

# ACEC

## Riverside/San Bernardino Chapter Meeting

**April 18, 2019**

**Tim Byrne, PE**  
**Project Delivery Manager**

**Henry Stultz, PE**  
**Construction Manager**



**cta**

San Bernardino County  
Transportation Authority

- 
- **Project Funding**
  - **Project Development/Delivery**
    - **Freeways**
    - **Interchanges**
    - **Grade Separations**
  - **Construction**



- 
- **Project Funding**
  - Project Development/Delivery
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  - Construction

- 1989 – Original Measure I passed
  - ½ cent sales tax, 1990-2010
  - ~\$1.8B collected/invested
    - Metrolink
    - SR-71
    - SR-210
    - I-10, SR-60, I-215 widening
    - Transit operations support

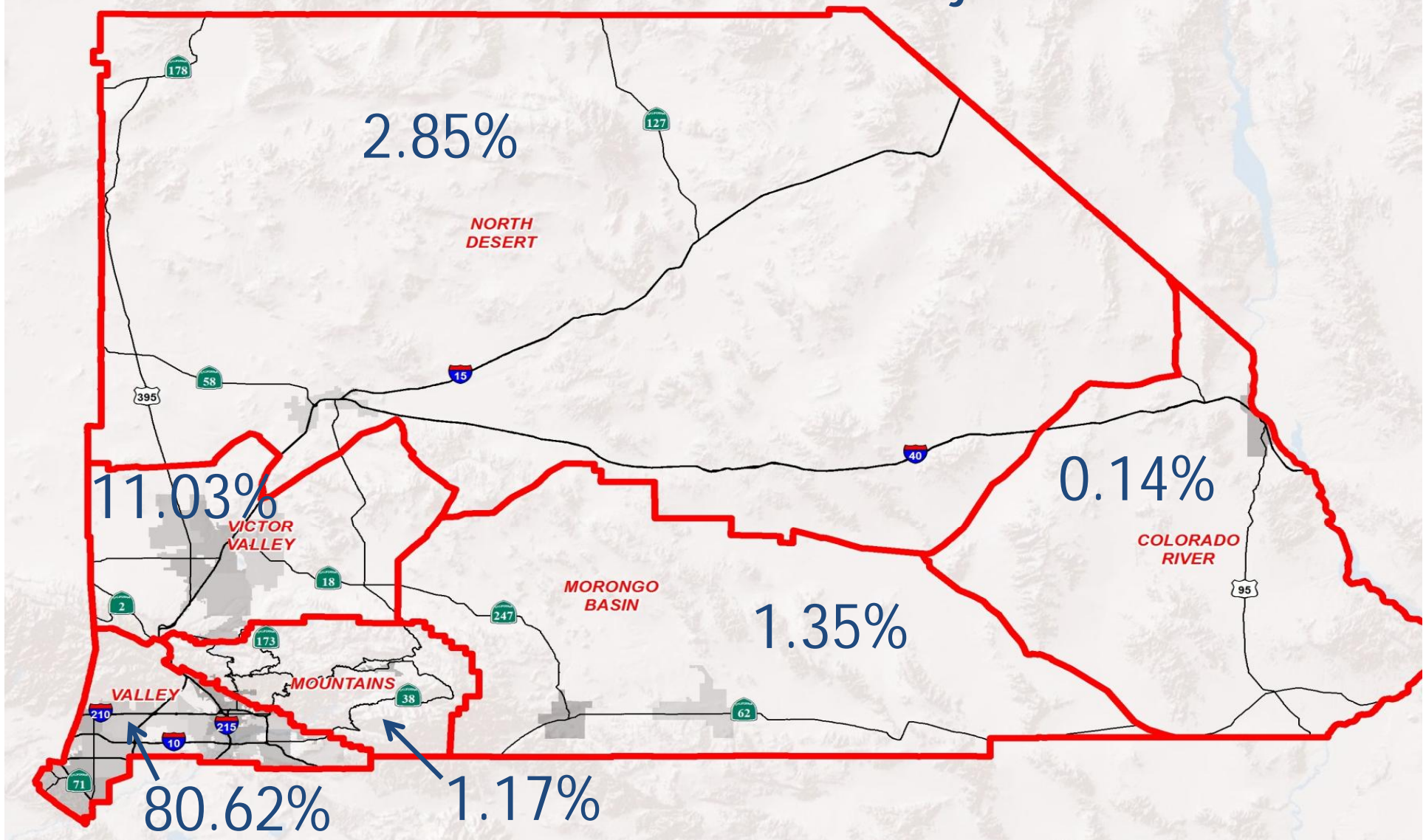


- 2004 – Measure I extension passed
  - ½ cent sales tax, 2010-2040
  - Revenue estimates ranged from \$6-\$8B



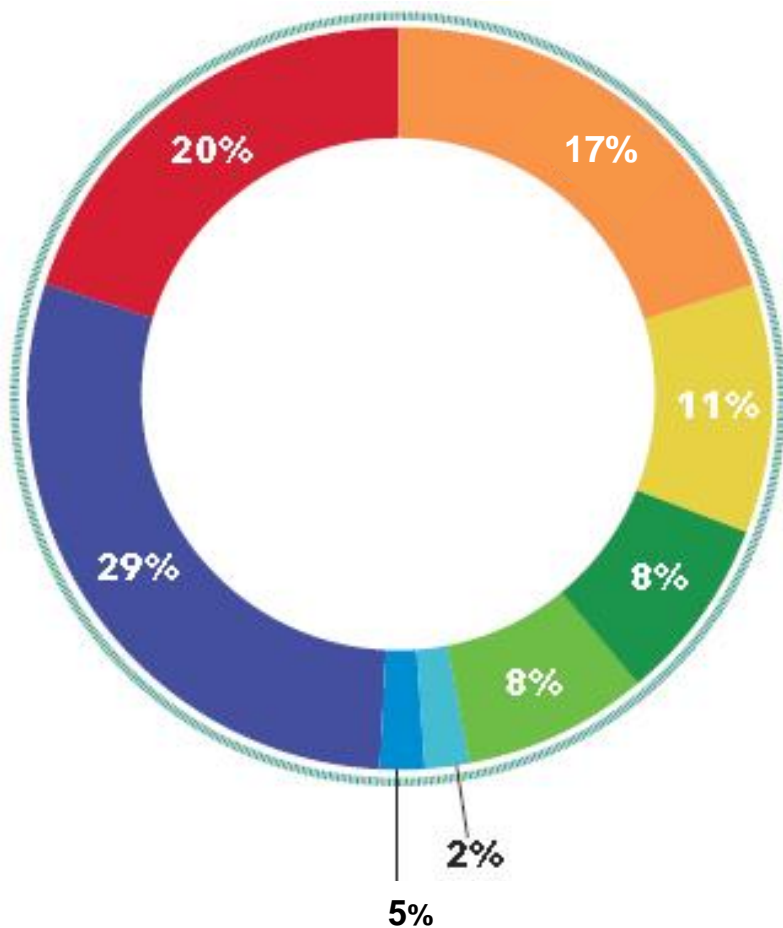
# Measure I Boundaries San Bernardino County

Cajon Pass – 2.83%



Measure I – Valley Distribution






- Major Streets Program
- Freeway Interchange Program
- Senior and Disabled Transit Service
- Metrolink/Passenger Rail Service Program
- Traffic Management Systems Program
- Express Bus-Bus Rapid Transit (BRT) Program
- Freeway Program
- Local Streets Program



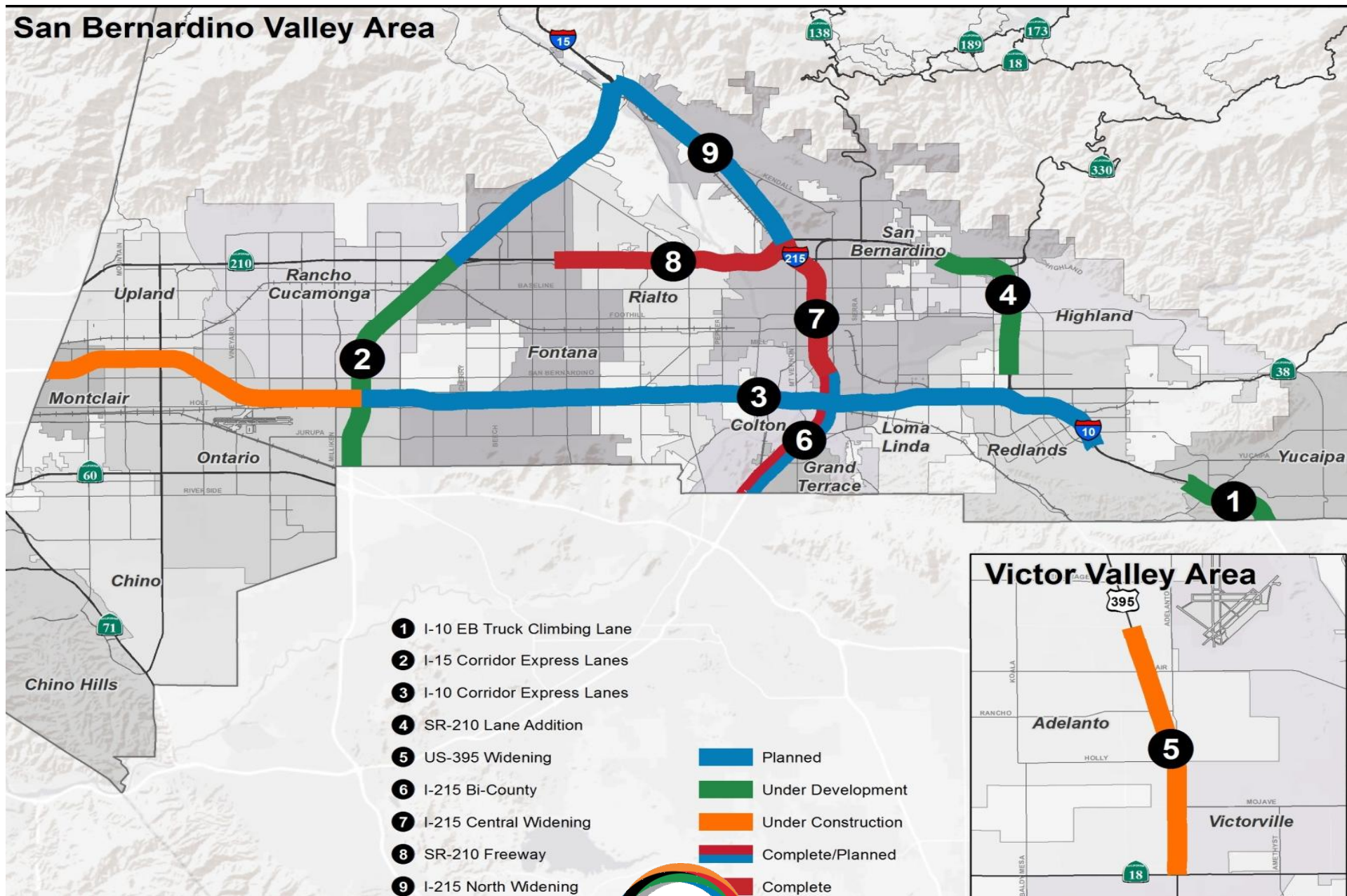
- 
- Project Funding
  - **Project Development/Delivery**
    - **Freeways**
    - **Interchanges**
    - **Grade Separations**
  - Construction



- 
- **Responsible for development/ construction of highway improvements:**
    - **Freeways/Highways**
    - **Interchanges**
    - **Railroad Grade Separations**



# San Bernardino Valley Area



Project Delivery





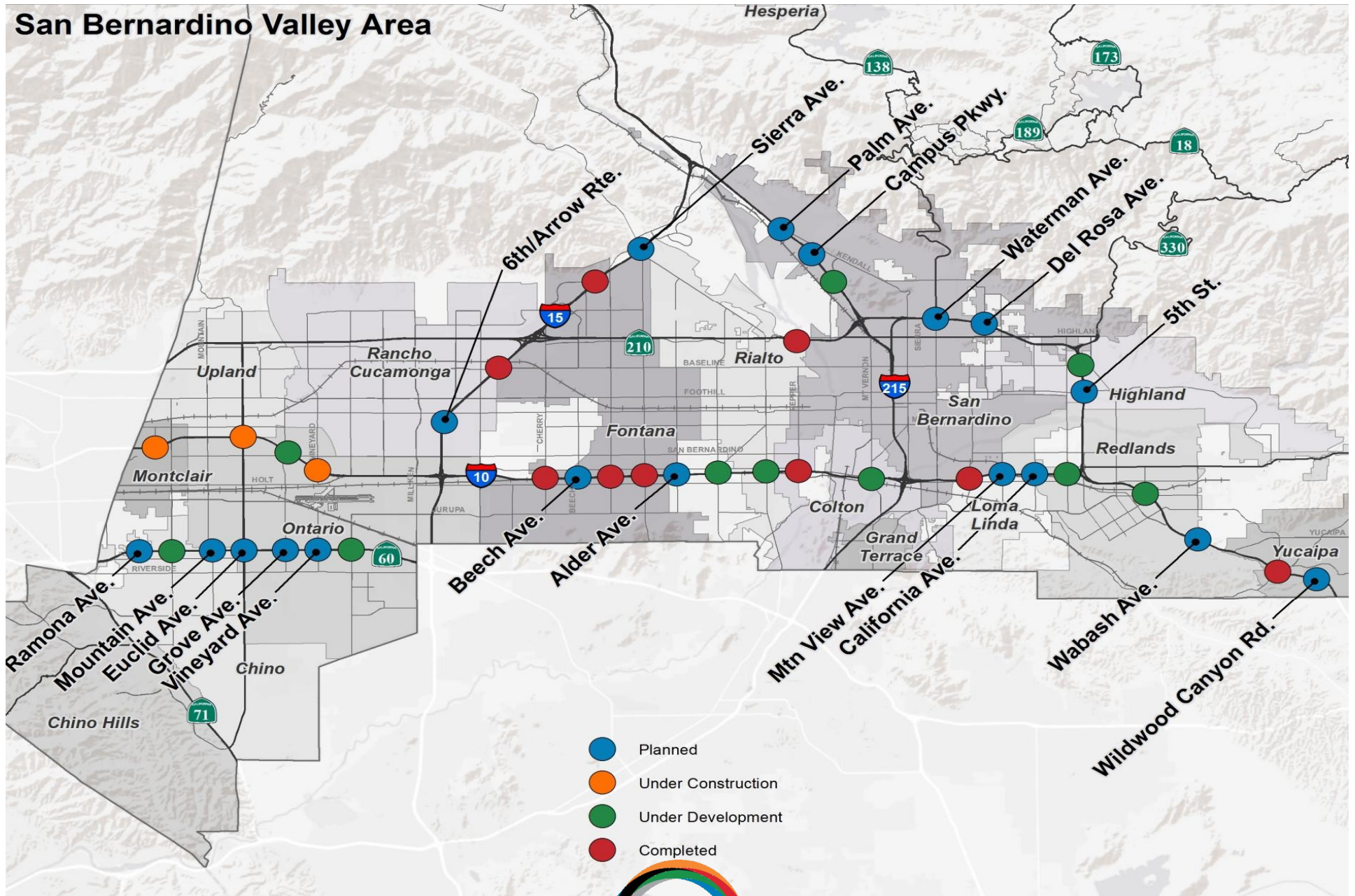


## Interchanges





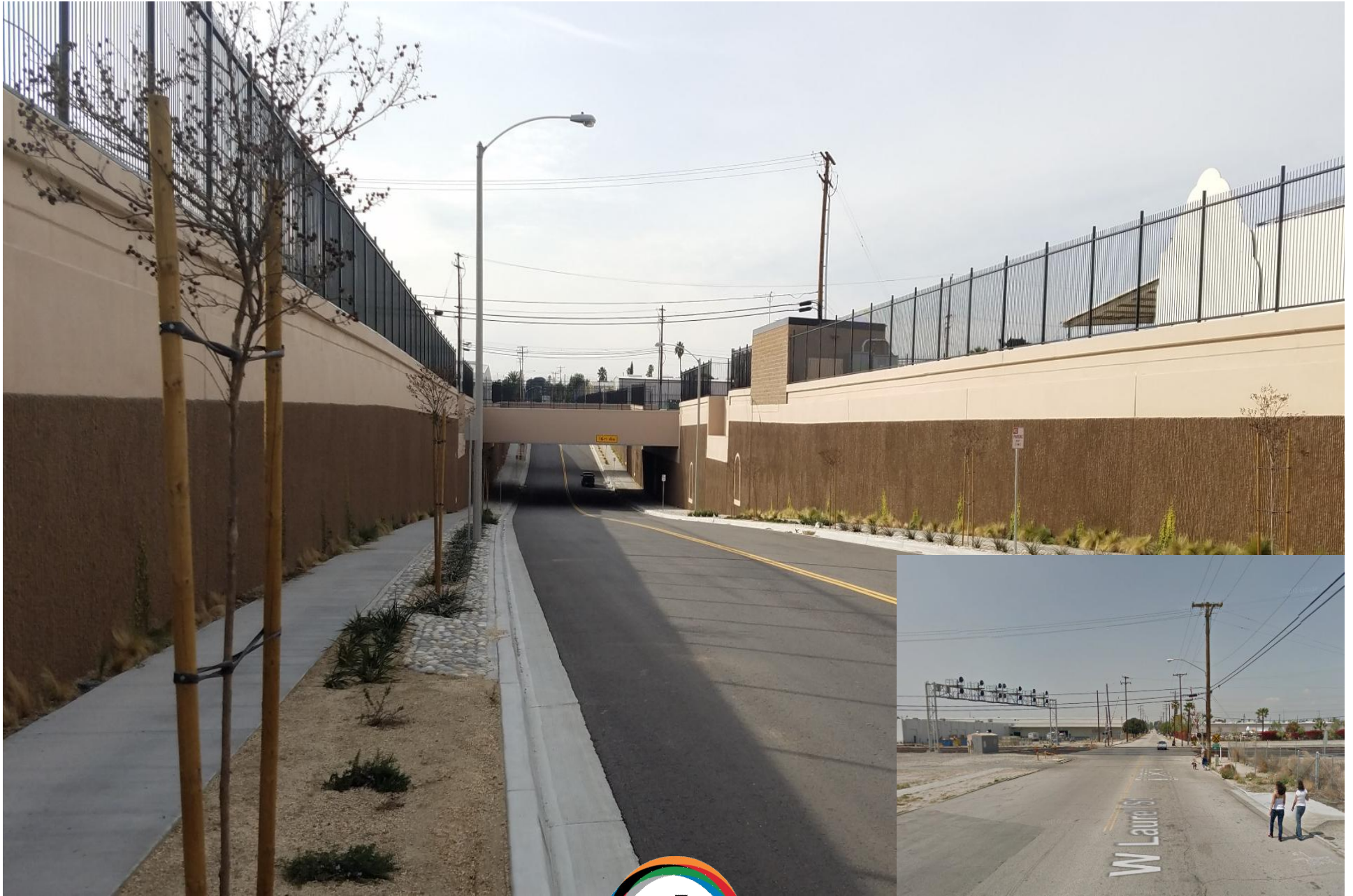
# San Bernardino Valley Area



Interchanges







## Grade Separations

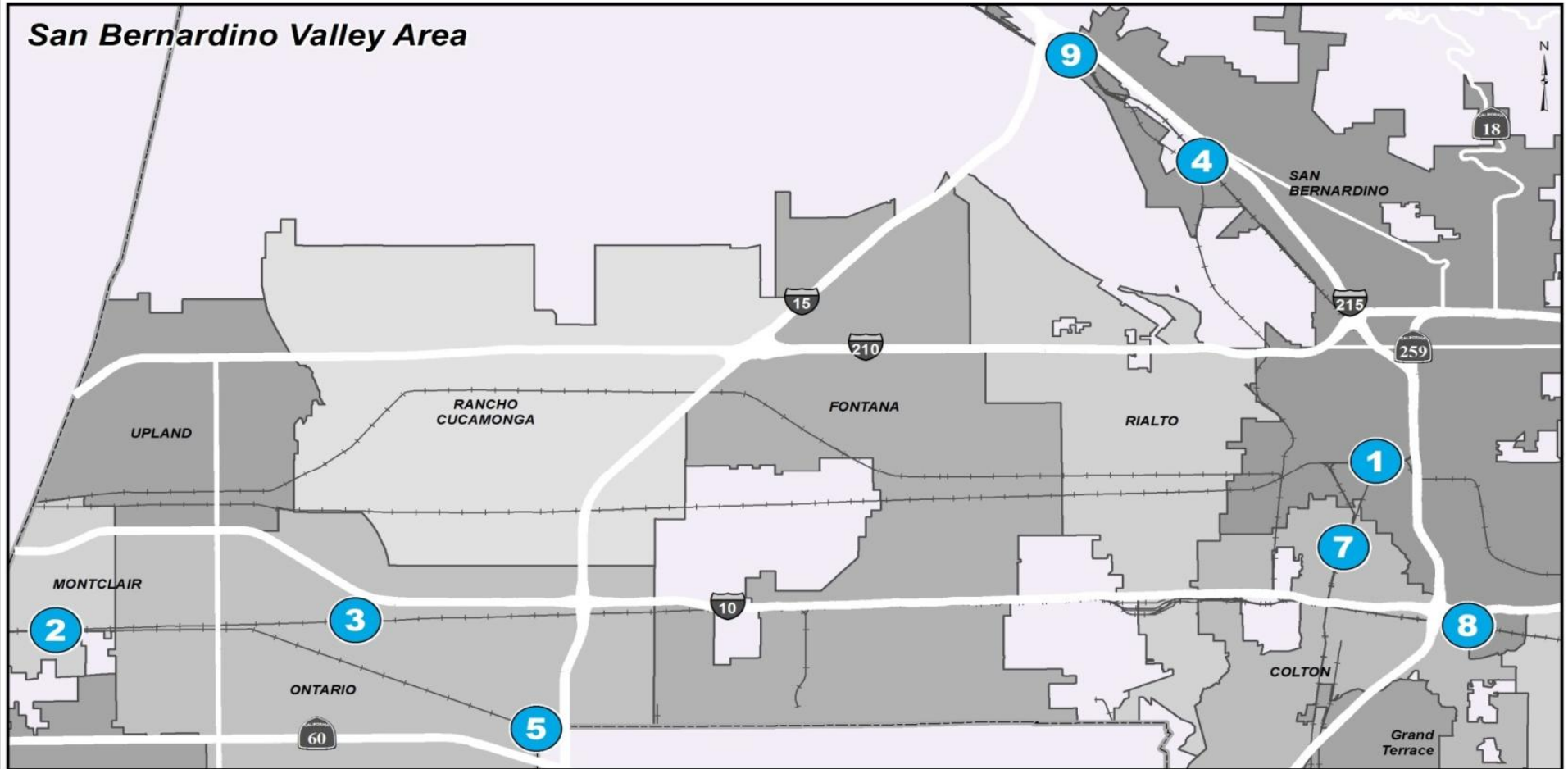


Laurel Street / BNSF

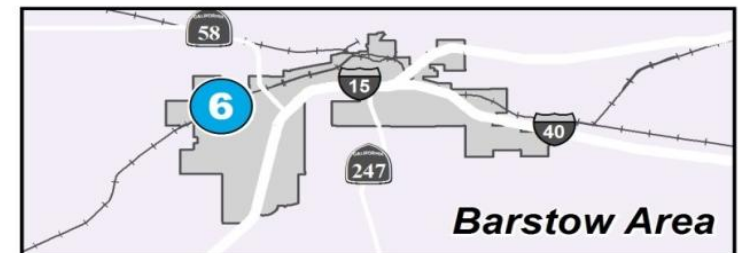
13



# Grade Separations



- |                               |                       |                        |
|-------------------------------|-----------------------|------------------------|
| 1 Mount Vernon Avenue Viaduct | 4 Palm Avenue/BNSF    | 7 Laurel Street/BNSF   |
| 2 Monte Vista Avenue/UPRR     | 5 South Milliken/UPRR | 8 Hunts Lane/UPRR      |
| 3 North Vineyard/UPRR         | 6 Lenwood Road/BNSF   | 9 Glen Helen Pkwy/BNSF |



## Grade Separations



- 
- Project Funding
  - Project Development/Delivery
    - Freeways
    - Interchanges
    - Grade Separations
  - **Construction**

# **Upcoming Request for Proposals (for Construction Management Services)**

- **I-10 / Cedar Interchange**
- **I-215 / University Interchange (DDI)**
- **I-10 / Alabama Interchange**
- **Barstow 1<sup>st</sup> Street Bridge Replacement**



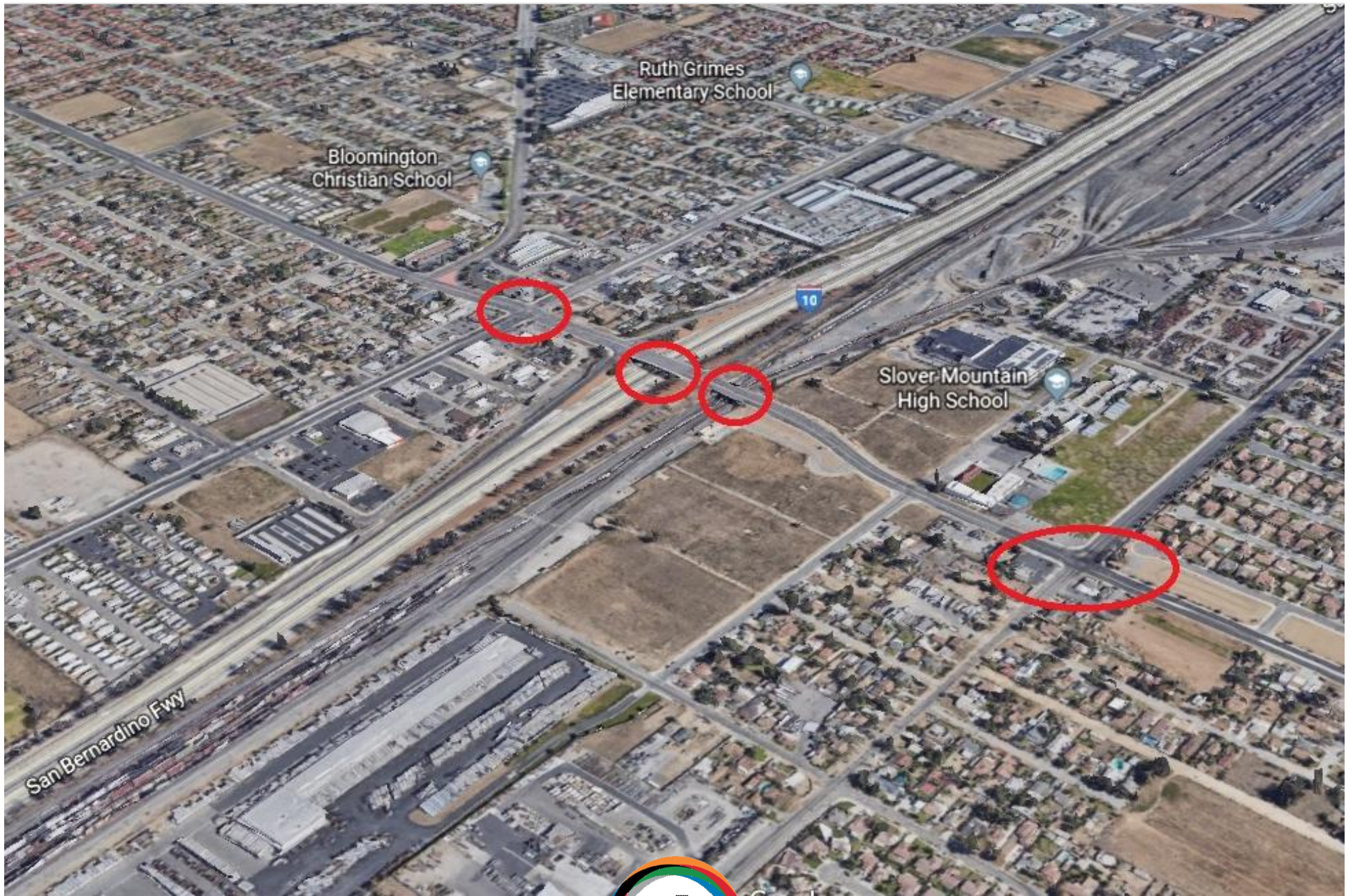


# I-10 / Cedar Interchange

## Scope

- Widen Cedar Avenue
- Modify the Existing Ramps
- Widen Cedar Bridge over I-10 and Replace Bridge over UPRR
- Improve the Intersection at Slover Avenue and Cedar





I-10/Cedar







I-10/Cedar







I-10/Cedar



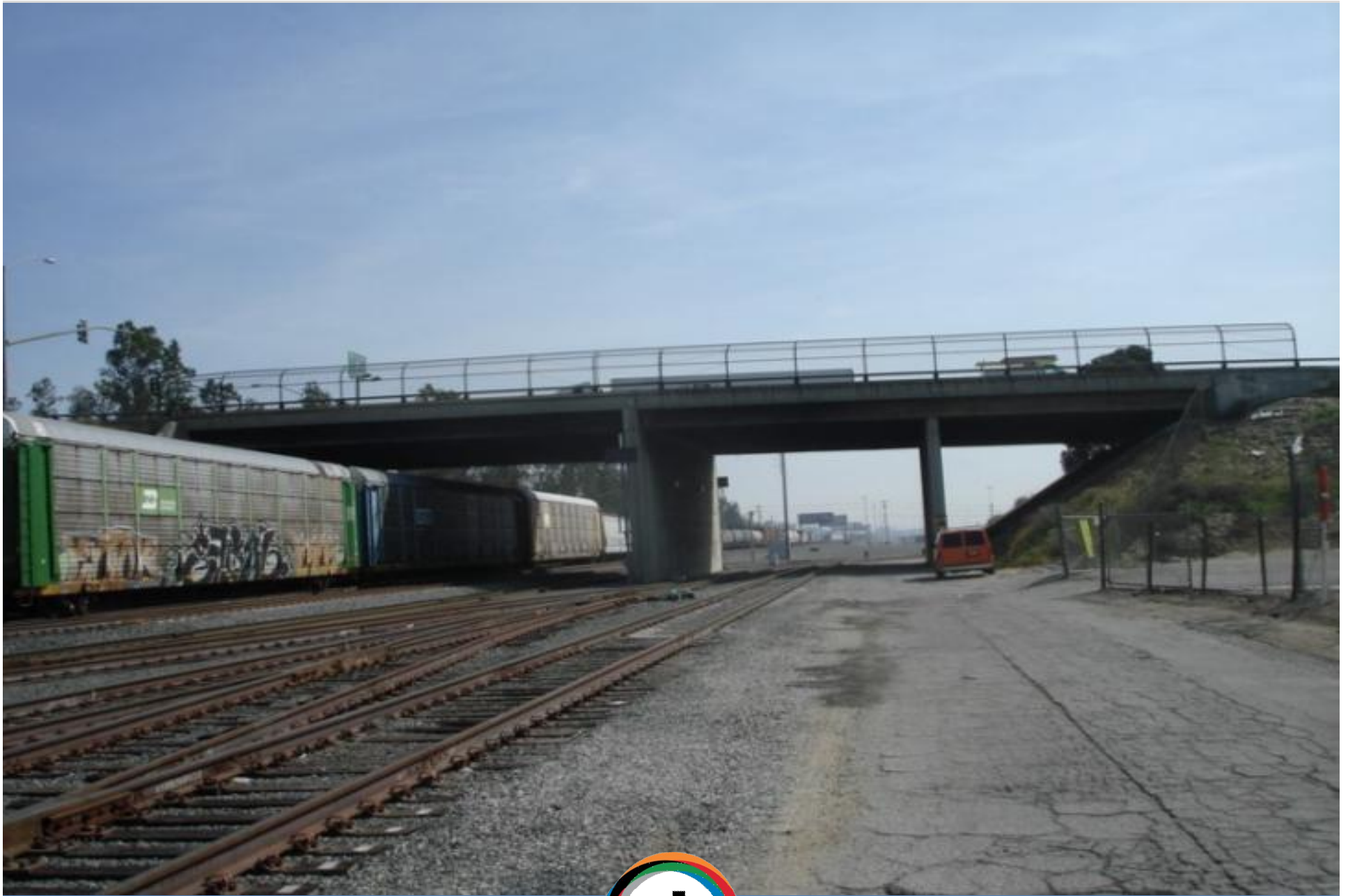




I-10/Cedar





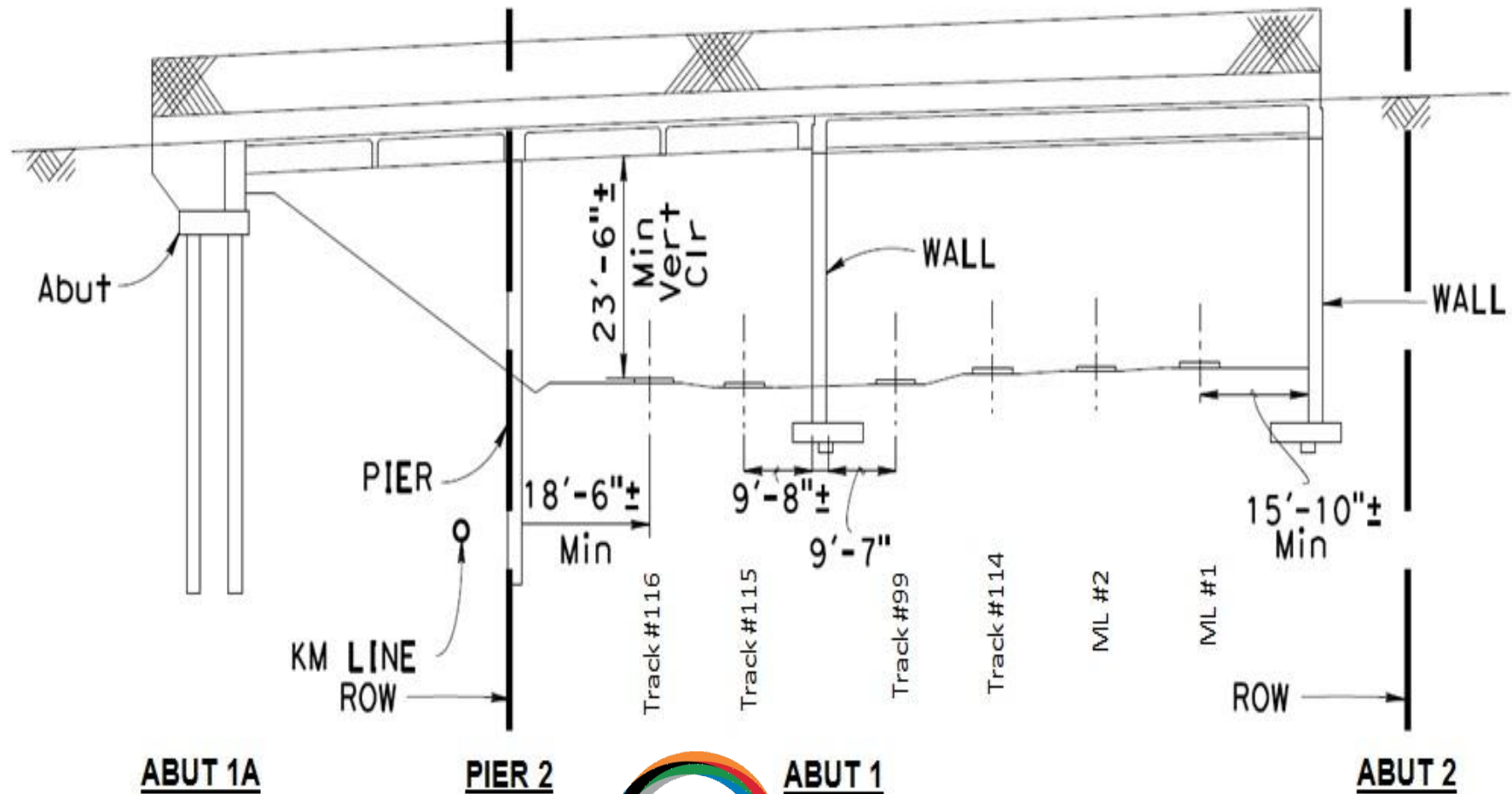


I-10/Cedar



## Existing Structure

- Min Vertical Clearance 23'-6" at Track #116
- Min Horizontal Clearance 15'-10" at ABUT 2



I-10/Cedar – UPRR OH

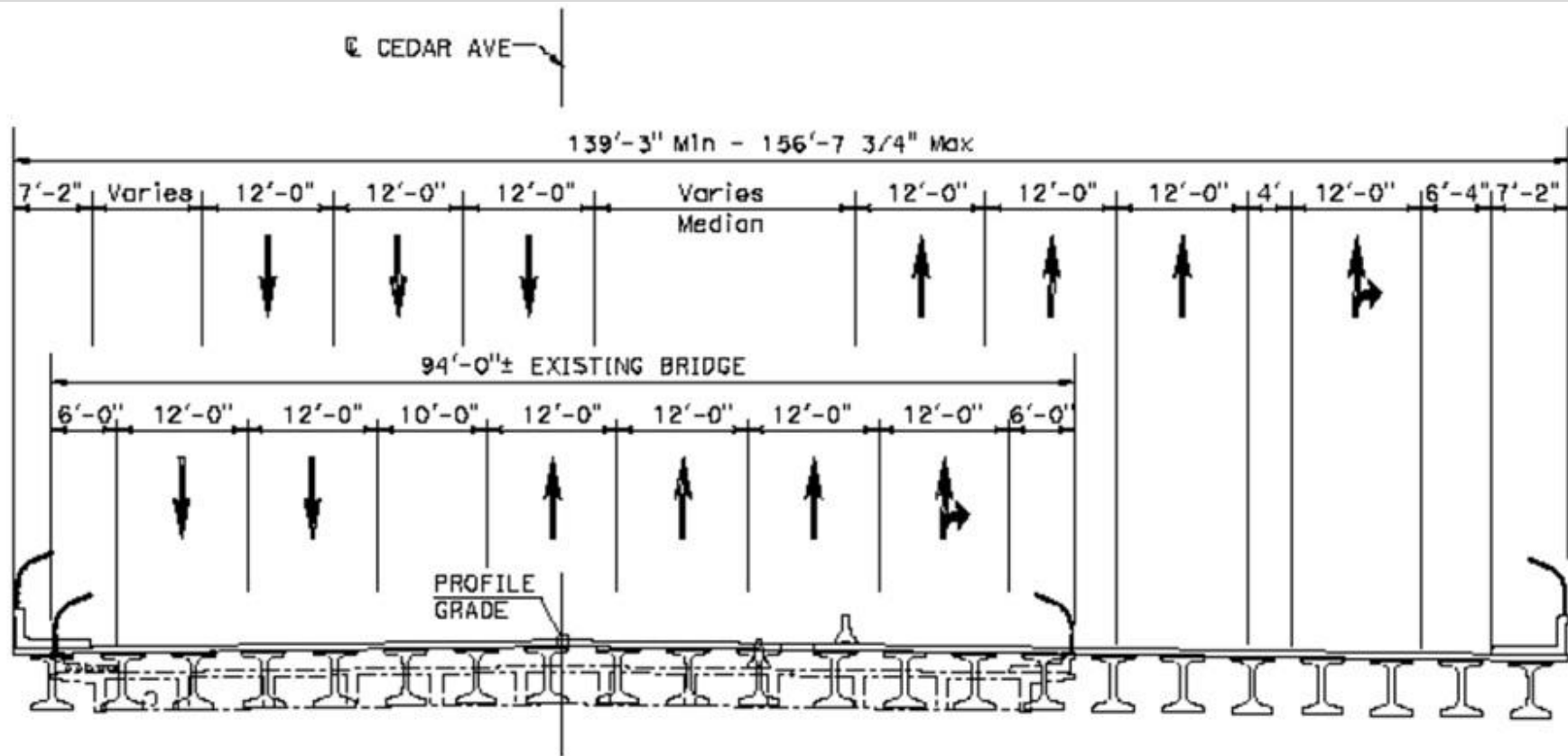




150' Single Span  
PC/PS Wide  
Flange Girders



# I-10/Cedar – UPRR OH



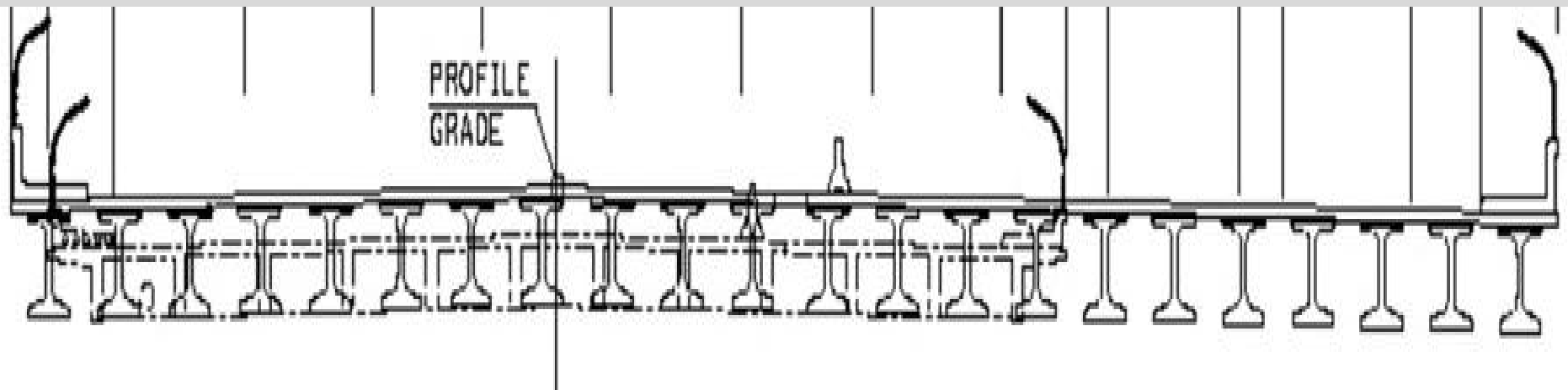
## TYPICAL SECTION

1" = 10'-0"

I-10/Cedar







I-10/Cedar





I-10/Cedar





- Estimated RFP Release - late fall 2019
- Engineers Estimate is approximately \$80+M



# **Upcoming Request for Proposals (for Construction Management Services)**

I-215/University Avenue  
Diverging Diamond Interchange (DDI)

I-215/University



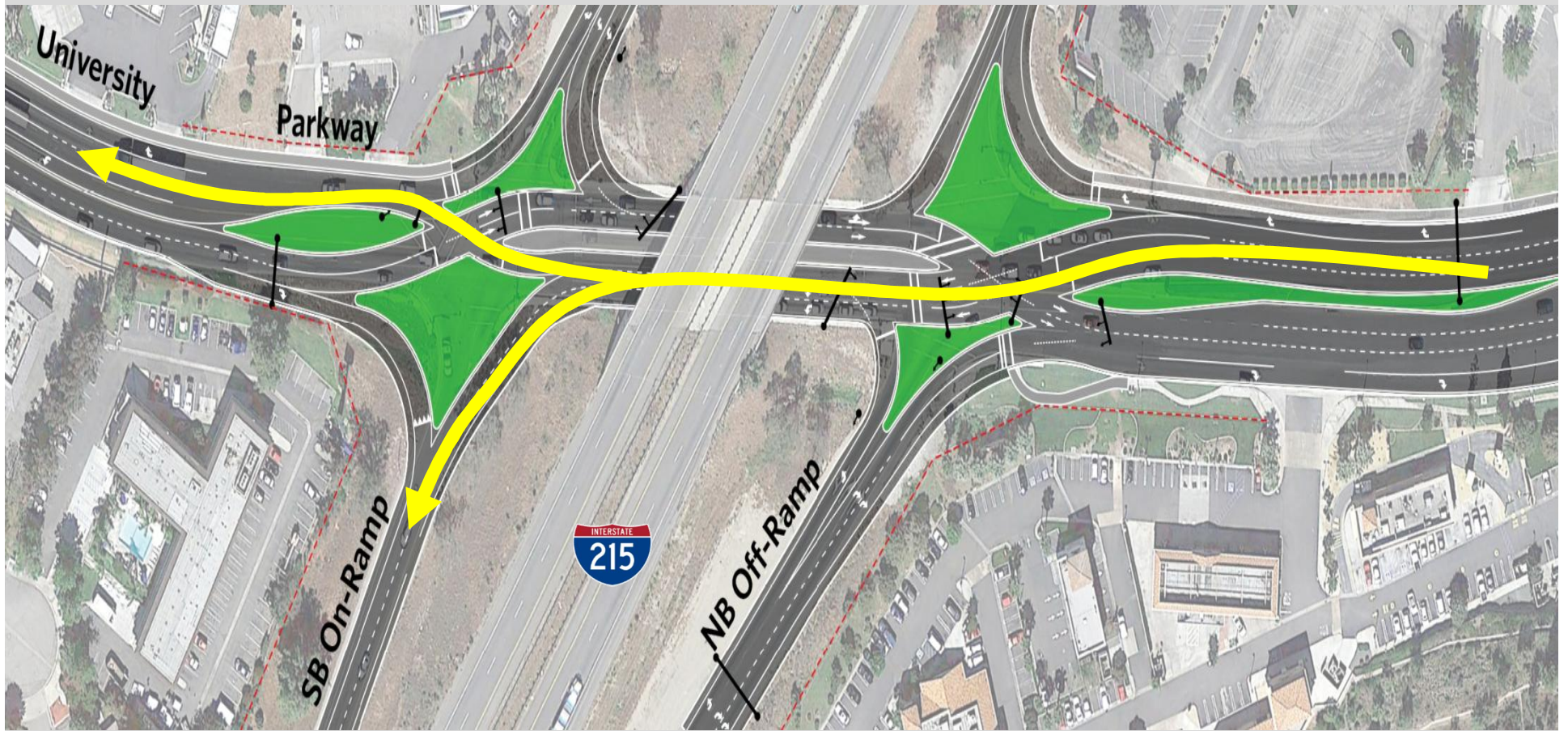




I-215/University - DDI





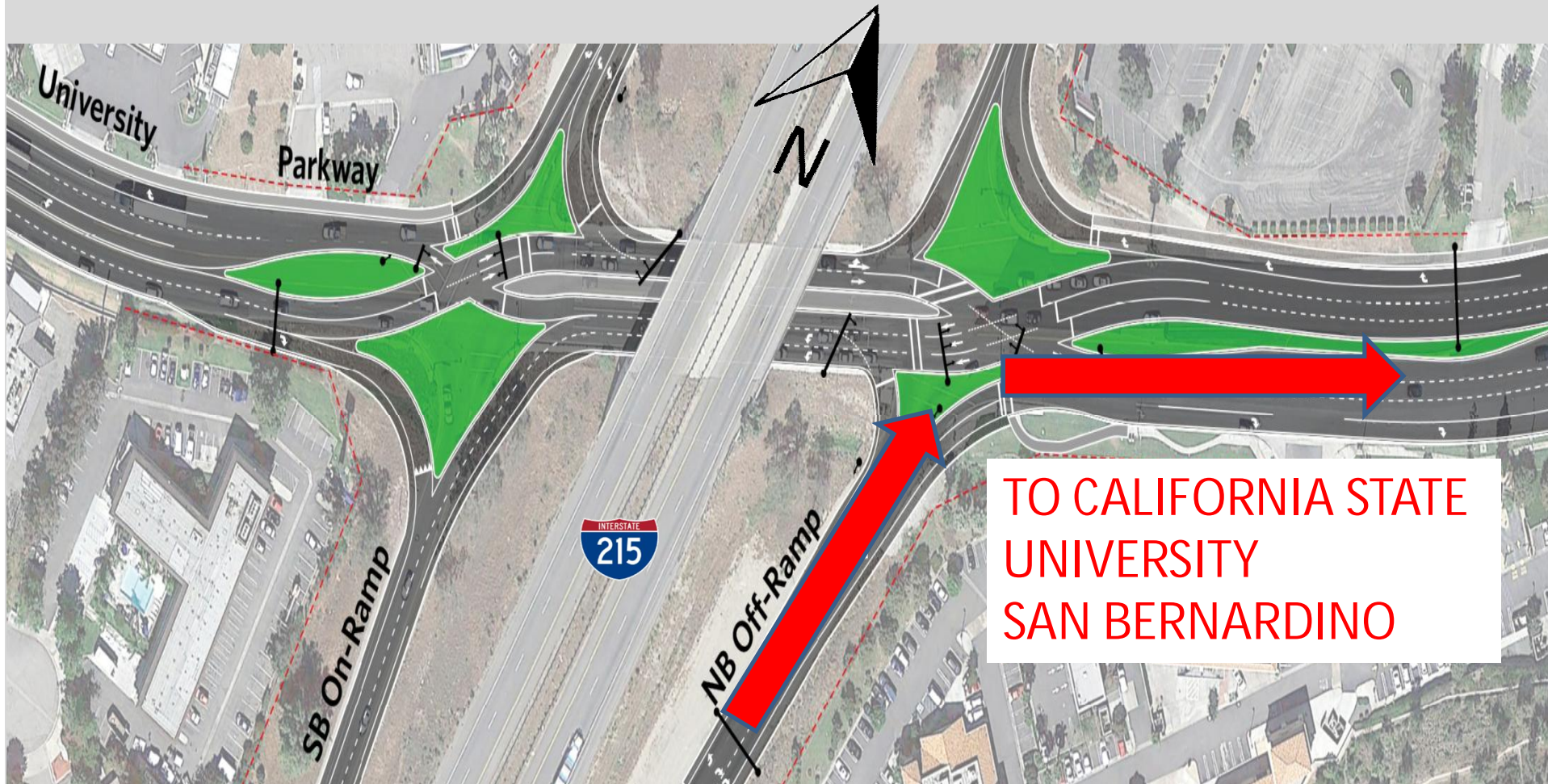


## Signal Phasing and Traffic Movements 1

I-215/University - DDI





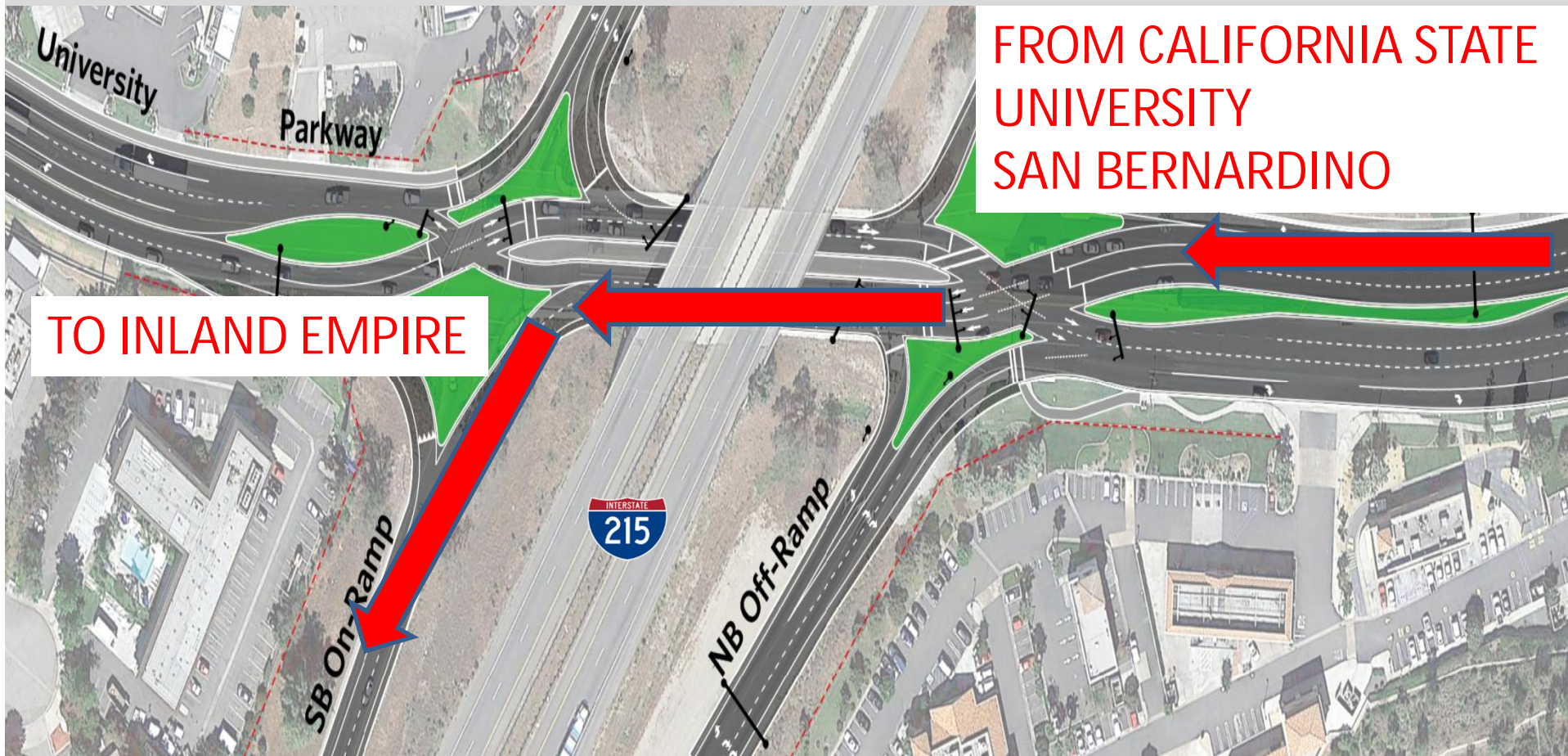


TO CALIFORNIA STATE  
UNIVERSITY  
SAN BERNARDINO

I-215/University - DDI







I-215/University - DDI







I-215/University - DDI





I-215/University - DDI







I-215/University - DDI

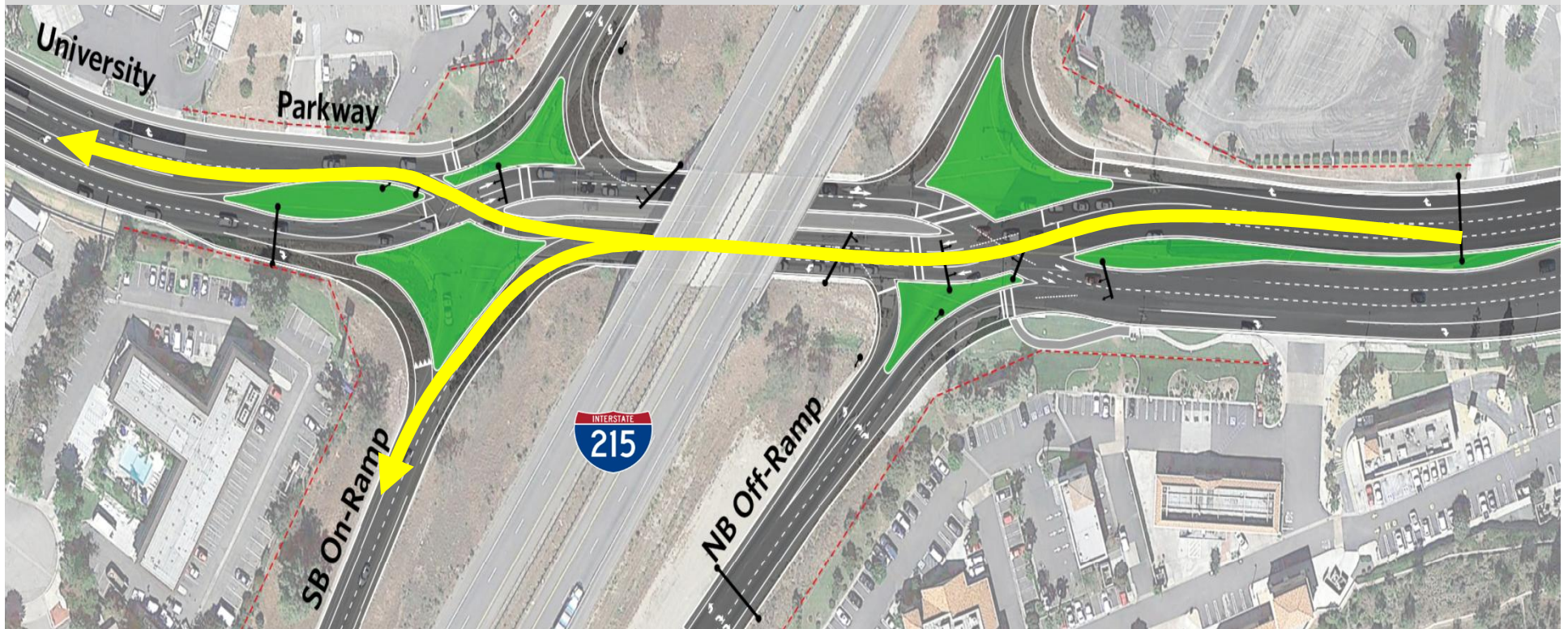




I-215/University - DDI





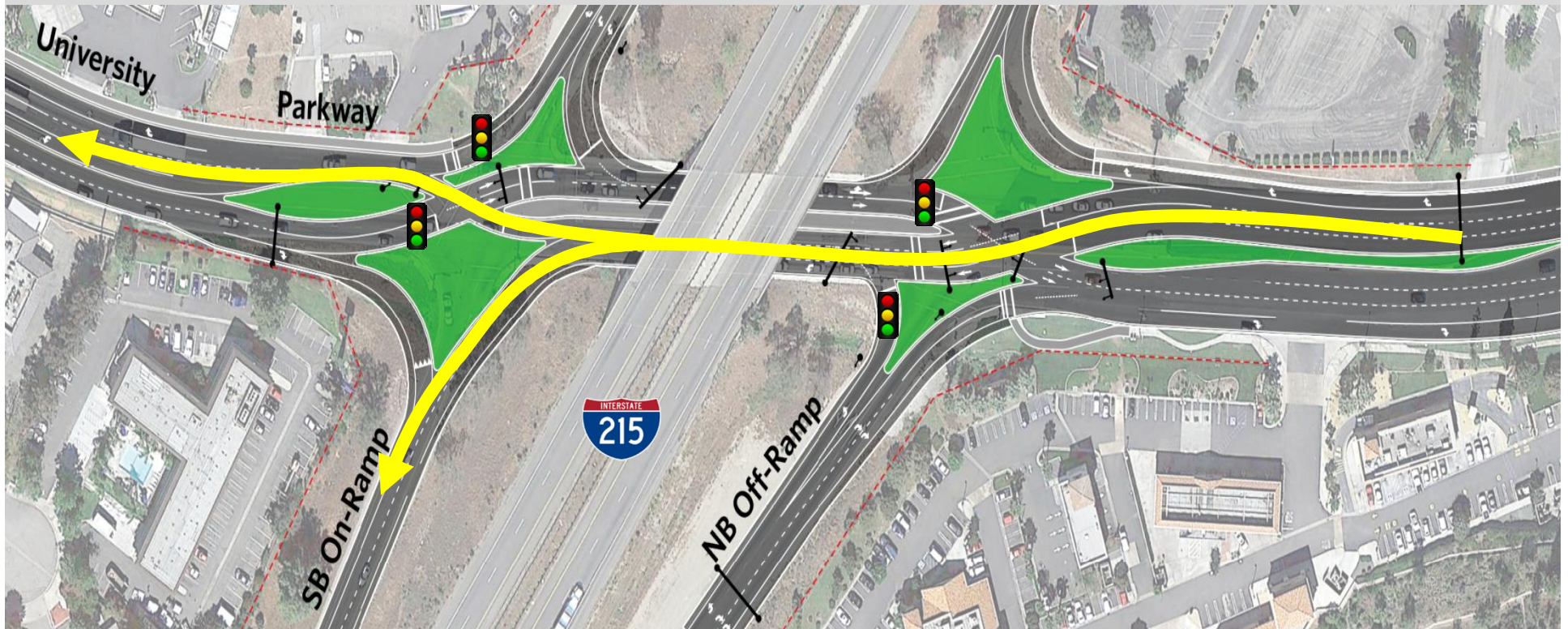


## Signal Phasing and Traffic Movements 1

I-215/University - DDI





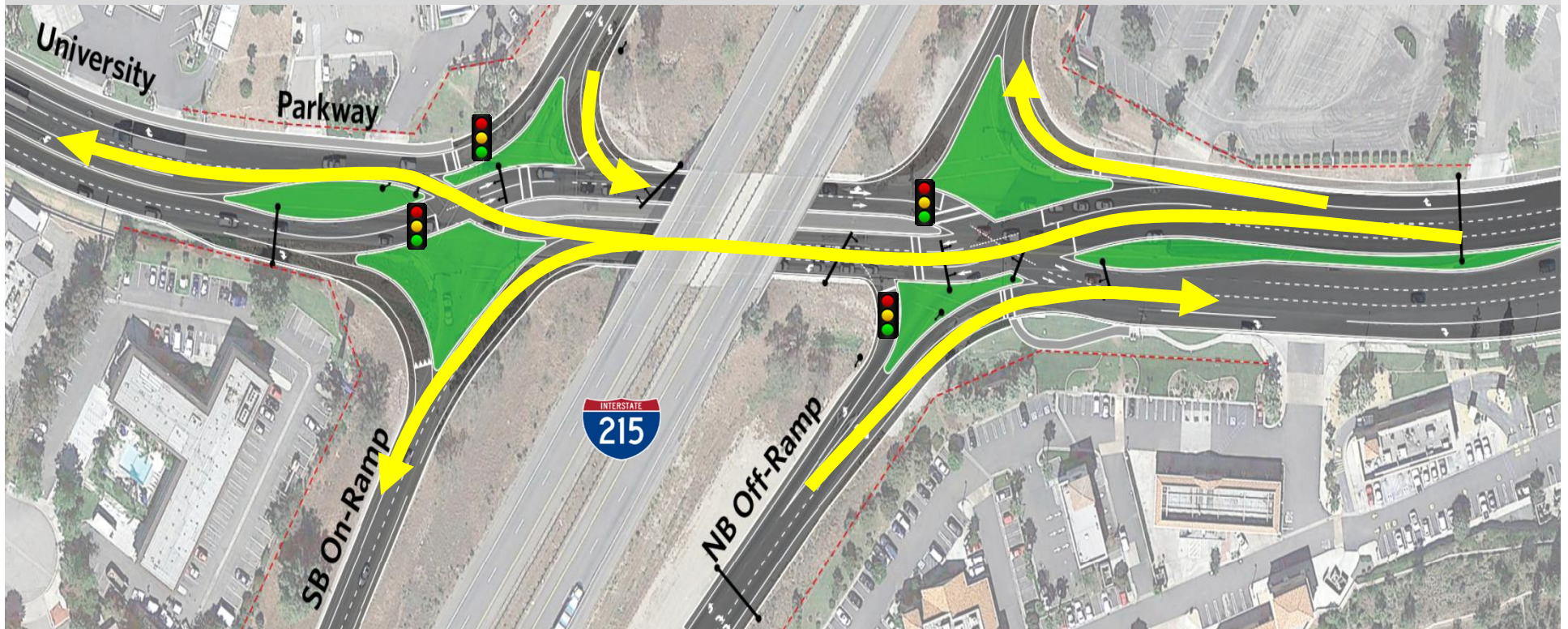


Signal Phasing and Traffic Movements 1

I-215/University - DDI







Signal Phasing and Traffic Movements 1

I-215/University - DDI





I-215/University - DDI







I-215/University - DDI



- Estimated RFP Release is early fall of 2019
- Engineers Estimate is approximately \$10M



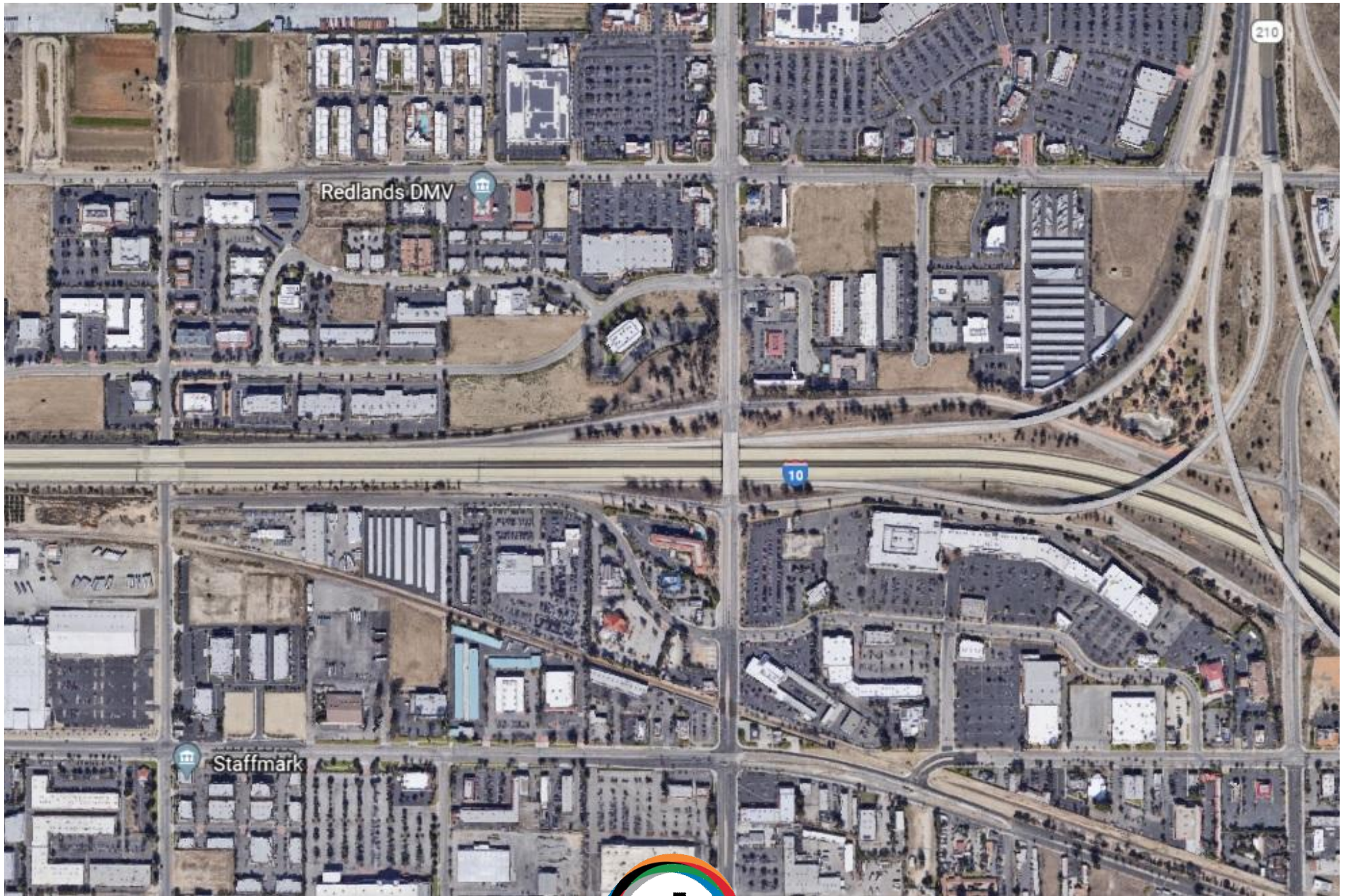


# Upcoming Request for Proposals (for Construction Management Services)

I-10 / Alabama Street  
Interchange

I-10/Alabama





I-10/Alabama







I-10/Alabama





I-10/Alabama







I-10/Alabama



## Scope

- Widen All On and Off Ramps
- Add additional Right turn lane on Alabama to the On Ramps
- Estimated RFP Release is the end of 2019
- Engineers Estimate is approximately \$12M





# **Upcoming Request for Proposals (for Construction Management Services)**

Barstow 1<sup>st</sup> Street Bridge Replacement



# Barstow 1<sup>st</sup> Street Bridge Replacement





# Barstow 1<sup>st</sup> Street Bridge Replacement



# Barstow 1<sup>st</sup> Street Bridge Replacement





# Barstow 1<sup>st</sup> Street Bridge Replacement



# Barstow 1<sup>st</sup> Street Bridge Replacement





# Barstow 1<sup>st</sup> Street Bridge Replacement





# Barstow 1<sup>st</sup> Street Bridge Replacement

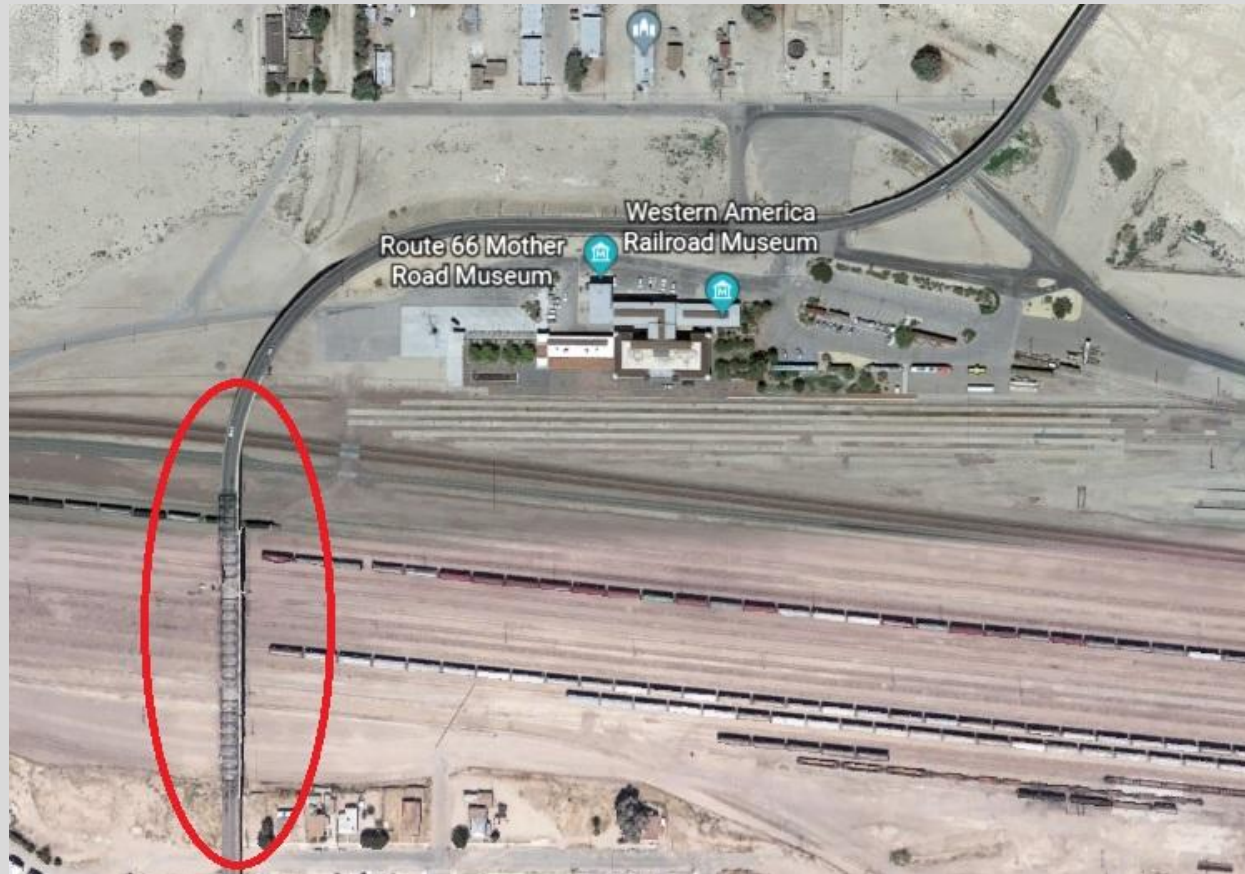




# Barstow 1<sup>st</sup> Street Bridge Replacement

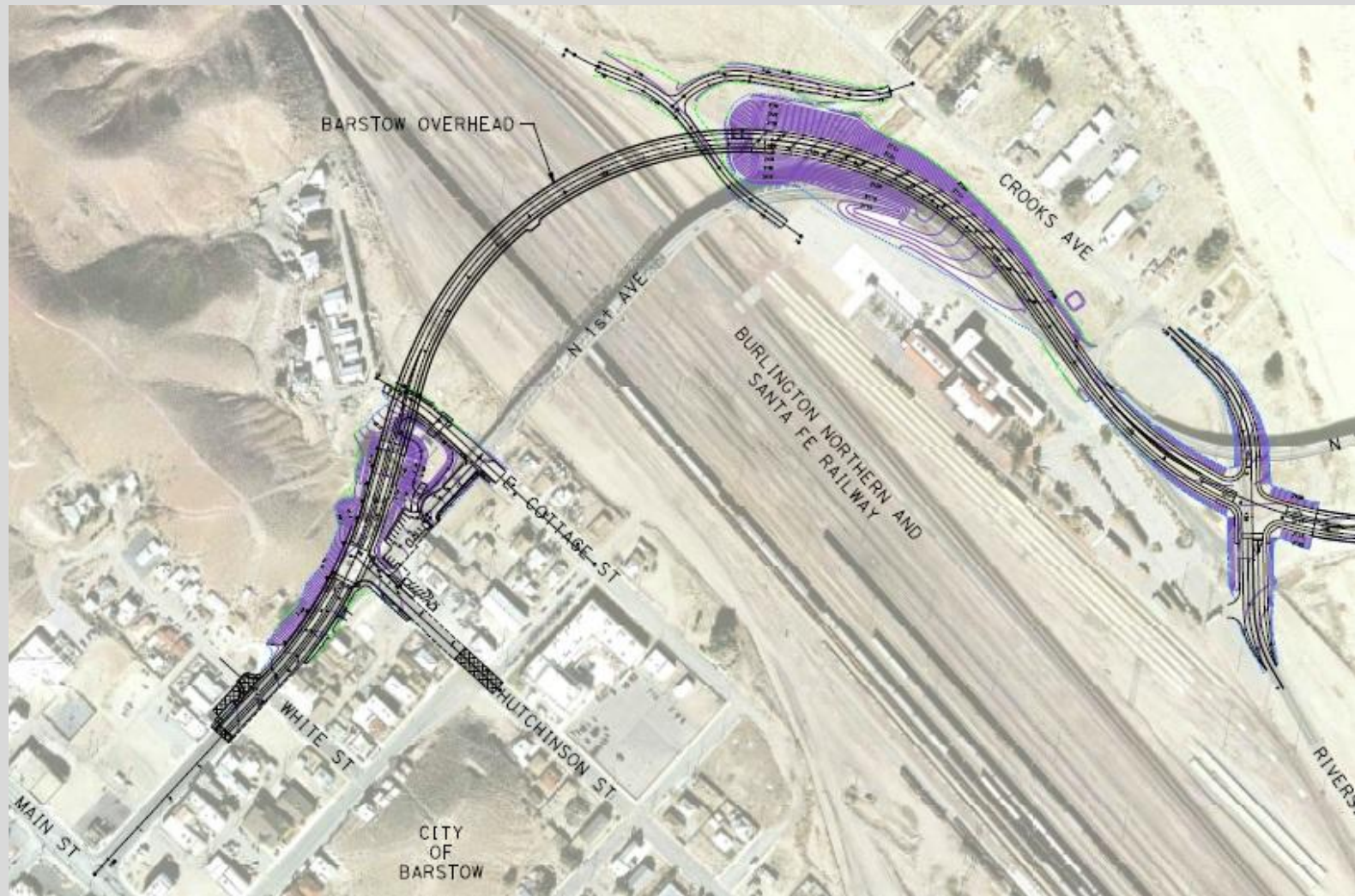


# Barstow 1<sup>st</sup> Street Bridge Replacement

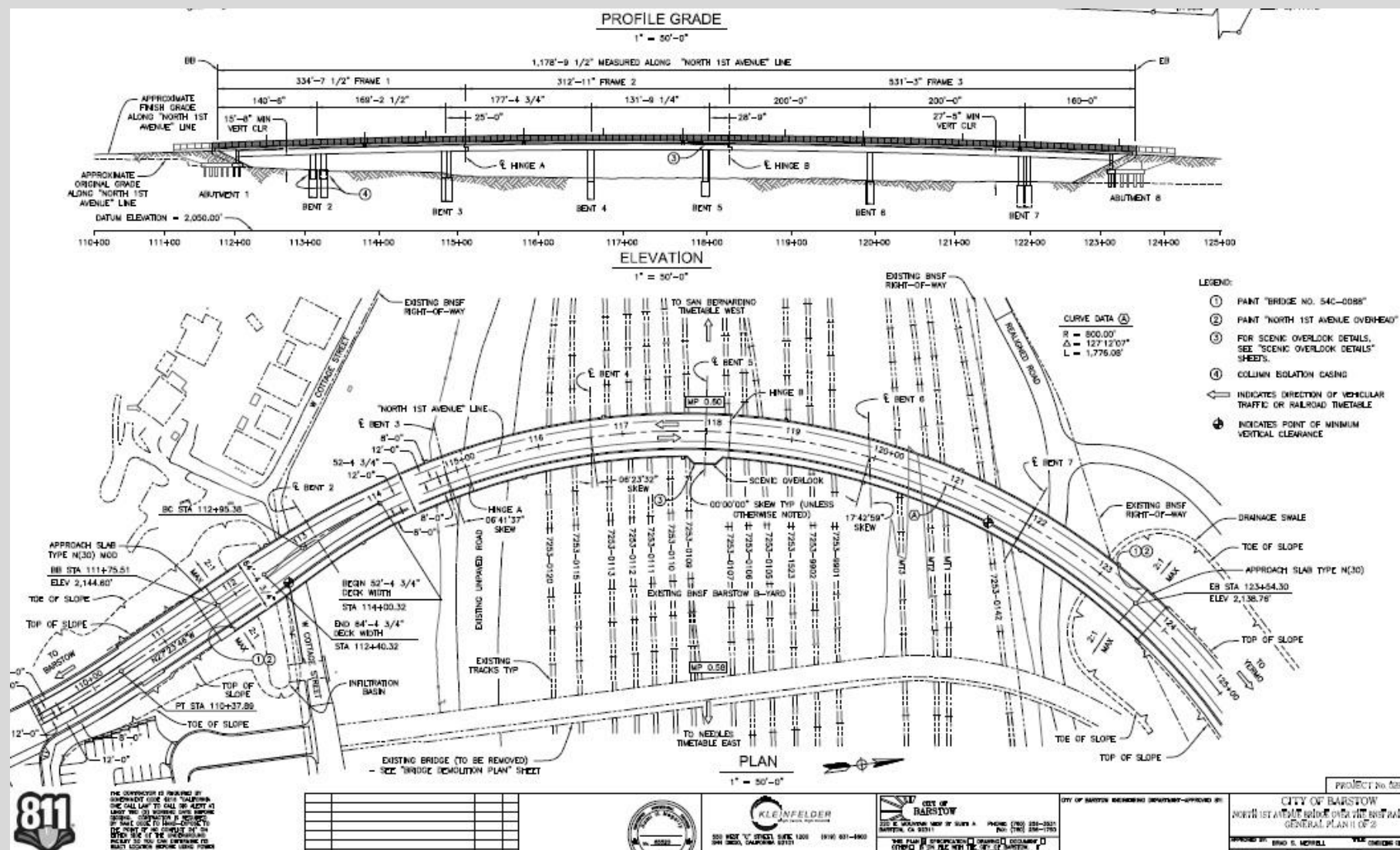




# Barstow 1<sup>st</sup> Street Bridge Replacement

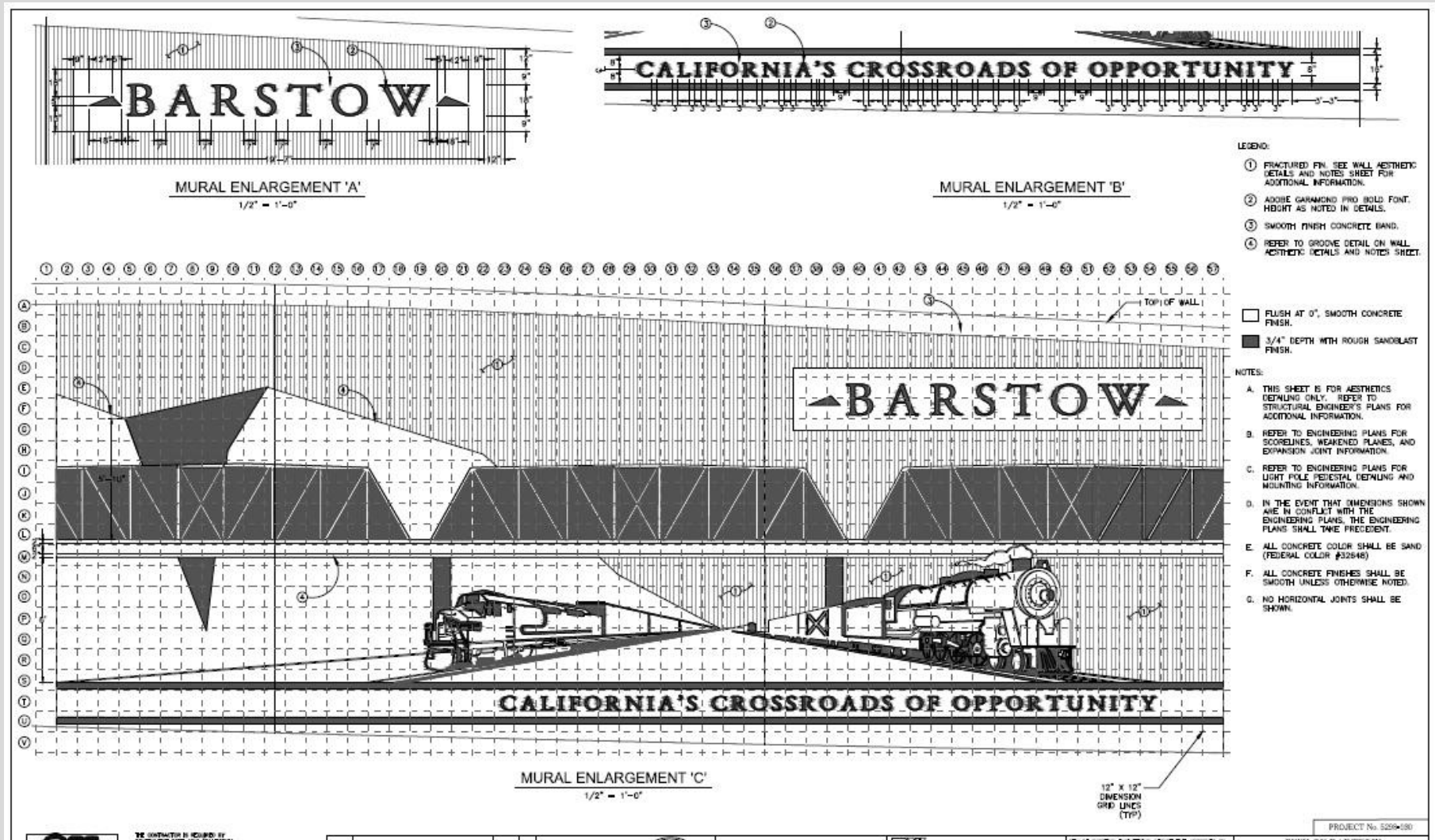


# Barstow 1<sup>st</sup> Street Bridge Replacement

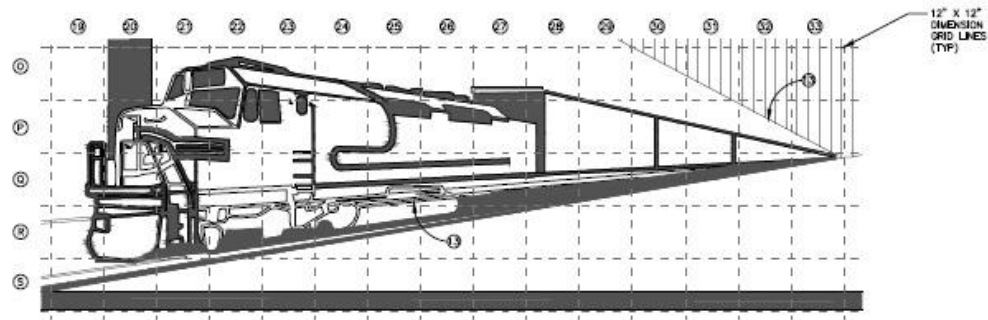




# Barstow 1<sup>st</sup> Street Bridge Replacement



# Barstow 1<sup>st</sup> Street Bridge Replacement



**MURAL ENLARGEMENT 'D'**  
1" = 1'-0"

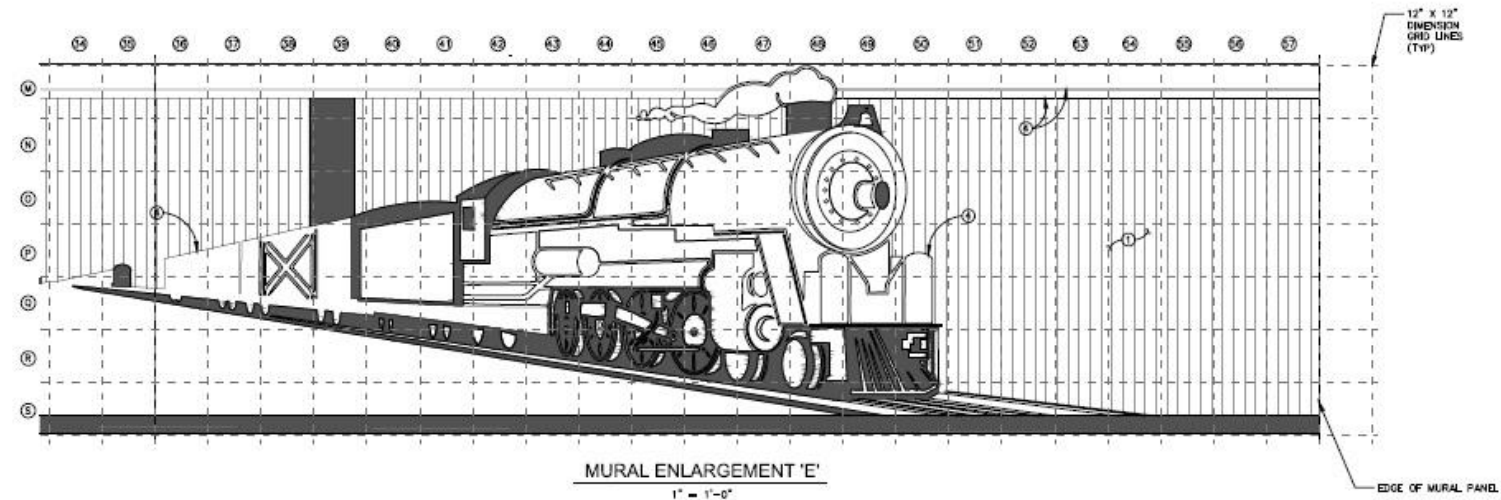
## LEGEND:

- ① FRACTURED FIN. SEE WALL AESTHETIC DETAILS AND NOTES SHEET FOR ADDITIONAL INFORMATION.
- ② ADORN GARAMOND PRO BOLD FONT. HEIGHT AS NOTED IN DETAILS.
- ③ SMOOTH FINISH CONCRETE BAND.
- ④ REFER TO GROOVE DETAIL ON WALL AESTHETIC DETAILS AND NOTES SHEET.

- FLUSH AT 0", SMOOTH CONCRETE FINISH.
- 3/4" DEPTH WITH ROUGH SANDBLAST FINISH.

## NOTES:

- A. THIS SHEET IS FOR AESTHETICS DETAILING ONLY. REFER TO STRUCTURAL ENGINEER'S PLANS FOR ADDITIONAL INFORMATION.
- B. REFER TO ENGINEERING PLANS FOR SCORELINES, WEAKENED PLANES, AND EXPANSION JOINT INFORMATION.
- C. REFER TO ENGINEERING PLANS FOR LIGHT POLE PEDestal DETAILING AND MOUNTING INFORMATION.
- D. IN THE EVENT THAT DIMENSIONS SHOWN ARE IN CONFLICT WITH THE ENGINEERING PLANS, THE ENGINEERING PLANS SHALL TAKE PRECEDENT.
- E. ALL CONCRETE COLOR SHALL BE SAND (FEDERAL COLOR #32848).
- F. ALL CONCRETE FINISHES SHALL BE SMOOTH UNLESS OTHERWISE NOTED.
- G. NO HORIZONTAL JOINTS SHALL BE SHOWN.



**MURAL ENLARGEMENT 'E'**  
1" = 1'-0"

EDGE OF MURAL PANEL.





# Barstow 1<sup>st</sup> Street Bridge Replacement

- Estimated RFP Release is the Fall of 2019
- Engineers Estimate is approximately \$40M



# **Upcoming Invitation for Bids**

- **SR 210 Widening / Baseline Interchange**
- **SR 60 / Archibald Interchange**
- **SR 60 / Central Interchange**
- **Short listed 4 firms for Mt. Vernon Viaduct – Design Build**





# **Construction Management / Contract Administration Goals**



# **Construction Management / Contract Administration Goals**

- **Selected Consultant  
Construction Management  
Firms are considered a part of  
SBCTA**
- **We are all Stewards of the  
Public Funds**





# **Construction Management (CM) / Contract Administration Goals**

- **CM Contracts will not exceed Budget**
- **Projects will be delivered within Budget**



# **Construction Management (CM) / Contract Administration Goals**

- **Thorough Constructability Reviews**
  - **Check for errors and omissions**
  - **Check for ambiguities**
  - **Check for vagueness**





# **Construction Management (CM) / Contract Administration Goals**

- **During Construction we strictly enforce the contract requirements**
- **All Changes require a Contract Change Order**
- **All Change Orders are in the interest of the Agency**



# **Construction Management / Contract Administration Goals**

- **We follow Caltrans Local Assistance Manuals**
- **We follow Caltrans Construction Manuals and Technical Manuals**





# **Construction Management / Contract Administration Goals**

- **Documentation is Key. Daily Diaries are performed daily. Many daily photos are essential.**



# **Construction Management / Contract Administration Goals**

- **Never give direction as the Contractor's means and methods**
- **Partnering is encouraged, however be careful that our ideas and suggestions can not be interpreted as giving direction**





# **Construction Management / Contract Administration Goals**

- **Forecast each month the cost to complete for both the CM Contract and the Construction Contract**



# Thank You

## Questions/Comments

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Henry Stultz

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**cta**

san bernardino county  
transportation authority