



CONTRACT# 210895

CITY OF OCALA CONTINUING PROFESSIONAL SERVICES CONTRACT WORK ORDER

WORK ORDER NUMBER 40

EFFECTIVE DATE: 11/7/2024

Contracting Officer
Approval/Initials

Project Title: Wastewater Master Plan

To: *Kimley-Horn and Associates*
Address
Ocala, FL xxxxx

Vendor #: 1530

Attn: *Alan Garri, PE*

FUNDING SOURCE: Professional Services

EXPENDITURE
ACCOUNT NUMBER:

455-020-302-536-53-31010

In accordance with your proposal 2024 - 10: (Project Title: Wastewater Master Plan), you are hereby authorized to commence the work outlined in the attached scope of work. The approved work order amount as a maximum limiting amount shall not to exceed \$ 128,000.00.

Requested By: *Alan Garri*
Department Director

Date: 11/8/2024

Approved By: _____
Council President

Date: _____

INDIVIDUAL PROJECT ORDER NUMBER 2024-10

Describing a specific agreement between Kimley-Horn and Associates, Inc. (Kimley-Horn), and The City of Ocala (the City) in accordance with the terms of the Master Agreement for Continuing Professional Services dated September 25, 2022, which is incorporated herein by reference.

Identification of Project:

Project: Water Master Plan

Client: City of Ocala

General Category of Services:

The City desires to develop a comprehensive water master plan update for the purpose of identifying and prioritizing capital projects and understanding the improvements required to accommodate planned WTP improvements.. This scope of services describes the specific tasks to gather information, develop future needs, perform the necessary hydraulic analysis, develop costs, report recommendations, and produce a prioritized list of funded needs. The updated master plan will focus on capital improvements required to serve the 5-year, 10-year, and 20-year future needs of the utility service area.

SCOPE OF SERVICES

Task 1 – Data Collection and Kickoff Meeting

- A. Kimley-Horn will use the existing water system mapping as the basis for the existing infrastructure information. Previous information collected by Kimley-Horn will be relied upon to serve as the basis of the water treatment system. Lines greater than or equal to 4" will be included in the water system analysis.
- B. Kimley-Horn will use the previous Water Master Plan (2018), Water Condition Assessment (2020), Ocala WTP-2 Feasibility Study (2021), SW Ocala Water Modeling Technical Memorandum (2024), and Ocala WTP-2 Design Plans (In Progress) as the basis for the water system analysis.
- C. Kimley-Horn will summarize the current permitting status and regulatory issues affecting water systems, such as network limitations, treatment limitations, permit compliance issues, and regulatory concerns. Kimley-Horn will contact staff with the Florida Department of Environmental Protection (FDEP) to discuss the project and capture input or concerns from the FDEP.
- D. Kimley-Horn will prepare for and attend a project kick-off meeting with City staff. Project objectives, schedules, milestones, communication methods, and base information will all be discussed. Kimley-Horn will prepare meeting minutes after the meeting and circulate the minutes to meeting participants.
- E. Kimley-Horn will prioritize the system improvements required to accommodate the buildout of WTP-2 in the project schedule.

Task 2 – Population Demand/Future Growth Projections

- A. Kimley-Horn will utilize the population demand and future growth projections developed during the SW Ocala Water Modeling Technical Memorandum (2024). These projections consist of the existing system demand, system-wide infill projections, and development-driven demands within the southwest portion of the water utility service area.
- B. The City will provide additional development-driven demands for the remaining portions of the water utility service area. Kimley-Horn will incorporate those additional demands into the total population

demand and future growth projections.

- C. Kimley-Horn will allocate future growth into specific areas within the service area to calculate future utility needs and allocate utility demands. This allocation will be performed based on known projects, engineering judgment, and discussions with City staff. System demands will be calculated for the present year, 5-year, 10-year, and 20-year projections.
- D. Kimley-Horn will analyze the demand projections for additional scenarios to model the system with the following water supply scenarios.
 - 1. WTP-1 only
 - 2. WTP-2 (LFA wells only)
 - 3. WTP-1 and WTP-2 (LFA wells only)
 - 4. WTP-1 and WTP-2 (UFA Well 6)

The additional scenarios will analyze the pressures and flows within the water distribution system for the various demand scenarios identified in Task 2 C. System improvements needed to maintain a minimum pressure of 45 psi will be identified.

- E. Kimley-Horn will attend up to one progress meeting with City representatives to review task progress and recommendations prior to finalizing the population projections.

Task 3 – Potable Water System Hydraulic Modeling/Capacity Evaluation

- A. Kimley-Horn will convert the InfoWater model previously developed as part of the Water Master Plan (2018) and SW Ocala Water Modeling Technical Memorandum (2024) to WaterCAD. Upon completion, the updated model will be provided to the City for future use.
- B. If needed, Kimley-Horn will calibrate the system model using fire hydrant test data provided by the City. Kimley-Horn will coordinate with the City to identify necessary test locations and flow rates. Kimley-Horn will attempt to calibrate the model as close to actual conditions as reasonably achievable. Generally, model predictions within 10% of actual will be considered acceptable. The City will be notified if this level of accuracy is not achieved with a reasonable amount of effort. If additional field data is required, Kimley-Horn will advise the City of those needs and re-calibrate the model until the system model is reasonably accurate. Additional services may be required to identify system problems that are contributing to prediction error.
- C. Kimley-Horn will prepare recommended water system hydraulic standards for acceptance by the City. Hydraulic standards will be established for the following parameters:
 - 1) Minimum System Pressure with Max Day plus Fire Flow = 20 psi
 - 2) Preferred Minimum System Pressure = 45 psi
 - 3) Maximum System Pressure = 100 psi
 - 4) Typical Network Operating Pressure Range = 45-80 psi
 - 5) Fire Flow Demand = 1,000 gpm (minimum)
 - 6) Fire Flow Duration = 2 hours

- D. After successful calibration, Kimley-Horn will prepare a series of system models under the scenarios listed below for the present year, 5-year, 10-year, and 20-year demand projections. Kimley-Horn will evaluate the existing distribution system performance under these conditions and identify areas that are not performing up to the hydraulic standards previously established.
- 1) Average Day Demand (ADD)
 - 2) Max Day Demand (MDD)
 - 3) Max Day Demand plus Fire Flow at up to five locations
 - 4) WTP-2 Peak Hour Flow (PHF) at Build-Out – Results to be utilized for WTP-2 high service pump station design only
- E. For each demand projection (present year, 5-year, 10-year, and 20-year) Kimley-Horn will make distribution system improvement recommendations that are required for the system to meet the hydraulic standards under the scenarios above. Kimley-Horn will review the initial improvement recommendations with City staff and include staff input for the final recommendations.
- F. Kimley-Horn will determine the present water supply, treatment, and storage capacity of the existing water supply and treatment facilities. Kimley-Horn will evaluate if facility capacity improvements are needed to meet the 5-year, 10-year, and 20-year demand projections.

Task 4 – Master Plan Report Update

- A. Kimley-Horn will prepare a draft water master plan document. This draft will be submitted for staff review and comment. One electronic copy of the draft water master plan will be provided.
- B. Kimley-Horn will revise the draft water master plan document once to incorporate staff comments. Kimley-Horn will provide up to three hard copies and one electronic PDF copy of the final Water Master Plan.

Task 5 – Capital Improvement Program Development

- A. Kimley-Horn will meet with City staff to update the City's 5-year utility capital improvement plan (CIP). Kimley-Horn will provide brief project narratives and develop opinions of probable construction costs for each project.
- B. Kimley-Horn will work with City staff to update the CIP priority list. Kimley-Horn will prepare for and attend up to two working meetings with staff to reach a consensus on a draft CIP.
- C. Kimley-Horn will revise the 20-year long-range CIP to identify improvements beyond the 5-year planning horizon. The 20-year CIP will identify utility system requirements anticipated beyond the 5-year planning horizon.

ADDITIONAL SERVICES

Services requested that are not specifically included will be provided under a new and separate IPO agreement or can be performed on an hourly basis upon written authorization.

SCHEDULE

Kimley-Horn will begin services upon receipt of an executed IPO. The above services will be provided as expeditiously as possible to meet a mutually agreed upon schedule.

FEE AND EXPENSE

Kimley-Horn will complete the above scope of services for the lump sum fees detailed below, inclusive of office overhead expenses. A breakdown of the fee per task is provided below and in the attached Table A.

Task Description	Lump Sum Fee
Task 1 - Data Collection and Kickoff Meeting	\$5,000.00
Task 2 - Population Demand/Future Growth Projections	\$14,000.00
Task 3 - Potable Water System Modeling/Capacity Evaluation	\$72,000.00
Task 4 - Master Plan Report Update Volume II	\$20,000.00
Task 5 - Capital Improvement Program Development	\$17,000.00
Total:	\$128,000.00


Services provided under this task will be invoiced monthly. All invoices will include a description of the services provided. Approval from the City shall be required for all invoiced travel expenses and meetings.

ACCEPTED:

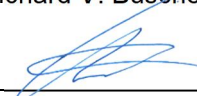
THE CITY OF OCALA, FLORIDA

KIMLEY-HORN AND ASSOCIATES, INC.

BY: _____

By: 
Richard V. Busche, P.E. – Sr. Vice President

TITLE: _____


Savannah Smith, P.E. – Project Manager

DATE: _____

Date: September 30, 2024