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- Perform hydraulic analysis to determine if existing combined sewers are appropriately sized for conversion to sanitary sewers, and if low velocities/deposition of solids may be a concern.
- Perform sizing of the proposed new storm sewers to meet the appropriate City design standards.

b) If new sanitary sewers are recommended, AECOM will perform the following as part of the design:

- Develop a description, schematic layout, and estimate of project cost.
- Recommend system rehabilitation based on the condition assessment of existing combined sewers.
- Perform hydraulic analysis to determine if existing combined sewers are appropriately sized for conversion to storm sewers.
- Perform sizing of the proposed new sanitary sewers to convey the required design flows.

7. AECOM will update the facilities planning report with the sewer rehabilitation recommendations and updated cost estimate based on the completed design.

8. AECOM will prepare a Project Manual to include an advertisement for bids, information to bidders, unit price proposal form, bonds, contract, and detailed technical specifications. The specifications will set forth the kind and quality of various materials to be used in construction, and the type, capabilities, operating requirements, pertinent tests, guarantees to be met, and similar information needed to obtain competitive bids for construction of the Project.

    a) Specifications may reference ODOT Construction and Material Specifications or AECOM specifications. A measurement and payment section will be included so as to clearly indicate how each item will be measured and paid.

9. AECOM will prepare a schedule of quantities and Engineer's Estimate of Probable Construction Cost.

10. AECOM will coordinate and request approvals from appropriate governmental and public authorities. The City is responsible for payment of all permit fees and/or occupancy fees necessary to obtain approval from the subject regulatory agencies.

BIDDING ASSISTANCE

- Provide the City up to fifteen (15) sets of complete construction bidding documents (plans and specifications).

- All bidding questions shall be directed to the City. AECOM will be responsible to provide responses to any technical questions forwarded from the City.

- The City shall prepare all addendums. It's not anticipated that any drawings will need revised prior to the bid opening.

- AECOM is not required to attend a pre-bid, if one is conducted.

- The City is responsible for advertising, selling, and opening bids.

- The City will review and tabulate the construction bids received.

ADDITIONAL CLIENT RESPONSIBILITIES

- The Client shall perform cleaning and root cutting in the main sewers in the project area, including jet truck, operations staff, water, disposal of debris, flow control/bypass pumping, and traffic control as necessary for CCTV inspection.

- The Client shall provide assistance to AECOM in locating manhole and catch basin structures; and provide traffic control during all field activities.

- The Client shall designate a representative authorized to act in its behalf with respect to general engineering services requested of AECOM. All direction and authorization shall be by or through such representative.

- The Client shall furnish AECOM all available information, reports, studies, testing results, design and survey data, operating records, existing plans, easements, and other data pertinent to the Project, and such shall be furnished at the Client's expense.

- If the Client deems that auditing, legal, accounting, and insurance counseling services may be necessary for the Project, such services shall be furnished by the Client.

- The Client shall furnish any required information and services, review all submitted documents, and render decisions pertaining thereto as expeditiously as necessary for the orderly progress of the Work, and so as not to delay the work of AECOM.

- The Client shall negotiate and acquire all land and easements required for construction of the Project.

- The Client shall negotiate and acquire the railroad utility crossing permit required for construction of the Project.

- The Client shall provide AECOM and its subcontractors access to enter upon public and private land as required for the performance of the Work.

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ADDITIONAL SERVICES

For additional services not included in the above Scope of Services, the Client and AECOM shall negotiate a scope and fee prior to commencement of Work. Such services shall consist of providing any other services not included in this proposal or not customarily furnished in accordance with generally accepted engineering practices. The following is a list of additional services which may be provided on this project:

- Easement Preparation and Negotiations
- Outfall Permits (ODNR, ACOE, etc.)
- Railroad utility crossing permit
- Construction Services
- As-Built Drawings

PROJECT SCHEDULE

AECOM will perform Phase I of the Scope of Services within two (2) months upon approval of this Work Authorization and contingent upon timely input by others.

Phase II will be performed within four (4) months upon completion of Phase I and notice to proceed from the City and contingent upon timely input by others.

PAYMENT

For services provided under this Agreement, AECOM shall be paid as follows:

Compensation of the stated Scope of Services shall be a stipulated lump sum of $100,000 Dollars.

The above fees are based on services being provided during the schedule outlined in this Work Authorization. Should the services be provided beyond the anticipated scheduled timeframes, then equitable adjustments to the personnel rates and engineering fees may be required.

A monthly invoice for services rendered shall be made as the Work progresses. Payment for services shall be made within thirty (30) days of the date of the invoice. Interest shall be paid at the State-permitted rate for all payments made forty five (45) days after date of the invoice.

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APPENDIX A:

OEPA FACILITIES PLANNING OUTLINE

FACILITIES PLANNING
(Comprehensive Outline)

1) Summary

2) Existing Conditions/Future Needs
   a) delineation of planning and service areas
   b) existing pollution/water quality problems
   c) type/condition/limitations of existing wastewater systems, as applicable, including:
      i) unsewered areas
      ii) WWTPs
      iii) I/I analysis for separate sanitary sewers
      iv) CSO study for combined sewers
   d) present/revised permit limits, if any
   e) present and future population (20 year projection)
   f) present and future land use (20 year projection)
   g) present and future design flows by category
   h) sensitive environmental features or resources

3) Feasible Alternatives (Solutions)
   a) no-action
   b) optimum utilization of existing systems
   c) flow reduction/water conservation
   d) unsewered areas - appropriate on-site vs centralized treatment alternatives
   e) I/I problems - removal vs transport and treat, including sewer rehabilitation, sewer replacement, flow equalization, etc.
   f) CSO problems - determine cost beneficial level of treatment; then compare sewer separation, in-line storage, off-line storage, treatment at each overflow, etc.
   g) WWTP - appropriate wet stream and solids handling processes

4) Alternative Selection
   a) determine and compare present worth costs for each alternative (include capital, O,M&R, and salvage value costs)
   b) identify and compare adverse environmental impacts for each alternative
   c) incorporate input from other review agencies/departments, as appropriate (OHPO, ODNR-floodplains, ODNR-natural areas, ODNR-parks, OEPA-groundwater, local/regional planning agency, ACOE, USFWS, etc.)
   d) select the cost-effective alternative(s) based on monetary and non-monetary factors
   e) describe selected alternative(s) in detail, including preliminary basis of design, line item costs, etc.
   f) provide an implementation schedule

5) Environmental Impacts/Mitigation
   a) describe the nature, magnitude, and duration of all potential primary and secondary adverse environmental impacts associated with the selected alternative(s)
   b) detail the structural and non-structural measures that will be used to avoid or otherwise mitigate each of these potential adverse impacts

6) Project Financing/User Costs/Implementation
   a) provide a breakdown of total project costs
   b) identify other approved or potential supplementary sources of project funding
   c) determine the anticipated user costs based on existing debt, project-related debt, and annual O,M&R costs
   d) identify any other homeowner costs (assessments, tap fees, lateral costs, etc.) that could be associated with the project

7) Public Participation
   a) public meeting - introduction to WPCLF, facilities planning, and problem(s) to be addressed by future WPCLF project; provide adequate advance public notice, register attendance, and compile general meeting notes; where public is already somewhat familiar with potential project, this meeting may be more oriented toward alternative evaluation and selection (in some cases, this meeting may be discretionary)
   b) public hearing - summary of facilities planning, including existing problem(s), alternatives evaluated, proposed project, environmental impacts, costs, and implementation schedule; provide adequate advance public notice, make draft facilities plan available for public review prior to public hearing, register attendance, and compile a hearing transcript (a public hearing is required)
   c) additional meetings, fact sheet distribution, etc. is encouraged throughout the planning process, and may be required should the project change significantly subsequent to the public hearing