



Andrew Lee, EIT  
Assistant Engineer  
City of Cathedral City  
68-700 Avenida Lalo Guerrero  
Cathedral City, CA 92234

January 3, 2025

**RE: Proposal for Traffic Signal Improvement Plans for the Intersection of Cathedral Canyon and Canyon Shores in the Cathedral City**

Dear Andrew,

Albert A. Webb Associates (WEBB) is pleased to provide you with a proposal for the design of a traffic signal at the intersection of Cathedral Canyon Drive and Canyon Shores Drive. Enclosed you will find our Project Understanding (Exhibit "A"), Scope of Services (Exhibit "B"), and Compensation for Scope of Services (Exhibit "C") for your review and consideration.

We appreciate the opportunity to be of service and look forward to hearing from you. In the meantime, if you have any questions or require additional information, please call me at (951) 248-4289.

Sincerely,

A handwritten signature in blue ink, appearing to read "Nick Lowe". The signature is stylized with a large, sweeping initial "N" and "L".

**Nick Lowe, MS / PE / TE**  
Deputy Director, Traffic & Transportation

Attachments: Exhibit "A" – Project Understanding  
Exhibit "B" – Scope of Services  
Exhibit "C" – Compensation for Scope of Services

## Exhibit “A” – Project Understanding

The City of Cathedral City (City) and the Coachella Valley Association of Governments (CVAG) are proposing to install a new traffic signal at the intersection of Cathedral Canyon Drive and Canyon Shores Drive. This traffic signal will control vehicular, bicycle, and pedestrian traffic at the intersection as part of the upcoming CV Link extension project in the area. The traffic signal is expected to include a scramble-style pedestrian crossing to provide safer bicycle and pedestrian crossings as well as make the crossing more convenient for users.

A traffic signal warrant analysis was conducted by Advantec on May 9, 2023. The analysis resulted in a traffic signal not being warranted at the intersection at that time. The warrant analysis is to be updated with considerations of the new CV Link project and potential increased bicycle and pedestrian crossings.

Right of way availability may be an issue for this project for two reasons:

1. The existing right of way at the intersection is expected to only follow the back of the sidewalk and curb returns which may not allow for adequate room for the proposed traffic signal equipment or ADA-required clearances.
2. The public right of way does not cover the roadway section of Canyon Shores Drive. Proposed traffic signal conduits may need to cross that leg of the intersection which is currently private property. An easement or right of way dedication may be required if the traffic signal design is unable to work without that crossing.

A survey of existing right of way is included in this scope of work. Preparation of legal and plat documents for additional easements or dedications is not included and can be prepared under a separate scope and budget, if necessary.



## Exhibit “B” – Scope of Services

### Task 1 - Field Survey and Base Map

#### 1.1 Field Topographic Survey

- Field locate and recover an existing benchmark, and establish survey datum for the project. Vertical datum shall be based on the North America Vertical Datum of 1988 (NAVD88), and Horizontal control will be North American Datum of 1983 (NAD83) State Plan Coordinates, Zone VI, unless otherwise requested.
- Conduct field topographic survey of project limits depicted in the Project Understanding to obtain existing ground surface elevations at the intersection of Cathedral Canyon Drive and Canyon Shores Drive in Cathedral City at a cross sections interval of 25-feet, from 200 ft south of Canyon Shores Drive to 200 ft north of Canyon Shores Drive, to include existing curb, gutter flowline, crown line, edge of pavement, ADA ramps, median, meters, catch basins, utilities boxes/vaults, overhead utility lines, palm trees, trees, and utility poles from right-of-way to right-of-way width.
- Provide a minimum 1" = 40' scale digital topographic survey of the project areas with one-foot contours.
- Process and draft field survey data and prepare electronic CAD files for the existing ground features (FT) file, Civil 3D existing ground surface (TO) file, and existing plan (XP) file for design teams' use.

#### Deliverables:

- TO CAD (Topo) file with Civil 3D surface for design.
- XP CAD (Existing Plan) file with existing planimetric linework.

#### 1.2 Alignment/ROW Survey

- Utilizing available public records research tools, research and compile reference materials pertaining to the alignment, including reference Record Maps, Corner Records, Tie Sheets, Right-of-Way and Easement Documents.
- Perform field survey to locate and recover existing survey monuments and establish survey control for the project. Horizontal control datum and basis of bearings shall be based on the California State Plane Coordinate System, North American Datum of 1983 (NAD83), Zone VI.
- Utilizing available record data obtained from public records research, together with copies of deeds/right-of-way dedications provided by Cathedral City, calculate and plot the right-of-way lines for the project alignment depicted in Figure 1.
- Prepare a base map delineating the existing right-of-way lines obtained from our records research, field survey data and documents provided by the Cathedral City. Documents used to establish property/right-of-way lines will be noted.

#### Deliverables:

- Electronic PDF of Boundary Survey, signed & stamped by a Licensed Land Surveyor.
- AutoCAD file with 2D linework for the existing property lines, easements, right-of-way, and street centerlines to be used and referenced for design (PB File).

**Note: This scope of work does not include a record of survey. If it becomes necessary to file a record of survey and/or set survey monuments, a separate authorization will be needed.**

## **Task 2 – Utility Research and Coordination**

### **2.1 Utility Research and Coordination**

- WEBB will obtain as-built plans from utility agencies with the assistance of the City. WEBB will also obtain necessary as-built plans from the City as required.
- WEBB will utilize as-built plans to plot existing utilities (underground and overhead) onto the CAD base files.
- WEBB will submit proposed improvement plans to utility agencies to confirm facility locations.
- WEBB will provide coordination with utility companies regarding potential relocations and removals.
- WEBB will work with SCE to establish location of a new electrical service meter for the traffic signal.

### **2.2 Utility Potholing**

- WEBB will prepare a potholing exhibit to be used by the subconsultant for location of potholes. The subconsultant will apply for and acquire an encroachment permit for the work (assumed no-fee).
- Our subconsultant will pothole underground utilities to determine the depth for clearance or conflicts for any underground improvements such as irrigation lines, gas lines, telephone lines, electrical lines, sewer lines, and water lines. Potholing is expected to be conducted after the 60% plan check.
- WEBB has an estimated up to 4 potholes for the Project – one pothole for each potential standard pole. Potholes are to be X-trench style potholes or linear trench potholes depending on location and field conditions.
- WEBB will incorporate the results of the potholing into the plans to adjust locations of existing utilities and relocate traffic signal equipment as needed.

## **Task 3 – Traffic Signal Plans**

Traffic signal plans will show existing and proposed utilities. WEBB will work with SCE to determine the service point. WEBB will prepare and submit traffic signal service applications to SCE.

- Collect 12-hour intersection turning movement counts at the intersection on a standard weekday to determine recommended traffic phasing and signal timing. Counts to include vehicles, pedestrians, and bicycles.
- Prepare traffic signal plan per the latest City of Cathedral City, California MUTCD, and Caltrans standards and requirements. It is anticipated that the southbound left turn will have protected left turn phasing. It is also anticipated that the pedestrian phase will be a scramble

phase which allows for crossing movements to occur independently of vehicle movements.

- Traffic signal plan shall include the accurate location of proposed signal poles, a conductor schedule, a pole schedule, construction notes, sign details, City general notes, and any additional notes and details required for a successful design.
- WEBB will coordinate with SCE for the power location and design the electrical meter cabinet to be nearby.
- WEBB will ensure adequate intersection and crosswalk lighting from the traffic signal safety lights.
- Traffic signal equipment shall include all equipment necessary for proper operation of signal and be outfitted with intersection equipment per CVAG CV Sync requirements.
- Traffic signal plan to include interconnect conduits and pullboxes if required by the City. A separate fiber optic or communications plan is not included as a part of this scope.
- WEBB will prepare a traffic signal timing sheet for the intersection. Signal timing will be for basic uncoordinated operation and will be based on the collected traffic counts.
- Submit traffic signal plans to the City for review and comment. Revise improvement plans per comments and submit final plans for approval.

**Note: This scope of work does not include a fiber optic or communications plan. If it becomes necessary, a separate authorization will be needed.**

#### **Task 4 – Signing and Striping Plans**

- WEBB will prepare signing & striping plans for the intersection of Cathedral Canyon Drive and Canyon Shores Drive
- Signing & striping plans will show existing and proposed street striping, pavement markers, street legends, street markings, arrows, crosswalks, and signage that may exist or be required to complete the project including all design that is required for a scramble crossing.
- Signing & striping plans to be at 1"=40' scale using current CA-MUTCD, City of Cathedral City standards and requirements, and input from City
- Submit signing & striping plans to the City for review and comment. Revise improvement plans per comments and submit final plans for approval.

#### **Task 5 - Street Improvement Plans**

- WEBB will prepare street improvement plans for the curb ramp and sidewalk improvements at the intersection of Cathedral Canyon Drive and Canyon Shores Drive. No pavement work is included in this scope.
- Street improvement plans shall be at 1"=40' scale for plan view and 1"=4' for profile view using current City of Cathedral City standards and requirements.

- ADA curb ramps to be designed per City and ADA standards. Design new curb ramps as necessary for ADA compliance within the project area along with proper traffic signal operations.
- It is expected that the two existing curb ramps and the existing driveway at the intersection will need to be redesigned and reconstructed as part of this project.
- Submit street improvement plans to the City for review and comment. Revise improvement plans per comments and submit final plans for approval.

### **Task 6 – Specifications and Estimate**

- WEBB will prepare a quantity breakdown and cost estimate for traffic signal improvements and street improvements. Cost estimate to be provided at 60%, 90%, and 100% plan check.
- Obtain the specification boilerplate (contract documents) from the City and modify the documents to be project-specific. Specification documents to be provided at 90% and 100% plan check.
- WEBB will prepare a bid schedule and technical specifications in accordance with the street, traffic signal, and signing and striping improvements for the project.

### **Task 7 – Bid Support, Construction Support, As-Built Plans**

- WEBB will provide bid support during the public bidding process. WEBB will answer questions from the City and prospective bidders.
- WEBB will provide construction support throughout the construction phase. Construction support includes answering RFIs from the City and contractor, review of traffic signal equipment and material submittals, and preparation of as-built plans as marked-up by the contractor.
- As-built plans to be based on marked-up plans from the contractor and be prepared within 30 days of the completion of construction. Plans to be marked “As-Built” and stamped by a registered professional engineer.

### **Task 8 – Traffic Signal Warrant Update**

- WEBB will utilize intersection counts from Task 3 to prepare a traffic signal warrant analysis for the intersection. WEBB will also use forecasts or reasonable assumptions for the future CV Link bicycle and pedestrian usage in the traffic signal warrant.
- WEBB to prepare a traffic signal warrant memo that includes traffic counts, CA MUTCD traffic signal worksheets, and results of the analysis.

### **Task 9 – Project Management, Meeting, and Coordination**

WEBB will schedule and attend meetings in the PS&E phase as follows:

- Project Development Team (PDT) Meetings – (Up to 3 Meetings)
- Field meetings (Up to 2 Meetings)

WEBB will schedule, chair, and prepare meeting agendas and minutes for all meetings. WEBB will coordinate with the City and update the project schedule provided with the proposal. WEBB will set up field review meetings with City Staff, as needed.

## Exhibit “C” – Compensation for Scope of Services

Services described in our Scope of Services (Exhibit “B”) shall be provided on a time and material basis, not to exceed **\$106,460.00**.

Item	Description	Dilesh R. Sheth, Principal II	Myung G. Choe, Principal I	Nicholas R. Lowe, Principal I	Son H. Le, Associate III	Joy A. Schwidert, Associate I	Nancy Ochoa, Assistant V	Wendy N. Albarrañ, Assistant V	Deborah A. Saulina, Assistant III	Jason Ardery, Principal II	Michael E. Johnson, Principal II	Jon Rosa, Senior II	Andres Lopez, Senior II	Jordan T. Merrell, Associate I	2-Man Survey Party	Total Hours	Subtotal - Labor	Sub-consultant budget	Expenses	Total/task <sup>1</sup>
	Billout Rate	\$ 240	\$ 220	\$ 220	\$ 170	\$ 145	\$ 130	\$ 130	\$ 103	\$ 240	\$ 240	\$ 190	\$ 190	\$ 145	\$ 220					
<b>Task 1 - Field Survey and Base Map</b>				5	5	5			2	1	4	20	2	5	12	61	\$ 11,626	\$ -	\$ 210	\$ 11,836
1.1	Field Topographic Mapping			5	5	5			2	1		2	2	5	8	36	\$ 6,606	\$ -	\$ 105	\$ 6,711
1.2	Alignment / ROW Survey										3	18			4	25	\$ 5,020	\$ -	\$ 105	\$ 5,125
<b>Task 2 - Utility Research and Coordination</b>				3	6	8	22		28							67	\$ 8,584	\$11,431	\$ -	\$ 20,015
2.1	Utility Research					8	12		8							28	\$ 3,544	\$ -		\$ 3,544
2.2	Utility Coordination			2	4		8		16							30	\$ 3,808	\$ -		\$ 3,808
2.3	Utility Potholing (3 potholes)			1	2		2		4							9	\$ 1,232	\$11,431		\$ 12,663
<b>Task 3 - Traffic Signal Plans</b>		1	4	8	40		108	3								164	\$ 24,029	\$ 621	\$ -	\$ 24,650
3.1	Traffic Signal Plans (60%)			2	18		52	1								73	\$ 10,363	\$ 621		\$ 10,984
3.2	Traffic Signal Plans (90%)			2	12		32	1								47	\$ 6,743			\$ 6,743
3.3	Traffic Signal Plans (Final)	1		2	8		24	1								36	\$ 5,263			\$ 5,263
3.4	QA/QC		4	2	2											8	\$ 1,660			\$ 1,660
<b>Task 4 - Signing and Striping Plans</b>		1		3	3		34	2								43	\$ 6,036	\$ -	\$ -	\$ 6,036
4.1	Signing and Striping Plans (60%)			1			20	1								22	\$ 2,923	\$ -		\$ 2,923
4.2	Signing and Striping Plans (90%)				1		8									9	\$ 1,210			\$ 1,210
4.3	Signing and Striping Plans (Final)	1		1			4	1								7	\$ 1,083			\$ 1,083
4.4	QA/QC			1	2		2									5	\$ 820			\$ 820
<b>Task 5 - Street Improvement Plans</b>		1	6			36	77	3								123	\$ 17,099	\$ -	\$ -	\$ 17,099
5.1	Street Improvement Plans (60%)		1			16	48	1								66	\$ 8,883	\$ -		\$ 8,883
5.2	Street Improvement Plans (90%)		1			12	20	1								34	\$ 4,663	\$ -		\$ 4,663
5.3	Street Improvement Plans (Final)	1				6	8	1								16	\$ 2,253	\$ -		\$ 2,253
5.4	QA/QC		4			2	1									7	\$ 1,300			\$ 1,300
<b>Task 6 - Specifications and Cost Estimate</b>			3	9	16		15	12								55	\$ 8,546	\$ -	\$ -	\$ 8,546
6.1	Specifications (90%)			4	8		4	4								20	\$ 3,172	\$ -		\$ 3,172
6.2	Specifications (Final)			2	4		4	4								14	\$ 2,052			\$ 2,052
6.3	Cost Estimate (60%, 90 %)			1	2		6	2								11	\$ 1,546			\$ 1,546
6.4	Cost Estimate (Final)			1	2		1	2								6	\$ 896			\$ 896
6.5	QA/QC		3	1												4	\$ 880			\$ 880
<b>Task 7 - Bid &amp; Const. Support, As-Builts</b>			1	6	12		8	10								37	\$ 5,650	\$ -	\$ -	\$ 5,650
7.1	Bid Support			2	2			2								6	\$ 986			\$ 986
7.2	Construction Support			2	6		4	4								16	\$ 2,392			\$ 2,392
7.3	As-Builts		1	2	4		4	4								15	\$ 2,272			\$ 2,272
<b>Task 8 - Traffic Signal Warrant</b>			4				22	2								28	\$ 3,946	\$ -	\$ -	\$ 3,946
8.1	Traffic Signal Warrant Analysis		2				10	1								13	\$ 1,843			\$ 1,843
8.2	Traffic Signal Warrant Memo		2				12	1								15	\$ 2,103			\$ 2,103
<b>Task 9 - Project Management, Meetings, Coor</b>		3		16	10		10	14								53	\$ 8,682	\$ -	\$ -	\$ 8,682
9.1	Project Management	2		6			4	4								12	\$ 2,212			\$ 2,212
9.2	Meetings (3 meetings and 2 Field)			8	8		8	8								32	\$ 4,984			\$ 4,984
9.3	Coordination	1		2	2		2	2								9	\$ 1,486			\$ 1,486
<b>Total</b>		<b>6</b>	<b>18</b>	<b>50</b>	<b>92</b>	<b>49</b>	<b>132</b>	<b>164</b>	<b>76</b>	<b>1</b>	<b>4</b>	<b>20</b>	<b>2</b>	<b>5</b>	<b>12</b>	<b>631</b>	<b>\$ 94,198</b>	<b>\$12,052</b>	<b>\$ 210</b>	<b>\$106,460</b>

1. Rounded to the nearest \$1.