



November 15, 2024

Cassandra Sanchez, PE
City of Hesperia
9700 Seventh Avenue
Hesperia, CA 92345

Subject: Sewer System Planning and Design Support

Dear Ms. Sanchez:

Carollo is pleased to submit this scope and budget to provide sewer system planning and design support services for the City of Hesperia. We understand that with the planned Silverwood development, and the large addition of new homes to the city, there is work to be done to update and upgrade the collection system to accommodate new residents. This scope of work will provide general sewer system planning and design support, with the intent of helping the city develop a long-term plan for the collection system.

The main deliverable for this scope will be a technical memo, summarizing the status of the exiting collection system operations, and identifying the costs and impacts to the City of two alternatives:

1. Silverwood constructs and operates a private wastewater treatment facility (WWTF)
2. The City purchases a portion of the existing Silverwood private wastewater system and integrates the new portion into the existing sewer system. This would allow for potential septic to sewer conversions to the south of Ranchero Road and I Avenue.

In addition to the technical memo, Carollo will provide review of technical documents and plans submitted by the development team, and overall planning and program support as a part of this scope.

Please find attached the following for your review and approval:

Exhibit A – Sewer System Planning and Design Support Scope of Work

Exhibit B – Sewer System Planning and Design Support Labor Hours and Fee Estimate

Please let me know if you have any questions or require any further information.

Thank you.

Sincerely,
CAROLLO ENGINEERS, INC.

A handwritten signature in blue ink, appearing to read "Andrew Frost".

Andrew Frost, PE
Associate Vice President

Enclosures: Exhibit A – Sewer System Planning and Design Support Scope of Work

Exhibit B - Sewer System Planning and Design Support Labor Hours and Fee Estimate

Exhibit A

Sewer System Planning and Design Support Scope of Work

Background

The City of Hesperia (City) lies within an area that is commonly referred to as the high desert in Southern California. Located in the northern portion of San Bernardino County (County) approximately 30 miles north of the City of San Bernardino, the City encompasses an area of approximately 74 square miles.

Currently, approximately 15% of the City is serviced by sewers that ultimately flow to a regional wastewater treatment plant (WWTP) that is owned and operated by the Victor Valley Wastewater Reclamation Authority (VWVRA). The current sewer collection within the City is owned and operated by the City. The remaining area not serviced by existing sewers is undeveloped or served by on-site wastewater treatment systems (septic tanks).

The City's wastewater collection system includes approximately 60 miles of gravity sewer pipe, 882 manholes, 51 cleanouts, 1 operational lift station, and 1 force main. The City's sewer system connects to VWVRA's 3-mile interceptor that runs along the northeast boundary of the City.

Planned Development

The Silverwood development located along the south portion of the City, is planned to add over 15,000 homes to the area as part of a multiyear project. Initially, 500 homes will be constructed and connected to existing City sewers near I Street and Ranchero Road. Over the long term, as more homes are developed, Silverwood plans to construct a new wastewater treatment facility (WWTF). Currently, this facility is planned to be privately owned and operated by the Silverwood community. However, the City wishes to explore other options and analyze the right long term sewer solution for the City.

In order to assist the City in this long-term sewer solution and planning effort, Carollo has developed this initial scope of work. In the coming months, it is recommended the City should undertake an update to their current sewer master plan, and potentially a rate study to fund their sewer system goals. These two items are not a part of this current scope of work.

Task 1 – Project Management and Meetings

Carollo will administer the project and provide up to 12 months of project management services to maintain project schedule and budget. The project progress and budget status will be included in a monthly progress report that will be included with our monthly invoice. Additionally, the monthly progress report will include a list of work completed for the billing period, as well as an invoice summary report outlining the dollar budgeted, spent, and remaining per task. The scope of comprehensive project management includes, but is not limited to the following:

- Efficiently managing the project schedule.
- Setting up and facilitating client meetings, interagency meetings, field reviews, and other project related meetings. The following meetings will be included within this scope of work:



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- » Kick-off Meeting (in person or virtual)
- » Monthly status update calls (phone calls)
- » Additional Meetings as needed (up to 64 total meeting hours)
- Managing the Carollo team involved in the project ("project team"). Managing the project team includes, but is not limited to, preparing contract paperwork, memos, letters and e-mail, making phone calls, and maintaining project files.
- On a monthly basis, Carollo will provide a brief written summary of work (typically 1-page long) that has been accomplished in the previous month, anticipated work for the next month and key decisions that need to be made to keep the project on schedule. Invoices shall show the original budget, reallocated budget, amount spent to-date, amount spent this period, and percentage spent to-date for each task. Invoices shall be structured to separate out the costs relative to each of the two projects, which will be invoiced and tracked separately if requested by The City.
- Preparation of meeting minutes for all meetings held and run by Carollo. Meeting minutes shall be submitted to the City within 5 business days of the meeting date for review, with the goal of finalizing meeting minutes seven working days after the meeting.

In addition to the planned kickoff meeting and status update calls, this task includes additional hours for meeting attendance. The exact number and scope of these meetings is unknown, but it is anticipated that meetings may include coordination with Silverwood Development, coordination with VVWRA, and coordination with regulating agencies of funding providers. All meeting attendance will be approved in writing by the City, and Carollo led meetings will include the development of minutes as mentioned above.

Task 2 – Review of Technical Materials and Planning Support

Carollo will provide technical review of project plans, reports, technical memos, or other relevant materials submitted by the developer or its agents for the City. This task covers a broad range of documents or submittal items, and is expected to cover items such as:

- Design plans
- Basis of design reports
- Flow projections or capacity analysis
- Treatment plant related documents including processes, layouts, or calculations
- Cost estimates

This task assumes a total of 204 hours of review for a maximum fee of \$49,180. If additional review or support hours are needed, they will require transfer of hours from other tasks, or additional scope and fee.

Task 3 – Technical Memo

Carollo will draft a technical memo, identifying the steps and research used to develop a recommendation on the best long-term solution for the City's sewer system. The memo will include findings on the existing system, compatibility and scalability of the planned Silverwood WWTF, and outline recommended next steps for the City to implement the solution. The overall goal of the memo is to outline potential options for the City and highlight



the pros and cons of each alternative. Detailed cost estimates for each option, technical requirements for implementation, and/or design plans will come in later stages and will not be a part of this memo.

Draft and final versions of the technical memo will be submitted in PDF format via email to the City. Comments received from the City on the draft document will be incorporated into the final version of the technical memo.

[Task 4 – Plan and Specification Review Services for Silverwood WWTP Facility](#)

Carollo will provide a technical review of project plans and specifications (plan checking services) related to the new WWTP scheduled to be constructed by the Silverwood Development. Based on information from the City, we understand this is planned to ultimately be a 4 MGD treatment facility. To gauge the initial plan check service estimate, Carollo has made assumptions on the number of drawings, and size of the initial facility listed below, and plans to bill all time for this task on a time and materials basis:

- The initial facility will be approx. 1 MGD with an ultimate size of 4 MGD
- Up to 85 design drawings will be reviewed
- Up to 30 specifications will be reviewed
- Plans reviewed will be in PDF format.
- Specifications reviewed will be in Word (.docx) format
- Up to 4 hours per sheet has been allocated (this time includes review of associated specifications)

This task assumes a total of 340 hours of review for a maximum fee of \$90,780. If additional review or support hours are needed, they will require transfer of hours from other tasks, or additional scope and fee.





Sewer System Planning and Design Support
City of Hesperia
Fee Estimate

Sewer System Planning and Design Support City of Hesperia Fee Estimate			Category	Labor							Subtotal		Subconsultant & Expenses				Total Fee \$			
				Principal In Charge	Project Manager	Principal Engineer	Sr. Engineer	Staff Engineer	Modeling Support	CAD Technician	GIS Technician	Document Processing	Total Labor Hours	Total Labor Fee	Subconsultants	ODCs		Travel		
Task	Sub Task	Description	Name	Hourly Bill Rate																
1	0	Project Management and Meetings			8	50	20	20	0	0	0	0	0	98	27,410	-	-	-	750	28,160
	1	Project Management			4	30								34	9,730	-	-	-	-	9,730
	2	Meetings			4	20	20	20						64	17,680	-	-	-	750	18,430
2	0	Review of Technical Materials and Planning Support			4	40	20	60	80	0	0	0	0	204	49,180	-	-	-	-	49,180
	1	Document Review			2	20	10	30	40					102	24,590	-	-	-	-	24,590
	2	Planning Support			2	20	10	30	40					102	24,590	-	-	-	-	24,590
3	0	Technical Memo			3	20	8	32	36	0	0	24	10	133	29,385	-	-	-	-	29,385
	1	Draft Technical Memo			2	10	4	16	20			12	6	70	15,380	-	-	-	-	15,380
	2	Final Technical Memo			1	10	4	16	16			12	4	63	14,005	-	-	-	-	14,005
4	0	Plan & Spec Review Services for Silverwood WWTP			0	0	136	204	0	0	0	0	0	340	90,780	-	-	-	-	90,780
	1	Planchecking Design Drawings / Specs (85 drawings)					136	204						340	90,780	-	-	-	-	90,780
Total Hours					15	110	184	316	116	0	0	24	10	775						
Total Price					4,425	31,350	52,440	80,580	22,620	0	0	3,840	1,500	196,755	0	0	0	750	197,505	