



DEPARTMENT OF PURCHASING AND CONTRACTS

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AMENDMENT NO. ONE (1)

TO

CONTRACT No. 21-RG0045/PH

FOR

ENGINEERING SERVICES FOR SEPTIC TO SEWER CONVERSION, DISTRICT A PHASE 1 AND DEVELOPMENT OF SEPTIC UPGRADE INCENTIVE PROGRAM

The following changes, additions and/or deletions are hereby made a part of the Agreement Documents for **CONTRACT No. 21- RG0045/PH – ENGINEERING SERVICES FOR SEPTIC TO SEWER CONVERSION, DISTRICT A AND DEVELOPMENT OF SEPTIC UPGRADE INCENTIVE PROGRAM**, as fully and completely as if the same were fully set forth therein:

1. Addition of the enclosed eight pages to Exhibit A.
2. All other terms and conditions shall remain the same.

Coastal Engineering Associates, Inc.

BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY


Authorized Signature

John Allocco, Chairman
Hernando Board of County Commissioners
Hernando County, Florida

Date

Date

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY



County Attorney's Office

EXHIBIT "A"
**Engineering Services for Septic to Sewer, District A and Septic Upgrade
Incentive Program**

**Septic to Sewer District A Phase 1
Contract No. 21-RG0045/PH
May 31, 2022**

BACKGROUND

The scope of services to be performed shall consist of conceptual design and final detailed design services for the gravity sewer system, pump station(s), forcemain and individual lot connections required to provide sanitary sewer service to District A Phase 1 of the Hernando County Septic to Sewer area. This phase is comprised of Pump Stations A-3, A-4 and 4-5 from the 2016 Septic to Sewer Study and 2020 Master Wastewater Plan. This phase contains approximately 510 connections. These connections consist of approximately 413 occupied lots and 97 vacant lots with multiple commercial connections along Cortez Boulevard (SR-50). Design services will include proper abandonment of septic tanks and drain fields on the individual lots.

Key elements of District A Phase 1:

- 510 connections (413 occupied, 97 vacant)
- Assume approximately 90 sanitary manholes will be required
- Assume approximately 22,000 LF of gravity sewer pipe will be required
- Three (3) lift station s will be required
- Approximately 35,000 LF of right-of-way

SCOPE OF SERVICES

Task 1. Project Management

Develop and implement a financial and information management system for the project. Set up project financial files and prepare a project management plan that will be used throughout the project. The plan will summarize the project objectives, project schedule, project budget, communication plan, accounting/invoicing procedures, and project contact list. Monitor the project progress and manage the project in conformance with the contract.

- Prepare a project schedule
- Project Initiation: Conduct a project initiation meeting to clarify the requirements for the project, review pertinent available data, and present a work plan and initial work schedule.
- Documentation: Prepare and distribute meeting minutes for project initiation and design review meetings.

Task 2. Data Collection & Field Review

- 2.1** Prepare preliminary schematic design document(s).

- Conduct surface reconnaissance field trips: Review existing road/parcel conditions, the size and quantity of trees, and other factors in the field that could be a hindrance or impact to the routing of mains and services.
 - Coordinate with other Stakeholders: Coordinate with HCUD Engineering, HCUD Operations & Maintenance, as well as the Hernando County Public Works Department during the design process. As applicable, coordinate with other potentially affected utility owners if locates indicate their utilities are within the proposed construction corridors.
- 2.2** Provide Survey required for design, construction drawings, and permitting: This will include horizontal and vertical location of roadways, rights-of-way, utilities, trees, driveways, fences, signage, sidewalks, and other known improvements within the right-of-way. Monumentation in support of future construction stakeout will be required.
- Should it be required, the Consultant shall define specific locations where subsurface utility locate engineering is necessary to assist the surveyor. Examples of “subsurface utility locate engineering” include vacuum excavation, and ground penetrating radar. Data gathered at connection and conflict point locations shall conform to ASCE 38-02 Quality Level A.
 - It will also be necessary to conduct survey on existing developed lots. Prepare individual as-built surveys for each parcel depicting existing above ground improvements including houses, trees, hedges, driveways, walks, etc. as well as the location of water and sewer utility connections to the home, and the location of the existing septic tank, drainfield, and well (if any).
 - The location and mapping of septic tanks and drainfields will be reliant on marks to be placed on the surface by the property owners, probing, and above ground evidence as marked by a locating service. The scope does not include replacing missing lot corners.
 - The right-of-way and individual lot survey will include the size and location of trees that will be impacted by the construction. No tree mitigation is anticipated with this project.
- 2.3** Obtain information from a Geotechnical Engineering sub-consultant regarding sub-surface soils and their suitability for the proposed construction: Provide geotechnical engineering services (using a sub-consultant) including field exploratory work, laboratory and field testing, and professional guidance in tests to be made at locations based on drawings and designs. Services shall include geotechnical exploratory work such as soil borings and penetration tests, as well as any laboratory tests that may be required to provide information for design. Soil borings will generally be at intervals of 300 feet (at approximate sanitary sewer manhole locations) along the proposed pipe route and to five (5) feet below the proposed pipe invert. The design engineer shall assist in defining the required depths and locations of geotechnical services. Particular attention shall be given to borings at proposed pump station locations. The intent is to provide contractors with bid documents that are sufficiently complete to minimize the discovery of unforeseen conditions.

- The geotechnical firm will provide a geotechnical report interpreting the data obtained from the exploratory work and laboratory testing and describing the subsurface conditions that can be anticipated during construction.

The design engineer shall anticipate two (2) meetings with HCUD during the course of Sewer Service Exhibit completion, and two (2) site visits to review initial survey data.

Task 3. Provide Design, Construction Drawing, Permitting, and Bid Document Preparation

Design shall be in accordance with HCUD Design Guidelines as well as the HCUD Water, Reclaimed Water and Wastewater Construction Specifications Manual, latest editions, as well as FDEP requirements, Chapter 64E-6 FAC and the Florida Building Plumbing Code. Construction drawings shall include:

- Demolition plans.
- Maintenance of Traffic plans.
- Site stake-out plans.
- Water and Sewer construction plans.
- Sewer profiles.
- Sewage pumping station detail plans.
- Water and sewer details.
- Other utility conflict resolution and restoration plans.
- Roadway and right-of-way restoration plans: Roadways and rights-of way will be reconstructed or repaired in accordance Hernando County DPW requirements.

3.1 10% Preliminary Sanitary Sewer Layout and Review

- Prepare a ten percent (10%) Preliminary Sanitary Sewer Layout based on readily available LiDAR topographic data and GIS property data for the project area.
- We anticipate these documents to be presented on plan view only 24" x 36" sheet format.
- Meet with HCUD to discuss preliminary layout

3.2 Conceptual (30%) Design of Wastewater Collection System

- Prepare a Conceptual thirty percent (30%) Design deliverable including plan-view drawings to indicate the wastewater collection plan and water distribution system plan for the area. Locations of manholes, gravity sewer, forcemain, pumping stations, valves, and pipe sizes shall be shown on the drawings. One (1) pdf format USB or digital download link are required to be submitted for the thirty percent (30%) Design deliverable.
- The documents shall be prepared for the selection of a private construction contractor by a public competitive bid. Drawings shall be prepared in 24" x 36" sheet format. Plan and profile sheets shall be developed at a plan view scale of 1" = 20' (horizontal) and 1" = 2' (vertical).

- Meet with HCUD to obtain review comments on the Conceptual thirty percent (30%) Design. Resolve questions and revise documents to address comments while preparing the design for the next submittal.
- Conduct internal quality assurance/quality control (QA/QC) and constructability reviews.
- Incorporate the conceptual plan into the Master Wastewater Model and summarize the lift station sizing in a technical memorandum.

3.3 60% Design Documents

- Prepare a sixty percent (60%) Design deliverable of the wastewater collection system including detailed drawings of the proposed wastewater pipeline construction and submit to HCUD for review and approval. One (1) pdf format USB or digital download link are required to be submitted for the sixty percent (60%) Design deliverable.
- Incorporate HCUD's comments, if any, to the previously submitted thirty percent (30%) Design deliverable.
- Submit pdf format of Sewer Service Hook-up Exhibits for a portion (dependent on available lot surveys) of existing house structures within the project area.
- Prepare 60% Maintenance of Traffic (MOT) plans and coordinate the proposed MOT plan with the Hernando County DPW for approval.
- Prepare 60% Storm Water Pollution Plans and coordinate with Hernando County DPW.
- Conduct internal quality assurance/quality control (QA/QC) and constructability reviews.
- Meet with HCUD to obtain review comments on the sixty percent (60%) Design. Resolve questions and revise documents to address comments while preparing the design for the next submittal.

3.4 Individual Lot Sewer Hook Up Exhibits

Provide Individual lot Sewer Service Exhibits ("Hook-Up Exhibits"): It is anticipated that each lot will require detailed design of a Hook-Up Exhibit. This task will utilize survey data (as described above) which will be used to produce a plan view depicting the proposed routing of sewer service piping (including sewer service minimum slopes) from the dwelling to the service stub-outs at the right-of-way line. This effort will include the following sub-tasks:

- Obtain existing record drawings of the project area.
- Review the detailed parcel surveys.
- Perform a field reconnaissance to generally confirm acquired data and denote any additional information needs.
- In the event that a specific sewer service connection location cannot be confirmed in the field, a worst-case service design routing shall be shown for parcel owner coordination.
- Utilizing the information gathered/reviewed above, the design engineer will produce a DRAFT copy of each Sewer Service Exhibit showing the proposed service routings for

review and approval by HCUD. The size and scale of the exhibits shall be such that details are readable and clear.

- Comments received as a result of HCUD review shall be addressed and reflected in FINAL copies of the Exhibits provided to HCUD.
- The design engineer shall anticipate coordination with the surveyor during the course of their work including review of draft work products or other information to insure appropriate survey information is obtained for completion of the Sewer Service Exhibits.

3.5 Permit Submittals

The Coastal Team will submit the required permit applications to construct this project.

A. We expect to submit the following permit applications:

- Hernando County Right-of-Way Letter of Approval. Note that this includes preparation of a Storm Water Pollution Prevention Plan (SWPP) that meets the minimum erosion and sedimentation control measures required by Hernando County LDC, as well as any other items necessary to obtain the Right-of-Way Letter of Approval.
- HCUD Self-Permitting (FDEP) Sewer Permits.
- Florida Department of Transportation (FDOT) Utility Permit.

B. Permit Submittal Scope will include:

- Preparation of applications, exhibits, drawings, and specifications as necessary for execution and submittal.
- Furnishing additional information about the project design and making revisions to the application documents as required for permit approvals.
- Provision of copies of permits and related documents to HCUD.

3.6 90% Design Documents

- Prepare a ninety percent (90%) Design deliverable of the wastewater collection system including detailed drawings of the proposed wastewater pipeline construction and submit to HCUD for review and approval. An electronic pdf is required to be submitted for the ninety percent (90%) Design deliverable.
- Incorporate HCUD's comments, if any, to the previously submitted sixty percent (60%) Design deliverable.
- Submit pdf format electronic and hard copies of Sewer Service Hook-up Exhibits for remaining lots within project area.
- Prepare 90% Maintenance of Traffic (MOT) plans and coordinate the proposed MOT plan with the Hernando County DPW for approval.
- Prepare 90% Storm Water Pollution Plans and coordinate with Hernando County DPW.
- Conduct internal quality assurance/quality control (QA/QC) and constructability reviews.

- Meet with HCUD to obtain review comments on the ninety percent (90%) Design. Resolve questions and revise documents to address comments while preparing the design for the next submittal.

3.7 100% Design Documents

- Prepare a one hundred percent (100%) Design deliverable of the wastewater collection system including detailed drawings of the proposed wastewater pipeline construction and submit to HCUD for review and approval. Two (2) full size sets of drawings and an electronic pdf are required to be submitted for the one hundred percent (100%) Design deliverable.
- Incorporate HCUD's comments, if any, to the previously submitted ninety percent (90%) Design deliverable and prepare Final Detailed Drawings and a Bid Form deliverable for the proposed work, including materials and equipment required.
- Prepare 100% Maintenance of Traffic (MOT) plans and coordinate the proposed MOT plan with the Hernando County DPW for approval.
- Prepare 100% Storm Water Pollution Plans and coordinate with Hernando County DPW.
- Conduct internal quality assurance/quality control (QA/QC) and constructability reviews at each Project milestone.
- Bidding Documents to be provided to HCUD include drawings, bid form schedule with quantities, and text for inclusion into HCUD's Special Conditions, if needed. Provide one USB with electronic drawing files (pdf, Word, Excel and AutoCAD).
- Meet with HCUD to obtain review comments on the one hundred percent (100%) Design. Resolve questions and revise documents to address comments while preparing the design for the next submittal.

Task 4. Property Easement Acquisition Assistance

This task includes identifying specific tracts that may need to be acquired (a pump station site for instance), as well as any permanent easements that may need to be obtained. The scope of this work will include identification of the necessary acquisition, as well as providing a drawing and legal description in sufficient detail to support title research and acquisition. Assume 20 easement specific locations will be required for the project.

Task 5. Public Outreach

Provide assistance to the HCUD Public Outreach effort: Assistance may involve preparation of drawings and graphic presentation exhibits for use in town hall meetings with residents. Typically, this will include a general layout of the work proposed as well as a graphic representation of a sewer main installation, a new sewer service layout. The Coastal Team will not be responsible for setting up the venue time/place, meeting minutes at these Public Information Program engagements.

Task 6. Engineer's Opinion of Probable Cost

Consultant will prepare opinions of construction cost at each stage of deliverables in accordance with the Association for the Advancement of Cost Engineering International, Inc. (AACE) for the purpose of assisting HCUD in preparing budget funding requests, and evaluating design options. Expected accuracy will be as follows: Class 3 estimate for thirty percent (30%) design deliverable; and Class 1 estimate for ninety percent (90%) and 100% design deliverable. The Engineer's Opinion of Probable Cost shall include all costs to complete the project, including the engineering construction oversight.

Task 7. Bidding Assistance

Hernando County Purchasing will administer the bidding process. The Consultant will provide support including assembly of proposal documents (plans, specifications, and bid forms), assistance in responding to proposers' questions (requests for clarification, requests for information), and assistance in evaluation of the proposals received.

Clarifications and Assumptions

1. The number of individual commercial and residential sites within the project area is approximately 510 parcels.
2. We have assumed 2 hours per lot to complete the individual Sewer Service Hook-up Exhibits. This assumption is based on trees and lot improvements may be impacted when connecting the individual homes to new sewer system.
3. We have assumed a construction drawing total sheet count of up to approximately 200 sheets for all non-MOT sheets.
4. HCUD will provide available as-built data of proposed project site and existing infrastructure within one month of date of notice to proceed.
5. Permitting services beyond those specifically included in the Scope of Services are excluded.
6. All permit fees, plan review fees, or other regulatory fees including but not limited to Hernando County and FDEP permits are excluded from this Scope of Services and are assumed to be paid directly by HCUD.
7. FDOT permitting will be required for commercial parcels located along Cortez Boulevard (SR-50).
8. The Consultant will provide responses to three (3) request of additional information (RAIs) to permitting agencies. The responses to RAIs will be submitted to HCUD for review and approval prior to submittal to permitting agencies.
9. Archaeological surveying and permitting are excluded from this Scope of Services.
10. The overall project schedule assumes HCUD will provide review comments within 2 weeks for the 30% submittal, and 3 weeks for the remaining 60%, 90% and 100% submittals.
11. Driveways to be replaced within the project site will be replaced with new concrete from the right-of-way line to the edge-of-pavement. The thickness of the new concrete driveway will be based on the Hernando County Facility Design Guidelines.

12. The project site is assumed to be free of soil and groundwater contamination. A contamination study or remediation planning is not included in this scope of services.
13. Hazardous materials (asbestos, metals, PCBs) investigation, testing, analysis, and abatement design are excluded.
14. The scope of services assumes that there will be a total of three (3) lift station sites for this project. HCUD standard lift station detail sheets and specifications will be utilized for this project.
15. A wildlife study will be conducted to assess the potential impact to threatened or endangered species that may exist within the project boundaries. It is anticipated that gopher tortoise burrows will be identified with the environmental review. A preliminary gopher tortoise burrow study will be provided to assist in determining mitigation costs. Environmental services (e.g., mitigation, species) are excluded from this scope and are not expected to be required.
16. The subsurface utility engineering scope as provided is based on up to 20 utility test holes (Quality Level A).
17. The geotechnical exploration as provided is based on an approximate number of 90 borings. Shallow borings (20' to 25') will be conducted at manholes while deeper borings will be required for the lift stations (30' or to limerock).
18. HCUD representatives will obtain temporary construction easements from property owners as needed to access private property for survey, design, permitting and construction.