

RESOLUTION
of the
BOROUGH OF NEW PROVIDENCE
Resolution No. 2017-311

Council Meeting Date: 12-18-2017

Date Adopted: 12-18-2017

TITLE RESOLUTION ACCEPTING THE PROPOSAL OF MASER
CONSULTING, P.A. FOR PROFESSIONAL ENGINEERING SERVICES
REGARDING ATHLETIC FIELD RENOVATION – GROVE FIELD

Councilperson Muñoz submitted the following resolution, which was duly seconded by Councilperson Galluccio.

WHEREAS, the Borough of New Providence acquired Professional Engineering and Professional Environmental Consulting Services as a non-fair and open contract pursuant to the provisions of N.J.S.A. 19-44A-20.5; and

WHEREAS, Maser Consulting was awarded a contract with the Borough of New Providence via Resolution 2017-018 to provide professional engineering services; and,

WHEREAS, Maser Consulting Services has submitted a proposal dated December 1, 2017 indicating they will provide professional engineering services relating to Field Renovation – Grove Field, for an amount not to exceed \$96,500.00; and

WHEREAS, the fees assessed with this proposal are contained in said contract; and

WHEREAS, the maximum amount of the contract is not to exceed \$96,500.00, and said funds are available from the following accounts:

C-04-55-976-370-404900	\$90,000
C-04-55-976-370-302150	\$6,500

and have been certified by the Chief Financial Officer; and

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Council of the Borough of New Providence that they hereby approve and authorize the professional services included in the Maser Consulting Services proposal dated December 1, 2017.

APPROVED, this 18th day of December, 2017.

RECORD OF VOTE

	AYE	NAY	ABSENT	NOT VOTING
GALLUCCIO	X			
GENNARO	X			
KAPNER	X			
MADDEN	X			
MUÑOZ	X			
ROBINSON	X			
MORGAN			TO BREAK COUNCIL TIE VOTE	

I hereby certify that the above resolution was adopted at a meeting of the Borough Council held on the 18th day of December, 2017.

Wendi B. Barry, Borough Clerk



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Landscape Architects
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December 1, 2017

VIA EMAIL

Douglas R. Marvin, Borough Administrator
Borough of New Providence
360 Elkwood Avenue
New Providence, NJ 07974

Re: Proposal for Professional Engineering Services
Proposed Athletic Field Renovation – Grove Field
Borough of New Providence
MC Proposal No. NPT-536P

Dear Mr. Marvin:

Maser Consulting P.A. (Maser Consulting) is pleased to submit this Proposal for Professional Engineering Services associated with the proposed athletic field renovation at Grove Field. At this time, it is our understanding that the Borough wishes to move forward with full design and preparation of a complete submission package for permitting, as well as a complete bid package. Therefore, this Proposal includes a geotechnical and stormwater investigation, completion of design, construction drawings, a drainage report, continued vendor and utility coordination, a refined cost estimate, bid specifications, submission to the New Jersey Department of Environmental Protection (NJDEP), submission to the Somerset-Union Soil Conservation District (SCD) and bidding services. It should be noted that additional ecological effort has been required including a second NJDEP pre-application meeting, as well as preparation of additional concept options for various potential buffer areas. These efforts were advanced to ensure the direction and information provided by NJDEP was clear and accurate. The preliminary total project estimate is approximately \$1,900,000.00 based on discussions with the Capital Review Committee to date. Accordingly, the anticipated scope of services is outlined below.

SCOPE OF SERVICES:

PHASE 1.0 GEOTECHNICAL ENGINEERING SERVICES

GEOTECHNICAL INVESTIGATION

The purpose of these services is to establish the subsurface profile and provide geotechnical design parameters for the proposed light tower foundation design (to be performed by others).

Our Scope of Services is outlined in the following paragraphs.



Scope of Services

1. Perform field stakeout of the test boring locations using project drawings.
2. Retain a non-union drilling contractor to mobilize one truck-mounted drill rig and complete up to four (4) test borings at the proposed light towers over one working day. Test borings will be advanced to depths ranging from 20 to 25 feet (depending on drilling conditions) or to auger refusal, whichever occurs first. Rock coring is currently excluded from our scope of services.
3. Provide full-time on-site technical observation of the work of the drilling contractor. Technical observation will be performed by a geotechnical technician/engineer under the direct supervision of the project Geotechnical Engineer.
4. Obtain representative soil samples encountered within the zone of influence of the proposed construction. Laboratory testing is at the discretion of the Geotechnical Engineer [but is likely to include grain size distribution (by mechanical sieve and/or by hydrometer), Atterberg limits, and moisture contents]. Proctor and CBR testing for pavement design are excluded from our scope of services.
5. Prepare test boring logs indicating the types of soil and depth to encountered groundwater.
6. Compile field and laboratory data to develop an understanding of the subsurface conditions at the light tower locations. This information will be used in engineering analyses to recommend appropriate geotechnical related parameters for drilled shaft design.
7. Upon completion of the analyses, prepare a geotechnical engineering letter report that will include discussions of the site and subsurface conditions encountered, as well as conclusions and recommendations for the design and construction of the light pole foundations. The report will also include the test boring location plan, test boring logs, and the results of the laboratory testing.

Test Boring Procedures

The test borings will be advanced by a conventional truck-mounted drill rig utilizing hollow-stem auger drilling techniques. Representative soil samples will be obtained continuously from the surface to a depth of ten feet (10'), and then at a standard five-foot (5') interval. Soil samples will be obtained from within the borehole by means of a standard two-inch (2") outside-diameter split spoon sampler advanced in accordance with ASTM Designation D-1586 for the Standard Penetration Test. At the conclusion of each day, the boreholes will be backfilled with the auger cuttings. If excess cuttings occur, they will be mounded at each borehole location.



Test borings will be performed under the full-time on-site technical observation of a representative of Maser Consulting. Our representative will maintain logs of the explorations as the work proceeds. Soil samples will be field classified only in accordance with the Burmister Soil Classification System. The samples will be stored for a period of 60 days from the date of our report, unless otherwise negotiated with you.

Due to the nature of the work, some disturbance and settlement should be anticipated after the completion of the test borings. Soil may be mounded at each location, however, should settlement occur, it will be the Borough's option to maintain the grade at each test location after we demobilize from the site. This proposal excludes site restoration other than backfilling the test borings with the excavated soils.

Our subcontractor shall be responsible for contacting the One Call System; however, the Borough is responsible for providing us with available utility information. Neither Maser Consulting nor our subcontractors can be held responsible for any damage caused to underground utilities or structures that are not marked out in the field by others, or accurately shown on the plans provided to us.

STORMWATER TESTING

The scope of services proposed under this task is to evaluate proposed stormwater infiltration rates and design seasonal high water table (SHWT) in accordance with current NJDEP BMP requirements.

We propose to provide the following scope of services:

Scope of Services

1. Retain a non-union, non-prevailing wage excavating contractor who will provide a backhoe and operator to perform the test pit explorations to explore subsurface soil and groundwater conditions at the site;
2. Locate the stormwater basins initially through measurements from existing site features, survey, and base map information at the time of our field exploration program;
3. Provide full-time technical observation of the work of the excavation contractor. Technical observation will be performed by geotechnical technicians or geologists under the direct supervision of the project Geotechnical Engineer;
4. Obtain representative soil samples encountered within the zone of influence of the proposed construction;
5. Perform up to **two** (2) Tube Permeameter tests in the anticipated stormwater management area in accordance with NJAC 7:9A-6.2 to evaluate design infiltration rates;



6. Prepare and evaluate test pit logs showing the types of soils and depth to groundwater encountered in the areas of the proposed stormwater management basins, and estimated seasonal high water table;
7. Present the results of our subsurface exploration for stormwater infiltration and laboratory testing in the form of a letter report for use by the design team.

Test Pit Procedures

Due to the nature of the work, some incidental disturbance of the grounds (e. g. tire ruts, soil stains, soil mounds, etc.) and settlement should be anticipated after the completion of the test pits. Test pits will be backfilled in a series of lifts immediately after their completion or at the end of the day. Each lift will be tamped with the backhoe bucket.

If excess spoils are realized, they will be mounded at the test location. Some settlement may occur after the completion of the tests, however, should settlement occur, it will be the Borough's option to maintain the grade at each test location after we demobilize from the site. This proposal excludes any additional site restoration other than what is outlined above.

Explorations will be performed under the full-time technical observation of a representative of Maser Consulting. Our representative will maintain logs of the explorations as the work proceeds and collect tube permeameter samples.

Our subcontractor shall be responsible for contacting the One Call System; however, the Borough is responsible for providing us with available utility information. Neither Maser Consulting nor our subcontractor can be held responsible for any damage caused to underground utilities or structures that are not marked out in the field by others, or accurately shown on the plans provided to us.

EXCLUSIONS

This proposal does not include the following items within the quoted fee:

- Testing is limited to Tube Permeameter Testing as specified in NJAC 7:9A 6.2. Other testing such as Soil Permeability Class Rating tests, Double Ring Infiltrometer testing, Percolation testing, Pit Bailing tests, Piezometer tests and Basin Flooding tests are excluded. We will prepare a separate proposal for additional and varied permeability testing if requested, or if subsurface conditions require.
- **The fee below assumes that the rubber tire backhoe and operator will be provided by the New Providence DPW for two field days.**

PHASE 1.0 GEOTECHNICAL ENGINEERING SERVICES

***\$14,500.00**

***Cost not to exceed**



PHASE 2.0 SURVEY SERVICES

As part of the NJDEP Letter of Interpretation (LOI) detailed under Phase 4.0, the NJDEP will perform a site visit to review and confirm agreement with the wetland limit. Accordingly, the survey crew will review any adjustments to the previous delineation and locate the markers accordingly prior to finalizing the documents for the NJDEP submission. In addition, the survey crew will place approximately fifty (50) markers with an appropriate stake and/or flag prior to completion of the permitting process for review by the NJDEP during evaluation of the application.

Finally, the NJDEP requested that Maser stake the corners of the proposed synthetic turf field for their review during the permitting process. Accordingly, the stakes will be placed upon completion of the field layout during the permitting process for review by the NJDEP.

PHASE 2.0 SURVEY SERVICES ***\$9,500.00**
***Cost not to exceed**

PHASE 3.0 FINAL DESIGN DOCUMENTS & BIDDING SERVICES

Utilizing the concept and the established Flood Hazard Area (FHA) Line as prepared and verified by the NJDEP under a separate contract, Maser Consulting will prepare complete construction drawings, specifications, a refined cost estimate and the application packages for submission to the NJDEP and SCD. In addition, a bid package will be prepared and bidding services through project award is included.

The construction drawings will include a Cover Sheet, Existing Conditions & Demolition Plan, General Notes & Legend, Site Dimension Plan, Grading, Drainage & Utility Plan, Landscape & Lighting Plan, Soil Erosion & Sediment Control Plan and Construction Details. In addition, the permit-specific drawings for NJDEP FHA and Wetlands submission, including the Environmental Constraints Plan, will be prepared and included in the permit set. The drainage design will be refined and detailed within the construction drawings. Drainage calculations demonstrating compliance with applicable regulations will be prepared and summarized in a drainage report. Coordination with vendors and utility providers will continue to ensure the necessary information is obtained for a complete bid package.

The construction cost estimate will be refined to reflect the final design and quantities. Maser Consulting will prepare specifications, both supplemental and technical, for all site improvement items that are specified within the design drawings for incorporation into the bid package. The specifications will be prepared in the latest NJDOT format, as amended.

This phase includes preparation of additional concepts that were prepared to reflect potential varying buffers to wetlands along the perimeter of the field. These concepts were prepared so the different scope options and associated constraints could be discussed with the NJDEP.



This phase includes the preparation of the design items for an application package to the NJDEP for an FHA Individual Permit (IP) and Wetland General Permits. The Land Use Regulation Program (LURP) form, Wetlands Report and Engineering Report will be prepared under Phase 4.0 and submitted with the completed construction plans, drainage report and application fee for review by the NJDEP. Any required supplemental items, including the application checklist, 200' Certified Property Owner's List and compliance statement, will be prepared under Phase 4.0 and included as part of the submission package. This phase includes the effort to address minor comments with regard to completeness review and/or technical review. Addressing significant comments is outside of the scope of this agreement and will be the subject of a separate proposal, if necessary. Depending on the progress of the project, the above application may be submitted during the Construction Document Phase, if sufficient design elements/design documents have been finalized for a complete application.

This phase includes the preparation of an application package for submission to the Somerset-Union Soil Conservation District (SCD) for Soil Erosion and Sediment Control Certification. The application, detention basin summary form and fee schedule will be prepared and submitted with the completed construction plans, drainage report and application fee for review by the SCD. Upon issuance of the Certification, the New Jersey Pollutant Discharge Elimination System (NJPDES) Stormwater Discharge Permit Request For Authorization (RFA) can be submitted. Depending on the progress of the project, the above application may be submitted during the Construction Document Phase, if sufficient design elements/design documents have been finalized for a complete application.

As part of this phase, Maser Consulting will prepare the bid packages for sale to potential Contractors, provide the Borough with the Notice to Bidders for advertisement, respond to Contractor inquiries during the bid period, attend the bid opening, prepare a summary of bids, review and contact Contractor references, as required, and prepare an award recommendation to the Borough. In addition, this phase includes attendance at additional project meetings up to the point of bid award, as required.

PHASE 3.0 FINAL DESIGN DOCUMENTS & BIDDING SERVICES *\$48,500.00
***Cost not to exceed**

PHASE 4.0 NJDEP FHA IP & WETLANDS PERMITTING

WETLANDS LETTER OF INTERPRETATION (LOI)

This phase includes the preparation for and attendance at a second Pre-Application meeting with the NJDEP. The intent of the meeting was to clarify previous statements that were made which have significant impacts to the ultimate size of the proposed field. The NJDEP Division of Land Use Regulation (DLUR) indicated, through the second Pre-Application meeting on July 6, 2017, that the best approach to determine whether the proposed turf field is subject to NJDEP permitting is to obtain a Letter of Interpretation for the onsite wetlands, which will assign a resource value classification and associated buffer to the wetlands.



Currently, within the state of New Jersey, the DLUR is the lead agency responsible for verifying freshwater wetland boundaries and authorizing encroachments into freshwater wetlands and their associated transition areas. The DLUR verifies freshwater wetland boundaries through the issuance of a Letter of Interpretation (LOI) – Line Verification. Requests for a LOI – Line Verification must be accompanied by a boundary survey of the property with topography and a delineated freshwater wetland boundary.

Maser Consulting will prepare an application for a LOI – Line Verification to the NJDEP to obtain regulatory verification of the boundaries and resource value of the delineated wetlands. This application will be prepared in accordance with standards described in subchapters 3 and 10 of the Freshwater Wetlands Protection Act Rules and will include preparation of a DLUR application form, and preparation and mailing of public notices.

Freshwater wetlands were previously delineated on the project site. A wetland delineation report will be prepared and will include background mapping, site description, photographs, technical data sheets, and qualifications of preparers. The wetland delineation report will include the following information:

1. Characterizing the soils of the wetland and upland areas including a statement on their hydric or non-hydric nature based upon Munsell Soil Color Chart readings.
2. Characterizing the upland and wetland communities based upon vegetation and compiling a general list of plant species on the property with an indication of their associated abundance in the wetland and upland communities.
3. Characterizing the hydrology of the wetland and upland areas on the property.

As indicated above, the DLUR requires that the delineated wetland boundary be surveyed and plotted on a boundary survey of the property with topography. The wetland delineation report will include and reference the boundary and topographic survey which shows the wetland boundaries. Plan preparation will be prepared under Phase 2.0.

Exclusions:

- Application fees are excluded and are to be paid directly by the Borough.
- Reimbursable expenses (e.g. reproductions, express mail, certified mail, mileage) will be billed as additional cost items and are estimated at \$250.00.
- Field meetings and revisions requested by the DLUR.

WETLANDS PERMITTING

Based on conceptual layouts provided for review, certain improvements may encroach into wetland and/or wetland transition areas. These activities will require permits from the NJDEP DLUR. Maser Consulting will prepare an application request for the appropriate permits from the NJDEP in accordance with the standards described in subchapters 3, 5, 6 and 10 of the New Jersey Freshwater Wetlands Protection Act Rules.



FHA PERMITTING

The NJDEP regulates Flood Hazard Areas under the Flood Hazard Area Control Act Rules. Utilizing the FHA Line Verification previously approved by the NJDEP, our office will prepare the necessary Environmental Constraints Plan, plan profile, site cross sections and earthwork calculations for submission of a complete permit set. Any encroachment beyond the FHA Line will require the grading design in that area to be limited to 0% net fill.

The NJDEP requires that an Environmental report be prepared and submitted with any application for an Individual Flood Hazard Area Control Act Permit. Maser Consulting will prepare an Environmental report which will contain the following information:

1. A narrative that describes the proposed design and the construction techniques that will be used for the project.
2. Maps (such as freshwater wetlands maps and USDA soil surveys) which provide an environmental inventory of the site.
3. An analysis of any potential adverse impacts to the following resources and a detailed description of how potential adverse impacts shall be minimized. This analysis shall include all temporary and permanent adverse impacts of each proposed activity, whether onsite or offsite, as follows:
 - i. Channels: compliance with the requirements of N.J.A.C. 7:13-10.1, as well as any anticipated effects on the size, shape and characteristics of existing channels, including low-flow aquatic passage, shall be addressed;
 - ii. Riparian zones: compliance with the requirements of N.J.A.C. 7:13-10.2.
 - iii. Fishery resources: compliance with the requirements of N.J.A.C. 7:13-10.5.
 - iv. Threatened or endangered species: if a survey for threatened or endangered species is required under N.J.A.C. 7:13-10.6(e), it shall meet the applicable requirements;
 - v. The effects on water quality due to stormwater runoff, exposure of acid producing soils, and potential for erosion and turbidity.

Included as part of this scope of work is the submittal of a request to the Natural Heritage Program, securing an adjacent property owner list, preparing adjacent property owner notifications, and preparing the DLUR application form.

The NJDEP requires that an Engineering report be prepared and submitted with any application for an Individual Flood Hazard Area Control Act Permit. Maser Consulting will prepare an Engineering report which will contain the approach to plan preparation, supporting calculations, approach to stormwater management, compliance statements and attachments.

All fees described above are for services rendered from the initial stages of the project up to the time of submission of the required information to the Borough or the DLUR. They do not include costs for expert testimony, participation in hearings or meetings beyond those presented in this proposal (field inspections with the NJDEP will be billed as extra cost items on a time and materials basis), or work associated with securing permits or transition area waivers from the



DLUR. Fees associated with various permits and applications are to be paid directly by the Borough.

PHASE 4.0 NJDEP FHA IP & WETLANDS PERMITTING *\$24,000.00
***Cost not to exceed**

PROJECTED SCHEDULE:

The estimated schedule for the project is outlined below.

	<u>Approximate Start Date</u>	<u>Approximate End Date</u>
Approval of Design Services	November 13, 2017	
NJDEP LOI Submission	November 29, 2017	January 31, 2018
Preparation of Design Documents	February 1, 2018	March 1, 2018
NJDEP Submission & Review	March 5, 2018	May 28, 2018
Authorization to Bid	May 2018	
Bidding Period Services	May 2018	June 2018
Project Award	July 2018	
Pre-Construction Meeting	July 2018	
Anticipated Construction Period	July 2018	November 2018

FEE PROPOSAL

For your convenience, we have broken down the total estimated cost of the project into the categories identified within the Scope of Services. Maser Consulting will invoice the project at the hourly rates established in our 2017 Borough Engineering contract.

PHASE 1.0 – GEOTECHNICAL ENGINEERING SERVICES	\$14,500.00
PHASE 2.0 – SURVEY SERVICES	\$ 9,500.00
PHASE 3.0 – FINAL DESIGN DOCUMENTS & BIDDING SERVICES	\$48,500.00
PHASE 4.0 – NJDEP FHA IP & WETLANDS PERMITTING	\$24,000.00
TOTAL FEE	\$96,500.00

Maser will perform the above-referenced services for a **total cost not to exceed \$96,500.00**. A Proposal for construction administration services will be submitted under separate cover at the time of bid award.



PERMIT FEES

Fees for applications and permits are the obligation of, and are to be paid by, the Borough.

EXCLUSIONS

If any item listed herein, or otherwise not specifically mentioned within this agreement or the Borough Engineering Agreement, is deemed necessary, Maser Consulting may prepare an addendum to this agreement for your review, outlining the scope of additional services and associated professional fees regarding the extra work. All unanticipated additional work shall be in accordance with the Schedule of Hourly Rates for the number of hours performed. No extra work will be performed without authorization from the Borough.

If you find this Proposal acceptable, please forward a copy of the Resolution of Approval for this Proposal to this office. This will constitute approval of the proposed work.

Thank you for the opportunity to offer our services for the proposed Grove Field Improvements. We look forward to working with you on this and future projects. In the meantime, should you have any questions regarding this Proposal, please feel free to contact me.

Very truly yours,

MASER CONSULTING P.A.

A handwritten signature in blue ink, appearing to read 'A. Hipolit', is written over the printed name.

Andrew R. Hipolit, P.E., P.P., C.M.E.
Borough Engineer

ARH/pwj