

RESOLUTION NO. 2019-116

WHEREAS, the Township Council of the Township of Aberdeen is in need of professional engineering services associated with the Woodfield Area Wastewater Collection System and Water System Rehabilitation; and

WHEREAS, CME Associates submitted a proposal on August 15, 2019 for aforementioned engineering services including additional design and planning for a cost not to exceed the sum of \$175,000.00.

NOW, THEREFORE, BE IT RESOLVED by the Township Council of the Township of Aberdeen that the Manager and Clerk are authorized to execute an agreement with CME Associates for a cost not to exceed the sum of \$175,000.00, in accordance with a proposal dated August 15, 2019, attached hereto and made part of this resolution.

This agreement is made without competitive bidding as a “professional service” under the provisions of the Local Public Contracts Law, N.J.S.A. 40A:11-5(1)a(I).

BE IT FURTHER RESOLVED the Director of Finance has certified to the Township Manager that there are available sufficient funds for the purpose of award of this contract in the Capital Budget under the following line item appropriation of said budget to which this contract will be properly charged: X-04-1-777-101 - \$29,437.75 and X-04-1-777-201 - \$145,562.25.

JOHN H. ALLGAIR, PE, PP, LS (1983-2001)
DAVID J. SAMUEL, PE, PP, CME
JOHN J. STEFANI, PE, LS, PP, CME
JAY B. CORNELL, PE, PP, CME
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August 15, 2019

TIMOTHY W. GILLEN, PE, PP, CME
BRUCE M. KOCH, PE, PP, CME
LOUIS J. PLOSKONKA, PE, CME
TREVOR J. TAYLOR, PE, PP, CME
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LAURA J. NEUMANN, PE, PP
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ROBERT J. RUSSO, PE, PP, CME
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Mr. Dan Mason, Acting Township Manager
Township of Aberdeen
One Aberdeen Square
Aberdeen, New Jersey 07747

RECEIVED

AUG 23 2019

ABERDEEN TOWNSHIP
MANAGER'S OFFICE

Re: Final Paving of the Woodfield Area Wastewater Collection System and Water System Rehabilitation Township of Aberdeen Our File No. PAB00320.01

Dear Mr. Mason:

We are pleased to report that the bulk of the work included in the original Woodfield Project has been completed by the Township's Contractor Lucas Construction.

As discussed previously, during a recent meeting this past July with the NJDEP Representative assigned to the Woodfield Project, we were advised that the installation of the Surface Course and the associated final design and construction administration for the above referenced project is now eligible for financing under the New Jersey Water Bank Program. Accordingly, the following roads within the Woodfield neighborhood are eligible: Anna Avenue, Charles Street, Euclid Avenue, Grand Avenue, Ruth Place, Spring Lawn Avenue and Willow Avenue.

The proposed scope of improvements if implemented, would consist of asphalt pavement gutter milling, resetting manholes and inlets where required, the installation of hot mix asphalt surface course, traffic striping, maintenance and protection of traffic during the improvements and final restoration work within the Right of Way.

In order to provide some background information we note that during the original design and application process for the project, the NJDEP advised us that full width hot mixed asphalt (HMA) in excess of normal trench restoration would not be eligible for reimbursement under the EIT program, and accordingly, the Township developed a plan to install only a single three-inch (3") thick base course on the streets in the Woodfield neighborhood and then the remaining three-inch (3") base course and two-inch (2") top course estimated at approximately \$1,500,000.00 would be included in a later Project along with the Township's Annual Road Improvement Program.

Once our office was informed of the availability of this additional financing, we reviewed various options to complete the final paving and developed the following recommended approach:

1. Perform a selective milling of the edge condition of the roads throughout the neighborhood to provide for a key-way for a new surface course installation. This results in the final gutter grades matching the present and allows for the following advantages:



Mr. Dan Mason
Acting Township Manager
Re: Final Paving of the Woodfield Area Wastewater Collection
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- a. It preserves the favorable existing grades in portions of the front yards for these properties which previously were back-pitched with respect to the road;
 - b. It precludes the need to remove and re-pave most of the driveways;
 - c. It precludes the need to re-grade the front yards of several properties;
 - d. It precludes the need to modify/reconstruct retaining walls for those homes that have them;
 - e. It precludes the need to modify the newly installed storm water inlets (although some may need to be reset).
2. Overlay the existing HMA base with a 3" and variable HMA Surface Course. Note that due to the existing subsurface conditions of the in-situ soils within the roadways in Woodfield, additional base course beyond the original 3" was required to stabilize the roadways. The base course plus the proposed 3" Surface Course results in an average pavement thickness of approximately 8" for all the roads in Woodfield at completion.
 3. Adjust the castings of the existing sanitary manholes to the new grades.

Pursuant to this approach, a changeorder to the original Construction Contract will be required in order that the Contractor can perform the work necessary to complete the above described installation of the HMA Surface Course and to reflect increases and decreases in the original Contract Quantities in order to satisfactorily complete the Project.

In order to facilitate the above-mentioned approach, an amendment to our Contract with the Township will be required in order that as-built elevations of the base course can be obtained and provided to the Contractor with the necessary topographic survey and base mapping and final design of the above-mentioned roadways.

Concerning the survey and base mapping, field surveys to re-establish the baselines, locate topographic features and re-establish vertical control to obtain as-built cross-section data at 50' intervals along Anna Avenue, Charles Street, Euclid Avenue, Grand Avenue, Ruth Place, Spring Lawn Avenue and Willow Avenue are required. Cross section elevations will be taken at the roadway centerline, at the gutter and will extend a distance of approximately 24' from the roadway centerline. Spot elevations will be taken, if and where required, in order to supplement the cross-section data, including elevations at driveways in order to eliminate potential conflicts.



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The design for the additional paving work, will be depicted on base mapping, cross-sections and plan and profiles indicating proposed centerlines and gutter elevations of the roadways. A review of cross-sections will be conducted in order to minimize the extent of the final restoration on residential lot frontages and all storm and sanitary structures will be provided with final grades in order to reset castings to the final pavement grades where necessary.

Supplemental Construction Phase Services are also required in order to verify that the contractor performs the aforementioned work in accordance with the Plans and in order to monitor the contractor's construction layout and observe the installation of elements of the project, measure pay items of work for the contractor's monthly estimates, prepare the estimates of payment to the contractor and determine the amount owed to the contractor, including the measurement and/or calculation of quantities involved and review contractor requests for payment in such amounts on the basis that work has progressed to the point indicated. We will also participate in the final observation of the completed work, measure all pay items and prepare the final estimate of payment to the contractor. Coordination with the NJDEP for the final closeout and reimbursement for the Project is also included.

We further note that the original Contract completion time was exceeded by the Contractor due to various reasons and construction delays. Accordingly, our additional construction phase services have been deducted from the Contractor's recent progress payment in accordance with the Township's Construction Contract. In order to obtain reimbursement of these costs from the I-Bank, this amount must be included in the supplemental loan request.

Also, in accordance with our prior discussions, we contacted the NJDEP/I-Bank to discuss financing the additional improvements. The Trust indicated that since the Woodfield Project has not yet gone to permanent financing the Township's Loan can be adjusted as necessary.

We next prepared the following attachments and estimates for the completion of the project for the Township's use in applying for the Loan Modification.

Construction Costs

Projected Final Sewer Construction Costs:	\$ 6,000,000.00
Projected Final Water Construction Costs:	\$ 1,000,000.00
Projected Final Paving Construction Costs:	\$ <u>600,000.00</u>
Subtotal:	\$ 7,600,000.00



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Supplemental Planning and Design Costs

Additional Design and Planning Costs:	\$ 75,000.00
Additional Engineering Fees (Conad) Costs:	\$ 100,000.00*
Subtotal:	\$ 175,000.00

(*Includes the additional \$36,569.75 construction administration costs discussed above.)

Attached are two Draft LP-5A Forms for the Water and Wastewater (Clean Water) portions of the Project which have been completed for the Township's use in analyzing debt service impacts, if any, from the prospect Loan Modification. The forms have been prepared with available Project costs from our files related to soft costs and the Projected Final Construction (Building) costs.

The two forms reflect the original Loan Application, the Post Bid figures issued by the DEP at the time of award of the Project, the allowable costs based upon the NJDEP formulas and the projected final building costs. Column four indicates our projection of our final soft costs and the Final Construction Cost.

Please note that the Township may have other soft and/or hard costs attributable to the Project which should be added to the figures in the "Draft" LP-5A forms prior to a determination of debt service impacts.

Based upon our experience and our discussions with NJDEP we believe that the Hard and Soft costs for the Final Paving are best included in the Sewer Project (Clean Water Loan). Accordingly the above chart for the Clean Water Loan has been prepared to reflect the same.

Finally, based upon adding the Total Projects Costs indicated in Column four (4) from both LP-5A forms, the total Loan at completion will be less than the original Loan Application, primarily due to the competitive bid received from the Township's Contractor for the Project.

By copy to the Township Auditor, the Township Board Counsel and the Township CFO we are forwarding the information herein for their use in assisting the Township with a decision regarding the Loan Modification.

Should the Township decide to move forward with the Loan Modification; the following are the next steps:

1. Finalize and execute the Changeorder with the Contractor —
2. Forward the Loan Modification Documents to the NJDEP/I-Bank —

CME TO DO



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Acting Township Manager
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3. Modify our Contract with the Township
4. Commence Final Design
5. Notify the Woodfield Residents and begin Construction in the Field



*Twp Council
Agenda 9/24*

We trust that the above provides the information required to render a decision regarding the Loan Modifications however should you have any questions regarding this matter, please do not hesitate to contact this office.

Very truly yours,

Michael J. McClelland, PE, PP, CME
Township Engineer's Office

cc: Matt Jessup, Esq., Township Bond Counsel
Chuck Fallon, Township Auditor
Angela Morin, CFO
Greg Cannon, Councilman



"DRAFT"

Township of Aberdeen
Woodfield Area Wastewater/Water

NJDEP - LP-5A FORM
DRINKING WATER

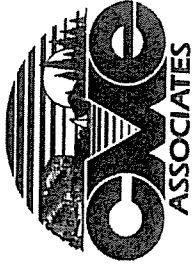
Item No.	Description	1 Original Application	2 Post Bid - Allowable (In accordance with NJDEP Exhibit B)	3 Close-Out (Allowable based on Building Cost)	4 Close-Out (Actual - Design and Constr Phase)
1	Administrative Expenses (3% of Building Costs)	\$66,000	\$28,539	\$30,000	\$30,000
2	Other Costs				
3	Engineering Fees (Construction Phase Services)	\$264,000	\$26,945	\$120,000	\$196,821
4	Building Costs	\$2,200,000	\$951,302	\$1,000,000	\$1,000,000
5	Contingencies (5% of Building Costs)	\$110,000	\$47,565	\$50,000	\$50,000
6	Allowance for Planning & Design	\$394,000	\$237,826	\$250,000	\$43,354
	Total Project Costs	\$3,034,000	\$1,292,177	\$1,450,000	\$1,320,175

* - Original LP-5A and Exhibit B amounts in Column 1 and 2 did not follow NJDEP allowable amounts. Actual proposal amounts were used where applicable.

* - Engineering Fees are typically calculated by the NJDEP by taking 12% of the Building Costs.

* - Planning and Design Fees are typically calculated by the NJDEP by taking 25% of the first \$1million dollars of Building Cost plus 12% of Building Cost

* - NJDEP previously approved utilizing surplus from the Planning and Design Allowance from the Drinking Water loan to supplement the Engineering Fees (Construction Phase Services).



"DRAFT"

Township of Aberdeen
Woodfield Area Wastewater/Water

NJDEP - LP-5A FORM
CLEAN WATER

Item No.	Description	1 Original Application	2 Post Bid - Allowable (In accordance with NJDEP Exhibit B)	3 Close-Out (Allowable based on Building Cost)	4 Close-Out (Actual - Design and Constr Phase)
1	Administrative Expenses (3% of Building Costs)	\$193,151	\$169,329	\$198,000	\$198,000
2	Other Costs				
3	Engineering Fees (Construction Phase Services)	\$772,603	\$521,315	\$792,000	\$648,260
4	Building Costs	\$6,438,355	\$5,644,293	\$6,600,000	\$6,600,000
5	Contingencies (5% of Building Costs)	\$321,918	\$282,215	\$330,000	\$330,000
6	Allowance for Planning & Design	\$644,657	\$807,315	\$922,000	\$718,944
	Total Project Costs	\$8,370,684	\$7,424,467	\$8,842,000	\$8,495,204

* - Original LP-5A and Exhibit B amounts in Column 1 and 2 did not follow NJDEP allowable amounts. Actual proposal amounts were used where applicable.

* - Engineering Fees are typically calculated by the NJDEP by taking 12% of the Building Costs.

* - Planning and Design Fees are typically calculated by the NJDEP by taking 25% of the first \$1 million dollars of Building Cost plus 12% of Building Cost