

BOROUGH OF ALPHA

**GENERAL CAPITAL PROJECTS AND WATER UTILITY
ENGINEERING STATUS REPORT**

January 25, 2016



PREPARED BY:

**REMINGTON & VERNICK ENGINEERS
232 KINGS HIGHWAY EAST
HADDONFIELD, NEW JERSEY 08033
(856) 795-9595
www.rve.com**

ACTION ITEMS

1. The stream section below Homa's Lane cannot be cleaned/regraded by the Warren County Mosquito Commission as their NJDEP Wetlands Permit will not cover this reach (blue line on the USGS map). They will perform the installation of check dams upstream of the Lane if the Borough provides the material. Various options with project costs were outlined and provided to the Borough for their consideration. The Borough authorized us to perform a detailed study. We have recently contacted the Warren County Mosquito Control Commission to determine if they can perform one (1) of the alternatives we developed under their existing NJDEP permit. They have researched and determined that they cannot do the work under their NJDEP permit as it applies to maintenance work only. We have completed the DRAFT report and transmitted to Council for review and discussion prior to finalizing. Council has authorized us to set a meeting with the NJDEP to discuss the detention basin option including the permit requirements. We met with the NJDEP and the Flood Hazard Area Permit requirements will not be an issue for preferred alternative of a detention basin upstream of Homa Lane but the Wetlands Permit requirements will be more difficult. The NJDEP will review and discuss with their supervisor once they are available. The NJDEP will contact us upon completion of their review. We have recently discussed the project with Lou Catuna of the NJDEP. He is the supervisor for the NJDEP initial wetlands reviewer whom we had a meeting. He is acceptable to the preferred alternative of a detention basin near the Borough Recreation Fields as long as we limit the excavation and add berms with smaller pipes to meter the storm water. He views this type of work as the installation of a driveway which is allowed in State Open Waters. He will be performing a site visit when he is in the area and contact us to meet him on site to review further. He also mentioned the possibility of obtaining funding through NRCS which is an agriculture branch of the County Soil Conservation District. We are inquiring about it now.
2. NJDOT FY 2015 MA grant applications are due to the NJDOT by October 20, 2015. Council selected 5th Avenue Phase II from East Central Avenue to East Vulcanite Avenue. Council authorized us at the September 21, 2015 meeting to prepare the application. A resolution to allow us to submit the grant on behalf of the Borough was approved at the October 13, 2015 Council meeting. The application has been submitted to the NJDOT through SAGE.
3. We have prepared the application for a Preliminary Assessment (PA) Grant for the Leigh Fuel Corp Property. The requested grant amount is \$3,000 and the Borough would not be responsible for any portion of it. The following is necessary for the application
 - Proof of ownership interest (tax sale certificate, deed, or resolution to acquire property by voluntary conveyance)
 - Resolution that public entity authorized to apply to HDSRF for the remediation of a discharge/ suspected discharge.
 - Comprehensive redevelopment plan or resolution (indicating a realistic opportunity exists to develop within three years following completion of the remediation).Both resolutions were approved by Council at the October 27, 2015 meeting. We received from the Borough's Tax Collector the tax sale certificate. The Mayor has signed the application and it has been submitted to the Funding Agency.

CAPITAL IMPROVEMENT AND GENERAL ENGINEERING PROJECTS

1. RECREATION COMPLEX CONCEPTUAL PLAN AND ESTIMATE

We have prepared a base plan of existing conditions and utilizing information from Council and the public meeting we developed two (2) concept plans for review and discussion purposes. Councilwoman Schwar met with the Recreation Association to obtain input. A Plan of Action was recently sent to Green Acres with timelines established. Enrich Hornung of David Hornung Architect Planner Inc made a presentation to Council at the June 25, 2013 Council Meeting regarding transformation of the pool into a skate park. There was also more discussion regarding opening the pool again. Additional discussion occurred at the February 25, 2014 Council meeting and opening of the pool is now being considered. Council needs to determine their plans for the pool and advise Green Acres. Council has decided to open the pool and they need to prepare a plan of action or make some type of progress with opening it as Green Acres is due to inspect the pool again in 2015.

We provided Councilwoman Grossman a hard copy and electronic copy of the previously prepared conceptual plan for the recreation complex for her review. There is a Trails Grant opportunity administered by the NJDEP Green Acres Program using Federal money in the amount of 1.5 Million Dollars that the Borough has authorized us to prepare for trails within the Recreational Complex. Council passed a resolution regarding its submission. We completed the application and submitted it the week of April 20 2015. An acknowledgement of receipt has been received by us from the NJDEP so it is being reviewed.

2 FIREHOUSE GENERATOR – FEMA MITIGATION GRANT

ESTIMATED COMPLETION OF DESIGN: February 2016

ESTIMATED COMPLETION OF CONSTRUCTION: July 2016

ESTIMATED CONSTRUCTION COST: \$75,000

FEMA GRANT AMOUNT: \$52,200

CONTRACTOR: To Be Determined

A letter of intent for the installation of an emergency generator was submitted to request a FEMA Mitigation Grant. The letter was submitted electronically on January 31, 2013. FEMA recently informed us they will provide a 50,000 grant with a 10 % match from the Borough. The Borough has accepted the grant with the understanding that if there are any additional funds, it would be provided to the Borough as part of the grant. We attended a seminar regarding the Grant on February 12, 2014. We need to complete the Grant Agreement on line now that we are a registered user. We have verified that there are no State Contracts for purchase and install; just purchase. Thus we will need to publically bid the work and have provided the Borough a proposal to prepare plans and publically advertise the project for construction bids. We continue to push for additional grant dollars. We completed additional documents consisting of photographs, site plan and a questionnaire and it was submitted to NJOEM as requested. Further information was recently requested and was provided. We have requested the Fire Companies annual budget which NJOEM also desires. The NJOEM has now requested further information on the Firehouse person capacity and square footage and we provided it to them on April 10, 2015. The Grant has been received in the amount of \$111,739.00. Council has authorized us to perform the engineering services for the project. We attended a kick-off meeting with NJOEM and before any work can be done the

agreement needs to be signed in duplicate and send to NJOEM. Recent correspondence has indicated that the funding amount announced was a mistake. A revised agreement has been provided for NJOEM and the agreement has been executed by the Borough. We are preparing construction documents for public bidding. The documents are approximately 75 % complete and we expect to request authorization to advertise for bids from Council in February 2016.

3. SCHLEY AVENUE SIDEWALK IMPROVEMENTS - NJDOT SAFE ROUTES TO SCHOOL PHASE II (West Vulcanite Avenue to North Boulevard)

ESTIMATED COMPLETION OF DESIGN: Complete

ESTIMATED COMPLETION OF CONSTRUCTION: August 2016

ESTIMATED CONSTRUCTION COST: \$185,000

NJDOT GRANT AMOUNT: \$200,000.00

CONTRACTOR: To Be Determined

We were authorized by the Borough to proceed with the Engineering. The sidewalk lays out better on the west side as there are far less obstructions. We performed a field review with Councilman Seiss and the one (1) of the two obstructions on the west side (large tree) has been removed by the homeowner. The second obstruction (landscape and a tree) is being discussed between Councilman Seiss and the property owner. It was very evident that the sidewalk should be installed on the west side and that is the direction we are proceeding. We completed the procedures manual and transmitted to the NJDOT as per the grant requirements. The NJDOT provided comments on the Manual and it has been revised. The final copy will be sent to the NJDOT by the Borough certifying Borough compliance. The Draft CED and Preliminary Plans were sent to the NJDOT and they have approved us to advance both documents. A Public Hearing at the April 28, 2015 Council Meeting was held to finalize the CED. The CED and preliminary plans were sent to the NJDOT on May 19, 2015. We received comments from the NJDOT requesting photographs, revisions to the project narrative and additional information regarding the historic section 106 approval process. Items were sent to the NJDOT on July 2, 2015. The NJDOT has requested a resolution of support as part of the CED review and approval and it was approved by council t the October 27, 2015 council meeting and sent to the NJDOT. The review of the CED by the NJDOT Environmental Bureau is being pushed by the NJDOT Local Aid Bureau. The CED has been approved by the NJDOT Environmental Bureau and the NJDOT needs to interview the Borough's LPA prior to submission of final construction documents for NJDOT/FHWA review and approval. An organizational chart was sent to the NJDOT for formal approval of our procedures manual and scheduling of the interview. The interview has been scheduled with the NJDOT for January 28, 2015 at which time we will also provide the final documents to the NJDOT for review and federal authorization to advertise.

**4. FY 2015 NJDOT MUNICIPAL AID – RECONSTRUCTION OF 7th AVENUE – PHASE II
(Cement Alley to New Brunswick Avenue (State Route 122))**

ESTIMATED COMPLETION OF DESIGN: Complete

ESTIMATED COMPLETION OF CONSTRUCTION: May, 2016

ESTIMATED CONSTRUCTION COST: \$306,000.00

NJDOT GRANT AMOUNT: \$250,000.00

CONTRACTOR: To Be Determined

Council authorized the engineering at their April 28, 2015 meeting. Survey and base plans are completed. We performed a walk through with the Borough on July 10, 2015 and revised the construction documents. The construction documents are complete and were submitted to the NJDOT for approval to advertise the project for construction bids. We received NJDOT approval of the plans and specifications. A public hearing was held on January 11, 2016 at the Council Meeting and a resolution for advertisement was passed by council at the meeting as well. The project is currently advertised for public construction bids and bids will be received on February 3, 2016.

5. BENKE FIELD BLEACHER AND ROOF REPAIR

ESTIMATED COMPLETION OF DESIGN: Complete

ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined

ESTIMATED CONSTRUCTION COST: \$79,155.00

CONTRACTOR: To Be Determined

We performed a detailed site investigation and obtained necessary measurements. Due to making necessary modifications and actually designing them, the construction cost has increased from our original estimate from August of 2014 when we originally performed a structural inspection of it. The construction documents are complete and were presented to Council at the October 27, 2015 Council Meeting. We are waiting for authorization from Council to publicly advertise for construction bids. Council has contracted to remove the roof in its entirety including timber framing and the work is completed.

WATER PROJECTS

1. WATER SOFTENER UPGRADES – FRACE STREET TREATMENT PLANT

The specifications to publicly bid the upgrades to the existing water softener are being prepared for public bid. The improvements include replacement of the softener resin, replacement of the vessel internals (backwash, acid distributor and underdrain distributor piping). The lining of the vessel will also be tested and repaired, as needed. The vessel manufacturer has estimated that it will take approximately 4-5 days for the work to be completed; not including any repairs to the lining. The pre-construction meeting with the contractor, Municipal Maintenance, is complete. The resin replacement is tentatively waiting on the coordination of the vessel replacement such that the replacement can be completed simultaneously. Coordination of the vessel construction has been completed. The original plant designer has requested to conduct two (2) inspections of the vessel. One inspection to confirm the vessel dimension and support locations. The second

inspection will be to review liner installation. The recommended liner has been forwarded to the vessel manufacturer. H&T has completed the inspection of the vessel. A copy of the report has been forwarded to GJ Oliver for their action. H&T has provided pricing for an NSF liner and painting of the tank exterior. We have requested additional quotes to install the liner as a basis of comparison. Council has requested that the vessel liner installation be considered an emergency. We have been directed to prepare an emergency contract letter for Council's review and consideration. The treatment plant must be taken offline during the removal of the existing vessel and installation of the new vessel. It is the intent to reconnect the existing piping and restore operation of the plant upon installation of the new vessel. The removal of the building roof by the Borough will need to be in place to remove the vessel. The contractor has provided a potential roof contractor – David Gibello 973-751-3800.

We have discussed shipping of the vessel to begin installation of the liner with H&T. They will coordinate the liner installation. However, they have stressed that once the liner install is complete, they will not hold the vessel and will not place the vessel in the building. Accordingly, all other elements of the project will need to be in place and be coordinated. Accordingly, we be scheduling a meeting with H&T, Municipal Maintenance (Vessel Install Contractor), PACT Construction (Piping & Valve contractor), and the roofing contractor to coordinate all elements of the work.

H&T is requiring a Purchase Order to begin the vessel work. We have requested the P.O. and are waiting on receipt. It should be noted that H&T will hold their prices until the end of June when fees will be increased. We have notified H&T and the installation contractor, Municipal Maintenance, of the pending PO.

Council should be aware that to begin the vessel work or the piping/valve project, the Borough will need to coordinate the removal and replacement of a new roof at Frace WTP and Alpha Street Well chlorine pump needs to be installed and run to confirm the well can supply the high summer demands.

The installation of the new vessel and media is complete. Start up is tentatively scheduled for Tuesday February 9th; pending confirmation by H&T.

2. TREATMENT PLANT – REDUNDANCY DESIGN

Permitting plans, specifications and engineering report are being prepared for submission to the NJDEP. We met the Director of Public Works and Licensed Operator for review of the proposed features, layout and operational scenarios. Permit application has been submitted to the NJDEP for review and comment. Application has been deemed complete and the review has commenced. The NJDEP has requested additional information regarding the Alpha Water System. Bids were received on October 16th. The bid tabulation has been forwarded. Bids were received on March 18th. Bid results have been submitted for consideration by Mayor and Council for award. At the direction of Council, work on this project has been suspended until further direction. We have met with the Director of Public Works and CFO to discuss moving forward with this project. We have provided estimated construction costs to re-advertise the project with a reduced scope. We have been directed that this project is on hold. We will revise the project documents and re-advertise the project upon direction from Council. It is our recommendation that this project be awarded so it may be completed in conjunction with the

piping and valve project. At the request of Council, we have prepared a proposal to re-advertise the project with a reduced scope or “value engineer” the project. Council has authorized us to revise the contract documents to reduce the project scope

Our office has provided the formal quotation provided by PACT Two for the completion of the redundancy project. We have forwarded this information for consideration by Council.

Council has awarded the Redundancy Project to PACT Two. Contracts have been reviewed and additional documentation has been requested from PACT for finalization of contracts for signature. We anticipate additional documents to be provided this week by PACT and contracts will be forwarded for signature.

3. SYSTEM CONTROL UPGRADES

We have completed an inventory of the three (3) well houses to develop an outline of equipment to be controlled via SCADA. NB Controls is currently developing a list of equipment required to make the upgrades with an estimated cost. This work has been included in the Piping and Valve Upgrades and the redundancy project. The SCADA shop drawings have been submitted by the contractor. A coordination meeting will be conducted with SCADA programmer and Borough prior to approval of shop drawing. It is the intent that the SCADA coordination/programming will begin before the piping and valve project begins.

This work is being completed during the piping and valve project. A portion is also included in the Redundancy project.

4. PIPING & VALVE UPGRADES – FRACE STREET TREATMENT PLANT

We are currently preparing plans and specifications to upgrade the existing piping and valves at the Frace Treatment Plant. This work is being scheduled to be completed immediately upon installation of the pressure vessel and water softener resin. We will be meeting with the Director of Public Works and Operator prior to advertisement to review the plans. At the direction of Council, we have met with H&T Inc. to develop an inventory list of all equipment to be installed during the piping and valve upgrades. H&T has the original plant drawings to assist in developing the equipment inventory. This project is required to be completed in sequence with the vessel replacement. Upon completion of the water vessel installation, the piping and valve project will be coordinated. It is recommended that this work be completed in conjunction with the redundancy project work.

The material list inventoried and provided by H&T under a direct contract with the Borough was lacking a gasket. This delayed the progress of the project. Accordingly, we requested that PACT Two complete the remainder of the electrical work out of sequence so that the Borough may insulate the roof and the building heater could be activated. This work has been completed.

Start up is tentatively scheduled for Tuesday February 9th at 9:30 am; pending confirmation by H&T.

5. DISINFECTION MODIFICATIONS – FRACE STREET

We are currently working on the disinfection modifications for Frace Street WTP. It is proposed to utilize an Accutab system which makes chlorine, as needed, from calcium hypochlorite “pucks”. This system will replace the existing chlorine gas system.

We are working with the operator to obtain current analytical data from the raw and treated water streams. This information will assist us in selecting the appropriate chlorination “puck”. After sizing and selecting of the disinfection equipment, we are required to submit this information to the NJDEP to obtain a permit. This permit is required for any changes in disinfection.