

## **ERIE COUNTY WATER AUTHORITY**

INTEROFFICE MEMORANDUM

May 11, 2023

To: Terrence D. McCracken, Secretary to the Authority

From: Michael J. Quinn, Senior Distribution Engineer

Subject: Contract NC-040 Transmission Main Van de Water Raw Water Pump Station to Van de Water WTP ECWA Project No. 201900104

The following material is attached:

- 1. Authorization Form requesting Board Authorization to execute the attached Amendment No. 1 to Professional Service Agreement with Nussbaumer & Clarke, Inc. (Nussbaumer).
- 2. Amendment No. 1 to Professional Service Agreement for the above referenced project.

The Professional Services Agreement for this project was executed on June 6, 2019. The design phase was originally scheduled for 2019 and the completion of construction phase was anticipated for 2020.

The following unanticipated changes resulted in an increase in the original design scope.

- 1. Required assistance with planning for test pits to determine location of existing active and inactive watermains. Extensive planning and coordination for these test pits was a requirement of the property owner, NRG.
- 2. Additional design scope of work for the new raw water waterline. The original scope of work contemplated the reuse of two unused sections of transmission main that were installed during the original construction. Due to the age and cost of determining the condition of these mains, the ECWA chose to abandon them and design new sections resulting in additional design fees.
- 3. Assisting the Authority in coordination efforts with NRG during design. The level of coordination and additional effort required was unknown at the time the scope of work was developed.
- 4. Assisting the Authority with compliance with the requirements of the WIIA grant. The WIIA grant application was submitted after the design contract was awarded to Nussbaumer and as such, no effort or fee was included in the original agreement.

The following special services have been utilized during the design phase.

- 1. Feasibility and cost investigation to inspect and evaluate the existing inactive pipe stub on NRG property. This work informed the decision by the ECWA not to use the existing sections of previously installed mains.
- 2. Investigation of a structural lining for reuse of the existing inactive pipe stub on NRG property.

- To: Terrence D. McCracken Secretary to the Authority
  - 3. Coordination and engineering related to "Brownfield Cleanup Program" area on NRG property. This effort was a large component of the additional coordination required to design and install the new transmission main across NRG property. Due to the fact that the property is considered a brownfield, there are numerous requirements for site access, soil management, and geotechnical investigations. These requirements were unknown until the design was underway.

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4. NRG property easement coordination. When the project scope was developed, it was believed that the ECWA had all the proper easements in place to accommodate both the existing and proposed mains. Following an in-depth search for these easements this was determined not to be the case. In fact, it appears that portions of the existing main may not be within the limits of the existing easements. Also, an enlargement of the easements will be required to accommodate the realignment of the new main.

	Original Contract	Amendment #1	Original Contract +All Amendments
Design Report	\$25,000.00	\$11,300.00	\$36,300.00
Survey	\$10,300.00	\$4,700.00	\$15,000.00
Design	\$52,300.00	\$184,976.00	\$237,276.00
General Services	\$51,100.00		\$51,100.00
Estimated Resident Inspection	\$190,000.00		\$190,000.00
Record Drawings	\$6,000.00		\$6,000.00
Estimated Special Services	\$25,000.00	\$42,074.00	\$67,074.00
TOTALS	\$359,700.00	\$243,050.00	\$602,750.00

#### **Budget Information:**

Unit: 2595 Eng/Const Transmission Mains Item: 101352 NC-040 Transmission Main Replacement

MJQ:jmf Attachments cc: L.Kowalski L.Lester CONT-NC-040-1901-X-01

## ERIE COUNTY WATER AUTHORITY AUTHORIZATION FORM For Approval/Execution of Documents (check which apply)

Contract:       NC-040       Project No.:       2019001         Project Description:       Raw Water Transmission Main, Van de Water Raw         Van de Water WTP			
Item Description:         Agreement       Professional Service Contract       X Amendment         BCD       NYSDOT Agreement       Contract Document         Recommendation for Award of Contract       Recommendation         Request for Proposals       Other			
Action Requested:         X       Board Authorization to Execute       X       Legal Approval         Board Authorization to Award       X       Execution by the Chairman         Board Authorization to Advertise for Bids       Execution by the Secretary to the Authority         Board Authorization to Solicit Request for Proposals         Other			
Approvals Needed:         APPROVED AS TO CONTENT:         X       Sr Distribution Engineer         X       Chief Operating Officer         X       Executive Engineer         X       Director of Administration         X       Risk Manager         X       Chief Financial Officer         X       Legal         APPROVED FOR BOARD RESOLUTION:         X       Secretary to the Authority	Date: $5/15/2023$ Date: $5/15/2023$ Date: $05/15/2023$ Date: $05/15/2023$ Date: $5/15/2023$ Date: $05/15/2023$ Date: $05/15/2023$ Date: $5/15/2023$ Date: $5/15/2023$		
X       Secretary to the Authority         Remarks:       Amendment No. 1 to Professional Services Agreement.	Date: 5/15/2023		

**Resolution Date:** 

## AMENDMENT NO. 1 PROFESSIONAL SERVICES CONTRACT

AMENDMENT, effective May 25, 2023 ("Amendment No. 1") to the Professional Services Contract (Contract No. NC-040), entered on February 13, 2020, by and between:

#### ERIE COUNTY WATER AUTHORITY

295 Main Street, Room 350 Buffalo, New York 14203

hereinafter referred to as the "Authority," and

## NUSSBAUMER & CLARKE, INC.

3556 Lake Shore Road, Suite 500 Buffalo, New York 14219

hereinafter referred to as the "Consultant."

WHEREAS, on June 6, 2019, the Authority and the Consultant entered into a professional services contract for engineering and consulting services relating to the design and construction of approximately 5,000 linear feet of new water transmission main from Van de Water Raw Water Pump Station to the Van de Water Water Treatment Plant (the "Contract"); and

**WHEREAS,** several changes to the scope of work occurred during the design phase of the project as outlined in the Consultant's letter to the Authority dated May 2, 2023 and attached to and incorporated in this Amendment No. 1 as Appendix A; and

**WHEREAS,** the Consultant has requested additional compensation of \$243,050 for the additional services it provided to the Authority as set forth in Appendix A; and

**WHEREAS,** the Authority's Chief Operating Officer and Executive Engineer recommend that the Authority amend the Contract by increasing the compensation to the Consultant by \$243,050; and

**WHEREAS,** in accordance with paragraph 5 of the Contract, no modification or variation from the terms of the Contract shall be effective unless it is in writing and authorized by a resolution of the Board of Commissioners of the Authority (the "Board") and signed by all parties;

**NOW THEREFORE,** in consideration of the mutual promises herein set forth, the parties agree to the following:

- (1) The parties agree to amend paragraph 3, subparagraph B to increase the total not to exceed for Special Services by \$42,074, changing the current figure of \$25,000 to \$67,074; and
- (2) The parties agree to amend paragraph 3, subparagraph D(1) to increase the lump sum for design report by \$11,300, changing the current figure of \$25,000 to \$36,300; and
- (3) The parties agree to amend paragraph 3, subparagraph D(1) to increase the lump sum for survey by \$4,700, changing the current figure of \$10,300 to \$15,000; and
- (4) The parties agree to amend paragraph 3, subparagraph D(1) to increase the lump sum for design by \$184,976, changing the current figure of \$52,300 to \$237,276; and
- (5) The parties agree to amend paragraph 3, subparagraph D(1) to increase the total engineering cost by \$200,976, changing the current figure of \$144,700 to \$345,676; and
- (6) The parties agree all other terms and conditions of the Contract shall remain without change or amendment; and
- (7) This Amendment may by be executed in counterparts, each of which is deemed an original, but all of which together are deemed to be one and the same agreement.

**IN WITNESS WHERETO,** the parties have caused this Amendment No. 1 to be signed by their respective duly constituted officers, attested and sealed pursuant to proper authority.

## ERIE COUNTY WATER AUTHORITY

By\_\_

Jerome D. Schad, Chair

## NUSSBAUMER & CLARKE, INC.

By\_\_

Michael T. Marino, P.E., CEO

# STATE OF NEW YORK)COUNTY OF ERIE) ss:

On the \_\_\_\_\_ day of May, in the year 2023, before me personally came Jerome D. Schad, to me known, who, being by me duly sworn, did depose and say that he resides in Amherst, New York, that he is the Chair of the Board of Commissioners for the Erie County Water Authority described in the above instrument; and that he signed his name thereto by order of the Board of Commissioners.

Notary Public

## **STATE OF NEW YORK** ) **COUNTY OF ERIE** ) ss:

On the \_\_\_\_\_ day of \_\_\_\_\_, in the year 2023, before me personally came Michael T. Marino, to me known, who, being by me duly sworn, did depose and say that he resides in \_\_\_\_\_\_, that he is the Chief Executive Officer of the Corporation described in the above instrument; and that he signed his name thereto by order of the Board of Directors of said Corporation.

Notary Public

## APPENDIX A

Letter dated February 15, 2023

May 2, 2023

Michael Quinn, P.E., BCEE Sr. Distribution Engineer Erie County Water Authority 3030 Union Road Cheektowaga, NY 14227-1097



RE: Contract NC-040 Raw Water Transmission Main Van de Water Raw Water to Van de Water Treatment Plant ECWA Project No. 201900104 Proposed Amendment No. 1 to Engineering Contract File No. 19J1-0042A

Dear Mr. Quinn:

The Erie County Water Authority (ECWA) issued the Request for Proposals (RFP) for Consulting Engineering Services, Design and Construction for Raw Water Transmission Main Van de Water Raw Water to Van de Water Treatment Plant, on February 19, 2019. Nussbaumer & Clarke, Inc. (Nussbaumer) reviewed the RFP and related information provided by the ECWA and submitted a proposal on March 15, 2019. At that time, Nussbaumer understood:

- 1. The existing active raw water transmission main (RWTM) was connected to pipe stubs installed as part of the Raw Water Pump Station (RWPS) and Water Treatment Plant (WTP) construction.
- 2. The existing active RWTM route between the pipe stubs at the RWPS and WTP is via National Grid rights-of-way and the NRG Energy, Inc. (NRG) (NRG is the owner of the former Huntley Electric Power Generating Plant) site per an existing easement agreement. (Approximate length of 4,526 linear feet).
- 3. Pipe stubs were also installed at the RWPS, WTP, and on NRG property during the original construction to facilitate the future (new/second) RWTM. (Approximate lengths of 338, 160, and 643 linear feet, respectively).
- 4. The existing section of the previously installed second RWTM would be inspected and tested prior to reuse per the Special Services paragraph in the RFP.
- 5. The new/second RWTM would connect to the existing inactive pipe stubs at the RWPS and WTP, and on NRG property.
- 6. The new/second RWTM would follow the existing active RWTM route via National Grid rightsof-way and the NRG site per an existing easement agreement. (Approximate length of 3,883 linear feet).
- 7. The two (2) RWTMs would operate independently as no appurtenances were included in the original construction to facilitate interconnecting them along the route between the RWPS and WTP.
- 8. The design would be done in 2019 and the construction would be done in 2020.



Nussbaumer also included Notes in the Scope of Work section of the proposal to clarify the basis of Nussbaumer's proposal and describe assumptions and exclusions to the proposal. These Notes follow Special Services (copy of proposal Pages 15 and 16 attached).

In April 2019, ECWA informed Nussbaumer of their selection as the project's consulting engineer and executed the professional services contract on June 6, 2019. The kickoff meeting was held on June 19, 2019, and the site visit/walk-through was conducted on July 26, 2019. Subsequent thereto, Nussbaumer proceeded with the survey and mapping for the alignment within existing easements, preparation of RFP for subsurface investigations, preparation of RFP for inspection and testing of existing inactive pipe section on NRG property, and preparation of Design Report (including evaluation of alternative alignment along River Road). The ECWA would investigate the possibility of having their General Contractor complete the work needed to facilitate the inspection and testing of the existing inactive pipe section on NRG property, and work with NRG on access agreement (needed for records, inspection and testing of existing inactive pipe section, test pits, and construction of new/second RWTM).

Nussbaumer worked on the Design Report from 2019 through 2021 (original Draft is dated June 2020, stamped/signed Final is dated December 2021). Over this time in preparation of the Design Report, Nussbaumer has undertaken investigations and performed more detailed analyses than anticipated or included in the original project Scope of Work. The following are detailed descriptions of the extra work performed to date, and to be performed moving forward, on this project.

#### DESIGN PHASE SCOPE CHANGES

- 1. Assistance with planning for test pits to determine location of existing active and inactive pipes. The ECWA excavated test pits to investigate the locations of the operating and non-operating RWTMs. Test pits were excavated at horizontal bends of both the operating and non-operating raw water mains and the capped ends of the non-operating raw water mains. Due to the anticipated work provided for in Nussbaumers proposal, this task was not assumed as part of the work. Furthermore, this work was initially undertaken by ECWA, without involvement from Nussbaumer. Nussbaumer was integrated into the test pit planning process and assisted ECWA with test pit site selection and coordination with the contractor contracted to perform the work. In addition, Nussbaumer provided drawings to NRG and attended meetings in support of ECWA negotiations with NRG to gain access to the property to perform the work.
- 2. Additional design scope of work for the new raw water main. ECWA has expanded the original Scope of Work for this project to include the following items. These items were discussed on July 27, 2021, during the design kickoff meeting for this project.
  - Removal and replacement of approximately 90 linear feet (LF) of the existing inactive pipe stub at the WTP to allow for interconnection of new raw water main to existing active raw water main.
  - Installation of a 48-inch butterfly valve in the existing active raw water main at the WTP, upstream of its interconnection with the new raw water main. This includes the installation of two (2) line stops to facilitate the work.
  - Installation of air release and air/vacuum valves (including chambers) on the existing RWTM.



- Installation of new raw water main to the west of the 643 LF of existing inactive pipe on NRG property.
- Installation of a 54-inch butterfly valve at the west end of the RWPS discharge header pipe.
- Installation of a 14-inch surge anticipation valve and a 14-inch surge relief valve for the west half of the 54-inch discharge header pipe within the RWPS.
- Removal and replacement of existing inactive pipe stub from the RWPS to the west side of the chemical feed chamber.
- Additional survey and mapping for removal and replacement of existing inactive pipe stub at the RWPS, and installation of new raw water main to the west of the existing inactive pipe on NRG property.
- Additional survey, mapping, and engineering services associated with NRG requirement that the ECWA demonstrate it has identified and obtained consent from National Grid, Sumitomo, PeroxyChem (dba Evonik), Town of Tonawanda, and National Fuel where the new RWTM crosses over said third party easements.
- 3. **Design Report Revisions.** The work performed under item 1 and three-quarters of 2 needed to be incorporated into the Design Report. The related additional work included the preparation of text, exhibits, and appendices. Four (4) draft versions of the Design Report were submitted prior to acceptance of the final stamped and signed Design Report during the period from June 2020 to December 2021.
- 4. **Assist ECWA in coordination efforts with NRG during the design process.** The ECWA has requested that Nussbaumer take part in their coordination meetings with NRG. This has included the following:
  - Participate in conference calls between ECWA and NRG.
  - Review requests and questions with ECWA after discussions with NRG.
  - Respond to information requests from NRG and answer questions posed during the coordination process.
  - Prepare figures for ECWA presentation to NRG.
- 5. Assist the ECWA in complying with the requirements of the WIIA grant. Nussbaumer understands that the NYS Environmental Facilities Corporation is administering the grant and the NYS Department of Health has plan approval authority. Nussbaumer also understands that the ECWA will meet the grant related M/WBE-SDVOB goals for the entire project through the construction contract and will not be requesting disbursement from the NYSEFC for Nussbaumer's services. The engineering services associated with this item are anticipated to consist of the following during the design phase:
  - Incorporate NYSEFC Program Requirements and Bid Packet for Construction Contracts (latest version at time of bidding) into the specifications and contract documents.
  - Submit final plans, specifications, contract documents, and Engineer's Report to NYSDOH and NYSEFC for review and comment.
  - Revise plans, specifications, contract documents, and Engineer's Report to address NYSDOH and NYSEFC review comments.
  - Submit revised final plans, specifications, contract documents, and Engineer's Report to NYSDOH and NYSEFC for approval.



#### SPECIAL SERVICES

- 1. Investigation into the feasibility and costs of inspecting and testing the existing inactive pipe stub on NRG property. As part of the preparation of the Design Report, the ECWA requested Nussbaumer make a recommendation related to the condition of the non-operating pipe section and the feasibility of its reuse. To make this recommendation, it was necessary to determine the feasibility of performing inspection and testing before construction. Nussbaumer contacted two (2) pipe inspection companies and a local contractor to determine the feasibility and estimated costs of these investigations. At the time Nussbaumer provided the ECWA with a Special Services proposal for the related work. Due to the costs, ECWA did not investigate further. A revised Special Services proposal to include costs incurred for the investigation was not submitted after this decision, and as noted above this Special Services proposal is included for these investigative costs.
- 2. Investigation of a structural lining for reuse of the existing inactive pipe stub on NRG property. Although not part of the original Scope of Work, Nussbaumer suggested that if the non-operating raw water main was found to be in poor condition after conducting the inspection and testing, a structural lining may be considered to allow for its reuse. ECWA asked that Nussbaumer investigate the feasibility and estimated cost. Nussbaumer performed this investigation and provided information on the feasibility and estimated cost related to a structural lining for the non-operating raw water main.
- 3. **Coordination and Engineering related to "Brownfield Cleanup Program" area on NRG property.** NRG is currently working with the NYSDEC to clean up the site due to historical contamination from multiple sources under previous ownership of the property. These requirements necessitate inclusion of specific design elements on the drawings and within the project manual to account for the required handling of the contaminated excavated material during the construction operations. Coordination with the NYSDEC and NRG Energy regarding site remediation is identified as a Special Service in the RFP.
- 4. NRG Easement Coordination. As part of this on-going project Nussbaumer has been assisting the ECWA with coordination between ECWA and NRG. ECWA is in the process of creating an access agreement with NRG, and the project requires a construction easement to allow performance of the work and permanent easement after the work is complete. Nussbaumer is providing this special services proposal to assist ECWA with this work as well as other easement work required as part of this project.

The following are detailed descriptions of the special services related to easement coordination performed or to be performed during the Design Phase of this project and following construction.

a. Assistance with resolution of easements on NRG property. ECWA is in the process of working towards an agreement with NRG to resolve easement discrepancies along the existing active raw water transmission main on NRG property. Nussbaumer has aided ECWA by providing existing easement information and answering questions posed by NRG regarding the existing easements, proposed easements, and proposed design. Nussbaumer has also prepared several figures that were provided to NRG representatives as part of this process. This task is on-going, and the portion of the fee related to this work is an estimate, which could increase



based on meetings with ECWA and NRG and requests for additional information from NRG.

- b. Assist with preparation of NRG Access Agreement. As part of the project ECWA and NRG will prepare an access agreement that will include access to the NRG property during construction and access to the site for maintenance of the raw water mains and appurtenances in the future. Nussbaumer will assist with the preparation of the access agreement by reviewing the proposed agreement with respect to engineering elements and preparing figures to accompany the agreement, if necessary.
- c. **Preparation of construction easements on NRG property and other properties within the project corridor.** Temporary construction easements will be required on NRG property and other private properties within the project corridor. Nussbaumer will assist the ECWA through preparation of exhibit maps to be included with these agreements.
- d. Assist in the preparation of new easements to supersede existing easements crossing the existing and proposed raw water mains on NRG property. Several underground utilities cross the existing raw water main alignment. These underground utilities are within easements to NRG. Nussbaumer has investigated and reviewed these existing easements to assist ECWA with their interpretation. These easements may need to be superseded to allow for the construction of the new raw water main. For the creation of the new easements Nussbaumer will prepare exhibit maps as attachments for the new easements.

## e. Easement Coordination Assumptions:

- No field survey is anticipated to be required for the preparation of the above items and has not been included in the scope or fee.
- The legal descriptions for easements (permanent and temporary) and negotiations for the easements will be completed by ECWA staff and/or legal counsel.
- Legal descriptions for the access agreement (for construction and maintenance) and negotiations for the access agreement will be completed by ECWA staff and/or legal counsel.
- Review of the access agreement and construction easements will be with respect to needed construction limits and construction accessibility and not for legal descriptions contained in the text of the agreement or easements.
- Final interpretation of the existing easements on NRG property and other properties within the project corridor will be performed by ECWA staff and/or legal counsel.

## DESIGN PHASE SCOPE OF WORK CHANGES AND SPECIAL SERVICES FEE SCHEDULE

The following tables are included to present the fees related to the Design Phase Scope Changes and Special Services described above. The tables show breakdown fees into work completed, work to be completed, and Special Services.



## TABLE 1 Additional Work Completed

Work Description		<u>Fee</u>
<ol> <li>Assistance with planning for test pits to determine location of existing active and inactive pipes</li> </ol>	ing \$	4,480.00
2. Additional design scope of work for the new raw water main		42,320.00
4. Assist ECWA in coordination efforts with NRG during design		12,070.00
TOTAL COMPLETED WO	RK \$	58,870.00

## TABLE 2Additional Work to Be Completed

Work Description	<u>Fee</u>
2. Additional design scope of work for the new raw water main	\$ 77,232.00
4. Assist ECWA in coordination efforts with NRG during design	22,996.00
5. Assist the ECWA in complying with the requirements of the WIIA grant	41,878.00
TOTAL WORK TO BE COMPLETED	\$ 142,106.00

#### TABLE 3 Special Services

	Work Description	<u>Fee</u>
1.	Investigation into the feasibility and costs of inspecting and testing the existing inactive pipe stub on NRG property	\$ 7,620.00
2.	Investigation of a structural lining for reuse of the existing inactive pipe stub on NRG property	4,370.00
3.	Coordination and Engineering related to "Brownfield Cleanup Program" area on NRG property.	14,104.00
4.	NRG Easement Coordination	15,980.00
	TOTAL SPECIAL SERVICES	\$ 42,074.00

Kindly be advised that the amounts for the work to be completed are estimates of the noted scope specific efforts and could increase depending upon meetings with ECWA and NRG, requests for additional information from NRG, and other reasonably unforeseeable changes in the project scope of work and schedule. We have also included in the above an estimate for an environmental subconsultant to assist with work related to the draft soils management plan provided by NRG.

Please note that an amendment for General Service (GS) and Resident Inspection (RI) will be submitted after the bid documents have been prepared and submitted to ECWA for their use in bidding. In addition to the GS and RI work associated with the expanded design scope this work will include:

- Submitting recommendation of construction contract award to NYSEFC for approval prior to ECWA Board approval.
- Submitting Contractor's Monthly Pay Requests, M/WBE-SDVOB Monthly Reports, and EEO Workforce Utilization Reports to the ECWA for transmittal to the NYSEFC.
- Review of the Contractor's proposed soils management plan to ensure that it is in accordance with the requirements of the NYSDEC approved soils management plan.



- Coordinating construction cleanup activities with the ongoing cleanup activities being performed by NRG, specifically meeting with NRG, ECWA and the Contractor, and coordinating cleanup in accordance with the NYSDEC approved soils management plan.
- Oversite of the ECWA's contractor to ensure that the requirements contained in the contract documents and the soils management plan are followed during construction operations.
- Assist with edits to the construction easements during construction as the actual alignment of the existing RWTM is determined.
- Assist with easement preparation following new RWTM construction delineating the future easements for the new and existing RWTMs.

Nussbaumer requests the ECWA prepare an amendment to account for the additional services described above and increase the engineering contract amount. The total increase in fee requested is \$200,976.00 for Design Phase Scope Changes and \$42,074.00 for Special Services. We also request that the \$200,976.00 amount be distributed among the Design Report (\$11,300.00 increase), Survey (\$4,700.00 increase) and Design (\$184,976.00 increase) tasks in the Agreement.

#### PROPOSED SCHEDULE

The anticipated milestone schedule for completing the design phase is as follows:

70% Design submission to ECWA	May 2023
95% Design submission to ECWA	July 2023
100% Design Submission to ECWA	September 2023

The following assumptions were made in the determination of the above schedule:

- 1. Timely reviews by NRG, National Grid, Erie County Department of Health and New York State Department of Health.
- 2. Completion of the access agreement between ECWA and NRG prior to bidding for inclusion in the bid documents.
- 3. Completion of the construction easement on NRG property between NRG and ECWA.
- 4. Completion of the Bognar easement.

Nussbaumer appreciates the opportunity to submit this proposed Amendment No. 1 and continue this project work for the ECWA. Should you have any questions, or need additional information, please do not hesitate to contact us at our convenience.

Sincerely,

NUSSBAUMER & CLARKE, INC.

Mark C. DiPasquale, P.E. Project Manager

Attachments

c: File – 01 (w/attach.)



presented as points within an ESRI geodatabase feature class, or provided in Microsoft Excel, Microsoft Access, or .dbf format. At a minimum, the coordinate file shall contain a Northing, Easting, Elevation, horizontal precision, vertical precision, and Description for each feature.

- c. Record Drawings and coordinates to be based on the NY State Plane Coordinate System - West Zone. Data is to be according to NAD83 and NAVD88 datums. Coordinates shall be provided in Microsoft Excel, Microsoft Access, or .dbf format. At a minimum, the coordinate file shall contain a Northing, Easting, Elevation, and Description for each feature.
- d. Submit two stamped/signed full size sets, AutoCAD files, .pdf version of the drawings and Project Manual (with addenda) and GPS coordinates no later than one month after final payment of the Construction Contract is recommended for approval and in accordance with ECWA Standards.

## 7. Special Services

ECWA may require Nussbaumer to provide or arrange for and assist in obtaining one or more of the following special services in carrying out the project. Because it is not possible to determine in advance the need for or the cost of such services, these are included as separate elements of cost which shall be separately negotiated. These services include:

- a. Soils Investigations including test borings, pavement cores, and the related analysis.
- b. Detailed mill, shop and/or laboratory inspection of materials and equipment.
- c. Land surveys, maps, plates, descriptions and title investigations which may be required to acquire lands, easements, and rights-of-way for the proposed facilities.
- d. Additional copies of reports, contract drawings and documents.
- e. Extra travel and subsistence for the Consultant and his staff beyond that normally required under ordinary circumstances, when authorized by ECWA.
- f. Assistance to ECWA serving as an expert witness in litigation arising from project development or construction.
- g. New York State SEQR (Type I and Unlisted Actions).
- h. Air, water, and/or soil sampling, testing, and/or analysis.
- i. Operation and maintenance manuals.
- j. Start-up services.
- k. Hazardous material testing and assessment.
- I. Detailed wetlands investigations, delineation, and mitigation.
- m. Detailed pipeline corrosion evaluation.
- n. Storm Water Pollution Prevention Plans.
- o. Maintenance and Protection of Traffic Plans.
- p. Use of the ECWA hydraulic model for evaluations.
- q. Applications for the NYSDEC and/or USCOE permits.
- r. Coordination with NYSDEC and NRG Energy regarding site remediation.
- s. Inspection and testing of the existing section of the previously installed second Raw Water Transmission Main.



t. Delineation of wetlands and/or historic sites in or near the project area.

## Notes:

The following items are hereby presented to clarify the basis of our proposal and identify work that is, or is not, included as part of our proposed scope of services. Any extra work, including work that is required to be done in a manner other than described, can be performed for an additional fee to be mutually agreed to by ECWA and Nussbaumer.

- The topographic survey will begin at the pump station, go through the NRG and National Grid properties along and within the existing easements to the water treatment plant. If additional information needs to be collected outside of this area, then additional fees may apply. Observable utilities along with available record information will be used to plot underground utilities. This does not mean that all underground utilities, active or abandoned, will be shown on the plans. We will also show easements and property lines in their approximate locations. All waterline appurtenances exposed and readily observable at the time of the field survey will be identified. We assume the ECWA will locate and expose such prior to the field survey. Our scope of work does not include additional topographic survey, boundary survey or incorporation of survey information from another source.
- We assume the proposed conduit duct bank will be installed via traditional open-cut methods. In addition, we assume the proposed conduit duct bank will be installed above (in terms of elevation) the top of the existing 400-foot section of the previously installed second raw water transmission main. We also assume the proposed conduit duct bank runs parallel to the raw water transmission mains and does not cross them, and, therefore, will not require specialized supporting structurers to support the duct bank during any future excavation of the raw water transmission mains.
- We recognize that engineering calculations to support the design of the improvements will likely require civil, structural, and electrical engineering fields, however, we do not anticipate the requirement for mechanical or architectural calculations.
- We assume the construction contract (single prime) for the project will be bid one (1) time, the time from date of advertisement for bids to date of notice to proceed with construction will not exceed three (3) months, and the construction of the second raw water transmission main will take no more than seven (7) months to complete (including closeout).
- Our scope of work for General Services does not include any construction stakeout survey. We anticipate the contractor will provide same as/where necessary under the construction contract.
- Additional survey, design, and construction phase engineering services would be required for the River Road alignment. These additional services are not included in our scope; i.e., we assume the proposed raw water transmission main and proposed duct bank will be within existing ECWA easements from NRG and National Grid.
- We interpret the requirement to provide a special services lump sum cost of \$25,000.00 as an allowance which will increase or decrease as the need for special services arises.