



*Patricia Romo, P.E.  
Director of Transportation*

# **COUNTY OF RIVERSIDE**

## **TRANSPORTATION AND LAND MANAGEMENT AGENCY**

*Mojahed Salama, P.E.  
Deputy for Transportation/Capital Projects  
Richard Lantis, P.L.S.  
Deputy for Transportation/Planning and  
Development*

### **Transportation Department**

December 20, 2017

Mike Myers, P.E.  
Assistant City Engineer  
City of Jurupa Valley  
8930 Limonite Avenue  
Jurupa Valley, CA 92509

Ed Lara, P.E.  
Interim Engineering Manager  
City of Riverside  
3900 Main Street  
Riverside, CA 92522

**SUBJECT:** Mission Boulevard Bridge Replacement at Santa Ana River  
Request for Concurrence on Final Architectural Theme

Gentlemen:

We thank you for your contribution in helping to develop the architectural theme for the replacement bridge on Mission Boulevard. The results will be carried forward into the Final Design Phase and ultimately into the bid documents with further coordination by both Cities. This project is funded through the Highway Bridge Program (HBP) and as such a portion of the construction cost for the bridge can be set aside for aesthetic treatment; however, the funding source has limitations to the cost and type of treatment. Since the Cities will ultimately assume joint ownership and maintenance responsibilities for the bridge, you and your staff have been involved in the decision-making process for selecting the baseline aesthetic components that will move forward into final design.

To ensure we efficiently navigate through the Final Design Phase without major changes to the bridge aesthetics, we request your concurrence on the Final Architectural Theme as described on the following pages and attachments.

Thank you in advance for your prompt response to this request.

Sincerely,

A handwritten signature in black ink, reading "Tayfun Saglam". The signature is fluid and cursive, with the first name "Tayfun" and last name "Saglam" clearly distinguishable.

Tayfun Saglam, P.E.

Engineering Project Manager

County of Riverside Transportation Department

Attachments:

Concurrence Document and Signature Page

Final Aesthetic Details

Estimated Cost of Aesthetics

## ATTACHMENT

### MISSION BOULEVARD BRIDGE REPLACEMENT AT SANTA ANA RIVER

#### FINAL ARCHITECTURAL THEME

#### CONCURRENCE

##### 1. Collaboration Process and Approach

This is a context sensitive project as the replacement bridge will be shared by the two communities; the Cities of Riverside and Jurupa Valley. Each community has a distinct character; therefore, it is crucial that each stakeholder be equally represented in the development of the bridge aesthetics. The Cities, in conjunction with the County of Riverside (County), the Project Design Team (PDT), and the design consultant, have collaborated over the past year to develop an architectural theme for the bridge that will be carried forward into final design.

A series of Aesthetics Workshops were held to collect information from each City about key design features representative of the bridge location and history to create an architectural theme that was appropriate for the setting and within the funding guidelines of the HBP program. The Workshops included a presentation by the County pertaining to the history of the Mission Bridge crossings, its significance for the region, historical photographs, archives, and news clippings depicting special events surrounding the bridge site. Additionally, focused meetings, conference calls, and e-mail correspondence helped resolve specific requests and fine-tune details. Comments were generated by both Cities during these activities. These comments were collected, responses to comments were issued and reviewed for concurrence, and the information was documented in the project records.

A Final Architectural Theme was then developed and distributed to the PDT on August 16, 2017. The Cities agreed this version was acceptable to present to their respective approving bodies. This signed letter along with the Final Architectural Theme renderings will serve as concurrence to move these details forward into final design.

##### 2. Aesthetic Elements Selected

The following is a written list of the aesthetic elements selected by the PDT for inclusion in the Final Architectural Theme. These features are the result of a process of elimination that takes into account the maximum benefit to users of the multi-purpose trail, the nearby residents who enjoy a view of the bridge, and users of the bicycle trail below the bridge on the east end.

- **Abutment Form Finish** (Fractured Rib Embossed)

This finish was preferred due to its linear fractured pattern that deters graffiti vandalism and is easier to maintain than other finishes. Specific limits of the form liner will be developed during final design.

- **Belvederes**

## Mission Boulevard Bridge Replacement at Santa Ana River Concurrence on Final Architectural Theme

Up to five (5) belvederes will be installed, one per bent location, along the south side of multi-purpose trail. Due to the length of the bridge of nearly 1,200 feet, the belvederes will serve as a resting point for trail users and offer an opportunity to enjoy the view. Each includes a bench and two (2) information kiosk plates. The center belvedere will include a stamped colored medallion that serves as a directional compass rimmed with important nearby physical features representative of the bridge location. The remaining belvederes will include placeholder medallions that can easily accommodate a future design selected by the Cities. Design for these medallions may be completed during final design or after initial bridge construction as directed by the Cities.

- **Standard Solid Concrete Barrier with Outboard Enhancement** (Mission Arches Design)  
The design will be applied in colored concrete with mission arch form liners tying into the historical significance of the original Mission Bridge and existing railing to the east. This enhancement will be on the non-traffic side of the standard barrier.
- **Standard Solid Concrete Barrier with Inboard Enhancement** (Mission Arches Design)  
Same as above but located on the southern side of the bridge between eastbound traffic and the multi-purpose trail. This enhancement will be on the non-traffic side of the standard barrier which will be visible by the trail user.
- **Metal Railing Enhancement** (Arches Design)  
The arches design enhancement will be applied to the metal railing along the southern edge of deck. The arches design was also selected to complement the mission theme.
- **Entry Pilasters**  
Four (4) entry pilasters will be installed, one at each corner of the bridge approach. These were designed to be reminiscent of the original Mission Bridge pilasters but scaled down to not compete with the original bridge towers that now reside within Carlson Bark Park on the east side of the River. The Cities preferred standard gray concrete color throughout with board form finish.
- **Interior Pilasters**  
Approximately six (6) interior pilasters will be installed along the south side of multi-purpose trail, midway between belvederes to break up the length of metal railing. Two (2) alternating designs are included that reflect themes consistent with both Cities and the history of the bridge. Standard gray concrete color with board form finish will be used along with concrete cap molding to complement the entry pilasters.
- **Multi-Purpose Trail Lighting**  
Architectural LED lighting will be installed along the inboard barrier to illuminate the walkway. Although it is not specifically required for safety, it was the PDT's opinion that lighting was an important architectural enhancement. Two (2) lights per belvedere bench are also included with this element. The power source, cost, and maintenance will be included in the MOU between the two Cities prior to construction.

### 3. Final Architectural Theme

The Final Architectural Theme renderings are attached. The County and their design consultant will continue to work with both Cities throughout the Final Design Phase to

## **Mission Boulevard Bridge Replacement at Santa Ana River Concurrence on Final Architectural Theme**

assure that the architectural themes are implemented into the construction documents. While we anticipate some refinements, we do not expect substantial changes or new elements moving forward.

### **4. Funding, Cost, and PS&E Phase**

The HBP funding guidelines allow up to 5 percent of the total bridge cost to be allocated towards bridge aesthetics. The Local Assistance Procedures Manual further explains which type of architectural elements are considered participating and which may undergo additional scrutiny by Caltrans.

The cost estimate for the proposed elements in the Final Architectural Theme is \$1.2 million, approximately 5 percent of the estimated bridge cost based on the baseline bridge alternative (\$24 million) identified in the Bridge Advance Planning Study.

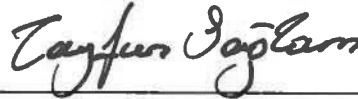
This bridge cost will undergo further refinements as we finalize the current PAED phase and in the upcoming PS&E phase. These changes may affect the available funds for bridge aesthetics. It is also possible that Caltrans may deem certain aesthetic elements non-participating for the project. In this case, the elements in question may be reduced in quantity, removed altogether, or the Cities may choose to pay for them separately.

A cost estimate for Final Architectural Theme has been attached to this letter.

**Mission Boulevard Bridge Replacement at Santa Ana River**  
(State Br. No. 56C-0071) Federal Aid No. BRLSZ-5956(192)  
Phase I – Preliminary Engineering/Environmental Clearance/Technical Report

CONCURRENCE

Concurrence  
by:



12.20.2017

\_\_\_\_\_  
Tayfun Saglam, P.E.

\_\_\_\_\_  
Date

Project Manager

County of Riverside Transportation Department

Concurrence  
by:

\_\_\_\_\_  
Steve Loris, P.E.

\_\_\_\_\_  
Date

City Engineer/Public Works Director

City of Jurupa Valley

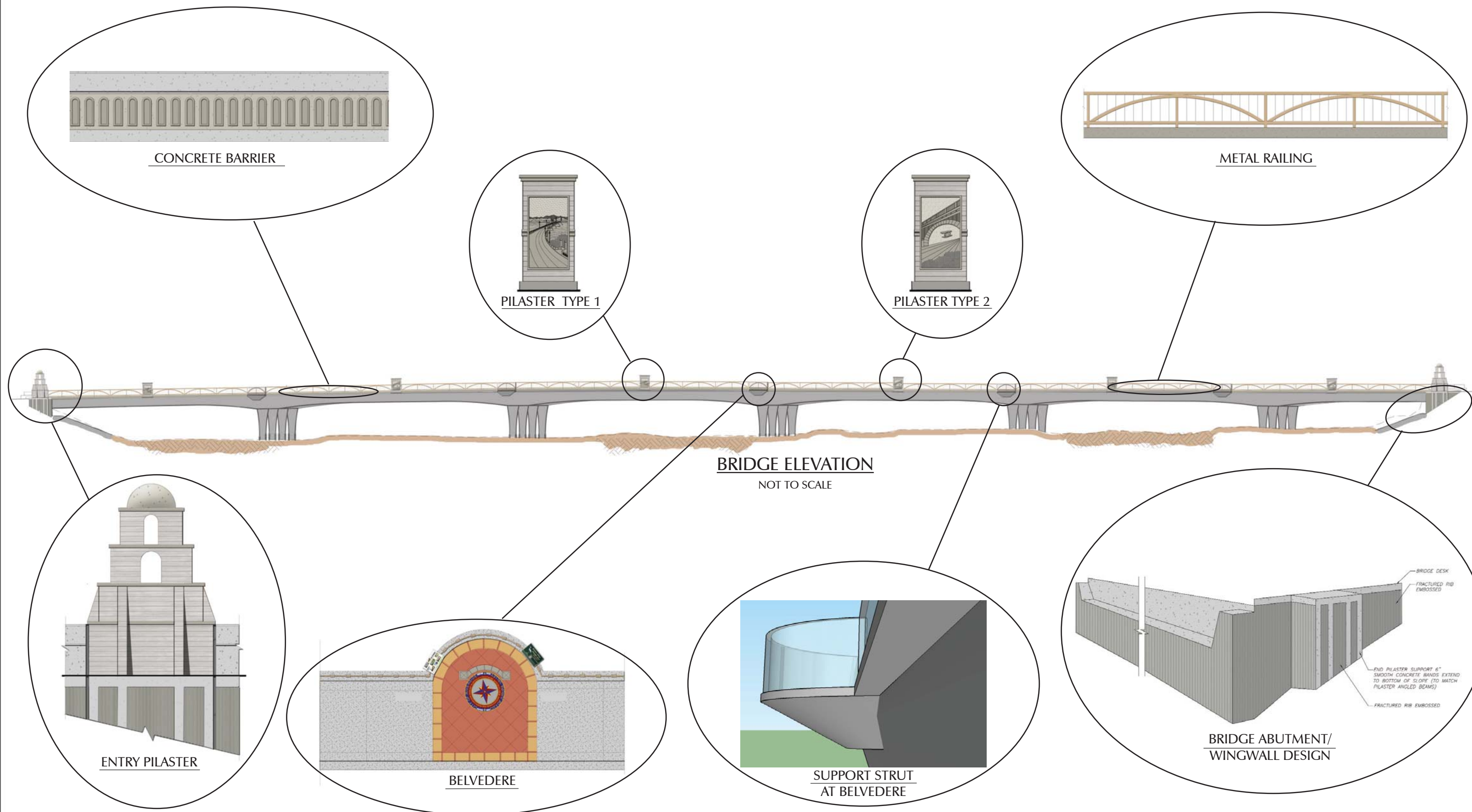
Concurrence  
by:

\_\_\_\_\_  
Rafael Guzman

\_\_\_\_\_  
Date

Community and Economic Development Director

City of Riverside



# Mission Blvd Bridge

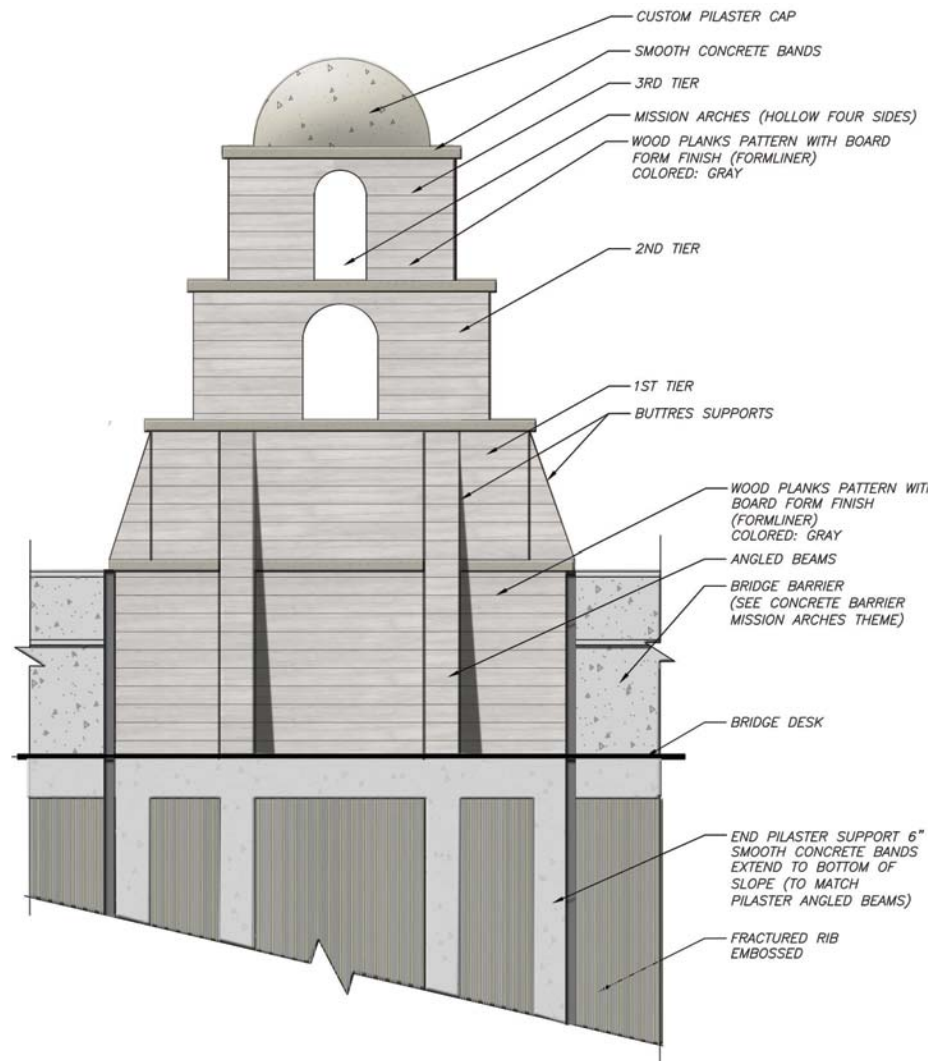
Bridge Elements

NOT TO SCALE

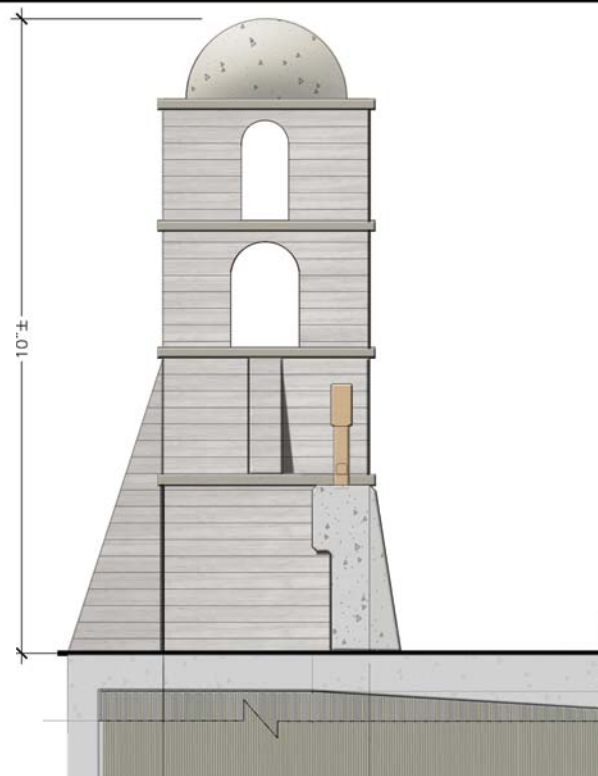




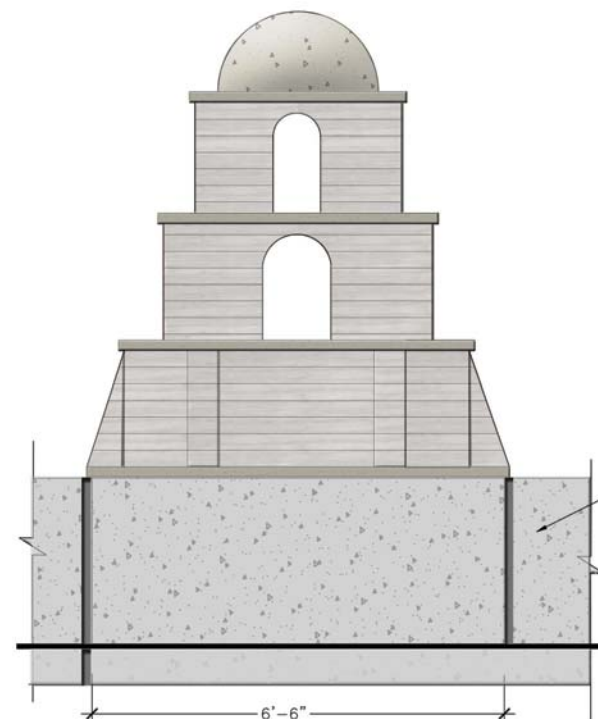
NOTE:  
APPLY ANTI-GRAFFITI COATING TO  
ALL EXTERIOR AND ENTRANCE  
MONUMENT.



BACK VIEW - LOOKING TO MISSION BLVD BRIDGE (NORTH SIDE)

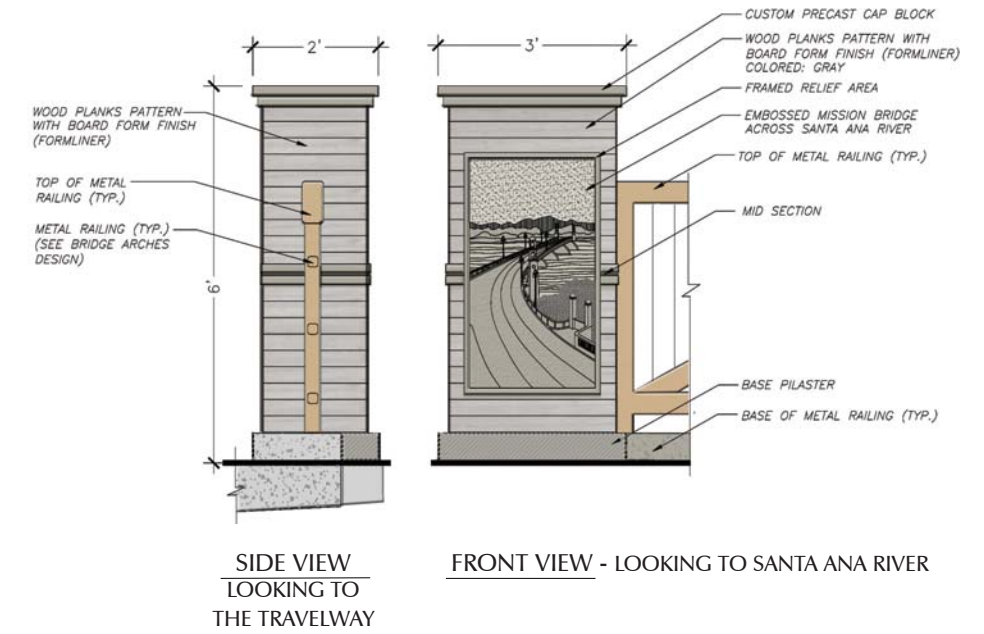


SIDE VIEW - LOOKING TO THE TRAVELWAY (NORTH SIDE)

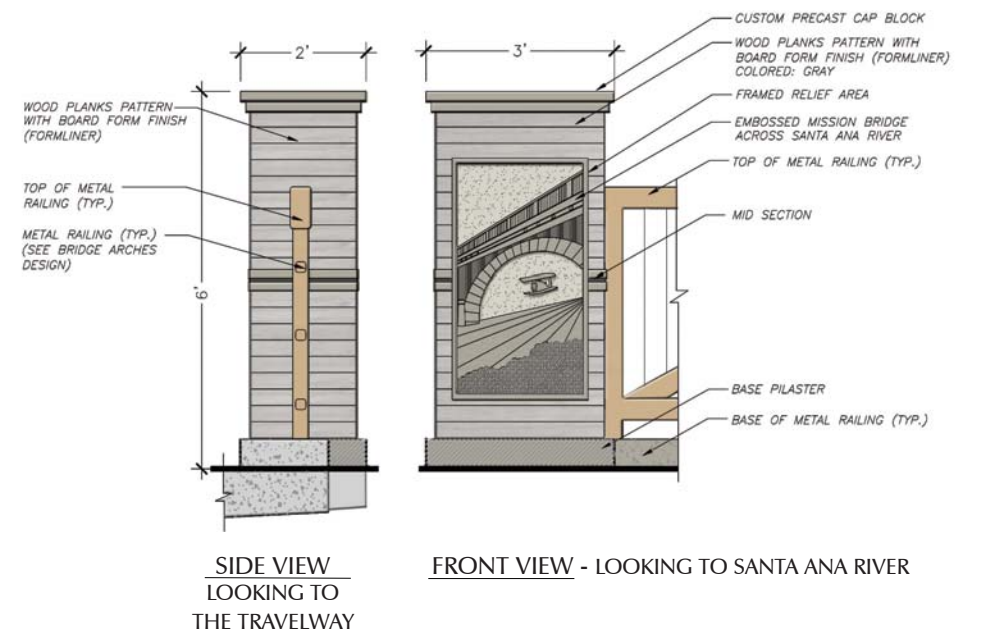


FRONT VIEW - LOOKING TO SANTA ANA RIVER (NORTH SIDE)

BRIDGE ENTRY PILASTER  
NOT TO SCALE



PILASTER TYPE 1  
MISSION BRIDGE ACROSS  
SANTA ANA RIVER



PILASTER TYPE 2  
FAMOUS ROMAN WARREN'S  
FLIGHT UNDER THE BRIDGE

PILASTERS  
NOT TO SCALE

# Mission Blvd Bridge

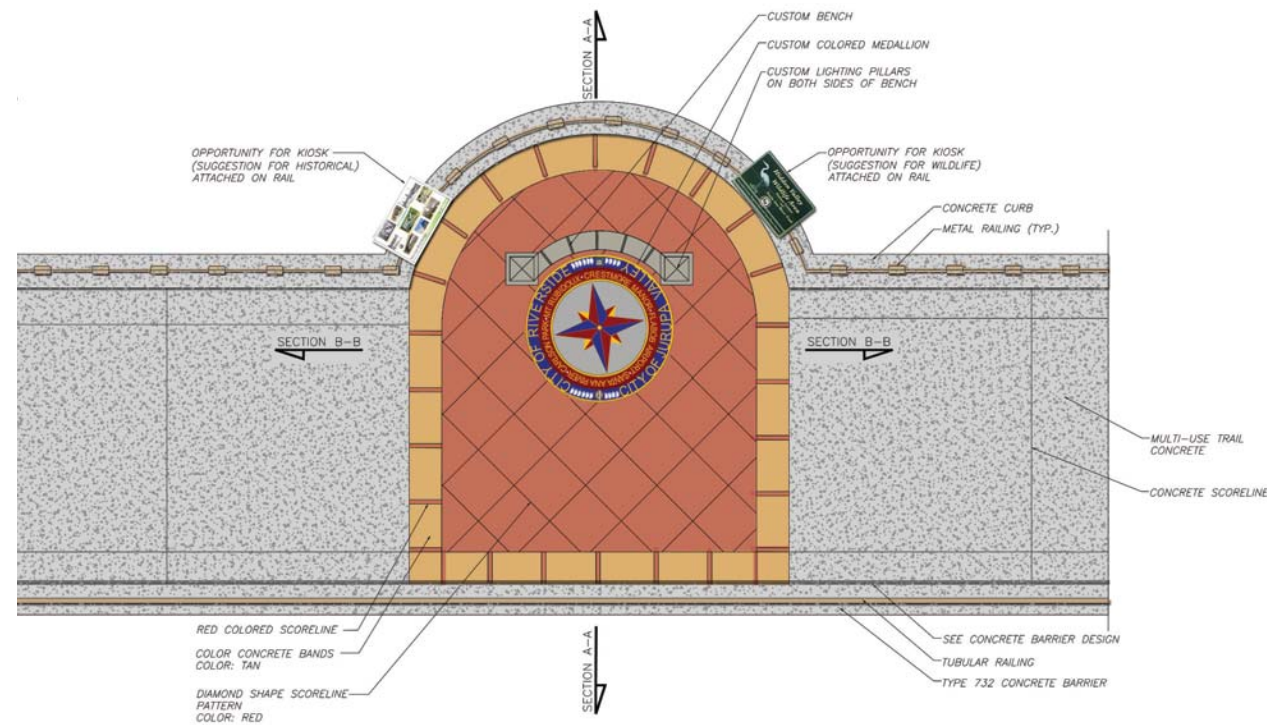
## Bridge Pilasters



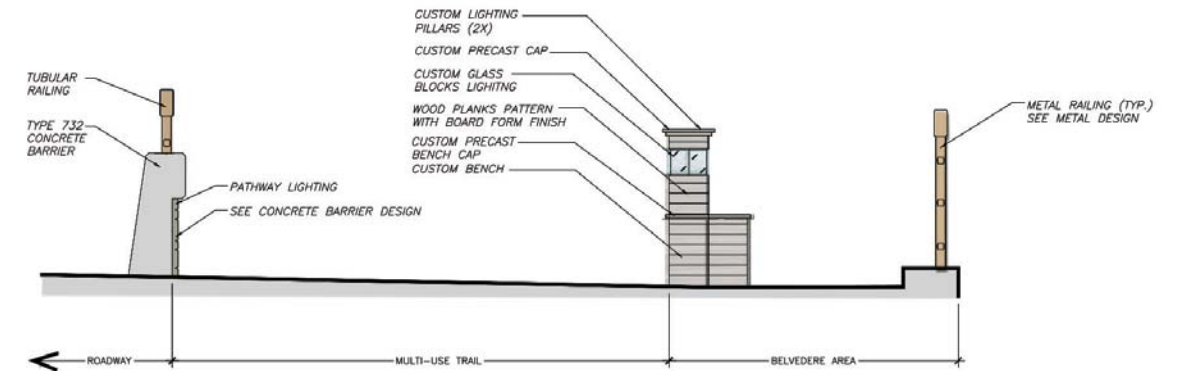




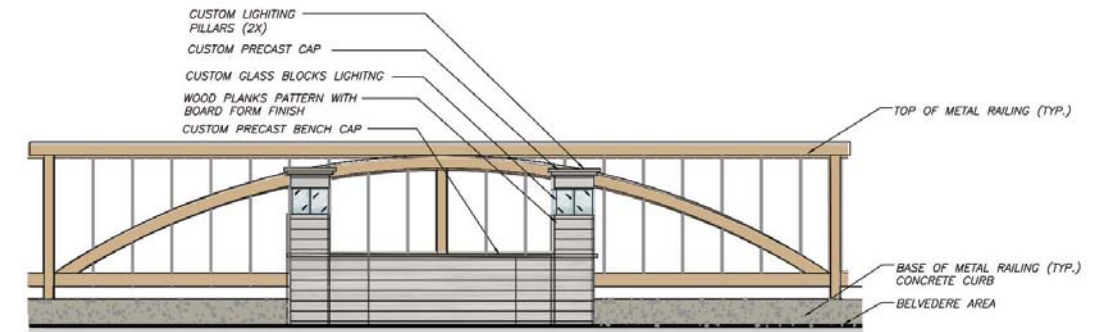
**CENTER MEDALLION**  
NOT TO SCALE



**CENTER BELVEDERE**  
NOT TO SCALE

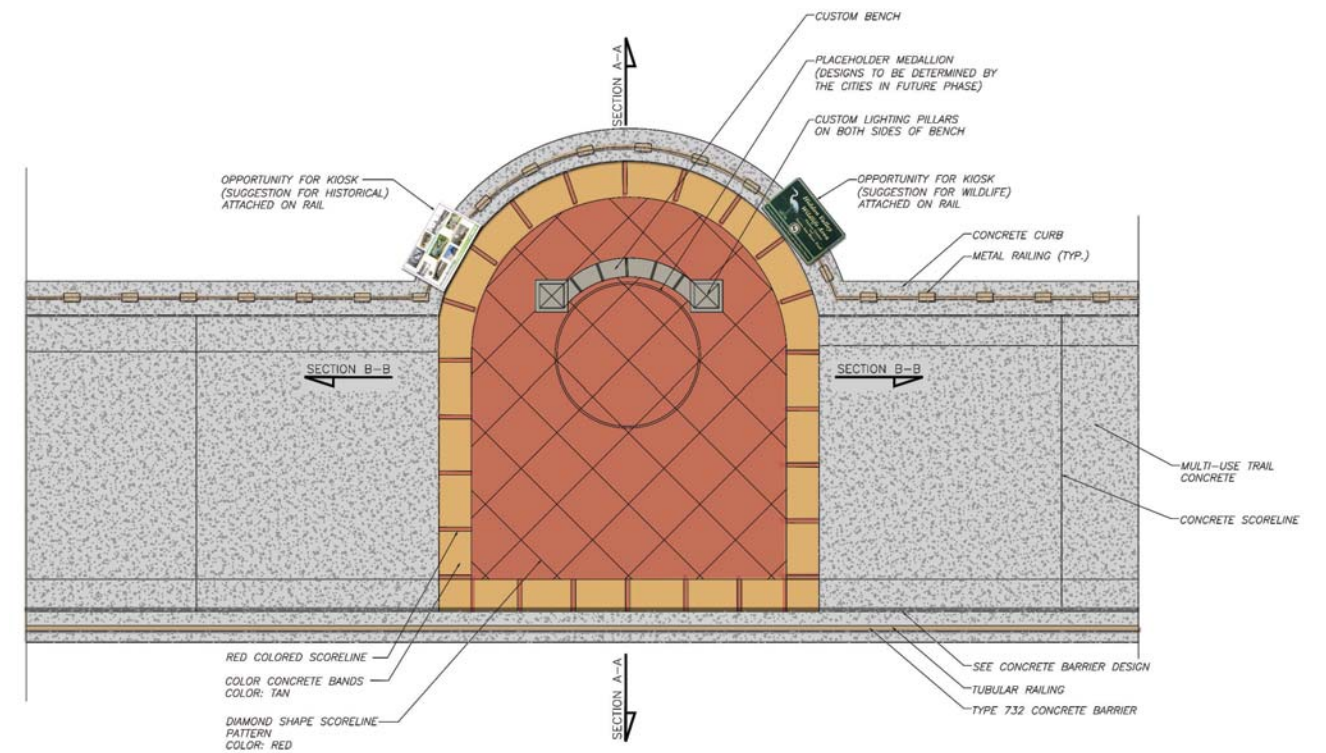


**SECTION A-A**



**SECTION B-B**

**BENCH**  
NOT TO SCALE

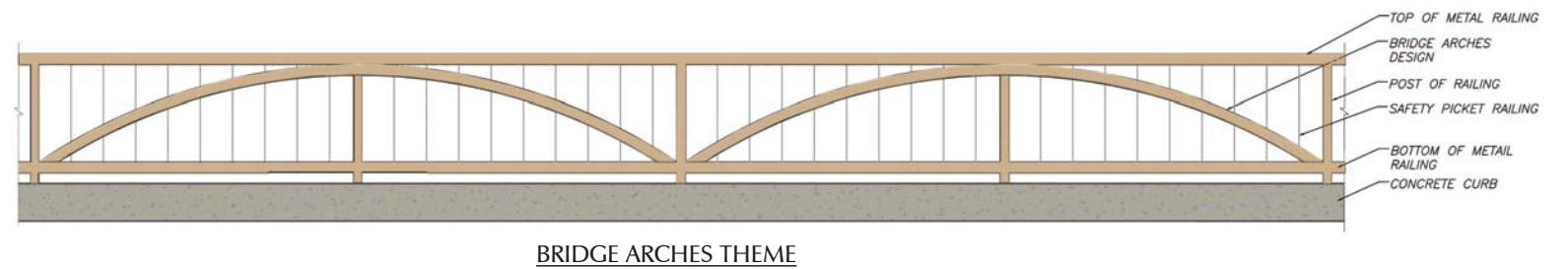
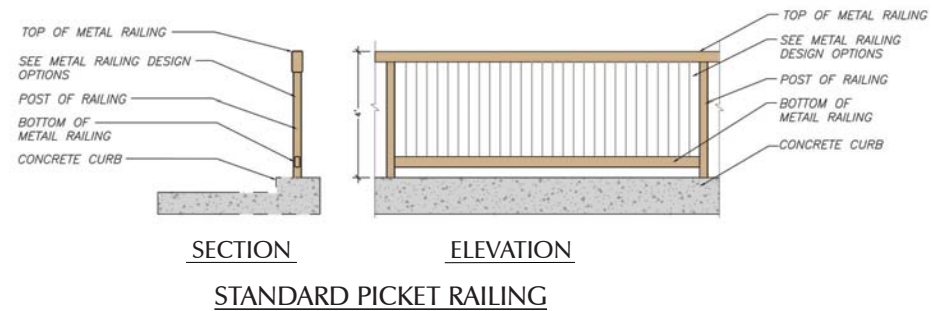


**TYPICAL BELVEDERE**  
NOT TO SCALE

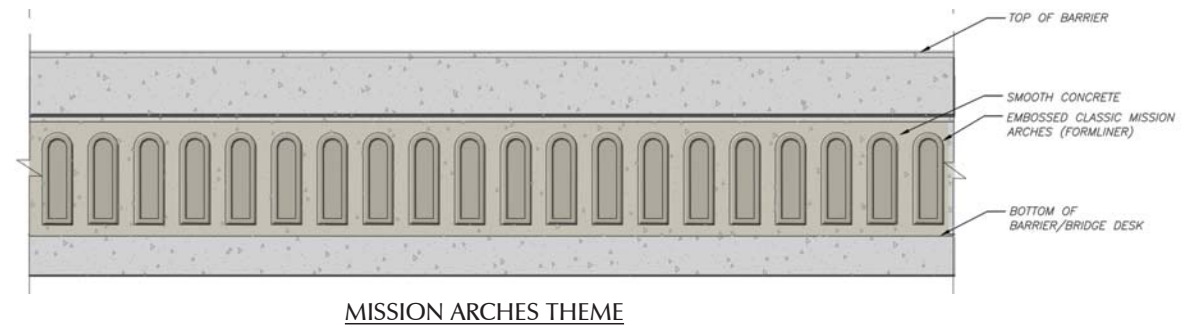
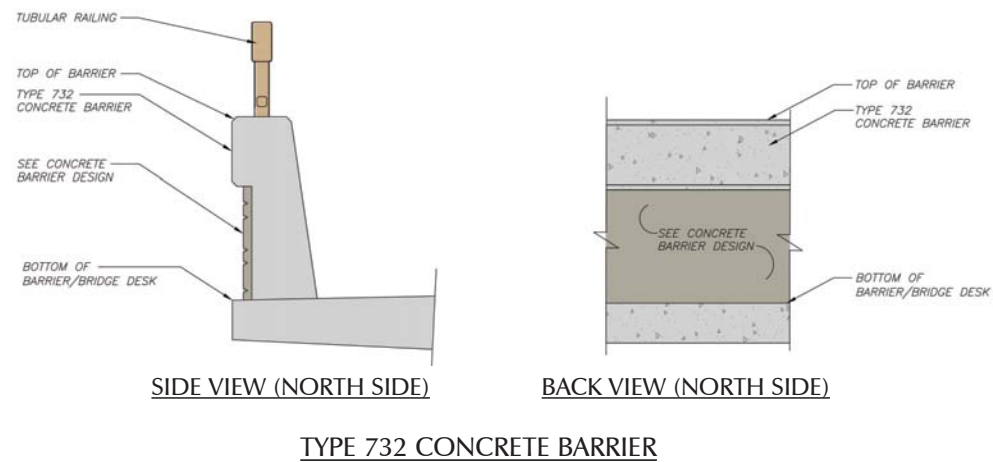
# Mission Blvd Bridge

## Belvedere Elements





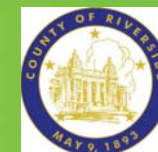
METAL RAILING  
NOT TO SCALE



CONCRETE BARRIER  
NOT TO SCALE

# Mission Blvd Bridge

## Concrete Barrier & Metal Railing Designs







MEDALLION



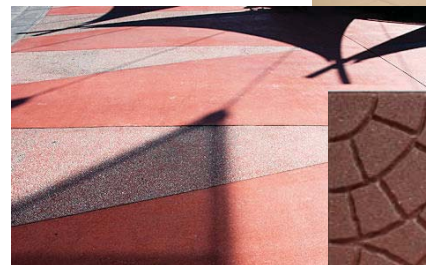
WOOD PLANKS  
PATTERN



INFORMATION KIOSK



BENCH



COLOR PAVING



EMBOSSING



BENCH LIGHTING



METAL RAILING

# Mission Blvd Bridge

Sample Materials





**Mission Boulevard Bridge Replacement at Santa Ana River  
Cost Estimate for Final Architectural Theme**

TREATMENT	UNIT	QUANTITY	PRICE	COST
<b>Abutment (form finish; fractured rib embossed)</b>	<b>SQFT</b>	<b>8460</b>	<b>\$30.00</b>	<b>\$253,800.00</b>
<b>Belvedere</b>	<b>EA</b>	<b>5</b>		<b>\$213,000.00</b>
Belvedere (structural, inc. support strut)	EA	5	\$15,000.00	\$75,000.00
Belvedere (bench)	EA	5	\$5,000.00	\$25,000.00
Belvedere (center medallion, colored concrete)	EA	1	\$25,000.00	\$25,000.00
Belvedere (medallion placeholder, tile or stamped concrete)	EA	4	\$2,000.00	\$8,000.00
Belvedere (stamped, colored concrete, bands and scorelines; 5 total)	SQFT	1500	\$20.00	\$30,000.00
Belvedere (kiosk, UV resistant plastic, two/Belvedere)	EA	10	\$5,000.00	\$50,000.00
<b>Barrier Type 732 (multi-purpose trail inboard enhancement; Mission Arches design)</b>	<b>SQFT</b>	<b>2720</b>	<b>\$30.00</b>	<b>\$81,600.00</b>
<b>Barrier Type 732 (north - traffic outboard enhancement; Mission Arches design)</b>	<b>SQFT</b>	<b>2720</b>	<b>\$30.00</b>	<b>\$81,600.00</b>
<b>Metal Railing Enhancement (Arches design)</b>	<b>LF</b>	<b>1147</b>	<b>\$150.00</b>	<b>\$172,050.00</b>
<b>Entry Pilaster</b>	<b>EA</b>	<b>4</b>		<b>\$139,200.00</b>
Entry Pilaster (structural)	EA	4	\$25,000.00	\$100,000.00
Entry Pilaster (concrete cap/molding)	EA	4	\$5,000.00	\$20,000.00
Entry Pilaster (concrete board form finish)	SQFT	640	\$30.00	\$19,200.00
<b>Pilaster</b>	<b>EA</b>	<b>6</b>		<b>\$110,400.00</b>
Pilaster (structural)	EA	6	\$10,000.00	\$60,000.00
Pilaster (concrete board form finish)	SQFT	180	\$30.00	\$5,400.00
Pilaster (inset design- both side of Pilaster, 2 alternating styles)	EA	6	\$7,000.00	\$42,000.00
Pilaster (concrete cap/molding)	EA	6	\$500.00	\$3,000.00
<b>Multi-purpose Trail Lighting</b>	<b>LS</b>			<b>\$33,000.00</b>
Linear inboard railing (low walkway lighting)	EA	21	\$1,000.00	\$21,000.00
Lighting at Belvedere benches	EA	12	\$1,000.00	\$12,000.00
			<b>Total</b>	<b>\$1,084,650.00</b>