ENGAGEMENT QUERY

EQ2014-004-P2&3: Middlesex County Utility Authority - Pumping Stations

I. **GENERAL INFORMATION:**

On March 27, 2013, P.L. 2013, Chapter 37 (N.J.S.A. § 52:15D-1, et seq.), the Integrity Oversight Monitor Act (the Act) was enacted for the purpose of authorizing the deployment of Integrity Oversight Monitors for recovery and rebuilding contracts resulting from Superstorm Sandy and subsequent major storms in NJ. The Act authorizes the State Treasurer to require integrity oversight monitor services on any State or non-State, federally funded recovery and rebuilding contract of \$5 million or more. Pursuant to the Act, the Treasurer established a pool of qualified integrity monitors (Pool) from which the Treasurer could require the use of services on any State or federally funded recovery and rebuilding contracts. Consequently, the Treasurer has required integrity oversight monitoring on any such contracts valued at \$5 million or more.

The Department of Treasury (Treasury), on behalf of the Middlesex County Utility Authority (MCUA) is seeking quotes pursuant to the "Program and Process Management Auditing, Financial Auditing and Grant Management, and Integrity Monitoring/Anti-Fraud Services for Disaster Recovery Assistance" RFQ, and the "Prequalification Pools: Auditing and Other Related Services in Support of Disaster Recovery" RFP from prequalified contractors in Pool 2: Financial Auditing and Grant Management, or Pool 3: Integrity Oversight Monitor and Anti-Fraud (Contractor).

The State is seeking to retain the services of a prequalified Contractor from the Pool with knowledge of Federal Emergency Management Agency (FEMA) Public Assistance Programs, Department of Environmental Protection rules and regulations, New Jersey Environmental Infrastructure Trust (NJEIT) rules and regulations, the design and construction of wastewater treatment facilities and experience with state and local procurement processes, particularly the New Jersey Local Public Contracts Law (N.J.S.A. 40A:11-1 et seq.).

The purpose of this Engagement Query is to provide MCUA with an integrity oversight monitor in order to minimize the risk of deobligation, and prevent or rectify the duplication of benefits, process and payment errors, waste, fraud, abuse, malfeasance and mismanagement of funds.

The Engagement Query focuses primarily on two MCUA contracts (Allied Construction and Cruz Construction) related to the Sayreville Pumping Station detailed in FEMA Project Worksheet (PW) 33, with Allied Constriction, Inc. and Crus Construction, LLC. This engagement may be extended to include two additional contracts for permanent repairs to the Sayreville PW 5061 and Edison PW 5075 pumping stations. (Attachment 1)

Please Note: at the time, the Edison PW has not been approved in the grants tracking system.

The Contractor procured as a result of this Engagement Query will be responsible for reviewing and evaluating financial and administrative functions; reviewing and evaluating deliverables; developing recommendations and strategies to ensure maximum Federal recoveries and prevent associated risks, if necessary; and providing ongoing quality assurance/quality control reviews and assessments for the Allied Construction and Cruz Construction contracts. These responsibilities

will be extended to the contracts for permanent repairs to the Edison and Sayreville pumping stations after they are awarded and if they exceed the \$5 million threshold as expected. The State is requesting three separate price lines for this Engagement Query:

- 1. The first price line is to include costs for integrity oversight monitoring services for the Sayreville Pumping Station (the Allied Construction and Cruz Construction contracts);
- 2. the second price line is to include costs for integrity oversight monitoring services for the Allied Construction and Cruz Construction contracts and the Sayreville Pumping Station Permanent Repairs contract; and
- 3. The third price line is to include costs for integrity oversight monitoring services for the Allied Construction and Cruz Construction contracts, the Sayreville Pumping Station Permanent Repairs contract, and the Edison Pumping Station Permanent Repairs contract.

Financial and administrative reviews and evaluations, contractor recommendations, and suggested strategies will be similar, if not, identical for all contracts. These efforts will already be in place should an Integrity Oversight Monitor be required for the additional contracts. The State expects to see a more aggressive pricing structure in the second and third price quotes by achieving economies of scale.

Contract award is subject to the availability of federal funding. The level and amount of work to be awarded to the Integrity Oversight Integrity Monitor is not guaranteed.

A. Background

MCUA retained R3M prior to Superstorm Sandy (October 28, 2012) to serve as its construction oversight manager for the rehabilitation of the site and coordination with contractors. Post Superstorm Sandy, MCUA procured R3M's services on an emergency basis to oversee MCUA's FEMA claims and related documentation. R3M is responsible for construction oversight of contractor activities; initial coordination of contractors, suppliers, and vendors on site; coordination with MCUA personnel; engineering evaluations; preparation of reports and recommendations for submittal to FEMA; and overall program management of all Sayreville Pump Station restoration activities. The value of the change order to the contract for Sandy oversight work is \$1.8 million and is **not** subject to monitoring at this time. However, the Contractor is expected to leverage R3M's oversight activities, programmatic findings, reports, and recommendations without duplicating or recreating efforts.

MCUA intends to apply for a loan from the NJEIT to provide short term funding of anticipated expenses and long-term funding for all or a portion of expenses unreimbursed by FEMA. NJEIT has hired Grant Thornton as an internal Integrity Oversight Monitor with environmental engineering capabilities to serve as the NJEIT's technical oversight contractor. NJEIT and Grant Thornton perform environmental, engineering, and requisition reviews of project contract documents based on professional engineering standards. The NJEIT and Grant Thornton will review construction design, monitor construction management, and review requests for reimbursements, and the disbursement of funds to prevent, detect, and remediate fraud, waste, and abuse. The Contractor should note that all such information will be made available

to aid the Contractor in performing its responsibilities herein. The Contractor is expected to leverage Grant Thornton programmatic findings without duplicating or recreating efforts.

MCUA is receiving funding from FEMA in connection with Superstorm Sandy. MCUA currently has two contracts, one with Allied Construction and one with Cruz Construction that exceed the \$5 million threshold proscribed in the Act. Specifically these contracts are part of FEMA PW 33 and relate to Category B emergency-type work to set up temporary by-pass pumping in Sayreville in order to continue the feed while areas of the plant are repaired. Both contracts existed prior to Superstorm Sandy and change orders which exceed \$5 million were executed for Sandy related work.

Two additional contracts for permanent work are estimated to total \$75 million. One contract is expected to be procured in the amount of \$50 million for the permanent repairs work on the Sayreville pumping station, and one contract is expected to be procured in the amount of \$25 million for the permanent repairs work on the Edison pumping station. These projects are included in MCUA's risk assessment; however, FEMA project worksheets are currently being developed. Work is not expected to begin until late 2014.

B. Project Description and Contract Details

The initial Allied Construction contract and a pre-Sandy change order totaled \$9.3 million for rehabilitation work to the Sayreville pumping station. Three additional change orders totaling \$7.2 million were then executed under emergency procurement procedures as a result of Superstorm Sandy for the temporary by-pass pumping work.

The initial Cruz Construction contract was for \$9.8 million for stand-by force main repairs work to the Sayreville pumping station, per documentation provided. Three change orders totaling \$8.2 million were then executed under emergency procurement procedures as a result of Superstorm Sandy for the temporary by-pass pumping work.

The Sayreville and Edison Pumping Station Permanent Repair estimates includes work for hazard mitigation, including raising pumps to new flood levels and building a floodwall. If directed by FEMA to do so, the two anticipated contracts may be split so that the Sandy repair work are in separate contracts from the hazard mitigation work. This has yet to be determined.

Contractor	Original Contract Value and Change Orders Pre- Sandy	Change Orders Related to Sandy Work	Estimated Contract Value	Total Contract Value	Total Contract Value Subject to Risk Assessment	
Allied Construction	\$9.3 million	\$7.2 million	NA	\$16.54 million	\$7.2 million	

Cruz Construction	\$9.8 million	\$8.12 million	NA	\$18.01 million	\$8.21 million
TBD-Sayreville Pumping Station Permanent Repairs	NA	NA	\$50 million	\$50 million	\$50 million
TBD-Edison Pumping Station Permanent Repairs	NA	NA	\$25 million	\$25 million	\$25 million
Total		\$15.41 million	\$75.00 million	\$109.55 million	\$90.41 million

C. Risk Assessment Summary

Ernst and Young (EY) completed a risk assessment for the MCUA as it relates to funding MCUA is receiving from FEMA in connection with Superstorm Sandy. At the time of the risk assessment, there were two contracts (the Allied Construction and Cruz Construction contracts), each greater than the \$5 million threshold of the Act, related to a temporary bypass pump at the Sayreville Pumping Station for which work was initiated prior to Superstorm Sandy, and is substantially completed. MCUA expects at least two additional contracts above the \$5 million threshold to be procured for permanent work that has not yet been started.

D. Items Noted during Risk Assessment

- Allied Construction and Cruz Construction were already under contract at the time of Sandy due to upgrades that were being performed to rehabilitate the site, and their contracts were increased via change orders to include the by-pass pumping.
- Although the original contracts for Allied Construction and Cruz Construction were properly procured under New Jersey State law per PW 33 narrative, Cruz Construction was the sole responder to the public request for proposals made by the Middlesex County Utilities Authority and therefore there was limited price competition for this contract.
- R3M had also been retained as MCUA's construction oversight management for the rehabilitation (prior to Superstorm Sandy), and its contract was increased to include FEMA claim oversight work. The change order related to Sandy related work is less than the discretionary \$2 million threshold for risk assessment proscribed by the Act.

- Permanent repair work on the Sayreville and Edison Pumping Stations has not been started and contracts will not be bid until MCUA has obtained approval by the NJEIT, expected in the fall of 2014, as well as FEMA approval for obligation of the PWs.
- MCUA expects to solicit bids for one contract for each of the Sayreville and Edison Pumping Stations, approximately \$50 million and \$25 million, respectively.
- In order to assist with the anticipated expenses, MCUA is planning to receive an NJEIT loan. As part of the loan process, NJEIT requires that environmental planning, construction design, permitting, bid specifications and procurement documentation be provided to them for review. Through the review of these documents, the NJEIT, and its Integrity Monitor, will seek to identify fraud, waste, and abuse. This adds another layer of monitoring to the procurement phase, thus decreasing the risk associated with the permanent work projects for the Sayreville and Edison pumping stations.
- The audited FY2012 and 2011 financial statements for MCUA, along with the single audit, did not disclose any internal control deficiencies. They were audited by ParenteBeard.

II. SCOPE OF WORK (SOW) REQUIREMENTS:

Contractors must be able to perform all of the following tasks:

- A. Attend a kick-off meeting with representatives from the Department to discuss the tasks and deliverables required under this work assignment. The Contractor is responsible for documenting and providing minutes of the meeting to the State Contract Manager within ten (10) days of the meeting.
- B. Review the MCUA's financial and administrative functions for this contract. Leveraging the NJEIT's Integrity Monitoring reviews and recommendations without duplicating or recreating efforts:
 - 1. Ensure that these functions adhere to all grant/assistance program guidelines, procurement rules, and reporting requirements.
 - 2. Verify that the contracts were procured in accordance with all Federal, State and Local laws, regulations, and ordinances.
 - 3. Verify that payments were disbursed consistent with applicable directives, and that there was no duplication of benefits, process and payment errors, waste, fraud, abuse, malfeasance or mismanagement of funds.
 - 4. If weaknesses, errors, etc. are detected, develop recommendations and strategies to ensure maximum Federal recoveries, compliance with all laws, and prevention of associated risks through project closeout.

Report findings to the MCUA and copy the State Contract Manager.

- C. Review and evaluate the construction deliverables for this contract. Leveraging the NJEIT's Integrity Monitoring reviews and recommendations without duplicating or recreating efforts:
 - 1. Verify that construction plans, documentation, and permits are in compliance with all Federal, State and Local laws, regulations, and ordinances.

2. Verify that all construction contract deliverables to date have been provided, and within acceptable timeframes.

Report findings to the MCUA and copy the State Contract Manager.

- D. Provide ongoing quality assurance/quality control reviews for the duration of this engagement.
 - 1. Ensure that remaining payments are disbursed consistent with applicable directives, and that there is no duplication of benefits, process and payment errors, waste, fraud, abuse, malfeasance or mismanagement of funds.
 - Review remaining construction progress through project closeout to ensure compliance with contract.
 - 3. Provide ongoing guidance and problem resolution to support account reconciliations, and other issues related to the payment processing and reporting.

Report findings to the MCUA and copy the State Contract Manager.

E. Provide deliverables as set forth in this Engagement Query.

Each interested contractor is strongly urged to review the Act, contracts G-9004 and T-2939, the respective Method of Operation, and this Engagement Query to determine the best approach to develop its proposal and to meet the requirements of all tasks listed in this engagement query.

III. DELIVERABLES

The Contractor must ensure compliance with the following:

A. Required Timelines

- 1. Task A, meeting minutes, is required to be completed within 10 days of the kick-off meeting.
- 2. Task B is required to be completed within 40 days of the kick-off meeting. Should the Edison Pumping Station and Sayreville Pumping Station contracts be executed, deliverables will be due within 40 days of contract(s) execution.
- 3. Task C is required to be completed within 40 days of receipt of the kick-off meeting.
- 4. All other tasks shall be performed on an ongoing basis and in a timely manner for the duration of this engagement, and may have completion dates assigned by Treasury.
- 5. Status is to be reported to the State Contract Manager on a monthly and quarterly basis as set forth below.

B. Required Reports and Documents

- 1. Findings of potential fraud, malfeasance, or criminal activity
 - Upon a finding of a likely criminal violation or lesser degree of any malfeasance, inefficiency, waste, fraud, abuse or mismanagement of funds, report findings to the State Comptroller and the Attorney General immediately consistent with the requirements of the Act.

2. Monthly Status Reports

 Provide update on activities conducted on, or for, each task to include the type of activity, analysis, results, recommendations, resolutions, and/or preventative measures; and follow up on any previous outstanding issues. Provide monthly status reports to the State Contract Manager.

3. Quarterly Report (Attachment 2)

• On the first business day of each calendar quarter, the Contractor shall provide to the State Treasurer, for distribution to the Legislature and the Governor, a report detailing the Contractor's provision of services during the three-month period second preceding the due date of the report and any previously unreported provision of services, which shall include, but not be limited to, detailed findings concerning the Contractor's provision of services and recommendations for corrective or remedial action relative to findings of malfeasance and inefficiency. The report shall not include any information which may compromise a potential criminal investigation or prosecution or any proprietary information. The report shall include a privilege log which shall detail each omission of any such information.

4. Time Logs

 Copies (and upon request, originals) of time logs shall be maintained by the Contractor and shall include information on the allocation of hours worked by the Contractor and staff to the respective federally-funded programs and all other data required in order to ensure compliance with all federal requirements.

IV. OTHER CONTRACTOR REQUIREMENTS

The Contractor is required to comply with all of the terms, including pricing, of its State contract (contract G-9004 or T-2939, as applicable), the applicable provisions of the New Jersey Standard Terms and Conditions, and the associated Method of Operation for the selected contracts. For the purpose of this engagement, the Contractor's indemnification obligation shall be limited in the aggregate to 500% of the value of the contract

Contracts are available on the Department of the Treasury, Division of Purchase and Property website:

Contract G-9004 http://www.state.nj.us/treasury/purchase/noa/contracts/g9004 13-r-23144.shtml

Contract T-2939 http://www.state.nj.us/treasury/purchase/noa/contracts/t2939 14-x-23110.shtml

Or, on the NJ Sandy Transparency website:

http://nj.gov/comptroller/sandytransparency/contracts/sandy/

V. LENGTH OF ENGAGEMENT

The anticipated term of this engagement, subject to continuing satisfaction and availability of funds, shall be for a period of two (2) years, and may be extended for all or part of one year. This engagement will begin once Task Orders and Purchase Orders are issued, and will end when all deliverables have been met and accepted by the State.

VI. CONFLICT OF INTEREST

Any person with FEMA/CDBG responsibilities, decision-making power or information may not obtain a financial interest or benefit from FEMA/CDBG activity or have any interest in the contract(s) or subcontract(s). Firms are prohibited from acting as a contractor for both the auditing and integrity monitoring requirements for the same project.

VII. CONFLICT FOR FUTURE ENGAGEMENTS

The Department of the Treasury will determine, on a case-by-case basis, if the Contractor will be eligible to receive additional integrity monitoring engagements. If it is determined that award of this engagement presents a conflict of interest for participation in future engagements, the Contractor will be precluded from accepting subsequent Engagement Queries.

VIII. PROPOSAL CONTENT

The Contractor shall provide a detailed proposal with a detailed budget to perform the SOW in this engagement to the State Contract Manager:

Dave Ridolfino, Associate Deputy State Treasurer IntegrityOversightMonitor@treas.state.nj.us by **5pm on April 11, 2014**

Questions related to this Engagement Query must be submitted to:

IntegrityOversightMonitor@treas.state.nj.us by 5pm on March 28, 2014

Note: Use the attached template to submit questions. The compilation of all questions and answers will be sent to the group prior to the Engagement Query response due date. **(Attachment 3)**

If the contractor is unable to bid because of a conflict of interest or scheduling, the contractor must provide notice to the Department within **three (3)** business days of the receipt of Engagement Query.

The contractor's proposal must contain the following elements:

- A. A detailed proposal including a detailed budget, to perform the scope of work reflecting the requirements of the engagement query for competitive price quotes. The proposal must explain how the contractor intends to accomplish each task listed in the SOW;
- B. A contract schedule that shall identify the performance milestones and associated deliverable items to be submitted as evidence of completion of each task and/or sub-task;
- C. Person-hour and/or labor category mix: A comprehensive chart showing the person-hours proposed to meet the requirements of the Engagement Query. The chart shall be designed to reflect the tasks, sub-tasks, or other work elements required by the Engagement Query. The chart shall set forth, for each task, sub-task or other work element, the total number of person-hours, by labor category, proposed to complete the contract. The hourly rates used for each labor category shall be the hourly rates, or lower than the hourly rates specified in the contract. The person hours must be those originally bid or lower. The Contractor is to fill in each task listed in Section II Scope of Work in the column provided, and determine how many hours are required to complete each task. Provide a separate quote sheet for each price line and each year covering the entire term of this engagement. (Attachment 4);
- D. Estimated travel and direct costs for the duration of the engagement. Refer to contract T2939: 3.7 Travel Expenses and Reimbursements and Section 6.7.2 Bidders' Price Schedule; and contract G9004: 3.6 Travel Expenses and Reimbursements, and Section 6.0 Cost Proposal. (Note: Include total travel and direct costs on Attachment 4 in the boxes provided.);
- E. A description of FEMA consulting experience on similar projects that demonstrates knowledge of eligibility, documentation and procurement requirements. Include client results in recovering the proposing contractor's fees as direct administrative costs, and a list of any deobligation of funds by FEMA in any of your projects;
- F. Detailed list of engagements or task orders in which the firm is currently providing services for any type of disaster recovery, including those of sub-contractors proposed for this engagement. The list must include the name of the contracting entity; a detailed list of the scope of services and the contract term; and identification of any sub-contractors to be utilized for this engagement which must be consistent with those identified in the original proposal/bid;
- G. Summary of experience of the primary and sub-contractor for engagements of similar scope and size; and
- H. Resumes of any primary contractor or sub-contractor individuals proposed for this engagement.

IX. SELECTION PROCESS

The State Contract Manager, on behalf of the Treasurer, or the using agency will review the proposals and select the Contractor whose proposal is most advantageous, price and other factors considered.

The State Contract Manager, on behalf of the Treasurer or the using agency will then issue a letter of engagement with a "not to exceed" clause to the engaged firm and begin the issuance of Task Orders. A firm may submit pricing lower than its original bid price for a specific project. The firm will then be held to that lower pricing for all future engagements.

X. LIQUIDATED DAMAGES

To the extent that actions of the contractor result in failure to meet performance standards, the State may suffer damages that could be difficult or impossible to quantify.

Given the significance of rehabilitation of New Jersey communities, businesses, and programs, the necessity that all resources dedicated to the recovery from Superstorm Sandy be applied in an efficient manner, and the need to take all necessary precautions to prevent, detect, and remediate waste, fraud, and abuse, the State and the Contractor agree to the specified liquidated damage amounts for late delivery of the following deliverables.

The methodology utilized to calculate liquidated damages pertaining to reviewing and evaluating financial and administrative functions and construction deliverables to determine risk, and reporting on status are based on the assumption that failure to have these key elements in place will directly result in loss of Federal funds. In addition, failure to provide reports could prevent the State from taking action to rectify issues early on, and may also cause harm to the public in the form of waste by the government and inefficiency in rebuilding projects.

Allied Construction and Cruz Construction Liquidated Damages

Task	Deliverable	Due Date	Liquidated Damages
Task B	Review and evaluate the financial and administrative functions	Within 40 business days of receipt of the kick-off meeting. Should the Edison Pumping Station and Sayreville Pumping Station contracts be executed, deliverables will be due within 40 days of contract(s) execution.	\$1000 a day for each day past due date
Task C	Review and evaluate the construction deliverables	Within 40 business days of receipt of the kick-off	\$1000 a day for each day

	for this contract.	meeting	past due date
Monthly Status Reports	Provide update on activities conducted on, or for, each task to include the type of activity, analysis, results, recommendations, resolutions, and/or preventative measures; and follow-up on any previous outstanding issues.	On the first business day of each month	\$1000 a day for each day past due date
Quarterly Reports	Report detailing the integrity oversight monitor's provision of services during the threemonth period second preceding the due date of the report and any previously unreported provision of services	On the first business day of each calendar quarter	\$1000 a day for each day past due date

XI. NOTICE OF EXECUTIVE ORDER 125 REQUIREMENT FOR POSTING OF WINNING PROPOSAL AND CONTRACT DOCUMENTS

Pursuant to Executive Order No. 125, signed by Governor Christie on February 8, 2013, the Office of the State Comptroller (OSC) is required to make all approved State contracts for the allocation and expenditure of federal reconstruction resources available to the public by posting such contracts on an appropriate State website. Such contracts are posted on the New Jersey Sandy Transparency website located at: http://nj.gov/comptroller/sandytransparency/contracts/sandy/

The contract resulting from this Engagement Query is subject to the requirements of Executive Order No. 125. Accordingly, the OSC will post a copy of the contract, including the Engagement Query, the winning bidder's proposal and other related contract documents for the above contract on the Sandy Transparency website.

In submitting its proposal, a bidder may designate specific information as not subject to disclosure. However, such bidder must have a good faith legal and/ or factual basis to assert that such designated portions of its proposal (i) are proprietary and confidential financial or commercial information or trade secrets or (ii) must not be disclosed to protect the personal privacy of an identified individual. The location in the proposal of any such designation should be clearly stated in a cover letter, and a redacted copy of the proposal should be provided.

The State reserves the right to make the determination as to what is proprietary or confidential, and will advise the winning bidder accordingly. The State will not honor any attempt by a

winning bidder to designate its entire proposal as proprietary, confidential and/or to claim copyright protection for its entire proposal. In the event of any challenge to the winning bidder's assertion of confidentiality with which the State does not concur, the bidder shall be solely responsible for defending its designation.

XII. <u>ATTACHMENTS</u>

Attachment 1: Project Work Sheet

Attachment 2: Quarterly Report Template

Attachment 3: Question Template

Attachment 4: Cost Quote

Engagement Query Questions or Request for Clarification Engagement Query #: EQ2014-004-P2&3 MCUA Pumping Stations

Addendum 1

Part 1: Modification

- 1. Please note that the deadline for this engagement query has been extended. Responses to this engagement query must be received by **5PM on Wednesday, April 16, 204**.
- 2. Page 6, Section: Other Contractor Requirements

Change: "For the purpose of this engagement, the Contractor's indemnification obligation shall be limited in the aggregate to 500% of the value of the contract."

To: "For the purpose of this engagement, the Contractor's indemnification is subject to the provisions and limitation outlined in Section 5.17.1 within Contract T2939"

Part 2: Questions and Answers Please note: Some questions have been combined or modified for clarity.

1. Page 1, PW#0033

Work complete as of 11-23-2012 according to the PW.

According to current records for Project Worksheet 33, \$1,435,817.39 is the value of work completed as of 12-1-2012. Please be advised that an amendment is currently being prepared to allocate a portion of the invoiced fuel costs between Project Worksheet 33, 45, 5032, and 5061.

Has the emergency work been completed? If so, when was it completed?

The Project Worksheet 33 emergency work has been completed as of December 28, 2013. However, final restoration of the site will be completed under Project Worksheet 5061. Please also note that project worksheet management and related engineering costs are ongoing in preparation for final reimbursement and project closeout.

Where is the supporting documentation being maintained?

Original documentation is retained by the Middlesex County Utilities Authority. Hatch Mott MacDonald is also preparing digital and physical copies of all records associated with this project.

Is PW #0033 in the closeout process or are reconciliations still being performed?

Reconciliations are being performed by Hatch Mott MacDonald with the assistance of R3M Engineering, Inc. to ensure that all records are complete and all work is properly allocated among

2. Page 1, Section 1

The Engagement Query references that the engagement may be extended to include two additional contracts associated with permanent repairs to the Sayreville (PW 5061) and Edison Pump Station (PW5075).

What is the timing of each project's design completion, estimated construction start date and timeframe for completion?

"Preliminary Project Schedule" documents for PW5061 (Contract No. 14-1-4(SPS)) and PW5075 (Contract No. 14-3-2(EPS)) were submitted with NJEIT loan applications on March 3, 2014. The estimated milestone dates included in the applications are listed below. Please be advised that the outcomes of outstanding appeals of FEMA determinations and flood hazard mitigation proposals associated with these project worksheets may significantly alter these timelines.

PW5061 PW5075

Design Completion: October 8, 2014 Design Completion: October 14, 2014 Construction Start Date: January 29, Construction Start Date: January 30,

2015 2015

Contract Closeout: March 22, 2017 Contract Closeout: December 28, 2016

If the timeframe for construction under PWs 5061 and 5075 extends beyond the two year "Length of Engagement" or the additional one year, will the engagement be continued until all tasks are completed and the projects' construction activities are completed?

The engagement will continue until all project construction activities have been completed, and when all deliverables have been met and accepted by the State subject to the availability of federal funding.

Has either the Edison Project Worksheet #5075 or the Sayreville Project Worksheet #5061 been approved at this time?

Project Worksheets #5075 and #5061 have both been approved at this time. At present, funding in the amount of \$10,801,817.51 and \$3,565,027.43 has been obligated for Project Worksheets 5061 and 5075 respectively.

3. Page 2, Section I

"Contract award is subject to the availability of federal funding." Integrity Monitor work not guaranteed. PW 33 is funded, #1 and PW 5061 and PW 5075 are not funded.

If PW 5061 and PW 5075 do not receive awards, will the work awarded to the Integrity Oversight Monitor for PW 33 be guaranteed?

Contract award is subject to the availability of federal funding. The level and amount of work to be awarded to the Integrity Oversight Integrity Monitor is not guaranteed. Also, please refer to the NJ Standard Terms & Condition Section 5.6 Suspension of Work and Section 5.7 Termination of Contract.

4. Page 2, Section I A

Will the query contract include responsibility for the compliance of the original procurement or FEMA related amendments for Allied or Cruz based on the Risk Assessment by E&Y and the oversight by R3M?

Focus is primarily on federally funded components of these contracts.

5. Page 2 and 5, Sections IA and IIC

Will the contractor will be responsible for the compliance of the loan from NJEIT (if it occurs) or only be responsible for the resulting use of those funds as if they were FEMA grant funds (similar to a pre-spending authority or letter or no prejudice situation)?

The Contractor will not be responsible for the compliance of the NJEIT loan. The Contractor will be responsible for monitoring the resulting use of the NJEIT loan.

6. Page 3 Section IB

The Engagement Query references that multiple changes orders were issued to Allied Construction and Cruz Construction, under emergency procurement procedures, to provide temporary by-pass pumping work.

What is the current status of the construction activities (percentage of completion) of Allied Construction and Cruz Construction respectively?

The MCUA confirms that multiple change orders were issued to Allied Construction and Cruz Construction under emergency procurement procedures to provide temporary on-site bypass pumping per Project Worksheet #33. Specifically, Change Orders 2 through 7 for MCUA Contract No. 11-6-2(AC) were required for emergency work performed by Cruz Construction, LLC, and Change Orders 5, 7 and 8 were required for emergency work performed by Allied Construction Group, Inc.

Construction activities for both Allied Construction Group, Inc. and Cruz Contractors, LLC authorized under emergency procurement procedures are 100% complete at this time. The remaining restoration construction activities associated with the emergency work performed by Allied and Cruz will be addressed through standard procurement procedures.

What were/are the different work items assigned to each construction contractor at the Sayreville Pump Station?

As stated within Work Order 9 of Contract 11-6-2(AC) Change Order No. 2, emergency work performed by Cruz included the following: performing initial cleanup and restoration work at the site; providing temporary pumping of wastewater flows and maintenance and the eventual removal temporary pumping facility, thereof; performing work as directed by the Engineer to restore operations to existing equipment; and additional site work as required for increased activities at the site. Change Orders No. 3 through 5 were subsequently authorized for the continued assistance in the rental, maintenance, and operation of the bypass pumping system as was required by a NJDEP Administrative Consent Order and as required until the Sayreville Pump Station facilities were capable of handling design wastewater flows.

As stated in Change Order No. 5 of Contract 10-2-6(SPS) Rebid the emergency work performed by Allied Construction included the following: Perform initial cleanup and restoration work at the site; provide temporary pumping of wastewater flows and maintenance thereof; perform work as directed by the Engineer to restore operations to existing equipment; correct work previously completed under the Contract and subsequently damaged or otherwise disturbed by the weather event and subsequent emergency activities at the site; support activities performed by State and Federal Agencies at the site, including but not limited to emergency dive teams to repair damaged or missing equipment; and provide construction management services required for coordination of work activities by the various contractors and subcontractors on the site, and for assistance with administrative requirements for financial assistance by State and Federal Agencies.

7. Page 3 Section IB

The Engagement Query references that the work associated with the Sayreville and Edison pumping stations (Sandy repair work and hazard mitigation work) may be split into separate contracts.

When will this decision be made?

At a minimum, the MCUA will pursue individual contracts for all incomplete permanent and hazard mitigation work for each the Sayreville Pump Station, inclusive of the Original Sayreville Pump Station and Sayreville Relief Pump Station, (MCUA Contract No. 14-1-4(SPS)) and the Edison Pump Station and Northwest Tunnel Access Shaft (MCUA Contract No. 14-3-2(EPS)). R3M Engineering, Inc. is providing A&E design services for Contract No. 14-1-4(SPS) under MCUA Resolution #WW 1-14-8-R. Hatch Mott MacDonald is providing A&E design services for Contract No. 14-3-2(EPS) under MCUA Resolution #WW 6-13-8-R.

What is the anticipated construction cost for each contract if the decision is to split the work?

"Preliminary Construction Cost Estimate" documents were submitted with NJEIT loan applications on March 3, 2014. If all alternate and supplemental work items are awarded, then the preliminary construction costs for MCUA Contracts 14-1-4(SPS) and 14-3-2(EPS) are \$60,509,000, and \$11,426,300, respectively.

What is the timing of constructing the various components?

Please refer to response 2 a) above relating to "Preliminary Project Schedule."

8. Page 4 Section II

Task A of the Engagement Query involves the Kick-Off Meeting with the Department. There is no mention of MCUA at the Kick-Off Meeting. Is this an oversight?

The kick-off meeting will include all available key participants including MCUA personnel.

9. Page 5 Section II

Since the Risk Assessment raises questions about the propriety of the contract to Cruz "limited competition".... And the SOW says we are responsible for ALL procurement activity, is it duplication of effort to include this in the scope of work?

The risk assessment includes a broad evaluation of procurement process.

10. Page 6, Section III Deliverables

The Engagement Query references that for the Required Timelines Task C is required to be completed within 40 days of the Kick-Off Meeting. For the Task C activities associated with the Sayreville and Edison Pump Stations:

What is timeframe on which construction plans, documents and permits would be available on which the review and verification would be based?

Please refer to response 2 a) above relating to "Preliminary Project Schedule."

Would the start of the review timeframe be based on the incremental authorization to incorporate either or both of these two projects into the engagement?

The review timeframe will begin when documents are finalized and available to the Contractor. Timeframes for these two projects are independent.

11. Page 7 Section IV

The engagement query states, "...the Contractor's indemnification obligation shall be limited in the aggregate to 500% of the value of the contract." We are a CPA firm and the AICPA Ethics Interpretation 101-3 precludes us from performing services for any entity with the indemnification clause.

We can provide proof of "Errors and Omission" certification from our insurance company. We are a professional firm and we are required to meet the requirements of our professional organizations. If it cannot be removed our CPA firm will not be independent and therefore unable to issue an Agreed-Upon Procedures report or any attestation or assurance type report.

Would you consider modifying the requirement to accept "Errors and Omission" proof of certification or verifying that the service product is not one of the reports mentioned above?

The State has reviewed your request and does not agree to this requested modification.

Please refer to the NJ Standard Terms & Condition Section 5.6 Suspension of Work and Section 5.7 Termination of Contract.

12. Page 9, Section VIIIC

"Provide a separate quote sheet for each price line and each year covering the entire engagement."

The timeline lists 40 days, is the Contractor expected to include a timeline for ongoing services?

Yes.

13. Page 10, Section IX

The State Contract Manager or the using agency will issue a letter of engagement once a Contractor has been selected.

What is the anticipated timing/date when this letter of engagement will be issued?

The Letter of Engagement is expected to be issued by the end of April 2014.

What is the anticipated timing/date of the additional letters of engagements to incorporate the work under the Second Price Line and Third Price Line?

No additional Letters of Engagement will be issued.

14. Page 10, Section IX

G9004 Year 2 contract rates go into effect in May 2014. So that we use the correct rates in our proposal, please provide the intended start date for work.

The anticipated start date is early to mid-May 2014.

PA-02-NJ-4086-PW-00033(2) P	
Applicant Name:	Application Title:
MIDDLESEX COUNTY UTILITIES AUTHORITY	U04NE02 Temporary By-Pass Pumping
Period of Performance Start:	Period of Performance End:
10-30-2012	12-31-2013

Bundle Reference # (Amendment #)	Date Awarded		
PA-02-NJ-4086-State-0125(124)	12-10-2013		

Subgrant Application - FEMA Form 90-91

Note: The Effective Cost Share for this application is 90%

FEDERAL EMERGENCY MANAGEMENT AGENCY PROJECT WORKSHEET									
DISASTER PROJECT NO. PA ID NO.						DATE 11-27-2012		CATEGORY	
FEMA	4086	-	DR	-NJ	U04NE02	023- U04NE-00	11-21-2012		В
APPLICANT: MIDDLESEX COUNTY UTILITIES AUTHORITY				NTY UTILITIES A	UTHORITY	WORK COMPLETE AS OF: 11-23-2012 : 60 %			
							Site 1 of 1		
DAMAGED FACILITY: Sayreville Pump Station							COUNTY: Middlesex		
LOCATION:								LATITUDE: 40.46973	LONGITUDE: -74.36731
PA-02-NJ-4086-PW-00033(0):									
Sayreville Pump Station - 22 Canal Street, Sayreville, NJ					nal Street, Sayrevi	lle, NJ			

DAMAGE DESCRIPTION AND DIMENSIONS:

PA-02-NJ-4086-PW-00033(0):

During the ongoing incident period of Post Tropical Cyclone Sandy, beginning on October 26, 2012, the Middlesex County Utilities Authority suffered substantial damage to its Sayreville Pump Station which utilizes six (6)-50 MGD (Million Gallons Daily) pumps and four (4)-40 MGD pumps to pump anywhere from 70 MGD of dry weather sanitary flow to 300 MGD of wet weather sanitary flow from 30 municipalities in Middlesex and Somerset counties to the central treatment plant. The storm surge inundated and damaged its onsite electrical substation and controls. Also, due to salt water intrusion the pumps, pump fittings, and pump motors were compromised and rendered inoperable. These damages prompted the sub-grantee to immediately secure emergency contracts to prevent farther damage to the existing infrastructure and prevent raw sewage from being discharged into the waterways. The GPS was taken in the center of the facility

SCOPE OF WORK:

PA-02-NJ-4086-PW-00033(0):

Work Completed:

The sub-grantee secured emergency contracts to provide technical engineering consultation, dewater the dry well and screening room, get electrical operations functioning, test pump motors to see which ones are operational, and prepare the site for the installation of four sections of By-Pass pumps to eliminate dry weather overflow to the Raritan River and protect the existing infrastructure from further damage.

Engineering: Emergency engineering and project management cost associated with technical assistance providing the expertise and oversite for the operations of getting the pump station in minimal working shape for both site preparation and pump sizing calculations. R3M is the Authorities yearly contracted consultant. Please see note for cost justification.

Emergency Electrical and Pump Operations: sub-grantee utilized emergency contracts to help provided a temporary electrical system so that emergency by-pass pumping operations could begin. Costs include getting the primary on-site substation up and running, testing and removal of the damaged pump motors for baking and repair, removal and inspection of the existing pump fittings, removal and cleaning of the existing transformers, cleaning and testing the standby generator. Work involves large cranes and semi-trucks for transport. Please see note for cost justification.

Emergency Site preparation: sub-grantee utilized emergency contracts to dewater the dry well and screening room so that the site could be prepared for the installation of the by-pass pumping operations. Work involves loaders and dump trucks for site grading of stone. Please see note for cost justification.

Emergency By-Pass Pumping: By-Pass No. 1 – Installed two (2) 18-inch suction lift dewatering pumps to draw from the Sayreville Relief Pump Station (SRPS) influent channel and discharge to the Original Sayreville Force Main (OSFM). Provides 20 to 25 MGD. By-Pass No. 2 – Installed three (3) 12-inch suction lift dewatering pumps to draw from the Original Sayreville Pump Station (OSPS) and discharge to the OSFM. Provides 10 to 15 MGD.

By-Pass No. 3 – Installed three (3) 18-inch suction lift dewatering pumps with one unit drawing out of the SRPS and two units drawing out of the 132-inch Main Trunk Relief Sewer Manholes (MTRS) and discharge to the Sayreville Relief Force Main (SRFM). Provides 25 to 35 MGD.

By-Pass No. 4 – Installed one (1) 12-inch suction lift dewatering pump to draw from the MTRS siphon outlet chamber and discharge to the OSFM. Provides 3 to 5 MGD. Work involves semi-trucks to transport the pumps and piping system along with cranes to properly place them on-site. Please see note for cost justification

Work to be Completed: The rental pumps have been extended for an estimated time period of 4 more months which represents the amount of time it is expected the pump station to be able to handle most of the normal operations.

Notes: The sub-grantee already had bid out an emergency contract a few years previous the event with Cruz being the only responsive bid to provide immediate emergency services. The contract had provisions for dewatering and by-pass pumping. The bid proposal and contract is attached. The cost, for the work and time performed, are reasonable in nature. Also, prior to the event the sub-grantee was in the process of upgrading its pump station with Allied Construction as the General Contractor. The contract has a provision for Unforeseen Circumstances which allows payment for any items that is above and beyond what the original contract awarded, which, in this case, is the dewatering of the facility, emergency site preparation, and temporary repairs to electrical systems. The original contract was set up for prevailing wages and is recommended as eligible since the contract was properly bid prior to the event and those prices utilized. The costs for the project were found by using an anticipated cost document in which the sub-grantee, sub-grantee's engineer, and contractor met to review draft invoices as to establish a level of cost that has been spent and anticipated. After discussion with the engineer about the level and hours of work involved along with historical cost associated with such large Pump Stations, the costs submitted seem to be reasonable and recommended as eligible.

Record Retention: Complete records and cost documents for all approved work must be maintained for at least 3 years from the date the last project was completed or from the date final payment was received, whichever is later. Applicant is responsible for retention of all documentation associated with the project.

Permits: The PA Project Specialist has advised the sub-grantee that it is their responsibility to obtain all applicable local, state and federal permits prior to any construction or debris disposal activity referenced on this project. Sub-grantee has also been advised that the lack of obtaining and maintaining these documents may jeopardize funding.

Direct Administrative Costs: The sub-grantee is not requesting Direct Administrative Costs (DAC) that are directly chargeable to this specific project.

Hazard Mitigation Measures: No mitigation opportunities have been identified. This project worksheet is for emergency work only; therefore mitigation is not eligible.

PA-02-NJ-4086-PW-00033(2):

Amendment #2 to PW 0033

Provide engineering, construction services (labor & material), equipment and re-fueling to continue operation of bypass pumping until the permanent repairs to the pump station are completed. Additional time for bypass pumping was needed to put the station's permanent pumping equipment back in service.

NARRATIVE:

This amendment is to Increase the Cat B scope of work to capture additional engineering, equipment, contract labor and material Invoice costs recently submitted by the Applicant and not submitted in the original PW. These invoices and backup information include all the work completed from the beginning and are attached with this Amendment.

The costs for Version 0 were found by using an anticipated cost in which the sub-grantee, sub-grantee's engineer, and contractor met to review draft invoices as to establish a level of cost that had been spent and the anticipated costs for the future. Since the derived costs were estimated, no invoices were available for submission by the Applicant under Version 0.

The attached PDF file "U04NE02 - Contract Summary Record.pdrf" delineates the services rendered by the contractor and the dates of the work accomplished. Backup documentation showing the work performed for these dates are also attached with this PW.

NOTE: Temporary Bypass Pumping (TBP) was permitted by the state via an Administrative Consent Order signed May 15, 2013 (copy attached) from the New Jersey Department of Environmental Protection (NJDEP). The continuation of the TBP was strictly regulated and monitored by the NJDEP " ... to regulate and dismantle the on-site temporary bypass pumps and the TWWDFs in an environmentally sound manner."

conditions at the site? Yes No			Special Considerations included? Ves No			
Hazard M	litigation pro	oposal included? Yes	ls there ins	urance coverage on this facility	y? ☐ Yes ☑ No	
			PR	OJECT COST		
ITEM	CODE	NARRATIVE		QUANTITY/UNIT	UNIT PRICE	COST
1	0000	Work Completed		0/LS	\$ 0.00	\$ 0.00
2	9001	Contract		1/LS	\$ 3,405,000.00	\$ 3,405,000.00
3	0000	Work to be Completed		0/LS	\$ 0.00	\$ 0.00
4	9999	Estimated By-Pass Pun	nping	1/LS	\$ 2,268,000.00	\$ 2,268,000.00
		*** Version 2 **	**			
5	0000	***Amendment #2 to PV	V 0033**	0/LS	\$ 0.00	\$ 0.00
6	0000	Work Completed		0/LS	\$ 0.00	\$ 0.00
7	9003	Contract Costs		1/LS	\$ 7,161,906.07	\$ 7,161,906.07
8	9003	Contract Costs		1/LS	\$ -5,673,000.00	\$ -5,673,000.00
				•	TOTAL COST	\$ 7,161,906.07
PREPAR	PREPARED BY JACKIE D PRITCHETT JR TITL			E FEMA Project Specialist	SIGNATURE	
APPLICA	NT REP. R	ichard Fitamant	TITL	E Executive Director	SIGNATURE	

PA-02-NJ-4086-PW-05061(0) <u>P</u>							
Applicant Name:	Application Title:						
MIDDLESEX COUNTY UTILITIES AUTHORITY	U04NE05 Sayreville Pump Station Permanent Repairs						
Period of Performance Start:	Period of Performance End:						
10-30-2012	04-30-2014						

Bundle Reference # (Amendment #)	Date Awarded		
PA-02-NJ-4086-State-0137(136)	02-10-2014		

Subgrant Application - FEMA Form 90-91

Note: The Effective Cost Share for this application is 90%

FEDERAL EMERGENCY MANAGEMENT AGENCY PROJECT WORKSHEET									
DISASTE	ER .				PROJECT NO.	PA ID NO.	DATE 01-06-2014		CATEGORY
FEMA	4086	-	DR	-NJ	U04NE05	023- U04NE-00	01-00-2014		F
APPLICANT: MIDDLESEX COUNTY UTILITIES AUTHORITY				NTY UTILITIES A	UTHORITY	WORK COMPLETE AS OF: 09-30-2013: 58 %			
							Site 1 of 1		
DAMAG	ED FACIL	IT.	Y:						
0	- D 6						COUNTY: Middlesex		
Sayreville	e Pump s	otat	ion						
LOCATION:						LATITUDE: 40.46982	LONGITUDE: -74.36751		
PA-02-NJ-4086-PW-05061(0):									
The MCUA Sayreville Pump Station site located at 55 Canal Street, Sayreville, I						eet, Sayreville, NJ.			

DAMAGE DESCRIPTION AND DIMENSIONS:

PA-02-NJ-4086-PW-05061(0):

Sayreville Pump Station

DAMAGE DESCRIPTION:

During the incident period of October 26 through November 8, 2012, heavy rain, high winds and storm surge from Post Tropical Cyclone Sandy caused damage to the Applicant's Sayreville Pump Station located at 55 Canal Street in Sayreville, NJ. GPS shown above is at the Sayreville Pump Station. The Sayreville Pump Station consists of two separate pump stations, the Original Sayreville Pump Station [OSPS] that was constructed around 1955 and the Sayreville Relief Pump Station [SRPS] that was constructed around 1980 and is adjoined to the OSPS. The OSPS has four (4) – 40 MGD pumps that discharge into a 72-IN reinforced concrete cylinder pipe [RCCP] force main. The SRPS has six (6) – 50 MGD pumps that discharge into a 102-IN Prestressed Concrete Cylinder Pipe [PCCP]. The station pumps approximately 70 – 75 Million Gallons per Day [MGD] of average daily dry weather sanitary flow from 30 municipalities in Middlesex and Somerset Counties to the Central Treatment Plant. Wet Weather flows have reached in excess of 200 to 300 MGD at this station.

Depth of floodwater measured in the OSPS was 3FT-11IN above the main concrete floor [EL 14.4FT]. Each pump consists of a motor located on the main floor that is directly connected to a long shaft [approximately 30 feet long] through an intermediate bearing to the pump end that is located on the basement level. The main floor is where the motors [ten 4160V motors that range from 800HP to 1000HP each], medium voltage switchgear, pump station control panels, motor control center [480V], and drives are located. In addition, the office and kitchen are located on the main floor and were flooded to the same elevation. The intermediate level includes control valves, control panels, surge control systems, accumulator systems and the basement level includes the pumps along with various valves and actuators. The intermediate level and basement level were totally submerged during the event and for approximately 8 days thereafter. In addition, there were screening facilities including motors, drives, conveyors and screw presses that were partially submerged. One primary sluice gate was damaged by the storm surge and did not seal after the event. Miscellaneous equipment such as lighting and lighting panels, seal water systems, HVAC systems, sump pumps, office furniture, kitchen equipment and furniture, record drawings, equipment manuals, charts, and

other documents, tools and spare parts were also damaged. Outdoor electrical items include the primary substation, primary and secondary transformer systems, and standby generator.

The following items were submerged in flood waters that consisted of river water, raw sewage, salt water, silts, and debris from storm surge:

This PW is written to bring the Sayreville Pump Station back to its pre-disaster condition.

Original Sayreville Pump Station (OSPS)

- 1. Flood damaged Pump 1E QTY: 1 Ea.
- 2. Flood damaged Pump 2E QTY: 1 Ea.
- 3. Flood damaged Pump Shaft 2E QTY: 1 Ea.
- 4. Flood damaged Pump 3E QTY: 1 Ea.
- 5. Flood damaged Pump Shaft 3E QTY: 1 Ea.
- 6. Flood damaged Pump 4E QTY: 1 Ea.
- 7. Flood damaged Bypass Slide Gate QTY: 1 Ea.
- 8. Flood damaged Intermediate Level Slab QTY: 1 Ea.
- 9. Flood damaged Odor Control Vessel QTY: 1 Ea.
- 10. Flood damaged electrical equipment QTY: 1 Lot
- 11. Flood damaged Wiring, Conduit and Receptacles QTY: 1 Lot
- 12. Flood damaged Wiring to Motor 1E QTY: 1 Lot
- 13. Flood damaged Motor 1E QTY: 1 Ea.
- 14. Flood damaged Pump System 1E QTY: 1 Ea.
- 15. Flood damaged wiring to VFD QTY: 1 Lot
- 16. Flood damaged Pump System 2E QTY: 1 Ea.
- 17. Flood damaged Motor 2E QTY: 1 Ea.
- 18. Flood damaged Pump System 2E QTY: 1 Ea.
- 19. Flood damaged Pump System 3E QTY: 1 Ea.
- 20. Flood damaged Motor 3É QTY: 1 Ea.
- 21. Flood damaged Pump System 3E QTY: 1 Ea.
- 22. Flood damaged wiring to VFD QTY: 1 Lot
- 23. Flood damaged Motor 4E QTY: 1 Ea.
- 24. Flood damaged Pump System 4E QTY: 1 Ea.
- 25. Flood damaged wiring to VFD QTY: 1 Lot
- 26. Disaster affected Surge Relief System QTY: 1 Lot
- 27. Flood damaged Sluice Gates 1, 2, 3, 7 and 9. QTY: 5 Ea.
- 28. Flood damaged Mechanical Bar Screens QTY: 1 Lot
- 29. Flood damaged Influent Chamber QTY: 1 Ea.
- 30. Flood damaged Drywell Floors and walls QTY: 1 Lot
- 31. Flood damaged Pump pads QTY: 1 Lot
- 32. Flood damaged Pipe Supports QTY: 1 Lot
- 33. Flood damaged 4160 V Feeders QTY: 1 Lot
- 34. Flood damaged Pump Sensors QTY: 1 Lot
- 35. Flood damaged Pump and Motor Instruments- QTY: 1 Lot
- 36. Flood damaged Bridge Crane QTY: 1 Ea.

Sayreville Relief Pump Station (SRPS)

- 37. Flood damaged Pump 1R QTY: 1 Ea.
- 38. Flood damaged Pump Shaft 1R QTY: 1 Ea.
- 39. Flood damaged Discharge Valve 1R QTY: 1 Ea.
- 40. Flood damaged Suction Valve 1R QTY: 1 Ea.
- 41. Flood damaged Pump 2R QTY: 1 Ea.
- 42. Flood damaged Pump Shaft 2R QTY: 1 Ea.
- 43. Flood damaged Discharge Valve 2R QTY: 1 Ea.
- 44. Flood damaged Suction Valve 2R QTY: 1 Ea. 45. Flood damaged Pump 3R QTY: 1 Ea.
- 46. Flood damaged Pump Shaft 3R QTY: 1 Ea.
- 47. Flood damaged Discharge Valve 3R QTY: 1 Ea.
- 48. Flood damaged Suction Valve 3R QTY: 1 Ea.
- 49. Flood damaged Pump 4R QTY: 1 Ea.
- 50. Flood damaged Pump Shaft 4R QTY: 1 Ea.
- 51. Flood damaged Discharge Valve 4R QTY: 1 Ea.
- 52. Flood damaged Suction Valve 4R QTY: 1 Ea.
- 52. Flood damaged Cone Valve QTY: 1 Ea. 54. Flood damaged Pump 5R - QTY: 1 Ea.
- 55. Flood damaged Pump Shaft 5R QTY: 1 Ea.
- 56. Flood damaged Discharge Valve 5R QTY: 1 Ea.
- 57. Flood damaged Suction Valve 5R QTY: 1 Ea. 58. Flood damaged Pump 6R QTY: 1 Ea.
- 59. Flood damaged Pump Shaft 6R QTY: 1 Ea.
- 60. Flood damaged Discharge Valve 6R QTY: 1 Ea. 61. Flood damaged Suction Valve 6R - QTY: 1 Ea.
- 62. Flood damaged 102 in. Relief Force Main H Connection QTY: 1 Ea.

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63. Flood damaged Conveyor Belt/Screening Press - QTY: 1 Ea.
64. Flood damaged Bar Screens - QTY: 8 Ea.
65. Flood damaged Pump Seal Water System - QTY: 1 Ea.
66. Flood damaged 50x60 ft. Duct in masonry chase - QTY: 1 Ea.
67. Flood damaged Intermediate Level - QTY: 1 Ea.
68. Flood damaged Intermediate Level - QTY: 1 Ea.
69. Flood Damaged Dewatering Pumps/Sump Pumps - QTY: 6 Ea.
70. Flood Damaged Water Heater - QTY: 1 Ea.
71. Flood Damaged Pump Head - QTY: 1 Ea.
71. Roof over the SRPS shop damaged during sluice gate repairs - QTY: 400 SF
73. Damaged Roof Cooling System - QTY: 1 Ea.
74. Flood Damaged Main Substation - QTY: 1 Ea.
75. Flood Damaged blank cover - QTY: 1 Ea.
76. Flood Damaged 5KV Switchgear - QTY: 1 Lot
77. Flood Damaged Motor Control Center (MCC) Feeder 1 - QTY: 1 Ea.
78. Flood Damaged Motor Control Center (MCC) Feeder 2 - QTY: 1 Ea.
79. Flood Damaged Electrical System Components - QTY: 1 Lot
80. Flood Damaged Backup Generator - QTY: 1 Ea.
81. Flood Damaged Branch Circuit Wiring and Devices - QTY: 1 Lot
82. Flood Damaged Pump Control Panels - QTY: 1 Lot
83. Flood Damaged Pump Control and Surge Valve Accumulator Control Systems - QTY: 1 Ea.
84. Flood Damaged Pump and Motor Instruments - QTY: 1 Lot
85. Flood Damaged Main Discharge Flow Sensor - QTY: 1 Ea.
86. Flood Damaged Level Sensors - QTY: 1 Lot
87. Flood Damaged Kitchen Cabinet Section - QTY: 1 Ea.
88. Flood damaged Motor 1R - QTY: 1 Ea.
89. Flood damaged Motor 2R - QTY: 1 Ea.
90. Flood damaged Motor 3R - QTY: 1 Ea.
91. Flood damaged Motor 4R - QTY: 1 Ea. 92. Flood damaged Motor 5R - QTY: 1 Ea.
93. Flood damaged Motor 6R - QTY: 1 Ea.
94. Flood Damaged Piping Insulation - QTY: 1 Lot
95. Flood Damaged walls in the upper level - QTY: 1 Lot
96. Flood Damaged grating - QTY: 1 Lot
97. Flood Damaged door frames - QTY: 1 Lot
98. Flood Damaged copper wiring - QTY: 1 Lot
99. Flood Damaged Phone System - QTY: 1 Ea.
100. Flood Damaged Central UPS - QTY: 1 Ea.
101. Flood Damaged Branch Circuit Wiring and Devices - QTY: 1 Lot
102. Flood Damaged Light Fixtures and Branch Circuit Wiring - QTY: 1 Lot
103. Flood Damaged control panels - QTY: 1 Lot
104. Flood Damaged Cranes #1, 2, 3, 4 and 5 - QTY: 5 Ea. 105. Flood Damaged Perimeter Chain link Fence - QTY: 500 LF
106. Flood Damaged Entrance Roadway - QTY: 1 Lot
107. Flood Damaged VFD #1, 2, 5 and 6 - QTY: 4 Ea.
108. Grit that bypassed Damaged screens - QTY: 310CY
109. Flood Damaged Equipment Paint - QTY: 1 Lot
110. Flood Damaged HVAC System - QTY: 1 Ea.
END OF DDD
```

SCOPE OF WORK:

PA-02-NJ-4086-PW-05061(0):

The Scope of Work for this project consists of the removal of damaged equipment and/or the installation of new equipment as a result of the event.

The following items by facility required either repair or replacement. The spreadsheets in the attachments identify what work has been completed.

Original Sayreville Pump Station (OSPS)

```
    Repair Pump 1E - QTY: 1 Ea.
    Repair Pump 2E - QTY: 1 Ea.
    Repair Pump Shaft 2E - QTY: 1 Ea.
    Repair Pump 3E - QTY: 1 Ea.
    Repair Pump Shaft 3E - QTY: 1 Ea.
    Repair Pump 4E - QTY: 1 Ea.
    Repair Bypass Slide Gate - QTY: 1 Ea.
    Provide and install supports to Intermediate bearing supports - QTY: 1 Lot
    Repair Odor Control Vessel - QTY: 1 Ea.
    Demolish damaged electrical equipment - QTY: 1 Lot
```

11. Provide and install Wiring, Conduit and Receptacles - QTY: 1 Lot 12. Provide and install Wiring to Motor 1E - QTY: 1 Lot 13. Rewind Motor 1E - QTY: 1 Ea. 14. Provide labor to remove and replace Actuator - QTY: 1 Ea. 15. Provide and install wiring to VFD - QTY: 1 Ea. 16. Provide labor to remove temporary wiring - QTY: 1 Ea. 17. Rewind Motor 2E - QTY: 1 Ea. 18. Provide labor to remove and replace Actuator - QTY: 1 Ea. 19. Provide labor to remove temporary wiring - QTY: 1 Ea. 20. Rewind Motor 3E - QTY: 1 Ea. 21. Provide labor to restore actuator - QTY: 1 Lot 22. Provide and install wiring to VFD - QTY: 1 Ea. 23. Rewind Motor 4E - QTY: 1 Ea. Provide labor to remove and replace Actuator - QTY: 1 Ea. 25. Provide and install wiring to VFD - QTY: 1 Ea. 26. Provide labor to Re-in stall Surge Relief Piping - QTY: 1 Lot 27. Provide and install Sluice Gates 1, 2, 3, 7 and 9. - QTY: 5 Ea. 28. Provide and install Mechanical Bar Screens - QTY: 1 Lot 29. Provide repairs to Influent Chamber - QTY: 1 Ea. 30. Provide repairs to Drywell Floors and walls - QTY: 1 Lot 31. Provide and install Pump pads - QTY: 1 Lot 32. Provide and install Pipe Supports - QTY: 1 Lot 33. Provide and install 4160 V Feeders - QTY: 1 Lot 34. Provide and install Pump Sensors - QTY: 1 Lot 35. Provide and install Pump and Motor Instruments- QTY: 1 Lot 36. Provide repairs to Bridge Crane - QTY: 1 Ea. Sayreville Relief Pump Station (SRPS) 37. Repair Pump 1R - QTY: 1 Ea. 38. Repair Pump Shaft 1R - QTY: 1 Ea. 39. Provide and install Actuator - QTY: 1 Ea. 40. Provide and install Actuator - QTY: 1 Ea. 41. Repair Pump 2R - QTY: 1 Ea. 42. Repair Pump Shaft 2R - QTY: 1 Ea. 43. Provide and install Actuator - QTY: 1 Ea. 44. Provide and install Actuator - QTY: 1 Ea. 45. Repair Pump 3R - QTY: 1 Ea. 46. Repair Pump Shaft 3R - QTY: 1 Ea. 47. Provide and install Actuator - QTY: 1 Ea. 48. Provide and install Actuator - QTY: 1 Ea. 49. Repair Pump 4R - QTY: 1 Ea. 50. Repair Pump Shaft 4R - QTY: 1 Ea. 51. Provide and install Actuator - QTY: 1 Ea. 52. Provide and install Actuator - QTY: 1 Ea. 53. Repair Cone Valve - QTY: 1 Ea. 54. Repair Pump 5R - QTY: 1 Ea. 55. Repair Pump Shaft 5R - QTY: 1 Ea. 56. Provide and install Actuator - QTY: 1 Ea. 57. Provide and install Actuator - QTY: 1 Ea. 58. Repair Pump 6R - QTY: 1 Ea. 59. Repair Pump Shaft 6R - QTY: 1 Ea. 60. Provide and install Actuator - QTY: 1 Ea. 61. Provide and install Actuator - QTY: 1 Ea. 62. Provide and install H Connection Valve Panel - QTY: 1 Ea. 63. Provide and install Screenings Conveyor - QTY: 1 Ea. 64. Provide and install Bar Screen Sluice Gate Actuators - QTY: 8 Ea. Provide and install Pump Seal Water System - QTY: 1 Ea. 66. Provide labor to clean 50x60 ft. Duct in masonry chase - QTY: 1 Ea. 67. Provide labor to remove temporary platforms on Intermediate Level - QTY: 1 Lot 68. Provide and install hand railing on Intermediate Level - QTY: 1 Lot 69. Provide and install Dewatering Pumps/Sump Pumps - QTY: 6 Ea. 70. Provide and install Water Heater - QTY: 1 Ea. 71. Repair Spare Pump Head - QTY: 1 Ea. 72. Repair Roof over the SRPS shop - QTY: 400 SF Remove Roof Cooling System - QTY: 1 Ea. 74. Repair Main Substation - QTY: 1 Ea. 75. Provide and install blank cover - QTY: 1 Ea. 76. Repair 5KV Switchgear - QTY: 1 Lot 77. Repair Motor Control Center (MCC) Feeder 1 - QTY: 1 Ea. 78. Repair Motor Control Center (MCC) Feeder 2 - QTY: 1 Ea. 79. Repair Electrical System Components - QTY: 1 Lot 80. Repair Backup Generator - QTY: 1 Ea. 81. Repair Branch Circuit Wiring and Devices - QTY: 1 Lot 82. Provide and install Pump Control Panels - QTY: 1 Lot

83. Repair Pump Control and Surge Valve Accumulator Control Systems - QTY: 1 Ea. 84. Repair Pump and Motor Instruments - QTY: 1 Lot 85. Provide and install Main Discharge Flow Sensor - QTY: 1 Ea. 86. Provide apertures to install Level Sensors - QTY: 1 Lot 87. Repair Kitchen Cabinet Section - QTY: 1 Ea. 88. Rewind Motor 1R - QTY: 1 Ea. 89. Rewind Motor 2R - QTY: 1 Ea. 90. Rewind Motor 3R - QTY: 1 Ea. 91. Rewind Motor 4R - QTY: 1 Ea. 92. Rewind Motor 5R - QTY: 1 Ea. 93. Rewind Motor 6R - QTY: 1 Ea. 94. Provide and install Piping Insulation - QTY: 1 Lot 95. Provide labor to clean walls in the upper level - QTY: 1 Lot 96. Provide and install grating - QTY: 1 Lot 97. Provide and install door frames - QTY: 1 Lot 98. Salvage copper wiring - QTY: 1 Lot 99. Provide and install Phone System - QTY: 1 Ea. 100. Replace battery backup with UPS - QTY: 1 Ea. 101. Replace Temporary Wiring - QTY: 1 Lot 102. Replace Temporary Equipment - QTY: 1 Lot 103. Integrate the SRPS panels to the OSPS Main control panel - QTY: 1 Lot 104. Repair Cranes #1, 2, 3, 4 and 5 - QTY: 5 Ea. 105. Replace Perimeter Chain link Fence - QTY: 500 LF 106. Repair Entrance Roadway - QTY: 1 Lot 107. Provide VFD #1, 2, 5 and 6 - QTY: 4 Ea. 108. Remove Grit from Pump Station - QTY: 310CY 109. Repaint Equipment and floors - QTY: 1 Lot

END OF SOW

110. Provide and Install HVAC System - QTY: 1 Ea.

SCOPE NOTES:

Direct Administrative Costs (DAC) were submitted by the Applicant. The Applicant will be required to show eligible documentation at closeout for reimbursement of actual Direct Administrative Costs.

PROJECT NOTES:

RECORD RETENTION: Complete records and cost documents for all approved work must be maintained for at least three years from the date the last project was completed or from the date final payment was received, whichever is later. Applicant is responsible for retention of all documentation associated with this project.

SUPPORTING DOCUMENTATION: 20% or more of the supporting documentation to support this project has been reviewed and verified by the Applicant and Project Specialist for eligibility and correctness.

PROCUREMENT: The applicant is required to adhere to State Government Procurement rules and regulations and maintain adequate records to support the basis for all purchasing goods and materials and contracting services for projects approved under the Public Assistance program, as stated in 44 CFR 13.36. The applicant has also been advised that the lack of obtaining and maintaining these documents may jeopardize funding.

PERMITS: The PA Project Specialist has advised the Applicant that it is their responsibility to obtain all applicable local, state and federal permits prior to any construction or debris disposal activity referenced on this project. Applicant has been advised that the lack of obtaining and maintaining these documents may jeopardize funding.

INSURANCE: The applicant is aware that all projects are subject to an insurance review as stated in 44 CFR Sections 206.252 and 206.253. If applicable, an insurance determination will be made either as anticipated proceeds or actual proceeds in accordance with the applicant's insurance policy that may affect the total amount of the project.

DIRECT ADMINISTRATIVE COSTS: The subgrantee is requesting direct administrative costs that are directly chargeable to this specific project. Associated eligible work is related to administration of this PA project only and in accordance with 44 CFR §13.22. These costs are treated consistently and uniformly as direct costs in all Federal awards and other subgrantee activities and are not included in any approved indirect cost rates.

HAZARD MITIGATION MEASURES: The Applicant has retained a consultant to assist with development of acceptable Hazard Mitigation Proposals. At the time this worksheet was written no hazard mitigation had been identified for this project. However, this Project Worksheet may be revised at a later date to include eligible Hazard Mitigation, subject to review and submitted within the regulatory time frame.

DISASTER RELIEF APPROPRIATIONS ACT TWO-YEAR EXPENDITURE REQUIREMENT: In compliance with the direction provided by the memorandum dated August 1, 2013 from Edward H. Johnson, Chief Financial Officer, Disaster Relief Appropriations Act 2-Year Expenditure Requirement, the following is included as a condition of this grant:

Funds obligated pursuant to this Project Worksheet (PW) are subject to expenditure time limits imposed under Section 904(c) of the Disaster Relief Appropriations Act, 2013, P. I., 113-2, and are required to be expended by the grantee or sub-grantee (paid as an outlay of money in furtherance the grant purpose) within 730 days of the date FEMA obligates the funds for this PW in its financial system. Any funds not expended by the grantee or sub-grantee within 730 days will be deobligated by FEMA within 30 days from the end of this 730 day

period and any funds withdrawn and not expended must be returned to FEMA within 30 days from the end of the 730 day period, ceasing FEMA's financial liability.								
		when the grantee or sub-grantee pay sbursement of grant funds by the g			nding to a contractor or	service provider but		
	-	/ork change the pre-disaster ? Yes No	ial Cons	siderations included? Ves	s No			
Hazard M	itigation pro	oposal included? Yes Is the	ere insur	rance coverage on this facility	∕? ✓ Yes No			
			PR	OJECT COST				
ITEM	CODE	NARRATIVE		QUANTITY/UNIT	UNIT PRICE	COST		
		*** Version 0 ***						
		Work Completed						
1	9003	Contract Costs		1/LS	\$ 5,786,714.54	\$ 5,786,714.54		
2	9999	Engineering Costs		1/LS	\$ 1,094,656.76	\$ 1,094,656.76		
3	9901	Direct Administrative Costs (Subgrantee)		1/LS	\$ 73,393.90	\$ 73,393.90		
4	9999	Project Management		1/LS	\$ 15,705.76	\$ 15,705.76		
5	9999	Contents		1/LS	\$ 19,541.50	\$ 19,541.50		
		Work To Be Complete	d					
6	9000	CEF Cost Estimate (See Attached Spreadsheet)		1/LS	\$ 5,012,007.00	\$ 5,012,007.00		
					TOTAL COST	\$ 12,002,019.46		
PREPARED BY Paul Hesse			TITLE TAC/Project Specialist SIGNATURE		SIGNATURE			
APPLICANT REP. Richard Fitamant				TITLE Executive Director SIGNATURE				

P		
Applicant Name:	Application Title:	
MIDDLESEX COUNTY UTILITIES AUTHORITY	U04NE07 - Edison Pumping Station - Cat F	
Period of Performance Start:	Period of Performance End:	
	04-30-2014	

Subgrant Application - Entire Application

Application Title: U04NE07 - Edison Pumping Station - Cat F

Application Number:

Application Type: Subgrant Application (PW)

Bundle Reference # (Amendment #)	Date Awarded

Subgrant Application - FEMA Form 90-91

					FEDEF		NCY MANAGEMENT AGEN CT WORKSHEET	CY	
DISAST	ER.				PROJECT NO.	PA ID NO.	DATE		CATEGORY
FEMA	4086	Ţ.	- DR	-NJ	U04NE07	023- U04NE-00	12-09-2013		-
APPLICA	ANT: MI	D	LESE	COU	NTY UTILITIES A	UTHORITY	WORK COMPLETE AS OF: 12-09-2013 : 59 %		
							Site 1 of 1		
DAMAGI	ED FACI	Lľ	TY:				COUNTY: Middlesex		
Edison F	umping	St	ation						
LOCATION	ON:							LATITUDE: 40.49695	LONGITUDE: -74.3273
Current \	/ersion:							10,10000	7 110270
Edison F 798 Olyr Edison, I	npic Driv	е	ation						

DAMAGE DESCRIPTION AND DIMENSIONS:

Current Version:

During the incident period of October 26 to November 6, 2012, Hurricane Sandy caused severe flooding, inundating the Edison Pumping Station. The station was flooded to 37 IN above floor level in the Main Pump Building (all lower levels were completely inundated), 16 IN above floor level in the Generator/Switchgear Building, and 22 FT in the Force Main Tunnel Shaft and extended 1,000 FT horizontally in the Force Main Tunnel.

The Main Pump Building is CMU and concrete constructed with brick veneer, measuring 73 FT x 72 FT. It has one level above grade and two levels below grade. No structural damage was reported.

The Generator/Switchgear Building is CMU and concrete constructed with brick veneer, measuring 43 FT x 44 FT, with only one level and is above grade. No structural damage was reported.

The Force Main Tunnel Shaft is 65 FT deep x 28 FT diameter and octagonal shape. The Force Main Tunnel is a 14 FT 4 IN O.D. (12 FT 10 IN I.D.) concrete shaft that contains two 60 IN concrete-encased, fiberglass-enforced polymer mortar pipes, allowing for 6 FT of clearance at centerline for personnel to walk atop concrete encasement, and extends 4,000 FT across the Raritan River to the Sayreville Central Treatment Plant.

Utility-provided power was lost for 10 days. The GPS coordinates were recorded at the outside of the front gate.

The following damages were caused by salty flood water, unless otherwise noted:

Tunnel

- 1. Tunnel and Shaft: flood residue
 - a. (1) 6.5 HP sump pump, Flygt w/floats burned windings
 - b. (1) 15 HP, sludge pump, 6 IN discharge, double-disc, Penn Valley Pump burned windings
 - c. (6) Fluorescent Lt. fixtures, 4 FT, 2 bulb corrosion
 - d. (5) Disconnect switches, 100A corrosion
 - e. (4) Receptacles, 120V, 20A corrosion
 - f. (1) Exhaust Fan, ¼ HP, 760 cfm, Jenco SQB-10 corrosion

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g. (1) Switch, 3-pos - corrosion
  h. (1) Transfer Switch, for sludge pump - corrosion
LFG Leak Monitoring System:
  a. (1) Air Quality Monitoring Panel - Vanguard Quote 18626P - corrosion
  b. (12) Nylon sample hose, 3/8 IN, 1,250 LF ea - contaminated
Pump Building:
Main Level
3. (5) VFD control cabinets, (500 HP motors) - corrosion and flood residue
4. (5) 600V, 3 phase - 2 wires/phase 100 FT runs of 500 MCM, THW cable from AFD to 500 HP motor
   Total length of damaged cable = 5 motors x 3 phases x 2wires/phase x 100 FT = 3,000 FT. - corrosion
5. (1) Pneumatic Instrumentation Panel – corrosion
6. (1) 480V Motor Control Center - corrosion
7. (1) Air Handling Unit - corrosion
8. (1) Automatic Transfer Switch - corrosion
9. (1) Entry Door, fire-proof, 7 FT x 3 FT - rust and corrosion
10. (2) Air Compressors - flood residue intrusion and corrosion
11. (1) SCADA System - flood residue intrusion
Intermediate Level
12. Fluorescent lighting, receptacles, and emergency lighting - corrosion
13. (5) Raw Sewage Pump Motors, vertical-mounted, 500 HP, 592 rpm, FR 6810P - corrosion
Basement Level
14. (5) Raw Sewage Pumps - flood residue intrusion
   a. (5) Automatic Check Valves - flood residue intrusion
   b. (5) Isolation Gate Valves - flood residue intrusion
Force Main Isolation and Selection Valves - flood residue intrusion
16. (3) Sump Pump, 3HP - burned windings
17. Fluorescent lighting, receptacles, and emergency lighting - corrosion
18. (1) Pump/Motor Vibration Monitoring System - corrosion
Switchgear/Generator Building:
19. (2) Generators - flood residue
20. Generator Control Panels - flood residue
21. 480V Paralleling Switchgear -components in control sections at or below flood level - corrosion
  Section 1 - (1) transducer
     (1) Power Manager, ASCO Series 5200
        (1) PLC
  (1) Potential Transformer (PT), 480V/120V
  (3) Control Power Transformers (CPT), 0.5kVA
  (1) Duplex receptacle, 120V, 20A
  (6) Switches, 2-position
  (1) Pushbutton, SPST, momentary
  (1) Switch, 3-position
  128 points of terminal boards
  associated wiring
  Section 2 - (3) CPT, 0.5kVA
     (1) PT, 480V/120V
     (1) digital synchronizer and load control, Woodward 9905-367
     associated wiring
  Section 4 – (2) switches, barrel, double stack (3) CPT, 0.5kVA
     (1) terminal board, 6 position
     associated wiring
  Section 6 - (1) PT, 480V/120V
     (1) digital synchronizer and load control, Woodward 9905-367
     associated wiring
  Section 7 – (1) Switch, breaker control (2) CPT, 0.5kVA
     (1) PT, 480V/120V
     (2) terminal boards, 6 position
     associated wiring
  Section 9 - (1) PT, 480V/120V
     (1) digital synchronizer and load control, Woodward 9905-367
     associated wiring
22. (10) Batteries, NiČad Pocket Plate, Gaz KM 110 P/N
Outside of Switchgear/Generator Building:
23. (1) 15kV Switchgear: control wiring, terminal blocks, and space heaters - corrosion
24. (1) 2500kVA, Liquid-filled Transformer – flood residue
25. (1) transformer cooling fan - corrosion
Various Locations
26. The Heating & Ventilation systems located throughout the site were physically and/or flood damaged:
a. (1) exhaust fan, 325 cfm, 1/12 HP, direct drive located on the roof was wind damaged.
b. (1) exhaust fan, 2,500 cfm, 1/8 HP, direct drive located on the roof was wind damaged.
c. (1) exhaust fan, 4,800 cfm, 2 HP, v-belt drive located on the roof was wind damaged.
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d. (5) exhaust fans, 8,300 cfm, 3 HP, v-belt drive located on the roof were wind damaged.

- e. (1) supply air fan, class 1 air foil, 2-speed motor was corroded and damaged by floating debris beyond repair.
- f. (3) diffusers, aluminum were damaged by floating debris.
- g. (8) grilles, aluminum, 36 IN x 30 IN were damaged by floating debris.
- h. (4) grilles, aluminum, 24 IN x 12 IN were damaged by floating debris.
- i. (1) damper, 36 lN x 66 lN w/motor was corroded.
- j. 96 SF of fresh air intake louvers were damaged by floating debris.
- k. (1) air handling unit, floor-mounted, 12,000cfm, 17.5 HP was corroded and damaged by floating debris.
- I. (1) duct heater, 10 kW was corroded. m. (1) duct heater, 12kW was corroded.

- n. (1) duct heater, 60 KW was corroded. o. (1) duct heater, 100kW was corroded.
- p. (1) heating/ventilating unit, 2,000 cfm was corroded and damaged by floating debris.
- g. (4) unit heaters, 10 KW were corroded.
- r. (5) heaters, convective, 500W were corroded.
- s. 530 SF of rigid fibrous glass ducting located below-grade was damaged by floating debris.
- t. 3,563 Lbs of sheet metal ducting located below-grade was damaged by floating debris.
- 27. The following wiring/cabling located throughout the site was corroded. a. 477 LF of AWG 1/0 XHHW.
- b. 159 LF of AWG #8 XHHW.
- c. 53 LF of AWG # 10 XHHW.
- d. 1,392 LF of AWG # 12 XHHW.
- e. 9,913 LF of AWG # 14 XHHW.
- f. 2,392 LF of # 18 2-conductor, twisted pair thermostat cable.
- g. 669 LF of 500 MCM, 600V, 4-conductor armored cable.
- h. 2,071 LF of 500 MCM, 600V, 3-conductor armored cable.
- i. 650 LF of 500 MCM 600V bare copper cable.
- j. 60 LF of fiber optic cable, 4-strand and 12-strand.

SCOPE OF WORK:

Current Version:

Five 30-inch diameter pump systems, to include, 500 HP motors, variable frequency drives, SCADA controls, and additional ancillary equipment were repaired in order to continue pumping raw sewage. The Applicant exclusively used and will use Contract Labor to return this facility to pre-disaster condition.

COMPLETED WORK

- 1. Tunnel Shaft: replaced the following
 - a. (1) 6.5 HP sump pump, Flygt w/floats
 - b. (1) 15 HP, sludge pump, 6 IN discharge, double-disc, Penn Valley Pump
 - c. (6) Fluorescent Lt. fixtures, 4 FT, 2 bulb
 - d. (5) Disconnect switches, 100A

 - e. (4) Receptacles, 120V, 20A f. (1) Exhaust Fan, ¼ HP, 760 cfm, Jenco SQB-10
 - g. (1) Switch, 3-pos
 - h. (1) Transfer Switch, for sludge pump.

Purchased (2) Confined Space Kits for entry into Tunnel- P.O. 61682 (Airgas Inv. 9011726934)

Pump Building:

Main Level

- 3. (5) VFD control cabinets, (500 HP motors) cleaned, repaired, and tested
- 5. (1) Pneumatic Instrumentation Panel cleaned and tested
- 6. (1) 480V Motor Control Center cleaned, repaired, and tested
- 7. (1) Air Handling Unit replaced
- 8. (1) Automatic Transfer Switch Cleaned and repaired
- 9. (1) Entry Door, fire-proof, 7 FT x 3 FT replaced
- 10. (2) Air Compressors repair
- 11. (1) SCADA System clean and replace

Intermediate Level

- 12. Fluorescent lighting, receptacles, and emergency lighting replaced
- Basement Level
- 14. (5) Raw Sewage Pumps flood residue intrusion
 - a. (5) Automatic Check Valves flood residue intrusion
 - b. (5) Isolation Gate Valves flood residue intrusion
- 15. Force Main Isolation and Selection Valves flood residue intrusion
- 16. (3) Sump Pump, 3HP replaced
- 17. Fluorescent lighting, receptacles, and emergency lighting replaced

Switchgear/Generator Building:

- 19. (2) Generators Cleaned, repaired, and tested
- 20. (2) Generator Control Panels Cleaned and repaired
- 21. (1) 480V Paralleling Switchgear Replaced (11) 480V, draw-out breakers and associated wiring, cleaned and tested.
- 22. (10) 12V batteries replaced

Outside of Switchgear/Generator Building:

23. (1) 15kV Switchgear: Cleaned and tested

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24. (1) Liquid-filled Transformer: Cleaned and tested
WORK TO BE COMPLETED
1. Tunnel and Shaft: Clean (Confined Space)
2. LFG Leak Monitoring System:
  a. (1) Air Quality Monitoring Panel - Vanguard Quote 18626P - replace components
  b. (12) Nylon sample hose, 3/8 IN, 1,250 LF ea - replace
Main Level
4. (5) 600V, 3 phase - 2 wires/phase 100 FT runs of 500 MCM, THW cable from VFD to 500 HP motor
    Total length of damaged cable = 5 x 3 phases x 2 wires/phase x 100 FT = 3,000 FT.
5. (1) Pneumatic Instrumentation Panel - Replace components
  a. (1) Bond bushing
  b. (1) Grounding Lug
  c. (5) Pressure transducer switches
  d. (3) Solenoid Valves, Red Cap
  e. (1) Pressure Gauge, Magnehelic
  f. (6) Pressure Transmitters
Intermédiate Level
13. (5) Raw Sewage Pump Motors, vertical-mounted, 500 HP, 592 rpm, FR 6810P - Rewind.
    Initial Clean and Bake captured in Cat B (U04NE06) Rigging Costs should be same as on Cat B PW (North End Inv. 42269 - $14,205).
Cost will doubled for remove and return.
Basement Level
18. (1) Pump/Motor Vibration Monitoring System - Replace
Switchgear/Generator Building:
21. 480V Paralleling Switchgear - Replace following components in control sections.
  Section 1 – (1) transducer
(1) Power Manager, ASCO Series 5200
         (1) PLC
  Potential Transformer (PT), 480V/120V
  (3) Control Power Transformers (CPT), 0.5kVA
  (1) Duplex receptacle, 120V, 20A
  (6) Switches, 2-position
  Pushbutton, SPST, momentary
  (1) Switch, 3-position
  128 points of terminal boards
  associated wiring
Section 2 – (3) CPT, 0.5kVA
     (1) PT, 480V/120V
     (1) digital synchronizer and load control, Woodward 9905-367
     associated wiring
  Section 4 – (2) switches, barrel, double stack (3) CPT, 0.5kVA
     (1) terminal board, 6 position
     associated wiring
  Section 6 - (1) PT, 480V/120V
     (1) digital synchronizer and load control, Woodward 9905-367
     associated wiring
  Section 7 - (1) Switch, breaker control
     (2) CPT, 0.5kVA
     (1) PT, 480V/120V
     (2) terminal boards, 6 position
     associated wiring
  Section 9 - (1) PT, 480V/120V
     (1) digital synchronizer and load control, Woodward 9905-367
     associated wiring
Outside of Generator Building:
23. 15kV Switchgear
  a. 120 FT of Control wiring - replace
  b. (6) Terminal blocks - replace
  c. (2) Space heaters - replace
(1) transformer cooling fan - replace
Various locations
26. The Heating & Ventilation systems located throughout the site were physically and/or flood damaged (cost estimates will include
material and Labor):
a. Repair (1) exhaust fan, 325 cfm, 1/12 HP.

 Repair (1) exhaust fan, 2,500 cfm, 1/8 HP.

c. Repair (1) exhaust fan, 4,800 cfm, 2 HP.
d. Repair (5) exhaust fans, 8,300 cfm, 3 HP.
e. Replace (1) supply air fan, class 1 air foil, 2-speed motor.
f. Replace (3) diffusers, aluminum.
g. Replace (8) grilles, aluminum, 36 IN x 30 IN.
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i. Replace j. Replace k. Replace k. Replace m. Replace o. Replace p. Replace q. Replace r. Replace s. Replace s. Replace t. Replace 27. Remo Material or a. 477 LF b. 159 LF c. 53 LF or	(1) damper 96 SF of fre (1) air har (1) duct he ee (1) duct he ee (1) duct he ee (1) duct he ee (1) heating (4) unit he ee (5) heatens ee 530 SF of ea 3,563 Lbs Over and Report of AWG # 8 f AWG # 16	3 XHHW.	ing located thi	roughout the site (CEF estim	nates a re for	
f. 2,392 LF g. 669 LF h. 2,071 L i. 650 LF o j. 60 LF of	of # 18 2- of 500 MCI F of 500 MCI of 500 MCN fiber optic	# 14 XHHW. conductor, twisted pair thermody, 600V, 4-conductor armored CM, 600V, 3-conductor armored 1600V bare copper cable. cable, 4-strand and 12-strand ces of cable).	d cable. red cable.	es are mean averaged to ac	count for	
SCOPE N	OTES:					
that may be accordance subgrantee	e directly on e with 44-0 e activities	ATIVE COSTS: Per disaster thargeable to this specific propers. These costs are than are not included in any a sed P.W. at a later date throug	ect. Associate reated consist pproved indire	ed eligible work is related to a cently and uniformly as direct act cost rates. Final payment	administration of this P.A t costs in all federal awa	A. project only in rds and other
the last pro	oject was c	ON: Complete records and cosompleted or from the date final stated with this project.	st documents f al payment wa	for all approved work must b is received, whichever is late	e maintained for at least er. Applicant is responsi	t 3 years from the date ble for retention of all
206.253.	If applicable	pplicant is aware that all proje e, an insurance determination policy that may affect the tota	will be made	either as anticipated procee	stated in 44 CFR Section ds or actual proceeds in	ns 206.252 and accordance with the
		JMENTATION: The Applicant s and invoices.	t has provided	the proper documentation to	o support the costs asso	ciated with this project,
adequate	records to a	ne Applicant is required to adh support basis for all purchasin 3.36. The Applicant has advis	ig of goods an	d services for projects appro	oved under the Public As	ssistance program, as
the memore Expenditure subject to required to date FEM/ will be de- returned to grantee or	randum da re Requirer expenditur o be expend A obligates obligated be o FEMA will	APPROPRIATIONS ACT TWO ted August 1, 2013 from Edwa ent, the following is included e time limits imposed under S ded by the grantee or sub-gra the funds for this PW in its fir y FEMA within 30 days from the inin 30 days from the end of the pays, commits, or obligates grantee to a sub-grantee.	ard H. Johnson I as a condition ection 904(c) Intee (paid as a nancial system the end of this ne 730 day pe	n, Chief Financial Officer, Di n of this grant: Funds obligat of the Disaster Relief Approp an outlay of money in furthe I. Any funds not expended by 730 day period and any fun riod, ceasing FEMA's financ	saster Relief Appropriatited pursuant to this Projections Act, 2013, P. I., rance the grant purpose y the grantee or sub-grads withdrawn and not exial liability. "Expended" of the purpose of the projection of the projection and potexial liability.	ons Act 2-Year ect Worksheet (PW) are 113-2, and are) within 730 days of the ntee within 730 days spended must be occurs when the
4	-	ork change the pre-disaster ? ☐ Yes ☑ No	Special Cons	siderations included? 🗸 Ye	s 🗌 No	
Hazard Mi	itigation pro	pposal included? Yes	Is there insur	ance coverage on this facilit	y? ☑ Yes ☐ No	
			PRO	JECT COST		
ITEM	CODE	NARRATIVE	<u> </u>	QUANTITY/UNIT	UNIT PRICE	COST
		*** Version 0 *	***			
		Work Complet	ed			
	_	CEF Cost Estimate (Se	e			

1	9000	Attached Spreadsheet)	1/LS	\$ 2,127,079.00	\$ 2,127,079.00
		Work To Be Completed			
2	9000	CEF Cost Estimate (See Attached Spreadsheet)	1/LS	\$ 1,965,030.00	\$ 1,965,030.00
	-	Direct Subgrantee Admin C	ost		
3	9901	Direct Administrative Costs (Subgrantee)	1/LS	\$ 9,514.75	\$ 9,514.75
				TOTAL COST,	\$,4,101,623.75
PREPAR	RED BY Tho	mas Wilkins	TITLE Technical Specialist	SIGNATURE VILL	LUWLL .
APPLICA	ANT REP. R	tichard Fitamant	TITLE Executive Director	SIGNATURE	

2-5-14- SEE COMMENTS BELOW

	MIDDLESEX	COUNTY UTILITIES A	AUTHORITY:		
		Conditions Informatio	n		
Review Name	Condition Type	Condition Name	Description	Monitored	Status
No Conditions			-		

			Internal Comment	s	\Box
No.	Queue	User	Date/Time	Reviewer Comments	
No Comn	nents		•		

CEF Fact Sheet

Middlesex County Utilities Authority - Edison Pump Station

Date of Estimate:	January 18, 2014
FEMA Region:	2
Preparer(s):	Thomas Wilkins
Applicant Name:	Middlesex County Utilities Authority
Project Title:	Edison Pump Station
Damaged Facility:	Edison Pump Station
Declaration Number:	DR-4086-NJ
Project Number:	U04NE07
PA ID No.:	023-U04NE-000
Date of Inspection:	July 25, 2013
Event Date(s)	October 26 - November 6, 2013
Work Category:	F
Type of Work:	Repair
(Enter New, Repair, etc.)	
Prenarer's Notes	

Preparer's Notes:

During the incident period of October 26 to November 6, 2012, Hurricane Sandy caused severe flooding, inundating the Edison Pumping Station. The station was flooded to 37 IN above floor level in the Main Pump Building (all lower levels were completely inundated), 16 IN above floor level in the Generator/Switchgear Building, and 22 FT in the Force Main Tunnel Shaft and extended 1,000 FT horizontally in the Force Main Tunnel.

The Main Pump Building is CMU and concrete constructed with brick veneer, measuring 73 FT x 72 FT. It has one level above grade and two levels below grade. No structural damage was reported.

The Generator/Switchgear Building is CMU and concrete constructed with brick veneer, measuring 43 FT x 44 FT, with only one level and is above grade. No structural damage was reported.

The Force Main Tunnel Shaft is 65 FT deep x 28 FT diameter and octagonal shape. The Force Main Tunnel is a 14 FT 4 IN O.D. (12 FT 10 IN I.D.) concrete shaft that contains two 60 IN concrete-encased, fiberglass-enforced polymer mortar pipes, allowing for 6 FT of clearance at centerline for personnel to walk atop concrete encasement, and extends 4,000 FT across the Raritan River to the Sayreville Central Treatment Plant. Utility-provided power was lost for 10 days. The GPS coordinates were recorded at the outside of the front gate.

CEF Notes

Middlesex County Utilities Authority - Edison Pump Station

Damaged Facility:		Edison Pump Station
Applicant Name:		Middlesex County Utilities Authority
Project Number:		U04NE07
Date of Estimate:		January 18, 2014
Preparer(s):		Thomas Wilkins
Part A Notes:		Permanent Repair of Wastewater Pumping Station
		There is no non-permanent work estimated
Part B Notes:	B.1 -	Requires general worker safety provisions only. Temporary Services are not
		included as non-permanent work. A&E specifications will be written to include
		special testing. Non-structural repairs requiring specifications will be required.
	B.2 -	Hatch Mott MacDonald will be retained as General Contractor.
Part C Notes:		Estimates developed without engineering drawings
		Work is high complexity for work on a wastewater pumping station.
	C.3 -	Pumping Station is located in a suburban area. Facitlity has ample storage areas.
		Facility is remote operated and normally unoccupied.
		Work is not repetitive.
Part D Notes:		Hatch Mott MacDonald will be retained as General Contractor.
	D.2 -	Hatch Mott MacDonald will be retained as General Contractor.
	D.3 -	Hatch Mott MacDonald will be retained as General Contractor.
Part E Notes:	E -	6 months design and 6 months repair = 9 months. 0.21% factor utilized for the
		prescribed location.
Part F Notes:		The necessary repairs do not require permits
		The necessary repairs do not require permits
Part G Notes:	G.1 -	Conditions do not meet the "OFF" conditions as prescribed in the CEF Instructional
		Guide.
Part H Notes:	H.1 -	Hatch Mott MacDonald will provide design and project management. Applicant will
		not participate in design nor project management.
	H.2 -	Hatch Mott MacDonald will provide design and project management. Applicant will
		not participate iл design nor project management.
	H.3 -	Hatch Mott MacDonald will provide design and project management. Applicant will
		not participate în design nor project management.
Miscellaneous		All Completed Work has been invoiced and will not have factors added to it's
Notes &		subtotal.
Comments:		

CEF Part A

Middlesex County Utilities Authority - Edison Pump Station

Item No.	Item Description Title / Component Description	Div. # or Cost Code	Qty	Units	Unit Price	City Adj Factor	—	Total Cost
Comple	Completed Work Items							
Add Row	Add Row Completed Permanent Items							
	Provide Engineering and Management Services	Hatch Mott MacDonald (HMM) Inv. 160874	1.00	RS	\$ 34,340.43	1.0000	€9_	34,340.43
	Provide Engineering and Management Services	HMM Inv. 164119	1.00	LS	\$ 24,334.54	1.0000	₩	24,334.54
	Provide Engineering and Management Services	HMM Inv. 164658	1.00	ST		1.0000	ક્ક	37,247.72
	Provide Engineering and Management Services	HMM Inv. 165944	1.00	LS	\$ 38,055.15	1.0000	€9	38,055.15
	Provide Engineering and Management Services	HMM Inv. 168925	1.00	LS		1.0000	&	19,592.03
	Provide Engineering and Management Services	HMM Inv. 169840	1.00	LS	\$ 27,663.45	1.0000	↔	27,663.45
	Provide Engineering and Management Services	HMM Inv. 169847	1.00	LS		1.0000	છ	31,418.03
	Provide Engineering and Management Services	HMM Inv. 171920	1.00	L.S	\$ 47,651.81	1.0000	₩	47,651.81
	Provide Engineering and Management Services	HMM Inv.158711	1.00	LS	\$ 40,835.62	1.0000	€9-	40,835.62
	Provide Engineering and Management Services	HMM Inv. 175180	1.00	LS		1.0000	€>	1,042.21
	Provide Engineering and Management Services	HMM Inv. 177024	1.00	LS	\$ 9,477.76	1.0000	\$	9,477.76
į	Provide Engineering and Management Services	HMM Inv. 178909	1.00	LS		1.0000	\$	1,042.21
	Permanent Repairs to Edison Pump Station	PKF - Mark III Inv. 2	1.00	ST	\$ 206,213.00	1.0000	\$	206,213.00
	Permanent Repairs to Edison Pump Station	PKF - Mark III Inv. 3	1.00	LS.	2	1.0000	₩	259,692.00
	Permanent Repairs to Edison Pump Station	PKF - Mark III Inv. 4	1.00	S	\$ 45,746.00	1.0000	\$	45,746.00
	Permanent Repairs to Edison Pump Station	PKF - Mark III Inv. 5	1.00	S	\$ 182,610.00	1.0000	\$	182,610.00
	Permanent Repairs to Edison Pump Station	PKF - Mark III Inv. 6	1.00	LS	\$ 193,724.00	1.0000	\$	193,724.00
	Permanent Repairs to Edison Pump Station	PKF - Mark III Inv. 7	1.00	LS	\$ 105,213.00	1.0000	\$	105,213.00
	Permanent Repairs to Edison Pump Station	M & L Power Sytems Inv. 15738	1.00	LS	\$ 21,200.32	1.0000	\$	21,200.32
į	Permanent Repairs to Edison Pump Station	M & L Power Sytems Inv. 15767	1.00	ST	\$ 348,169.72	1.0000	€	348,169.72
	Permanent Repairs to Edison Pump Station	M & L Power Sytems Inv. 15768	1.00	LS	\$ 28,267.10	1.0000	€	28,267.10
	Permanent Repairs to Edison Pump Station	Rapid Pump & Meter Serv. Inv. 90483R	1.00	rs	\$ 161,479.75	1.0000	€	161,479.75
	Permanent Repairs to Edison Pump Station	Rapid Pump & Meter Serv. Inv. 90888R	1.00	rs	\$ 93,173.27	1.0000	€	93,173.27

\$ 64,603.86 \$ 17,542.13 \$ 17,542.13 \$ 1,399.52 \$ 1,399.52 \$ 1,866.00 \$ 380.00 \$ 380.00 \$ 380.00 \$ 380.00 \$ 380.00 \$ 380.00 \$ 43,042.50 \$ 1,866.00 \$ 380.00 \$ 380.00 \$ 380.00 \$ 380.00	City Adj Factor 1.0000	Cupit Price 64,603.86 64,603.86 17,542.13 17,542.13 89.042.50 8 39,042.50 8 1,866.00 8 1	Units	Oty 00:1 00:1 00:1 00:1 00:1 00:1	Div. # or Cost Code Rapid Pump & Meter Serv. Inv. 91160R Rapid Pump & Meter Serv. Inv. 91737R Rapid Pump & Meter Serv. Inv. 92182R Rapid Pump & Meter Serv. Inv. 92182R North End Electric Inv. 46776 North End Electric Inv. 48719 Doors, Inc. Inv 7752	Item Description Title / Component Description Permanent Repairs to Edison Pump Station Follow-up Repairs to Raw Sewage Pumps Follow-up Testing to Raw Sewage Pumps Repair Steel Curtain Doors
			+ (%) (%			
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	寸		\Box	\dashv	Doors, Inc. Inv 7752	Repair Steel Curtain Doors
				1.00	North End Electric Inv. 48719	Testing to Raw Sewage Pumps
				1.00	North End Electric Inv. 46776	Repairs to Raw Sewage Pumps
				1.00	Rapid Pump & Meter Serv. Inv. 93274R	Repairs to Edison Pump Station
				1.00	Rapid Pump & Meter Serv. Inv. 92182R	Repairs to Edison Pump Station
				1.00	Rapid Pump & Meter Serv. Inv. 91737R	Repairs to Edison Pump Station
				1.00	Rapid Pump & Meter Serv. Inv. 91560R	t Repairs to Edison Pump Station
				1.00	Rapid Pump & Meter Serv. Inv. 91160R	t Repairs to Edison Pump Station
Total Cost	City Adj Factor	Unit Price	Juits		Div. # or Cost Code	Description Title / Component Description
			\vdash			

CEF U04NE07- Edison Pumping Station.xls

CEF Part A

Total Cost	2.127.079.25		_	•		•	,	,	-	•
H				₩	es.	G	€\$	€>	s	க
City Adj Factor	ent Total						Ē	:		ent Total
Unit Price	Completed - Permanent Total \$			€	\$	ı ₩	-	\$		Completed - Non-Permanent Total
Units	Comic									mpletec
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Div. # or Cost Code										
Item Description Title / Component Description		Completed Non-Permanent Items								
Item No.							Add Row			

Item No.	Item Description Title / Component Description	Div. # or Cost Code	Qty	Units	Unit Price	City Adj Factor	Total Cost	ب.
Uncom	Uncompleted Work Items							
	Uncompleted Permanent Items							
	Force Main Tunnel						€	,
τ-	Installation of temporary ventilation and lighting	Hatch Mott Estimate (see attached)	-	ST	\$ 126,275.00	1.0000	\$ 126,275.00	3.00
Add Row	Confined Space Support Team	Hatch Mott Estimate (see attached)	1	LS	\$ 130,721.35	1.0000	\$ 130,721.35	.35
_	Removal of Temporary Ventilation after cleaning	Hatch Mott Estimate (see attached)	1	ST	\$ 27,126.33	1.0000	\$ 27,126.33	3.33
-	Pressure washing and cleaning of approximately 1000 LF of pipe. Cut off excess hydrophilic gasket extruding from joints.	Hatch Mott Estimate (see attached)	τ-	S7	\$ 10,321.03	1.0000	\$ 10,321.03	.03
-	Confined Space Kit	P.O. 61682 Airgas - Inv 9011726934	1.00	LS	\$ 2,128.00	1.0000	\$ 2,128.00	3.00
2a	Components of Air Quality Monitoring Panel	Vanguard Quote 18626P	1.00	ST	\$ 26,007.00	1.0000	\$ 26,007.00	.00
2a	Replace compnents of Air Quality Monitoring Panel	Crew R-1A	16.00	HR	\$ 130.40	1.0000	\$ 2,086.40	3.40
5p	3/8 IN Nylon Tubing	Hatch Mott Estimate	1.00	LS	\$ 14,400.00	1.0000	Ţ-	0.00
						1.0000	\$	-
	RS Pump Motor Conductors - Pump Bidg.				\$	1.0000	\$	-
4	500MCM wire, XHHW-2	Southland Wire	3,000.00	F	\$ 10.65	1.0000	\$ 31,950.00	00.
4	termination kit, 3/kit	3M	20.00	EA		1.0000		00.
4	terminal lugs	Grainger	60.00	EA		1.0000		8
4		Crew R-1A (x2)	40.00	뚶	\$ 260.80	1.0000	\$ 10,432.00	8
	Paeumatie instrumentation Panel - Pump Bidg.					1.0000		
5a	Bond bushing	Grainger	1.00	EA		1.0000		32.10
2b	Grounding Lug	Grainger	1.00	ΕĀ		1.0000		8.97
50	Pressure transducer switches	Grainger	5.00	EA	\$ 213.25	1.0000	\$ 1,066.25	.25
2d	Solenoid Valve, Red Cap	Grainger	3.00	EA	\$ 97.20	1.0000		.60
5e	Pressure Gauge, Magnehelic	Grainger	1.00	EA	\$ 116.75	1.0000		.75
5f	Pressure Transmitter	Grainger	00.9	EA	\$ 339.75	1.0000	\$ 2,038.50	.50
5	Remove/Replace above items	Crew R-1A	8.00	HR	\$ 130.40	1.0000	\$ 1,043	.20
	Pump Bldg Intermediate Level					1.0000	€	\Box
13	Rewind 5 ea 500 HP raw sewage pump motors	North End Electric Quote	2.00	EA	\$ 29,439.00	1.0000	\$ 147,195.00	00

Item No.	Item Description Title / Component Description	Div. # or Cost Code	Qty	Units	Unit	Unit Price	City Adj Factor	ř	Total Cost
13	Rig, Remove. and Replace (5) 500 HP pump motors	North End Electric Estimate based on previous work	1.00	FS	₩ ₩	28,410.00	1.0000	₩	28,410.00
	Pump Bldg Basement Level				69	,	1.0000	₩	8
18	Pump/Motor Vibration Monitoring System, to include labor	Allied Control Services Quote	1.00	S	\$ 17	170,000.00	1.0000	6	170,000.00
21	Switchgear/Generator Bldg 480V Paralleling Switchgear				₩	,	1.0000	€	-
21	Seeffon 1 - Mester Controls				ક્ર	•	1.0000	s	•
21	Transducer	Newark	1.00	EA	\$	375.96	1.0000	\$	375.96
21	ASCO 5200 Series Power Manager	ASCO	1.00	EA	\$	3,107.58	1.0000	s	3,107.58
21	Programmable Logic Controller	Allen Bradley	1.00	EA	\$	25,247.15	1.0000	s	25,247.15
21	Potential transformer	PLC Center	3.00	EA	8	322.05	1.0000	\$	966.15
21	Control Power Transformer	PLC Center	1.00	EA	\$	150.50	1.0000	\$	150.50
21	receptacle, 120V, 20A	Grainger	1.00	EA	\$	3.80	1.0000	ક્ર	3.80
21	switch, 2-position	PLC Center	6.00	EA	\$	54.15	1.0000	s	324.90
21	pushbutton, n/o	PLC Center	1.00	EA	8	55.85	1.0000	\$	55.85
21	switch, 3-position	PLC Center	1.00	EA	\$	61.50	1.0000	s	61.50
21	terminal board, 8 circuit	Grainger	16.00	EA	8	12.12	1.0000	↔	193.92
21	items	Crew R-1A (x4)	16.00	HR	\$	521.60	1.0000	↔	8,345.60
21	Section 2 - Gen 1 Gentrols				\$	-	1.0000	69	•
21	Potential Transformer	PLC Center	3.00	EA	\$	322.05	1.0000	s	966.15
21	Control Power Transformer	PLC Center	1.00	EA	\$	150.50	1.0000	↔	150.50
21	Digital Synchronizer & Load Control Board, Woodward 9905-367	Woodward	1.00	Æ	6	10,257.00	1.0000	69	10,257.00
21	ASCO 5200 Series Power Manager	ASCO	1.00	EA	\$	3,107.58	1.0000	\$	3,107.58
21	Remove/Replace above items	Crew R-1A	8.00	HR	\$	130.40	1.0000	s)	1,043.20
21	Section 4 - Tite				ક્ક	ı	1.0000	(y)	1
21	Breaker Control Switch	PLC Center	2.00	EA	\$	91.50	1.0000	ક્ર	183.00
21	Control Power Transformer	PLC Center	1.00	EA	\$	150.50	1.0000	ક્ક	150.50
21	Terminal board, 6 circuit	Grainger	1.00	EA	\$	90.6	1.0000	\$	9.06
21	items	Crew R-1A	6.00	HR	\$	130.40	1.0000	\$	782.40
21	Segfon 6 - Uffiffy				ક	•	1.0000	\$	1
21	ner	PLC Center	3.00	EA	69	322.05	1.0000	ક્ક	966.15
21	Digital Synchronizer & Load Control Board, Woodward 9905- 367	Woodward	1.00	EA	8	10,257.00	1.0000	⇔	10,257.00
21	Remove/Replace above items	Crew R-1A	8.00	HR	ક્ક	130.40	1.0000	s)	1,043.20
21	Seeffon 7 - Tie				so	•	1.0000	မှာ	

Item No.	Item Description Title / Component Description	Div. # or Cost Code	Ωty	Units	Unit Price	City Adj Factor	Total Cost	ts.
21	Breaker Control Switch	PLC Center	1 00	Η	94 50	1 0000	į	24
21	Potential Transformer	PI C Center	200	i é		200	ľ	3
21	Control Power Transformer	PI C Center	200	نَادَ	9 322.03	1	906	966.15
21	Terminal board, 6 circuit	Grainger	5 5	5	00.001	1	15	150.50
2,	Remove/Deplete above items	Gianigei	1.00	Š		_		9.06
4 6		Crew R-1A	4.00	Ή	\$ 130.40	1.0000		521.60
7	Section 9 = Gentz/Gontrols - Gentz/Gon				·	1.0000		
1.7	Potential transformer	PLC Center	3.00	EA	\$ 322.05	1,0000		966 15
21	Digital Synchronizer & Load Control Board, Woodward 9905- 367	Woodward	1.00	EA	10,	1.0000	10,	7.00
21	ace above items	Crew R-1A	8.00	毕	130.40	1 0000	1 0/3 20	3 20
21	ALL Sections		!			1 0000		3
21	loods/	Grainger	8 00	ΕĀ	102 75	1,000		, 60
21	Remove/Replace control wiring	Crew R-1A (x2)	40.00	光		1 0000	1	3 8
	Inside Generator Room					1,000		3
22	3az KM 110 P/N	GAZ	10.00	A A	\$ 225,00	1.0000	- 00 030 0	. 6
22	Remove/Replace Batteries	Crew R-1A	20 7			0000.	,	3
	Outside of Generator Bldo		S.		130.40	1.0000		521.60
	(1513) Swffafager		į		-	1.0000	9	٠
233	KOO ETISTOS					1.0000	\$	1
400	October Transit of Plants and Plants	Grainger	2.00	Ā	\$ 102.75	1.0000		205.50
235	Control Terminal Blocks, 600V, 30A	Grainger	60.00	ЕA	1.10	1.0000		66.00
250	Space Heater, 300W	Newark	2.00	EA	30	1.0000	9	609 24
57		Crew R-1A	24.00	HR	\$ 130.40	1.0000	\$ 3,129.60	8
į	Constitution of the control of the c					1.0000		
07	Cooling Fan, Transformer	Grainger	1.00	EA	\$ 400.25	1.0000		400.25
67	Kemove/Keplace above Items	Crew R-1A	4.00	HR	\$ 130.40	1.0000		521.60
690	Various Locations throughout the Site				\$	1.0000	!	
709	exriaust air ian, 325 cm, 1/12 HP, repair	23 34 1610 7100	1.00	EA	\$ 167.92	1.0000	\$ 167.92	.92
007	exnaust air tan, 2,500 cfm, 1/8 HP, repair	23 34 1610 7220	1.00	-	\$ 374.86	1.0000		98
792		23 34 1610 7240	1.00	EA		t		5
760	exhaust air tan, 8,300 cfm, 3 HP, repair	23 34 1610 7260	5.00	EA	\$ 626.81	 	(6)	8
76e	suppy air fan,	23 34 1610 4240	1.00	-	6	1.0000		24
707	diffusers, aluminum	23 37 1310 1150	3.00	EA		1.0000		99
. Zeg	grilles, aluminum, 36 IN x 30 IN	23 37 1330 0620	8.00			1.0000	\$ 988.56	56
75n	grilles, aluminum, 24 IN x 12 IN	23 37 1330 0360	4.00	EA		-		64
7 <u>8</u>	damper, 36 IN x 66 IN w/motor	23 33 1313 6240	1.00	╁╌	\$ 582.92	t	\$ 582.92	92
7ej	louver, air intake	23 37 1540 2540	96.00	SF		╁╴	9	35
26K	air handling unit, 12,000 cfm	23 73 1310 0940	1.00		20,3	t	\$ 20,387,30	8
						1		

CEF Part A

City Adj Total Cost	1.0000 \$ 1,644.02		1.0000 \$ 6,269.20	1.0000 \$ 6,269.20	1.0000 \$ 9,430.13	1.0000 \$ 3,762.60	1.0000 \$ 1,817.65	1.0000 \$ 2,671.20			1.0000 \$ 66.08		1.0000 \$ 248.33	\$					1.0000 \$ 36.08	000 \$ 62,592.00	1.0000 \$	otal \$ 1,122,258.90		\$	\$	-	€9	otal \$	3 3249,338.15
City			L		_				3 1.0000	1.0000			L	1.0000			$oxed{oxed}$	L		Ц	1.00	nent T						nent To	ON CC
Unit Price	1,644.02	1,886.11	6,269.20	6,269.20	9,430.13	940.65	363.53	5.04	6.38	2.80	0.42	0.27	0.18	0.12	0.14	46.23	35,49	10.27	0.60	391.20	1	Uncompleted - Permanent Total		,	r	,	1	Uncompleted - Non-Permanent Tota	TOTAL PART A BASE CONSTRUCTION COST
Units	EA \$		EA S	EA \$	-	EA \$	Н	SF \$	LBS \$	LF \$	₽ S	LF \$	LF \$	LF \$	LF \$		LF \$	F \$	LF \$	HRS \$	ፉን	omple		€>	છ	ક	ક	eted -	SE CC
	1.00 E	1.00 E	1.00 E	1.00	1.00 E	4.00 E	5.00 E		_									$oxed{oxed}$		_		Unc						ldmos	LA BA
aty	-	1.	1.	1.	1.	4.	5.	530.00	3,562.00	477.00	159.00	53.00	1,392.00	9,913.00	2,392.	669.00	2,071.00	650.00	60.00	160.00								On	L PAR
Div. # or Cost Code	23 82 1620 0520	23 82 1620 0920	23 82 1620 3260	23 82 1620 3260	23 82 1920 0160	23 83 3310 6540	23 83 3310 7410	23 31 1613 3500	23 31 1313 0570	26 05 1990 3160	26 05 1990 3060	26 05 1990 3040	26 05 1990 3020	26 05 1990 3000	26 05 2320 0500	26 05 1920 1010	26 05 1920 0900	26 05 1990 3320	27 13 2313 0095 27 12 2313 0105	Crew R-1A (x 3 crews)									TOTA
Item Description Title / Component Description	duct heater, 10 kW	duct heater, 12 kW	duct heater, 60 kW	duct heater, 100 kW	heating/ventilating unit, 2,000 cfm	unit heaters, 10 KW	heaters, convective, 500W	ducting, fibrous glass	ducting, sheet metal	wire, AWG 1/0 XHHW	wire, AWG # 8 XHHW	wire, AWG # 10 XHHW	wire, AWG # 12 XHHW	wire, AWG # 14 XHHW	wire, AWG # 18, twisted-pair		cable, 500 MCM, 3-conductor, 600V	cable, bare copper, 500MCM	cable, fiber optic, 4str/12str (mean average cost utilized)	Labor to remove/replace 27a thru 27j			Uncompleted Non-Permanent Items						
ltem No.	261	26m	26n	260	26p	26q	26r	26s	26t	27a	27b	27c	27d	27e	27f	279	27h	27i	27j	27									

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				Repair	_	\$	s	65	1	8	'	Total
<u>≺</u>	,			"Base Cost	ts" for	"Base Costs" for Construction Work-In Trades	fork-in Trades					
<u>A.1</u>	1 Permanent Work (CEF Part A)			\$ 2,127,079	079						69	2 127 079
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₹	A.2 Non-Permanent Job Specific Work (CEF Part A)	F Part	 -	ь	€9	,	69	\$	•		€>	
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		Part	Part A Total	\$ 2,127,079	\$ 620		69	\$		\$	မ	2,127,079
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B.1	General Requirements	[]									-	
	Safety O Canada	Low to	High		 	Ent	Enter % in Appropriate Column	olumn			<u> </u>	
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	Temporary Services & Utilities	%0	1.0%								<u> </u>	
_	Quality Control	%0	1.0%								Τ	
	Submittats	%0	5.0%								Τ	
				4	69		€9	69		.	69	
B.2	General Conditions (4.25%)											
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		Part B To	B Total	69	\$		မာ	€9	-	\$	ь	
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	PAKI A through B SUBTOTAL	B SUB	TOTAL	\$ 2,127,079	020	•	٠ ج	€	•	₩.	€9	2,127,079
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					Repair	•>			•	€9	•	₩.	-	Total	
ပ					Consti	ruction	Construction Cost Contingencies	ngenci	ies] 		
<u>ن</u>	Design-Phase Scope Contingencies	Guide Low to HI	Guide to High					Total	Enter % in Annomista Column				-		
	Preliminary Engineering Analysis	7.0%	20.0%			_			o pinidodata il				1		
_	Working Drawings	2.0%	10.0%					_					Τ		
				Ф		49		69	• 	\$		69	69	'	
C.2	Facility or Project Constructability						•						<u> </u>		
<u> </u>	Facility or Project Type and Complexity	See IG	See IG for Values			L		w Laler	Enter % in Appropriate Column	lumn I			-		
				69		69		6/9	ı	69		es.	64		\top
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္ပ	Access, Storage & Staging	Guide Low to Hir	Guide to High	_			-	2,40 2,40	,	<u>.</u>					
	Access Contingencies	%0	4.0%			-		R D	Little 74 iii Appropriate Column				<u> </u>		
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	Staging Contingencies	%0	4.0%					<u> </u>					<u> </u>		
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O. 4.	Economies of Scale														
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	PART A through C SHBTOT	a	TOTAL		70 707 0			ŀ							
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Middlesex County Utilities Authority - Edison Pump Station Sta	L					-			!			
Cost Escalation Factor State Sta		Mid	dlesex Co	unty Utiliti	es Au	thority -	Edison Pu	mp Station	_			
Cost Escalation Factor Separat Contractor's Overhead and Profit										:		
GC's Home Office Overhead 7.7% S S S S S GC's Insurance, Payment & S.3% S S S S S GC's Insurance Bonds S.3% S S S S S GC's Insurance Bonds S.3% S S S S S General Contractor's Profit S S S S S New Construction Repair/Retrofit S S S S S Part D Total S S S S S S S Fart D Total S S S S S S S Monthly Factor Monthly Factor S S S S Part E Total S S S S S S S S Part E Total S S S S S S S S S HONTA A through E SUBTOTAL S S S S S S S S S				Repair	8	•	69	—li	-	s	-	Total
Cost Escalation Factor Part A through E SUBTOTAL	<u> </u>			General C	ontractor	's Overhea	d and Profit					
Cost Escalation Factor Fath Athrough E SUBTOTAL State of the state	<u>i</u>		7.7%									
Cost Escalation Factor Monthly Factor Subanance				€9	69	•	5	59	r		69	
Cost Escalation Factor PART A through E SUBTOTAL PAR	<u>~~</u>		3.3%						<u>' </u>		<u> </u>	
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Cost Escalation Factors Months Monthly Factor S - \$ - Part E Total \$ - </td <td></td> <td>PART A through</td> <td>D SUBTOTAL</td> <td>€</td> <td></td> <td>•</td> <td>·</td> <td>s_S</td> <td></td> <td>•</td> <td>ક્ક</td> <td>2,127,079</td>		PART A through	D SUBTOTAL	€		•	·	s _S		•	ક્ક	2,127,079
Monthly Factor	ш			Ŏ	ost Esca	lation Facto	S.					
al \$ \$ \$ \$ \$		Cost Escalation Factor										i
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AL \$ 2,127,078 \$ - \$ - \$ - \$ - \$			Monthly Factor	:						:	Т	
NL \$ 2,127,079 \$ - \$. \$			Part E Total	\$	s,		\$	89	€		69	.
1 \$ 2,127,079 \$. \$. \$!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	,			-		_		_		
		PART A through	E SUBTOTAL	€		•		€	€	•	4	2,127,079

L							
	Middlesex Co.	unty Utilitie	s Authority.	Sounty Utilities Authority - Edison Pump Station	np Station		
		Repair	45	\$	69	69	Total
<u> </u>		Plan Revjew	Plan Review and Permit Construction Cost	ruction Cost			
<u>L.</u>	F.1 Plan Review Fees				L	 	
	(List Individual Requirements Separately)						
		1					
	•	8	· •	\$	₩.	€	69
<u> </u>	F.2 Construction Permit Fees		L		l	1	
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	(List Individual Requirements Separately)				L		
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	Part F Total	€	49	69	8	- 9	٠ چ
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	PARI A through F SUBTOTAL	\$ 2,127,079	٠ چ	•	.	\$	\$ 2,127,079
υ		Applicant's	Applicant's Reserve for Change Orders	ge Orders			
	A						
	Applicant's Reserve for Change Orders	òò	1	-	-		
_	_	3.0%	7.0%	7.0%	7.0%	7.0%	
	PARI 6 IOTAL	· ·	٠ ج		9	\$	8
			_			-	
	PARI A Inrough 6 SUBIOLAL	\$ 2,127,079		S	- \$		\$ 2,127,079

L	li			hand	1100					
	Middlesex Co	Sounty Utilities Authority - Edison Pump Station	s Authori	ty - Ed	lison Pul	mp Stat	tion			
		Repair	\$3	+9		\$	•	8	-	Total
I		Applicant's Project Management And Design Costs	Ject Manageme	nt And D	esign Costs					
<u> </u>	Applicant's Project Management - Design Phase								-	
		5	69	₩		69		€	မ	t
H.2	A/E Design Contract Applicability									
	Above Average Complexity (Curve A)	14.2%	%	5.6%	5.6%		2.6%	76 F	70%	
	Average Complexity (Curve B)	10.5%	%	4.5%	4.5%	8	4 5%		2 %	
	Basic Construction Inspection Services	3.0%	%	3.0%	3.0%	1 %	3.0%		<u> </u>	
-	A/E Docion Contract Cost								Ţ	
	AE Design contract cost		ı							
	Above Average Complexity (Curve A)	€	s	8		6.			7	
	Average Complexity (Curve B)	•	ы	65				9 6	Т	
	Basic Construction Inspection Services	·	₩	69	,	÷ 69	. .	Э	T	
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		· ·	Ф	69	•	€9		6	69	
Ξ.	Project Management - Construction Phase									
_		3.3%	6.0%		6.0%	 	8.0%	6.0%		
		1	\$	69	•	8	•	69	ь	-
	1 1 C	4		-				i	_	
		₩	8	\$		69	-	\$	₩	•
	PART A through H SUBTOTAL	6		}						
	ļ	\$,12/,0/9	<i>1</i>	es	•	69	1 3	*	es.	2,127,079
7 0	TOTAL OF COMPLETED WORK							:		\$2,127,079

L													
	Midd	lese	S Co	unty	Utilities	s Authority	/ - E	Middlesex County Utilities Authority - Edison Pump Station	p Stati	n C			
												-	
					Repair	60	.	9	\$	•	\$	•	Total
⋖				"Ba	se Costs" f	"Base Costs" for Construction Work-In Trades	n Wo	rk-In Trades					
<u>₹</u>	Permanent Work (CEF Part A)			ь	1,122,259		Н					G	1,122,259
										:		<u> </u>	
Ÿ	A.2 Non-Permanent Job Specific Work (CEF Part A)	Part A		\$								₩	
												_	
		Part,	Part A Total	49-	1,122,259	₩.	÷		s	•	s	\$	1,122,259
<u>m</u>				Gen	eral Requir	General Requirements and General Conditions	nerai	Conditions					
B.1	General Requirements	Range	ge								:	-	
		2 ×	II I				Enter	Enter % in Appropriate Column	umn		1		
	Safety & Security	4.0%	%0.9		4.0%							_	
	Temporary Services & Utilities	%0	1.0%		1.0%							<u> </u>	
	Quality Control	%0	1.0%		1.0%					!			
	Submittals	%0	5.0%		2.5%		<u> </u>						
				\$	95,392	8	<i>\$</i>		69	•	€	€	95,392
B.2	General Conditions (4.25%)												
				€	47,696	\$	9		8		69	69	47,696
					l							<u> </u>	
		Part B To	B Total	€	143,088	æ	\$	1	\$	-	\$	⊕	143,088
							ŀ						
	PART A through B SUBTOTAL	3 SUBT	TOTAL	69	1,265,347	₩	-	•	€>	-	\$	\$	1,265,347

CEF U04NE07- Edison Pumping Station.xls

]) 	or commany of officer placed work							
	Mid	dlese	COI	unty Utilitie	s Authority	Middlesex County Utilities Authority - Edison Pump Station	mp Station				
				Ranalr	4		6				
				anday.	•	*	e .	*	'	Total	
<u>ပ</u>				Constri	Construction Cost Contingencies	ingencies	L		L		
C.1 Design	Design-Phase Scope Contingencies	Rang Low to	Range / to High			Enter % in Appropriate Column]]		
Prelimina	Preliminary Engineering Analysis	7.0%		15.0%							
Working Drawings	Drawings	2.0%	10.0%								
				\$ 189,802	<i>4</i> 5	4 9	69	€		\$ 189	189,802
C.2 Facility	C.2 Facility or Project Constructability					Enter % in Appropriate Column					
Facility or	Facility or Project Type and Complexity	See IG for Values	or Values	5.0%				_			
				\$ 63,267	69	45	49	es-	1	\$ 63	63,267
C.3 Access,	Access, Storage & Staging	Range	lge High			6 ci 20 copc	<u> </u>				
Access C	Access Contingencies	%0		2.5%		Lines A III Applications as a			į		
Storage C	Storage Contingencies	%0	4.0%	1.0%							
Staging C	Staging Contingencies	%0	4.0%	1.0%							
			'-	\$ 56,941	69	.	₩.	€		\$ 56,	56,941
C.4 Econom	Economies of Scale										
				-0.7%							
			!	· ·	.	Ф	₩	69	-	ક	
		Part (Part C Total	\$ 310.010	6	<u> </u>	₩	┢			18
					- 1	<u>.</u>	>	<u>-</u>	'	010,018	
	PART A through C SUBTOTA	C SUB7		\$ 1,575,357	\$	€9	\$	\$	•	\$ 1,575,357	357

L									
	Mid	Idlesex Co	ounty Utilitie	Middlesex County Utilities Authority - Edison Pump Station	Edison Pun	np Station			
_			Repair	**	\$	s	₩.	-	Total
			General Co	General Contractor's Overhead and Profit	d and Profit				
<u>0</u>	1 GC's Home Office Overhead	7.7%						-	
			\$ 121,302	2 \$	\$	69	₩	6/1	121 302
D.2	GC's Insurance, Payment & Performance Bonds	3.3%						<u>, </u>	
	: :		\$ 51,987	\$ 2	69	es)	46	e.	51 987
D.3	3 General Contractor's Profit			7			<u>}</u>	<u> </u>	20,10
			6.9%	%				Τ	
	New Construction							1	
	Repair/Retrofit							Π	
			\$ 120,902	\$ 2	49	69	ь	69	120,902
		Part D Total	\$ 294,191		*	€	₩.	ь	294,191
	•								
	PART A through D SUBTOTAL	h D SUBTOTAL	1,869,548	8 \$	· &	\$	\$	ક	1,869,548
ш			ວ	Cost Escalation Factors	ors				
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		Months	6					T	
		Monthly Factor	0.210%					-	
		Part E Total	35,334	- \$	s	69	5	69	35,334
_				2					
	PART A through E SUBTOTAL	h E SUBTOTAL	1,904,882	€>		- €	\$	69	1,904,882

L							
	Middlesex Co	unty Utilitie	s Authority -	County Utilities Authority - Edison Pump Station	p Station		
		Repair	\$	· ·	\$	69	Total
и.		Plan Review	Plan Review and Permit Construction Cost	ruction Cost			
<u>ц</u>	F.1 Plan Review Fees						
	(List Individual Requirements Separately)		<u>-</u>		-	-	
		€	•		€	\$	€
			L		L	L	
<u></u>	F.2 Construction Permit Fees		_		_	_	
	(List Individual Requirements Separately)	:	<u>></u>				
		· •	· •	·	₩	٠ ده	6
	Part F Total	- 8	•	€9	٠ ج	\$	-

	PART A through F SUBTOTAL	\$ 1,904,882	69	-	₩	9	\$ 1,904,882
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<u> </u>		Applicant's	Applicant's Reserve for Change Orders	ge Orders			
<u>O</u>	Applicant's Reserve for Change Orders						
		3.2%	7.0%	7.0%	7.0%	7.0%	
	PART G Total	\$ 60,148	\$	ક			\$ 60,148
	J						
_	PART A through G SUBTOTAL	\$ 1,965,030	ر ج		- \$	-	\$ 1,965,030

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	Middlesex Co.	ounty Utilities Authority - Edison Pump Station	es Au	thority -	Edis	on Pun	ιρ S1	tation				
		•			•		1					
		Repair	69		89		69		6 5	'	T	Total
I		Applicant's Project Management And Design Costs	ject Ma	nagement Ar	nd Desi	ign Costs						
Ξ̈́	Applicant's Project Management - Design Phase	:	E			:						
		\$	€9	•	ь	•	€9		69		G)	
H.2	A/E Design Contract Applicability											
	Above Average Complexity (Curve A)	14.5%	%!	5.6%		5.6%		5.0	5.6%	5.6%		
	Average Complexity (Curve B)	10.6%	%:	4.5%		4.5%		4.4	4.5%	5.6%		
	Basic Construction Inspection Services	3.0%	%1	3.0%		3.0%		3.(3.0%	3.0%	78-1 -1	
								:				
	A/E Design Contract Cost		į									
	Above Average Complexity (Curve A)	\$	€	•	s		69	•	G			
	Average Complexity (Curve B)	*	\$	•	s	•	€9	1	ь			
	Basic Construction Inspection Services	49	₩.	•	\$		ક	1	69			
		₩	9		€9		€	1	4	1	69	
H.3	H.3 Project Management - Construction Phase											
		3.4%	_	%0'9		6.0%		6.0%	9	6.0%		
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	Part H Total	1 69	ь		49	B ·	\$	1	\$	-	\$	
.			-									ĺ
	PART A through H SUBTOTAL	\$ 1,965,030	\$	•	es.	•	S	•	69	•	€9	1,965,030
<u></u>	TOTAL OF UNCOMPLETED WORK										\$1	\$1,965,030

CEF Total Project Summary

Summary

			ompleted	U	ncompleted		Total
PART A	"Base Costs" for Construction Work In Trades	\$	2,127,079	\$	1,122,259	\$	3,249,338
	A.1 Permanent Work	\$	2,127,079	\$	1,122,259	\$	3,249,338
	A.2 Non-Permanent Job Specific Work (CEF Part A)	\$		\$_		\$	
PART B	General Requirements and General Conditions	- \$		\$	143,088	\$	143,088
	B.1 General Requirements	\$		s	95,392	 	95,392
	B.2 General Conditions	\$		\$	47,696	\$	47,696
PART C	Construction Cost Contingencies (Design and Construction)	\$		\$	310,010	s	310,010
	C.1 Standard Design-Phase Scope Contingencies	\$		s	189,802	s	189,802
	C.2 Facility or Project Constructability	\$		\$	63,267	\$	63,267
	C.3 Access, Storage, and Staging Contingencies	\$		\$	56,941	\$	56,941
	C.4 Economies of Scale in New Construction	\$		\$		\$	-
PART D	General Contractor's Overhead and Profit	\$		\$	294,191	\$	294,191
	D.1 General Contractor's Home Office Overhead Costs	s		s	121,302	\$	121,302
	D.2 General Contractor's Insurance, Payment, and Performance Bonds	\$	-	\$	51,987	\$	51,987
	D.3 Contractor's Profit	\$	- -	\$	120,902	\$	120,902
PART E	Cost Escalation Allowance	\$	<u>-</u>	\$	35,334	\$	35,334
PART F	Plan Review and Construction Permit Costs	\$	-	s		\$	
	F.1 Plan Review Fees	\$	-	\$		\$	
	F.2 Construction Permit Fees	\$	-	\$	-	\$	<u>-</u>
PART G	Applicant's Reserve for Construction	\$		\$	60,148	\$	60,148
PART H	Applicant's Project Management and Design Costs	\$		<u> </u>	-	.	
	H.1 Applicant's Project Management - Design Phase	\$	-	\$	_	\$	
	H.2 Architecture & Engineering Design Contract Costs	\$		\$		\$	-
	H.3 Project Management - Construction Phase	\$		\$	-	\$	-
	Complete Project Total for Completed and Uncompleted Work	\$	2,127,079	\$	1,965,030	\$	4,092,109

State of New Jersey
Department of Treasury
Integrity Monitoring Reporting Model
For Quarter Ending: xx/xx/2013

Reports required under A-60 will be submitted by Integrity Monitors on the first business day of each calendar quarter to the State Treasurer and will contain detailed information on the projects/contracts/programs funded by the Disaster Relief Appropriations Act.

	Disaster Relief Appropriations Act.	Response	Comments
		lucahouac	Comments
Α.	General Info		
1.	Recipient of funding		
2.	Federal Funding Agency? (e.g. HUD, FEMA)		
3.	State Funding (if applicable)		
4.	Award Type		
5.	Award Amount		
	Contract/Program Person/Title		
7.	Brief Description, Purpose and Rationale of Project/Program		
8. 9.	Contract/Program Location Amount Expended to Date		
10.	Amount Provided to other State or Local Entities		
	Completion Status of Contract or Program		
	Expected Contract End Date/Time Period		
	Monitoring Activities		
13.	If FEMA funded, brief description of the status of the project worksheet and its support.		
14.	Quarterly Activities/Project Description (include number of visits to meet with recipient and sub recipient, including who you met with, and any site visits warranted to where work was completed)		

State of New Jersey
Department of Treasury
Integrity Monitoring Reporting Model
For Quarter Ending: xx/xx/2013

Reports required under A-60 will be submitted by Integrity Monitors on the first business day of each calendar quarter to the State Treasurer and will contain detailed information on the projects/contracts/programs funded by the Disaster Relief Appropriations Act.

	Recipient Data Elements	Response	Comments
15.	Brief Description to confirm appropriate data/information has been provided by recipient and what activities have been taken to review in relation to the project/contract/program.		
16.	Description of quarterly auditing activities that have been conducted to ensure procurement compliance with terms and conditions of the contracts and agreements.		
17.	Have payment requisitions in connection with the contract/program been reviewed? Please describe		
18.	Description of quarterly activity to prevent and detect waste, fraud and abuse.		
19.	Provide details of any integrity issues/findings		

State of New Jersey
Department of Treasury
Integrity Monitoring Reporting Model
For Quarter Ending: xx/xx/2013

Reports required under A-60 will be submitted by Integrity Monitors on the first business day of each calendar quarter to the State Treasurer and will contain detailed information on the projects/contracts/programs funded by the Disaster Relief Appropriations Act.

	Recipient Data Elements	Response	Comments
	D. Provide details of any work quality or safety/environmental/historical	nesponse -	
20			
	preservation issue(s).		
2:	1. Provide details on any other items of note that have occurred in the past		
	quarter		
22	2. Provide details of any actions taken to remediate waste, fraud and abuse		
	noted in past quarters		
	noted in past quarters		
C.	Miscellaneous		
23	3. Attach a list of hours and expenses incurred to perform your quarterly		
-`	integrity monitoring review		
	24 Add any item, issue or comment not covered in previous sections but		
[deemed pertinent to monitoring program.		

Ν	lame of Integrity Monitor:
Ν	lame of Report Preparer:
S	ignature:
	ate:

Engagement Query Questions or Request for Clarification

Firm: Engagement Query #:

Page #	Engagement Query Section	Question

Cell to be completed by Contractor Protected Cells

Firm Name:																									
Engagement Number:																									
Cost Quote for: Year 1																									
☐ Year 2	Fill in Task																								
☐ Year 3	T III III T GGIN																								
Staffing Category	Hourly Billing Rate (\$)	Hours	Amount (\$)	Нашка	Amount (\$)	Hours	Amount (\$)	Hours	Amount (\$)	Hours	Amount (\$)	Hours	Amount (\$)	Houre	Amount (\$)	Hours	Amount (\$)	Total Hours Per Staff Category	Total \$ Per Staff						
Partner/Principal/Director	παιο (ψ)	nours	\$0.00		\$0.00		\$0.00		\$0.00	Hours	Amount (\$) \$0.00		\$0.00		\$0.00		Amount (\$) \$0.00		Amount (\$) \$0.00	Hours	Amount (\$) \$0.00		Amount (\$) \$0.00		Category \$0.00
Program Manager			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
Project Manager			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
Subject Matter Expert			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
Supervisor/Senior Consultant			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
Consultant			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
Associate/Staff			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
Administrative Support			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
Other			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00)	\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
Other			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
Other			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
Other			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00
			0.00	. 0	\$0.00) 0	\$0.00	0	00.02	0	0.00	0	\$0.00	0	\$0.00		\$0.00		20.00	0	00.00	0	\$0.00		0.00

Total Direct Cost	
Total Travel Cost	

\$0.00 (Direct Cost)

\$0.00 (Travel Cost)

Grand Total \$0.00