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City of Flagstaff
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Flagstaff PEPS Contractor Design and Construction Phase Services

The City of Flagstaff is planning to start construction in 2023 on the new Primary Effluent Pump Station (PEPS). Garver prepared a conceptual design and construction documents that were finalized in May of 2022 for the PEPS. The bond was approved for the PEPS in November of 2022. As part of a separate project, odor control for the Wildcat Hill WRP was upgraded; it is anticipated that the upgraded odor control is likely adequate for the PEPS and that the odor control previously designed for the PEPS is no longer needed. In addition to the design updates, Garver will assist with prequalification of contractors and a bidding phase for the project. Garver will also provide construction phase services including submittal reviews, construction administration, responding to requests for information (RFI) from Contractor, and providing a Resident Project Representative (RPR) to coordinate construction items and provide construction observation. The following tasks describe the work in detail.

Task 1. Project Management

Garver will manage the services required to complete the Project tasks. This will include internal project coordination, coordination and supervision of the project design team and resources, coordination as needed with City of Flagstaff (City) staff, oversight of the project schedule and budget, and preparation of monthly reporting and invoices.

1.1. Project Setup

This task includes setting up the project using Garver standards and maintaining project files. This task will also include contracting and managing subconsultants for this project.

1.2. Progress Reports and Invoicing

Garver shall prepare invoices on a monthly basis, or other reasonable time period based on progress that shall not be less than monthly. The Project Manager will provide updates and percent complete on tasks as requested by the City. It is assumed that there will be up to 18 invoices prepared for this project.

1.3. Project Meetings

Garver's project manager will coordinate, as needed, with the City's Project Manager and Operations staff. Meetings related to Contractor coordination are included in Task 4 and Construction progress meetings are included in Task 5.

It is assumed that there will be the following meetings:

- Kickoff meeting with the City. This meeting is assumed to be up to 2 hours. It is assumed that up to 2 representatives from Garver will attend in person and that up to 2 additional representatives will attend virtually. The total time required including preparation and documentation will be up to 16 hours.
- Design Workshop with the City. Garver will conduct a workshop to review the design developed by Garver. It is assumed that 2 representatives from Garver will attend in person and that up to 2 additional representatives will attend virtually. The meeting is assumed to be approximately 2 hours in duration and the total time required will be approximately 24 hours.
- Final design review workshop. Garver will conduct a final design review workshop with the City to review draft final documents with the City prior to issuing the contract documents. It is assumed that up to 2 representatives from Garver will attend in person and up to 2 additional representatives will attend virtually. It is assumed that this workshop will be approximately 1 an hour in length and that the total time required will be 16 hours.
- General coordination, assumed to be status update emails, phone calls, and other meetings that in general will require less than 4 hours per month for the duration of the project, up to 24 hours total.

Garver will provide relevant meeting minutes or email updates/summaries of discussions and decisions made for each meeting.

Project Management Deliverables

The following deliverables will be provided to the City:

- Progress reports
- Invoices
- Meeting minutes or email summaries as applicable

Schedule

It is assumed that this project will require up to 6 months to complete the design of this project and submittal reviews and approximately 12 months for construction.

Task 2. Data Collection

Garver will collect data from available sources for this project. The data collection will include review of design drawings and specifications for other projects, as built and record drawings for the project site. It is assumed that additional survey and geotechnical investigations are not required, if it is determined that additional data is required it is assumed that this data will be provided by the City or Contractor.

2.1. Garver Data Collection

Garver will review and summarize available data. This data is assumed to be the design drawings from other design projects, as-builts, and record drawings listed below:

- Headworks Improvements design dated October 2020.
- Wildcat Hill Upgrades dated March 2007.
- Solids Storage and Disposal Facilities dated July 1979.
- Wildcat Hill Wastewater Treatment Plant dated 1970.

2.2. Garver Site Visit

Garver will perform a site visit to evaluate site conditions. It is assumed that the site visit will take up to 6 hours. It is assumed that up to 2 Garver representatives will participate in the site visit and that the total time required will be up to 20 hours. The site visit will be documented by photographs and notes.

Data Collection Deliverables

The following deliverables will be provided/available to the City:

- Data collected will be used in the development of the design documents.

Schedule

The deliverables for the project are expected to be available on the following schedule:

- Approximately 6 weeks after notice to proceed (NPT) or the receipt of data collection from Owner, whichever is later.
- Deliverables will be provided with appropriate submittals.

Task 3. Design Revisions and Updates

Garver will revise the Contract Documents to include the following revisions and updates:

- Garver will prepare 3 submittals for the revisions, specifically these will be an initial design that will show the proposed updates at approximately 30% level of completeness.
- A draft final submittal will be prepared based on input on the initial design provided by the City; this submittal will be generally complete.

The For Construction set of deliverables will be prepared to address the comments received and agreed to by Garver on the draft final deliverables.

3.1. Technical Memorandum (TM) for Odor Control Updates

Garver has identified potential changes to the designed odor control system and will evaluate the capacity of the existing blower, all associated piping and the existing odor control system. These findings will be presented to the Owner in short technical memo. Upon communication with the Owner, the changes will be addressed in the final odor control design.

3.2. Odor Control Updates

It is anticipated that the upgraded odor control system updates (already completed by Owner) will accommodate the new PEPS design. Garver will:

- 3.2.1. Confirm and document the capacity of the system, including media, air flow, fans, and other appurtenances are adequate in a short technical memorandum to accommodate odor control for the new PEPS.
- 3.2.2. Upon approval from the Owner, remove the small carbon odor control system previously designed for the PEPS from the drawings and design a connection to the upgraded odor control system recently installed by the City. It is assumed that up to 5 sheets will have major updates. All information and designs provided to Garver by City is assumed as correct.

3.3. Facility Tie-in Updates

The Owner has identified potential changes to the tie-in points for the PEPS. Specifically, the tie-ins to convey primary effluent from the sedimentation trains to the new pump station and a bypass connection from an upstream channel of the sedimentation trains to the pump station. Garver will:

- 3.3.1. Review these tie-in points in detail and communicate findings to Owner. A virtual meeting will be held with the Owner to make final decisions on the tie-in points.

After the meeting, Garver will incorporate updates to the drawings and specifications related to the tie-in points.

Deliverables

Garver will provide the following submittals under this Task to the City:

- A short 1–2-page Technical Memorandum to confirm and document changes to odor control.

- If Task 3.2.1 confirms feasibility, the initial design documents will be updated to remove the odor control system and add connection to the existing odor control piping.
- Draft final design incorporating revised odor control and comments from City into the overall PEPS documents.
- Final documents incorporating final PEPS design, revised odor control, and other comments from City and agreed to by Garver are incorporated.

Schedule

The deliverables for this Task are assumed to be available on the following schedule:

- Initial Design will be issued approximately 8 weeks after receiving all required Data from the City or the NTP for Task 3, whichever is later.
- Draft final design will be issued approximately 3 weeks after comments are received from the City and addressed by Garver on the initial design, and City provides NTP for the draft final design.
Final design will be issued 4 weeks after comments are received from the City and addressed by Garver on the draft final design, and City provides NTP for the Final Design

Task 4. Bidding Services

This task will accomplish two major tasks: contractor pre-qualification and project bidding, as further described below:

4.1. Contractor Pre-Qualification

The scope of services assumes the period for prequalifying bidders is 30 calendar days. During the prequalification period phase of the project, Garver will:

- Prepare Prequalification Information Packet that will serve as the Request for Qualifications for interested Contractors for prequalification. Coordinate Owner's review and comment on the document.
- Prepare and submit Advertisement for Prequalification for Contractors and their submittal of Statements of Qualifications to newspaper(s) for publication as directed by the Owner. Owner will pay advertising costs outside of this contract.
- Post advertisement for Prequalification for Contractors, Prequalification Packet, and any associated information to Garver's online plan room for download by prospective contractors.
- Support the Prequalification Packet by preparing addenda as appropriate and posting on Garver's online plan room.
- Participate in a Prequalification meeting.
- Prepare a Prequalification meeting memorandum. Following Owner's authorization, post the Prequalification meeting memorandum with attendance record on Garver's online plan room.
- Participate and chair a construction site tour by interested Prequalification meeting attendees and other interested parties.
- Attend the Prequalification Submittals of Qualifications opening.
- Prepare a review of each Submittal of interested contractors based upon agreed to criteria. Also, perform the following:
 - Verify Contractor's certifications and licenses to serve as the Prime Contractor for this Project.
 - Survey (via telephone) the submitted project references.
 - Survey (via telephone) the submitted references for key staff.
 - Evaluate the submittals and recommend prequalified contractors to Owner.
- Prepare prequalification notices to qualified contractors and advise of preliminary schedule for bidding.

4.2. Bidding Assistance

The scope of services assumes the bidding period for prequalified bidders is 30 calendar days. During the bidding period phase of the project, Garver will:

- Prepare and submit Advertisement for Bids to newspaper(s) for publication as directed by the Owner. Owner will pay advertising costs outside of this contract.
- Post advertisement for bids, construction contract documents, and any associated information to Garver's online plan room for download by prospective bidders (at an appropriate cost for handling).
- Support the contract documents by preparing addenda as appropriate and posting on Garver's online plan room.
- Participate in a pre-bid meeting.
- Prepare pre-bid meeting minutes. Following Owner authorization, post the pre-bid meeting minutes with attendance record on Garver's online plan room.
- Participate and chair a construction site tour by interested pre-bid meeting attendees and other interested parties.
- Attend the bid opening.
- Prepare bid tabulation.
- Evaluate bids and recommend award.
- Attend and participate in reporting recommendation of award to City Council.
- Prepare construction contracts.
- Prepare conformed documents and provide up:
 - To the Contractor: three (3) hard copies of specifications, three (3) hard copies of full-size drawings and three (3) hard copies of half-size drawings. Electronic (PDF) copies to be provided as requested.
 - To the Owner: three (3) hard copies of specifications and three (3) hard copies of half-size drawings. Electronic (PDF) copies to be provided as requested.

Task 5. Construction Phase Support

Garver will support through construction by providing construction administration and inspection as identified below:

5.1. Construction Administration

Garver will provide construction administration services during construction. These services include management, administration, progress meetings, and general coordination. It is assumed that construction duration will be approximately 12 months. It is assumed that there will be approximately 20 progress meetings. It is assumed that half of the meetings will be attended by only the Resident project Representative (RPR) and the remaining meetings will be attended by both the RPR and Project Manager.

5.2. Submittal Reviews

Garver will review submittals provided by the contractor. It is assumed that this Project will have up to 85 submittals and that only half of the submittals will require resubmittal. Garver will evaluate the submittals and provide comments on submittals provided by the contractor. Corrections or comments made by the Garver as part of this review will not relieve the contractor from compliance with the requirements of the Drawings and Specifications. The check will only be for review of general conformance with the design concept of the project and general compliance with the information provided in the contract documents. The contractor will be responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all other trades, and performing his work in a safe and satisfactory manner. Garver's review shall not constitute approval of safety precautions or constitute approval of construction means, methods, techniques, sequences, procedures, or assembly of various components. When certification of performance characteristics of materials, systems or equipment is required by the Contract Documents, either directly or implied for a complete and workable system, Garver shall rely upon such submittal or implied certification to establish that the materials, systems, or equipment will meet the performance criteria required by the Contract Documents.

5.3. Requests for Information and Directives

Garver will review and respond to Requests for Information (RFI) from the Contractor. It is assumed that up to 25 RFIs will be submitted by the Contractor. The RFIs shall not include redesign for the convenience of the Contractor. Garver will also issue field orders and work change directives. It is assumed that up to 5 field orders and 5 work change directives will be needed.

5.4. Assistance with Change Orders

Garver will assist the City by reviewing potential change orders brought by the Contractor. Garver will review the change order, evaluate the merits of the requested change order, and make recommendations to the City. It is assumed that up to two (2) change orders will be submitted by the Contractor. Final decisions on the change orders shall be determined by the City.

5.5. Resident Project Representative (RPR) Services

Garver will provide a full-time Resident Project Representative (RPR) during active construction. Garver's RPR will be on site during active construction, it is assumed that the first 6 months of the project will be focused on design updates, and submittals and therefore will not require the RPR to be onsite. The next 6 months is assumed to be half time with the RPR onsite 2-3 days a week depending on the planned work by the Contractor. It is assumed that there will be 6 months where the RPR will be onsite full time, approximately 4-5 day a week depending on Contractor schedule and work hours. RPR services beyond 6 months of off-site work, 6 months of half-time onsite work, and 6 months of full-time onsite are considered additional services and will require a change order. The RPR will provide daily reports when on site and observing work performed by the Contractor. In addition, it is assumed that the project manager or other engineering staff will be on site up to 6 times throughout active construction. The RPR shall not be responsible for means and methods of the Contractor. The RPR shall review the Contractor's work and inform the City and Garver of compliance with the contract documents and potential issues noted. The Contractor shall be responsible for their own quality control and shall provide access to Garver's RPR as needed.

5.6. Record Drawings

Garver will take the as built redlines prepared by the Contractor throughout construction and update the Drawings to be Record Drawings. It is assumed that the Contractor will provide redline as-builts of all changes during construction and will provide survey of any new features or major changes. The redlines from the Contractor will be reviewed by Garver's RPR and compared to daily reports to identify potential inaccuracies. Garver will provide Record Drawings based on data provided by the Contractor. The Record Drawings will include updates to all Drawings in the original Contract Documents as well as Record Drawings for Arc Flash and SCADA upgrades made by the Contractor during construction, it is assumed that the Contractor will provide Arc Flash and SCADA documentation for Garver to incorporate into the Record Drawing Set.

5.7. Substantial Completion Walkthrough and Punch List

Garver will perform a walkthrough with the City to identify deficiencies in the construction. Garver will prepare a punch list based on the walkthrough. It is assumed that Garver's RPR and Project Manager will attend the substantial completion walkthrough.

Schedule

The deliverables for the project are expected to be available on the following schedule:

- Meeting minutes will be provided within 1 week of the meeting date.
- Submittal reviews will be returned within 2 weeks, or the time required in the contract documents.
- Responses to RFIs will be provided within 2 weeks of the request.
- Evaluation of requested change orders will be provided within 2 weeks of receiving the documents from the Contractor.
- Record Drawings will be provided 4 weeks after the final redlines are received from the Contractor and accepted by the Garver and the City.
- Punch List will be provided within 1 week of the Substantial Completion Walkthrough.

Assumptions

The following is a summary of assumptions Garver has made in the development of the scope:

1. Payment terms shall be lump sum.
2. Any change orders for Garver will be based on the rate table provided in Appendix B and the agreed number of hours.
3. Data provided to Garver is reliable for completion of the design.
4. Project duration is assumed to be approximately 9 months.

Task 6. Additional Services

This task is included in the scope as an allowance for OWNER’s Contingency. The following task items are not included in the scope of work. City will request Garver to perform selected tasks, if required, and use the allotted allowance sum to complete the requested tasks. In the event of additional tasks required to be performed by Garver beyond the allowance, an amendment shall be submitted for approval from the City.

1. Data collection in addition to items listed above.
2. Any topographic surveying or geotechnical investigations.
3. Redesign for the City’s or Contractor’s convenience after previous alternate direction and/or approval.
4. Redesign due to changed conditions.
5. Design or planning for facilities beyond the scope of this project, as described herein.
6. Submittals or deliverables in addition to those listed herein.
7. Materials testing during construction.
8. Survey verification of items installed during construction.
9. Design of excavation protection, shoring, dewatering, or any construction related technique for the Contractor.
10. Meetings or Workshops beyond those listed above.
11. RPR services beyond the construction times noted above.
12. Invasive or non-invasive structural evaluation techniques beyond visual observation of existing structures at grade and existing record drawings.
13. Preparation of an Industrial or Construction Storm Water Pollution Prevention Plan (SWPPP). The construction contract documents will require the Contractor to prepare, maintain, and submit a SWPPP to the appropriate agencies.
14. Preparation of Erosion Control Plans.
15. Preparation of Traffic Control Plans.
16. Operations assistance, such as startup, optimization, extended operations, and operator training.
17. Collection system and/or inflow and infiltration flow monitoring.

Payment Terms

The total amount to be paid to Garver under this contract shall be \$806,191 as shown in the following table. Payment terms shall be lump sum and billed monthly as a percent of project complete. Any change orders will be negotiated based on the estimated hours to complete the additional work and the standard rate table provided in Appendix A.

The table below summarizes the lump sum fee by task for the Flagstaff PEPS Construction Phase Services.

Task	Fee
Task 1. Project Management	\$ 26,062.00
Task 2. Data Collection	\$ 6,141.60
Task 3. Design Revisions and Updates	\$ 58,222.00
Task 4. Contractor Pre-Qualification and Bidding	\$ 86,471.50
Task 5. Construction Phase Support	\$ 419,528.00
Task 6. Additional Services (Owner’s Contingency)	\$59,643.00
Total	\$ 656,067.60

Exhibit B

City of Flagstaff Flagstaff PEPS CAI

FEE SUMMARY

Basic Services Section	Estimated Fees
Project Management	\$ 26,062.00
Data Collection	\$ 6,141.60
Design Revisions and Updates	\$ 58,222.00
PreQual and Bidding	\$ 86,471.50
Construction Phase	\$ 419,528.00
Additional Services	\$ 59,642.50
Subtotal for Basic Services Section	\$ 656,067.60
Additional Services Section	Estimated Fees
TASK (Number - Description)	\$ -
Subtotal for Additional Services Section	\$ -
Total All Services	\$ 656,067.60

Fee Type: Lump Sum

