

CARNEYS POINT TOWNSHIP SEWERAGE AUTHORITY

RESOLUTION 2024-23

Resolution Authorizing Sickels and Associates Proposal for Waste Water Treatment Plant Expansion Project

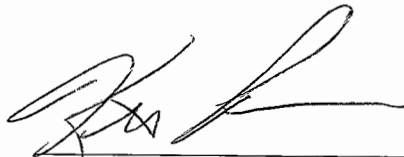
WHEREAS, The Carneys Point Township Sewerage Authority (“CPTSA”) is in need of construction plans for a proposed treatment facility expansion; and

WHEREAS, Sickels and Associates has submitted a proposal, dated February 8, 2024, in the estimated amount of \$2,190,000.00; and

WHEREAS, the CPTSA has reviewed the proposal set forth in the engineer’s letter and approves it.

NOW THEREFORE, BE IT RESOLVED by the CPTSA that the proposal submitted by Sickels and Associates is hereby approved in the estimated amount of \$2,190,000.00 and the Chairman is authorized to execute the agreement with Sickels and Associates on behalf of the CPTSA; and

AND BE IT FURTHER RESOLVED THAT this resolution shall be effective immediately.



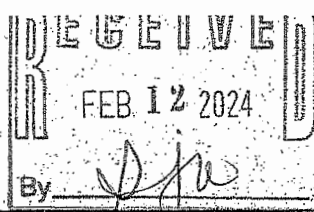
Kenneth Brown, Authority Chairman

Date of Adoption: February 20, 2024

Committee	Moved	Seconded	Y	N	Abstain	Absent
Mr. Bomba	✓		✓			
Mr. Basile			✓			
Mr. Brown			✓			
Mr. Newton		✓	✓			
Dr. Racite			✓			

SICKELS &

ASSOCIATES, INC.



CPS # 136

Engineers • Planners • Surveyors

February 8, 2024

Carneys Point Township Sewerage Authority
303 Harding Highway
Carneys Point, NJ 08069

Attention: Chairman & Board

Reference: *Proposal for Professional Services
WWTP Expansion Project – Phase II, III, IV
Carneys Point Township, Salem County, NJ
S&A Proposal Number 2024-15*

Dear Chairman Brown and Board Members:

Sickels & Associates, Inc. would like to thank you for the opportunity to offer this proposal for surveying and engineering services in connection with the above-referenced project.

It is our understanding that the Authority wishes to proceed with the design of the Wastewater Treatment Plant (WWTP) Expansion Project, which will replace the Authority's aging treatment facility while increasing treatment capacity to ensure that development within the Township is not delayed. As we identified in our report to the Board on September 21, 2021, the existing treatment plant will have to be replaced in order to meet NJDEP's anticipated effluent regulations, meet the Township's affordable housing obligations, and ensure that the Authority's infrastructure can meet existing and future flood hazard requirements.

While the funding plan for this project has not been finalized at this time, it is our understanding that the project will be partially funded by multiple sources, including potential grants from USED, USDA, NJ I-Bank, congressional apportioning, contributions by the township, and traditional bonding by the Authority. Accordingly, we have included time within our overall scope for project submissions, reviews, approvals, and coordination with funding agencies.

We have prepared the following proposal for the various surveying and engineering services that we anticipate will be required for the development of the construction plans for the proposed treatment facility expansion. This scope includes work for the complete design and permitting of the treatment plant, including preparation of a full set of plans and specifications for regulatory approvals, bidding, and construction. Further work, including the bidding and construction phase services, will be provided under a separate proposal at a later date. The engineering design and permitting costs are expected to be incurred over a 2½-year period.

Sherwood Mews • 833 Kings Highway
Woodbury, New Jersey 08096-3110
(856) 848-6800 FAX (856) 848-8520
www.sickelsassoc.com

Re: *Proposal for Professional Services
WWTP Expansion Project
Carneys Point Township, Salem County, NJ
S&A Proposal Number 2024-15*

February 8, 2024

For ease of review, the proposal is organized in the following manner; Our Understanding of the Project, Description of Services, Consulting Fee and Terms and Conditions.

OUR UNDERSTANDING OF THE PROJECT

Our approach to this project as outlined in the Description of Services consists of the following six (6) phases.

Phases for Previously Approved Work

PHASE I Topographical/Outbound Survey & Site Investigation

Phases for Current Proposal

PHASE II Process Design & Preliminary Plans

PHASE III Regulatory Approvals & Funding Agency Review

PHASE IV Final Construction Plans & Specifications

Phases for Future Proposals

PHASE V Bid Administration

PHASE VI Construction Phase Services

For the purpose of defining the extent of services which may be required for completion of the surveying, engineering and design of this project, this proposal assumes that all necessary construction will be let out for public-bid. As such, contract documents and technical specifications required for public bidding purposes will be prepared.

DESCRIPTION OF SERVICES:

Based on the above project description, our scope of services will include the following activities:

PHASE II PROCESS DESIGN & PRELIMINARY CONSTRUCTION PLANS

The scope of this Phase includes process design and preparation of preliminary design plans and technical documents.

SECTION 1.0 COLLECTION SYSTEM RECONSTRUCTION

- 1.1 Request and obtain from Municipal Tax Assessor's office current information such as lot and block designations, names and addresses of property owners.
- 1.2 Design proposed sanitary sewer mains and manholes to reroute existing gravity collection system around the proposed expansion area. Determine impacts to existing utility mains and services based upon available information collected in the field. Coordinate with Municipality, Authority, and utility agencies for any conflicts with proposed sanitary sewer main installation. Some field work may be required of the Authority under this task. For some locations we may request that the Authority conduct test pits for locating various underground utilities and so that our surveyors can accurately locate said utilities.

- 1.3 Design horizontal and vertical alignment of the proposed sanitary sewer main. Verify any service laterals and adjust to new installation.
- 1.4 Design trench dewatering, sheeting, shoring, and restoration.
- 1.5 Design decommissioning of existing mains.
- 1.6 Prepare typical construction details.
- 1.7 Prepare details for sanitary sewer facilities.
- 1.8 Design soil erosion and sediment control measures and prepare necessary narrative.

SECTION 2.0 PROCESS DESIGN & PRELIMINARY CONSTRUCTION PLANS

- 2.1 Schematic and conceptual designs were developed during the Feasibility study and Phase I S&A will work closely with CPTSA to finalize the conceptual design of the proposed WWTP facilities.
 - A. Size proposed equipment and prepare hydraulic calculations based on approved conceptual design.
- 2.2 Review available as-built plans and perform site visits to identify major pieces of equipment and components associated site conditions in an effort to prepare site improvement and demolition plans.
- 2.3 Conduct an onsite review of electrical system loads. The sources of power for each of the existing unit processes will be reviewed in an effort to determine if sufficient power is currently available to support the installation of the proposed facilities. Review electrical system loads and prepare single line electrical diagram(s) for the proposed facilities. Contact Atlantic City Electric regarding proposed loads; place order for new service to ensure sufficient power availability at time of construction.
- 2.4 Prepare and update plans and details of the existing site based on available plans and survey information.
- 2.5 S&A will work with the Authority regarding onsite bypass pumping that will be necessary during the construction phase of the project.
- 2.6 S&A will layout site piping between the unit processes for wastewater and sludge conveyance. Valves and bypass piping for isolating unit processes will be included.
- 2.7 Prepare plans, details, and sections of the existing WWTP and identify the proposed improvements where interface is necessary between existing and proposed systems.
- 2.8 Design complete plant supervisory control and data acquisition (SCADA) system along with local control panels and electrical infrastructure.

**Re: Proposal for Professional Services
WWTP Expansion Project
Carneys Point Township, Salem County, NJ
S&A Proposal Number 2024-15**

February 8, 2024

- 2.9 Prepare plans and details of the proposed tankage and equipment support structures. Tank and finished floor elevations will be designed to comply with projected flood elevations in compliance with the NJ climate resilience projections and goals for the lifespan of the proposed facility (50 years).
- 2.10 Tank, structure, building and site design will include layout and specification of access stairways, ramps, concrete pads, and driveways, as required.
- 2.11 It is anticipated that the major tankage elements will be constructed from precast concrete sections that will be assembled on site.
- 2.12 Our office will prepare concrete foundation designs in accordance with the manufacturer's recommendations based on the load bearing capacity of the soils that will be obtained from geotechnical analysis identified in Phase I.
- 2.13 Construction plans, details and sections will be prepared showing the equipment layout, piping configuration, electrical, mechanical & structural requirements, and other construction items as required for the proper construction of the facility.
- 2.14 Prepare site plan grading, restoration, and utility plan and details.
- 2.15 Prepare soil erosion and sediment control plans and details.
- 2.16 Complete the above items for the following systems and unit processes:
 - A. Headworks
 - i. Screening System
 - ii. Screenings Washer & Compactor
 - iii. Bypass Screen
 - iv. Influent Pump Station
 - v. Grit Removal
 - vi. Grit Washer
 - vii. Influent Odor Control System
 - B. Biological Wastewater Treatment Process
 - C. Advanced Filtration
 - D. Disinfection Process
 - E. Effluent Pump Station
 - F. Outfall Discharge Pipe Replacement

- G. Sludge Handling System
 - i. Thickening / Sludge Decant
 - ii. Aerobic Digestion
 - iii. Dewatering System & Sludge Disposal
- H. Backwash & Recycle System
- I. Electrical & motor control centers
- J. Auxiliary power system

2.17 Develop design, plans, and specifications for proposed site buildings. It is anticipated that site buildings will include the following:

- A. Operations Building & On-Site Laboratory
- B. Auxiliary Power & Preliminary Treatment Building
- C. Sludge Processing Facility

2.18 Stormwater Management Plan

- A. Delineate drainage patterns to define immediate shed area based on available topographic information. Determine runoff coefficient of shed areas, pre and post development runoff rates and drainage pipe calculations.
- B. Prepare Stormwater Management Plan showing drainage pattern of tract and adjoining properties. Design and locate facilities to collect and manage stormwater runoff such as drainage systems, detention and/or retention basins.
- C. Prepare drainage report to determine pre and post development runoff rates and basin routings of detention and/or retention facilities. Prepare stormwater pipe calculations.

2.19 Develop preliminary construction plans and technical specifications for the above-referenced unit processes and buildings. Drawings that may be required on this project are:

- A. Cover Sheet with Project Title and Key Map
- B. Existing Conditions Plan / Overall Site Plan
- C. Phasing Plan
- D. Demolition Plan
- E. Site Plans

- F. Grading Plans
- G. Utility Plans and Profiles
- H. Building Plans & Details
- I. Treatment Equipment Plans & Detail Sheets
- J. Site & Construction Detail Sheets
- K. Electrical & Controls Plans & Detail Sheets
- L. Single Line Electrical Diagrams
- M. Structural Plans and Detail sheets
- N. Mechanical & HVAC plans and details
- O. Soil Erosion and Sediment Control plans, details, and notes

- 2.20 Prepare plans of easement and coordinate with Authority Solicitor to negotiate with property owners and record easements with the County.

PHASE III REGULATORY APPROVALS & FUNDING AGENCY REVIEW

The scope of this Phase includes preparation and submission of applications and support documents.

SECTION 1.0 APPLICATIONS AND SUBMISSIONS

- 1.1 Prepare and submit necessary applications and support documents prepared herein, and assist in procuring required permits and approvals relating to the design and implementation of the project. The Authority is responsible for application fees. Permits and/or approvals which may be required are:
- a. Treatment Works Approval (TWA) Application
 - b. New Jersey Pollutant Discharge Elimination System (NJPDES)
 - i. Discharge to Surface Water (DWS) Permit Modification
 - ii. Discharge Permitting during Construction Phase
 - iii. S3G General Permit for Sludge Quality
 - c. Water Quality Management Plan (WQMP) Amendment
 - d. Freshwater Wetlands
 - i. Individual Permit
 - ii. Transition Area Waiver
 - e. Flood Hazard Area Individual Permit

Re: *Proposal for Professional Services
WWTP Expansion Project
Carneys Point Township, Salem County, NJ
S&A Proposal Number 2024-15*

February 8, 2024

- f. Stormwater 5G3
- g. Cumberland-Salem Soil Conservation District Plan Approval
- h. Army Corps of Engineers Nationwide Permit #7
- i. Conrail Pipe & Wire Occupancy
- j. Waterfront Development
- k. Tidelands License
- k. Atlantic City Electric
- l. Comcast / Verizon for Business Internet

1.2 Based on review comments, confirm the general scope, extent and character of the project with the Authority prior to proceeding with Phase IV.

SECTION 2.0 SUBMISSION TO FUNDING AGENCIES

2.1 In accordance with the published funding agency schedule, prepare documentation for submission to accompany the Authority's loan and/or grant applications.

- a. Submit plans and specifications per funding agency requirements.
- b. Prepare SED Utilization Plan and submit to NJDEP Office of Equal Opportunity for approval (Required for NJ I-Bank funding).
- c. Prepare and submit Project Report/Facilities Plan/PER.
- d. Prepare and submit a design based construction cost estimate.
- e. Coordinate with Authority and Authority's Solicitor regarding documentation of rights of way and easements.
- f. Coordinate with Authority and Authority's Bond Counsel regarding submission of funding applications.
- g. Prepare projected bid schedule and submit to funding agencies for approval.

Please note that this proposal does not include work necessary to comply with American Iron & Steel (AIS) or Build America, Buy America (BABA) requirements. Should the selected funding sources impose these requirements for this project, we will offer an addendum to perform these additional services.

Re: *Proposal for Professional Services
WWTP Expansion Project
Carneys Point Township, Salem County, NJ
S&A Proposal Number 2024-15*

February 8, 2024

PHASE IV FINAL CONSTRUCTION PLANS

The scope of this Phase includes preparation of final plans for construction purposes:

SECTION 1.0 DESIGN FINALIZATION AND SUBMISSION

- 1.1 Based on preliminary and governmental review comments, revise and finalize construction drawings listed in Phase III and finalize design documents for public bidding purposes.
- 1.2 Finalize standard and technical specifications.
- 1.3 Prepare Contract Documents consisting of Notice to Bidders, Bid Form, Contract Forms and General and Supplemental Conditions.
- 1.4 Obtain approval from funding agencies to advertise for bids.

SUPPLEMENTAL SERVICES

We believe our proposal as presented is comprehensive to satisfy the requirements of the project. However, if deemed necessary by the client or regulatory agencies, we will offer an addendum to perform these additional services.

CONSULTING FEE FOR SERVICES RENDERED

Based on the understanding of the project and description of service, our total consulting fee to complete the various activities described herein is estimated at **\$2,190,000.00** plus the cost of reimbursable expenses which will be invoiced separately.

Said consulting fee is apportioned in accordance with the following breakdown:

Phase II	Process Design & Preliminary Plans	\$1,495,000.00
Phase III	Regulatory Approvals & Funding Agency Review	\$ 320,000.00
Phase IV	Final Plans and Specifications	\$ 375,000.00
TOTAL		\$2,190,000.00

The above fee is our estimate of the normal services necessary to complete the project design and obtain approvals based upon the cost estimate and scope of work. However, should the need arise for additional work by virtue of major revisions or redesign as required by the reviewing agencies, or should additional services beyond those outlined in the Description of Services be required, then said work will be considered as extra and invoiced as Additional Services at the hourly rates per our Annual Fee Schedule.

Sickels & Associates is prepared to commence work immediately upon receipt of authorization to proceed. This proposal assumes that said authorization will be issued within sixty (60) days from the date of this proposal. The terms and conditions of this proposal shall remain in effect for sixty (60) days.

**Re: Proposal for Professional Services
WWTP Expansion Project
Carneys Point Township, Salem County, NJ
S&A Proposal Number 2024-15**

February 8, 2024

If you concur with our Description of Services and Consulting Fee, please execute the Proposal Acceptance & Notice to Proceed and return same to our office.

Once again, we would like to thank you for the opportunity to offer the services of our firm and we look forward to working with you on this venture.

Very truly yours,

SICKELS & ASSOCIATES, INC.



Mark R. Brunermer, P.E., C.M.E.
President

cc: Patricia A. Owens, S&A, Inc.
Erik K. Biermann, P.E., C.M.E., S&A, Inc.
Sean-Erik O'Donnell, P.E., C.M.E., S&A, Inc.

File: 2024-15

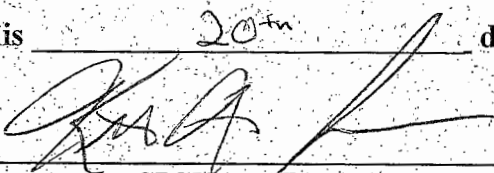
Re: *Proposal for Professional Services
WWTP Expansion Project
Carneys Point Township, Salem County, NJ
S&A Proposal Number 2024-15*

February 8, 2024

PROPOSAL ACCEPTANCE & NOTICE TO PROCEED

Having reviewed the proposal for the various planning, surveying and engineering services, including the Terms and Conditions of the Service Agreement, and all sections relating to payment for services, which is a part thereof, acceptance of the proposal is hereby confirmed by the signature below. Sickels & Associates, Inc. is authorized to proceed with the work.

Accepted this 20th day of February, 2024

By:  CPTSA Chairman
SIGNATURE TITLE

Ken Brown

NAME (PLEASE PRINT OR TYPE)

Carneys Point Township Sewer Authority
COMPANY

303 Harding Highway
ADDRESS

Carneys Point NJ 08069

856 299 5210
PHONE NO.

856 299 0921
FAX NO.

PWillis@CPTSA.Org VZee@CPTSA.Org
CLIENT'S E-MAIL ADDRESS