.0									
287.5									
289.0									
290.5									
292.0									
293.5									
295.0									
296.5									
298.0									
299.5									
301.0									
302.5									
304.0									
305.5									
307.0									
308.5									
310.0									
311.5									
313.0									
314.5									
316.0									
317.5									
319.0									
320.5									
322.0									
323.5									
325.0									
326.5									
328.0									
329.5									
331.0									
332.5									
334.0									
335.5									
337.0									
338.5									
340.0									
341.5									
343.0									
344.5									
346.0									
347.5									
349.0									
350.5									
352.0									
353.5									
355.0									
356.5									
358.0									
359.5									
361.0									
362.5									
364.0									
365.5									
367.0									
368.5									
370.0									
371.5									
373.0									
374.5									
376.0									
377.5									
379.0									
380.5									
382.0									
383.5									
385.0									
386.5									
388.0									
389.5									
391.0									
392.5									
394.0									
395.5									
397.0									
398.5									
400.0									
401.5									
403.0									
404.5									
406.0									
407.5									
409.0									
410.5									
412.0									
413.5									
415.0									
416.5									
418.0									
419.5									
421.0									
422.5									
424.0									
425.5									
427.0									
428.5									
430.0									
431.5									
433.0									
434.5									
436.0									
437.5									
439.0									
440.5									
442.0									
443.5									
445.0									
446.5									
448.0									
449.5									
451.0									
452.5									
454.0									
455.5									
457.0									
458.5									
460.0									
461.5									
463.0									
464.5									
466.0									
467.5									
469.0									
470.5									
472.0									
473.5									
475.0									
476.5									
478.0									
479.5									
481.0									
482.5									
484.0									
485.5									
487.0									
488.5									
490.0									
491.5									
493.0									
494.5									
496.0									
497.5									
499.0									
500.5									
502.0									
503.5									
505.0									
506.5									
508.0									
509.5									
511.0									
512.5									
514.0									
515.5									
517.0									
518.5									
520.0									
521.5									
523.0									
524.5									
526.0									
527.5									
529.0									
530.5									
532.0									
533.5									
535.0									
536.5									
538.0									
539.5									
541.0									
542.5									
544.0									
545.5									
547.0									
548.5									
550.0									
551.5									
553.0									
554.5									
556.0									
557.5									
559.0									
560.5									
562.0									
563.5									
565.0									
566.5									
568.0									
569.5									
571.0									
572.5									
574.0									
575.5									
577.0									
578.5									
580.0									
581.5									
583.0									
584.5									
586.0									
587.5									
589.0									
590.5									
592.0									
593.5									
595.0									
596.5									
598.0									
599.5									



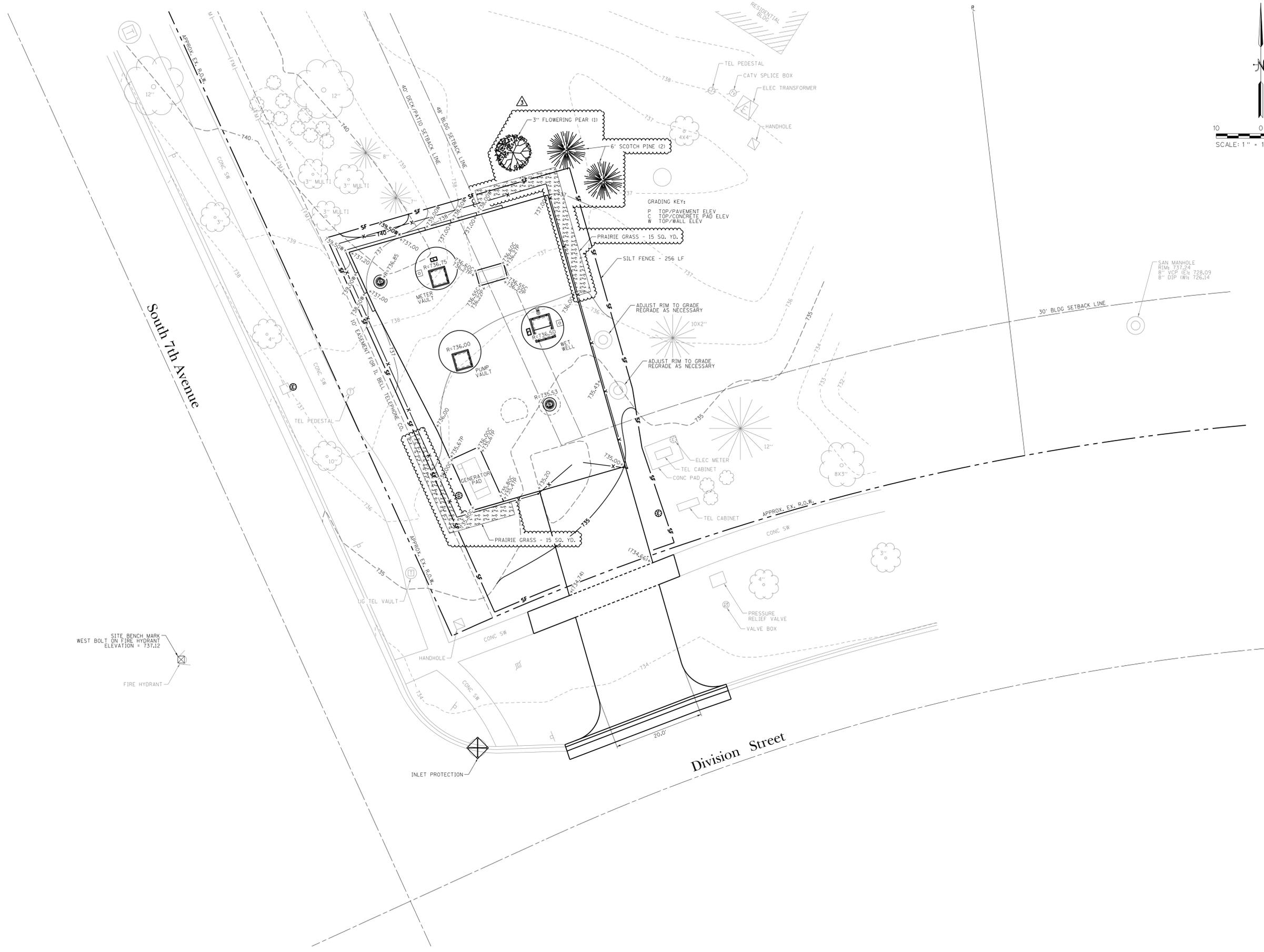
DATE	REVISIONS	ISSUE	PROJECT STAFF
10/12/2018			PROJECT MANAGER: JEREMY RUTHERFORD
9/7/2018			ENGINEER
			ENGINEER
			TECHNICIAN: JESSICA MINOZZI
			TECHNICIAN: GARY COOPER
		1.	
		2.	
		3.	

TROTTER
ASSOCIATES, INC.
ENGINEERS AND SURVEYORS

40501 Wisco Road, Suite D
St. Charles, IL 60175
Ph: 630-587-0700 • Fax: 630-587-0715

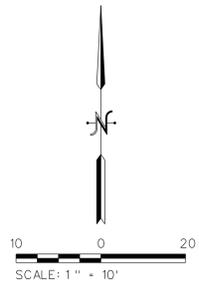
S. 7th Avenue & Division Street Lift Station
Proposed Site Plan
St. Charles Township, Kane County, Illinois

Project No.: STC-112
 Base File:
 Sheet File: C.1.DGN
 Issue Date: 10/12/2018
 Scale: 1" = 10'
 Sheet Number
C.1



SITE BENCH MARK
WEST BOLT ON FIRE HYDRANT
ELEVATION = 737.12

FIRE HYDRANT



DATE	REVISIONS
10/12/2018	
9/7/2018	
5/25/2018	

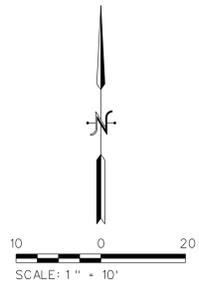
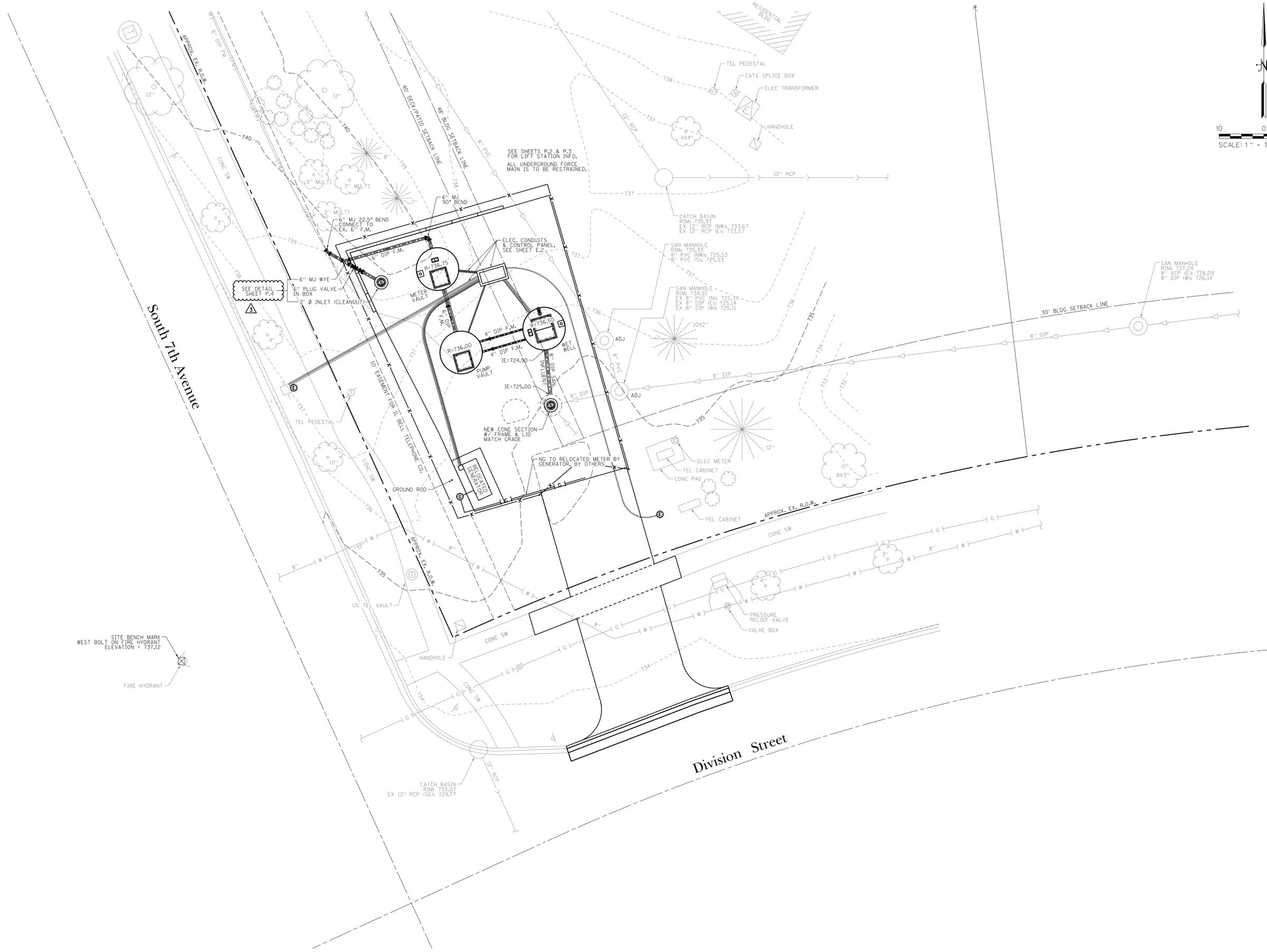
PROJECT STAFF
PROJECT MANAGER: JERAM W. BURT, P.E.
ENGINEER
ENGINEER
TECHNICIAN: JESSICA J. MINOZZA
TECHNICIAN: GARY C. COOPER

TROTTER
ASSOCIATES, INC.
ENGINEERS AND SURVEYORS

40501 West Road, Suite D
St. Charles, IL 60175
Ph: 630.587.4700 • Fax: 630.587.4715

**S. 7th Avenue & Division Street Lift Station
Proposed Grading and Erosion Control Plan
St. Charles Township, Kane County, Illinois**

Project No.:	STC-112
Base File:	
Sheet File:	C.2.DGN
Issue Date:	10/12/2018
Scale:	1" = 10'
Sheet Number	C.2



SITE BENCH MARK
WEST BOLT ON FIRE HYDRANT
ELEVATION = 737.12

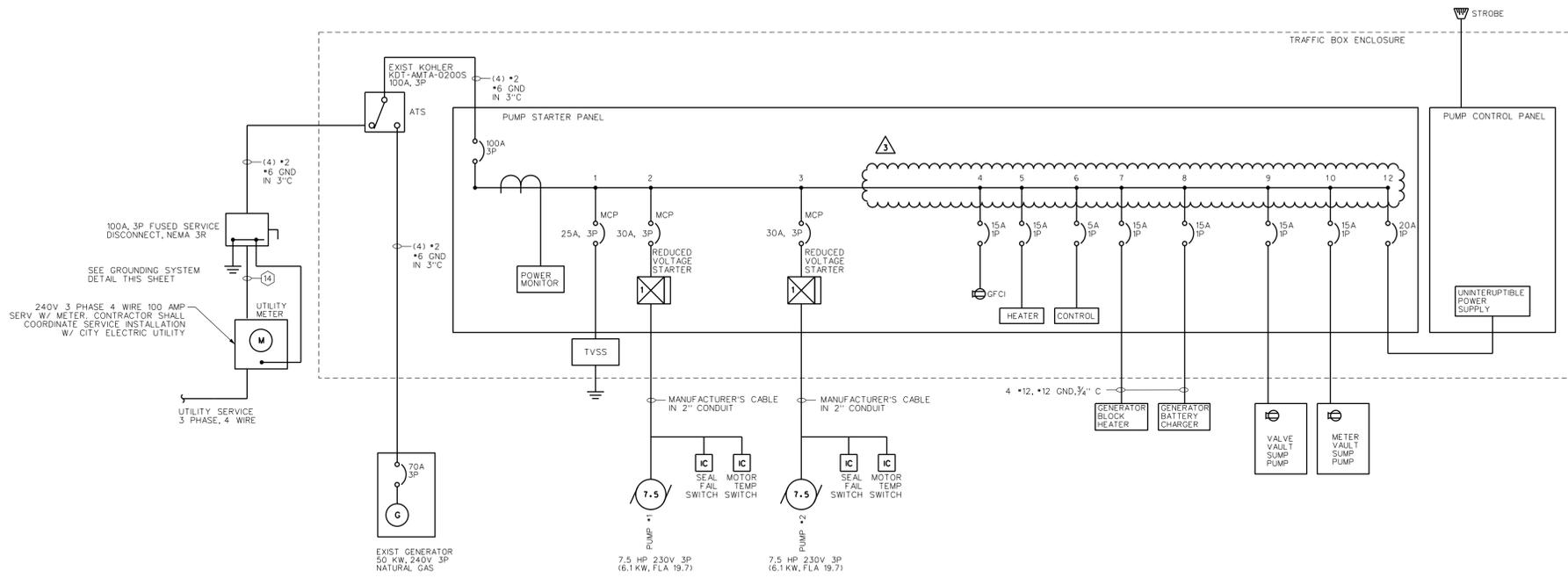
FIRE HYDRANT

DATE	REVISIONS	ISSUE	PROJECT STAFF
10/12/2018			PROJECT MANAGER: JERRY W. BURRILL, P.E.
9/7/2018			ENGINEER
			TECHNICIAN: DONNA J. MINOZZI
			TECHNICIAN: GARY L. COOPER
		3.	ADDITIONAL NO. 1
		2.	ISSUED FOR BID
		1.	ISSUED FOR IEPA PERMIT

Z TROTTER
ASSOCIATES, INC.
ENGINEERS AND SURVEYORS
40501 Wood Road, Suite D
St. Charles, IL 60175
Ph: 630-587-0700 • Fax: 630-587-0715

S. 7th Avenue & Division Street Lift Station
Proposed Site Piping Plan
St. Charles Township, Kane County, Illinois

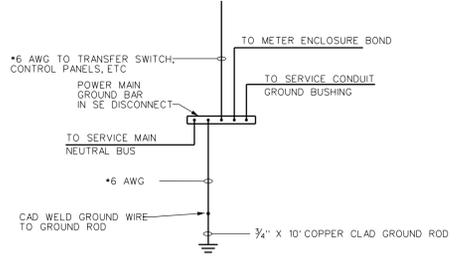
Project No.:	STC-112
Base File:	
Sheet File:	
Issue Date:	10/12/2018
Scale:	1" = 10'
Sheet Number	P.1



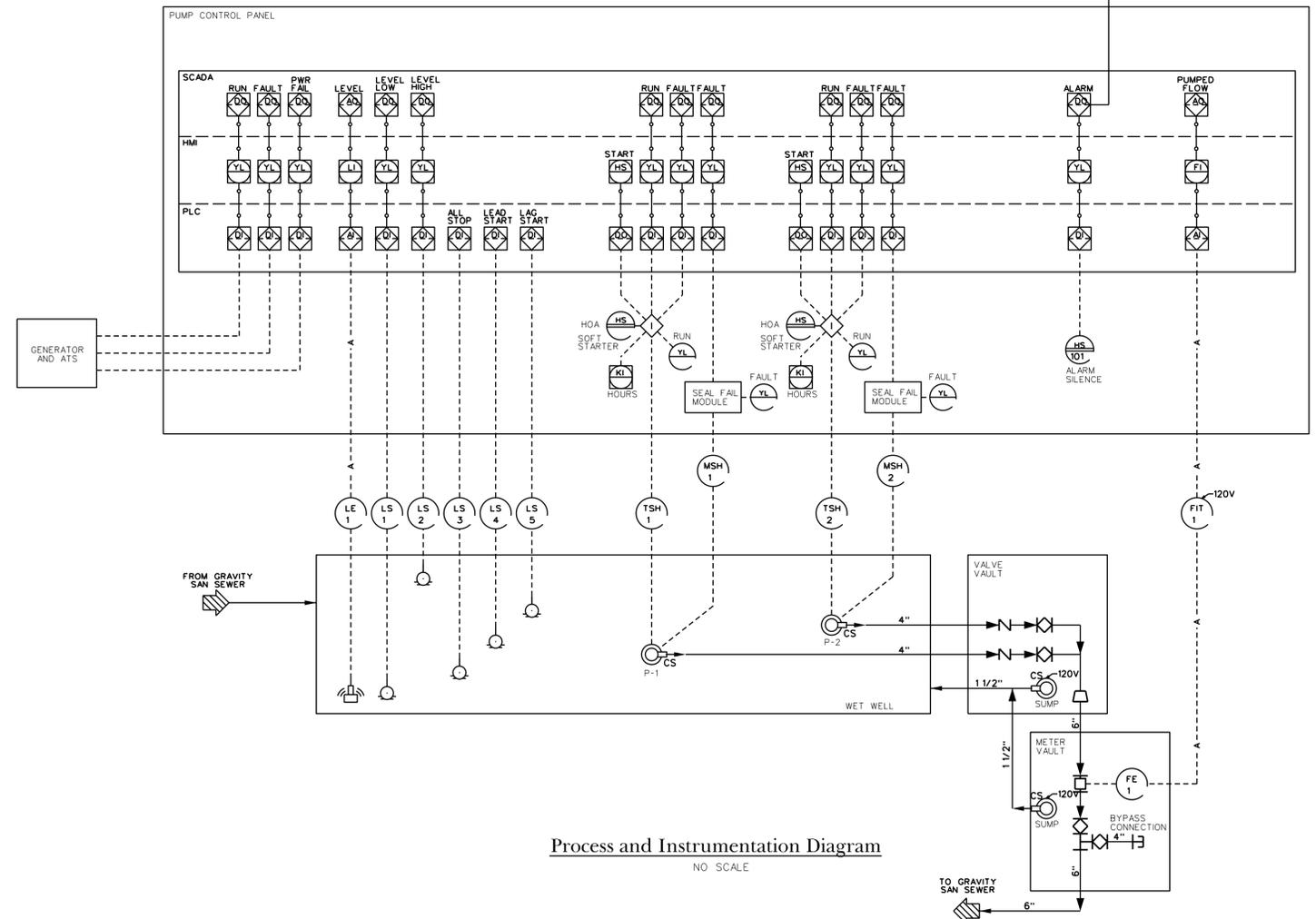
One-Line Diagram
NO SCALE

Electrical Notes:

1. ALL CONDUIT ON THIS PROJECT SHALL BE PVC COATED RIGID GALVANIZED STEEL, NO E.M.T., THINWALL OR PVC CONDUIT SHALL BE ACCEPTED.
2. CONTRACTOR SHALL COMPLY WITH ALL NATIONAL, STATE AND LOCAL CODES.
3. SEE SPECIFICATIONS FOR PUMP CONTROL PANEL AND OTHER EQUIPMENT NOT IDENTIFIED HERE.
4. ALL CONDUIT EXCAVATIONS SHALL BE BEDDED AND COVERED WITH CA-6 GRANULAR MATERIAL. EXCAVATIONS IN OR WITHIN 3 FEET OF PAVED AREAS SHALL BE BACKFILLED FULL DEPTH AND COMPACTED PER THE SPECIFICATIONS.
5. ALL ENCLOSURES SHALL BE NEMA 3R, PAINTED STEEL UNLESS NOTED OTHERWISE. CONTRACTOR SHALL SIZE ENCLOSURES TO PROVIDE SUFFICIENT SPACE TO HOUSE AND ALLOW SERVICING OF EQUIPMENT SPECIFIED.
6. ALL MOUNTING HARDWARE TO BE STAINLESS STEEL.
7. CONTRACTOR SHALL BALANCE LOADS. USE NAMEPLATE DATA WHERE AVAILABLE.
8. CONTRACTOR SHALL COORDINATE REQUIRED SHUTDOWNS AND SERVICE WITH ELECTRIC UTILITY.
9. TEMPORARY POWER FEEDERS TO BE PROVIDED BY ELECTRIC UTILITY UTILIZING ELECTRICAL ALLOWANCE. PERMANENT POWER FEEDERS TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
10. SERVICE WILL BE HIGH LEG B PHASE. DO NOT USE B-N FOR 120V LOADS.



Grounding System
NO SCALE



Process and Instrumentation Diagram
NO SCALE

DATE		10/12/2018
REVISIONS		9/7/2018
ISSUE		5/25/2018
PROJECT STAFF	PROJECT MANAGER: JEROME BURRILL, P.E.	
	ENGINEER	
	ENGINEER	
	TECHNICIAN: JESSICA J. MUNDAS	
	TECHNICIAN: GARY L. COOPER	
		3. ADDENDUM NO. 1
		2. ISSUED FOR BID
		1. ISSUED FOR IEPA PERMIT
<p>TROTTER ASSOCIATES, INC. ENGINEERS AND SURVEYORS 40501 Wood Road, Suite D St. Charles, IL 60175 Ph: 630.587.4100 • Fax: 630.587.4115</p>		
<p>S. 7th Avenue & Division Street Lift Station Electrical One-Line Diagram and P&ID St. Charles Township, Kane County, Illinois</p>		
Project No.:	STC-112	
Base File:		
Sheet File:	E.2.DGN	
Issue Date:	10/12/2018	
Scale:	N.T.S.	
Sheet Number		
E.2		