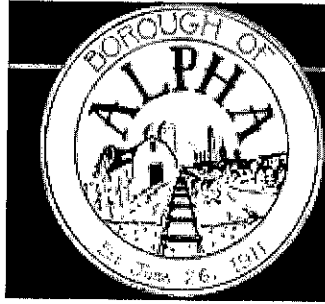




## **BOROUGH OF ALPHA**

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

**September 8, 2020**

**PREPARED BY:**

**REMINGTON & VERNICK ENGINEERS  
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HADDONFIELD, NEW JERSEY 08033  
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**REMINGTON  
& VERNICK  
ENGINEERS**

## **ACTION ITEMS**

1. Grease Program Reimplementation Action Required – See subsequent information.

## **ROADWAY AND GENERAL ENGINEERING PROJECTS**

### **1. HOMA LANE DRAINAGE IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: To Be Determined**

**ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined**

**ESTIMATED CONSTRUCTION COST: \$250,000**

**CONTRACTOR: To Be Determined**

Field survey including the wetlands delineation is complete. Base plans are complete, and we began the hydraulic modeling. A NJDEP pre-application meeting was held on September 26, 2016. Hydraulic design and the plans are complete. The Borough needs to provide the certified property owner list within 200 feet of the project for notification under the NJDEP application requirement. A draft Phase IA study has been completed and will be submitted with the NJDEP application. The Phase IA is recommending a Phase IB but the NJDEP will make that determination. The plans and NJDEP application are complete. The certified property owner list has been completed and sent to our office. The NJDEP applications were submitted to the NJDEP on January 25, 2017. We received comments from the NJDEP on our submitted application and we are addressing the comments. Mitigation requirements are being reviewed by the NJDEP. A meeting occurred with the NJDEP for May 3, 2017 NJDEP to discuss the mitigation. The NJDEP new rule changes will allow the culverts to be replaced under Homa Lane assuming it can be proven Homa Lane overtops during small rain events. This will be a less expensive option for the Borough but will need permission from the Homa's to replace the culvert. Discussion with the Homa's need to occur to determine if permission will be granted to replace the culvert. A letter was received from The NJDEP and a response was sent from our office requesting the application remain active. A meeting was held with Ken Homa, property owner and they are willing to give an easement to the Borough for the replacement of the pipe at Homa Lane. Council authorized the preliminary engineering phase of the project at their October 22, 2019 Council Meeting. Survey and base have been completed. The hydraulic analysis has been completed and an approximate 2.5 feet high by 10 feet wide would be the most physically practical to install and have any significant upstream flooding benefit. Council authorized us to submit to the NJDEP for a pre-application meeting to discuss our approach and analysis. The meeting was held on April 29, 2020 with positive results as the ideal of new culvert is acceptable to the NJDEP. Council authorized RVE to advance the project with the NJDEP Permit application preparation/submission at their May 12, 2020 meeting. Permit Application is complete and waiting for Property Owner (Homa) to sign the application form. Proposed easement description will be prepared once plans are complete for NJDEP submission.

**2. INDUSTRIAL DRIVE/EDGE ROAD CONNECTOR ROAD**

**ESTIMATED COMPLETION OF DESIGN: December 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: August 2020**  
**CONSTRUCTION COST: \$505,194.46**  
**CONTRACTOR: Top Line Construction**

We were authorized for the engineering services by Council at the November 13, 2017 Council Meeting. A preliminary layout was prepared, and we met with the adjacent property owners to discuss and it was agreed by all a 70-foot ROW will be established. Meets and bounds descriptions are being prepared for the dedication to the Borough. We met with Hunterdon Transformer to review the plans and discuss various issues effecting their property ROW is being secured through deeds of dedication by the Borough Attorney. Council authorized RVE to advertise the project for Public Construction Bids at the February 19, 2019 Council Meeting. Warren County SCD application was submitted for approval to the Soil Conservation district. Council awarded a construction contract to Top Line Construction at their April 23, 2019 meeting in the amount of \$505,194.46. A pre-construction meeting was held on May 16, 2019 and the notice to proceed was given on May 20, 2019. Remaining work will be completed upon substantial construction of adjacent warehouse development. A temporary asphalt curb was installed to deter erosion prior to the development of the adjacent property. Construction will be completed in the Spring of 2020 since the adjacent development has not constructed their storm sewer system which impacts the completion of the Borough's contract. Top Line has completed the project and a punchlist is being generated.

**3. 2019 ROAD PROGRAM (NORTH BOULEVARD PHASE III AND SOUTH BOULEVARD)**

**ESTIMATED COMPLETION OF DESIGN: May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: \$658,524.75**  
**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Final documents are complete, and they have been submitted to the NJDOT for review and comment prior to being advertised for construction bids. The NJDOT has finalized the grant agreement and placed into their system. Documents submitted to the NJDOT have been reviewed and approved. The Project has been advertised for construction bids and bids were received on August 13, 2019. The bids exceeded the engineers estimate and Borough's budget. The low bidder has agreed in writing to hold their bid for Council to bond for the money and make a construction contract award in January 2020. Council Awarded the construction contract to Capitol Paving at their January 14, 2020 meeting. Contracts have been prepared and fully executed by all parties. Construction is complete and minor punchlist items remain. Close-out of the project is proceeding including NJDOT documentation for remaining grant reimbursement.

**4. MUNICIPAL POOL DEMOLITION**

**ESTIMATED COMPLETION OF DESIGN: March 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: March 2020**  
**CONSTRUCTION COST: \$78,599.00**  
**CONTRACTOR: CMS Services**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Construction documents are complete, and the project was advertised for construction bids. Bids were received and there was a three-way tie for the low bid of \$55,000. Project was re-advertised with changes to the scope of work as directed and one acceptable bid was received at \$128,000. Council rejected the bids and a meeting was held with prior bidders to discuss submission of a best and final price. The prices were submitted to Sean Canning on Monday July 8, 2019 at 10 AM and CMS Services, LLC were the low bid submitted at \$78,599.00. Council awarded the construction contract at their October 7, 2019 Council Meeting. A preconstruction Meeting was held on October 31, 2019. Contracts have been prepared and executed by the contractor and are with the Borough for full execution. Contracts have been fully executed and returned to all parties. The Notice to Proceed was issued for February 10, 2020. Construction is complete including punchlist. Project close-out is pending submission of a maintenance bond from the contractor.

**5. 2020 ROAD PROGRAM (5<sup>TH</sup> AVENUE PHASE II AND EAST CENTRAL AVENUE)**

**ESTIMATED COMPLETION OF DESIGN: November 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**

**CONSTRUCTION COST: \$408,312.65**

**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their May 14, 2019 Council Meeting. Asphalt cores were taken along East Central Avenue. Survey has been completed. Existing condition base plans have been prepared. Final construction plans and specifications are complete. Plans, Specifications, Design Certification and Estimate have been sent to the NJDOT Local Aid for review and approval prior to public advertisement for construction bids. NJDOT approved the construction documents. Bids were received on February 20, 2020 and Base Bid 2 (5<sup>th</sup> Avenue, Davis Street and E Central Avenue) was awarded to Capitol Paving & Contracting at the February 25, 2020 Council Meeting. Contracts have been fully executed. Construction is complete. Close-out of the project is proceeding including NJDOT documentation for remaining grant reimbursement.

**6. STATE ROUTE 122 AND INDUSTRIAL DRIVE INTERSECTION IMPROVEMENTS (NJDOT LOCAL AID FREIGHT GRANT)**

**ESTIMATED COMPLETION OF DESIGN: April 2020**

**ESTIMATED COMPLETION OF CONSTRUCTION: November 2020**

**CONSTRUCTION COST: To Be Determined**

**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. The left turn traffic analysis is in progress. Survey is completed and base plans have been prepared. A left turn onto Industrial Drive from Rt 122 westbound is warranted. Preliminary plans are being prepared. A meeting was held with the adjacent property owner to discuss property dedication needed for the proposed improvements.

**7. RECONSTRUCTION OF 5<sup>TH</sup> AVENUE – PHASE III (NJDOT LOCAL AID FY 2020 GRANT)**

**ESTIMATED COMPLETION OF DESIGN: March 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: August 2020**  
**CONSTRUCTION COST: \$252,889.60**  
**CONTRACTOR: South State, Inc**

Borough Council authorized the engineering services at their January 14, 2020 Council Meeting. Survey and base plans are completed. Final documents are near completion and we will be submitting to the NJDOT for their review and concurrence. Final Construction documents have been sent to the NJDOT for review and approval prior to advertisement for construction bids. NJDOT approval was received and project was advertised and bids received. Council awarded a construction contract to South State, Inc at their June 23, 2020 meeting. Contracts have been sent to the contractor. A preconstruction meeting was held on July 9, 2020 and a Notice To Proceed (NTP) was issued on of July 27, 2020. Construction should be complete before Labor Day or right after it.

**8. INDUSTRIAL ROAD EXTENSION**

**ESTIMATED COMPLETION OF DESIGN: November 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: April 2021**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. Proposed roadway baseline is complete and field survey is complete. Base plans have been completed and the preliminary plans complete. Final plans are being prepared.

**9. NJPDES PERMIT – INDUSTRIAL DRIVE LANDFILL DISRUPTION PERMIT**

**ESTIMATED COMPLETION OF DESIGN: January 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The next phase of the work has been authorized and initiated. A status meeting will be scheduled for early November to review progress and initial results. Field work is complete, and we are awaiting laboratory results. Final report was submitted to NJDEP on January 15, 2020.

**10. NJPDES PERMIT – INDUSTRIAL DRIVE MAJOR LANDFILL DISRUPTION PERMIT**

**ESTIMATED COMPLETION OF DESIGN: February 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

This phase of the work has been authorized in December 2019 and initiated. This was submitted to NJDEP on March 26, 2020 for their consideration. NJDEP has requested additional survey information that has been submitted.

## **WATER PROJECTS**

1. **2018 WATER UTILITY IMPROVEMENTS**  
**ESTIMATED COMPLETION OF DESIGN: March 2, 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: September 2018**  
**ESTIMATED CONSTRUCTION COST: TBD**  
**CONTRACTOR: TBD**

The County has issued the permit. The work had to be postponed due to the County schedule. A meeting was held October 16<sup>th</sup> to review the schedule with the contractor and the County. The County restoration was scheduled for the following week. Final connections are to be arranged with homeowners.

2. **ASSET MANAGEMENT PLAN (AMP)**  
**ESTIMATED COMPLETION OF DESIGN: Final Review – May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The AMP is complete. A draft report will be provided this week for review with the Borough at the October 16<sup>th</sup> meeting. A draft report has been submitted to the Borough.

### **ASSET MANAGEMENT PLAN (GIS)**

**ESTIMATED COMPLETION OF DESIGN: Three weeks after receipt of Borough As-built documents and Comments**

A review conference call was held on 2/5/2020 and follow-up as-built field book document of the 1937 water system was found and provided to RVE by the Borough on 2/13/2020. We have scanned, inventoried, and will review, verify, and incorporate these water assets into the GIS water system layer of Alpha Borough. The as-built field book document is broken down by street and include, but not limited to, the following:

- Water main pipes
- Water main line valves
- Water laterals
- Water lateral service valves
- Water fittings
- Fire Hydrants
- Fire hydrant valves

The lengths and sizes are shown, and we will review and add to the water system mapping where available.

The DPW was provided the water system maps with and without aerial mapping displayed for their review and reference to be sure all available comments are addressed and confirm the water assets found. We have received two marked-up maps with comments from this set on 5/21/2020, which were applied and returned with additional questions on 6/2/2020. DPW is sending additional sheets with water service locations as they are completed. When completed, we will

use this to identify and target any missing/obscured areas that need to field verified and collected to complete this phase. There is a lot more work to do before we can field verify, this information is still ongoing.

**3. FRACE WTP O&M MANUAL  
ESTIMATED COMPLETION OF DESIGN: January 2020**

The development of the Frace WTP O&M Manual has been authorized. We are currently preparing the outline and will be meeting with the Borough and Operator to develop sequencing scenarios in May. Submission for Borough review is anticipated by September 2020.

**4. INDUSTRIAL DRIVE WATER TANK THICKNESS STUDY**

RVE has solicited a quote from a vendor, Corrosion Control in the amount of \$5800 to perform a study of the thickness of the Industrial Drive Water Tank. Council had PO issued to Vendor.

**5. Leak Detection**

A round of leak detection was performed in the past month. There were issues identified and corrected but the excessive water use has not been resolved.

**6. Services**

RVE has requested that the Borough review the water service records and provide a number of the existing lead whip or galvanized services that remain in the Borough. This is being requested by NJDEP.

**SANITARY PROJECTS**

**1. WMP AMENDMENT FOR PROPERTIES SOUTH OF ROUTE 78  
ESTIMATED PRELIMINARY SUBMISSION: JUNE 2020**

The Properties South of Route 78 are proposed to be incorporated in the Wastewater Management Plan for the Borough of Alpha. This will involve the approval of the Highlands Commission, Borough of Phillipsburg and NJDEP. RVE has prepared a Draft report and associated mapping for this project to develop public input, and it is available for consideration by Council.

**MISCELLANEOUS PROJECTS**

**1. GENERAL ISSUES - GENERAL ENGINEERING**

1. Odor Control Device specified for Wet Well Exhaust Fan. Unit will require minor ductwork and piping and a VFD to reduce the Exhaust Fan Speed. Information provided to the Borough for obtaining quotes.

2. Grease Blockage event weekend of June 6, 2020. Recommendation to reimplement a Grease program with Borough Commercial and Institutional users. The Event of June 6 resulted in a Corrective Action letter to NJDEP that identified the Grease Program as the Action.
3. Sanitary Sewer Force Main Air relief valve needs to be replaced at Flirt Alley and the other two locations need to be evaluated.
4. Long term solution for Comminutor should be evaluated. A spare should be purchased.
5. Pump Variable Frequency Drives (VFD) failed and needed to be replaced on an emergency basis. The VFDs control the start and stopping of the pumps and are critical to the operation of the pump station. The pump station was placed on emergency bypass during the replacement of the VFDs. There was an overflow incident until the bypass pumps could be installed that was reported to NJDEP. It is anticipated that work will be complete the week of September 7, 2020.
6. An air release valve for the Frace Street WTP softener vessel was sized for the Borough.

## 2. LEIGH FUEL PROPERTY INVESTIGATION

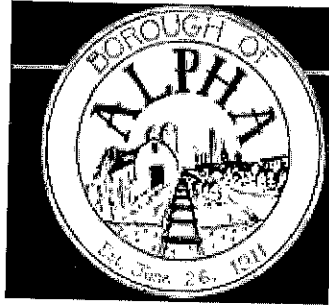
The Leigh Fuel property preliminary assessment (PA) was authorized by Council at the November 28, 2018 meeting and the grant documents have been executed. A site visit was conducted, and we performed a desk top survey of the property. The PA is complete and has been submitted to the NJDEP. A proposal had been provided to Council for their consideration of advancing the assessment through additional grant dollars. The Grant Application has been submitted to the NJDEP on January 27, 2020.

## 3. Tax Map Maintenance/Revisions for the Borough of Alpha for Tax Year 2020

The 2020 Tax Map Maintenance proposal was submitted and approved by the Borough per resolution 2020-41, dated 1/14/2020 per our proposal dated 11/15/2019. This work will be performed over the course of the year and will be filed with County Tax Board No Later Than January 2021.

## 4. GIS Hosting of Municipal Map Layers for the Borough of Alpha

The Mayor has requested that RVE prepare and present a demonstration of our GIS municipal map hosting capabilities for both the public and municipal departments. Now that the Borough has several GIS map layers generated and maintained, this information can be utilized by various departments such as Code Enforcement, Tax Assessor, Construction Official, DPW, etc in the performance of their duties and task completion. RVE would like to schedule a presentation for late July or early August 2020, to demonstrate the hosting capabilities. This presentation can be either in person or virtually presented depending on COVID meeting restrictions in place at that time. We will notify all departments once the meeting date is determined.



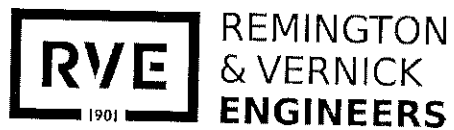
## **BOROUGH OF ALPHA**

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

**October 13, 2020**

**PREPARED BY:**

**REMINGTON & VERNICK ENGINEERS  
232 KINGS HIGHWAY EAST  
HADDONFIELD, NEW JERSEY 08033  
(856) 795-9595  
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## **ACTION ITEMS**

### **ROADWAY AND GENERAL ENGINEERING PROJECTS**

#### **1. HOMA LANE DRAINAGE IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: To Be Determined**

**ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined**

**ESTIMATED CONSTRUCTION COST: \$250,000**

**CONTRACTOR: To Be Determined**

Field survey including the wetlands delineation is complete. Base plans are complete, and we began the hydraulic modeling. A NJDEP pre-application meeting was held on September 26, 2016. Hydraulic design and the plans are complete. The Borough needs to provide the certified property owner list within 200 feet of the project for notification under the NJDEP application requirement. A draft Phase IA study has been completed and will be submitted with the NJDEP application. The Phase IA is recommending a Phase IB but the NJDEP will make that determination. The plans and NJDEP application are complete. The certified property owner list has been completed and sent to our office. The NJDEP applications were submitted to the NJDEP on January 25, 2017. We received comments from the NJDEP on our submitted application and we are addressing the comments. Mitigation requirements are being reviewed by the NJDEP. A meeting occurred with the NJDEP for May 3, 2017 NJDEP to discuss the mitigation. The NJDEP new rule changes will allow the culverts to be replaced under Homa Lane assuming it can be proven Homa Lane overtops during small rain events. This will be a less expensive option for the Borough but will need permission from the Homa's to replace the culvert. Discussion with the Homa's need to occur to determine if permission will be granted to replace the culvert. A letter was received from The NJDEP and a response was sent from our office requesting the application remain active. A meeting was held with Ken Homa, property owner and they are willing to give an easement to the Borough for the replacement of the pipe at Homa Lane. Council authorized the preliminary engineering phase of the project at their October 22, 2019 Council Meeting. Survey and base have been completed. The hydraulic analysis has been completed and an approximate 2.5 feet high by 10 feet wide would be the most physically practical to install and have any significant upstream flooding benefit. Council authorized us to submit to the NJDEP for a pre-application meeting to discuss our approach and analysis. The meeting was held on April 29, 2020 with positive results as the ideal of new culvert is acceptable to the NJDEP. Council authorized RVE to advance the project with the NJDEP Permit application reparation/submission at their May 12, 2020 meeting. Permit Application is complete and waiting for Property Owner (Homa) to sign the application form. Proposed easement description will be prepared once plans are complete for NJDEP submission.

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**ESTIMATED COMPLETION OF CONSTRUCTION: November 2020**  
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**CONTRACTOR: To Be Determined**

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plans are being prepared. A meeting was held with the adjacent property owner to discuss property dedication needed for the proposed improvements.

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**6. INDUSTRIAL ROAD EXTENSION**

**ESTIMATED COMPLETION OF DESIGN: November 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: April 2021**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. Proposed roadway baseline is complete and field survey is complete. Base plans have been completed and the preliminary plans complete. Final plans are complete and have been submitted to the NJDEP.

**7. NJPDES PERMIT – INDUSTRIAL DRIVE LANDFILL DISRUPTION PERMIT**

**ESTIMATED COMPLETION OF DESIGN: January 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The next phase of the work has been authorized and initiated. A status meeting will be scheduled for early November to review progress and initial results. Field work is complete, and we are awaiting laboratory results. Final report was submitted to NJDEP on January 15, 2020.

**8. NJPDES PERMIT – INDUSTRIAL DRIVE MAJOR LANDFILL DISRUPTION PERMIT**

**ESTIMATED COMPLETION OF DESIGN: February 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

This phase of the work has been authorized in December 2019 and initiated. This was submitted to NJDEP on March 26, 2020 for their consideration. NJDEP has requested additional survey information that has been submitted.

## **WATER PROJECTS**

1. **2018 WATER UTILITY IMPROVEMENTS**  
**ESTIMATED COMPLETION OF DESIGN: March 2, 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: September 2018**  
**ESTIMATED CONSTRUCTION COST: TBD**  
**CONTRACTOR: TBD**

The County has issued the permit. The work had to be postponed due to the County schedule. A meeting was held October 16<sup>th</sup> to review the schedule with the contractor and the County. The County restoration was scheduled for the following week. Final connections are to be arranged with homeowners.

2. **ASSET MANAGEMENT PLAN (AMP)**  
**ESTIMATED COMPLETION OF DESIGN: Final Review – May 2019**  
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### **ASSET MANAGEMENT PLAN (GIS)**

**ESTIMATED COMPLETION OF DESIGN: Three weeks after receipt of Borough As-built documents and Comments**

A review conference call was held on 2/5/2020 and follow-up as-built field book document of the 1937 water system was found and provided to RVE by the Borough on 2/13/2020. We have scanned, inventoried, and will review, verify, and incorporate these water assets into the GIS water system layer of Alpha Borough. The as-built field book document is broken down by street and include, but not limited to, the following:

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The lengths and sizes are shown, and we will review and add to the water system mapping where available.

The DPW was provided the water system maps with and without aerial mapping displayed for their review and reference to be sure all available comments are addressed and confirm the water assets found. We have received two marked-up maps with comments from this set on 5/21/2020, which were applied and returned with additional questions on 6/2/2020. DPW is sending additional sheets with water service locations as they are completed. When completed, we will use this to identify and target any missing/obscured areas that need to be field verified and collected to complete this phase. Valve location and fire hydrants were field located and incorporated into the GIS map.

**3. FRACE WTP O&M MANUAL**  
**ESTIMATED COMPLETION OF DESIGN: January 2020**

The development of the Frace WTP O&M Manual has been authorized. We are currently preparing the outline and will be meeting with the Borough and Operator to develop sequencing scenarios in May. Submission for Borough review is anticipated by November 2020.

**4. INDUSTRIAL DRIVE WATER TANK THICKNESS STUDY**

RVE has solicited a quote from a vendor, Corrosion Control in the amount of \$5800 to perform a study of the thickness of the Industrial Drive Water Tank. Work performed. See separate letter to Council.

**5. Leak Detection**

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**6. Services**

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**SANITARY PROJECTS**

**1. WMP AMENDMENT FOR PROPERTIES SOUTH OF ROUTE 78**  
**ESTIMATED PRELIMINARY SUBMISSION: JUNE 2020**

The Properties South of Route 78 are proposed to be incorporated in the Wastewater Management Plan for the Borough of Alpha. This will involve the approval of the Highlands Commission, Borough of Phillipsburg and NJDEP. RVE has prepared a Draft report and associated mapping for this project to develop public input, and it is available for consideration by Council.

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### **1. GENERAL ISSUES - GENERAL ENGINEERING**

1. Odor Control Device specified for Wet Well Exhaust Fan. Unit will require minor ductwork and piping and a VFD to reduce the Exhaust Fan Speed. Information provided to the Borough for obtaining quotes.
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4. Long term solution for Comminutor should be evaluated. A spare should be purchased.
5. An air release valve for the Frace Street WTP softener vessel was sized for the Borough.

### **2. LEIGH FUEL PROPERTY INVESTIGATION**

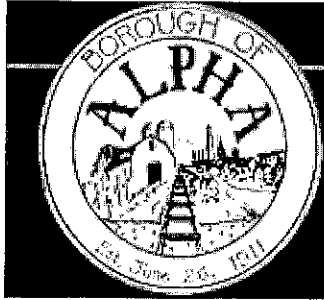
The Leigh Fuel property preliminary assessment (PA) was authorized by Council at the November 28, 2018 meeting and the grant documents have been executed. A site visit was conducted, and we performed a desk top survey of the property. The PA is complete and has been submitted to the NJDEP. A proposal had been provided to Council for their consideration of advancing the assessment through additional grant dollars. The Grant Application has been submitted to the NJDEP on January 27, 2020.

### **3. Tax Map Maintenance/Revisions for the Borough of Alpha for Tax Year 2020**

The 2020 Tax Map Maintenance proposal was submitted and approved by the Borough per resolution 2020-41, dated 1/14/2020 per our proposal dated 11/15/2019. This work will be performed over the course of the year and will be filed with County Tax Board No Later Than January 2021.

### **4. GIS Hosting of Municipal Map Layers for the Borough of Alpha**

The Mayor has requested that RVE prepare and present a demonstration of our GIS municipal map hosting capabilities for both the public and municipal departments. Now that the Borough has several GIS map layers generated and maintained, this information can be utilized by various departments such as Code Enforcement, Tax Assessor, Construction Official, DPW, etc. in the performance of their duties and task completion. RVE would like to schedule a presentation for late July or early August 2020, to demonstrate the hosting capabilities. This presentation can be either in person or virtually presented depending on COVID meeting restrictions in place at that time. We will notify all departments once the meeting date is determined.



## **BOROUGH OF ALPHA**

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

**October 13, 2020**

**PREPARED BY:**

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



**REMINGTON  
& VERNICK  
ENGINEERS**

## **ACTION ITEMS**

### **ROADWAY AND GENERAL ENGINEERING PROJECTS**

#### **1. HOMA LANE DRAINAGE IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: To Be Determined**  
**ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined**  
**ESTIMATED CONSTRUCTION COST: \$250,000**  
**CONTRACTOR: To Be Determined**

Field survey including the wetlands delineation is complete. Base plans are complete, and we began the hydraulic modeling. A NJDEP pre-application meeting was held on September 26, 2016. Hydraulic design and the plans are complete. The Borough needs to provide the certified property owner list within 200 feet of the project for notification under the NJDEP application requirement. A draft Phase IA study has been completed and will be submitted with the NJDEP application. The Phase IA is recommending a Phase IB but the NJDEP will make that determination. The plans and NJDEP application are complete. The certified property owner list has been completed and sent to our office. The NJDEP applications were submitted to the NJDEP on January 25, 2017. We received comments from the NJDEP on our submitted application and we are addressing the comments. Mitigation requirements are being reviewed by the NJDEP. A meeting occurred with the NJDEP for May 3, 2017 NJDEP to discuss the mitigation. The NJDEP new rule changes will allow the culverts to be replaced under Homa Lane assuming it can be proven Homa Lane overtops during small rain events. This will be a less expensive option for the Borough but will need permission from the Homa's to replace the culvert. Discussion with the Homa's need to occur to determine if permission will be granted to replace the culvert. A letter was received from The NJDEP and a response was sent from our office requesting the application remain active. A meeting was held with Ken Homa, property owner and they are willing to give an easement to the Borough for the replacement of the pipe at Homa Lane. Council authorized the preliminary engineering phase of the project at their October 22, 2019 Council Meeting. Survey and base have been completed. The hydraulic analysis has been completed and an approximate 2.5 feet high by 10 feet wide would be the most physically practical to install and have any significant upstream flooding benefit. Council authorized us to submit to the NJDEP for a pre-application meeting to discuss our approach and analysis. The meeting was held on April 29, 2020 with positive results as the ideal of new culvert is acceptable to the NJDEP. Council authorized RVE to advance the project with the NJDEP Permit application preparation/submission at their May 12, 2020 meeting. Permit Application is complete and waiting for Property Owner (Homa) to sign the application form. Proposed easement description will be prepared once plans are complete for NJDEP submission.

**2. 2019 ROAD PROGRAM (NORTH BOULEVARD PHASE III AND SOUTH BOULEVARD)**

**ESTIMATED COMPLETION OF DESIGN: May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: \$658,524.75**  
**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Final documents are complete, and they have been submitted to the NJDOT for review and comment prior to being advertised for construction bids. The NJDOT has finalized the grant agreement and placed into their system. Documents submitted to the NJDOT have been reviewed and approved. The Project has been advertised for construction bids and bids were received on August 13, 2019. The bids exceeded the engineers estimate and Borough's budget. The low bidder has agreed in writing to hold their bid for Council to bond for the money and make a construction contract award in January 2020. Council Awarded the construction contract to Capitol Paving at their January 14, 2020 meeting, Contracts have been prepared and fully executed by all parties. Construction is complete and minor punchlist items remain. Close-out of the project is proceeding including NJDOT documentation for remaining grant reimbursement. NJDOT Final Inspection is pending.

**3. 2020 ROAD PROGRAM (5<sup>TH</sup> AVENUE PHASE II AND EAST CENTRAL AVENUE)**

**ESTIMATED COMPLETION OF DESIGN: November 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: \$408,312.65**  
**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their May 14, 2019 Council Meeting. Asphalt cores were taken along East Central Avenue. Survey has been completed. Existing condition base plans have been prepared. Final construction plans and specifications are complete. Plans, Specifications, Design Certification and Estimate have been sent to the NJDOT Local Aid for review and approval prior to public advertisement for construction bids. NJDOT approved the construction documents. Bids were received on February 20, 2020 and Base Bid 2 (5<sup>th</sup> Avenue, Davis Street and E Central Avenue) was awarded to Capitol Paving & Contracting at the February 25, 2020 Council Meeting. Contracts have been fully executed. Construction is complete. Close-out of the project is proceeding including NJDOT documentation for remaining grant reimbursement. NJDOT Final Inspection is pending.

**4. STATE ROUTE 122 AND INDUSTRIAL DRIVE INTERSECTION IMPROVEMENTS  
(NJDOT LOCAL AID FREIGHT GRANT)**

**ESTIMATED COMPLETION OF DESIGN: April 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: November 2020**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. The left turn traffic analysis is in progress. Survey is completed and base plans have been prepared. A left turn onto Industrial Drive from Rt 122 westbound is warranted. Preliminary

plans are being prepared. A meeting was held with the adjacent property owner to discuss property dedication needed for the proposed improvements.

**5. RECONSTRUCTION OF 5<sup>TH</sup> AVENUE – PHASE III (NJDOT LOCAL AID FY 2020 GRANT)**

**ESTIMATED COMPLETION OF DESIGN: March 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: August 2020**  
**CONSTRUCTION COST: \$252,889.60**  
**CONTRACTOR: South State, Inc**

Borough Council authorized the engineering services at their January 14, 2020 Council Meeting. Survey and base plans are completed. Final documents are near completion and we will be submitting to the NJDOT for their review and concurrence. Final Construction documents have been sent to the NJDOT for review and approval prior to advertisement for construction bids. NJDOT approval was received and project was advertised and bids received. Council awarded a construction contract to South State, Inc at their June 23, 2020 meeting. Contracts have been sent to the contractor. A preconstruction meeting was held on July 9, 2020 and a Notice To Proceed (NTP) was issued on of July 27, 2020. Construction is complete and punchlist and close-out is proceeding. Final NJDOT Inspection is pending.

**6. INDUSTRIAL ROAD EXTENSION**

**ESTIMATED COMPLETION OF DESIGN: November 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: April 2021**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. Proposed roadway baseline is complete and field survey is complete. Base plans have been completed and the preliminary plans complete. Final plans are complete and have been submitted to the NJDEP.

**7. NJPDES PERMIT – INDUSTRIAL DRIVE LANDFILL DISRUPTION PERMIT**  
**ESTIMATED COMPLETION OF DESIGN: January 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The next phase of the work has been authorized and initiated. A status meeting will be scheduled for early November to review progress and initial results. Field work is complete, and we are awaiting laboratory results. Final report was submitted to NJDEP on January 15, 2020.

**8. NJPDES PERMIT – INDUSTRIAL DRIVE MAJOR LANDFILL DISRUPTION PERMIT**  
**ESTIMATED COMPLETION OF DESIGN: February 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

This phase of the work has been authorized in December 2019 and initiated. This was submitted to NJDEP on March 26, 2020 for their consideration. NJDEP has requested additional survey information that has been submitted.

## **WATER PROJECTS**

1. **2018 WATER UTILITY IMPROVEMENTS**  
**ESTIMATED COMPLETION OF DESIGN: March 2, 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: September 2018**  
**ESTIMATED CONSTRUCTION COST: TBD**  
**CONTRACTOR: TBD**

The County has issued the permit. The work had to be postponed due to the County schedule. A meeting was held October 16<sup>th</sup> to review the schedule with the contractor and the County. The County restoration was scheduled for the following week. Final connections are to be arranged with homeowners.

2. **ASSET MANAGEMENT PLAN (AMP)**  
**ESTIMATED COMPLETION OF DESIGN: Final Review – May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The AMP is complete. A draft report will be provided this week for review with the Borough at the October 16<sup>th</sup> meeting. A draft report has been submitted to the Borough.

### **ASSET MANAGEMENT PLAN (GIS)** **ESTIMATED COMPLETION OF DESIGN: Three weeks after receipt of Borough As-built documents and Comments**

A review conference call was held on 2/5/2020 and follow-up as-built field book document of the 1937 water system was found and provided to RVE by the Borough on 2/13/2020. We have scanned, inventoried, and will review, verify, and incorporate these water assets into the GIS water system layer of Alpha Borough. The as-built field book document is broken down by street and include, but not limited to, the following:

- Water main pipes
- Water main line valves
- Water laterals
- Water lateral service valves
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The lengths and sizes are shown, and we will review and add to the water system mapping where available.

The DPW was provided the water system maps with and without aerial mapping displayed for their review and reference to be sure all available comments are addressed and confirm the water assets found. We have received two marked-up maps with comments from this set on 5/21/2020, which were applied and returned with additional questions on 6/2/2020. DPW is sending additional sheets with water service locations as they are completed. When completed, we will use this to identify and target any missing/obscured areas that need to be field verified and collected to complete this phase. Valve location and fire hydrants were field located and incorporated into the GIS map.

3. **FRACE WTP O&M MANUAL**  
**ESTIMATED COMPLETION OF DESIGN: January 2020**

The development of the Frace WTP O&M Manual has been authorized. We are currently preparing the outline and will be meeting with the Borough and Operator to develop sequencing scenarios in May. Submission for Borough review is anticipated by November 2020.

4. **INDUSTRIAL DRIVE WATER TANK THICKNESS STUDY**

RVE has solicited a quote from a vendor, Corrosion Control in the amount of \$5800 to perform a study of the thickness of the Industrial Drive Water Tank. Work performed. See separate letter to Council.

5. **Leak Detection**

A round of leak detection was performed in the past month. There were issues identified and corrected but the excessive water use has not been resolved.

6. **Services**

RVE has requested that the Borough review the water service records and provide a number of the existing lead whip or galvanized services that remain in the Borough. This is being requested by NJDEP.

## **SANITARY PROJECTS**

1. **WMP AMENDMENT FOR PROPERTIES SOUTH OF ROUTE 78**  
**ESTIMATED PRELIMINARY SUBMISSION: JUNE 2020**

The Properties South of Route 78 are proposed to be incorporated in the Wastewater Management Plan for the Borough of Alpha. This will involve the approval of the Highlands Commission, Borough of Phillipsburg and NJDEP. RVE has prepared a Draft report and associated mapping for this project to develop public input, and it is available for consideration by Council.

## **MISCELLANEOUS PROJECTS**

### **1. GENERAL ISSUES - GENERAL ENGINEERING**

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2. Grease Blockage event weekend of June 6, 2020. **Recommendation to reimplement a Grease program with Borough Commercial and Institutional users.** The Event of June 6 resulted in a Corrective Action letter to NJDEP that identified the Grease Program as the Action.
3. Sanitary Sewer Force Main Air relief valve needs to be replaced at Flirt Alley and the other two locations need to be evaluated.
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## Deputy Clerk

---

**From:** Frank Seney <Frank.Seney@rve.com>  
**Sent:** Monday, October 26, 2020 6:13 AM  
**To:** CFO  
**Cc:** Sidney Gorham; Melissa Yale; Tracy Grossman; Craig Dunwell; Peter Pettinelli; Todd Pantuso; Greg Sullivan  
**Subject:** Re: Homa Drainage

Lorraine

We never separated phase I and phase II on our end as we used the same job number for both phases. It was one proposal but Council only authorized phase I and phase II was authorized at a later date as you know. There is also a Phase III that has not been authorized. If you combine all of our invoices we are under the combined phase I and phase II not to exceed figure.

We also probably billed phase I and phase II together on one invoice and it would show the charges for phase I and phase II separately. We can certainly show our separate costs for Phase I and Phase II.

Whatever is easier for the Borough we will provide so payment can be made and this can be rectified. Let us know. Thanks !

Sent from my iPhone

On Oct 24, 2020, at 12:01 PM, CFO <cfo@alphaboronj.org> wrote:

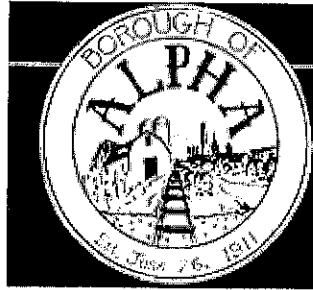
Sidney,

We awarded Reso 2019-147 for the Homa Lane Drainage Phase I in the amount of \$22,500. Your billing for Phase I, included the last outstanding invoices 2102T121-7 & 8, exceed that amount. We also awarded Phase II on Reso 2020-89 in the amount of \$9,600. If those last invoices are for Phase II, which we have not spent anything on yet, please correct and resubmit. If they are for Phase I, we are not able to pay as they exceed the contracted offer.

*Lorraine Rossetti, CMFO  
Alpha Borough  
1001 East Blvd.  
Alpha, NJ 08865  
(908) 454-0088 ext 145  
(908) 454-4210 Fax*

DISCLAIMER: This message and any documents attached contain confidential information and are intended only for the individual(s) named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail and any attached documents. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please

request a hard-copy version. Remington & Vernick Engineers, Inc., 232 Kings Highway East, Haddonfield, NJ 08033, [www.rve.com](http://www.rve.com).



## **BOROUGH OF ALPHA**

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

**November 10, 2020**

**PREPARED BY:**

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



**REMINGTON  
& VERNICK  
ENGINEERS**

## **ACTION ITEMS**

### **ROADWAY AND GENERAL ENGINEERING PROJECTS**

#### **1. HOMA LANE DRAINAGE IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: To Be Determined**

**ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined**

**ESTIMATED CONSTRUCTION COST: \$250,000**

**CONTRACTOR: To Be Determined**

Field survey including the wetlands delineation is complete. Base plans are complete, and we began the hydraulic modeling. A NJDEP pre-application meeting was held on September 26, 2016. Hydraulic design and the plans are complete. The Borough needs to provide the certified property owner list within 200 feet of the project for notification under the NJDEP application requirement. A draft Phase IA study has been completed and will be submitted with the NJDEP application. The Phase IA is recommending a Phase IB but the NJDEP will make that determination. The plans and NJDEP application are complete. The certified property owner list has been completed and sent to our office. The NJDEP applications were submitted to the NJDEP on January 25, 2017. We received comments from the NJDEP on our submitted application and we are addressing the comments. Mitigation requirements are being reviewed by the NJDEP. A meeting occurred with the NJDEP for May 3, 2017 NJDEP to discuss the mitigation. The NJDEP new rule changes will allow the culverts to be replaced under Homa Lane assuming it can be proven Homa Lane overtops during small rain events. This will be a less expensive option for the Borough but will need permission from the Homa's to replace the culvert. Discussion with the Homa's need to occur to determine if permission will be granted to replace the culvert. A letter was received from The NJDEP and a response was sent from our office requesting the application remain active. A meeting was held with Ken Homa, property owner and they are willing to give an easement to the Borough for the replacement of the pipe at Homa Lane. Council authorized the preliminary engineering phase of the project at their October 22, 2019 Council Meeting. Survey and base have been completed. The hydraulic analysis has been completed and an approximate 2.5 feet high by 10 feet wide would be the most physically practical to install and have any significant upstream flooding benefit. Council authorized us to submit to the NJDEP for a pre-application meeting to discuss our approach and analysis. The meeting was held on April 29, 2020 with positive results as the ideal of new culvert is acceptable to the NJDEP. Council authorized RVE to advance the project with the NJDEP Permit application preparation/submission at their May 12, 2020 meeting. Permit Application is complete and waiting for Property Owner (Homa) to sign the application form. Proposed easement description will be prepared once plans are complete for NJDEP submission.

**2. 2019 ROAD PROGRAM (NORTH BOULEVARD PHASE III AND SOUTH BOULEVARD)**

**ESTIMATED COMPLETION OF DESIGN: May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: \$658,524.75**  
**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Final documents are complete, and they have been submitted to the NJDOT for review and comment prior to being advertised for construction bids. The NJDOT has finalized the grant agreement and placed into their system. Documents submitted to the NJDOT have been reviewed and approved. The Project has been advertised for construction bids and bids were received on August 13, 2019. The bids exceeded the engineers estimate and Borough's budget. The low bidder has agreed in writing to hold their bid for Council to bond for the money and make a construction contract award in January 2020. Council Awarded the construction contract to Capitol Paving at their January 14, 2020 meeting, Contracts have been prepared and fully executed by all parties. Construction is complete and minor punchlist items remain. Close-out of the project is proceeding including NJDOT documentation for remaining grant reimbursement. NJDOT Final Inspection is pending.

**3. 2020 ROAD PROGRAM (5<sup>TH</sup> AVENUE PHASE II AND EAST CENTRAL AVENUE)**

**ESTIMATED COMPLETION OF DESIGN: November 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: \$408,312.65**  
**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their May 14, 2019 Council Meeting. Asphalt cores were taken along East Central Avenue. Survey has been completed. Existing condition base plans have been prepared. Final construction plans and specifications are complete. Plans, Specifications, Design Certification and Estimate have been sent to the NJDOT Local Aid for review and approval prior to public advertisement for construction bids. NJDOT approved the construction documents. Bids were received on February 20, 2020 and Base Bid 2 (5<sup>th</sup> Avenue, Davis Street and E Central Avenue) was awarded to Capitol Paving & Contracting at the February 25, 2020 Council Meeting. Contracts have been fully executed. Construction is complete. Close-out of the project is proceeding including NJDOT documentation for remaining grant reimbursement. NJDOT Final Inspection is pending.

**4. STATE ROUTE 122 AND INDUSTRIAL DRIVE INTERSECTION IMPROVEMENTS  
(NJDOT LOCAL AID FREIGHT GRANT)**

**ESTIMATED COMPLETION OF DESIGN: April 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: November 2020**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. The left turn traffic analysis is in progress. Survey is completed and base plans have been prepared. A left turn onto Industrial Drive from Rt 122 westbound is warranted. Preliminary

plans are being prepared. A meeting was held with the adjacent property owner to discuss property dedication needed for the proposed improvements.

**5. RECONSTRUCTION OF 5<sup>TH</sup> AVENUE – PHASE III (NJDOT LOCAL AID FY 2020 GRANT)**

**ESTIMATED COMPLETION OF DESIGN: March 2020**

**ESTIMATED COMPLETION OF CONSTRUCTION: August 2020**

**CONSTRUCTION COST: \$252,889.60**

**CONTRACTOR: South State, Inc**

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**6. INDUSTRIAL ROAD EXTENSION**

**ESTIMATED COMPLETION OF DESIGN: November 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: April 2021**

**CONSTRUCTION COST: To Be Determined**

**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. Proposed roadway baseline is complete and field survey is complete. Base plans have been completed and the preliminary plans complete. Final plans are complete and have been submitted to the NJDEP.

**7. NJPDES PERMIT – INDUSTRIAL DRIVE MAJOR LANDFILL DISRUPTION PERMIT**  
**ESTIMATED COMPLETION OF DESIGN: February 2020**

This phase of the work has been authorized in December 2019 and initiated. This was submitted to NJDEP on March 26, 2020 for their consideration. NJDEP has requested additional survey information that has been submitted. Verbal approval from NJDEP and written approval is anticipated soon.

**WATER PROJECTS**

**1. 2018 WATER UTILITY IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: March 2, 2018**

**ESTIMATED COMPLETION OF CONSTRUCTION: September 2018**

**CONTRACTOR: Penn Bower**

Project is being closed out. Maintenance bond submitted and final CO being processed.

**2. ASSET MANAGEMENT PLAN (AMP)**

**ESTIMATED COMPLETION OF DESIGN: Final Review – May 2019**

The AMP is complete. A draft report will be provided this week for review with the Borough at the October 16<sup>th</sup> meeting. A draft report has been submitted to the Borough.

**ASSET MANAGEMENT PLAN (GIS)**

**ESTIMATED COMPLETION OF DESIGN: Complete**

A review conference call was held on 2/5/2020 and follow-up as-built field book document of the 1937 water system was found and provided to RVE by the Borough on 2/13/2020. We have scanned, inventoried, and will review, verify, and incorporate these water assets into the GIS water system layer of Alpha Borough. The as-built field book document is broken down by street and include, but not limited to, the following:

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**3. FRACE WTP O&M MANUAL**

**ESTIMATED COMPLETION OF DESIGN: January 2020**

The development of the Frace WTP O&M Manual has been authorized. We are currently preparing the outline and will be meeting with the Borough and Operator to develop sequencing scenarios in May. Submission for Borough review is anticipated by November 2020.

**4. Leak Detection**

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**SANITARY PROJECTS**

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ESTIMATED PRELIMINARY SUBMISSION: JUNE 2020**

The Properties South of Route 78 are proposed to be incorporated in the Wastewater Management Plan for the Borough of Alpha. This will involve the approval of the Highlands Commission, Borough of Phillipsburg and NJDEP. RVE has prepared a Draft report and associated mapping for this project to develop public input, and it is available for consideration by Council.

**MISCELLANEOUS PROJECTS**

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1. Odor Control Device specified for Wet Well Exhaust Fan. Unit will require minor ductwork and piping and a VFD to reduce the Exhaust Fan Speed. Information provided to the Borough for obtaining quotes.

2. Grease Blockage event weekend of June 6, 2020. Recommendation to reimplement a Grease program with Borough Commercial and Institutional users. The Event of June 6 resulted in a Corrective Action letter to NJDEP that identified the Grease Program as the Action.

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2. **LEIGH FUEL PROPERTY INVESTIGATION**

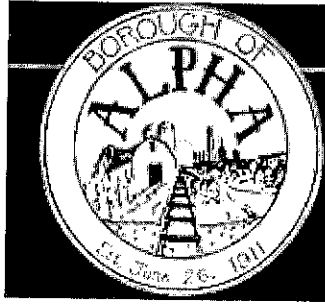
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## **BOROUGH OF ALPHA**

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

**December 8, 2020**

**PREPARED BY:**

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



**REMINGTON  
& VERNICK  
ENGINEERS**

## **ACTION ITEMS**

### **ROADWAY AND GENERAL ENGINEERING PROJECTS**

#### **1. HOMA LANE DRAINAGE IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: To Be Determined**

**ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined**

**ESTIMATED CONSTRUCTION COST: \$250,000**

**CONTRACTOR: To Be Determined**

Field survey including the wetlands delineation is complete. Base plans are complete, and we began the hydraulic modeling. A NJDEP pre-application meeting was held on September 26, 2016. Hydraulic design and the plans are complete. The Borough needs to provide the certified property owner list within 200 feet of the project for notification under the NJDEP application requirement. A draft Phase IA study has been completed and will be submitted with the NJDEP application. The Phase IA is recommending a Phase IB but the NJDEP will make that determination. The plans and NJDEP application are complete. The certified property owner list has been completed and sent to our office. The NJDEP applications were submitted to the NJDEP on January 25, 2017. We received comments from the NJDEP on our submitted application and we are addressing the comments. Mitigation requirements are being reviewed by the NJDEP. A meeting occurred with the NJDEP for May 3, 2017 NJDEP to discuss the mitigation. The NJDEP new rule changes will allow the culverts to be replaced under Homa Lane assuming it can be proven Homa Lane overtops during small rain events. This will be a less expensive option for the Borough but will need permission from the Homa's to replace the culvert. Discussion with the Homa's need to occur to determine if permission will be granted to replace the culvert. A letter was received from The NJDEP and a response was sent from our office requesting the application remain active. A meeting was held with Ken Homa, property owner and they are willing to give an easement to the Borough for the replacement of the pipe at Homa Lane. Council authorized the preliminary engineering phase of the project at their October 22, 2019 Council Meeting. Survey and base have been completed. The hydraulic analysis has been completed and an approximate 2.5 feet high by 10 feet wide would be the most physically practical to install and have any significant upstream flooding benefit. Council authorized us to submit to the NJDEP for a pre-application meeting to discuss our approach and analysis. The meeting was held on April 29, 2020 with positive results as the ideal of new culvert is acceptable to the NJDEP. Council authorized RVE to advance the project with the NJDEP Permit application preparation/submission at their May 12, 2020 meeting. Permit Application is complete and waiting for Property Owner (Homa) to sign the application form. Proposed easement description will be prepared once plans are complete for NJDEP submission.

**2. 2019 ROAD PROGRAM (NORTH BOULEVARD PHASE III AND SOUTH BOULEVARD)**

**ESTIMATED COMPLETION OF DESIGN: May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: \$658,524.75**  
**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Final documents are complete, and they have been submitted to the NJDOT for review and comment prior to being advertised for construction bids. The NJDOT has finalized the grant agreement and placed into their system. Documents submitted to the NJDOT have been reviewed and approved. The Project has been advertised for construction bids and bids were received on August 13, 2019. The bids exceeded the engineers estimate and Borough's budget. The low bidder has agreed in writing to hold their bid for Council to bond for the money and make a construction contract award in January 2020. Council Awarded the construction contract to Capitol Paving at their January 14, 2020 meeting. Contracts have been prepared and fully executed by all parties. Construction is complete and minor punchlist items remain. Close-out of the project is proceeding including NJDOT documentation for remaining grant reimbursement. NJDOT Final Inspection is complete and punchlist (if any) will be posted to SAGE shortly.

**3. 2020 ROAD PROGRAM (5<sup>TH</sup> AVENUE PHASE II AND EAST CENTRAL AVENUE)**

**ESTIMATED COMPLETION OF DESIGN: November 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: \$408,312.65**  
**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their May 14, 2019 Council Meeting. Asphalt cores were taken along East Central Avenue. Survey has been completed. Existing condition base plans have been prepared. Final construction plans and specifications are complete. Plans, Specifications, Design Certification and Estimate have been sent to the NJDOT Local Aid for review and approval prior to public advertisement for construction bids. NJDOT approved the construction documents. Bids were received on February 20, 2020 and Base Bid 2 (5<sup>th</sup> Avenue, Davis Street and E Central Avenue) was awarded to Capitol Paving & Contracting at the February 25, 2020 Council Meeting. Contracts have been fully executed. Construction is complete. Close-out of the project is proceeding including NJDOT documentation for remaining grant reimbursement. NJDOT Final Inspection is complete and punchlist (if any) will be posted to SAGE shortly.

**4. STATE ROUTE 122 AND INDUSTRIAL DRIVE INTERSECTION IMPROVEMENTS (NJDOT LOCAL AID FREIGHT GRANT)**

**ESTIMATED COMPLETION OF DESIGN: April 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: November 2020**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. The left turn traffic analysis is in progress. Survey is completed and base plans have been prepared. A left turn onto Industrial Drive from Rt 122 westbound is warranted. Preliminary

plans are being prepared. A meeting was held with the adjacent property owner to discuss property dedication needed for the proposed improvements.

**5. RECONSTRUCTION OF 5<sup>TH</sup> AVENUE – PHASE III (NJDOT LOCAL AID FY 2020 GRANT)**

**ESTIMATED COMPLETION OF DESIGN: March 2020**

**ESTIMATED COMPLETION OF CONSTRUCTION: August 2020**

**CONSTRUCTION COST: \$252,889.60**

**CONTRACTOR: South State, Inc**

Borough Council authorized the engineering services at their January 14, 2020 Council Meeting. Survey and base plans are completed. Final documents are near completion and we will be submitting to the NJDOT for their review and concurrence. Final Construction documents have been sent to the NJDOT for review and approval prior to advertisement for construction bids. NJDOT approval was received and project was advertised and bids received. Council awarded a construction contract to South State, Inc at their June 23, 2020 meeting. Contracts have been sent to the contractor. A preconstruction meeting was held on July 9, 2020 and a Notice To Proceed (NTP) was issued on of July 27, 2020. Construction is complete and punchlist and close-out is proceeding. NJDOT Final Inspection is complete and punchlist (if any) will be posted to SAGE shortly.

**6. INDUSTRIAL ROAD EXTENSION**

**ESTIMATED COMPLETION OF DESIGN: November 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: April 2021**

**CONSTRUCTION COST: To Be Determined**

**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. Proposed roadway baseline is complete and field survey is complete. Base plans have been completed and the preliminary plans complete. Final plans are complete and have been submitted to the NJDEP.

**7. NJPDES PERMIT – INDUSTRIAL DRIVE MAJOR LANDFILL DISRUPTION PERMIT**

**ESTIMATED COMPLETION OF DESIGN: February 2020**

This phase of the work has been authorized in December 2019 and initiated. This was submitted to NJDEP on March 26, 2020 for their consideration. NJDEP has requested additional survey information that has been submitted. Verbal approval from NJDEP and written approval is anticipated soon.

## **WATER PROJECTS**

### **1. ASSET MANAGEMENT PLAN (AMP) ESTIMATED COMPLETION OF DESIGN: Final Review – May 2019**

The AMP is complete. A draft report will be provided this week for review with the Borough at the October 16<sup>th</sup> meeting. A draft report has been submitted to the Borough.

### **ASSET MANAGEMENT PLAN (GIS) ESTIMATED COMPLETION OF DESIGN: Complete**

A review conference call was held on 2/5/2020 and follow-up as-built field book document of the 1937 water system was found and provided to RVE by the Borough on 2/13/2020. We have scanned, inventoried, and will review, verify, and incorporate these water assets into the GIS water system layer of Alpha Borough. The as-built field book document is broken down by street and include, but not limited to, the following:

- Water main pipes
- Water main line valves
- Water laterals
- Water lateral service valves
- Water fittings
- Fire Hydrants
- Fire hydrant valves

The lengths and sizes are shown, and we will review and add to the water system mapping where available.

The DPW was provided the water system maps with and without aerial mapping displayed for their review and reference to be sure all available comments are addressed and confirm the water assets found. We have received two marked-up maps with comments from this set on 5/21/2020, which were applied and returned with additional questions on 6/2/2020. DPW is sending additional sheets with water service locations as they are completed. When completed, we will use this to identify and target any missing/obscured areas that need to be field verified and collected to complete this phase. Valve location and fire hydrants were field located and incorporated into the GIS map. RVE is requesting review by DPW for potential revisions.

### **3. FRACE WTP O&M MANUAL ESTIMATED COMPLETION OF DESIGN: January 2020**

The development of the Frace WTP O&M Manual has been authorized. We are currently preparing the outline and will be meeting with the Borough and Operator to develop sequencing scenarios in May. A draft has been provided to the Borough.

### **4. Leak Detection**

A round of leak detection was performed in the past month. There were issues identified and corrected but the excessive water use has not been resolved.

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RVE has requested that the Borough review the water service records and provide a number of the existing lead whip or galvanized services that remain in the Borough. This is being requested by NJDEP.

**SANITARY PROJECTS**

1. **WMP AMENDMENT FOR PROPERTIES SOUTH OF ROUTE 78  
ESTIMATED PRELIMINARY SUBMISSION: JUNE 2020**

The Properties South of Route 78 are proposed to be incorporated in the Wastewater Management Plan for the Borough of Alpha. This will involve the approval of the Highlands Commission, Borough of Phillipsburg and NJDEP. RVE has prepared a Draft report and associated mapping for this project to develop public input, and it is available for consideration by Council.

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1. **GENERAL ISSUES - GENERAL ENGINEERING**

1. Odor Control Device specified for Wet Well Exhaust Fan. Unit will require minor ductwork and piping and a VFD to reduce the Exhaust Fan Speed. Information provided to the Borough for obtaining quotes.
2. Grease Blockage event weekend of June 6, 2020. Recommendation to reimplement a Grease program with Borough Commercial and Institutional users. The Event of June 6 resulted in a Corrective Action letter to NJDEP that identified the Grease Program as the Action.
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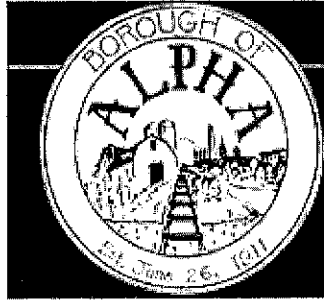
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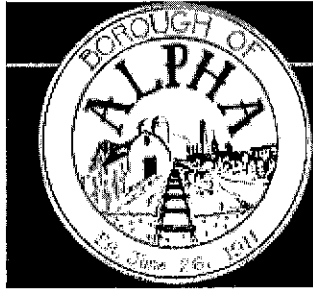
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## **BOROUGH OF ALPHA**

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

**August 13, 2019**

**PREPARED BY:**

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



### **ACTION ITEMS**

1. The FY 2020 NJDOT Local Aid Freight Grant applications have recently been requested by the NJDOT. A potential candidate which was discussed in the past is a joint application with Pohatcong Township for Edge Road and New Brunswick Avenue (State Rt 122) intersection improvements. Applications are due on October 16, 2019.
2. FY 2019 NJDOT Local Aid Freight Grant applications have recently been requested by the NJDOT. Council authorized us to prepare an application for Industrial Drive and State Route 122 Intersection Improvements. The application was completed and submitted electronically on January 10, 2019. The NJDOT awarded the borough a Grant in the amount of \$305,000.
3. NJDOT FY 2020 NJDOT Transportation Trust Fund Municipal Aid Applications are now being accepted until July 19, 2019. Council determined the following applications will be submitted. We completed the application and submitted them through SAGE prior on July 19, 2019.
  - Pursel Street – Schley Avenue to Park Avenue
  - 5<sup>th</sup> Avenue Phase III – Somerset Street to Williams Street
4. The Leigh Fuel property preliminary assessment (PA) was authorized by Council at the November 28, 2018 meeting and the grant documents have been executed. A site visit was conducted and we performed a desk top survey of the property. The PA is complete and has been submitted to the NJDEP.
5. The census map has been completed and submitted to the Borough.
6. The Drug Free School Zone map has been completed and submitted to the Borough for review and comment.

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**CONTRACTOR: To Be Determined**

Field survey including the wetlands delineation is complete. Base plans are complete and we began the hydraulic modeling. A NJDEP pre-application meeting was held on September 26, 2016. Hydraulic design and the plans are complete. The Borough needs to provide the certified property owner list within 200 feet of the project for notification under the NJDEP application requirement. A draft Phase IA study has been completed and will be submitted with the NJDEP application. The Phase IA is recommending a Phase IB but the NJDEP will make that determination. The plans and NJDEP application is complete. The certified property owner list has been completed and sent to our office. The NJDEP applications were submitted to the NJDEP on January 25, 2017. We received comments from the NJDEP on our submitted application and we are addressing the comments. Mitigation requirements are being reviewed by the NJDEP. A

meeting occurred with the NJDEP for May 3, 2017 NJDEP to discuss the mitigation. The NJDEP new rule changes will allow the culverts to be replaced under Homa Lane assuming it can be proven Homa Lane overtops during small rain events. This will be a less expensive option for the Borough but will need permission from the Homa's to replace the culvert. Discussion with the Homa's need to occur to determine if permission will be granted to replace the culvert. A letter was received from The NJDEP and a response was sent from our office requesting the application remain active. A meeting was held with Ken Homa, property owner and they are willing to give an easement to the Borough for the replacement of the pipe at Homa Lane. We are preparing a proposal for the engineering services.

## **2. INDUSTRIAL DRIVE/EDGE ROAD CONNECTOR ROAD**

**ESTIMATED COMPLETION OF DESIGN: December 2018**

**ESTIMATED COMPLETION OF CONSTRUCTION: October 2019**

**CONSTRUCTION COST: \$505,194.46**

**CONTRACTOR: Top Line Construction**

We were authorized for the engineering services by Council at the November 13, 2017 Council Meeting.. A preliminary layout was prepared and we met with the adjacent property owners to discuss and it was agreed by all a 70 foot ROW will be established. Meets and bounds descriptions are being prepared for the dedication to the Borough. ROW Map and metes and bounds description was completed and sent to the Borough Attorney for deed dedication preparation. We met with Hunterdon Transformer to review the plans and discuss various issues effecting their property ROW is being secured through deeds of dedication by the Borough Attorney. Council authorized RVE to advertise the project for Public Construction Bids at the February 19, 2019 Council Meeting. Warren County SCD application was submitted for approval to the Soil Conservation district. Council awarded a construction contract to Top Line Construction at their April 23, 2019 meeting in the amount of \$505,194.46. A pre-construction meeting was held on May 16, 2019 and the notice to proceed was given on May 20, 2019. Curb and storm sewer pipe is completed. Roadway is asphalt based paved. Remaining work will be completed upon substantial construction of adjacent warehouse development.

## **3. 2019 ROAD PROGRAM (NORTH BOULEVARD PHASE III AND SOUTH BOULEVARD)**

**ESTIMATED COMPLETION OF DESIGN: May 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: November 2019**

**CONSTRUCTION COST: To Be Determined**

**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Final documents are complete and they have been submitted to the NJDOT for review and comment prior to being advertised for construction bids. The NJDOT has finalized the grant agreement and placed into their system. Documents submitted to the NJDOT have been reviewed and approved. The Project has been advertised for construction bids and bids will be received On August 13, 2019 with a possible award at the Borough Council meeting on August 13, 2019.

## **4. MUNICIPAL POOL DEMOLITION**

**ESTIMATED COMPLETION OF DESIGN: March 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Construction documents are complete and the project was advertised for construction bids. Bids were received and there was a three way tie for the low bid of \$55,000. Project was re-advertised with changes to the scope of work as directed and one acceptable bid was received at \$128,000. Council rejected the bids and a meeting was held with prior bidders to discuss submission of a best and final price. The prices were submitted to Sean Canning on Monday July 8, 2019 at 10 AM and CMS Services, LLC were the low bid submitted at \$78,599.00.

**5. 2020 ROAD PROGRAM (5<sup>TH</sup> AVENUE PHASE II AND EAST CENTRAL AVENUE)**

**ESTIMATED COMPLETION OF DESIGN: October 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their May 14, 2019 Council Meeting. Asphalt cores were taken along East Central Avenue. Survey has been completed. Existing condition base plans have been prepared and preliminary plans are being developed.

## **WATER PROJECTS**

1. **FRACE WTP – EFFLUENT METER**  
**ESTIMATED COMPLETION OF DESIGN: October 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: December 2018**  
**ESTIMATED CONSTRUCTION COST: \$25,000**  
**CONTRACTOR: TBD**

The meter has been installed and was calibrated and is consistent with the in-plant meter. We are waiting on the contractor for as-builts before final payment.

2. **2018 WATER UTILITY IMPROVEMENTS**  
**ESTIMATED COMPLETION OF DESIGN: March 2, 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: September 2018**  
**ESTIMATED CONSTRUCTION COST: TBD**  
**CONTRACTOR: TBD**

The County has issued the permit. The work had to be postponed due to the County schedule.

3. **NJPDES PERMIT – INDUSTRIAL DRIVE LANDFILL DISRUPTION PERMIT**  
**ESTIMATED COMPLETION OF DESIGN: November 2017**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**

**CONTRACTOR: NA**

The permit has been submitted to the NJDEP. We are currently waiting on comments.

4. **ASSET MANAGEMENT PLAN (AMP)**  
**ESTIMATED COMPLETION OF DESIGN: Final Review – May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The AMP is complete. The inventory and ranking for the infrastructure has been reviewed. The AMP is being coordinated with the GIS portion for submission in September.

**SANITARY PROJECTS**

1. **SANITARY METER VAULT INSTALLATION**  
**ESTIMATED COMPLETION OF DESIGN: July 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: 30 Days upon issuing Notice to Proceed**  
**ESTIMATED CONSTRUCTION COST: \$40,000**  
**CONTRACTOR: TBD**

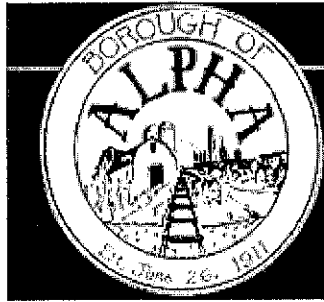
Bid Documents are being prepared for installation of the meter vault since the requested quotes were higher than the bid threshold.

2. **SANITARY SMOKE TESTING**  
**ESTIMATED COMPLETION OF DESIGN: NA**  
**ESTIMATED COMPLETION OF CONSTRUCTION: TBD**  
**ESTIMATED CONSTRUCTION COST: \$18,000**  
**CONTRACTOR: TBD**

Contracts have been forwarded to the Borough for execution. Letters to the residents have been generated for distribution.

3. **USDA APPLICATION**  
**ESTIMATED COMPLETION OF DESIGN: NA**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

We have received the requested information from the CFO and have submitted the application.



## **BOROUGH OF ALPHA**

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

**November 12, 2019**

**PREPARED BY:**

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



### **ACTION ITEMS**

1. FY 2019 NJDOT Local Aid Freight Grant applications have recently been requested by the NJDOT. Council authorized us to prepare an application for Industrial Drive and State Route 122 Intersection Improvements. The application was completed and submitted electronically on January 10, 2019. The NJDOT awarded the borough a Grant in the amount of \$305,000. We met with the NJDOT Highway Access to review the projects and their requirements for their approval. An engineering proposal is being prepared for Council's consideration at the November 26, 2019 Meeting.
2. NJDOT FY 2020 NJDOT Transportation Trust Fund Municipal Aid Applications are now being accepted until July 19, 2019. Council determined the following applications will be submitted. We completed the application and submitted them through SAGE prior on July 19, 2019.
  - Pursel Street – Schley Avenue to Park Avenue
  - 5<sup>th</sup> Avenue Phase III – Somerset Street to Williams Street

### **ROADWAY AND GENERAL ENGINEERING PROJECTS**

#### **1. HOMA LANE DRAINAGE IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: To Be Determined**

**ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined**

**ESTIMATED CONSTRUCTION COST: \$250,000**

**CONTRACTOR: To Be Determined**

Field survey including the wetlands delineation is complete. Base plans are complete and we began the hydraulic modeling. A NJDEP pre-application meeting was held on September 26, 2016. Hydraulic design and the plans are complete. The Borough needs to provide the certified property owner list within 200 feet of the project for notification under the NJDEP application requirement. A draft Phase IA study has been completed and will be submitted with the NJDEP application. The Phase IA is recommending a Phase IB but the NJDEP will make that determination. The plans and NJDEP application is complete. The certified property owner list has been completed and sent to our office. The NJDEP applications were submitted to the NJDEP on January 25, 2017. We received comments from the NJDEP on our submitted application and we are addressing the comments. Mitigation requirements are being reviewed by the NJDEP. A meeting occurred with the NJDEP for May 3, 2017 NJDEP to discuss the mitigation. The NJDEP new rule changes will allow the culverts to be replaced under Homa Lane assuming it can be proven Homa Lane overtops during small rain events. This will be a less expensive option for the Borough but will need permission from the Homa's to replace the culvert. Discussion with the Homa's need to occur to determine if permission will be granted to replace the culvert. A letter was received from The NJDEP and a response was sent from our office requesting the application remain active. A meeting was held with Ken Homa, property owner and they are willing to give an easement to the Borough for the replacement of the pipe at Homa Lane. Council authorized the preliminary engineering phase of the project at their October 22, 2019 Council Meeting. Survey is being scheduled.

## **2. INDUSTRIAL DRIVE/EDGE ROAD CONNECTOR ROAD**

**ESTIMATED COMPLETION OF DESIGN: December 2018**

**ESTIMATED COMPLETION OF CONSTRUCTION: October 2019**

**CONSTRUCTION COST: \$505,194.46**

**CONTRACTOR: Top Line Construction**

We were authorized for the engineering services by Council at the November 13, 2017 Council Meeting. A preliminary layout was prepared and we met with the adjacent property owners to discuss and it was agreed by all a 70 foot ROW will be established. Meets and bounds descriptions are being prepared for the dedication to the Borough. ROW Map and metes and bounds description was completed and sent to the Borough Attorney for deed dedication preparation. We met with Hunterdon Transformer to review the plans and discuss various issues effecting their property. ROW is being secured through deeds of dedication by the Borough Attorney. Council authorized RVE to advertise the project for Public Construction Bids at the February 19, 2019 Council Meeting. Warren County SCD application was submitted for approval to the Soil Conservation district. Council awarded a construction contract to Top Line Construction at their April 23, 2019 meeting in the amount of \$505,194.46. A pre-construction meeting was held on May 16, 2019 and the notice to proceed was given on May 20, 2019. Curb and storm sewer pipe is completed. Roadway is asphalt based paved. Remaining work will be completed upon substantial construction of adjacent warehouse development. A temporary asphalt curb was installed to deter erosion prior to the development of the adjacent property. Construction will be completed in the Spring of 2019 since the adjacent development has not constructed their storm sewer system which impacts the completion of the Borough's contract.

## **3. 2019 ROAD PROGRAM (NORTH BOULEVARD PHASE III AND SOUTH BOULEVARD)**

**ESTIMATED COMPLETION OF DESIGN: May 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**

**CONSTRUCTION COST: \$658,524.75**

**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Final documents are complete and they have been submitted to the NJDOT for review and comment prior to being advertised for construction bids. The NJDOT has finalized the grant agreement and placed into their system. Documents submitted to the NJDOT have been reviewed and approved. The Project has been advertised for construction bids and bids were received on August 13, 2019. The bids exceeded the engineers estimate and Borough's budget. The low bidder has agreed in writing to hold their bid for Council to bond for the money and make a construction contract award in January 2020.

#### **4. MUNICIPAL POOL DEMOLITION**

**ESTIMATED COMPLETION OF DESIGN: March 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: December 2019**

**CONSTRUCTION COST: \$78,599.00**

**CONTRACTOR: CMS Services**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Construction documents are complete and the project was advertised for construction bids. Bids were received and there was a three way tie for the low bid of \$55,000. Project was re-advertised with changes to the scope of work as directed and one acceptable bid was received at \$128,000. Council rejected the bids and a meeting was held with prior bidders to discuss submission of a best and final price. The prices were be submitted to Sean Canning on Monday July 8, 2019 at 10 AM and CMS Services, LLC were the low bid submitted at \$78,599.00. Council awarded the construction contract at their October 7, 2019 Council Meeting. A preconstruction Meeting was held on October 31, 2019. Contracts have been prepared and executed by the contractor and are with the Borough for full execution. Upon execution a Notice to Proceed (NTP) can be issued.

#### **5. 2020 ROAD PROGRAM (5<sup>TH</sup> AVENUE PHASE II AND EAST CENTRAL AVENUE)**

**ESTIMATED COMPLETION OF DESIGN: November 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**

**CONSTRUCTION COST: To Be Determined**

**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their May 14, 2019 Council Meeting. Asphalt cores were taken along East Central Avenue. Survey has been completed. Existing condition base plans have been prepared. Final construction plans and specifications are being advanced. We anticipate a December 2019 public bid advertisement and a January 2020 construction contract award.

### **WATER PROJECTS**

#### **1. 2018 WATER UTILITY IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: March 2, 2018**

**ESTIMATED COMPLETION OF CONSTRUCTION: September 2018**

**ESTIMATED CONSTRUCTION COST: TBD**

**CONTRACTOR: TBD**

The County has issued the permit. The work had to be postponed due to the County schedule. A meeting was held October 16<sup>th</sup> to review the schedule with the contractor and the County. The County restoration was scheduled for the following week.

2. **NJPDES PERMIT – INDUSTRIAL DRIVE LANDFILL DISRUPTION PERMIT**  
**ESTIMATED COMPLETION OF DESIGN: November 2017**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The next phase of the work has been authorized and initiated. A status meeting will be scheduled for early November to review progress and initial results. Perimeter gas sampling is currently scheduled for Week of November 11, 2019 and the monitoring wells are scheduled for November 21, 2019.

3. **ASSET MANAGEMENT PLAN (AMP)**  
**ESTIMATED COMPLETION OF DESIGN: Final Review – May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The AMP is complete. A draft report will be provided this week for review with the Borough at the October 16<sup>th</sup> meeting. A draft report has been submitted to the Borough.

4. **FRACE WTP O&M MANUAL**  
**ESTIMATED COMPLETION OF DESIGN: January 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The development of the Frace WTP O&M Manual has been authorized. We are currently preparing the outline and will be meeting with the Borough and Operator to develop sequencing scenarios.

## **SANITARY PROJECTS**

1. **SANITARY METER VAULT INSTALLATION**  
**ESTIMATED COMPLETION OF DESIGN: July 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: 30 Days upon issuing Notice to Proceed**  
**ESTIMATED CONSTRUCTION COST: \$40,000**  
**CONTRACTOR: TBD**

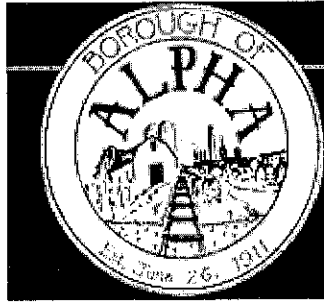
Bid Documents are being prepared for installation of the meter vault since the requested quotes were higher than the bid threshold. RVE is requesting authorization to advertise on Tuesday November 19, 2019 with bids to be received by the Borough on December 4, 2019.

2. **SANITARY SMOKE TESTING**  
**ESTIMATED COMPLETION OF DESIGN: NA**  
**ESTIMATED COMPLETION OF CONSTRUCTION: TBD**  
**ESTIMATED CONSTRUCTION COST: \$18,000**  
**CONTRACTOR: TBD**

The smoke testing is complete. The smoke testing results were received on October 4<sup>th</sup>. We will be reviewing the results and did present recommendations to the Borough at the October 16<sup>th</sup> Utility Meeting. Results of the smoke testing are being provided to the Borough.

### **MISCELLANEOUS PROJECTS**

1. **LEIGH FUEL PROPERTY INVESTIGATION**  
The Leigh Fuel property preliminary assessment (PA) was authorized by Council at the November 28, 2018 meeting and the grant documents have been executed. A site visit was conducted and we performed a desk top survey of the property. The PA is complete and has been submitted to the NJDEP. A proposal had been provided to Council for their consideration of advancing the assessment through additional grant dollars. The proposal has been awarded and is in process.



## **BOROUGH OF ALPHA**

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

**December 10, 2019**

**PREPARED BY:**

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



**REMINGTON  
& VERNICK  
ENGINEERS**

### **ACTION ITEMS**

1. NJDOT FY 2020 NJDOT Transportation Trust Fund Municipal Aid Applications are now being accepted until July 19, 2019. Council determined the following applications will be submitted. We completed the application and submitted them through SAGE prior on July 19, 2019.

- Pursel Street – Schley Avenue to Park Avenue
- Fifth Avenue Phase III – Somerset Street to Williams Street

The Borough was notified by the NJDOT they received \$130,000 grant for Fifth Avenue Phase III

### **ROADWAY AND GENERAL ENGINEERING PROJECTS**

#### **1. HOMA LANE DRAINAGE IMPROVEMENTS**

**ESTIMATED COMPLETION OF DESIGN: To Be Determined**  
**ESTIMATED COMPLETION OF CONSTRUCTION: To Be Determined**  
**ESTIMATED CONSTRUCTION COST: \$250,000**  
**CONTRACTOR: To Be Determined**

Field survey including the wetlands delineation is complete. Base plans are complete and we began the hydraulic modeling. A NJDEP pre-application meeting was held on September 26, 2016. Hydraulic design and the plans are complete. The Borough needs to provide the certified property owner list within 200 feet of the project for notification under the NJDEP application requirement. A draft Phase IA study has been completed and will be submitted with the NJDEP application. The Phase IA is recommending a Phase IB but the NJDEP will make that determination. The plans and NJDEP application is complete. The certified property owner list has been completed and sent to our office. The NJDEP applications were submitted to the NJDEP on January 25, 2017. We received comments from the NJDEP on our submitted application and we are addressing the comments. Mitigation requirements are being reviewed by the NJDEP. A meeting occurred with the NJDEP for May 3, 2017 NJDEP to discuss the mitigation. The NJDEP new rule changes will allow the culverts to be replaced under Homa Lane assuming it can be proven Homa Lane overtops during small rain events. This will be a less expensive option for the Borough but will need permission from the Homa's to replace the culvert. Discussion with the Homa's need to occur to determine if permission will be granted to replace the culvert. A letter was received from The NJDEP and a response was sent from our office requesting the application remain active. A meeting was held with Ken Homa, property owner and they are willing to give an easement to the Borough for the replacement of the pipe at Homa Lane. Council authorized the preliminary engineering phase of the project at their October 22, 2019 Council Meeting. Survey has been scheduled and is anticipated to begin before the end of December 2019.

#### **2. INDUSTRIAL DRIVE/EDGE ROAD CONNECTOR ROAD**

**ESTIMATED COMPLETION OF DESIGN: December 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: October 2019**  
**CONSTRUCTION COST: \$505,194.46**  
**CONTRACTOR: Top Line Construction**

We were authorized for the engineering services by Council at the November 13, 2017 Council Meeting. A preliminary layout was prepared and we met with the adjacent property owners to discuss and it was agreed by all a 70 foot ROW will be established. Meets and bounds descriptions are being prepared for the dedication to the Borough. We met with Hunterdon Transformer to review the plans and discuss various issues effecting their property. ROW is being secured through deeds of dedication by the Borough Attorney. Council authorized RVE to advertise the project for Public Construction Bids at the February 19, 2019 Council Meeting. Warren County SCD application was submitted for approval to the Soil Conservation district. Council awarded a construction contract to Top Line Construction at their April 23, 2019 meeting in the amount of \$505,194.46. A pre-construction meeting was held on May 16, 2019 and the notice to proceed was given on May 20, 2019. Remaining work will be completed upon substantial construction of adjacent warehouse development. A temporary asphalt curb was installed to deter erosion prior to the development of the adjacent property. Construction will be completed in the Spring of 2019 since the adjacent development has not constructed their storm sewer system which impacts the completion of the Borough's contract.

### **3. 2019 ROAD PROGRAM (NORTH BOULEVARD PHASE III AND SOUTH BOULEVARD)**

**ESTIMATED COMPLETION OF DESIGN: May 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**

**CONSTRUCTION COST: \$658,524.75**

**CONTRACTOR: Capitol Paving and Contracting**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Final documents are complete and they have been submitted to the NJDOT for review and comment prior to being advertised for construction bids. The NJDOT has finalized the grant agreement and placed into their system. Documents submitted to the NJDOT have been reviewed and approved. The Project has been advertised for construction bids and bids were received on August 13, 2019. The bids exceeded the engineers estimate and Borough's budget. The low bidder has agreed in writing to hold their bid for Council to bond for the money and make a construction contract award in January 2020.

### **4. MUNICIPAL POOL DEMOLITION**

**ESTIMATED COMPLETION OF DESIGN: March 2019**

**ESTIMATED COMPLETION OF CONSTRUCTION: December 2019**

**CONSTRUCTION COST: \$78,599.00**

**CONTRACTOR: CMS Services**

Borough Council authorized the engineering services at their February 19, 2019 Council Meeting. Construction documents are complete and the project was advertised for construction bids. Bids were received and there was a three way tie for the low bid of \$55,000. Project was re-advertised with changes to the scope of work as directed and one acceptable bid was received at \$128,000. Council rejected the bids and a meeting was held with prier bidders to discuss submission of a best and final price. The prices were be submitted to Sean Canning on Monday July 8, 2019 at 10 AM and CMS Services, LLC were the low bid submitted at \$78,599.00. Council awarded the construction contract at their October 7, 2019 Council Meeting. A

preconstruction Meeting was held on October 31, 2019. Contracts have been prepared and executed by the contractor and are with the Borough for full execution. Upon execution a Notice to Proceed (NTP) can be issued. Project is on hold pending an injunction from a Borough Resident regarding the project.

**5. 2020 ROAD PROGRAM (5<sup>TH</sup> AVENUE PHASE II AND EAST CENTRAL AVENUE)**

**ESTIMATED COMPLETION OF DESIGN: November 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their May 14, 2019 Council Meeting. Asphalt cores were taken along East Central Avenue. Survey has been completed. Existing condition base plans have been prepared. Final construction plans and specifications are complete. Plans, Specifications, Design Certification and Estimate have been sent to the NJDOT Local Aid for review and approval prior to public advertisement for construction bids.

**6. SATE ROUTE 122 AND INDUSTRIAL DRIVE INTERSECTION IMPROVEMENTS (NJDOT LOCAL AID FREIGHT GRANT)**

**ESTIMATED COMPLETION OF DESIGN: February 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: August 2020**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. Survey is being scheduled and the left turn traffic analysis is in progress.

**7. INDUSTRIAL ROAD EXTENSION**

**ESTIMATED COMPLETION OF DESIGN: November 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: May 2020**  
**CONSTRUCTION COST: To Be Determined**  
**CONTRACTOR: To Be Determined**

Borough Council authorized the engineering services at their November 26, 2019 Council Meeting. Coordination is needed with the developer regarding their planned access in order to schedule the survey.

**WATER PROJECTS**

- 1. 2018 WATER UTILITY IMPROVEMENTS**  
**ESTIMATED COMPLETION OF DESIGN: March 2, 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: September 2018**  
**ESTIMATED CONSTRUCTION COST: TBD**  
**CONTRACTOR: TBD**

The County has issued the permit. The work had to be postponed due to the County schedule. A meeting was held October 16<sup>th</sup> to review the schedule with the contractor and the County. The County restoration was scheduled for the following week.

2. **ASSET MANAGEMENT PLAN (AMP)**  
**ESTIMATED COMPLETION OF DESIGN: Final Review -- May 2019**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The AMP is complete. A draft report will be provided this week for review with the Borough at the October 16<sup>th</sup> meeting. A draft report has been submitted to the Borough.

3. **FRACE WTP O&M MANUAL**  
**ESTIMATED COMPLETION OF DESIGN: January 2020**  
**ESTIMATED COMPLETION OF CONSTRUCTION: NA**  
**ESTIMATED CONSTRUCTION COST: NA**  
**CONTRACTOR: NA**

The development of the Frace WTP O&M Manual has been authorized. We are currently preparing the outline and will be meeting with the Borough and Operator to develop sequencing scenarios.

## **SANITARY PROJECTS**

1. **SANITARY METER VAULT INSTALLATION**  
**ESTIMATED COMPLETION OF DESIGN: July 2018**  
**ESTIMATED COMPLETION OF CONSTRUCTION: 30 Days upon issuing Notice to Proceed**  
**ESTIMATED CONSTRUCTION COST: \$40,000**  
**CONTRACTOR: TBD**

Bid Documents are being prepared for installation of the meter vault since the requested quotes were higher than the bid threshold. RVE advertised the project with bids to be received December 6, 2019. No bids were submitted. RVE requests authorization to bid again.

2. **SANITARY SMOKE TESTING**  
**ESTIMATED COMPLETION OF DESIGN: NA**  
**ESTIMATED COMPLETION OF CONSTRUCTION: TBD**  
**ESTIMATED CONSTRUCTION COST: \$18,000**  
**CONTRACTOR: TBD**

The smoke testing is complete. The smoke testing results were received on October 4<sup>th</sup>. We will be reviewing the results and will present recommendations to the Borough at the October 16<sup>th</sup> Utility Meeting. Results of the smoke testing are being provided to the Borough.

## **MISCELLANEOUS PROJECTS**

### **1. LEIGH FUEL PROPERTY INVESTIGATION**

The Leigh Fuel property preliminary assessment (PA) was authorized by Council at the November 28, 2018 meeting and the grant documents have been executed. A site visit was conducted and we performed a desk top survey of the property. The PA is complete and has been submitted to the NJDEP. A proposal had been provided to Council for their consideration of advancing the assessment through additional grant dollars. The proposal has been awarded and is in process.

### **2. NJPDES PERMIT – INDUSTRIAL DRIVE LANDFILL DISRUPTION PERMIT ESTIMATED COMPLETION OF DESIGN: November 2017 ESTIMATED COMPLETION OF CONSTRUCTION: NA ESTIMATED CONSTRUCTION COST: NA CONTRACTOR: NA**

The next phase of the work has been authorized and initiated. A status meeting will be scheduled for early November to review progress and initial results. Perimeter gas sampling has been completed and the monitoring wells are being installed.

### **3. INDUSTRIAL DRIVE LANDFILL MAJOR DISRUPTION PERMIT FOR CONSTRUCTION OF NEW ROAD ESTIMATED COMPLETION OF DESIGN: January 2020 ESTIMATED COMPLETION OF CONSTRUCTION: NA ESTIMATED CONSTRUCTION COST: NA CONTRACTOR: NA**

A proposal has been submitted in the amount of \$39,500 for the cost of submitting a Major Disturbance permit and the required As Built Survey at the conclusion of disturbance. RVE is requesting authorization to prepare the permit.



REMINGTON  
& VERNICK  
ENGINEERS

51 Haddonfield Road, Suite 260  
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O: (856) 795-9595  
F: (856) 795-1882

October 17, 2019

Honorable Mayor Craig Dunwell  
Borough of Alpha  
1001 East Boulevard  
Alpha, NJ 08865

RE: Borough of Alpha  
Homa Lane Culvert Replacement  
Engineering and Construction Inspection Services Proposal  
M2019-266

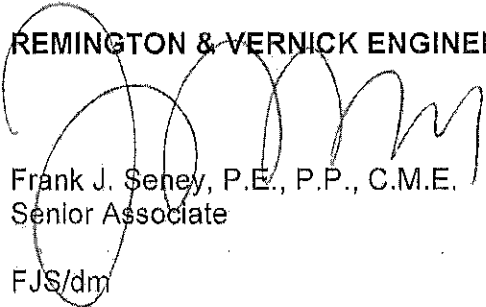
Dear Mayor Dunwell:

We are writing to present our scope of work and associated fee for the engineering services for the replacement of the Homa Lane Culvert. Generally, our work will consist of preparing construction documents and obtaining all necessary approvals to replace the existing culvert. Enclosed please find our scope of work and associated fee.

Should you have any questions, please do not hesitate to contact our office.

Sincerely,

REMINGTON & VERNICK ENGINEERS



Frank J. Seney, P.E., P.P., C.M.E.  
Senior Associate

FJS/dm

Enclosures

cc: Borough Council  
Donna Messina, Clerk  
Loraine Rossetti, CFO  
Christopher Troxell, Esq.

## **Project Overview**

Homa Lane is a private driveway within the southern section of Alpha Borough that serves the Homa Farm. There is an unnamed tributary to the Pohatcong Creek that crosses beneath Homa Lane through two approximately 12 inch corrugated metal pipes (CMP). These pipes do not have sufficient capacity to convey the amount of storm water from the unnamed tributary of Pohatcong Creek. Accordingly the adjacent area is prone to flooding. Replacement of the culvert to properly convey the amount of storm water is prohibited by the New Jersey Department of Environmental (NJDEP) Flood Hazard Area (FHA) Rules as it presently acts as a 'dam' and enlarging the culvert will flood the area downstream.

Recent rule changes to the NJDEP FHA Rules allow for replacement of undersized culverts for two (2) year design storms (probability of a storm occurring every two (2) years) assuming it can be proved there will be no additional flooding impacts to the downstream area from a two (2) year storm. Based on previous hydraulic analysis on the upstream section of this tributary, we believe we can prove no additional impacts to the downstream area will occur if we replace the culvert with a larger culvert that can pass a two (2) year storm. It is very important to note that flooding to the upstream area will still occur upon replacement of this culvert for storm events larger than a two (2) year storm. However the flooding will be less frequent than it is presently.

Additionally since the existing culvert is located on private property, an easement will be needed from Block 97 Lot 3 (Homa Property) in order to replace the culvert. We have met with the property owner and they are willing to grant the easement.

## **Services to be Performed**

The following discusses the tasks to be performed during the three (3) phases of the culvert replacement project.

### **Phase I -Preliminary Design and Plan Preparation**

#### **Survey and Base Plans**

The field survey will obtain existing topographic features. The survey will also include roadway/lane cross-sections, at 50-foot minimum intervals, 250 feet each side of the culvert centerline and 30 feet each side of the roadway/lane centerline. Channel cross-sections will be field surveyed at the fascias of the culvert, 25 feet from the fascia, 50 feet from the fascia and 500 feet downstream and upstream from the culvert at approximately 100 foot intervals.

Right-of-way (ROW) and intersecting property lines within the project limits will be established. Existing ROW will include field work, deed

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searches, and the review of all available information from the County Planning office.

The survey data and ROW information will be utilized to prepare a base map of the existing conditions using AutoCAD 2019 software. The plans will be prepared and field verified for accuracy by our engineer with edits as necessary. Existing ROW lines will be accurately shown for necessary easement acquisition to construct the project.

#### **Easement Plan and Description**

An easement area will be established based on the proposed construction. A metes-and-bounds description of the proposed easement on Block 97, Lot 3 will be prepared including being signed and sealed by a NJ Professional Land Surveyor. An easement plan will be prepared showing the meets and bounds, square footage of the easement and partial property boundaries. The easement descriptions will be formalized for use in legal agreements and filings with the County Clerk.

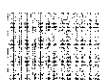
#### **Hydraulic & Hydrologic Analysis**

Remington & Vernick will provide all services necessary for the preparation and submission of permits required for this culvert replacement project. The permits and applicable services will include performing the necessary hydrologic and hydraulic analyses not only to design the structure but also to obtain the NJDEP and County Soil Conservation District permits. The hydrologic analysis will include the use of TR-55 methodology to determine the design flows (at a minimum, the 2, 10 and 100 year peak flows) that will pass through the culvert site. Once the design flows are determined and verified, HEC-RAS will be utilized to model the hydraulics of the existing and proposed culvert. Surveyed channel cross-sections upstream and downstream of the culvert as well as the geometry of the existing and proposed bridges will be entered into the model. The existing culvert will be modeled first in order to determine existing water surface elevations in the vicinity of the culvert for the design storm.

The proposed culvert will then be designed and modeled to ensure that NJDEP criteria required for the permit is met. An encroachment analysis will then be performed for the proposed culvert in order to establish the floodway and flood fringe for the project area. This work will be performed in conjunction with preparation of preliminary plans for the proposed culvert so that we can submit to the various outside agencies.

#### **Design**

Design of the proposed culvert and related roadway/lane improvements will be in accordance with current AASHTO and NJDOT standards.



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Design loadings will be HS -25 and dead loads will include a provision for 25 pounds per square foot for future asphalt overlay.

It is anticipated that the new culvert will be positioned to best fit the existing horizontal and vertical alignments. Utilizing the existing base plans preliminary plans will be developed showing the vertical and horizontal geometry and shall generally include the following plans. These plans will be sufficient in detail to use as the NJDEP Permit and County Soil Conservation District Applications submission to obtain their approval.

- Title Sheet
- Estimate of Quantities/Distribution of Quantities
- Typical Road Sections
- Construction Plan
- Road/Lane Profile
- Channel Profile
- Channel Sections
- Roadway/Lane Cross Sections
- Culvert General Plan , Elevation and Section

A preliminary construction cost estimate of major items will be prepared for use by the Borough regarding budgeting purposes.

#### **Phase II - Permit Applications**

The following outside agency approvals will be required and we shall complete the applications for these agencies as well as any required documentation. All permit fees will be paid by the Borough.

**NJDEP Flood Hazard Individual Permit.** This project will require a Flood Hazard Individual Permit for the culvert replacement. This application will require public notification, hydraulic analysis and an environmental report. This proposal includes applications for all necessary flood hazard permit elements. All required; application forms, hydrology and hydrologic analysis , environmental report, plans, agency and property owner notification, engineers report and other documents will be prepared in accordance with NJAC 7:13-4.

We will attend a pre-application meeting with the NJDEP and respond to all reasonable comments and requests for additional information or changes from the NJDEP during the NJDEP review of the permit application.

**NJDEP General Wetlands Permit Application.** Remington & Vernick's in-house environmental staff will prepare and submit an application to the

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NJDEP for a Statewide General Permit #10 (minor road crossing). Services to be performed include public notification, reports, data searches and submission of the complete NJDEP General Permit application.

Our work under this permit application will also include a mitigation plan as the channel is a tributary to the Pohatcong Creek which is a C1 waters. Accordingly any permanent disturbance to the channel will require mitigation at a rate of 2:1.

**Soil Conservation District Certification.** Any project disturbing more than 5000 square feet of the surface area of land requires certification. Remington & Vernick will prepare application forms, the Soil Erosion and Sediment Control Plan, hydraulic and hydrologic data, and design calculations.

**Phase III - Final Construction Documents**

Upon receipt of approvals from the NJDEP and County SCD, we will proceed with developing the construction plans. The plans will be prepared using English units in AutoCAD Release 2019.

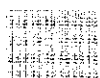
All plans will be prepared under the supervision of a New Jersey Licensed Professional Engineer and Land Surveyor. Plans will be on 22"x 36" paper sheets with oversized binding margin to allow true half-scale reproduction of the full drawing area on all 11"x17" sheets.

**Title Sheet/Key Map.** This sheet will include: Key Map, Index of Sheets, and Station Limits and Length of the Project.

**Estimate of Quantities.** A sheet will be prepared with pay items and quantities in conformance to NJDOT pay items. The estimate of quantities sheet will include a list of all construction items, list of all general construction items, and units for each item in conformance with the specifications.

**Typical Roadway/Lane Section.** A typical section sheet will be prepared to represent conditions that are typical or representative of the project. Elements that will be shown include lane and shoulder widths, lane and shoulder cross slopes, proposed pavement section, embankment slope treatment, and relationship of existing and proposed ROW to existing and proposed centerlines.

**Construction Plans.** Plan sheets will be prepared at a scale of 1"=10'. The plans will include existing planimetric features, proposed horizontal alignment and curve data, drainage and other utilities, construction items and quantities, and baseline tie-in details. Details of each control point along the survey baseline will be provided. These details will provide the



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coordinates of each control point as well as ties to permanent structures/objects.

**Roadway Profile.** Roadway profile will be prepared at a scale of 1"=10' horizontal and 1"=1' vertical for inclusion with the plan submission. The vertical geometry will be computed with the plan illustrating existing and proposed grades at the profile grade line, proposed profile gradients, lengths of vertical curves, stopping sight factor "K" and culvert location/limits.

**Roadway/Lane Cross-Sections.** Sections will be prepared at a scale of 1"=5' (horizontal and vertical) with a screened grid as background. The proposed roadway/lane template will be super-imposed over the existing round for determination of slope limits, extent of headwalls, earthwork quantities and pavement limits.

**Soil Erosion and Sediment Control Plans.** These plans will be prepared and submitted in accordance with the Soil Conservation District standards.

**General Plan and Elevation.** The General Plan and Elevation of the proposed culvert will include existing and proposed contours, proposed centerlines of the road/lane and channel, proposed edge of pavement, toe/top of slopes, proposed easements, elevation view and typical section of the proposed culvert.

**Headwall Plans, Elevations and Details.** Plans of headwalls will show all dimensions, elevations and reinforcement steel. Reinforcement details will include locations, limits of placement, the number of bars, the size and mark of the bars, and covers to bars. These plans will include working point and layout plans, footing plans and headwall elevations, sections and details.

**Construction Details.** Plans showing typical construction details will be prepared. These plans will include: backfill details for the culvert and headwalls, pay limit details for foundation excavation and porous fill, and details of specialty items as required by the project.

### Specifications

Standard specifications and the bid/proposal documents will be prepared. The 2019 NJDOT Standard Specifications for Road and Bridge Construction will be utilized. We will supplement this specification to fit our project and the Borough requirements.

### Cost Estimates

Remington & Vernick Engineers will prepare the quantity calculations and engineer's cost estimate for the culvert replacement. Quantities will be



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developed based on the respective plan sheets. Final quantity calculations will be prepared and a final construction cost estimate will be submitted to the Borough. We shall continuously monitor the costs during our design and plan preparation work so that the initial estimate is tracked and stays within this figure. If the estimate begins to exceed this preliminary estimate we will immediately notify the Borough to make adjustments as necessary. We feel this is an important aspect of the project so that no surprises are realized once construction bids are received.

### **Bid and Advertisement**

Upon acceptance of all construction documents by the Borough, we shall advertise for public construction bids. We shall issue clarifications to contractors questions and if necessary issue addenda as required. The bids will be reviewed, a bid tabulation prepared, and a recommendation of award shall be made to the Borough.

### **Exclusions**

Our Fees and scope do not include the following services and if they become required they shall be considered as extra work.

- ❖ NJDEP Individual Wetlands Permit Application
- ❖ Any other Outside Agency Applications not listed in the above scope
- ❖ Permit Applications Fees
- ❖ Historical or archeological study
- ❖ Geotechnical borings and report as it is assumed the proposed culvert and headwalls will be minimal in size not requiring this task.

Our fee for the listed scope of services will be invoiced on a time and material basis with a maximum not to exceed figure of \$38,250.00. We reserve the right to reallocate budget between in-scope project phases as necessary, to provide the required deliverables. The total not-to-exceed project fee will not be adjusted without written approval of a fixed fee to cover a change in the scope of work. The fee is further separated as follows into the referenced phases.

Phase I – \$ 22,500.00

Phase II - \$ 9,600.00

Phase III - \$ 6,150.00