

October 25, 2024

City of Camas  
616 NE 4th Avenue  
Camas, WA 98607  
Attn.: Rob Charles, Utilities Manager

Re: REVISED DRAFT Scope and Fee for Angelo Booster Station Phase 1 Design Services

Dear Rob:

Thank you for selecting the MacKay Sposito team to partner with the City of Camas on the Angelo Booster Station Design. We are excited to work with you to deliver an exceptional project to the Camas community.

Enclosed you will find our draft scope and fee for your review and feedback.

Please contact me with any questions.

Sincerely,



Chad McMurry, PE  
Project Manager  
MacKay Sposito  
(360) 518-6803  
[cmcmurry@mackaysposito.com](mailto:cmcmurry@mackaysposito.com)

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# INTRODUCTION

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The City of Camas selected MacKay Sposito and their Consultant team for the Angelo Booster Station project. The project team for the first phase of this project includes:

- MacKay Sposito - Project Management / Water Main & Site Design / Environmental Permitting
- Carollo Engineers - Water System Modeling / Pump Station Design

## GENERAL PROJECT DESCRIPTION/BACKGROUND

This project addresses two capacity limitations in Camas's water system.

- 1) The lack of redundancy in the existing Angelo Booster Station, which moves water from the 343 Pressure Zone to the 455 Pressure Zone. In order to meet water demand during periods of peak use, the pump station operates with all pumps running, including the "spare" backup pump. For reliability, standard practice is to keep one pump as a "spare," in the event one of the primary pumps requires servicing. The first Task of this Phase 1 Scope is to prepare plans for the retrofit of an additional pump and controls or similar improvement to improve redundancy and the firm capacity of the Angelo Booster Station.
- 2) The ability of all pump stations to move water from the 343 Pressure Zone into the 455 and 544 Pressure Zones to meet future demand. The second Task of Phase 1 is the identification, conceptual design, and analysis of alternatives for moving water from the well site near Louis Bloch Park through town to the 544 Pressure Zone along the north and northwest limits of Camas. Zone 544 is seeing the bulk of Camas's growth, and anticipated demands will require upgrades to the transmission systems. Task 2 of the Phase 1 Scope includes work needed to recommend a preferred alternative for those upgrades.

Recent projects completed by Carollo Engineers took advantage of their CAMP Meeting process (Concentrated, Accelerated, Motivated, Problem Solving) to facilitate thorough, rapid decision-making discussions with all affected staff and consultants. This approach has been proven to efficiently evaluate complex design options and reach consensus on a preferred alternative in an extended workshop format. To improve decision-making efficiency and foster communication between groups, we propose to pursue that process for both Tasks in this Phase; that approach is reflected in the description of our approach below, the identified Subtasks, and the proposed Fee.

An overview of each Task in the first Phase is included on the next pages.

### **TASK 1 - ANGELO BOOSTER FIRM CAPACITY IMPROVEMENTS**

Consultant work on this Task is intended to move through a Design-Bid-Build process to restore full-time redundancy as quickly as possible at Angelo Booster Station.

Work to be performed by the Consultant generally consists of the following services:

- Project management: Coordination of the overall project team, as well as consultant design activities and consultant contracts, including the scope of work, budget, and schedule.
- Coordination with utility providers.
- Attend the onsite meeting to discuss alternatives and determine the city's preference

Work to be performed by our subconsultant Carollo Engineers generally consists of the following services:

- Evaluation & review of alternatives for restoring redundancy at the current Angelo Booster Station
- Conduct a Design CAMP Meeting with City staff and the consultant team
- Design of Preferred Alternative improvements to the Angelo Booster Station
- Assist with development of Bid & Contract Documents
- Provide technical support during construction
- Services are further described in the attached Scope & Fee Proposal from Carollo (see Appendix A)

#### City Performed Work

- Project Management: Coordination between City staff and the consultant team.
- Provide available studies, reports, drawings, and other information pertinent to the proposed projects.
- Assist with the development and review of plans, specifications, estimates, and other consultant deliverables and other bid documents. Compile the construction bid package, coordinate the bid advertisement, and conduct the bid opening.
- Administer project funding.
- Lead construction management and inspection. Manage construction of the project and provide inspection.

#### General Assumptions

1. See tasks for specific task-related assumptions and exclusions.
2. Tasks assumed to be completed by the City are listed under "City Performed Work" above.
3. City of Camas design requirements and standards apply.
4. Washington State Department of Health's *Water System Design Manual* design and planning standards apply.
5. The Phase 1 contract duration is approximately 16 months for design and construction phase services. It is assumed that work on both Tasks will begin in September or October 2024
6. All submittals will be made electronically with no paper copies.

#### Exclusions

1. Land use planning

2. Land Surveying
3. Environmental Permitting
4. Geotechnical exploration, testing, & reporting
5. Structural engineering, including retaining wall design.

### **TASK 2 - 544 ZONE WATER SUPPLY ALTERNATIVES ANALYSIS**

The work items in Task 2 are intended to identify and evaluate alternatives for improving service to the 544 Zone and recommend a preferred alternative for design and construction in phase 2.

The work performed by the consultant team generally consists of the following services:

- Review and discuss Carollo’s demand calculations with the City
- Identify transmission main and booster pump site improvement alternatives needed to service the 455 and 544 Zones
- Prepare exhibits and provide planning-level unit costs for consideration
- Host and conduct a CAMP Meeting to confirm, evaluate, and rank alternatives
- Prepare an Alternatives Analysis Memo summarizing the results of the alternatives ranking and priorities identified in the CAMP Meeting

#### City Performed Work

- Project Management: Coordination of the overall project team, consultant design activities and consultant contracts, including scope of work, budget, and schedule.
- Provide available studies, reports, drawings, and other information pertinent to the proposed projects.
- Assist with the development and review of plans, specifications, and estimates.
- Provide staff availability for Public Works personnel to attend CAMP Meeting.
- Administer project funding.

#### General Assumptions

1. See tasks for specific task-related assumptions and exclusions
2. Tasks assumed to be completed by the City are listed under “City Performed Work” above
3. Water supply needs to be determined as described in Carollo’s Scope in Appendix A
4. City of Camas design requirements and standards apply
5. Washington State Department of Health’s *Water System Design Manual* design and planning standards apply.
6. As previously described, the contract duration for the first phase is approximately 16 months for design and construction phase services. This duration covers expected work on both Tasks. Work on Task 2 is expected to last through June 2025.
7. All submittals will be made electronically with no paper copies.

#### Exclusions

1. Public Involvement
2. Geotechnical Study

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# SCOPE OF WORK

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(Exhibit "A")  
City of Camas - Angelo Booster Station

## 1.0 PROJECT MANAGEMENT

### 1.1 PROJECT ADMINISTRATION

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- Prepare monthly invoices and progress reports to accompany invoicing. Reports will include a budget summary, tasks completed within the invoicing period, and the schedule status of critical tasks.

### 1.2 PROJECT SCHEDULING

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- Prepare and submit an activities list and schedule to the City following the Notice to Proceed. The schedule will show appropriate milestones, including intermediate and final submittal dates for design documents and key decision points.
- Provide up to (2) updates to the schedule to reflect project milestones and timeline changes.

### 1.3 PROJECT TEAM MEETINGS

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- Schedule, prepare agendas and minutes (including task log updates), and lead monthly or bi-weekly project team meetings with the City. This task includes a project kick-off meeting, bi-weekly progress meetings, and review meetings at each submittal phase. Progress meetings will be virtual. A total of 24 meetings are included over the 16-month project duration.
- Organize and hold the Task 2 CAMP meetings with key project team members and representatives from the City of Camas and other agencies. The CAMP meeting replaces the typical conceptual design submittal and design kickoff. This meeting will have a specific agenda addressing and resolving project issues identified in the route selection and review.

<b>Meeting Schedule - Project Management</b>				
Type	Format	Frequency	Participants	# Mtgs
Project Team Meetings (covering both Tasks)	Mixed	Monthly or Bi-Weekly	Project Manager, Project Engineer	24

<b>Meeting Schedule - Task 1</b>				
Type	Format	Frequency	Participants	# Mtgs
Kick-Off Meeting & On-Site Meeting with Staff	On-Site/ In Person	Once	Project Manager,	1

<b>Meeting Schedule - Task 2</b>				
Type	Format	Frequency	Participants	# Mtgs
CAMP Meeting	In Person	Once	Project Manager, Project Engineer	1
Recommendation Review	Virtual	Once	Principal, Project Manager, Project Engineer	1

#### 1.4 SUBCONSULTANT COORDINATION

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- General coordination and management of the subconsultant team including contracting, invoicing, scheduling, and deliverables.

#### DELIVERABLES

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- *Monthly Invoices and Progress Reports*
- *Baseline Project Schedule and Updates*
- *Meeting Agendas, Minutes, and Task Log Updates*

#### ASSUMPTIONS

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- Sixteen-month project management duration
- Bi-weekly project meetings will be held virtually and several are expected to occur monthly (up to 24 total). Meetings are expected to last up to one hour.

## 2.0 QUALITY ASSURANCE AND QUALITY CONTROL

MacKay Sposito Engineering Director Paul Harmsen will lead the QA/QC process for the Consultant's deliverables.

### 2.1 PROJECT SETUP/STARTUP

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- Confirm City design & operational goals
- Confirm City Standards and Drafting Standards

### 2.2 QA/QC STAGES

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- Each Consultant deliverable is routed through a QA/QC process prior to submittal to the City.

### 2.3 SUBCONSULTANT DELIVERABLE REVIEW

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- Review, provide comments, and manage schedules for subconsultant team deliverables.

## 3.0 TASK 1: ANGELO BOOSTER FIRM CAPACITY IMPROVEMENTS

### 3.1 UTILITY COORDINATION

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- Utility Coordination
  - Confirm the presence of dry utilities on and near the project site
  - Visit the site to confirm surveyed utility locates and equipment
  - Contact purveyors and brief on project plans
  - Coordinate between the design team and purveyors during the design process
  - Coordinate with purveyors during construction

### ASSUMPTIONS

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- Utility coordination is limited to only those utilities in the vicinity of the existing pump station building. Work adjacent to the road frontage is not anticipated and has been excluded.

## 4.0 TASK 2: 544 ZONE WATER SUPPLY ALTERNATIVES ANALYSIS

### 4.1 ALTERNATIVES ANALYSIS

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- Identification and conceptual design of probable routes and sites for:
  - Booster Station improvements, including:
    - A new station in the southern portion of Fallen Leaf Park (near the current pump station location)
    - Expansion of the existing Angelo Booster Station
    - A site on city-owned property near Heritage Park & Lacamas Lodge
  - "Suction Side" improvements between the existing main near Louis Bloch Park and the new pump station sites (up to two pipe routes)



- Transmission Main improvements from the pump station site(s) to the 544 Zone, including:
  - Main replacement & improvement from the Angelo Booster Station to the Lower Prune Hill Reservoir & Booster Station site
  - An Everett Street Lake Road alignment utilizing the main installed with the Lake Road/Everett roundabout along Lake Road to the vicinity of the intersection of Lake Road & Sierra Street
  - A second Everett/Lake Road alignment utilizing Lacamas Lane and neighborhood streets to minimize cost and disruption of traffic control and environmental constraints along the Lake Road corridor
  - Up to one additional corridor
- Field reconnaissance of each route and site
- “Fatal Flaw” analysis, identifying features or constraints that render the selected alternative unpermittable or unconstructable
- Probable Construction Cost Estimate for feasible options including right-of-way or easement acquisition costs based on recent City purchases
- Zoning and Land Use Evaluation
  - Assist in developing criteria for evaluating potential sites based on factors such as size, location, access, and regulatory considerations.
  - Gather relevant desktop data, including maps, zoning ordinances, and environmental/critical areas, for each site within Camas.
  - Analyze the City of Camas’s zoning designations for each site, identifying allowable uses, special/limited uses, and conditional use constraints.
  - Identify all necessary land use permit approvals required for each site, considering Camas regulations, as well as state and federal requirements.
  - Summarize the process for each anticipated land use procedure and identify decision making authority.
  - Assess compatibility with surrounding land uses and potential impacts on the Camas community.
  - Engage with the City of Camas planning department and other relevant regulatory agencies to confirm permitting requirements and timelines.
  - Provide an estimated list of published land use permitting fees for each anticipated land use procedure.
  - Provide an estimated timeline for each anticipated land use procedure.
- Environmental Evaluation and Permitting
  - MacKay Sposito will provide feasibility recommendations, including permit requirements, for three water lines and three pump station alternatives. The recommendations will be based on environmental site constraints, including SEPA, shorelines, critical areas, and potential mitigation options.
  - A single MacKay Sposito environmental scientist will conduct a one-day site visit of proposed alternative locations to inform the feasibility recommendations.
  - MacKay Sposito environmental scientists will provide feasibility input for the Draft and Final Alternatives Analysis Memo.
  - Up to a total of 2 hours of outreach with City planners and regulatory agencies to gain input on regulatory requirements for the alternatives is included.

- Any of the above may be excluded from any alternative if that alternative is deemed infeasible during one of the other evaluation steps.
- Prepare an alternatives analysis memo that analyzes the evaluated alternatives.
- Attend one (1) alternatives analysis memo review meeting with City staff. Address City comments and submit final alternatives analysis memo.

#### DELIVERABLES:

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- *CAMP Meeting Agenda*
- *Final Alternatives Analysis Memo*
- *Graphic renderings for evaluated alternatives.*

#### ASSUMPTIONS

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- All city staff with input into the alternative pipeline alignments and pump station location & configuration will be available for the CAMP Meeting.
- A preferred alternative for the Angelo Firm Capacity Upgrades will be determined during the CAMP meeting; this alternative will be documented in the Alternatives Analysis Memo..

#### 4.2 LAND USE PLANNING REVIEW

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- Assist in developing criteria for evaluating potential sites based on factors such as size, location, access, and regulatory considerations.
- Gather relevant desktop data, including maps, zoning ordinances, and environmental/critical areas, for each site within Camas.
- Analyze the City of Camas's zoning designations for each site, identifying allowable uses, special/limited uses, and conditional use constraints.
- Identify all necessary land use permit approvals required for each site, considering Camas regulations, as well as state and federal requirements.
- Summarize the process for each anticipated land use procedure and identify decision making authority.
- Assess compatibility with surrounding land uses and potential impacts on the Camas community.
- Engage with the City of Camas planning department and other relevant regulatory agencies to confirm permitting requirements and timelines.
- Provide an estimated list of published land use permitting fees for each anticipated land use procedure.
- Provide an estimated timeline for each anticipated land use procedure.
- Provide the information in a written memorandum for inclusion in the alternatives analysis memo.

## 5.0 SYSTEM MODELING & BOOSTER STATION DESIGN (CAROLLO)

Please refer to Appendix A for Carollo's scope of work.

## 6.0 CITY DELIVERABLES TO THE CONSULTANT

### 6.1 PROJECT COORDINATION

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- The City will assist the Consultant in managing relationships with other jurisdictions involved in the Project, adjacent property owners, and the public. The City will provide staff to meet and discuss the Project with the Consultant as needed. The City will provide written comments pertaining to the design submittals.

#### *DELIVERABLES*

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- *Project Coordination*
- *Utility List*

## APPENDICES

### APPENDIX A: SYSTEM MODELING & BOOSTER STATION DESIGN (CAROLLO ENGINEERS)

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### APPENDIX B: RATES

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Project Name: Angelo Booster Station Design Project Manager: Charles McMurry MSi Job No.: 24-093 Client Job No.: Date: 10/04/2024		MacKay Sposito, Inc.															SUBCONSULTANTS	Total Budget Amount
		ESTIMATED HOURS AND EXPENSES															Carollo	
		Principal	Project Manager - Design	Project Engineer	Project Accountant	Design Technician III	Design Technician IV	Engineer I	Engineering Manager	Administrative Assistant	Environmental Manager II	Planning Manager	Project Manager - Planning	Senior Planner	Planner III	Expenses	Total	
<b>1.0 - Project Management</b>	1.1 - Project Team Meetings	30.00	88.00	11.00											\$24.00	\$29,714.00		\$29,714.00
	1.2 - Project Administration	4.00	16.00		24.00											\$8,136.00		\$8,136.00
	1.3 - Project Scheduling	4.00	9.00													\$3,072.00		\$3,072.00
	1.4 - Subconsultant Coordination	9.00	35.00	5.00	10.00											\$12,588.00		\$12,588.00
	<b>Subtotal</b>															<b>\$53,510.00</b>		<b>\$53,510.00</b>
<b>2.0 - QA/QC</b>	2.1 - Project Setup/Start Up				1.00	1.00										\$308.00		\$308.00
	2.2 - QA / QC Stages		6.00		4.00	5.00										\$2,688.00		\$2,688.00
	2.3 - Subconsultant Discipline QA/QC		5.00													\$1,080.00		\$1,080.00
	<b>Subtotal</b>															<b>\$4,076.00</b>		<b>\$4,076.00</b>
<b>3.0 - Task 1: Angelo Booster Firm Capacity Improvements</b>	3.1 - Meetings & Site Development		9.00				3.00								\$15.00	\$2,367.00		\$2,367.00
	3.2 - Utility Coordination	1.00	3.00				11.00									\$2,426.00		\$2,426.00
	<b>Subtotal</b>															<b>\$4,793.00</b>		<b>\$4,793.00</b>
<b>4.0 - Task 2: 544 Zone Water Supple Alternatives Analysis</b>	4.1 - Alternatives Analysis	4.00	104.00	272.00	72.00		10.00	17.00	32.00						\$45.00	\$99,711.00		\$99,711.00
	4.2 - Land Use Planning									10.00	16.00	20.00	10.00			\$10,800.00		\$10,800.00
	<b>Subtotal</b>															<b>\$110,511.00</b>		<b>\$110,511.00</b>
<b>SUB5 - System Modeling &amp; Booster Station Design (Carollo)</b>	System Modeling & Booster Station Design (Carollo)																\$216,525.00	\$216,525.00
	System Modeling & Booster Station Design (Carollo) - 10%																	\$21,652.50
	<b>Subtotal</b>																	<b>\$238,177.50</b>

<b>HOURS</b>	52.00	275.00	288.00	34.00	77.00	6.00	14.00	10.00	17.00	32.00	10.00	16.00	20.00	10.00				
<b>RATE</b>	\$ 282.00	\$ 216.00	\$ 202.00	\$ 148.00	\$ 148.00	\$ 160.00	\$ 136.00	\$ 240.00	\$ 106.00	\$ 196.00	\$ 228.00	\$ 200.00	\$ 182.00	\$ 168.00				
<b>TOTAL</b>	\$14,664.00	\$59,400.00	\$58,176.00	\$5,032.00	\$11,396.00	\$960.00	\$1,904.00	\$2,400.00	\$1,802.00	\$6,272.00	\$2,280.00	\$3,200.00	\$3,640.00	\$1,680.00	\$84.00	\$172,890.00	\$238,177.50	\$411,067.50



# APPENDIX A

## Carollo Engineers

CITY OF CAMAS

## Angelo Booster Station Capacity Upgrades

**Date:** October 24, 2024

**Subject:** Angelo Booster Station Capacity Upgrades Phase 1 Scope

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### Introduction

The City of Camas, referred to as “the City” intends to provide redundancy at Angelo Booster Station to meet current demands. The Angelo Booster Station was constructed in 2001 with a firm capacity of 3,000 gallons per minute (gpm) using three horizontal split case pumps. As demands have increased, the City has operated a fourth pump during the summer months to increase capacity at the cost of redundancy. The booster station is a critical piece of infrastructure for moving water from the 343 Pressure Zone to the upper zones. If a pump is lost, a moderate amount of capacity can be made up through other booster stations, but not enough to meet current summer demands. Therefore, upgrades to the firm capacity of the Angelo Booster Station are required as soon as possible.

The City also intends to increase water supply to the 455 and 544 Zones to meet near-term and long-term demands. Additional flow is required to the 455 and 544 Zones to meet the continued growth on Prune Hill and in the west side of the City. Concepts were developed by Carollo in 2023 with two options being carried forward: 1) expand the Angelo Booster Station Capacity via pipeline and pump station improvements and 2) design a new station, located at the Angelo Booster Station site to convey water directly from the 343 Zone to the 544 Zone.

The goal of Phase 1 is to address these capacity limitations in the City’s water system in two project elements:

#### **Element 1 - Angelo Booster Station Firm Capacity Improvements:**

Design and implement firm capacity improvements at Angelo Booster Station as soon as possible.

#### **Element 2 – 544 Zone Water Supply Alternatives Analysis:**

Identify and evaluate alternatives for improving service to the 544 Zone and to recommend a preferred alternative for design and construction in Phase 2.

### General Assumptions

- MaKay Sposito will be referred to as the “Consultant” in this document.
- Carollo Engineers, Inc., will be referred to as “Subconsultant” in this document.
- The City of Camas and its staff will be referred to as “the City” in this document.
- All deliverables will be provided to the City in electronic PDF format, unless otherwise indicated. Final deliverables will be “wet” signed and/or digitally signed in accordance with the Washington Administrative Code (or WAC).

- The City will furnish the Consultant and Subconsultant available studies, reports, drawings, and other data pertinent to the Consultant and Subconsultant's services; obtain or authorize the Consultant or Subconsultant to obtain or provide additional reports and data as required; furnish to the Consultant or Subconsultant services of others required for the performance of the Consultant or Subconsultant's services hereunder, and the Consultant shall be entitled to use and rely upon all such information and services provided by the City or other in performing the Consultant's services under this Agreement.
- The City shall arrange for access to and make all provisions for the Subconsultant to enter upon public and private property as required for the Subconsultant to perform services hereunder.
- The Project will use WDOT specifications.
- Durations for meetings, workshops, and site visits in the Scope of Services are based on estimated times of time on site. Allowances for travel time, as appropriate, are accounted for in the Level of Effort in Exhibit A.
- In-person meetings/workshops will be conducted at the City's facilities or other City approved location.
- Total project duration for this phase of the work is sixteen (16) months.

## Scope of Work

### Task 1 Project Management

The purpose of this task is to manage and coordinate engineering and related services required for Project completion in accordance with the schedule, budget, and quality established by the Consultant and the City.

#### Task 1.1 Project Management and Reporting

- Manage the Subconsultants Project Team, track time and budget, work elements accomplished, work items planned for the next period, level of effort, scope changes, time and budget needed to complete the Scope of Work herein.
- Prepare monthly Project Status Reports that compares work accomplished with scheduled activities and compares expenditures with task budgets and submit reports to the Consultant's Project Manager with monthly invoices. Expenditures will be documented on a task basis and show hours by Project personnel and other direct expenses related to work. Reports and invoicing will be formatted in a manner that is acceptable to the City.
- Develop and maintain a Decision Log to record key decisions made by the City and others during the Project to document the evolution of the Project.

#### Task 1.2 Project Management Meetings

- Schedule and conduct bi-weekly 30-minute Project Management calls throughout the duration of the Project. Attendance will be limited to the Subconsultant's PM.

#### Task 1 Deliverables

- Sixteen (16) monthly Invoices and Progress Reports.
- Decision Log (submitted with Key Deliverables and/or Major Milestones)

#### Task 1 Assumptions

- Project Management Calls will be virtual.
- The Consultant's Project Manager will lead the Project Management calls.
- The Subconsultant's attendance will be limited to the Project Manager.
- Agenda and meeting minutes will not be provided for Project Management calls. It is assumed that decisions and key actions will be incorporated into the Project Decision Log.

## Task 2 Firm Capacity Improvements at Angelo Booster Station

The purpose of this task is to provide firm pumping capacity at the Angelo Booster Station. This task includes identifying an alternative to provide firm capacity, developing documents to implement the alternative, and commissioning the alternative.

### Task 2.1 Site Visit and Data Review

- Key members of the Subconsultant's team will attend a site visit with the City's staff to review/discuss the existing Angelo Booster Pump Station and associated facilities that may be impacted by the firm capacity improvements. The site visit will allow the Subconsultant's team to collect information at Angelo Booster Station, the existing pumps at the Gregg Pump Station that may be available and select an alternative for firm capacity improvements at Angelo Booster Station.
- The Subconsultant will review data collected during the site visit and additional relevant documents provided by the City to support the alternatives analysis.
- The Subconsultant will develop a design basis memorandum that identifies the firm capacity improvement selected by the City and confirms preliminary design criteria.

#### Task 2.1 Deliverables

- Design Basis Project Memorandum

#### Task 2.1 Assumptions

- Three members of the Subconsultant's team will attend a single four (4) hour site visit.
- The Design Basis Memorandum will be formatted as a Project Memorandum and will serve as consensus for the firm capacity improvement alternative selected for Angelo Booster Station.
- The City will have representatives from City management, engineering, and operations for the site visit.
- The City will make their system integrator available for the site visit.

### Task 2.2 Develop Contract Documents

- Design Document Submittal: Develop drawings, specifications, and Opinion of Probable Construction Cost (OPCC) for the selected alternative from Task 2.2. Submit these documents for review by the City. The Subconsultant will also coordinate with the City's SCADA System Integrator.
- Design Review Meeting: Conduct design review meeting with the City. The meeting will be held following the submittal of the intermediate design documents to the City. A record of comments will be developed to document responses to the City's comments.
- Final Design Documents: Incorporate City review comments and develop final drawings, specifications, and OPCC.

#### Subtask 2.2 Deliverables



- Review submittal of Drawings, Specifications, and OPCC
- Final Drawings, Specifications, and OPCC
- Spreadsheet of the City's comments, Subconsultant's responses, and the City's acceptance of the Subconsultant's response for the intermediate and final deliverables.
- Meeting materials (agenda and meeting minutes) for the design review meeting.

#### Subtask 2.2 Assumptions

- The Subconsultant's Opinion of Probable Cost (OPCC) will be developed based on the level of project definition and accuracy defined by AACE International.
- The meeting will be held at the City's office or virtually and will be attended by key members of the Subconsultant's Project Team.
- Topographic and boundary survey will not be used to develop the Contract Documents. It is assumed that existing as-built document and/or site plans will serve as the basis for the design drawings.
- Integration with the SCADA system including design, hardware, and programming will be performed and supplied by the City's integration firm. Components and wiring will be completed by the Contractor. Design of instrumentation shall not be included in the Contract Documents.
- It's assumed that the temporary pump will be generator operated and therefore electrical site plans are not included in the Contract Documents.

#### **Task 2.3 Bid Support Services**

- Attend Pre-Bid Meeting: The Subconsultant's key personnel will attend the pre-bid meeting and respond to technical questions, as needed.
- Respond to Bidders' Questions: Provide support to the City, as needed, to respond to bidders' questions.
- Prepare Addenda: Prepare up to two addenda to the contract documents to respond to bidder's questions.

#### Task 2.3 Deliverables

- Response to bidders' questions.
- Up to two addenda.

#### Task 2.3 Assumptions

- The City will distribute bid documents to potential bidders.
- The City will develop the agenda and notes for the pre-bid meeting.
- The City will distribute addenda to bidders.

#### **Task 2.4 Provide Procurement Support Services**

- Provide equipment and material procurement support services to the City, as needed to ensure compliance with the Conformed Documents.

#### Task 2.4 Deliverables

- Procurement support, as needed.

#### Task 2.4 Assumptions

- The City will distribute Contractor submittal information, as needed. The Subconsultant will review product submittal information for compliance with the Conformed Contract Documents.
- Construction management services are not included in this scope.

### **Task 2.5 System Startup and Testing Services**

- The Subconsultant will witness startup and testing of the temporary capacity improvement alternative implemented for compliance with the Contract Documents.
- The Subconsultant will answer questions and provide recommendations on adjustment of equipment during commissioning and summarize field testing in a Field Test Report.

#### Task 2.5 Deliverables

- Field test report.

#### Task 2.5 Assumptions

- Up to two (2) Subconsultants will attend startup and testing of the facility upgrades. Testing is based on one eight (8) hour day.

### **Task 3 544 Zone Water Supply Alternatives Analysis**

The purpose of this task is to provide information related to operation of the distribution system to inform evaluation and selection of an alternative for supplying water to the supply water to the 544 Zone Water Supply improvements.

#### **Task 3.1 Alternatives Analysis**

The objective of Task 3.1 is to identify and evaluate alternatives and then select an alternative for 544 Zone Water Supply improvements.

- Subconsultant will conduct an Alternative Analysis CAMP® with the City and Consultant to identify and assess alternatives and then select an alternative for the 544 Zone Water Supply improvements. The CAMP® session will include the following topics:
  - » Statement of the problem.
  - » Identification of alternatives.
  - » Identification of selection criteria.
  - » Assessment of alternatives.
  - » Selection of a preferred alternative.
  - » Development of basis of design criteria and conceptual system layout.

#### Task 3.3 Deliverables

- Draft and Final Alternatives Evaluation CAMP® Agenda and Meeting Minutes
- Draft and Final Alternatives Evaluation Memorandum that summarizes each of the topics covered in the CAMP® workshop.

#### Task 3.3 Assumptions

- Alternatives Evaluation CAMP® shall occur over an eight (8) hour workshop, held at the Consultant's offices in Vancouver, Washington.
- Consultant will provide a draft and final CAMP® workshop agenda prior to the meeting and workshop minutes after the meeting with an updated comment and decision log.

- The meeting minutes from the CAMP® workshop will be used to develop an Alternatives Evaluation Memorandum.
- The Alternatives Evaluation CAMP® shall be attended by the Subconsultant's Project Manager, Project Engineer, and Discipline Lead.
- Preliminary engineering shall be completed by the Consultant and Subconsultant to be prepared to assess alternatives prior to the CAMP® workshop. Preliminary engineering will include the following:
  - » Preliminary schematics of the alternatives (Carollo).
  - » Preliminary pump station and pipe routing figures.
  - » Identification of permitting requirements (Mackay Sposito).
  - » Planning level cost information for the pump station (Carollo) and pipeline (Mackay Sposito) alternatives.
  - » Ranking matrix for the alternatives (Mackay Sposito).
- Four (4) alternatives will be identified and assessed at the CAMP® workshop which may include the following or other alternatives defined in the CAMP® workshop:
  - » Expand the existing Zone 343 to Zone 455 Angelo Booster Station and construct a new Zone 455 to Zone 544 booster station at the existing Angelo Booster Pump Station Site.
  - » Construct a new Zone 343 to Zone 544 booster station at the existing Angelo Booster Station Site.
  - » Expand the existing Zone 343 to Zone 455 Angelo Booster Station and construct a new Zone 455 to Zone 544 booster station near Lacamas Lake Lodge (or alternate site).
  - » Construct a new Zone 343 to Zone 544 booster station near Lacamas Lake Lodge (or alternate site).
- Field testing of the existing pump station is not included in this Scope of Work.
- This work may be performed prior to finalization of demand projections as part of the 2025 Water System Plan. This work will be done based on the best available demand projections at the time the analysis needs to be performed.
- The analysis may be completed prior to the finalization of demand projections being prepared as part of the 2025 Water System Plan. This work will be completed based on the information available at the time of the analysis, as provided by the City.
- Design level drawings will not be developed as part of the preliminary design and alternatives evaluation memorandum.
- Planning level costs will be developed based on the level of project definition and accuracy defined by AACE International. This is assumed to be a Class 4 estimate based on AACE standards. It is assumed that the Subconsultant's scope will be limited to scope associated with a new or expanded pump station.

## Task 4 Quality Management

Review technical analysis, memorandums, reports, contract documents and address review comments prior to deliverable submission in accordance with the QMP. For major deliverables, develop a Record of Comment (ROC) to document the City's comments and Subconsultant's responses.

### Task 4 Deliverables:

- Perform internal QA/QC review of Task 2 Deliverables.

- Perform internal QA/QC review of Task 3 Deliverables.
- Record of Comments for major deliverables.

Task 4 Assumptions:

- The Subconsultant's Quality Management Team performing QA/QC reviews will be comprised of senior engineers and technical writers.

**Exhibit A**  
**City of Camas**  
**Angelo Booster Pump Station Phase 1**  
**Final Level of Effort Estimate Detail**  
**October 24th 2024**

WORK TASKS	Direct Expenses												
	Senior Advisor /SME	Project Manager	Principal Hydraulic Professional	Principal Professional	Senior Professional	Staff Professional	Technician	Document Processing / Clerical	Total Hours	Labor Cost	PECE	Other Direct Charges	Total Cost
	\$295	\$262	\$262	\$262	\$226	\$157	\$145	\$111			\$15		
<b>Task 1.1 Project Management and Reporting</b>	0	50	0	0	16	16	0	12	94	\$20,560	\$1,410	\$0	\$21,970
1. Manage Subconsultant's Project Team		32							32	\$8,384	\$480		\$8,864
2. Prepare monthly Project Status Reports		16			8			12	36	\$7,332	\$540		\$7,872
3. Develop/maintain Decision Log		2			8	16			26	\$4,844	\$390		\$5,234
<b>Task 1.2 Project Management Meetings</b>	0	16	0	0	0	0	0	0	16	\$4,192	\$240	\$0	\$4,432
1. Conduct bi-weekly Project Management calls		16							16	\$4,192	\$240		\$4,432
<b>Task 1 Subtotal</b>	<b>0</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>16</b>	<b>0</b>	<b>12</b>	<b>110</b>	<b>\$24,752</b>	<b>\$1,650</b>	<b>\$0</b>	<b>\$26,402</b>
<b>Task 2 Firm Capacity Improvements at Angelo Booster Station</b>													
<b>Task 2.1 Site Visit and Data Review</b>	0	4	0	0	12	32	0	2	50	\$ 9,006	\$ 750	\$ 500	\$ 10,256
1. Site Visit		4			4	4			12	\$2,580	\$180	\$500	\$3,260
2. Data Review					4	20			24	\$4,044	\$360	\$0	\$4,404
3. Design Summary Memorandum					4	8		2	14	\$2,382	\$210	\$0	\$2,592
<b>Task 2.2 Develop Contract Documents</b>	0	20	0	8	44	108	100	12	292	\$ 50,068	\$ 4,380	\$ 1,500	\$55,948
1. Develop Intermediate Design Documents		12		4	24	60	60	8	168	\$28,624	\$2,520	\$0	\$31,144
2. Intermediate Design Review Meeting		4			4	8			16	\$3,208	\$240	\$1,500	\$4,948
3. Develop Final Design Documents		4		4	16	40	40	4	108	\$18,236	\$1,620	\$0	\$19,856
<b>Task 2.3 Bid Support Services</b>	0	11	0	8	0	16	8	2	45	\$ 8,872	\$ 285	\$ 1,500	\$ 11,047
1. Attend Pre-Bid Meeting		4							4	\$1,048	\$60	\$1,500	\$2,608
2. Respond to Bidders' Questions		3		4		8			15	\$3,090	\$225	\$0	\$3,315
3. Prepare Addenda		4		4		8	8	2	26	\$4,734	\$390	\$0	\$5,124
<b>Task 2.4 Provide Procurement Support Services</b>	0	2	0	8	20	40	0	0	70	\$ 13,420	\$ 1,050	\$ -	\$ 14,470
1. Provide Procurement Support Services		2		8	20	40			70	\$13,420	\$1,050	\$0	\$14,470
<b>Task 2.5 System Startup and Testing Services</b>	0	4	0	28	0	8	0	2	42	\$ 9,862	\$ 630	\$ 3,000	\$ 13,492
1. Provide Checkout/Startup Services				16					16	\$4,192	\$240	\$3,000	\$7,432
2. Field Test Report		4		12		8		2	26	\$5,670	\$390	\$0	\$6,060
<b>Task 2 Subtotal</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>52</b>	<b>76</b>	<b>204</b>	<b>108</b>	<b>18</b>	<b>499</b>	<b>\$91,228</b>	<b>\$7,095</b>	<b>\$6,500</b>	<b>\$105,213</b>
<b>Task 3 544 Zone Water Supply Alternatives Analysis</b>													
<b>Task 3.1 Alternatives Analysis</b>	16	36	40	56	0	144	24	4	320	\$ 65,836	\$ 4,800	\$ 500	\$71,136
1. Preliminary Engineering / Alternatives Analysis		12	20	40		80	16		168	\$33,744	\$2,520	\$0	\$36,264
2. Site Visit	8	8				8			24	\$5,712	\$360	\$500	\$6,572
3. Design Basis CAMP Workshop		8	8	8		16			40	\$8,800	\$600	\$0	\$9,400
4. Alternatives Analysis Report	8	8	12	8		40	8	4	88	\$17,580	\$1,320	\$0	\$18,900
<b>Task 3 Subtotal</b>	<b>16</b>	<b>36</b>	<b>40</b>	<b>56</b>	<b>0</b>	<b>144</b>	<b>24</b>	<b>4</b>	<b>320</b>	<b>\$187,190</b>	<b>\$14,340</b>	<b>\$7,000</b>	<b>\$71,136</b>
<b>TASK 4 - QUALITY MANAGEMENT</b>	34	0	0	0	2	16	0	0	52	\$12,994	\$780	\$0	\$13,774
1. Preform Task 2 QA/QC Review (Alternatives Analysis, Contract Documents)	14								14	\$4,130	\$210	\$0	\$4,340
2. Preform Task 3 QA/QC Review (Alternatives Analysis, Preliminary Design)	20								20	\$5,900	\$300	\$0	\$6,200
3. Develop Record of Comment					2	16			18	\$2,964	\$270	\$0	\$3,234
<b>Task 4 Subtotal</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>52</b>	<b>\$12,994</b>	<b>\$780</b>	<b>\$0</b>	<b>\$13,774</b>
<b>Subconsultant Markup (5%)</b>													
<b>TOTAL CONTRACT AMOUNT</b>	<b>50</b>	<b>143</b>	<b>40</b>	<b>108</b>	<b>94</b>	<b>380</b>	<b>132</b>	<b>34</b>	<b>981</b>	<b>\$316,164</b>	<b>\$23,865</b>	<b>\$13,500</b>	<b>\$216,525</b>



# APPENDIX B

## Rates

## 2024 HOURLY RATE SCHEDULE

### Southern Washington

	<u>Regular</u>		<u>Regular</u>
Senior Principal	\$346.00	Administrative Assistant	\$106.00
Principal	\$282.00	Clerical	\$94.00
Engineering Manager	\$240.00	Survey Manager	\$220.00
Project Engineer	\$202.00	Project Manager – Survey	\$198.00
Engineer IV	\$186.00	Land Surveyor IV	\$178.00
Engineer III	\$168.00	Land Surveyor III	\$164.00
Engineer II	\$156.00	Land Surveyor II	\$156.00
Engineer I	\$136.00	Land Surveyor I	\$144.00
Project Manager – Design	\$216.00	Survey Technician IV	\$144.00
Project Controls Manager	\$244.00	Survey Technician III	\$126.00
Contract Administrator	\$182.00	Survey Technician II	\$118.00
Project Coordinator II	\$144.00	Survey Technician I	\$106.00
Project Coordinator I	\$132.00	Survey Aid	\$84.00
Design Technician IV	\$160.00	Survey Party Chief	\$156.00
Design Technician III	\$148.00	Survey Party Chief – <b>Out of Town</b>	\$161.00
Design Technician II	\$140.00	Survey Instrument Person	\$110.00
Design Technician I	\$118.00	Survey Instrument Person – <b>Out of Town</b>	\$115.00
Landscape Manager	\$206.00	GIS Mapping Specialist	\$156.00
Project Manager – Landscape	\$178.00	GIS Mapping Specialist II	\$164.00
Landscape Architect II	\$160.00	Public Involvement Associate/Mgr.	\$164.00
Landscape Architect I	\$140.00	Public Involvement Coordinator	\$110.00
Landscape Designer III	\$132.00	Creative Designer	\$106.00
Landscape Designer II	\$122.00	Stormwater Analyst	\$144.00
Landscape Designer I	\$110.00	Environmental Manager II	\$196.00
Land Development Manager	\$252.00	Environmental Manager I	\$174.00
Planning Manager	\$228.00	Environmental Principal	\$155.00
Project Manager – Planning	\$200.00	Environmental Supervisor	\$125.00
Senior Planner	\$182.00	Environmental Stormwater Vac Operator	\$125.00
Planner IV	\$176.00	Environmental Stormwater Vac Crew	\$115.00
Planner III	\$168.00	Environmental Crew Lead	\$105.00
Planner II	\$146.00	Environmental Maintenance Technician	\$95.00
Planner I	\$132.00	Environmental Administrative	\$100.00
Planning Technician	\$126.00	Natural Resource Specialist IV	\$156.00
Land Development Assistant	\$106.00	Natural Resource Specialist III	\$142.00
Accounting Manager	\$216.00	Natural Resource Specialist II	\$126.00
Project Accountant	\$148.00	Natural Resource Specialist I	\$116.00
Administrative Manager	\$148.00	UAV Pilot	\$160.00

The above rates cover salaries, overhead and profit. All other materials and expenses will be billed on an actual cost plus 10% basis. Overtime rates will be 1.5 times unless otherwise negotiated. These rates will be adjusted annually or as necessary to reflect market conditions. Sub-Consultants costs will be on actual cost plus 10% to compensate MacKay Sposito for Business Occupation Tax and administrative costs.

Per diem rates for travel within the continental United States will be billed in accordance with the rates published by the Office of Governmentwide Policy, General Services Administration (GSA) for the applicable fiscal year. Mileage will be billed in accordance with standard mileage rates published by the Internal Revenue Service.

Engineering categories are in accordance with ASCE Classifications. Rates detailed above do not apply to Federal or State contracts with specific Wage Determinations or mandated prevailing wage/fringe benefits minimum.