Route 60 Corridor Master Plan for Aesthetics and Landscaping
Moreno Valley City Limits

Caltrans District 8- San Bernardino

August 2010

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Introduction

Goals and Objectives

- The Corridor Master Plan is a design guideline for all highway projects on Route 60 in Moreno Valley City Limits, creating a unified and cohesive corridor.
- As stated in December 18, 2008, Guidelines can also be incorporated in I-215 Corridor if the Council so desires.

Project Study Scope

The Corridor Master Plan will provide aesthetic guidelines for new retrofit highway projects.
This will be accomplished by the following major actions:

- Create a sense of place relating to the City's history and natural surrounding.
- Preserve and enhance community character.
- Include aesthetics on structures.
- Employing decorative rock and inert material.
- Use materials reflecting the character of the area.
- Coordinating of colors of materials.
- Ensuring a safe and durable design.
- Recommending appropriate plants a lasting roadside environment.
- Implementing water conservation techniques.
- Coordinating with water quality best management practices.
- Identify potential gateway interchanges and recommend enhancements.

Opportunities and Constraints

Opportunities

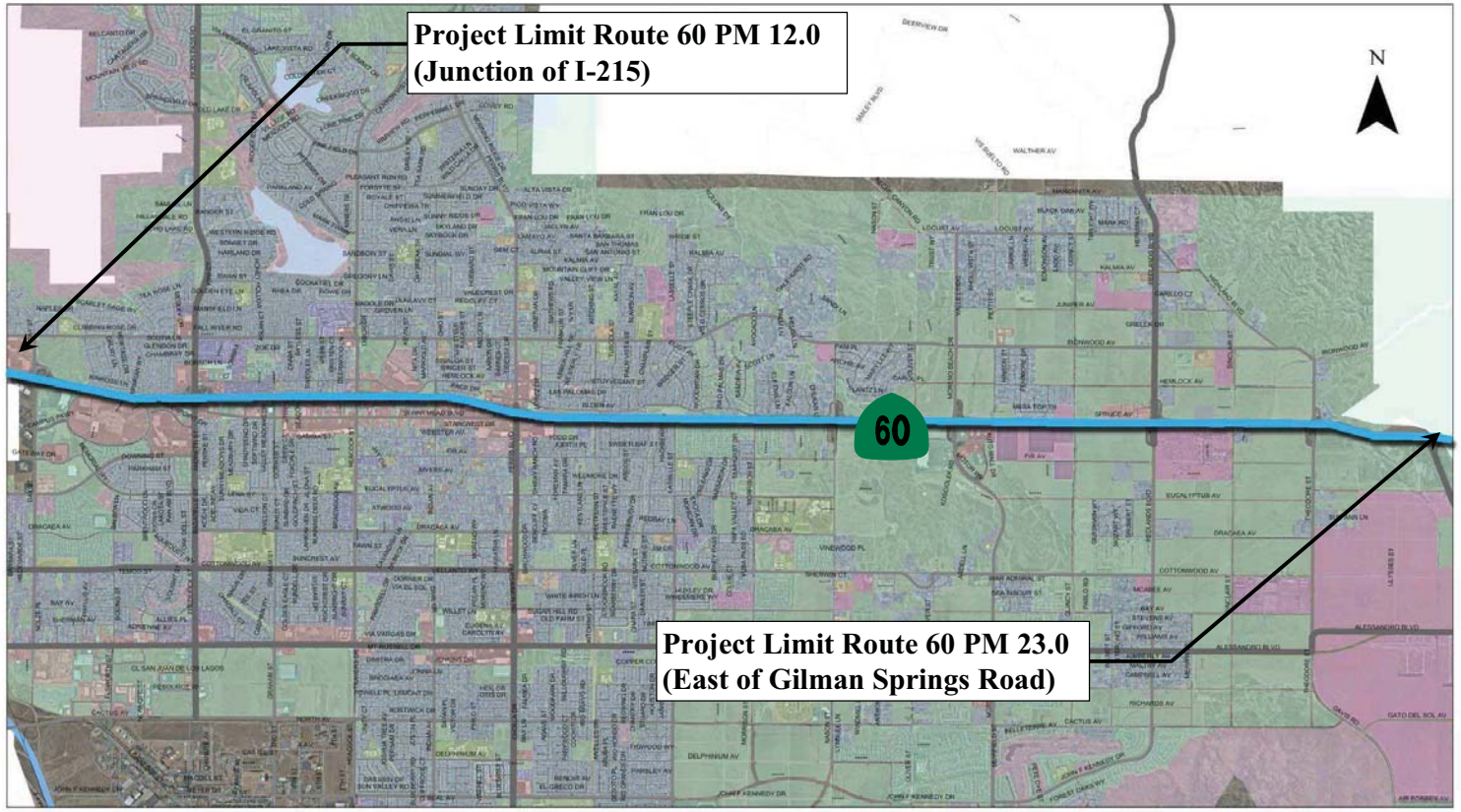
- Create a cohesive corridor.
- Tie Corridor Master Plan to existing "Highway 60 Corridor Design Manual Landscape Guidelines."
- Identify potential "Gateways-Designated" interchanges in the city.
- Provide landscape guidelines to reduce water consumption and work load.
- Design a highway that fits into the natural environment and local community.
- Take advantage of the scenic views found along the corridor.

Constraints

- Existing advertising billboards cause substantial visual impacts on the highway.
- Overhead utility lines.
- Limited water resources.
- Limited maintenance resources.
- Acknowledge material and textures that are currently in use within the corridor such as rock blankets, fractured rib wall texture and wave design.
- Limited right of way.
- Current condition of the existing landscape.
- Limited plant palette for environmental and highway conditions.
- Limited economic resources.
- Exposure for graffiti.

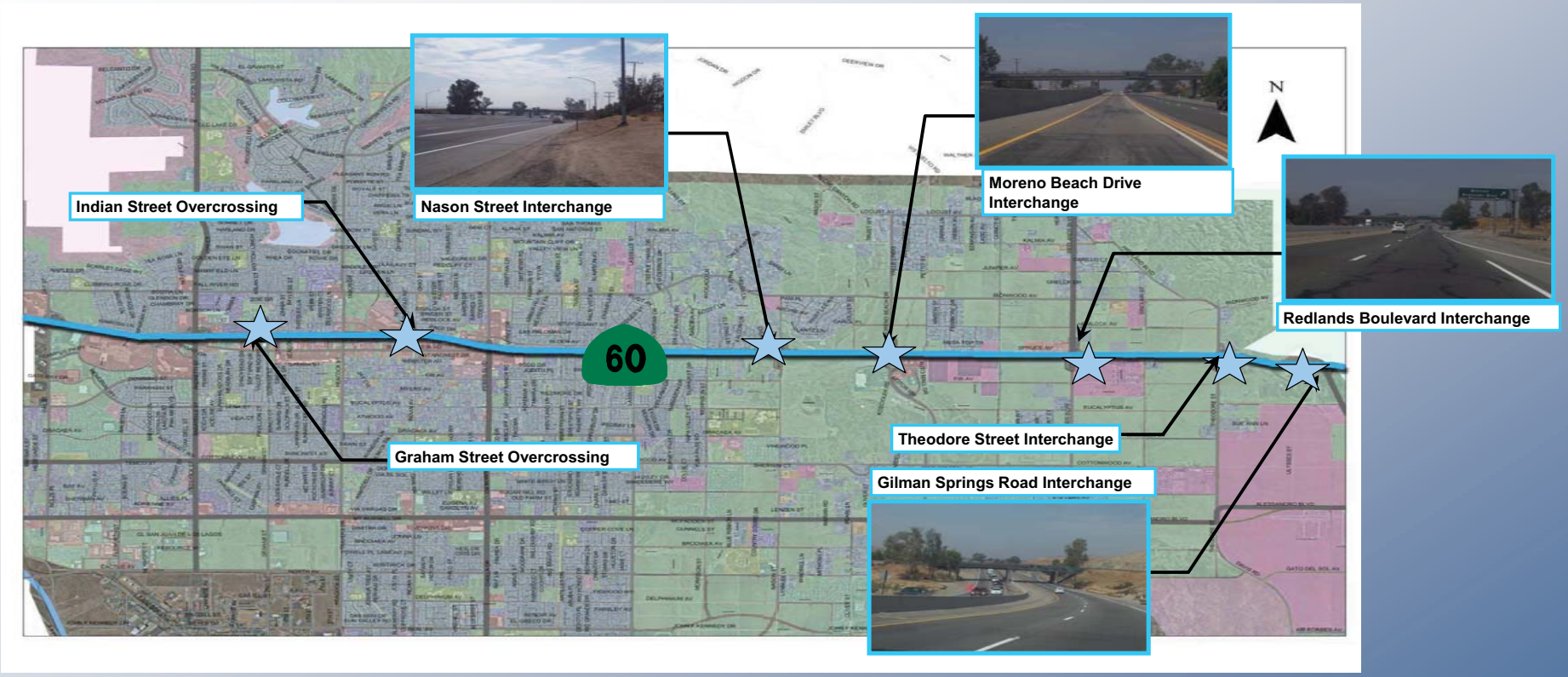
Project Study Location Map

Moreno Valley City Limits



Project Location Map

Moreno Valley City Limits



Proposed projects within the Corridor Master Plan Limits:

EA	COUNTY	ROUTE	BEGIN_PM	END_PM	LOCATION	DESCRIPTION
0H390	RIV	60	13.10	21.10	IN MORENO VALLEY FROM DAY ST TO REDLANDS BLVD	CONVERT HOV LANES TO PART-TIME
0L210	RIV	60	18.37	30.24	IN MORENO VALLEY 6.2 MILES E/O I-215 TO 0.2 MILES W/O I-10 TO BEAUMONT	REMOVE AC OVERLAY, REPAIR SPALLS, CLEAN DECK AND APPLY METHACRYLATE OVERLAY
0M590	RIV	60	21.40		IN THE CITY OF MORENO VALLEY AT THEODORE STREET IC	INTERCHANGE IMPROVEMENTS
0M600	RIV	60	22.50		IN THE CITY OF MORENO VALLEY AT GILMAN SPRINGS RD IC	INTERCHANGE IMPROVEMENTS
0M610	Riv	60	20.40		IN THE CITY OF MORENO VALLEY AT REDLANDS BLVD.	INTERCHANGE IMPROVEMENTS
20051	RIV	60	16.90	22.30	PERRIS BLVD TO FOOTHILL RD	ROADWAY REHABILITATION CONSTRUCTED W/200501
30711	RIV	60	13.10	18.50	IN MORENO VALLEY 0.1 MI E/O DAY ST UC TO 0.2MI E/O NASON ST OC(INCLUDES 08-43880 TEA PROJECTS)	HIGHWAY PLANTING (STAGE 1) (SEGMENTED FROM 307100)
32300	RIV	60	18.10	18.90	AT NASON STREET I/C, FR 2.8 KM E/O PERRIS BLVD TO 0.4 KM W/O MORENO BEACH DRIVE	RECONSTRUCT AND REALIGN RAMPS W/AUX LANE.
32301	RIV	60	18.90	19.80	IN MORENO VALLEY FR 0.47 MI (PM 18.90) W/O NASON ST OC (Br No 56-0485) TO 0.68 MI (PM 19.8) E/O MORENO BEACH DR Dr OC (Br No 56-0486).	INTERCHANGE MODIFICATIONS AT MORENO BEACH DR AND DRAINAGE IMPROVEMENTS AT IRONWOOD AVE.
32302	RIV	60	17.90	18.90	IN MORENO VALLEY AT NASON STREET OVERCROSSING. (BR. NO. 56-6485)	REPLACE BRIDGE AMD WIDEN NASON STREET.
35230	RIV	60	12.10	16.30	JCT RTE 215/60 IC TO PERRIS BLVD	INSTALL MEDIAN BARRIER
35020	RIV	60	20.40	30.50	REDLANDS BLVD TO JCT RTE 10	WIDEN FROM FOUR TO EIGHT LANE
34880	RIV	60	13.30	14.50	DAY ST & FREDRICK ST	AUX. LANE, SIGNALS, RAMP WIDENING (100% LOCAL)
45260	RIV	60	14.30	15.80	IN MORENO VALLEY FROM FREDRICK ST TO INDIAN ST (EB & WB)	SOUNDWALLS
45880	RIV	60	16.30	26.50	IN & NR MORENO VALLEY AT VARIOUS LOCATIONS FROM PERRIS BLVD TO 2.4 KM W/O JACK RABBIT TRAIL (POR)	CONSTRUCT MEDIAN BARRIER (98 SHOPP AMENDMENT 98H-62 APPV 6/4/99)
	RIV	14.70	14.70	14.70	IN THE CITY OF MORENO VALLEY AT GRAHAM STREET	CONSTRUCT OVERCROSSING

Legend

- Maintenance Project
- Highway Planting Project
- Interchange Improvement Project
- Bridge Improvement

Points of Inspiration

City seal: incorporate into pilaster of the bridge ends.

Moreno Valley Logo: incorporate into sound wall aesthetic treatment.

Existing Aesthetic Treatment

Rt. 60 at Perris Blvd.

Regional Identity

Moreno Valley: “People, Pride, Progress”

An area once comprised of three rural communities, Sunnymead, Edgemont and Moreno, the City of Moreno Valley, incorporated in 1984, has twice emerged as one of the fastest growing cities in the United States.

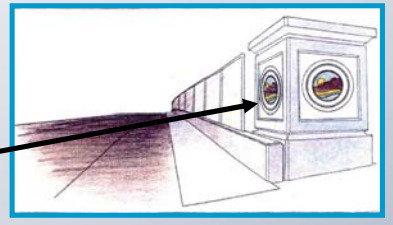
The Mountains

One of the most visible geographical features in Moreno Valley, visible from almost anywhere in the City, is Box Springs Mountain. This mountain at the northwest end of the City towers over the City, providing a concrete landmark. The side facing the City has a large "M" constructed on it.

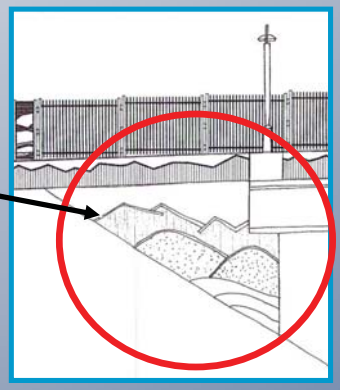
Corridor Theme

12-16-08 themes reviewed at CC study session

City of Moreno Valley seal on the pilaster (plinth) at bridge termini.

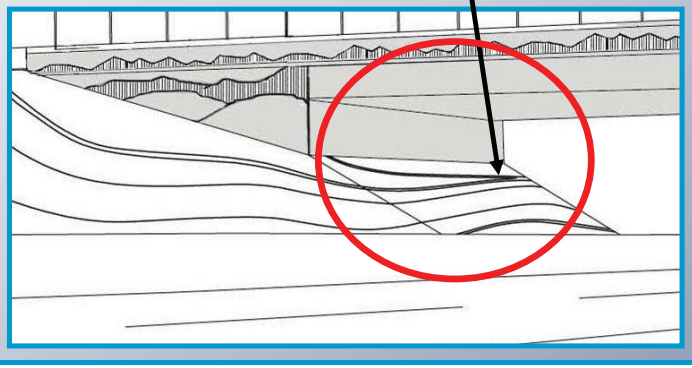


Mountains that are part of the seal on the bridge abutment.

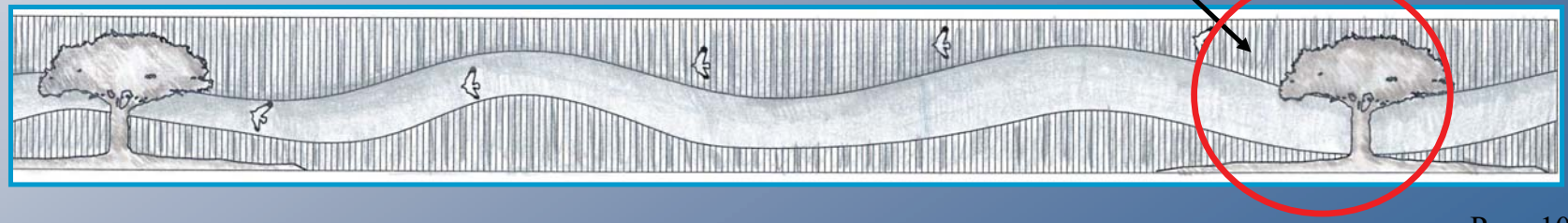


Walls in between the bridges showing the City logo, trees with the birds soaring from the trees.

Colored pavers continue lines of gravel mulch to show the sweeping mountains around the bridge.

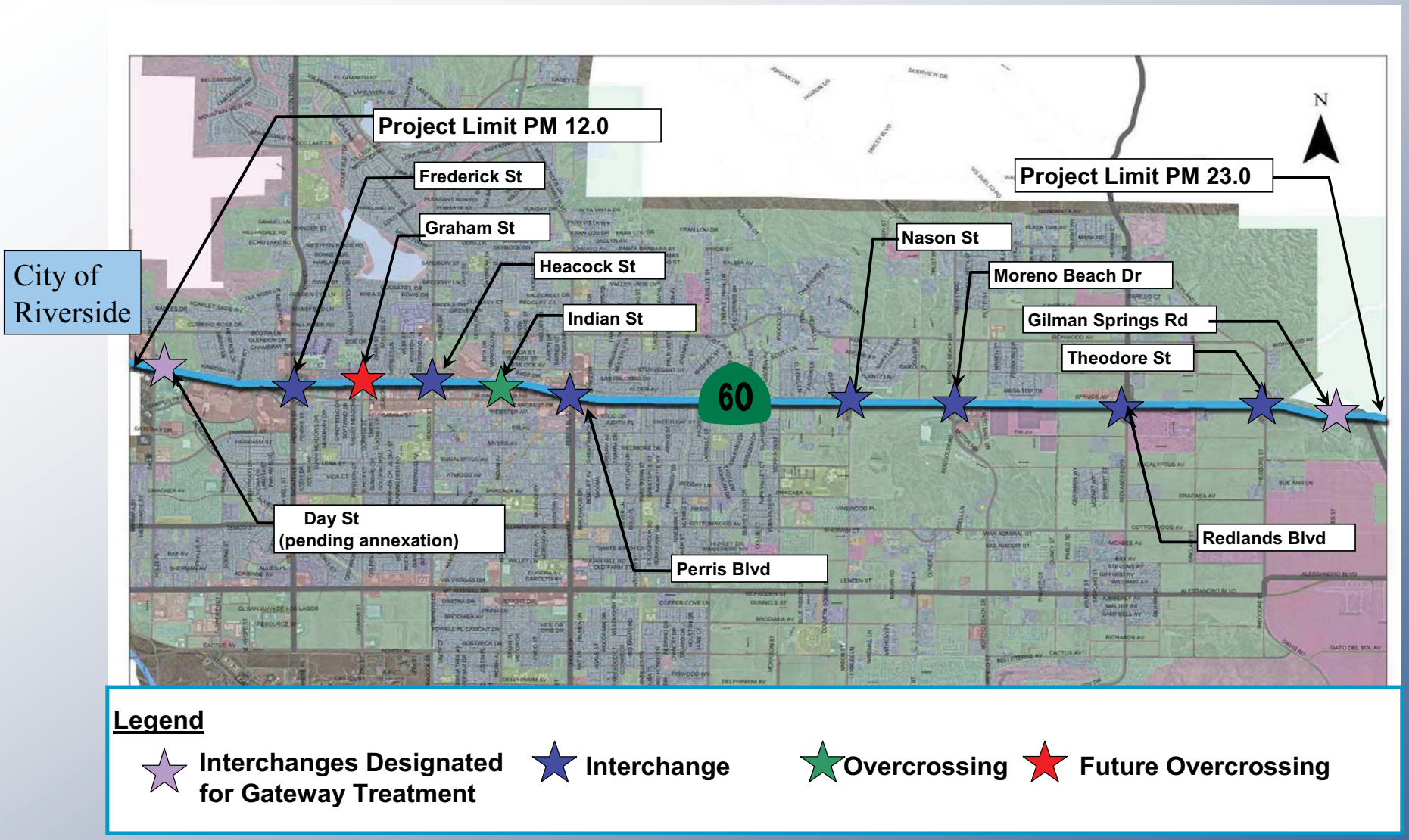


Theme shown is modified: This feature subject to available space of bridge wall.



Aesthetic Treatments

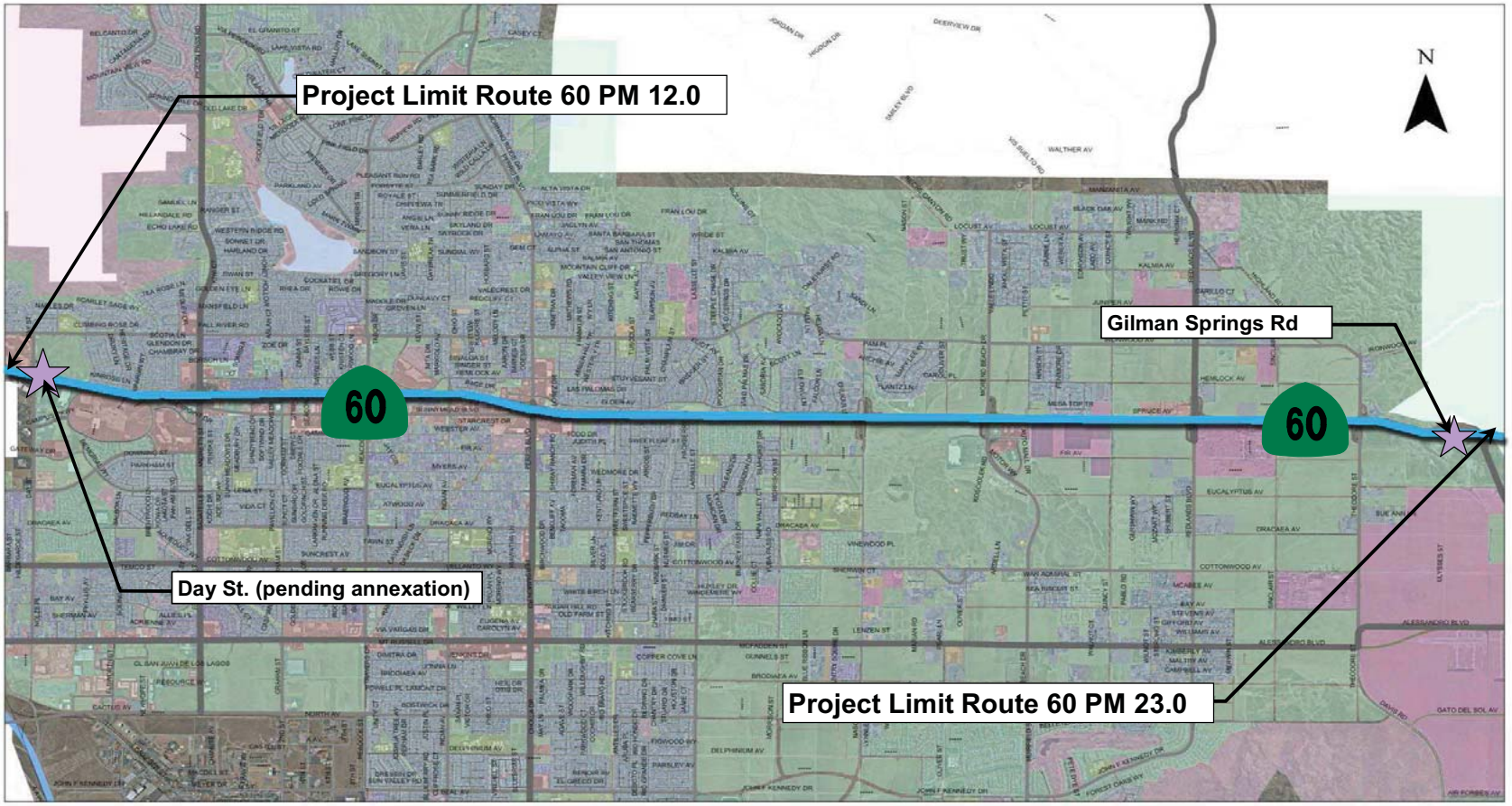
Interchange and Overcrossing Location Map



Bridge Treatments

Map of Interchanges Designated for Gateway Treatment

(Per City Council Meeting Study Session on 3/16/2010)



Legend

Gateway

Gateway Interchange Bridge Treatment Guidelines

•Gateway-Designated' Interchanges are identified based on the entrance and exit of the city.

•The treatments in a 'Gateway-Designated' interchange are intended to be a level above treatments used in other interchanges.

•Recommended gateway bridge treatments are to include:

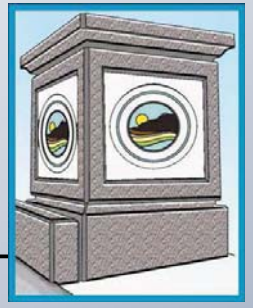
- o Decorative fencing with mountain panels.
- o Black picket fencing.
- o Plinth with City seal.
- o Colored Gravel incorporated in the bridge slope paving.

•Optional gateway interchange bridge treatments include:

- o Mountains on abutment, if space is available
- o Decorative lighting.

Plinth Features

- City of Moreno Valley seal in full color.
- Plinth shall be gray in color.
- Anti-graffiti coating on plinth, seal and all concrete.



Fence Feature

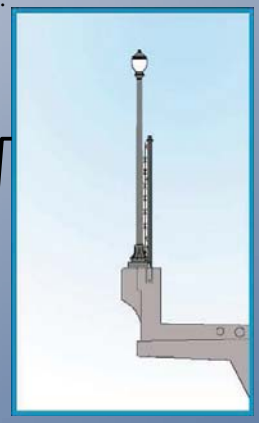
•Black picket fencing (steel).

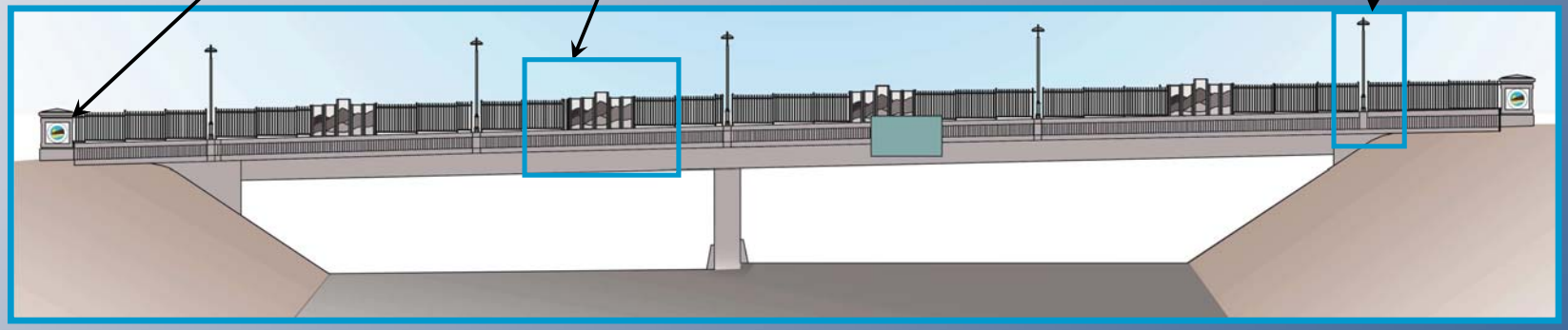
•Mountain motif panel in black.

Decorative Lighting (option)

•Light standard as gateway identity.

•Light standard location continues into barrier as pilaster.





Graphics provided by Parsons

Interchange/Overcrossing Bridge Treatment Guidelines

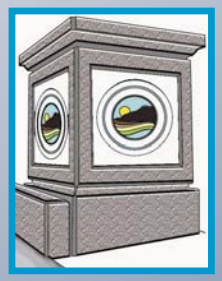
(Non-Gateway Locations)

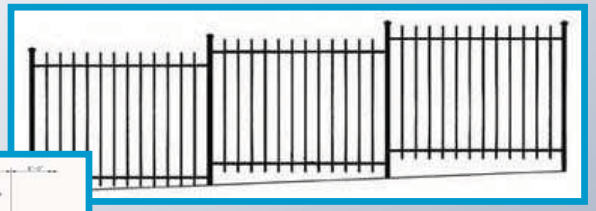
•Recommended interchange/overcrossing bridge treatments to include:

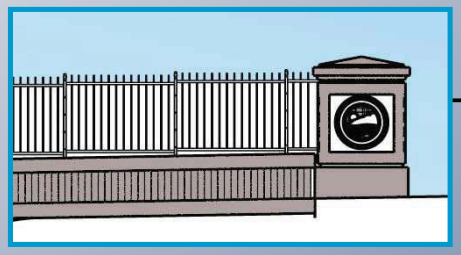
- o Black picket fencing.
- o Plinth with City seal.
- o Colored gravel incorporated in the bridge slope paving.

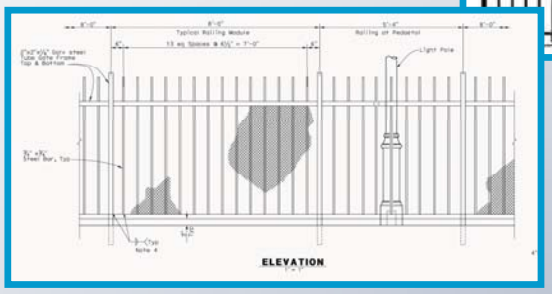
•Optional bridge treatments include:

- o Decorative lighting.
- o Mountains on abutment walls, if space is available.









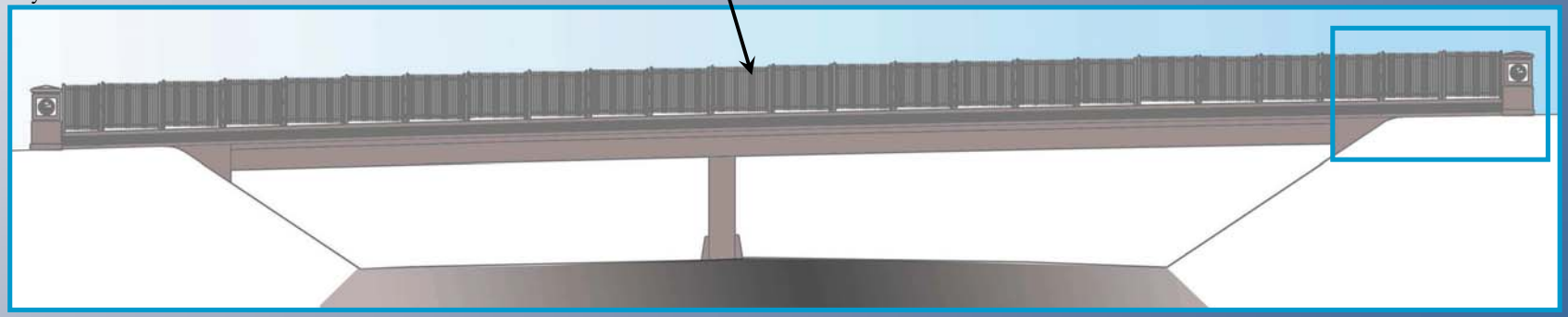
Fence Feature

- Black picket fencing (steel).
- No Mountain motif panels.

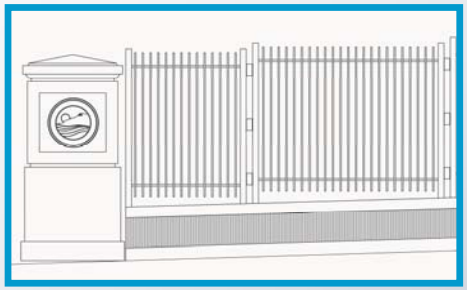
Plinth Features

- City of Moreno Valley seal in full color.
- Plinth shall be natural gray concrete in color.
- Anti-graffiti coating on plinth, seal and all concrete

Graphics provided by Parsons

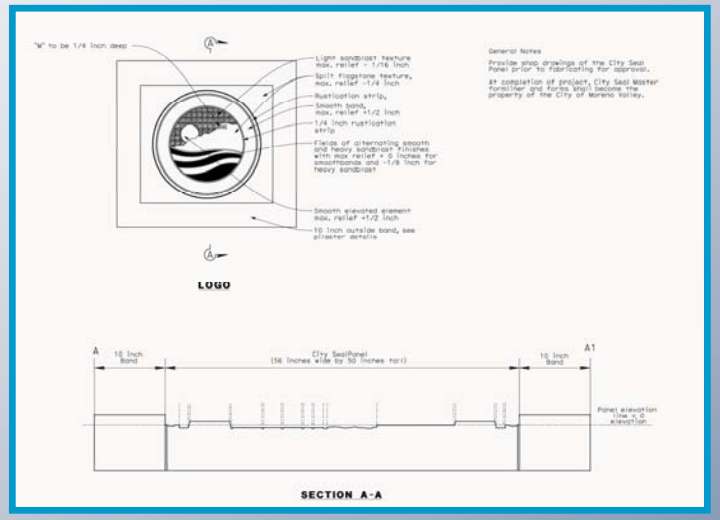


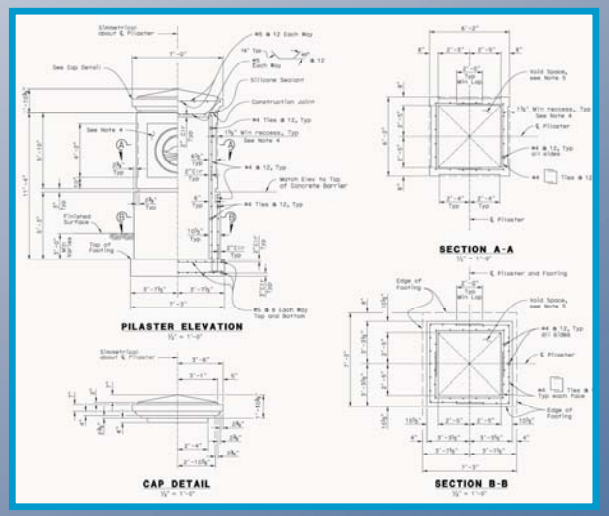
Typical Bridge Plinth



Plinth Features

- City seal shall be in color concrete.
- Plinth and seal shall be treated with an anti-graffiti coating.
- Plinth shall be natural gray concrete in color.
- Seal excludes text (use limited by Caltrans).



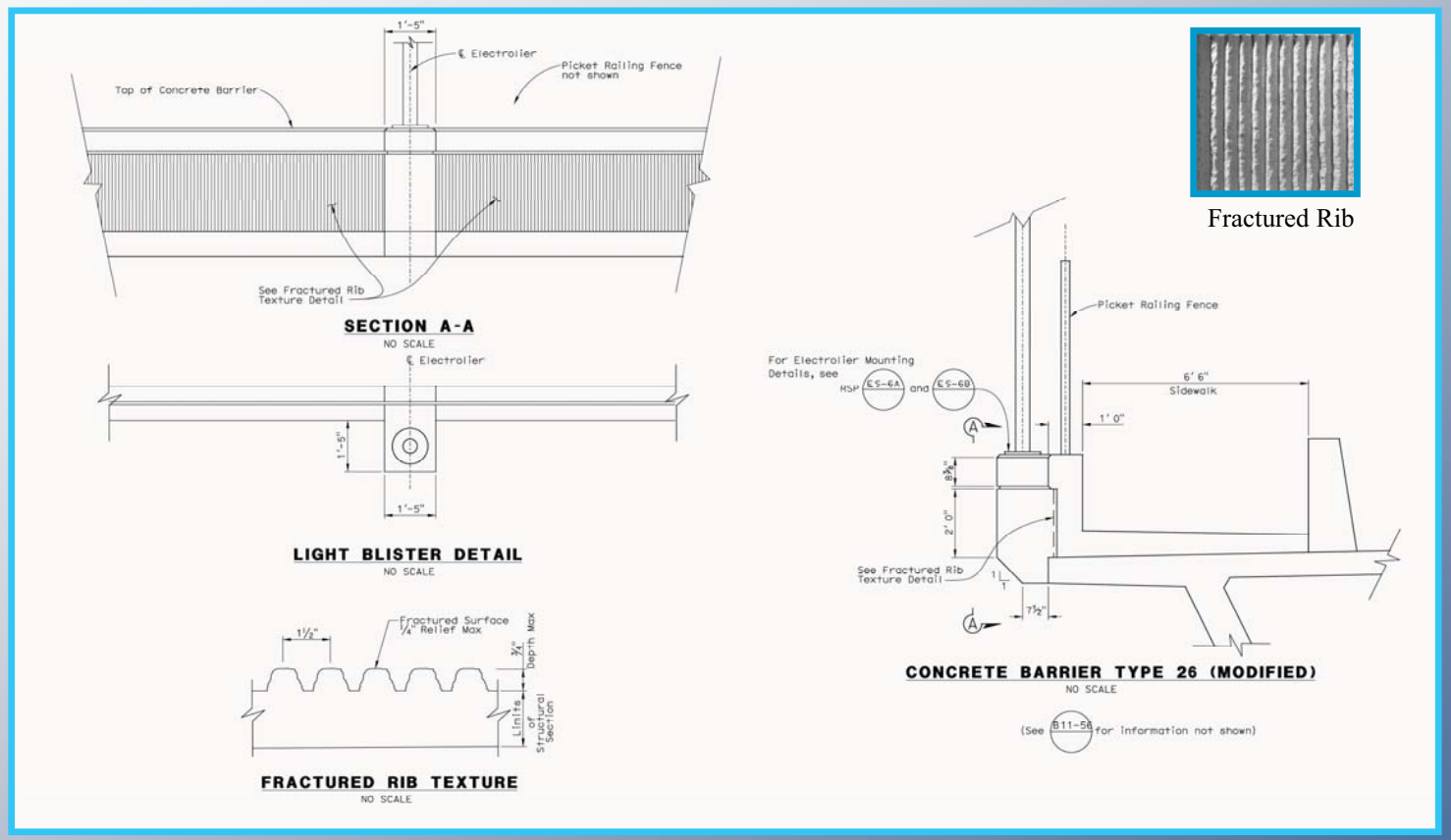


Graphics provided by Parsons

Typical Concrete Barrier

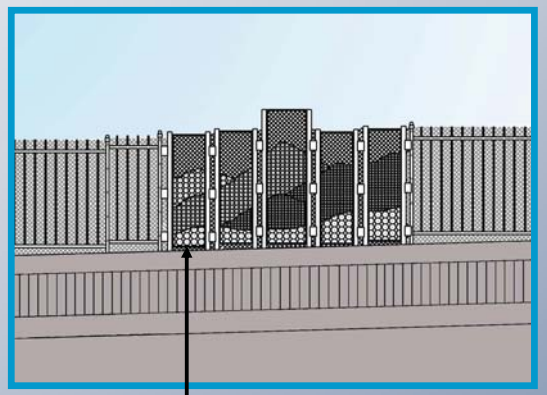
Concrete Barrier Feature

- All bridge barriers shall have fractured rib texture.
- Barrier on the structure shall be gray in color.



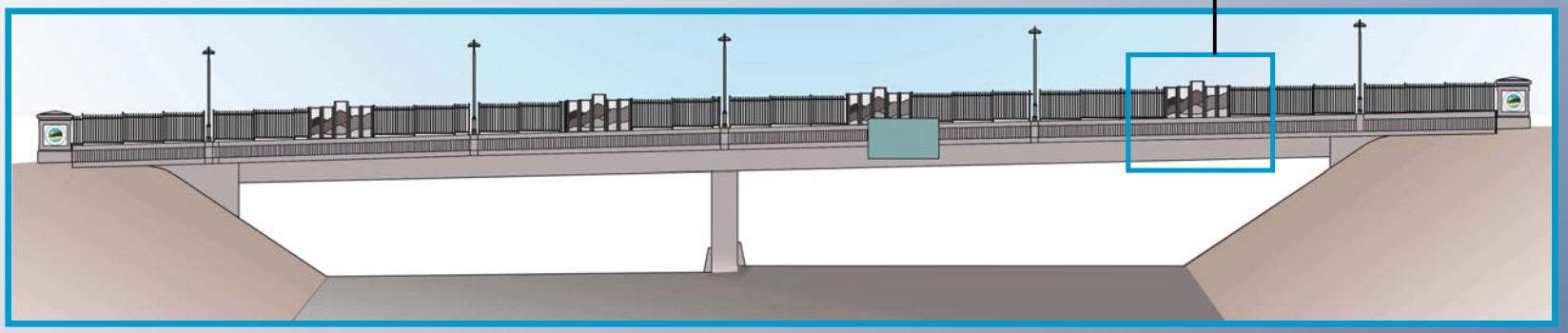
Graphics provided by Parsons

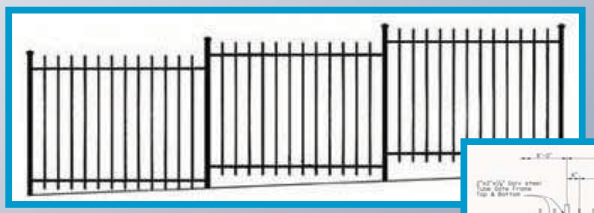
Typical Bridge Fence



Potential 'Gateway Designated' Interchange Fence Feature

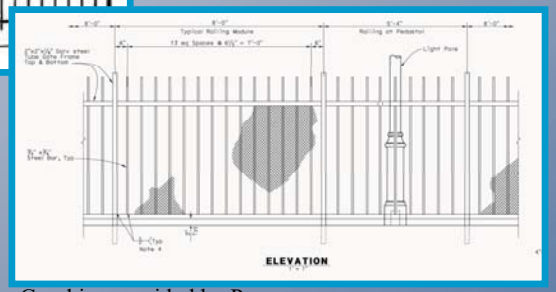
- Black picket fencing (steel).
- Mountain motif panel in black.





Non-Gateway Fence Feature

- Black picket fencing (steel).
- No Mountain motif panels.

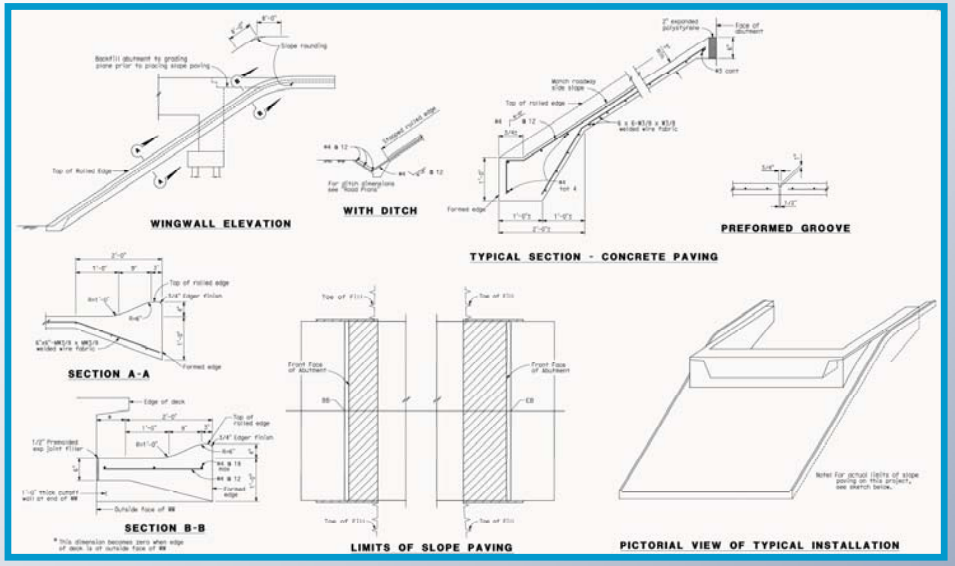


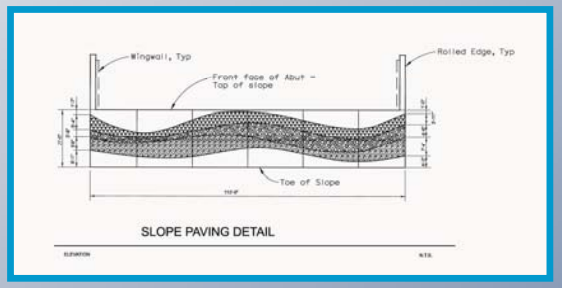
Graphics provided by Parsons

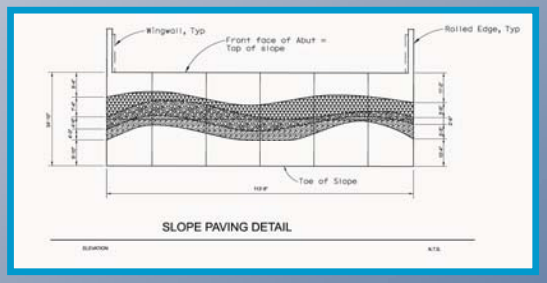
Typical Slope Paving

The selected materials for slope paving under bridges are as follows:

Colored gravel with red and brown tones will be used to create swales or waves under the bridge, connecting the hardscape to the landscape. This design concept will be applied to all slope paving areas.







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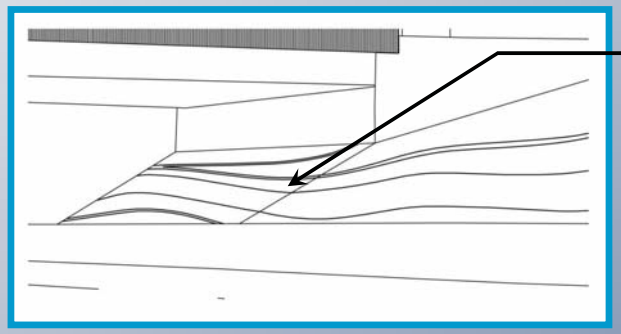
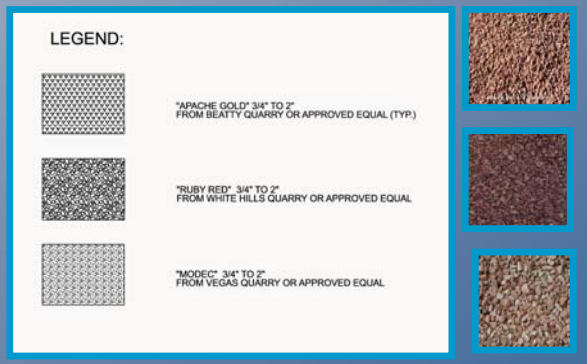


Slope paving with color gravel set in concrete.
Note: Slope paving design will have a unified connection with the colored gravel design in the landscaped area

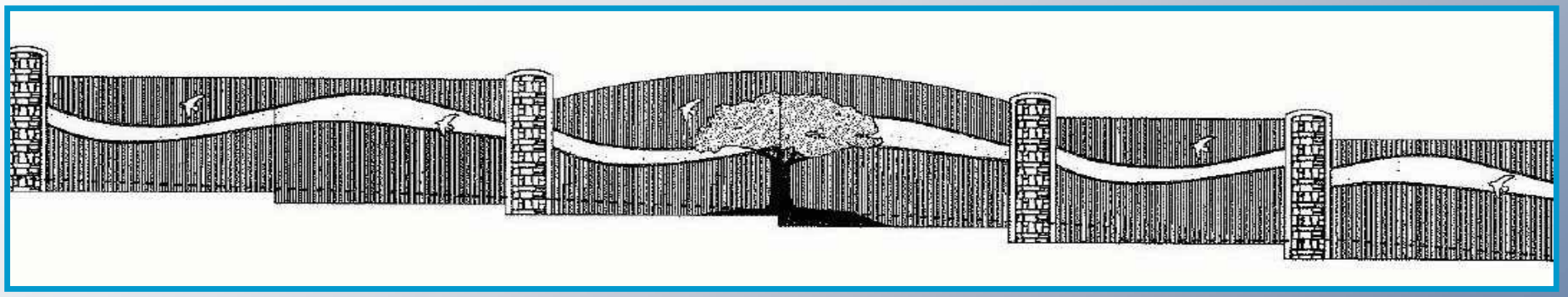


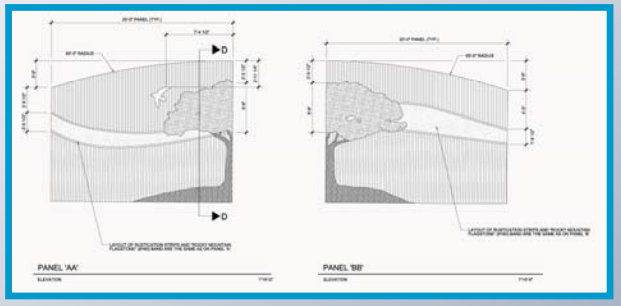
Sound Walls

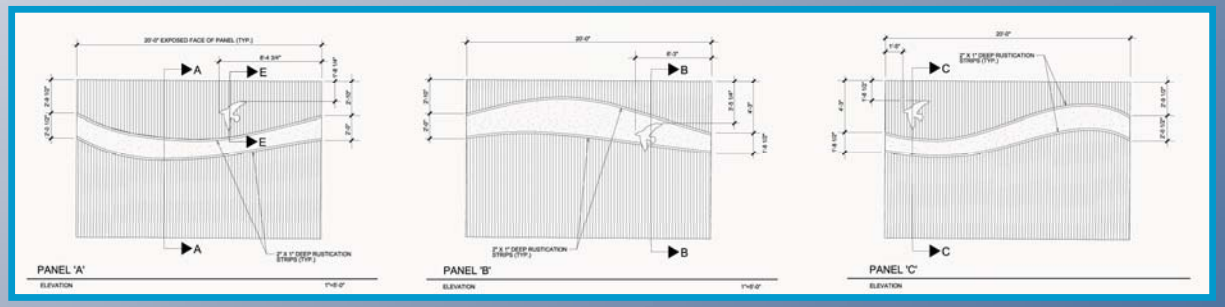
Sound Walls with Aesthetic Features: Visible / Case-by-case.

Visible sound walls front public spaces and will incorporate aesthetic features determined on a case-by-case basis. Walls visible from primary city streets, frontage of retail development, parks or other facilities of general public use are considered visible and warrant aesthetic features.

Visible sound walls should have aesthetic features that incorporate the theme:
•Elements of the City logo (tree and flying bird).
•Free flowing wave.

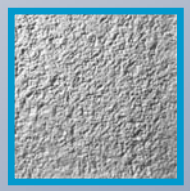




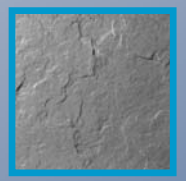


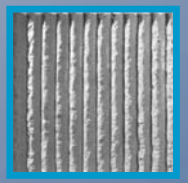
Proposed Architectural Treatment

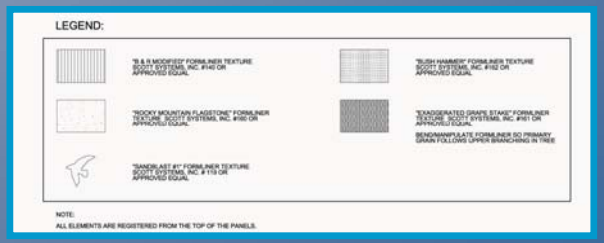

Exaggerated Grape Stake


Bush Hammer


Sandblast

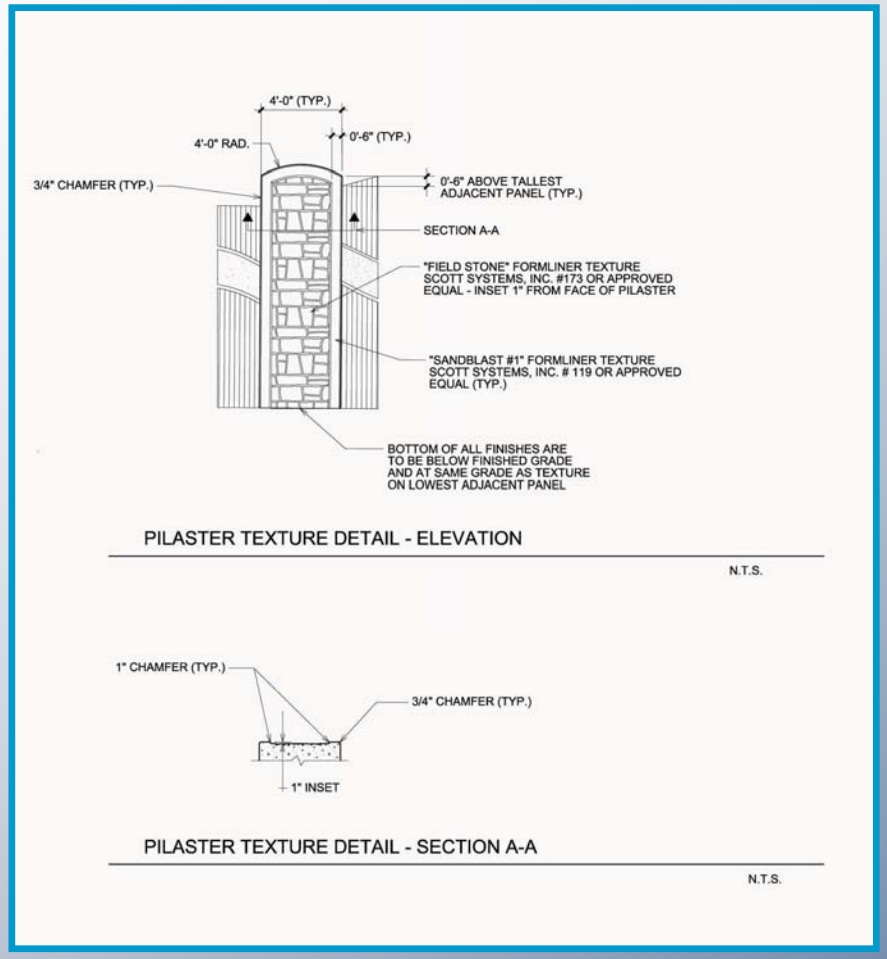

Rocky Mountain Flagstone


Fractured Rib



Graphics provided by Parsons

Sound Wall Pilaster



Graphics provided by Parsons

- **Pilaster Feature.**
  -Pilaster insert shall be tan in color to match existing sound wall.

Proposed Architectural Treatment

Field Stone

Color #30450
Federal Std. 595B

Standard Sound Walls: Non-Visible / Case-by-Case

Non-Visible sound walls do not warrant the aesthetic treatments of the visible sound walls fronting public spaces. Sound walls abutting private property, parking areas, loading docks or other utilitarian functions are considered Non-Visible.

Freeway side

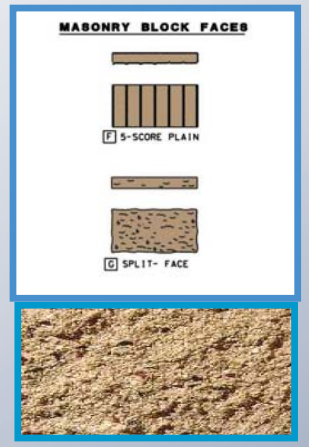
Local Street side

Sound Walls

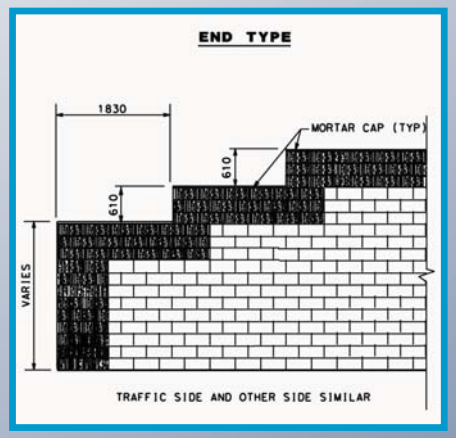
- Sound walls are used to reduce noise to communities located along the highway. They must be constructed per Caltrans standards. They should be treated with an anti-graffiti coating.
- New and existing sound walls are to have vine planting.
- Standard sound walls can be used on a case-by-case basis, where visibility is limited, to match existing, or to fill gaps between standard sound walls.

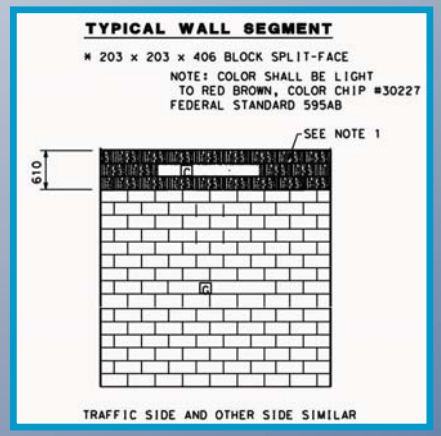
Planting at Noise Barriers

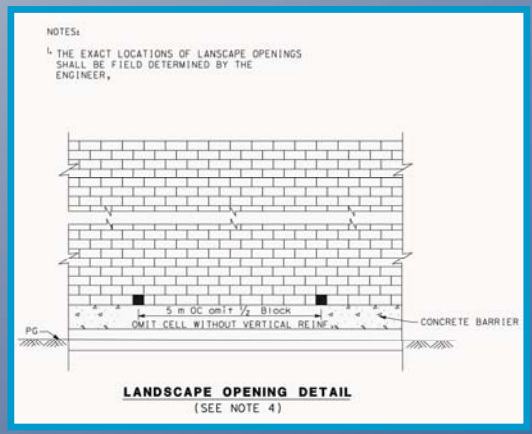
- Planting should be incorporated as an integral component of noise barrier work to discourage graffiti and address visual impact issues. Wherever graffiti removal or other visual issues represent an ongoing maintenance concern, consideration must be given to covering new or existing noise barriers with vines and/or placing plants to screen the noise barriers to reduce worker exposure and life-cycle maintenance costs related to graffiti removal.
- The vine growth on the wall will reduce the harshness of the wall and create a pleasant traveler experience.
- The sound walls will have an opening in the lower portion of the wall that allows for the growth of vines.
- Vine openings shall conform to Caltrans standards.



Color #30450
Federal Std. 595B



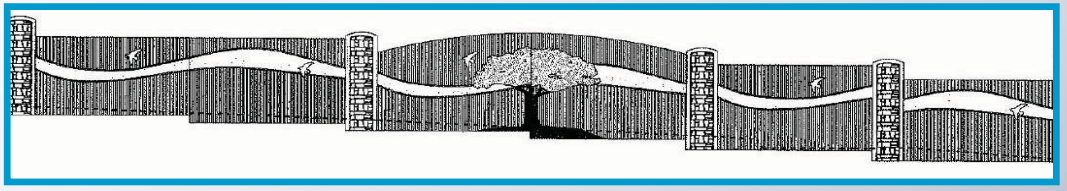


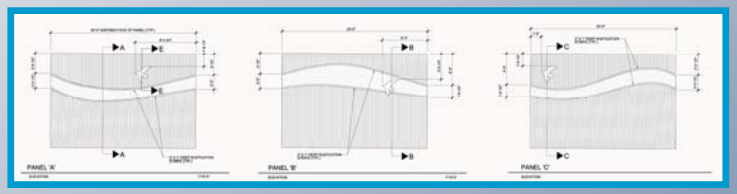


Retaining Walls

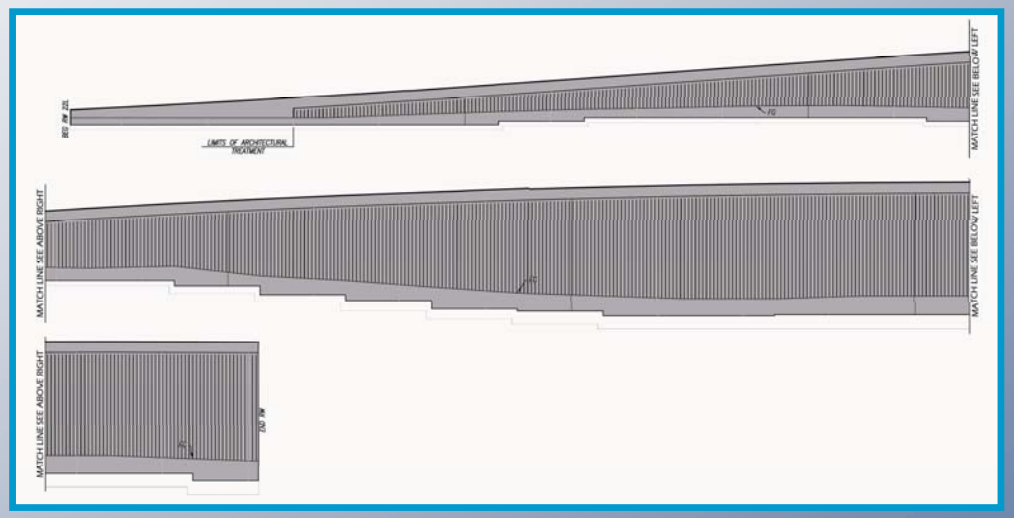
Retaining Walls (follow the same guidelines for sound walls)

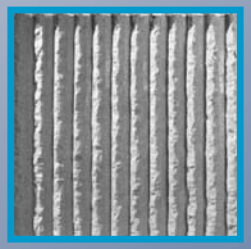
Visible / Case-by-case: Retaining walls fronting public spaces will incorporate aesthetic features determined on a case-by-case basis. Walls visible from primary city streets, frontage of retail development, parks or other facilities of general public use are considered visible and warrant the same aesthetic features as visible sound walls. Top of panel wall may have curve or flat edge determined on a case by case basis .





Non-Visible / Case-by-case: Retaining walls which do not front public spaces are considered non-visible and do not warrant the aesthetic treatments of the visible retaining walls which front public spaces. Retaining walls abutting private property, parking areas, loading docks or other utilitarian functions are considered non-visible.

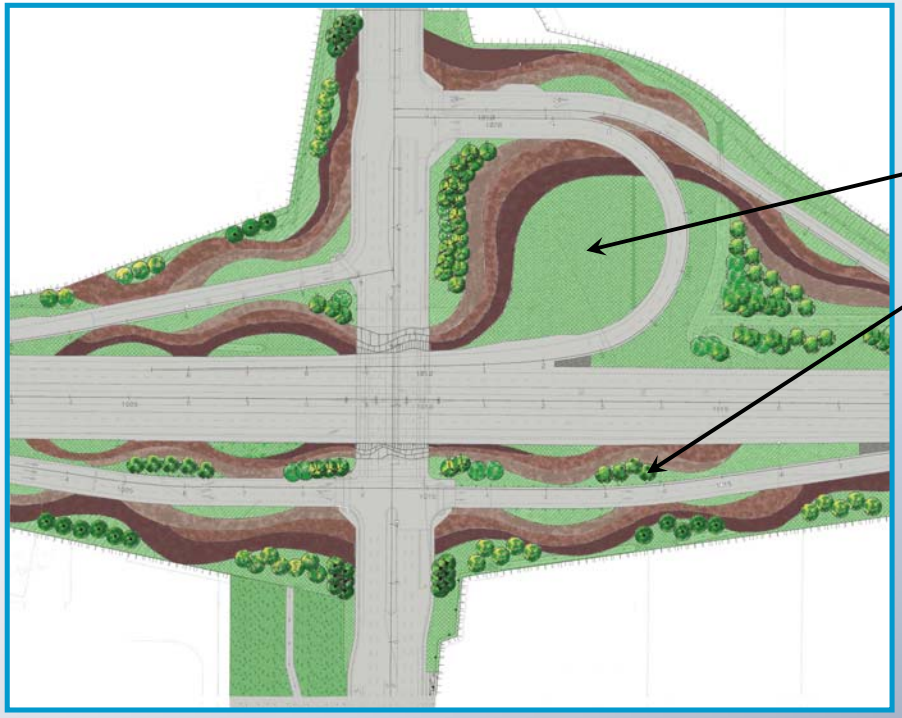




Fractured Rib

Landscaping

Typical Landscaping Concept



Colored gravel patterns shall be the focal points in the landscape.

Landscape Design Objectives:

Low growing ground covers allow views of the patterns.

- Ground cover for color, preserving the line of sight.
- Drought-tolerant plant palette material to be low water use.
- Landscape areas within the interchange shall have bands of gravel mulch.
- The gravel mulch will consist of three colors in shades of red and brown.
- A specimen oak tree or suitable replacement may be planted in all interchanges considered gateways.
- Plant palette to substantially conform with Master Plan.
- Plant palette to incorporate majority of plants listed in existing "Highway 60 Corridor Design Manual Landscape Guidelines".

Plant Palette

Botanic Name	Common Name	Height	Flower Color	Comments
Acacia redolens	Prostate Acacia	1’ – 6’	Yellow	Drought tolerant Large scale ground cover
Carpobrotus edulis	Hottentot Fig	12”	Pink	Succulent groundcover Low Maintenance
Lonicera japonica 'Halliana'	Halls Honeysuckle	18”	White	Vigorous vine or ground cover for cover large areas
Trachelospermum jasminoides	Star Jasmine	Low	White	Evergreen, woody vine
Lantana varities	Lantana	12” – 24”	Varies	Color Accent
Leucophyllum frutescens	Texas Ranger	6’ -8’	Violet	Drought tolerant
Chitalpa tashkentensis	Tashkent Chitalpa	20’ – 30’	White/ Lavender	Multi-trunk does well in highway conditions
Olea europaea ‘Swan Hill’	Fruitless Olive	25’ -30’	White	Single or Multi-stemmed Tree or Large Shrub.
Phoenix canariensis	Canary Island Palm	to 60’		Needs Maintenance Agreement for fronds
Pinus canariensis	Canary Island Pine	50’ – 80’		Narrow Columnar Tree, Weeping Needles
Quercus agrifolia	Coast Live Oak	20’ – 70’		Evergreen Must have good drainage
Washingtonia filifera	California Fan Palm	to 60’		Needs Maintenance Agreement for fronds
Washingtonia robusta	Mexican Fan Palm	to 100’		Needs Maintenance Agreement for fronds

Inert Materials

Typical Gravel Layout

Wide bands of gravel.

ROCK MULCH 1
COLOR: APACHE GOLD
SIZE: 3/4 " TO 2"
FROM BEATTY QUARRY OR APPROVED EQUAL

ROCK MULCH 2
COLOR: RUBY RED
SIZE: 3/4 " TO 2"
FROM WHITE HILLS QUARRY OR APPROVED EQUAL

ROCK MULCH 3
COLOR: "MODEC"
SIZE: 3/4 " TO 2"
FROM VEGAS QUARRY OR APPROVED EQUAL

Hardscape Design Objectives:

- Large bands of colored gravel within the interchange landscape areas to enhance theme.
- Gravel areas will connect to the bands of gravel mulch in the slope paving of the bridge structure.
- Low-growing ground cover shall be planted near and around the gravel area to preserve.

Gravel Design Objectives:

- Use colored gravel to create patterned and textured ground treatments that are aesthetically rich.
- Ground treatment should coordinate in size, texture, color, and aggregate mix with the surrounding landscape.

Benefits:

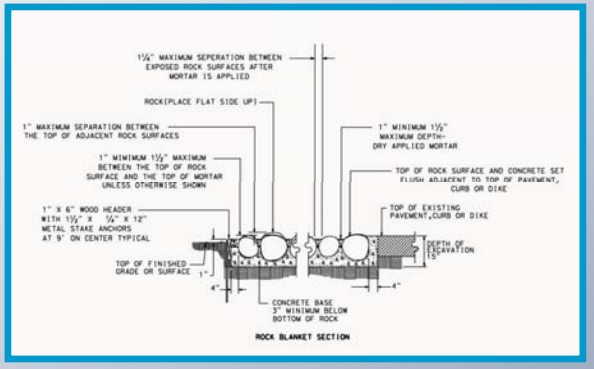
- Installing colored gravel is a low tech process that can be accomplished by any contractor and repaired by Maintenance crews with existing equipment. Gravels that match soils in the project site are usually locally available.
- One of the least expensive control treatments available.
- Requires minimal maintenance and allows for infiltration of storm water into the soil.

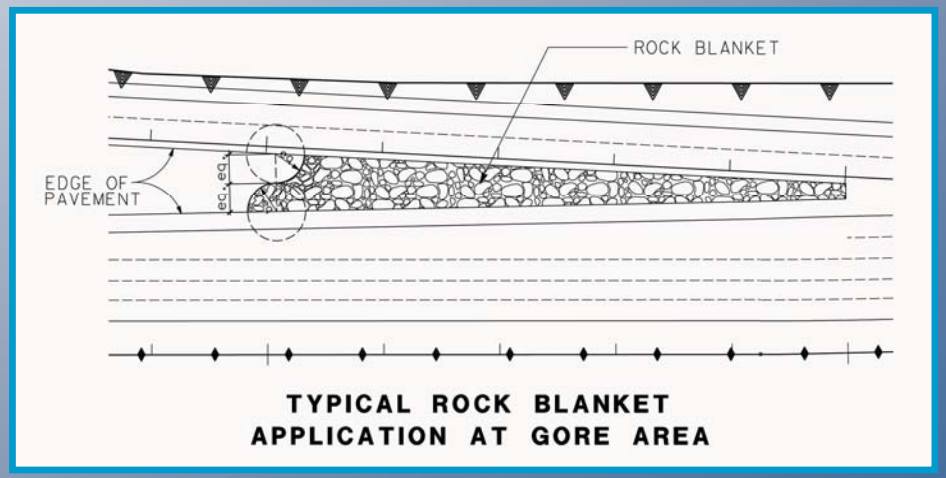
Hardscape

Hardscape Guidelines

Hardscape Design Objectives:

- The selected rock blanket material will establish a consistent order along the freeway shoulder through several segments.
- Rock blanket to be installed in gore areas per Caltrans standards include a 30 foot recovery zone.
- Rock blanket shall be in grey tones to match the existing rock blanket.
- Rock blanket in gore areas shall be in curved forms per plan.
- Rock blanket shall be used along shoulder ramps and gore areas.
- Pedestrian crosswalk, ramps, sidewalk and surface must comply with Title 24 Americans with Disabilities Act (ADA).
- Avoid leaving narrow unpaved spaces.
- Select ground treatment in all non-paved areas that meets both aesthetics and maintenance requirements.





Irrigation

Irrigation Design Guidelines

Irrigation Design

- Provide crossovers under roads and in bridge structure to be included in roadwork/structural projects for future water and electrical lines.
- Relocate irrigation controllers, backflow preventers, remote control valves and similar facilities to protected areas or adjacent to the right of way fence.
- Replace all obsolete irrigation components.
- Use non-potable water (wells, underground water, reclaimed water) suitable for irrigation when practical.
- Group all control valves (irrigation components, i.e., fillings, wires, spray heads, pipe, backflows, valves, etc.) together for easy access.
- Use remote irrigation control systems (RICS) to allow for effective water management.
- See Highway Design Manual Chapter 900.

Lighting

Highway Lighting

Freeway Lighting
On freeways, highway safety lighting should be installed at particular points in interchange areas. This lighting serves to illuminate areas of potential vehicle conflict and to delineate exit ramps, entrance ramps, and island noises.

Standard Lighting
The current lighting fixture found on Route 60 in the Moreno Valley City Limits is a standard Caltrans lighting treatment, the "Cobra" fixture, which provides lighting throughout the corridor to meet the safety requirements set by Caltrans.

Freeway Structure Lighting
Lighting under a freeway structure is considered warranted at the following locations:

- The lighting is for the purpose of illuminating lanes, deceleration lanes, weaving areas or walkways.
- It is a part of local street lighting.

Signature Lighting

- Through special lighting the driver is aware of a main entry to the city.
- Signature lighting to be typically used on City-jurisdiction bridges and roadways.
- Allow for special lighting on gateways.
- Establish an identity for Route 60 within Moreno Valley City Limits.

Level of Illumination for Underpasses:
Lighting should be bright enough to accommodate the needs of people with vision impairments and provide increased comfort levels for all pedestrians. Indirect lighting such as reflected off the underpass wall or ceiling minimizes shadow and glare, benefits users with vision impairment (FHWA).