



September 2, 2026

2026-M-308

City of El Mirage
Engineering Department

Attn: Mr. Bryce Christo, P.E. and Mr. Jonathan Hiebert, EIT
Deputy Director / Assistant City Engineer
10000 N. El Mirage Road
El Mirage, Arizona 85335

Re: Cost Estimate for Providing Surveying and Engineering Services
Thompson Ranch Road Valley Gutter Improvements
W. Thompson Ranch Road and W. Greenway Road, El Mirage, Arizona

Dear Mr. Christo and Mr. Hiebert,

Engineering Alliance, Inc. (EA) appreciates the opportunity to submit this cost proposal to the City of El Mirage ("City") for engineering services associated with improvements to the existing valley gutter and roadway conditions along Thompson Ranch Road.

EA met with City representatives and conducted a site visit to better understand the existing roadway, drainage conditions, valley gutter configuration, and the City's objectives for the proposed improvements. Based on our site observations and discussions with City staff, EA has developed the following design approach and scope of services.

Project Understanding and Design Basis:

EA understands that the existing valley gutter crosses Thompson Ranch Road and creates a noticeable roadway transition. The existing roadway is located along a horizontal curve and includes a cross slope condition that may be contributing to the abrupt transition experienced by vehicles traveling through the area.

EA will evaluate the existing roadway profile, cross slope, roadway crown, drainage pattern, and valley gutter as an integrated system rather than treating the valley gutter as an isolated feature.

An existing storm sewer manhole is located near the valley gutter. Based on our preliminary understanding of the existing drainage configuration, the existing storm drainage system conveys runoff toward the drainage channel located north of Thompson Ranch Road.

EA will evaluate the feasibility of installing a new curb inlet on the south side of Thompson Ranch Road to intercept roadway runoff and connecting the proposed inlet to the existing storm sewer and/or storm drain system.





The roadway-grading evaluation will focus on roadway crowning and/or regrading in the vicinity of the existing valley gutter. The roadway profile and cross slope will be evaluated to provide a smoother and more gradual roadway transition while maintaining positive drainage.

EA anticipates that the roadway grading improvements may need to extend beyond the immediate limits of the existing valley gutter. The proposed transition limits may extend several hundred feet east and west of the valley gutter, as necessary, to provide a smooth and constructible transition between the existing and proposed roadway grades.

The final limits of roadway regrading, proposed elevations, roadway crown/cross slopes, valley gutter modifications, curb inlet location, and storm drain connection will be established based on field survey and engineering evaluation.

EA will develop the project through **30%, 60%, 90%, and 100% design submittals**, allowing the City to review the proposed improvements at defined stages of design and provide comments prior to advancement to the next design level.

Scope of Services:

Task 1: Project Management and Coordination

Provide general coordination and communication as necessary with the design team and the City. This includes phone calls, emails, written communication, and interaction required to complete the design development.

- Attend two (2) site visits with the City's representative(s) during the project duration. Each site visit is anticipated to be approximately two (2) hours. The Project Managers from EA and the City will use the site visits to develop a shared understanding of the existing conditions, review the proposed improvements, and evaluate the design as it progresses.
- Prepare for and attend three (3) virtual coordination, plan review, or design development meetings with the City following the 30%, 60%, and 90% design submittals. EA will prepare meeting agendas and document meeting discussions and action items.
- Coordinate with City staff throughout the design process regarding project requirements, design development, review comments, and project schedule.
- Manage project correspondence, coordination, and internal design team activities necessary to complete the project.

Task 2 – Utility Research, Survey and Base Map Preparation

EA will perform the research, field survey, and base map preparation necessary to establish existing conditions for the roadway and drainage improvements. Services will include:

- Research available City records, existing improvement plans, as-built drawings, utility information, and other available record information applicable to the project area.



- Coordinate with utility providers and research available utility mapping to identify existing underground and above-ground utilities within the project limits.
- Contact Arizona 811/Blue Stake, as applicable, to obtain available utility information and identify utilities requiring consideration during design.
- Perform a field survey of the project area sufficient to support the roadway grading and drainage design.
- Locate and survey existing roadway features, including pavement, curb and gutter, sidewalks, valley gutter, drainage structures, manholes, utility features, signs, and other relevant improvements.
- Obtain roadway elevations and cross sections sufficient to evaluate existing roadway grades, cross slopes, and roadway crown in the vicinity of the existing valley gutter.
- Survey the existing storm sewer manhole and other visible drainage structures and obtain available rim and invert information necessary to evaluate the proposed storm drain connection.
- Extend survey coverage east and west of the existing valley gutter as necessary to evaluate the proposed roadway transition and establish appropriate limits of improvement.
- Prepare an electronic existing-conditions base map incorporating survey information, available utility information, existing right-of-way, easements, roadway features, drainage facilities, and other relevant existing conditions.
- Incorporate available utility and existing-condition information into the project CADD files for use in preparation of the 30%, 60%, 90%, and 100% design submittals.

Task 3: 30% Design Submittal

EA will prepare a preliminary 30% design submittal to establish and confirm the proposed engineering approach. The 30% design will include, as applicable:

- Preliminary roadway profile and grading.
- Preliminary evaluation of existing cross slope and roadway crown.
- Preliminary proposed roadway crowning/regrading concept.
- Preliminary limits of roadway improvements east and west of the valley gutter.
- Preliminary valley gutter modification/removal concept.
- Preliminary location of the proposed south-side curb inlet.
- Preliminary storm drain connection concept.
- Preliminary construction cost estimate for the proposed roadway crowning and drainage inlet improvements to allow the City to evaluate the anticipated construction cost against its construction budget.

EA will coordinate with the City following the 30% submittal to confirm the preferred design direction before proceeding with detailed design.



Task 4: 60% Design Submittal

EA will advance the design based on the 30% design review and City comments. The 60% design submittal will include:

- Developed roadway grading and profile.
- Proposed roadway crown/cross slopes and transition.
- Refined limits of roadway regrading.
- Valley gutter modification/removal details.
- Proposed curb and gutter improvements.
- Proposed south-side curb inlet.
- Proposed storm drain connection to the existing drainage system.
- Drainage and grading details.
- Construction details.
- Updated construction quantities.
- Updated construction cost estimate.

Technical specifications are not included at the 60% submittal and will begin with the 90% design submittal so the City has adequate review time before final design.

EA will review the City's comments and incorporate appropriate revisions into the 90% design.

Task 5 – 90% Design Submittal

The 90% design will represent a substantially complete set of construction documents for detailed City review. The submittal will include:

- Complete roadway plan and profile information.
- Finalized roadway grading and transition.
- Finalized roadway crown/cross slopes and transition.
- Finalized valley gutter modification/removal details.
- Curb and gutter improvements.
- Proposed curb inlet and storm drain connection.
- Drainage and grading details.
- Pavement restoration limits.
- Applicable pavement marking/stripping modifications.



- Construction details.
- Technical specifications.
- Construction quantities.
- Updated construction cost estimate.

EA will address applicable City review comments prior to preparation of the final construction documents.

Task 6 – 100% Final Design Submittal

EA will prepare the final construction documents incorporating applicable City comments received during the 90% review. The 100% design submittal will include:

- Final roadway plans.
- Final roadway grading and profile.
- Final valley gutter modification/removal details.
- Final curb and gutter improvements.
- Final curb inlet and storm drain connection details.
- Final drainage and grading details.
- Pavement restoration details.
- Applicable striping and roadway improvements.
- Construction details and applicable standard details.
- Construction notes identifying applicable materials, installation requirements, and construction procedures.
- Applicable technical specifications incorporated directly into the construction drawings.
- Final construction quantities.
- Final engineer's construction cost estimate.
- Final electronic PDF construction documents.
- CAD files, as applicable.

Due to the limited nature of the proposed improvements, a separate technical specifications manual is not anticipated. Applicable technical requirements, materials, workmanship requirements, and construction specifications will be incorporated directly into the construction drawings and details.



Task 7 – Construction Cost Estimate

EA will prepare a construction cost estimate beginning with the 30% design and will update the estimate at the 60%, 90%, and 100% design milestones. The estimate will include applicable construction quantities and anticipated costs associated with:

- Valley gutter removal/modification.
- Roadway grading.
- Curb and gutter improvements.
- Proposed curb inlet.
- Storm drain connection.
- Pavement removal and replacement.
- Striping and pavement markings.
- Other incidental improvements identified during design.

Task 8 – City Review and Comment Responses

EA will coordinate with the City during the design review process and provide responses to City comments associated with the 30%, 60%, and 90% design submittals. Services will include:

- Review City comments.
- Coordinate with City staff regarding design questions.
- Incorporate applicable comments into subsequent design submittals.
- Provide clarification of the proposed roadway and drainage improvements.
- Prepare the final design documents following completion of the review process.

Deliverable:

EA will provide the following deliverables to the city:

- Existing Conditions and Survey Base Map, including available utility information, roadway features, drainage facilities, and relevant existing conditions.
- **30% Design Submittal**, including preliminary roadway crowning/regrading, drainage improvements, valley gutter modification concept, proposed curb inlet concept, and preliminary construction cost estimate for evaluation against the City's construction budget.
- **60% Design Submittal**, including developed roadway grading, drainage improvements, construction details, quantities, and updated construction cost estimate.



- **90% Design Submittal**, including substantially complete construction plans, grading and drainage details, technical specifications, quantities, and updated construction cost estimate.
- **100% Final Design Submittal**, including final construction plans, details, construction notes, applicable technical specifications incorporated into the drawings, final quantities, and final engineer's construction cost estimate.
- Electronic PDF copies of all design submittals.
- Electronic CAD files of the final design drawings.

Project Schedule:

It is anticipated that the project design tasks will commence upon receipt of the City's Notice to Proceed (NTP) and will be completed within approximately six (6) months from NTP. The schedule below represents EA's anticipated completion of the respective design submittals and includes time for City review and coordination. The schedule remains preliminary in nature and is subject to change as additional information becomes available and based on the City's review and approval process. EA will work closely with the City to maintain and, where practical, expedite the project schedule.

Task#	Task Description	Schedule for Completion
1	Project Management and Coordination	Throughout Project
2	Utility Research, Survey and Base Map Preparation	1 month from NTP
3	30% Design Submittal	2 months from NTP
4	60% Design Submittal	3.5 months from NTP
5	90% Design Submittal	5 months from NTP
6	100% Design Submittal	6 months from NTP
7	Construction Cost Estimate	30%, 60%, 90%, and 100% Submittals
8	City Review and Comment Responses	Following 30%, 60%, and 90% submittals



Project Fees

The cost estimate to complete the scope of the work listed herein is \$59,966. Detailed estimate is shown in **Attachment 1**.

Assumptions:

- The City will provide available existing roadway, drainage, utility, and as-built information in its possession.
- EA will utilize the information provided by the City together with field survey information to develop the design.
- The existing storm drainage system will be investigated to determine the feasibility of the proposed curb inlet connection.
- Final storm drain connection details will be subject to verification of the existing pipe size, material, rim and invert elevations, configuration, capacity, and utility conflicts.
- The final roadway grading limits will be established based on field survey and engineering evaluation.
- The preliminary concept of roadway crowning and/or regrading is subject to refinement during design.
- The final limits of roadway improvements east and west of the existing valley gutter will be determined through the roadway grading evaluation.
- No major utility relocation is anticipated within the scope of services described herein.
- Geotechnical investigation and material testing are not included.
- Construction staking is not included unless specifically identified in Attachment 1.
- Construction administration, construction observation, and post-design services are not included.
- Public involvement services are not included.
- Additional services outside the scope described herein will be performed only upon written authorization by the City.
- All proposed improvements shown or described in the preliminary design basis are subject to field verification and engineering analysis.



Closing:

EA appreciates the opportunity to provide this revised proposal to the City of El Mirage. We believe the revised roadway crowning and drainage approach, combined with the phased design process and early construction cost estimate, will allow the City to evaluate a practical and constructible improvement within the anticipated construction budget.

Thank you for the opportunity to provide our services.

Sincerely,

ENGINEERING ALLIANCE, INC.

A handwritten signature in black ink that reads "Shawn Kumar" with a stylized flourish at the end.

Shawn Kumar, P.E.

Principal / Senior Project Manager

Project - City of El Mirage, Cost Estimate for Providing Surveying and Engineering Services
Thompson Ranch Road Valley Gutter Improvements, W. Thomspson Ranch Road and W. Greenway Road, El Mirage, Arizona

									Hrs:	Hrs:	Sub-Total Fee
Task 2.0 – Utility Research, Survey and Base Map Preparation											
Utility and Record Research	0	0	0	0	4	0	0	0	4		
Field Survey and Crew Management	0	0	0	0	0	0	20	20			
Base Map Preparation	0	0	0	4	16	0	0	20			
Sub-Total Hours:	0	0	0	4	20	0	20	20		44	
Hourly Rates:	\$ 235.00	\$ 210.00	\$ 175.00	\$ 128.00	\$ 115.00	\$ 75.00	\$ 190.00				
Sub-Total Fee (Task 2):	\$ -	\$ -	\$ -	\$ 512.00	\$ 2,300.00	\$ -	\$ 3,800.00				\$ 6,612.00

									Hrs:	Hrs:	Sub-Total Fee
Task 4.0 – 60% Design Submittal											
Construction Plans, Details, and Notes	1	2	4	80	2	1	0		90		
Quantities and Cost Estimate	0	1	2	8	0	0	0		11		
Sub-Total Hours:	1	3	6	88	2	1	0			101	
Hourly Rates:	\$ 235.00	\$ 210.00	\$ 175.00	\$ 128.00	\$ 115.00	\$ 75.00	\$ 190.00				
Sub-Total Fee (Task 4):	\$ 235.00	\$ 630.00	\$ 1,050.00	\$ 11,264.00	\$ 230.00	\$ 75.00	\$ -				\$ 13,484.00

									Hrs:	Hrs:	Sub-Total Fee
Task 6.0 – 100% Design Submittal											
Final Construction Plans, Details, Notes and Technical	1	2	4	40	2	0	0	0	49		
Final Quantities and Cost Estimate	0	2	4	6	0	0	0	0	12		
Sub-Total Hours:	1	4	8	46	2	0	0	0		61	
Hourly Rates:	\$ 235.00	\$ 210.00	\$ 175.00	\$ 128.00	\$ 115.00	\$ 75.00	\$ 190.00				
Sub-Total Fee (Task 6):	\$ 235.00	\$ 840.00	\$ 1,400.00	\$ 5,888.00	\$ 230.00	\$ -	\$ -				\$ 8,593.00

Expenses (Printing, Fuel, Truck, Surveying Equipment etc.):	\$ 1,500.00
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Total Consultant Fees (Engineering Alliance, Inc.)	\$ 59,966.00
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