

HDR



# Montgomery Avenue Pedestrian Crossing

City of Encinitas



# AGENDA

- Project History and Goals
- Existing Condition and Observations
- Grade Separation Evaluation
- At-Grade Crossing Alternative
  - Wayside Horn Demonstration
- Overpass Alternative
- Underpass Alternative
- Next Steps



# Project History

- 2009 PSR
- Council Decisions
  
- Need
  - Future Train Projections
  - Pedestrian Counts
  - SANDAG Prioritization Study
  - Future NCTD Fencing
  
- Nearby Projects
  - Coastal Rail Trail
  - San Elijo Lagoon Double Track
  - Future Trench LOSSAN EIR



# Project Goals

## GOALS

### SAFETY

Provide a safe, protected path across the railroad in an already active area

### ACCESS

Provide a key connection for pedestrians and bicyclists to access local destinations

### EASE OF USE

Provide a crossing that is convenient and easy to navigate



# PROJECT LOCATION

Montgomery Avenue





# PROJECT LOCATION

Montgomery Avenue

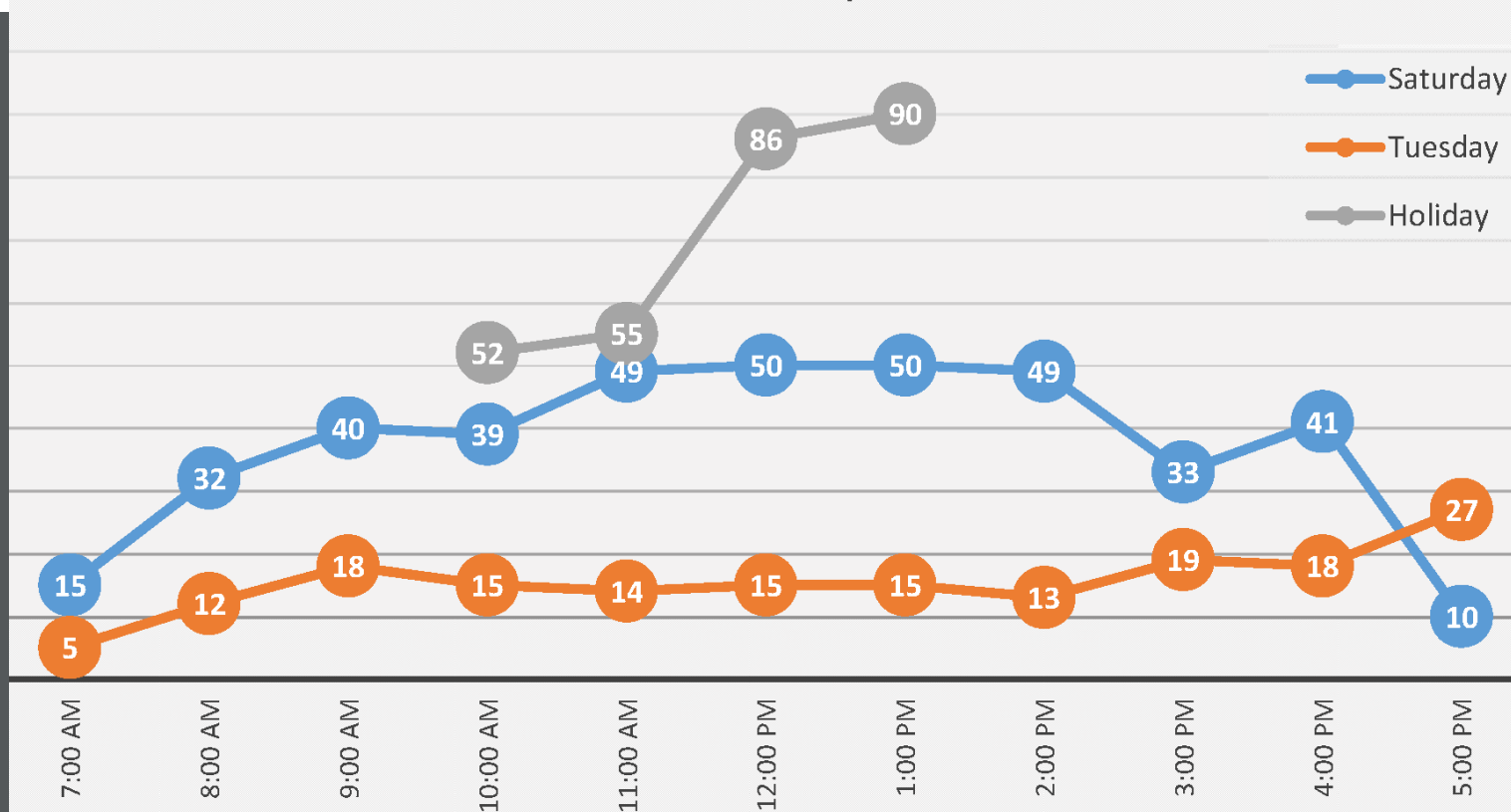


# PEDESTRIAN CROSSING OBSERVATION

- Observation over Presidents Day Weekend 2016
  - Saturday, February 13<sup>th</sup> (7am to 6pm)
  - Monday, February 15<sup>th</sup> (10am to 2pm)
  - Tuesday, February 16<sup>th</sup> (7am to 6pm)
- 408 Crossings on Saturday
- 171 Crossings on Tuesday

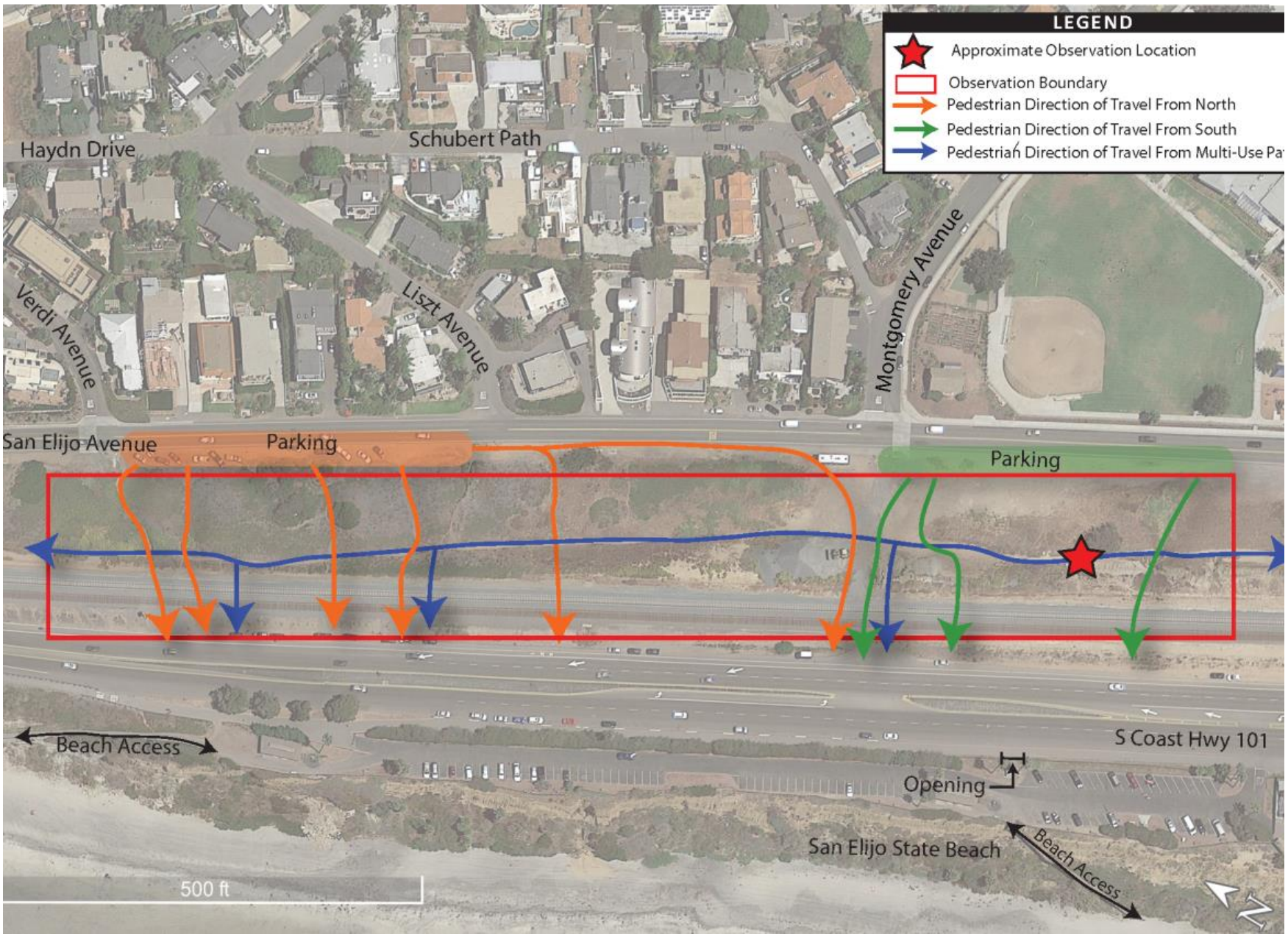
## Pedestrian Activity

7:00am - 6:00pm

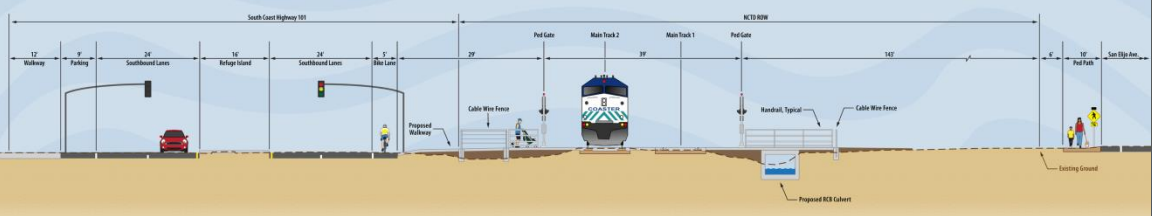
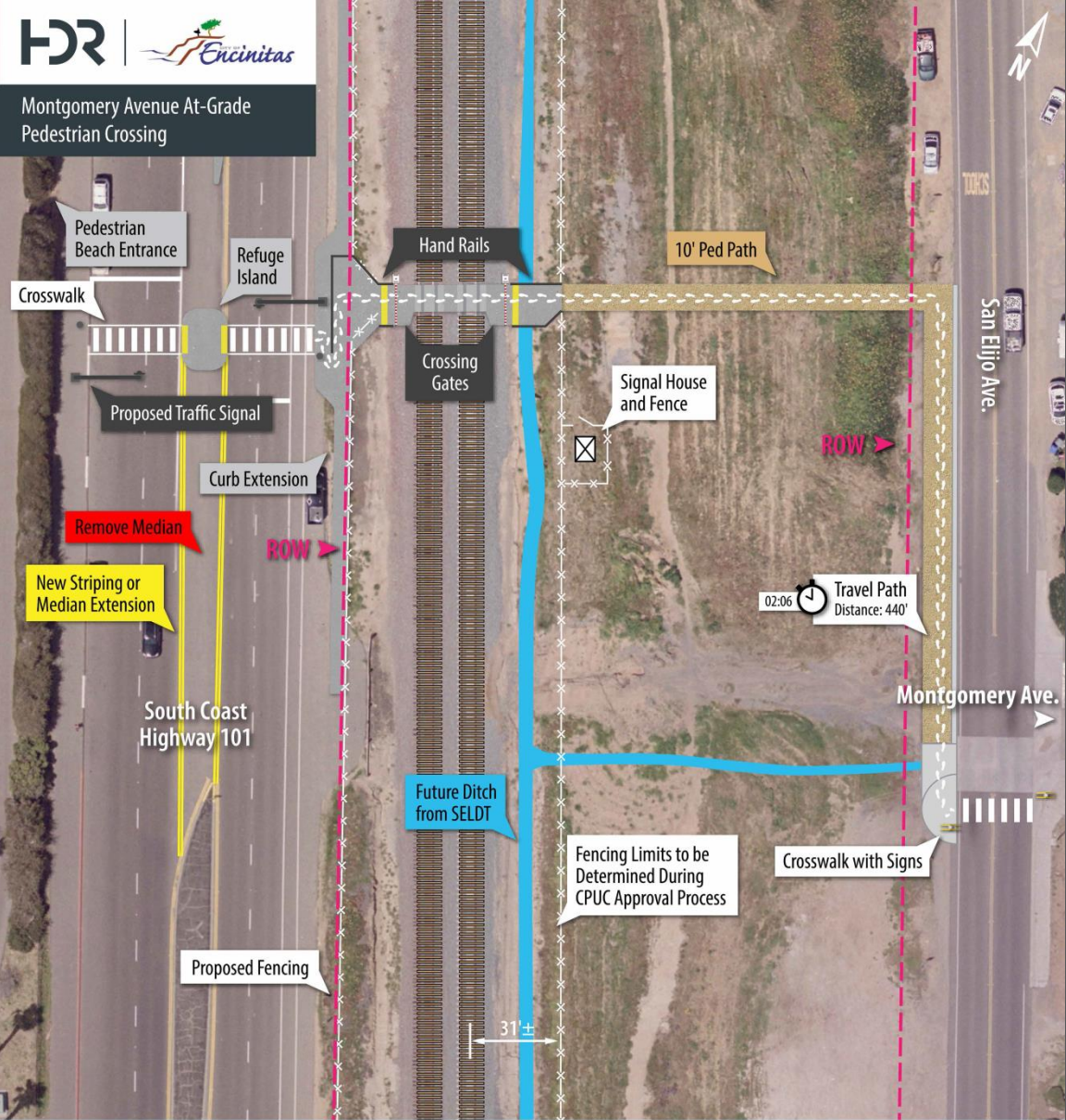




# PEDESTRIAN CROSSING OBSERVATION



Montgomery Avenue At-Grade Pedestrian Crossing

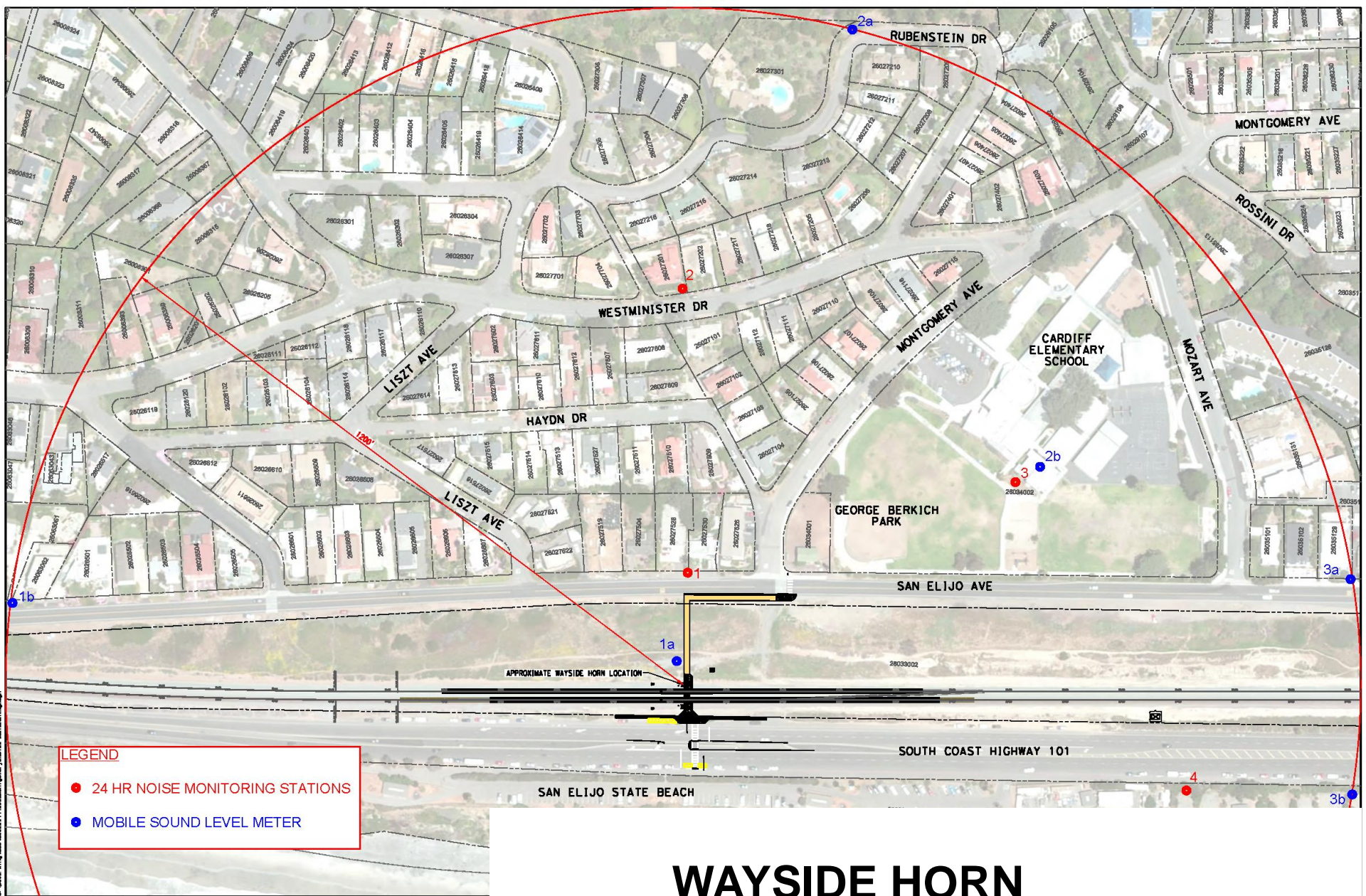


# AT-GRADE PEDESTRIAN CROSSING

# AT-GRADE CROSSING FEATURES

- CPUC No. 9 Warning Gates, Flashers and Signs
- 10' wide walkway
- 505' long path from San Elijo Avenue to Coast Highway
- 4' vertical change in path
- Advantages
  - Least expensive option
  - Minimal environmental and visual impact
  - Shortest traveled distance and ease of use
- Disadvantages
  - Not grade separated
  - Noise from bells and rail horn





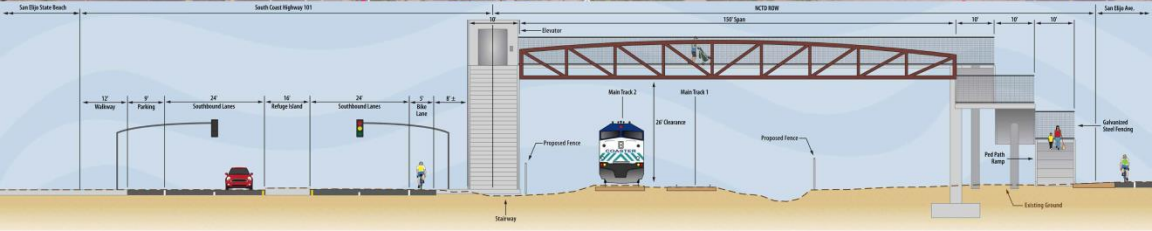
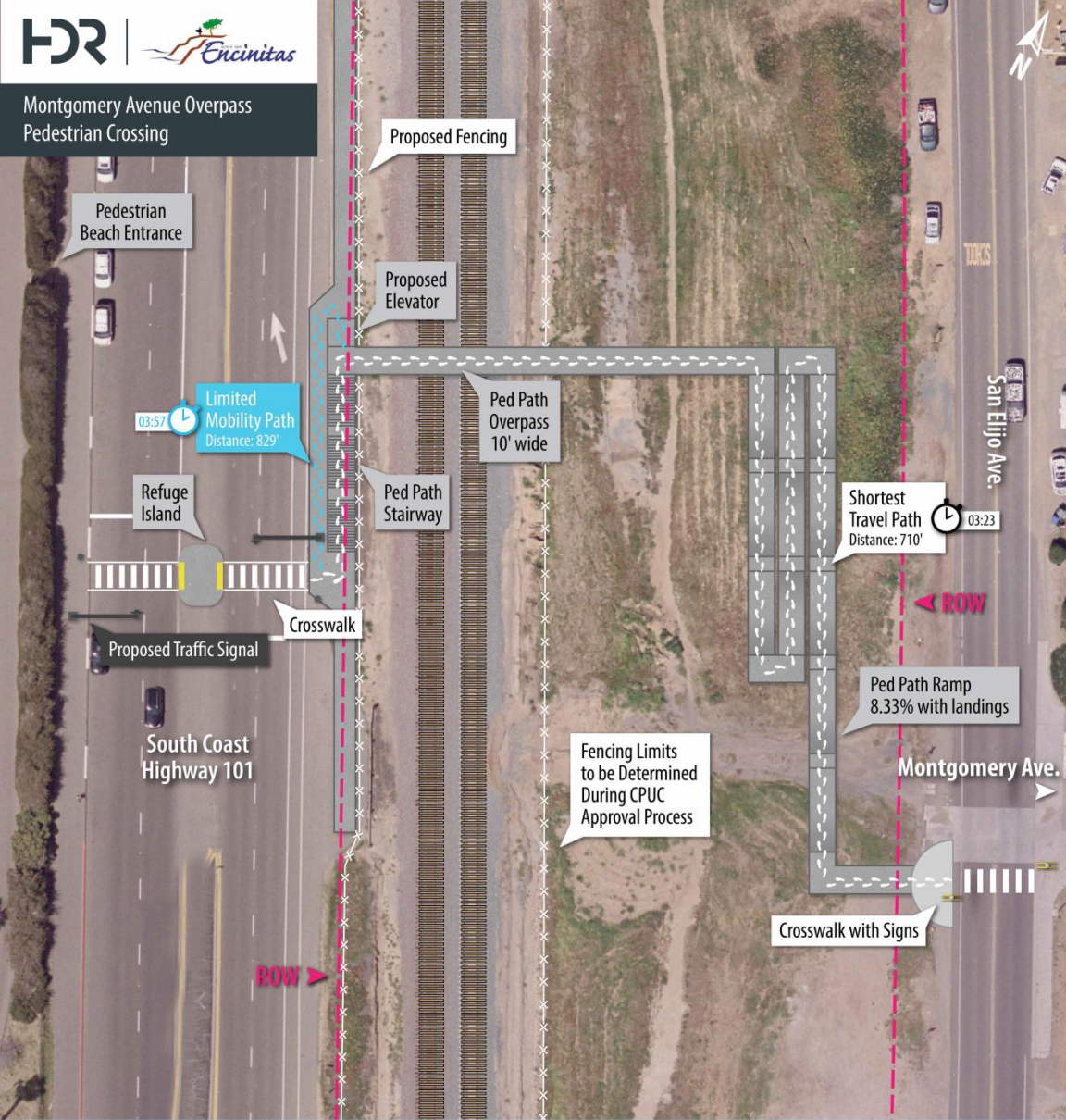
# WAYSIDE HORN DEMONSTRATION MONITORING LOCATIONS

# WAYSIDE HORN DEMONSTRATION

- 3 – 24 hour stationary noise monitors
- 3 – Mobile monitoring stations during testing
  - 2 locations each
- 1200' foot recommended limit per FTA
- Horn Options
- Anticipated demonstration date



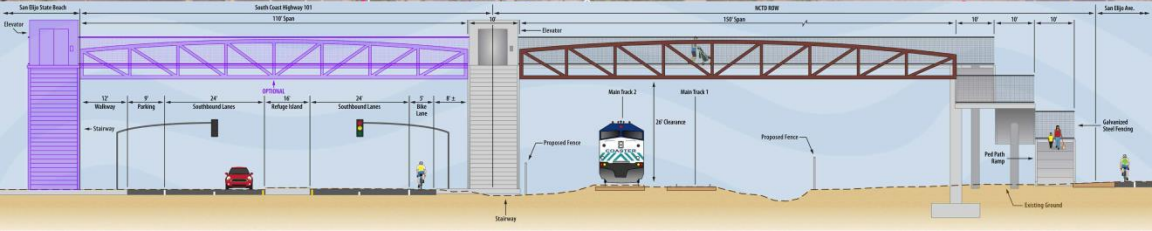
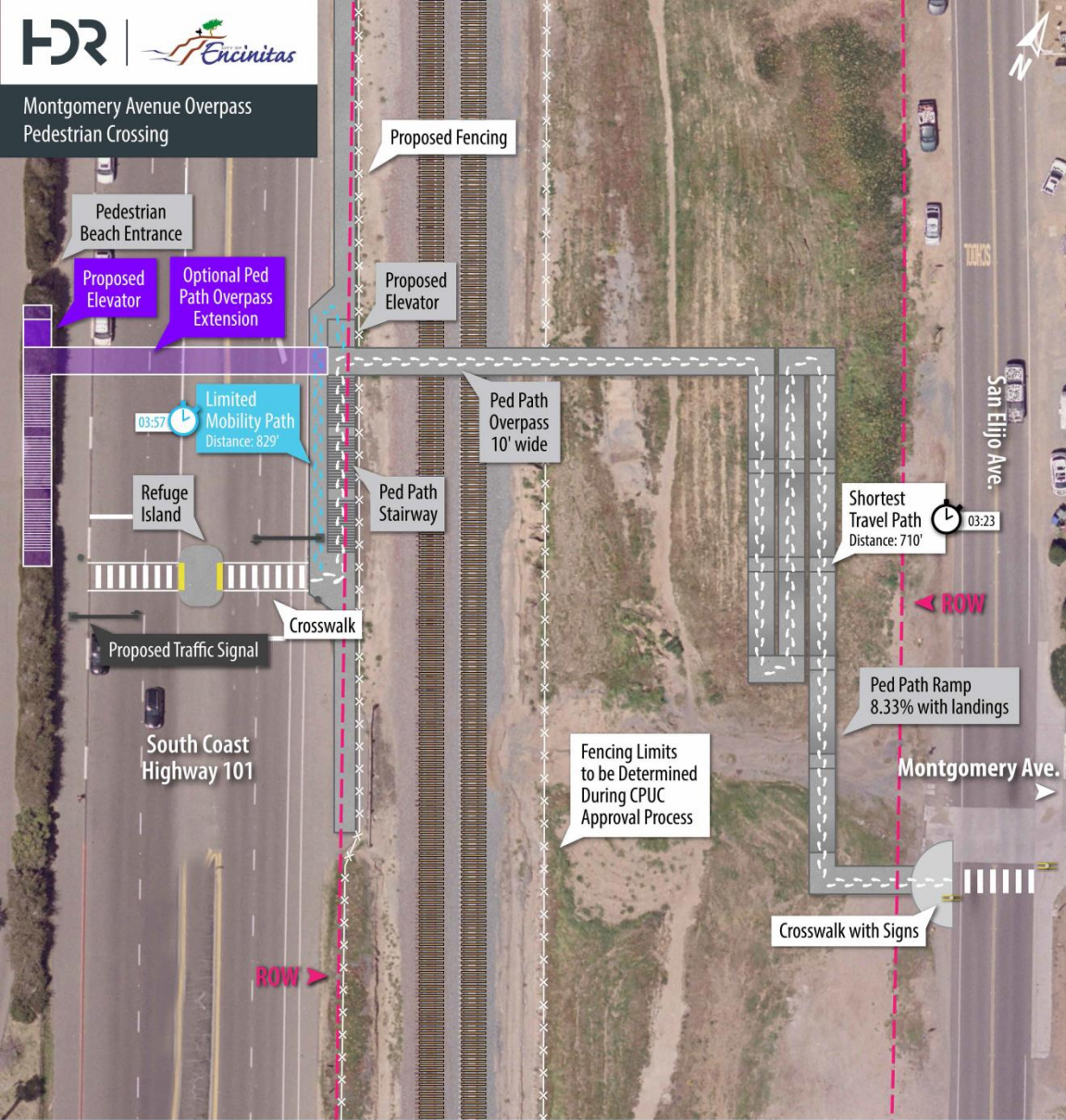
Montgomery Avenue Overpass  
Pedestrian Crossing



# OVERPASS

## PEDESTRIAN CROSSING

Montgomery Avenue Overpass  
Pedestrian Crossing



# OVERPASS + 101

## PEDESTRIAN CROSSING

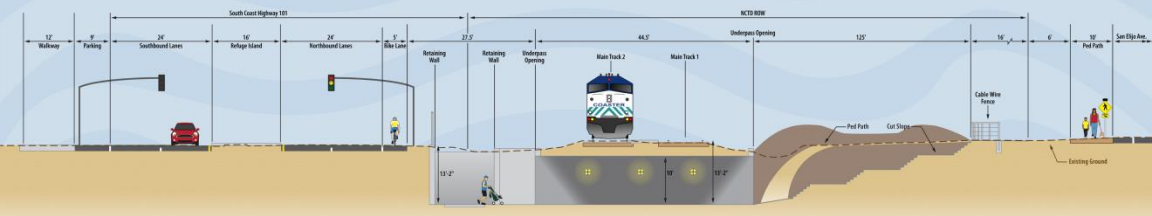
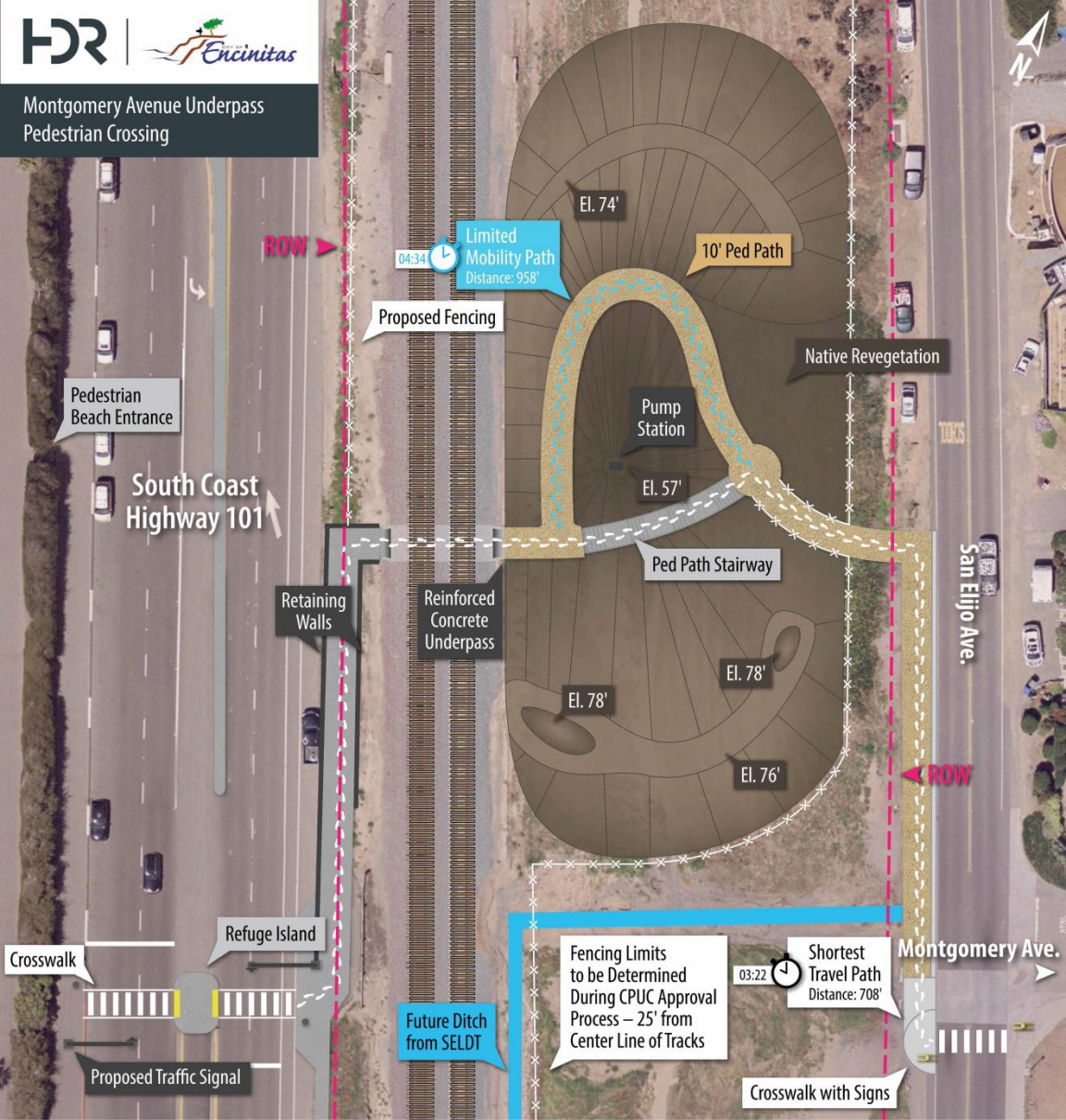
# OVERPASS CROSSING FEATURES

- Truss bridge over Railroad, and potentially over Coast Highway
- Ramps on east and stairs/elevator on west
- 736' long path from San Elijo Avenue to Coast Highway
- 28' vertical change in path
- Advantages
  - Grade separated crossing
  - Open air structure provides pedestrian view of entire crossing route
  - No bells or train horn
- Disadvantages
  - Over 30' high requires voter approval from Proposition A "Right to Vote Amendment"
  - Total height approx. 40' would obstruct views
  - Length of path and vertical change difficult for users with limited mobility or beach equipment





Montgomery Avenue Underpass  
Pedestrian Crossing



# UNDERPASS

## PEDESTRIAN CROSSING



# UNDERPASS

VISUAL SIMULATION 1



# UNDERPASS

VISUAL SIMULATION 2



# UNDERPASS

VISUAL SIMULATION 3



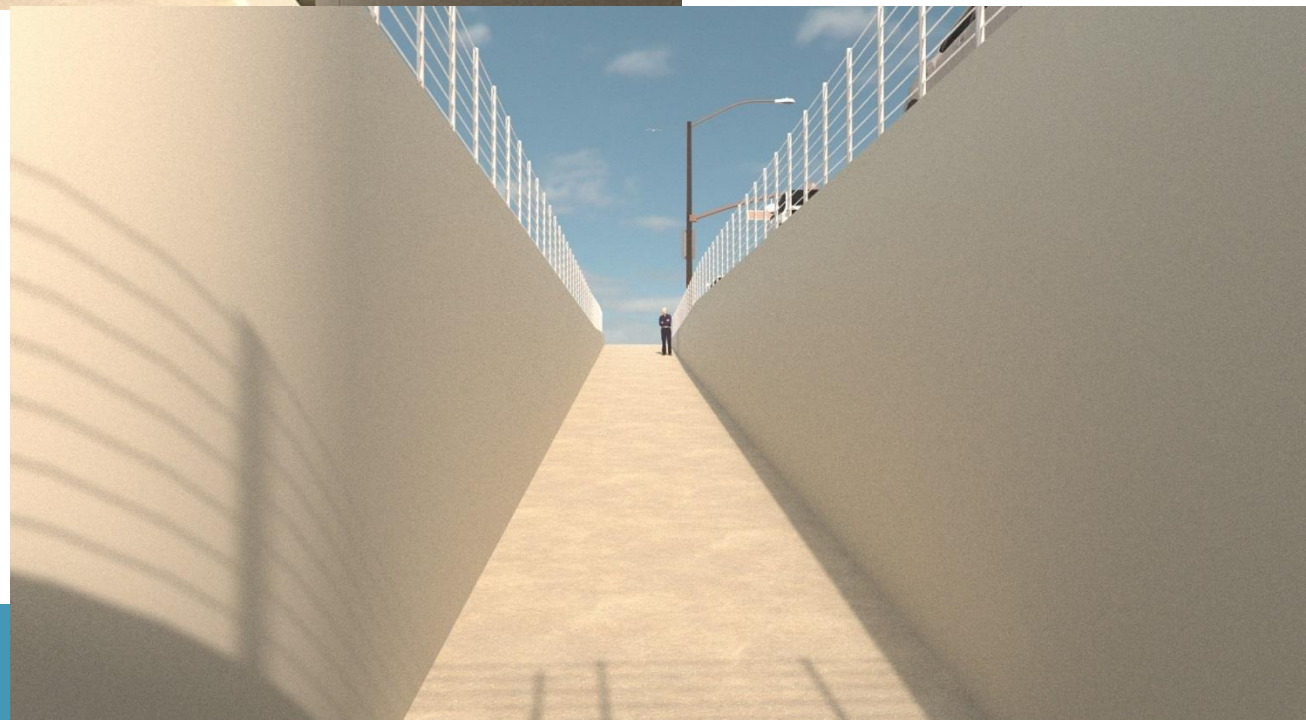
# UNDERPASS

VISUAL SIMULATION 4



# UNDERPASS

VISUAL SIMULATION 5



# UNDERPASS CROSSING FEATURES

- Tunnel under Railroad
- Ramps and stairs on east, ramp in trench with retaining walls on west
- 948' long path from San Elijo Avenue to Coast Highway
- 17' vertical change in path
- Advantages
  - Grade separated crossing
  - No bells or train horn
  - No impact to ocean view
- Disadvantages
  - Tunnel with obstructed views of approaching paths- potential security and vandalism risks
  - Potential for flooding and increased maintenance
  - Largest environmental impact, and longest traveled path
  - Most expensive alternative

