

PIER RAILING REPLACEMENT PROJECT

FEBRUARY 16, 2021



PROJECT BACKGROUND



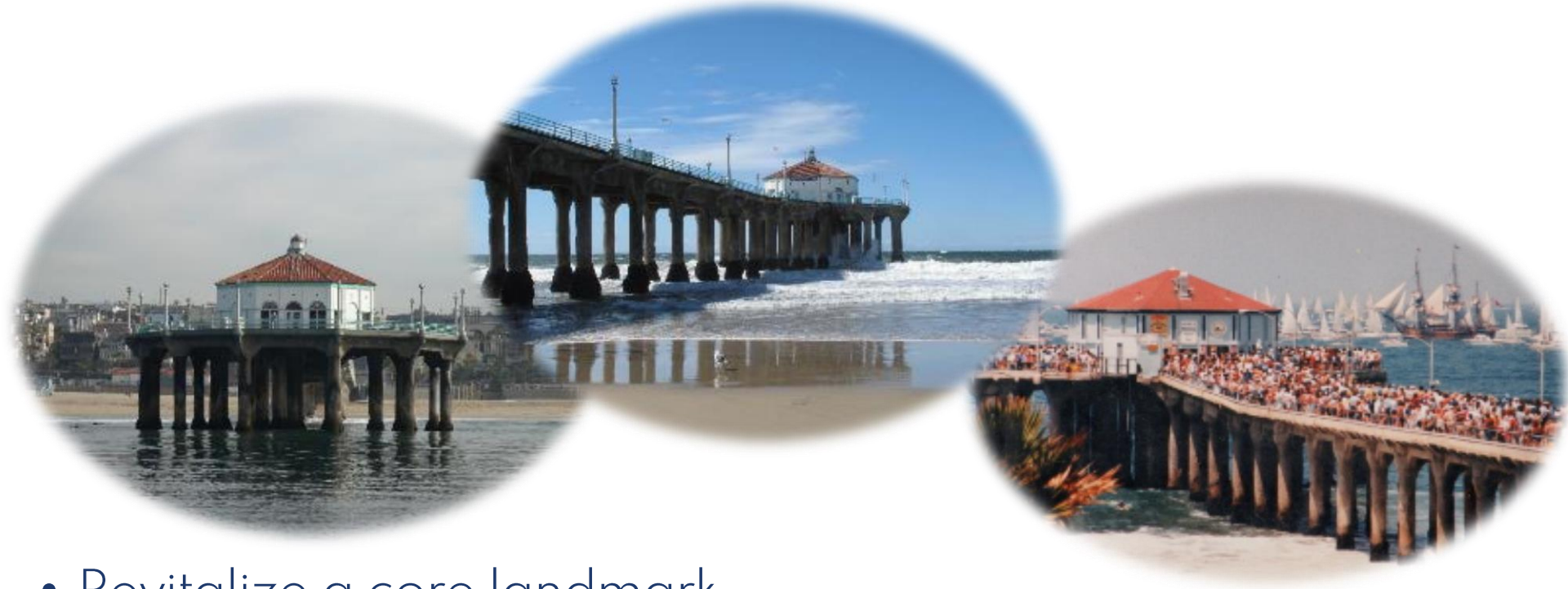
moffatt & nichol



- Project Team – City Public Works and Moffatt & Nichol
- Key Stakeholder Outreach (CA Parks, LA County, City MB)
- Development of three Conceptual Alternatives
- Initial Regulatory Agency Coordination (Coastal Commission, USACE, RWQCB)
- October 2020 Public Outreach Community Meeting



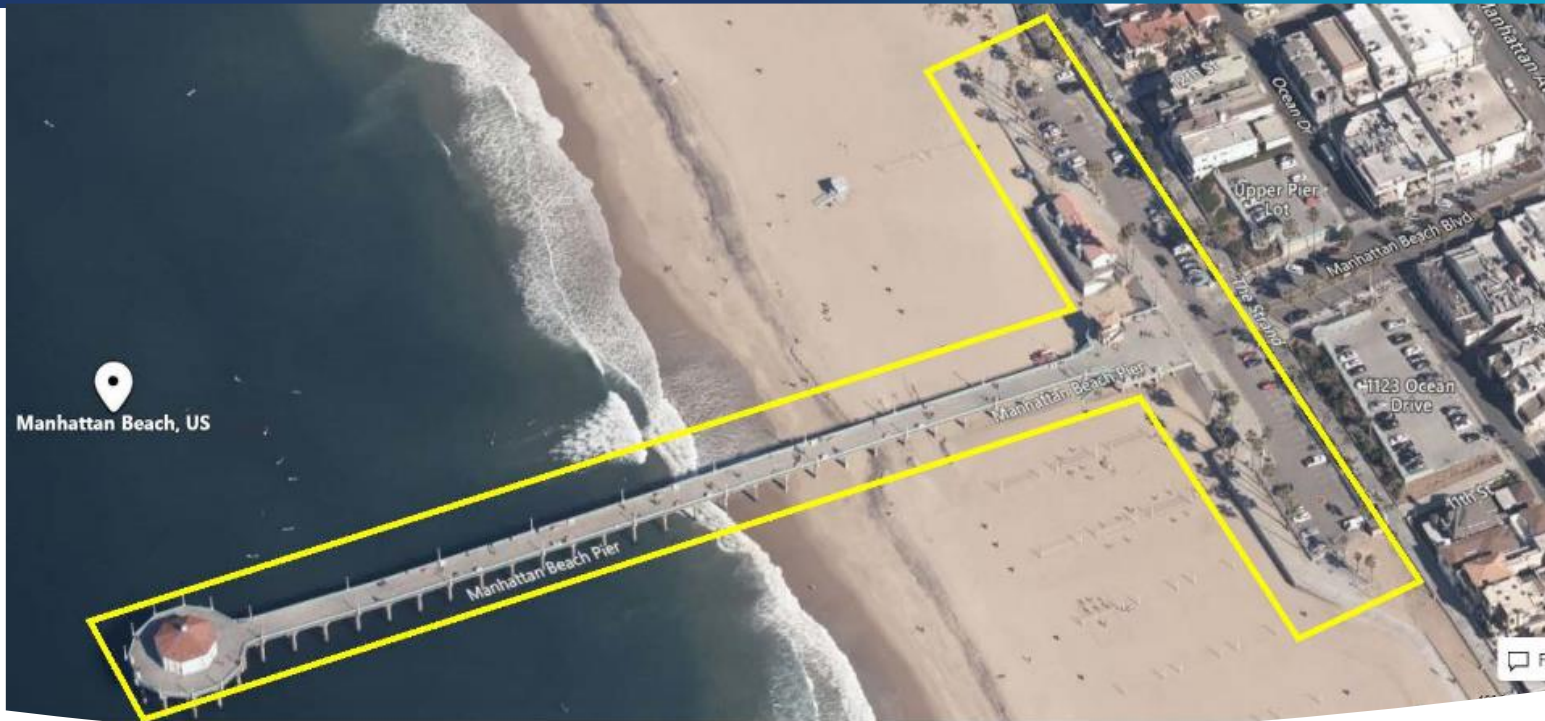
PROJECT OBJECTIVE



- Revitalize a core landmark
- Provide a modernized railing system with enhancements in safety and minimizing maintenance
- Preserve iconic character of the Pier



PROJECT LIMITS



- Perimeter of Pier and Entrance Gates
- Lower Parking Lots and Restroom Area Railing
- Bike Path Railing at base of Pier



EXISTING RAILING



MB Pier, circa 1937



MB Pier, circa 2021



- 1917-1920 Manhattan Beach Pier was first constructed
- 1956 -1960 Two-rail steel pipe system was replaced with four-rail steel pipe system
- 1986 -1992 The current four-rail system was installed to replace corroded system
- Roughly 28-34 years since last railing replacement



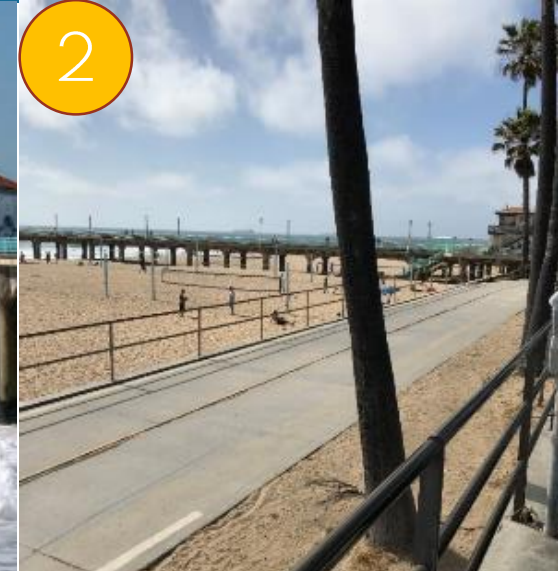
PROJECT NEED

- Advanced deterioration in several locations
- Existing railing is not removable making maintenance more difficult
- Existing railing system does not match style, color and code compliance



REPLACEMENT CONSIDERATIONS

1. Existing Site Constraints and Maintenance Considerations
2. Existing railing consistency
3. Historic and regulatory considerations



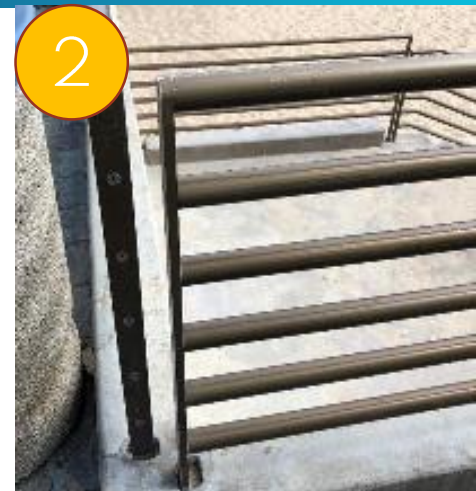
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Regulatory Permit Process



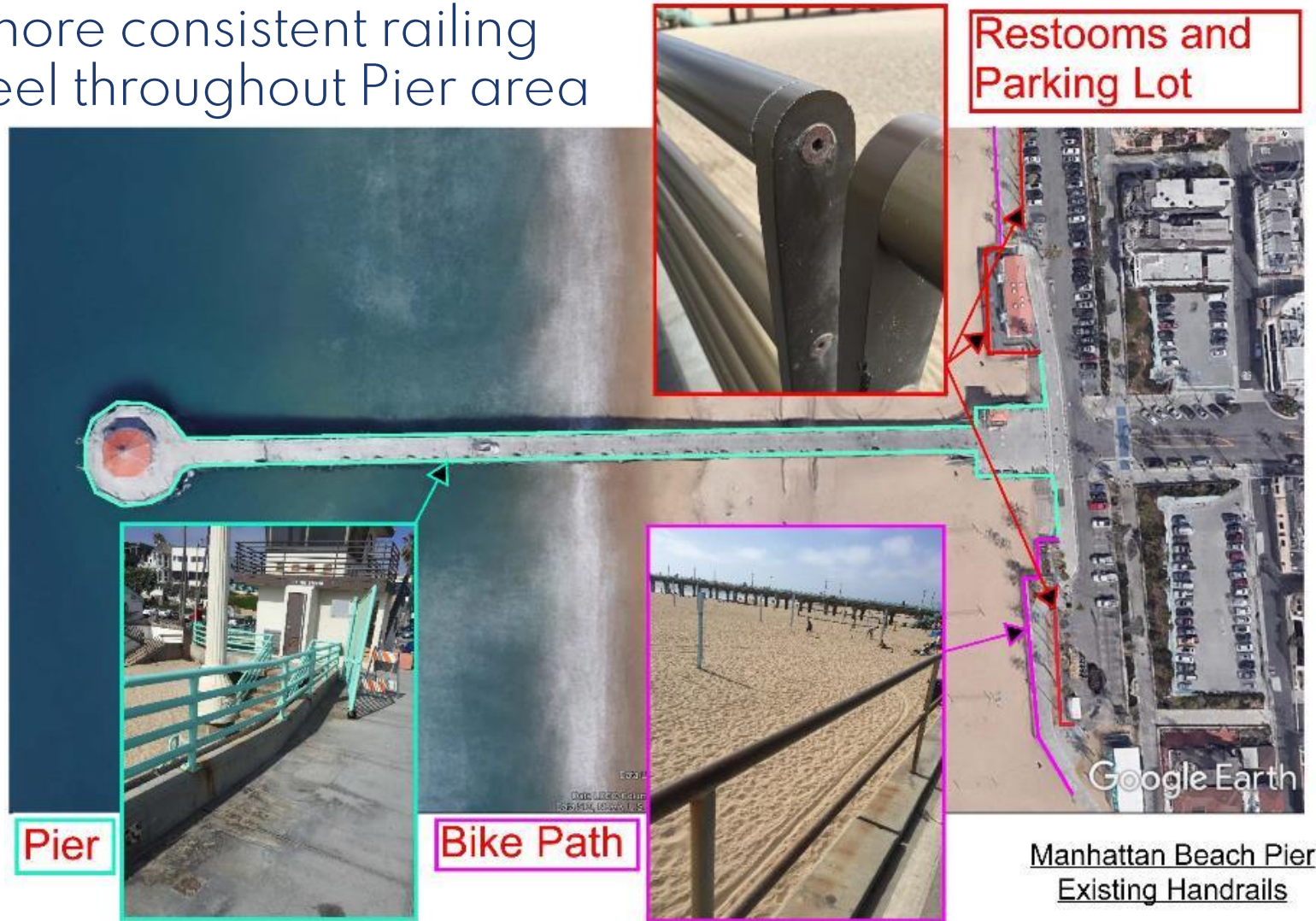
SITE CONSTRAINTS & MAINTENANCE

1. Solve awkward transition between various mounting conditions: Existing curb, steps, and sidewalk
2. Provide segmented railings for ability to replace in segments
3. Use modern materials that are more resilient and easier to maintain
4. Accommodate existing equipment / signage



EXISTING RAILING CONSISTENCY

- Create a more consistent railing look and feel throughout Pier area



HISTORIC & REGULATORY

1. State Parks Historical Review
 - 1995 – Historic Landmark
 - Style (Round Horizontal Railing)
 - Color (Sea Foam Green)
2. Building Code and ADA Compliance
3. State and Regulatory Agencies
 - Public Access
 - Maintain view corridors

4-inch Max Clear



ALT 1 - ENHANCED REPLACEMENT

Preferred Alternative – Match style of existing railing with minor modifications to meet current building codes and accommodate maintenance considerations

Pros:

- Similar in style to the existing railing
- Removable segments to aid in maintenance
- Aluminum rails to reduce corrosion potential
- Least expensive to construct

Cons:

- One additional horizontal rail
- Additional base plates and anchor bolts, needed for structural integrity



ALT 2 – REPLACE IN KIND

Match exact style of existing railing with minimal modifications to meet current building codes

Pros:

- Closest in style to the existing railing configuration
- Minimum number of rails

Cons:

- Continuous vs segmented. Difficult to have removable segments
- Larger bulky rails not as appealing, and require large mounting plates
- More expensive to construct
- Require the most maintenance



ALT 3 – MODERNIZED REPLACEMENT

Modern railing system with smaller horizontal rails and removable wood or composite top cap

Pros:

- Wide top rail is ergonomic and removable.
- Removable segments to aid in maintenance

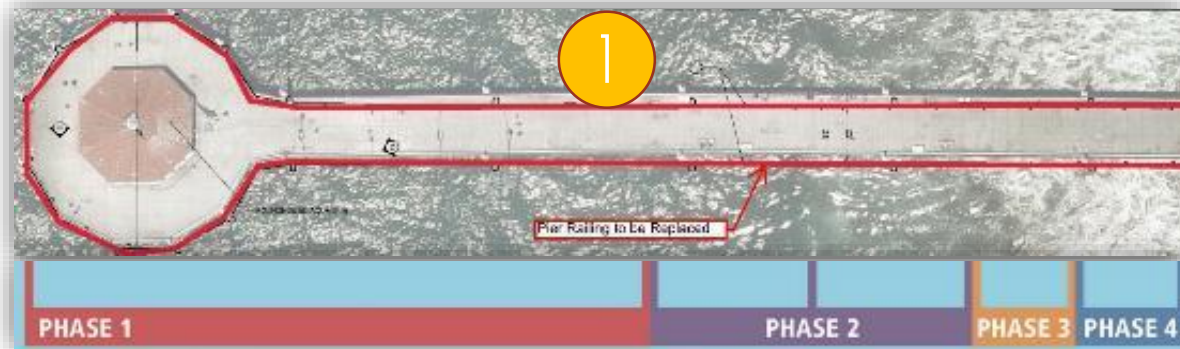
Cons:

- Does NOT closely maintain existing character of the Pier
- Multiple material types
- Requires additional mounting base plates and connections
- Most expensive to construct

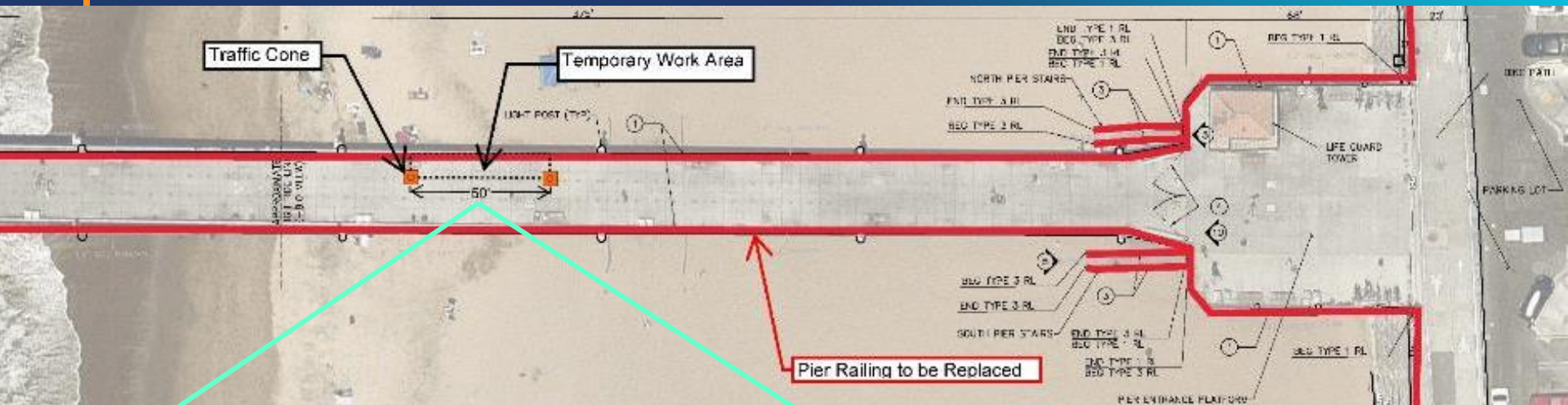


CONSTRUCTION CONSIDERATIONS

1. Construction Phasing
2. Public Access and Traffic Control
3. Staging
4. Coordination with Special Events



PIER ACCESS DURING CONSTRUCTION

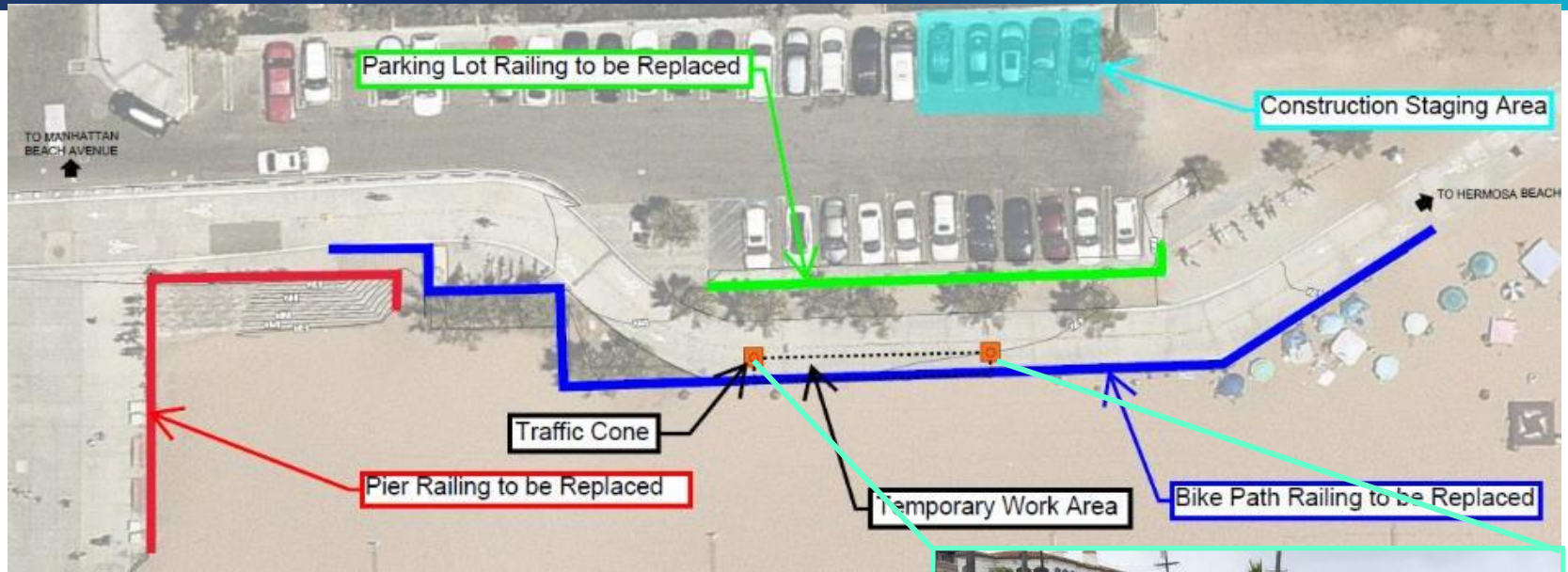


- Minimize Temporary Construction Zone Areas along the Pier

Typical 50ft Area



BIKE PATH AND PARKING LOT ACCESS



- Minimize Temporary Construction Zone areas along Bike Path and Staging area in Lower Pier Parking Lot

Maintain Access



RANGE OF MAGNITUDE (ROM) COST

Preferred Alternative #1: Engineer's Estimate = \$1.5M
Cost Range = \$1.1M to \$1.8M (-30% to +20%)
Plus construction support service costs of \$150,000

Alternative #2: Engineer's Estimate = \$1.6M

Alternative #3: Engineer's Estimate = \$1.8M

- Funding Plan: FY 21/22 @ \$1,650,000 State Pier and Parking Fund



ESTIMATED TIMELINE AND NEXT STEPS



- Final Design
- Submit Regulatory Permit Exemption Applications
- Building Division Plan Check
- Bidding and Construction Award
- Begin Construction - 2022
- Complete Construction

Final Design and
Regulatory
Agency Approval
Feb – Aug 2021

City Plan Check
Aug – Oct 2021

Bid & Award
Nov – Jan
2022

Construction
Feb – July
2022



STAFF RECOMMENDATION

Staff Recommends that City Council:

1. Adopt resolution approving the preferred design Alternative No. 1 – Enhanced Replacement
2. Approve the funding plan
3. Direct staff to proceed with final design and advertise the Project for construction bidding

