

ENGINEER'S REPORT



Report Date: April 11, 2019

Prepared for:

Pemberton Township
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Prepared by:



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ARH #32-01000

ROADWAY & DRAINAGE PROJECTS

1. NJDOT FY2018 Municipal Aid Program – Sepulga Drive (ARH #32-04026.03)

The Township has received a grant in the amount of \$266,870 for the Sepulga Drive Phase II project. Bids were received for this project on October 11, 2018. The apparent low bidder for this project was Arawak Paving in the amount of \$218,900. The Township awarded a contract to Arawak. Arawak will also pave the remainder of Sepulga Drive, from west of Talladega Trail to Choctaw Drive using the remainder of the NJDOT allocation and a combination of Public Works forces. An Incidental Modification to Project Scope/Limits form has been completed and submitted to the NJDOT, which has been approved.

A preconstruction meeting was held with Arawak and the Township on February 21, 2019 at 10:00 am. Minutes of the meeting were forwarded to attendees and interested Township officials. Arawak anticipates starting construction in about one month. They made upgrades to their plant over the winter and they are still not operational in producing asphalt.. We have approved their materials submissions.

2. NJDOT FY2019 Municipal Aid Program

The NJDOT has awarded the Township \$286,904 for the South Lakeshore Drive Roadway Improvements Project. Our office is analyzing the construction estimate to determine the proposed limits or paving. We will submit a revised proposal to perform the land surveying and engineering services for this project as soon as possible.

3. Cured-in-place Pipe (CIPP) Project

Our office met with Tom McNaughton and Toby Peacock to discuss the cured-in-place pipe project. The scope of the project is to repair failing storm sewer pipe in a few areas of the Township using trenchless technology. Tom identified three areas to include in this initial project:

- Harvard Avenue, from University Avenue to Cornell Avenue;
- Scammel Drive, from Marie Drive to Adams Avenue;
- Rancocas Lane, from Concord Drive to Scammel Drive.

Our office was authorized to perform engineering, bidding, and construction management services for this project. It is our understanding that the budget is approximately \$300,000 for engineering and construction services. We will structure the bid accordingly to maximize the funds. Once completed, we will review the package with the Township prior to bid.

We will complete the specifications by the end of the month. We would advertise the project for bidding during the week of May 6, 2019, and receive bids on May 23, 2019. The goal would be to make a recommendation of award at the June 5, 2019 Council Meeting.

4. **BMIA Building Drainage Improvements**

We have discussed this project with Tom McNaughton. The scope of this project includes providing a subsurface infiltration basin to help alleviate the flooding problems along Arbutus Street. We have discussed the project in general terms with the Pinelands and this will not require any permitting or submissions. We submitted a proposal for engineering and management services for your consideration.

5. **North Road Drainage Repairs**

The Township is investigating issues of title associated with North Road.

Chris Rehmann prepared a summary outlining information he has obtained through research and had forwarded that by email on August 29, 2018.

Our office has prepared a proposal to provide the following:

- Determine a proposed right-of-way location and width for the private lane for the purpose of including the road in the Township system;
- Prepare a preliminary estimate to reconstruct the road, culverts and downstream protection;
- Perform the surveys necessary to obtain right-of-ways for the extension of North Road;
- Attend a meeting with the resident to discuss the plan.

DAM PROJECTS

1. **Regular Inspection of Mirror Lake Dam (ARH #32-01005)**

The formal inspection report due July 2015 was submitted to NJDEP on 6/26/2015 and we did not receive any comments. The next Regular Inspection will be due in June 2019. We have been authorized to perform the dam inspection. The inspection will be scheduled in the near future, as we are monitoring the weather and will wait until the areas dry out and the water levels recede. We anticipate completing the dam inspections and submitting the report to the NJDEP during the first few weeks in May.

2. **Presidential Lakes/Lebanon Forest Dam Inspection (ARH #32-01013)**

The Regular Visual Inspection Report has been completed, and was submitted on June 8, 2018 to NJDEP Bureau of Dam Safety and Flood Control, along with an updated Emergency Notification Flowchart. The next inspection will be due four years after acceptance of the as-built plans.

3. **Regular Inspection of Bayberry Street Dam (ARH #32-01016)**

The regular inspection was performed on June 28, 2017. We have received a letter from the NJDEP Bureau of Dam Safety and Flood Control, which states that the as-built plans and most recent inspection report have been accepted. The next Regular Inspection will be due in June 2019. We

have been authorized to perform the dam inspection. The inspection will be scheduled in the near future, as we are monitoring the weather and will wait until the areas dry out and the water levels recede. We anticipate completing the dam inspections and submitting the report to the NJDEP during the first few weeks in May.

4. **Regular Inspection of County Lakes Dams 1, 2, &3 (ARH #32-01015 & 32-01015)**

The as-builts and construction completion report for these dams were submitted in October 2016. As Class II dams, these will need a regular inspection every two years. The next Regular Inspection will be due in June 2019. We have been authorized to perform the dam inspection. The inspection will be scheduled in the near future, as we are monitoring the weather and will wait until the areas dry out and the water levels recede. We anticipate completing the dam inspections and submitting the report to the NJDEP during the first few weeks in May.

PARKS & RECREATION PROJECTS

1. **West End Park (ARH #32-01049.01)**

Our office has submitted the revised permitting plans, revised drainage calculations, and the cultural resources survey to the Pinelands for their review. The revisions were made in accordance with their review letter dated November 14, 2018. A copy of the response letter was forwarded to you for your records.

We have requested an update from the Pinelands regarding the latest submission and will provide the response as soon as we receive it.

2. **Safe Streets to Transit (ARH #32-04025)**

The low bidder was South State Inc. with a Base Bid in the amount of \$507,360.00. South State also provided a unit price of \$23,000 to upgrade the bridge decking to Ipe hardwood from southern yellow pine. The project was awarded to South State at the Council meeting on February 27, 2019. The contracts have been prepared. South State has ordered the design drawings for the bridge and has prepared a schedule.

Our office has approved the bridge submittal package and forwarded it to South State. We anticipate taking delivery of the bridge in late May. We have scheduled a preconstruction meeting for April 18, 2019. South State anticipates beginning construction during the week of April 22, 2019.

WATER SYSTEM PROJECTS

1. **Linnet Avenue Water Main Extension (ARH #32-03021.02)**

Cardinal completed the construction of the water main on December 20, 2017. Partial restoration was performed shortly after. The water main has been disinfected and was pressure tested on January 11, 2018. Cardinal has performed the final bacteria tests on the water main.

We are in discussions with the Contractor to close this project out. The previous project manager is no longer with Cardinal, which explains the lack of communication. Closeout documentation will be submitted as soon as it is received and prepared.

2. Pemberton Water System (ARH #32-03024)

The contractor has completed the initial drilling of the well. Using the direct mud rotary drilling method, he has drilled to a depth of 275 feet. We have received the geophysical log results and sieve analysis and approved a final well design. The contractor has installed the 16" outer well casing and grouted it in place. The well screen and inner casing has been installed, and the Contractor has developed the well. We will perform the 4-hour constant pump rate test and collect the sample on Tuesday, April 16, 2019. The Contractor will supply his own generator. The Water Department will provide the glassware for water testing and is arranging for pickup of the samples.

We are preparing a document that summarizes the next steps in completing the water system design and construction.

Our office has surveyed the Rail Trail tract and to prepare the environmental permits for the water main extension. The proposed site and water main will be located in the vicinity of freshwater wetlands, flood hazard area, and habitat for threatened and endangered species. Wetlands have been delineated along the trail and the survey and base plans are complete. We anticipate submitting the permit application once the test well has been drilled and the availability of water is confirmed.

Investigation of potential contamination due to the location of the rail bed was also authorized by Council. Test pits were completed, and testing on samples was performed. Some samples tested positive for elevated metal levels, so additional testing is currently being performed.

We are also preparing the NJDEP Bureau of Safe Drinking Water permit applications.

3. Deborah Heart and Lung Center Water System Connection (ARH #32-03027)

The Township has authorized our office to proceed with the design and permitting of the interconnection required to connect the Deborah water system with the Township water system.

The Public Works department made the connection to the water system and ran the 6" water service lateral across Trenton Road. The Deborah contractors are currently performing the interconnection work. We have received notice from Burlington County regarding the trench settlement. The Public Works department must address the settlement in Trenton Road as soon as possible.

We are also preparing a revised proposal to include the necessary work to provide electrical service and a backup generator to the existing well houses.

The request for an Exemption Letter from the Pinelands has been submitted on December 4, 2018.

We solicited a quote from Steffen Drilling to perform the paperwork necessary to reclassify the Deborah wells as public community wells. The cost to perform the work is \$2,470.00. The reclassification is almost finished; the NJDEP asked for some additional information.

4. Water Quality Accountability Act (WQAA) (ARH #32-03026)

ARH has been authorized to proceed with the completion of the WQAA GPS/GIS project and we began data collection of February 19, 2019. Our field technicians have completed the initial location of all hydrants and valves. We are currently reviewing the Township's water maps provided by the water department to make sure we've located everything within the system limits. We are continuing with the development of the GIS and dashboard features, and will continue to work with the Department to make sure the data is accurate.

In addition to the mapping of the Township's water system assets, the Township is required to submit an asset management plan, which defines such items as maintenance, repairs, and upgrades schedules, as well as developing a hydrant flushing and valve-exercising program. Our office is committed to working with the water department to develop the schedules and programs needed to meet the regulations. Our office has been authorized to begin this work and we are compiling the data we have in-house. We will contact the Water Department to schedule a meeting to review the data we need.

SPECIAL PROJECTS

1. DPW Fuel Facility (ARH #32-01012)

The required Remedial Investigation (RI) Report has been submitted to the NJDEP on October 25, 2017. We have issued a memorandum to Mr. Gonzalez, which summarizes the information submitted to the NJDEP and the results of the recent soil sampling and testing. The soil tests indicate the presence of numerous contaminants. The groundwater testing indicates the presence of two contamination plumes that are migrating off-site. The results indicate the need for additional remediation activities.

A Vapor Intrusion study was authorized and prepared as a requirement of the RI Report review. The report has been completed and is ready to be submitted to the NJDEP. One form needs endorsement by the Mayor. The form will be submitted under separate cover for signature.

Two permanent monitoring wells and several temporary wells were installed/sampled in April 2017. Two of the new permanent monitoring wells installed in April 2017 have been disturbed. These wells will need to be replaced. In September 2016 we received a quote of \$2,845 to replace the two monitoring wells. An updated quote and proposal has been prepared and submitted to Mr. Gonzalez under separate cover. We will resubmit the proposal for review and consideration.

2. Presidential Lakes Firehouse (ARH #32-01054)

The septic system plans have been reviewed by the Burlington County Health Department. They asked for additional information, including an additional soil test and a location map. The additional information was submitted to the Department last week and we have contacted them frequently for updates. We anticipate receiving approval within the next few days to a week. Our surveyors staked out the septic bed in the field at the request of Tom McNaughton.

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