Matilija Dam Ecosystem Restoration Project

Camino Cielo Bridge Replacement

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Purpose of Camino Cielo Bridge Replacement

- To allow river restoration and provide fish passage.
- To convey flood and sediment flows.
Progress to Date

- Thorough examination of 3 Alternatives (with sub-alternatives)
- Onsite Public Meeting (at local residence)
- Property Owner Outreach
- Grant Application and Award
Alternative 2 – At Existing Alignment
Alternative 2 – At Existing Alignment
Property Owner Outreach

- Alternative 2B requires property acquisition
- Owner is not a willing seller.
- Alternative 2A, closer to existing alignment, will be pursued
Alternative 2 – At Existing Alignment

Looking north on Camino Cielo Road

Looking upstream at Existing Bridge
Alternative 2 – At Existing Alignment

Looking east on Camino Cielo Road

Looking west on Camino Cielo Road

Roadway Elevation
Alternative 2 – At Existing Alignment

Looking south on Camino Cielo Rd at Conform

Looking east on Camino Cielo Road

Roadway Conform

Roadway Elevation
Alternative 2A – River Bridge

DEVELOPED ELEVATION

190' Bridge

"C" LINE

TYPICAL SECTION

PUBLIC WORKS
Alternative 2 – Direct Access Ramp Bridge
Alternative 2B – River Bridge

DEVELOPED ELEVATION

230' Bridge

TYPICAL SECTION
Alternative 2 – Road Layout
Alternative 2 – Retaining Wall

CAMINO CIELO ROAD
"C-2A" LINE 504+31.19 TO 508+60.00
"C-2B" LINE 203+58.88 TO 210+88.00
NOT TO SCALE
Hydraulics

- High velocity flow requires very large rock slope protection
- Average channel velocity = 22 ft/s
- Backwater developed at bridge due to narrowing channel
- No structures impacted by backwater
Camino Cielo Bridge Construction Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Alt 2A Cost*</th>
<th>Alt 2B Cost*</th>
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</thead>
<tbody>
<tr>
<td>Roadwork</td>
<td>$2,910,000</td>
<td>$2,920,000</td>
</tr>
<tr>
<td>Retaining Walls</td>
<td>$4,780,000</td>
<td>$4,780,000</td>
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<tr>
<td>River and DAR Bridges</td>
<td>$8,360,000</td>
<td>$6,570,000</td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>$16,050,000</strong></td>
<td><strong>$14,270,000</strong></td>
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*Includes 25% Contingency. Cost in 2020 Dollars
Cost Saving Alternatives

• Conform road to existing as quickly as possible.
  • Existing road remains in floodplain and within 25 yr. storm
  • Retaining wall costs greatly reduced
  • Savings ~$3.0 M

• Eliminate DAR to Auric and leave existing road in place
  • Access will be via new road, then U-Turn back onto existing road
  • Savings ~$3.5 M
Moving Forward

• California Coastal Conservatory Grant Authorized
  • $735,000 total
  • $450,000 for Design; $150,000 for CEQA compliance; $135,000 for Watershed Management

• Finalize Preliminary Design Alternatives

• Begin Final Design in Summer 2021
  • Performed concurrent with CEQA compliance
  • Geotechnical borings will require permitting
Questions