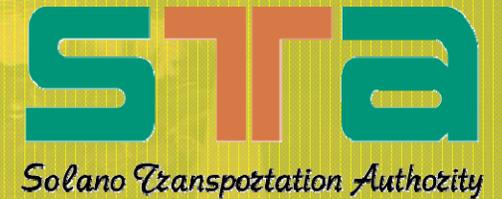


# The State Route (SR) 12 Realignment/Rio Vista Bridge Preliminary Study





# Project Review

## Corridor Deficiencies

- **SR-12 Corridor is Undersized for Projected Growth**
- **Safety Issues: Little to No Shoulders, No Turn Lanes at Many Intersections & High Accident Rates**
- **Bridge Openings Cause Long Backups/Delays – Port of West Sacramento Planning to Expand Operations**

**Congestion Will Worsen over Time**

## Projected Needs

- **4-Lane SR-12 Facility**
- **4 Lanes Across the River**
- **Minimize/Eliminate Conflict Between Road & River Traffic**



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## Project Purpose

- **Establish Feasible Corridor Alternatives**
  - Address Future Corridor Needs
  - Account for Planned Development – **LOCAL & REGIONAL**
  - Incorporate Community & Stakeholder Concerns
- **Right-of-Way Preservation – City General Plan Update to Prevent Preclusion of Currently Viable Corridors**
- **Define Future Project Phases**
- **Update the Estimated Project Cost**
- **Identify Potential Funding Sources**



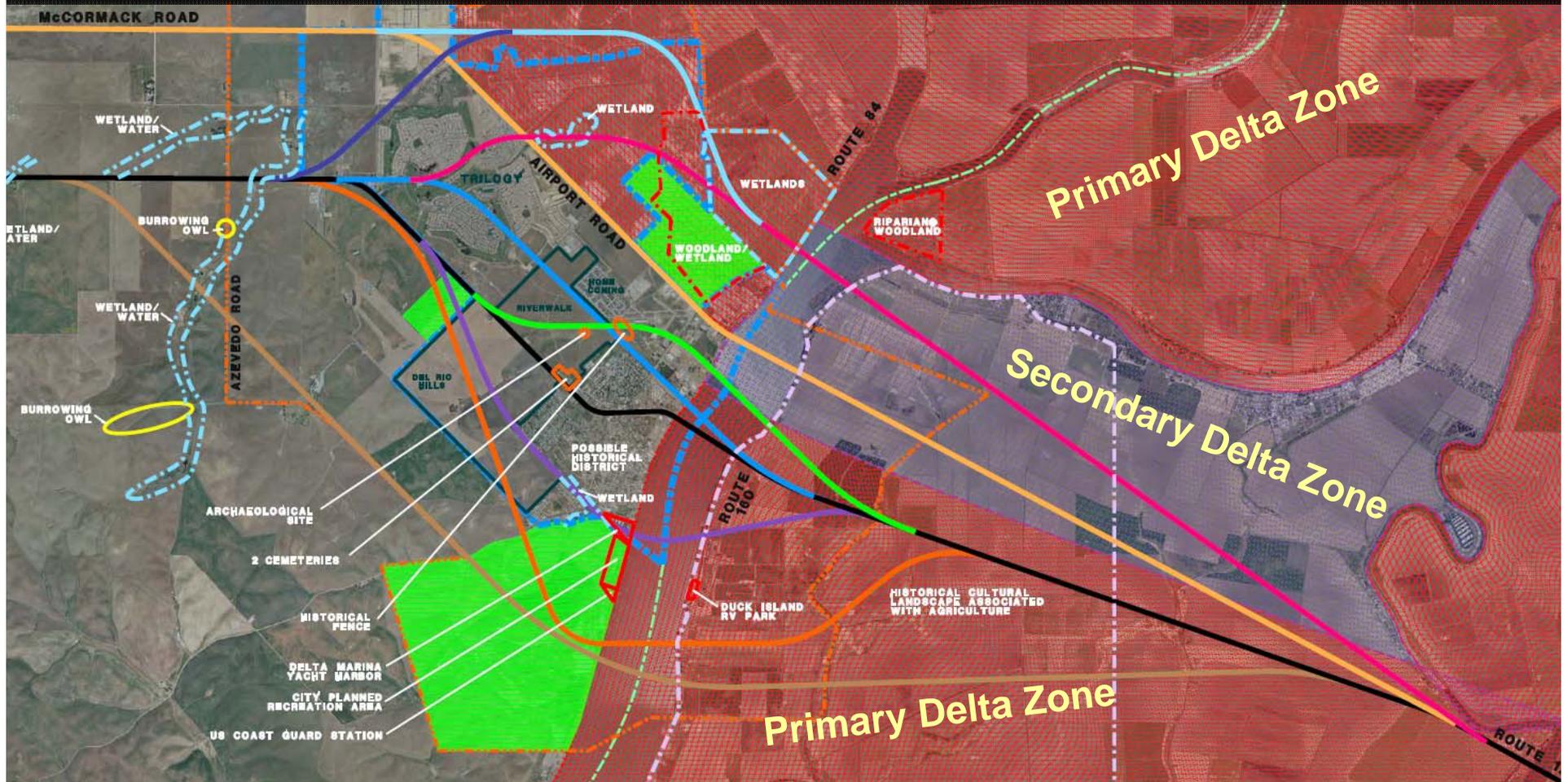
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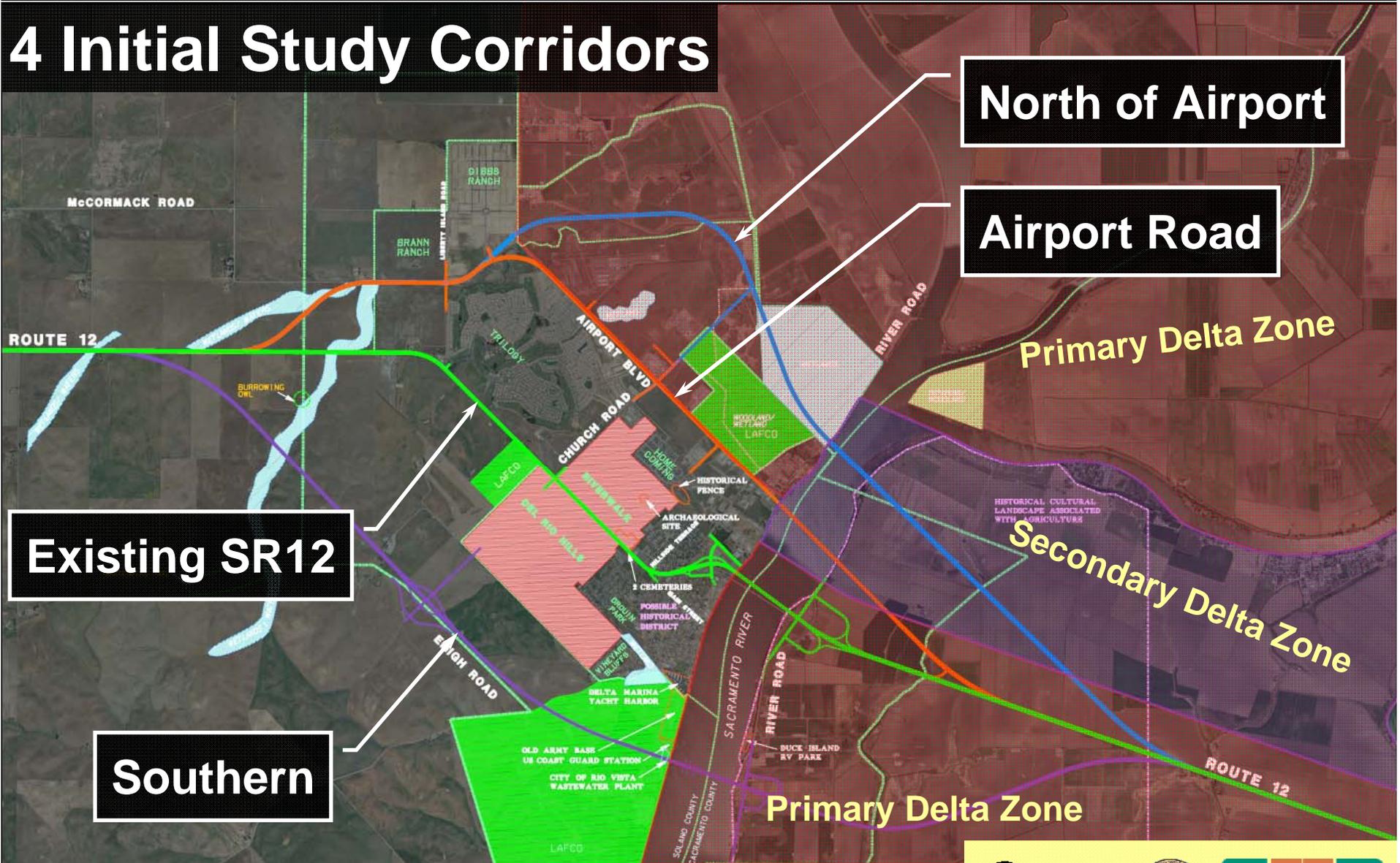
# Project Review

## 1994 CALTRANS Study Corridors: Assessed with respect to current constraints



# Project Review

## 4 Initial Study Corridors



North of Airport

Airport Road

Existing SR12

Southern

Primary Delta Zone

Secondary Delta Zone

Primary Delta Zone

# Project Review

## COMPLETED WORK

- **Planning Level Documentation of Project Constraints**
  - Environmental
  - Engineering
  - Development / Local Preferences
- **Performed More Refined Engineering Study**
  - Developed Preliminary Alignments
  - Developed Preliminary Vertical Profiles
  - Developed Preliminary Bridge & Tunnel Layouts
  - Developed 3D Models / Renderings
- **Developed Recommendation for Three Alternatives**
- **Updated Project Cost Estimates**
- **Investigated Potential Funding Sources / Strategies**
- **Developed Draft Preliminary Bridge Report**



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# Project Review

## Remaining Work

- **Finalize Documentation of Community/Stakeholder Input**
- **Finalize Preliminary Bridge Report**
- **Release Report for use by SR12 MIS – I-80 to I-5**
- **Make Report Available on the Project Web Site**



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# Community + City Comments

## ➤ Summer 2008 – Stakeholder Interviews

- Performed interviews of key public, business & community members to obtain initial feedback

## ➤ September 24, 2008 Special Meeting of City Council

- Presented project overview + solicited City input/comment
- Presented feedback from Stakeholder Interviews

## ➤ May 21, 2009 Public Workshop

- Presented overview of project history, purpose, goals and objectives
- Introduced web site & ways to obtain information & submit comments
- Breakout sessions for technical and public information

## ➤ August 26, 2009 Special Meeting of City Council

- Provided progress update
- Presented alternative comparisons – advantages/disadvantages of potential corridors and solicited City comment and discussion
- Led to October, 2009 Town Hall Meeting that generated comments from the community perspective – Comments forwarded to the project team



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# Community + City Comments

## General Feedback

- **Concern that something needs to be done to improve SR12 and the river crossing**
- **Split on realignment Vs. use of the existing SR12 route**
  - Realignment Supporters – Community Safety + Existing splits town
  - Existing Route Supporters – Business/Development Impacts
- **Split on crossing type – tunnel, mid or high level bridge**
- **Questions regarding a Toll Bridge and how that would impact local residents**
- **No general consensus on disposition of existing bridge**



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# Community + City Comments

## Responses to Comments / Questions

- **Posted presentations, information & exhibits on web site**
- **Investigated actual number of bridge openings**
- **Completed preliminary assessment of City access for each alternative**
- **Assessed each alternative with respect to the current City General Plan language**
- **Discussed ways to address resident's concern regarding impact of bridge tolls**



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# Community + City Comments

## Responses to Comments / Questions

- **Completed stakeholder interviews with local business and developers**
- **Discussed idea of dredging a new ship channel on east side of river with the Port of West Sacramento**
- **Developed preliminary layout of ramps, interchanges and access points**
- **Developed visual aids to help show how alternatives would look**



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# Project Update

## ➤ Posted presentations, exhibits & reports on web



[www.riovistabridge.com](http://www.riovistabridge.com)

Meeting Presentations & Summaries

Fact Sheets

Newsletters

Reports

### News & Media

#### PUBLIC MEETING

##### Coming Up

**When:** 6:30-8:30 p.m., February 25, 2010

**Where:** White Elementary School, 500 Elm Way, Rio Vista

**What:** Potential corridor advantages and disadvantages associated with engineering, environmental and navigational constraints

#### Previous Meeting

The project team held a Public Information Workshop on May 28, 2009. View the PowerPoint presentation and meeting recap.

#### Fact Sheets

- View the Winter 2010 project fact sheet
- View the Spring 2009 project fact sheet

#### Newsletters

- View the Winter 2010 Newsletter
- View the Spring 2009 Newsletter

#### Reports

- SR 12/Rio Vista Bridge Preliminary Study Traffic Forecasting Memorandum
- 1994 Rio Vista Bridge Preliminary Environmental Analysis Report
- 1994 Rio Vista Bridge Planning Study Report River Bridge Plans
- 1994 Rio Vista Bridge ISA Figures
- 1994 Rio Vista Bridge Project Feasibility Report
- 1993 Rio Vista Bridge Funding Evaluation
- 1993 Rio Vista Bridge Geotechnical Engineering Review
- 1993 Rio Vista High Bridge Study
- 1992 Rio Vista Bridge Preliminary Site Selection Report



# Project Update

## ➤ Investigated actual number of bridge openings

### Caltrans Bridge Operation Records

Month / Year	No. of Openings / Month	Average No. / Day
April 2009	76	3
March 2009	72	2
February 2009	56	2
January 2009	80	3
December 2008	59	2
November 2008	136	5
October 2008	220	7
September 2008	302	10
August 2008	199	6
July 2008	176	6
June 2008	127	4
May 2008	173	6

# Project Update

## ➤ Port of West Sacramento Operations

Past No. of Ships:

110 Ships/year

220 Bridge Openings

Current No. of Ships

45 Ships/year

90 Bridge Openings

Permitted No. of Ships:

120 Ships/year

240 Bridge Openings

**PORT TO INCREASE SIZE AND NUMBER OF SHIPS**



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# Project Update

## ➤ Investigated required time to open/close bridge

Small Boats: 10 Minutes

Large Vessels/Cargo Ships: 25 Minutes

**Current Peak Traffic Volume: 2100 vehicles/hour**  
(2008 Caltrans Traffic Volumes) (both directions combined)

Small Boats: 350 Vehicles Backed Up  
( $\frac{1}{2}$  mile + each direction)

Large Vessels: 875 Vehicles Backed Up  
(1.25 mile + each direction)

**CONDITION WILL WORSEN WITH LOCAL/REGIONAL GROWTH**



# Project Update

## ➤ Backups will increase in length

Small Boats: 10 Minutes

Large Vessels/Cargo Ships: 25 Minutes

**2030 AM Peak Traffic Volume: 5531 vehicles/hour**  
(Project Traffic Memo Forecasts) (both directions combined)

Small Boats: 925 Vehicles Backed Up  
(1.3 mile + each direction)

Large Vessels: 2305 Vehicles Backed Up  
(3.25 mile + each direction)



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California High-Speed Rail



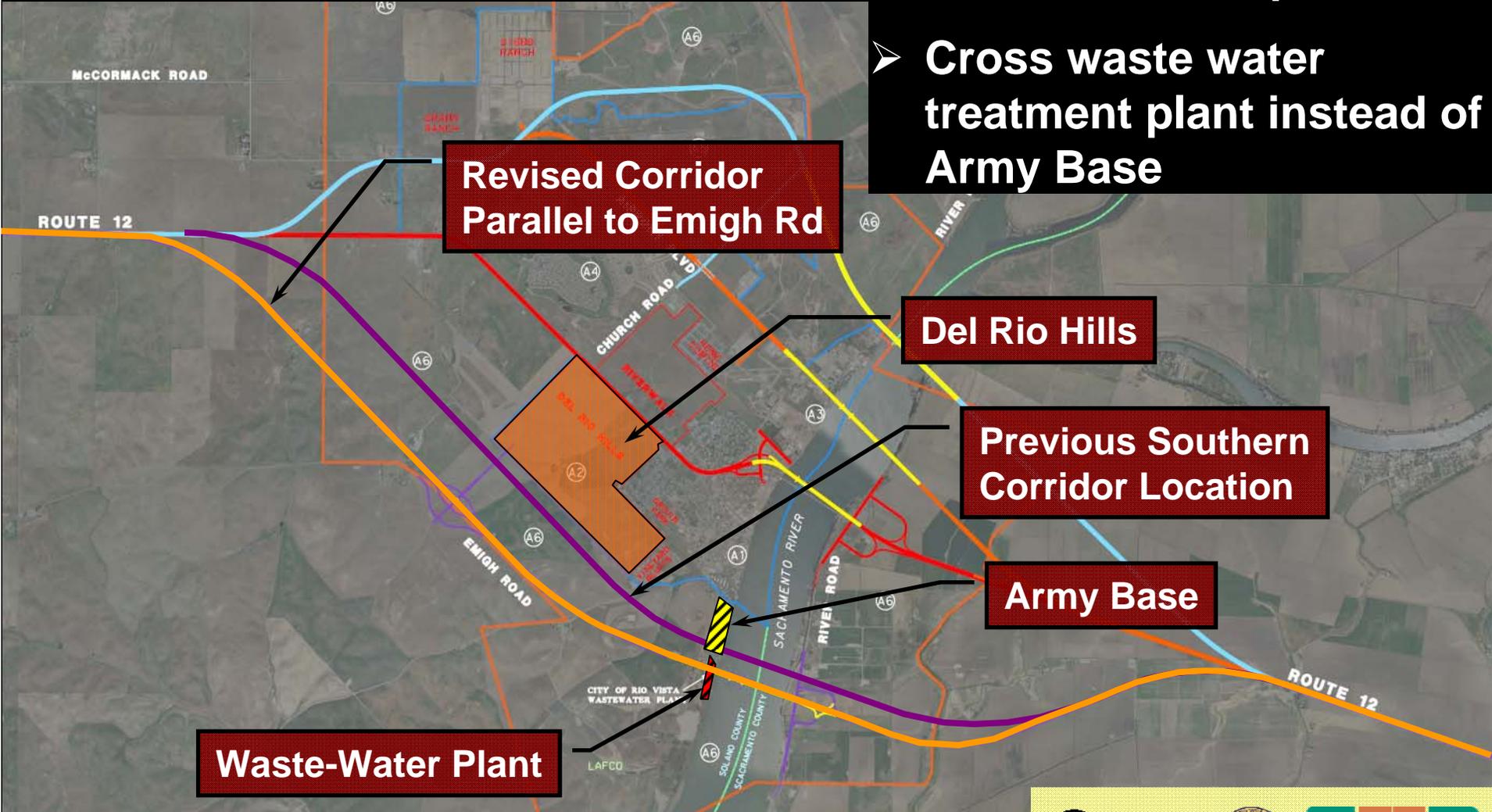
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# Project Update

## Specific Comments

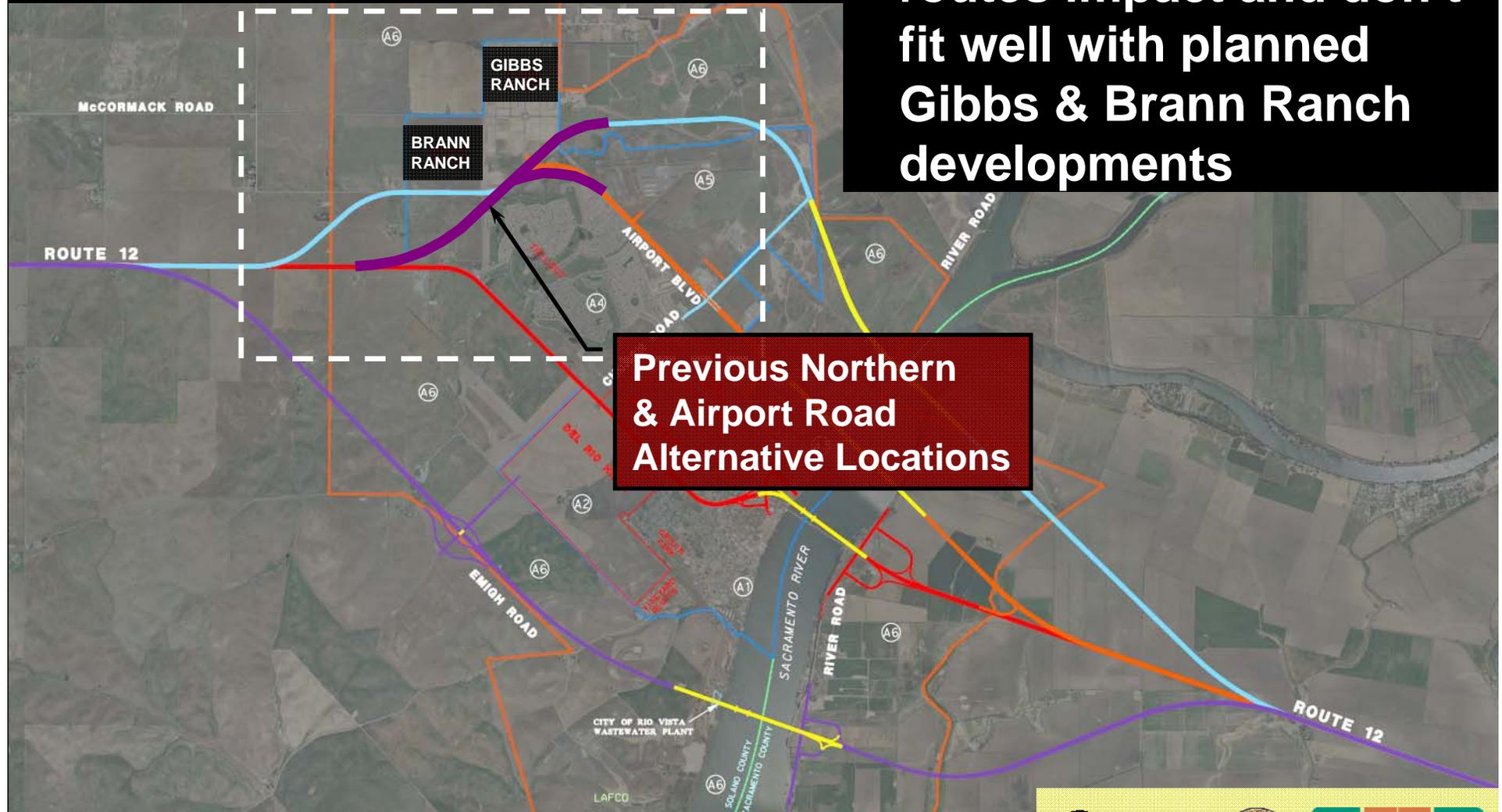
- Too close to planned Del Rio Hills Development
- Cross waste water treatment plant instead of Army Base



# Project Update

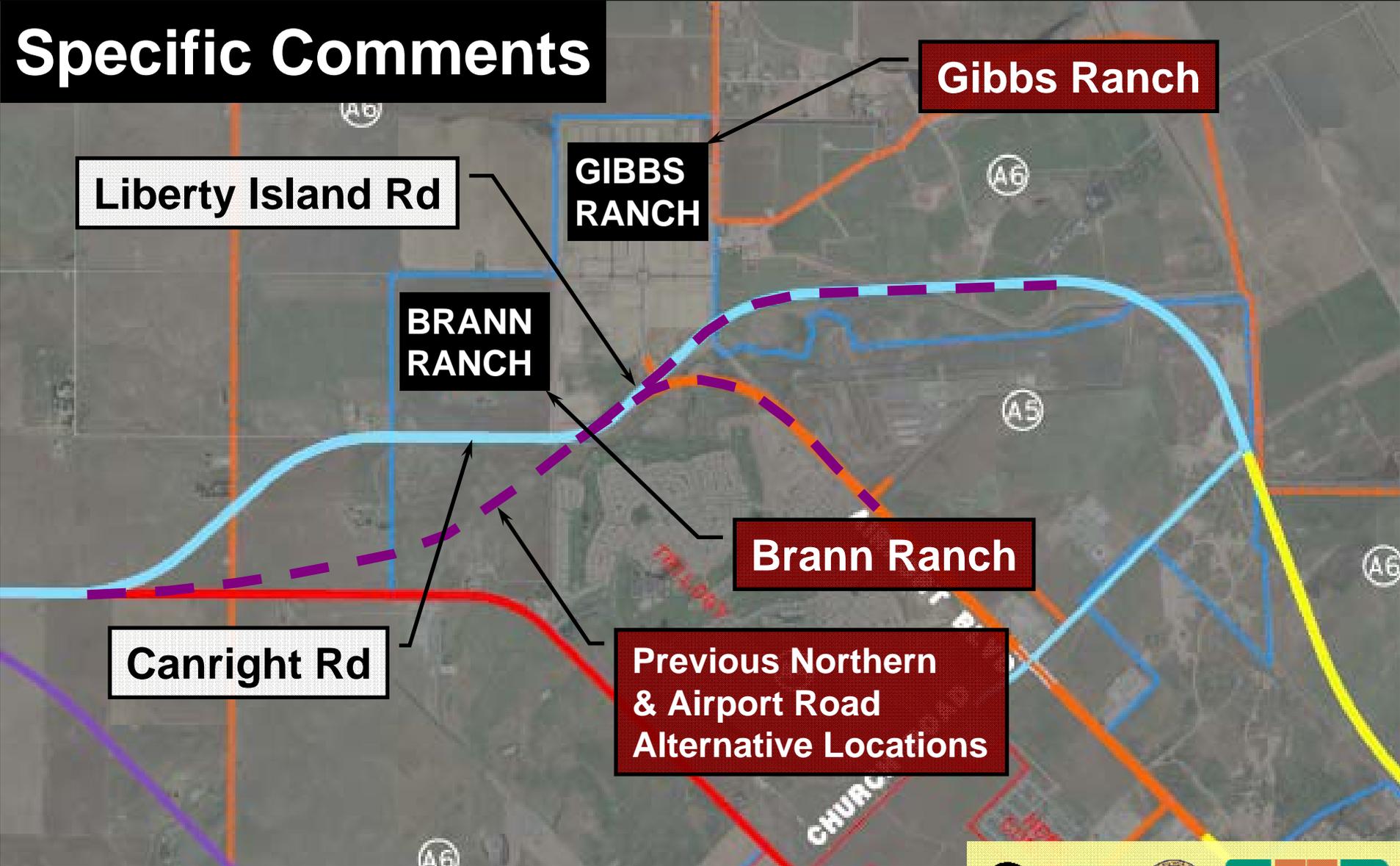
## Specific Comments

- Previously presented routes impact and don't fit well with planned Gibbs & Brann Ranch developments



# Project Update

## Specific Comments



Liberty Island Rd

GIBBS RANCH

Gibbs Ranch

BRANN RANCH

Brann Ranch

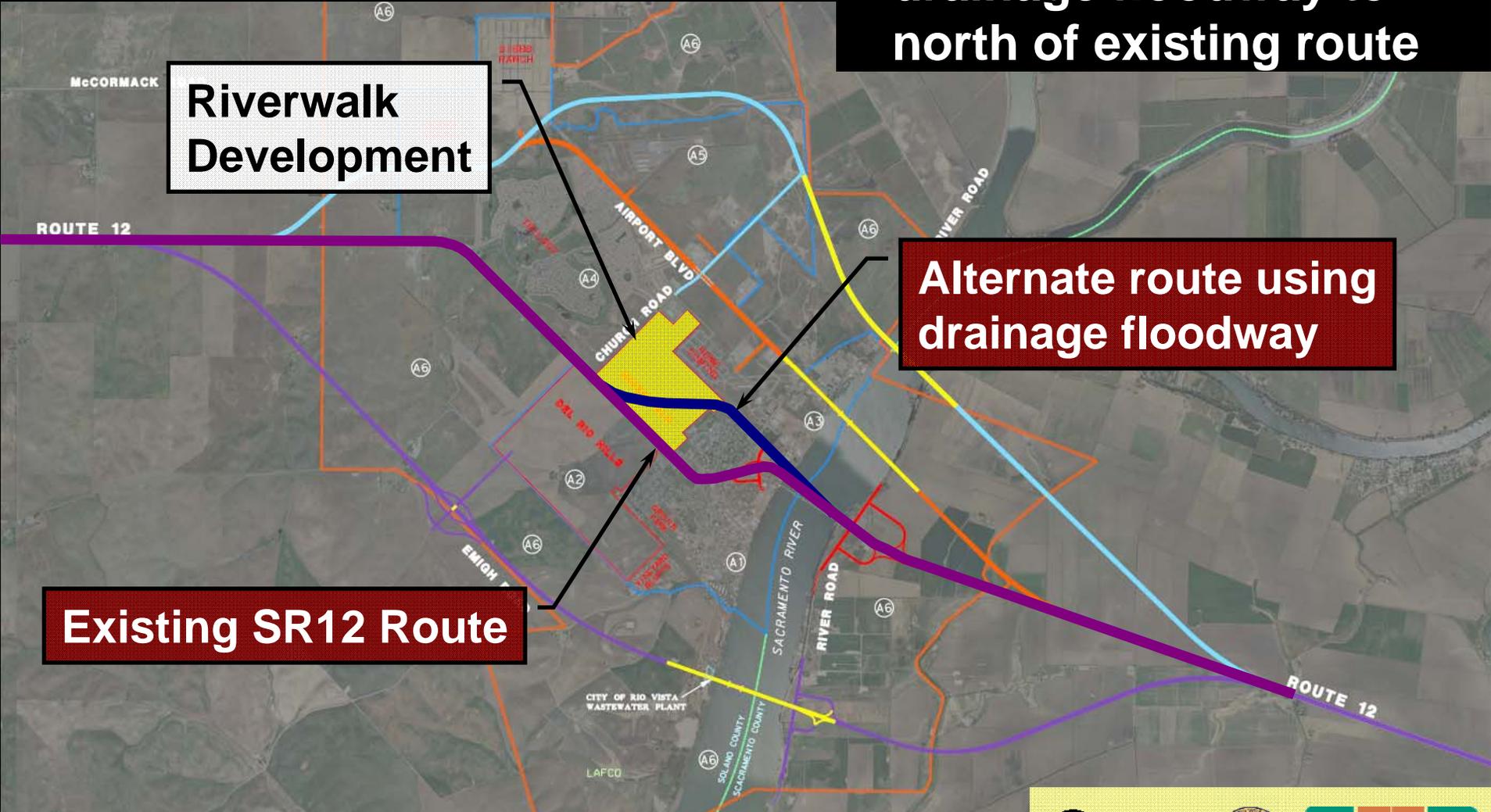
Canright Rd

Previous Northern & Airport Road Alternative Locations

# Project Update

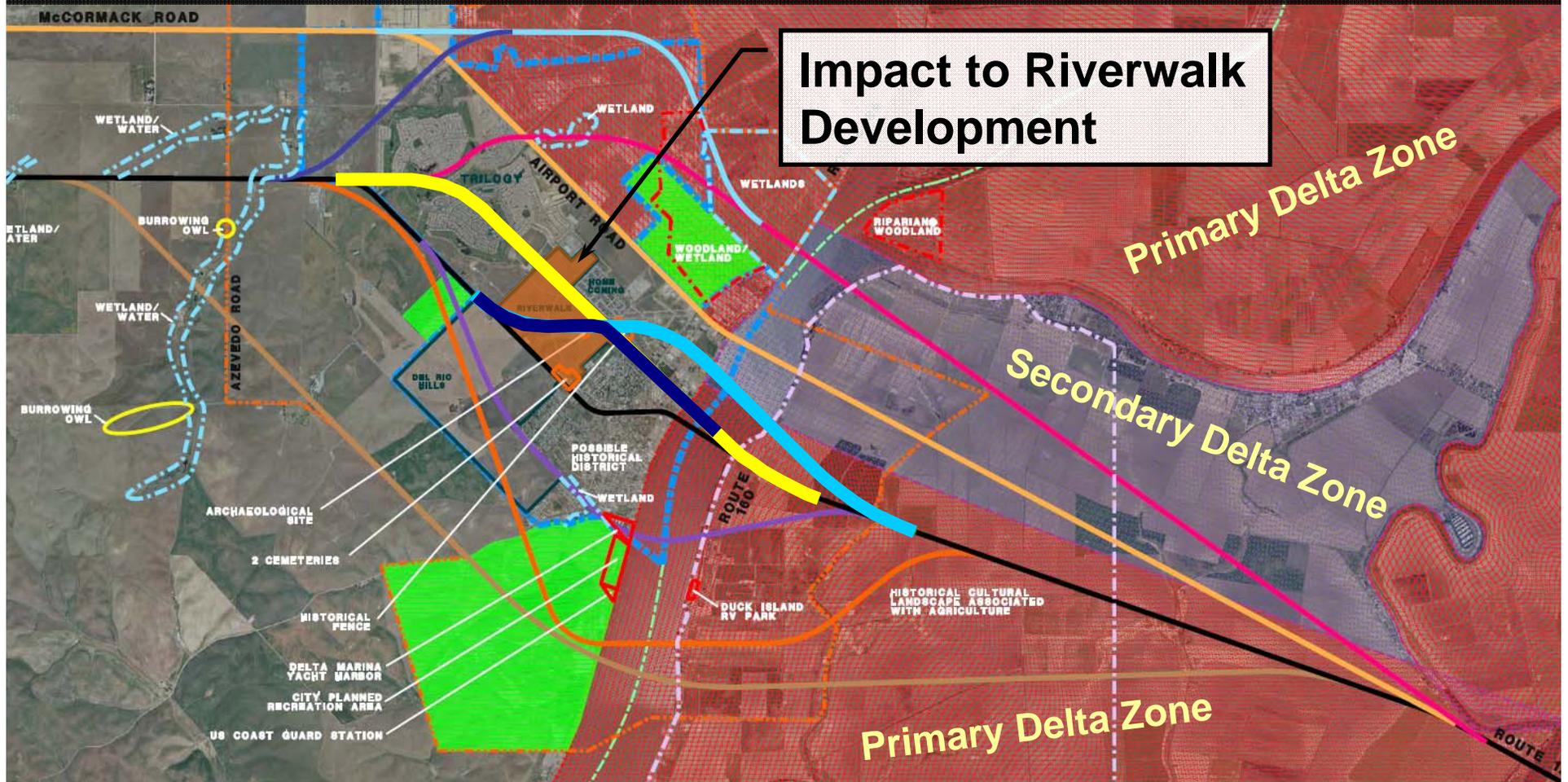
➤ Take advantage of drainage floodway to north of existing route

## Specific Comments

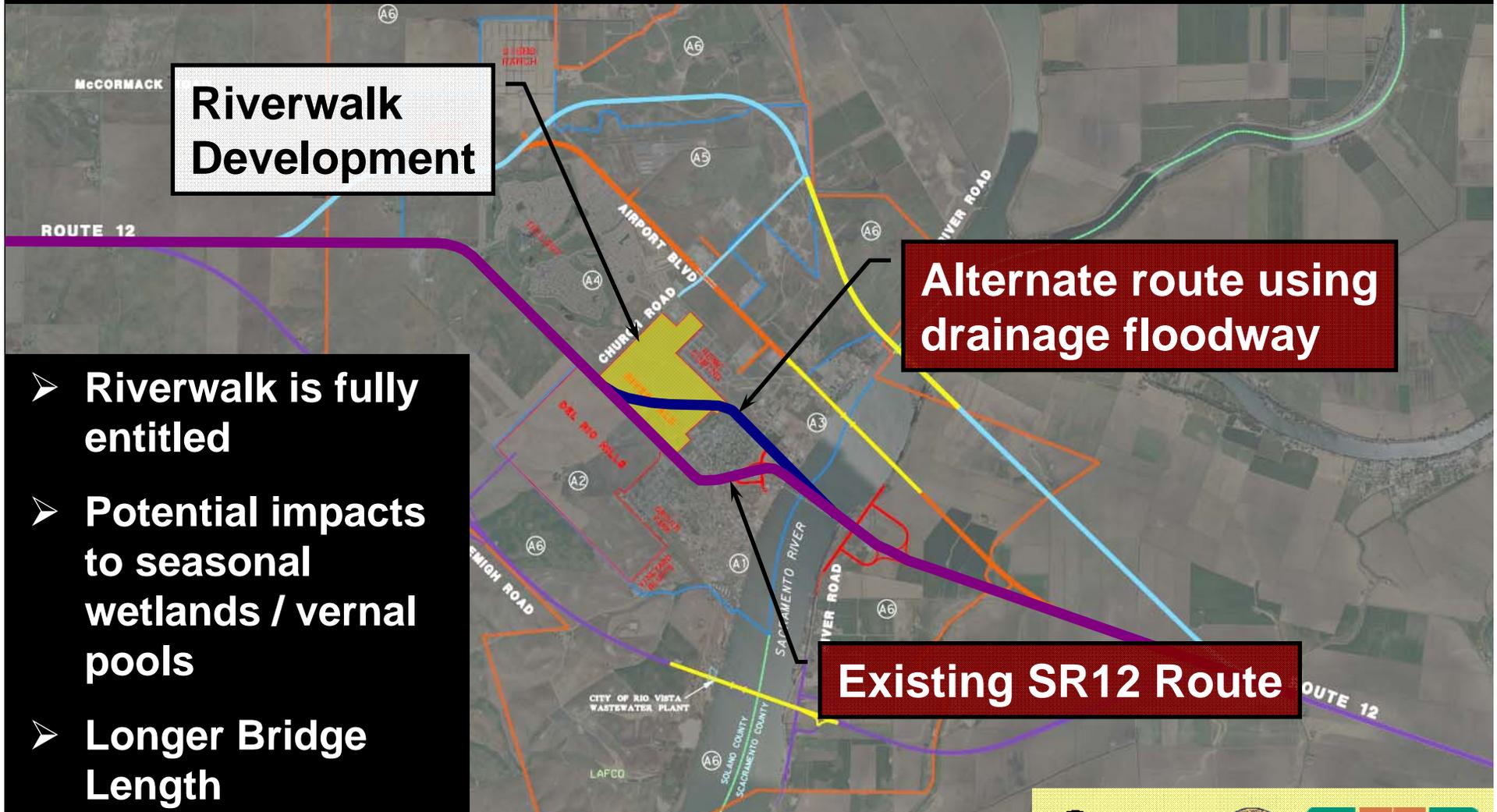


# Project Review

## 1994 CALTRANS Study Corridors: Assessed with respect to current constraints



## Specific Comments

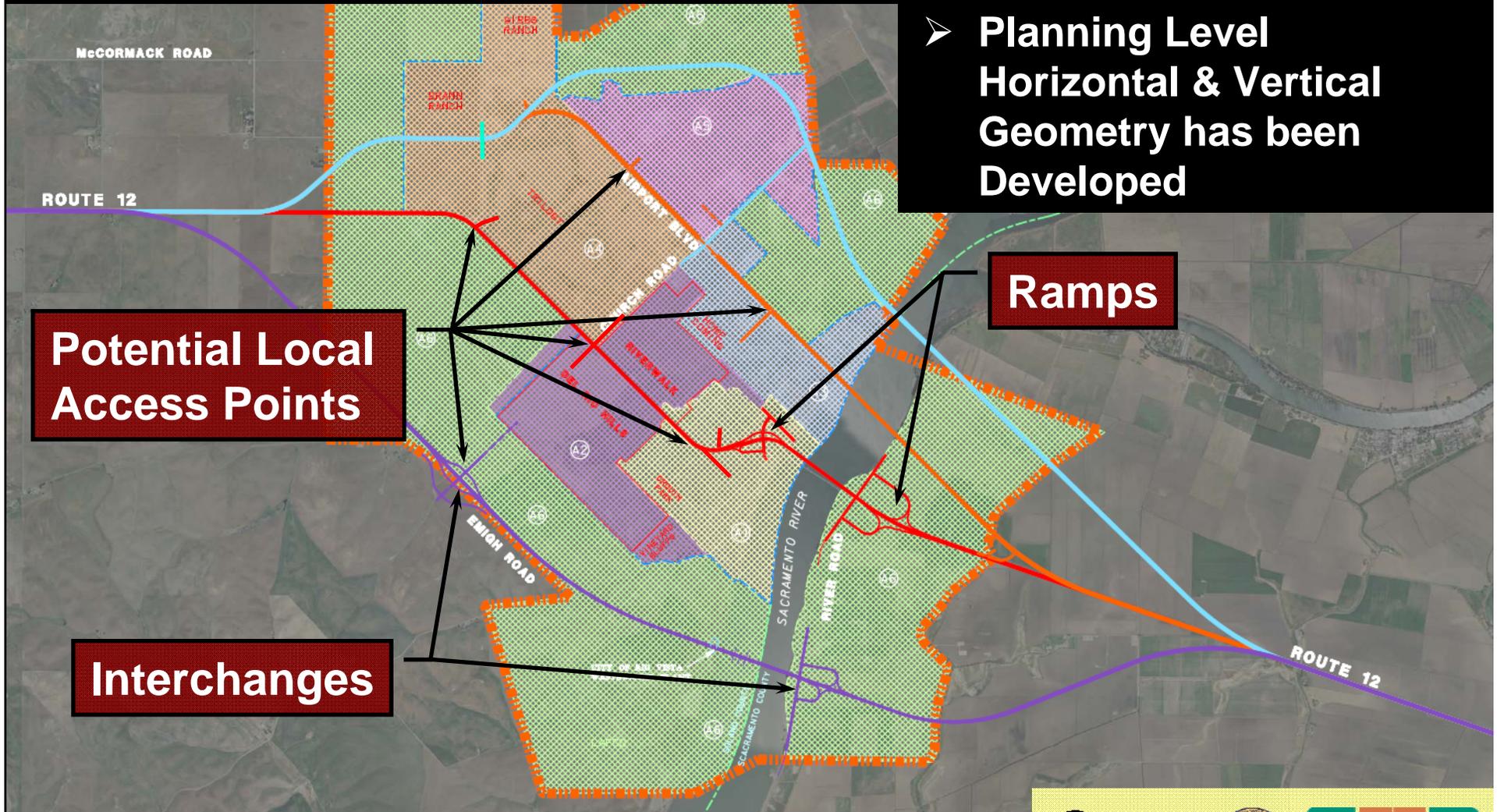


- Riverwalk is fully entitled
- Potential impacts to seasonal wetlands / vernal pools
- Longer Bridge Length

# Project Update

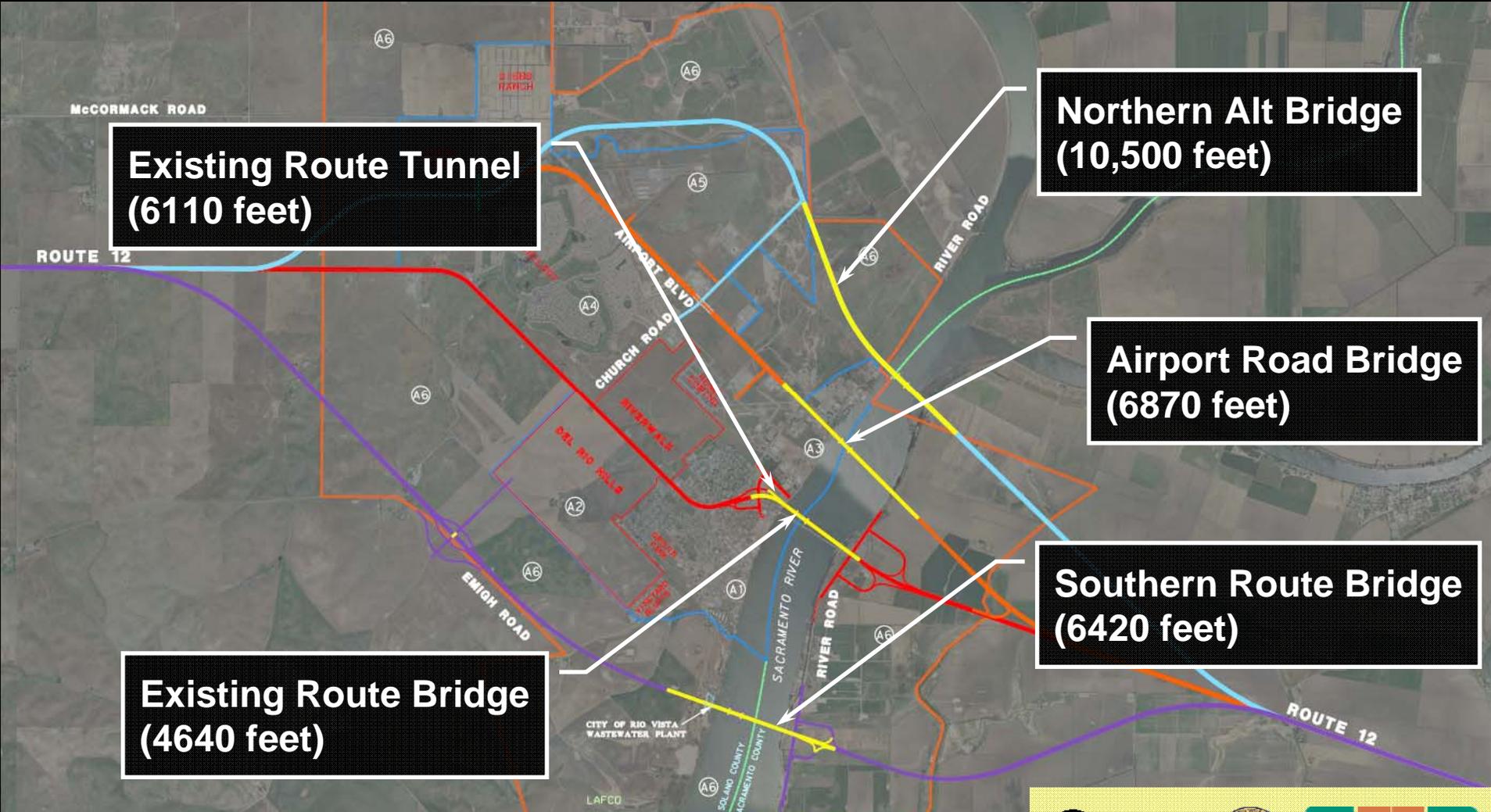
## Access/General Plan Conformance

- Planning Level Horizontal & Vertical Geometry has been Developed



# Project Update

## River Crossing Lengths for each Alternative



# Project Update

## Existing SR12 Alternative Crossing Types

### Mid-Level Lift Bridge

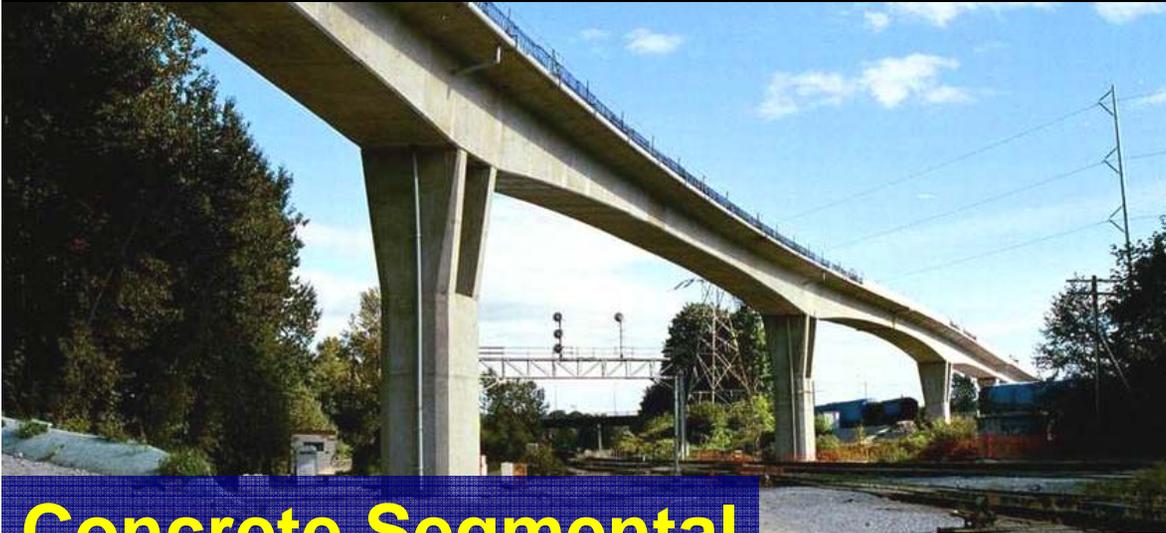


### Bored Tunnel

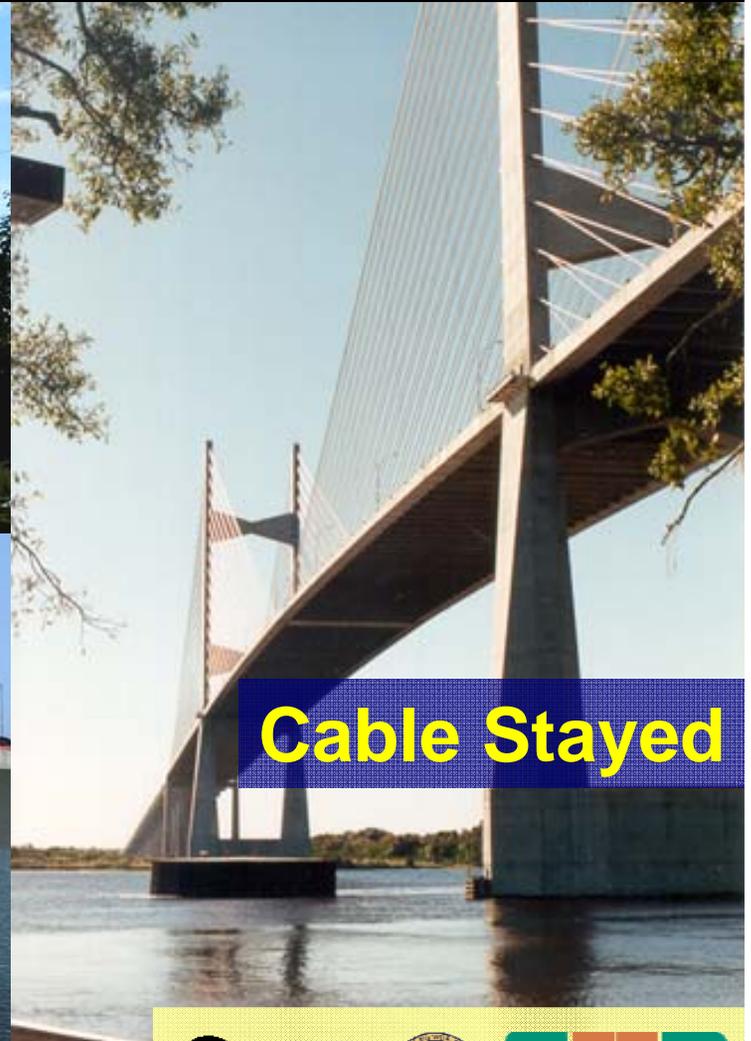
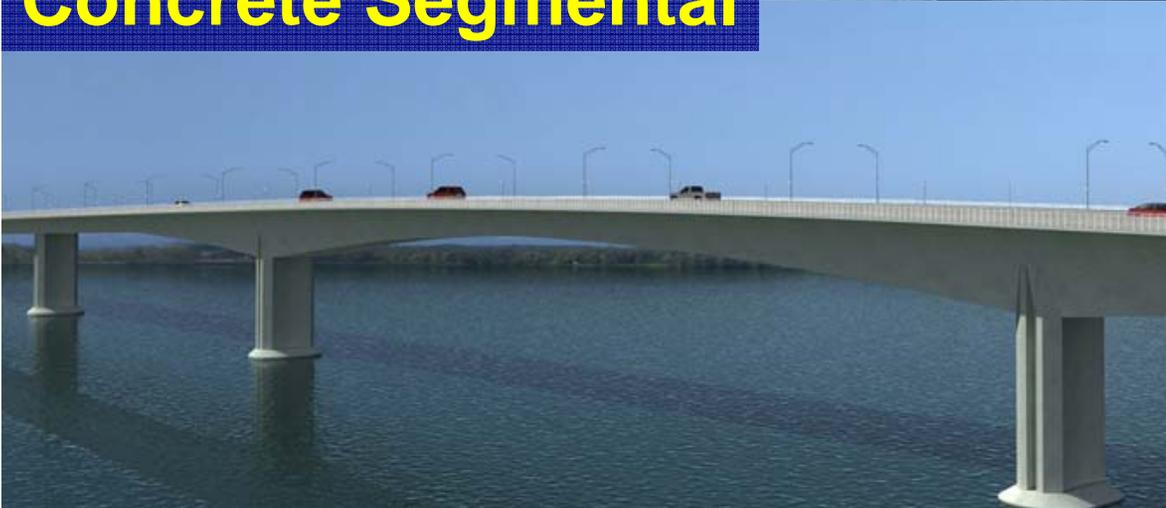


# Project Update

## Bridge Types:



**Concrete Segmental**



**Cable Stayed**



# Project Update

## Northern Alternative: Advantages



- Moves Truck Traffic out of town
- Less noise impact than Airport Rd & existing SR12 route
- Crosses mostly undeveloped land



## Northern Alternative: Challenges

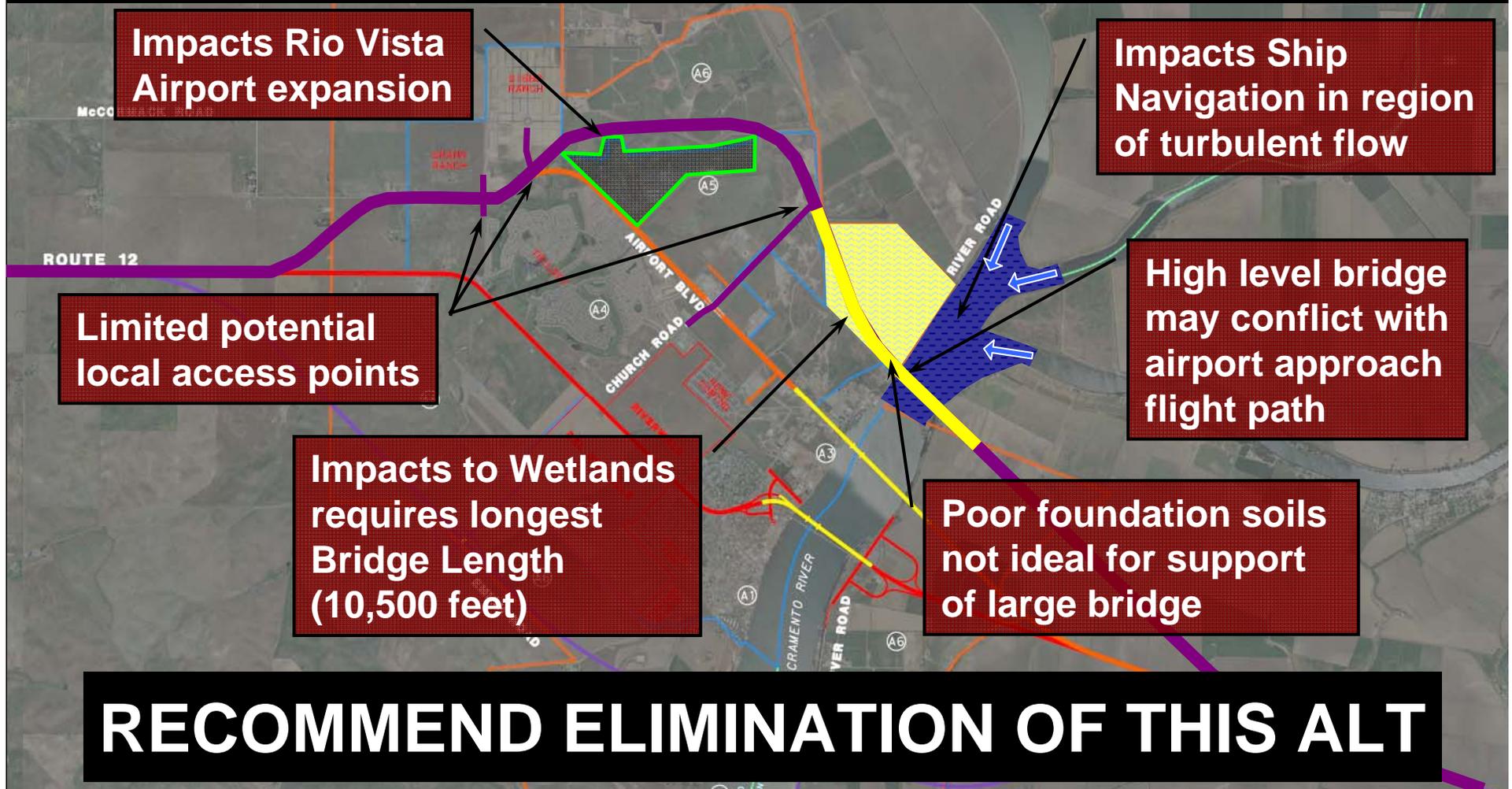


➤ **Alternative is not consistent with current General Plan language**

“A bypass located miles to the north... would severely impact the viability of the existing highway commercial retail base and likely would force relocation of much of this activity to the bypass route... The... route now conflicts with the policies of the DPC. The area north of the City is largely floodplain, wetland and drainage areas, and agricultural lands.”

There is also a concern that this route would induce growth outside the current and proposed urban limits.

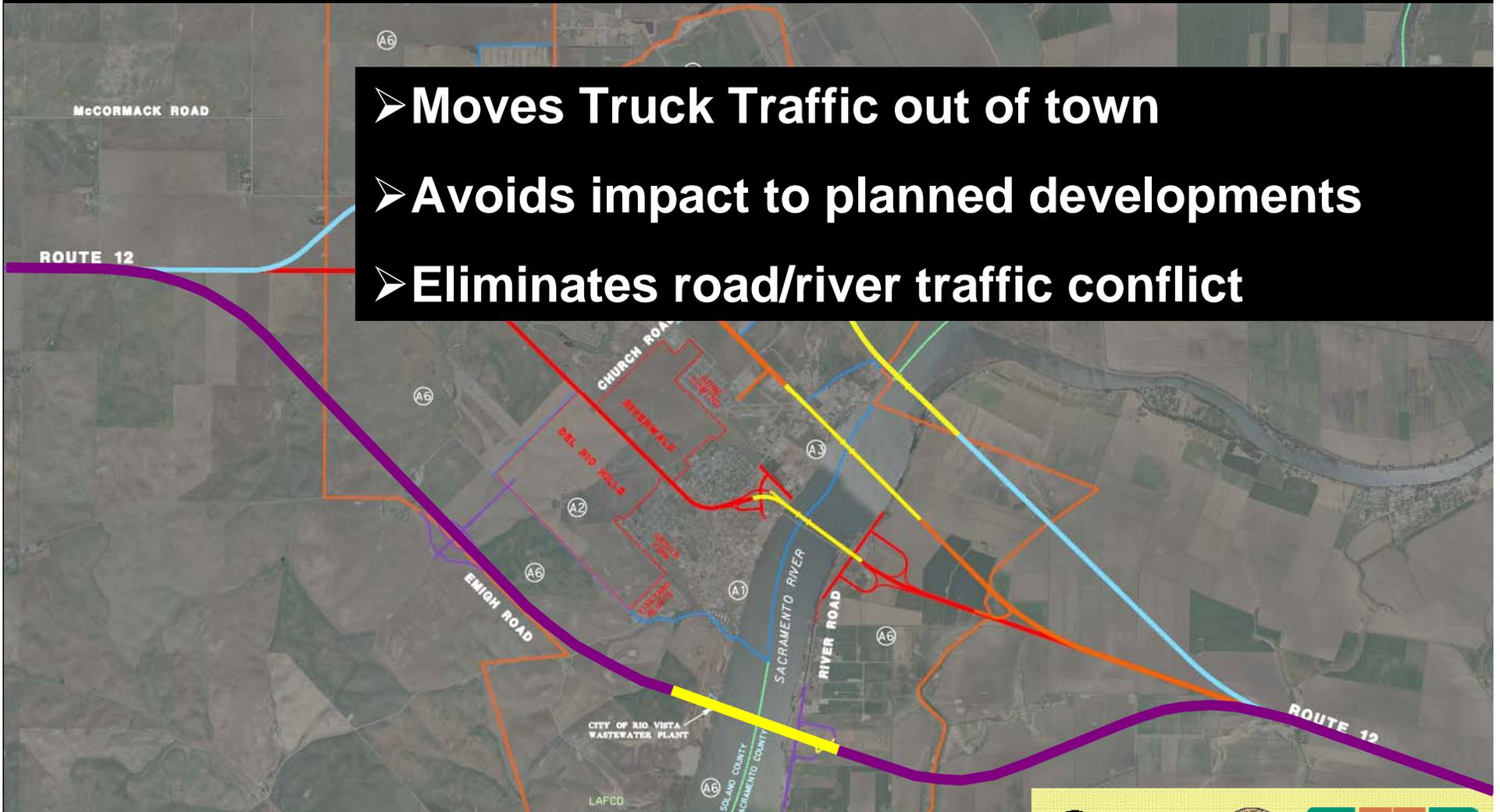
## Northern Alternative: Challenges



# Project Update

## Southern Alternative: Advantages

- Moves Truck Traffic out of town
- Avoids impact to planned developments
- Eliminates road/river traffic conflict



## Southern Alternative: Challenges



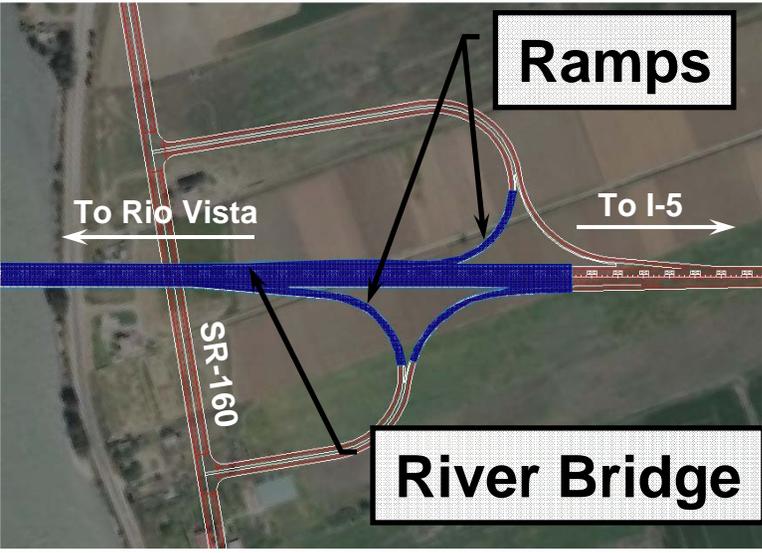
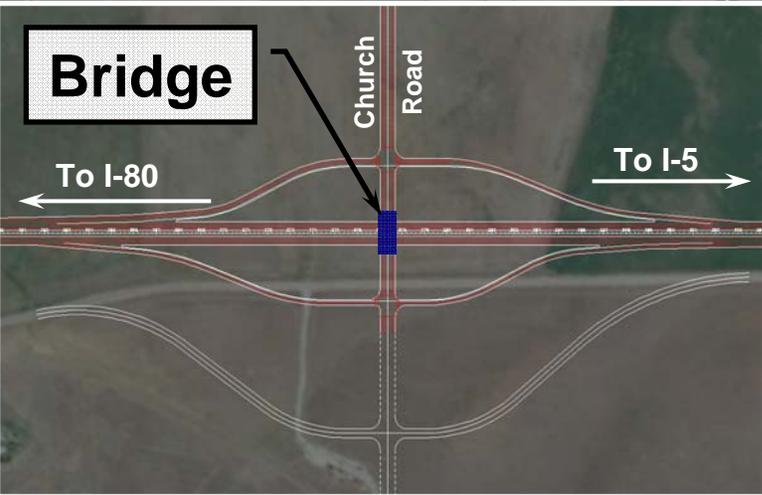
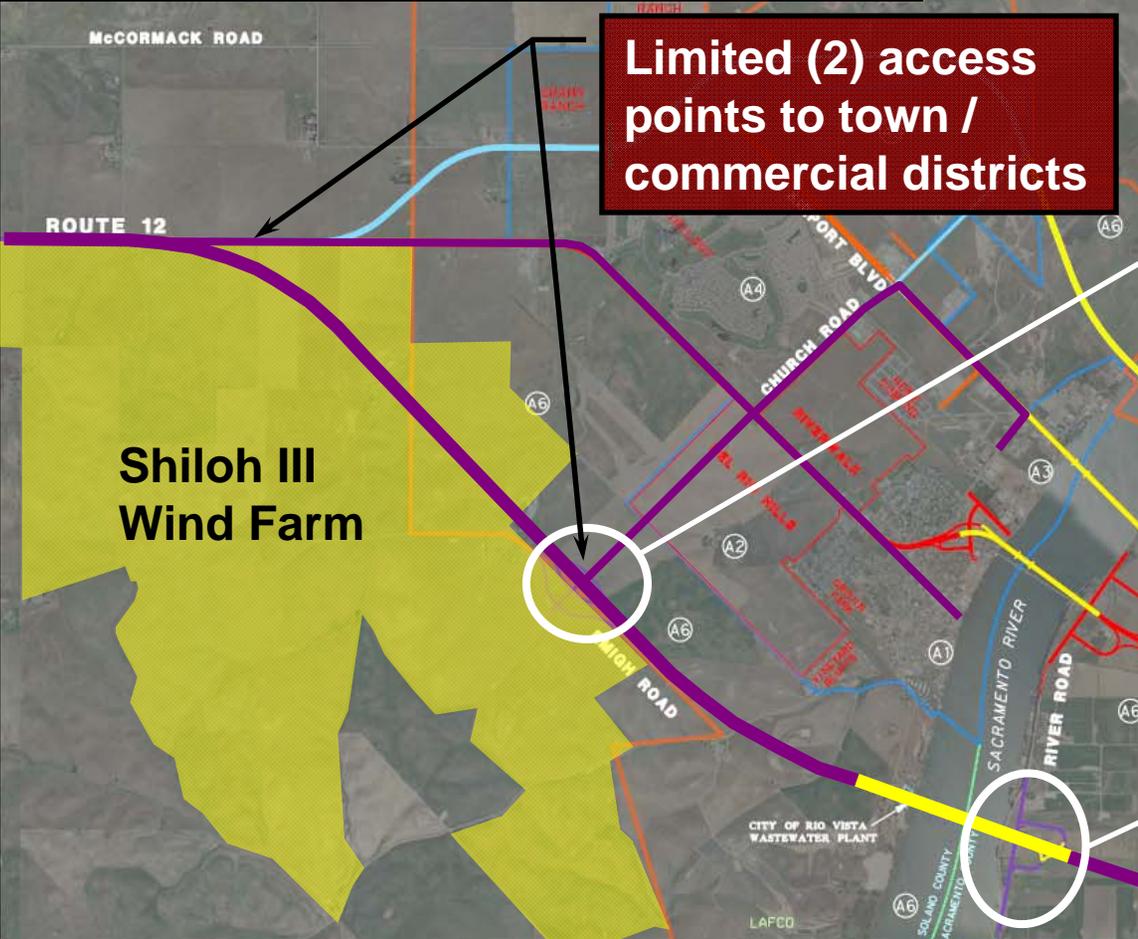
➤ **Alternative is not consistent with current General Plan language**

“A bypass located miles to the... south would severely impact the viability of the existing highway commercial retail base and likely would force relocation of much of this activity to the bypass route... The area south of the City contains the Montezuma Hills and large dryland farming operations, as well as sensitive habitat areas along the Sacramento River.”

There is also concern that this route would induce growth outside the current and proposed urban limits.

# Project Update

## Southern Alternative: Challenges



# Project Update

## Southern Alternative from Beach Drive



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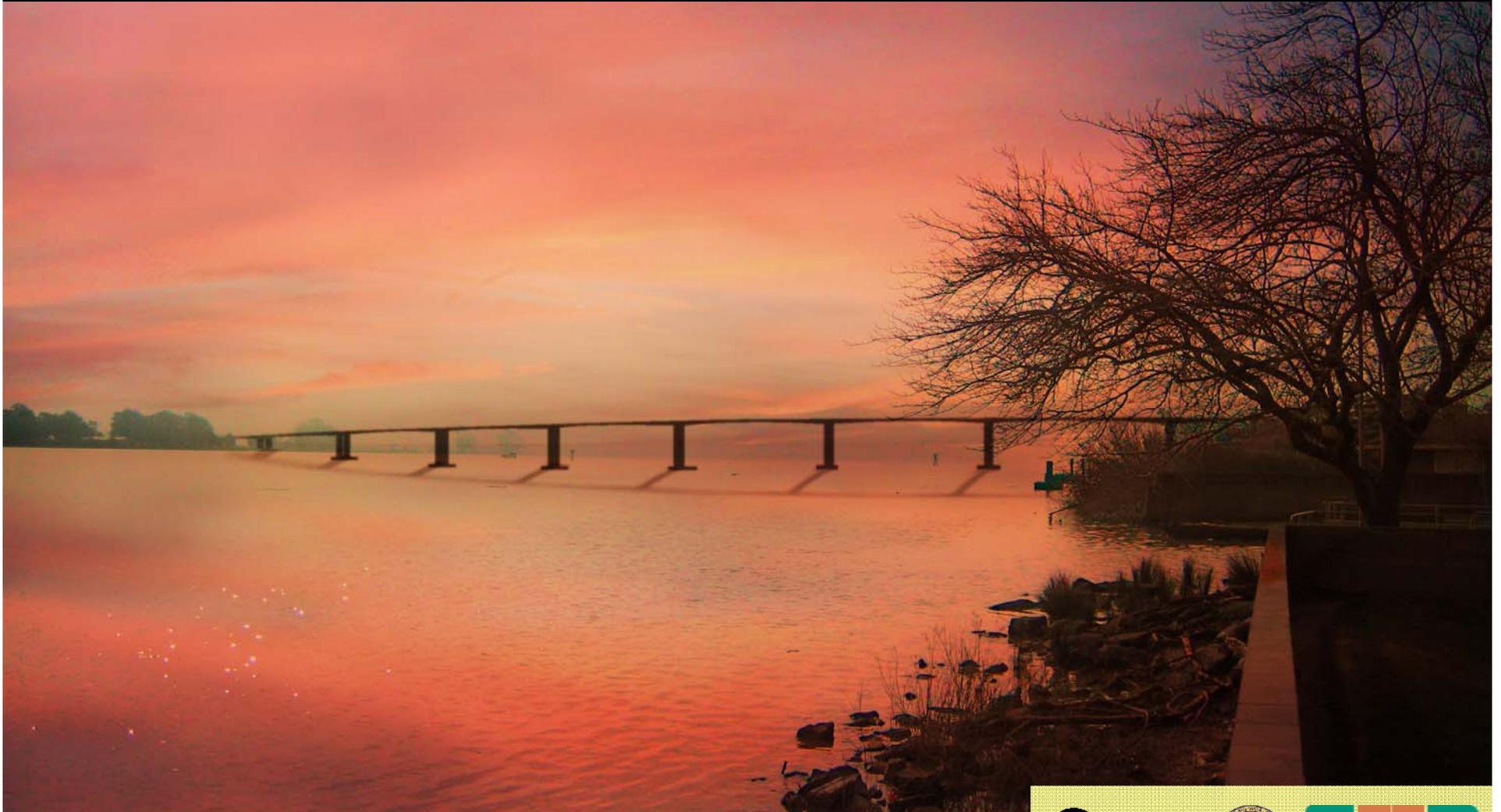
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Soleno Transportation Authority

# Project Update

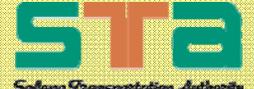
## Southern Alternative from City Hall



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Solano Transportation Authority

# Southern Alternative



# Project Update

## Existing Route Alternative: Advantages

- Maintains similar access to town
- Similar appearance to existing bridge
- Makes use of existing right-of-way

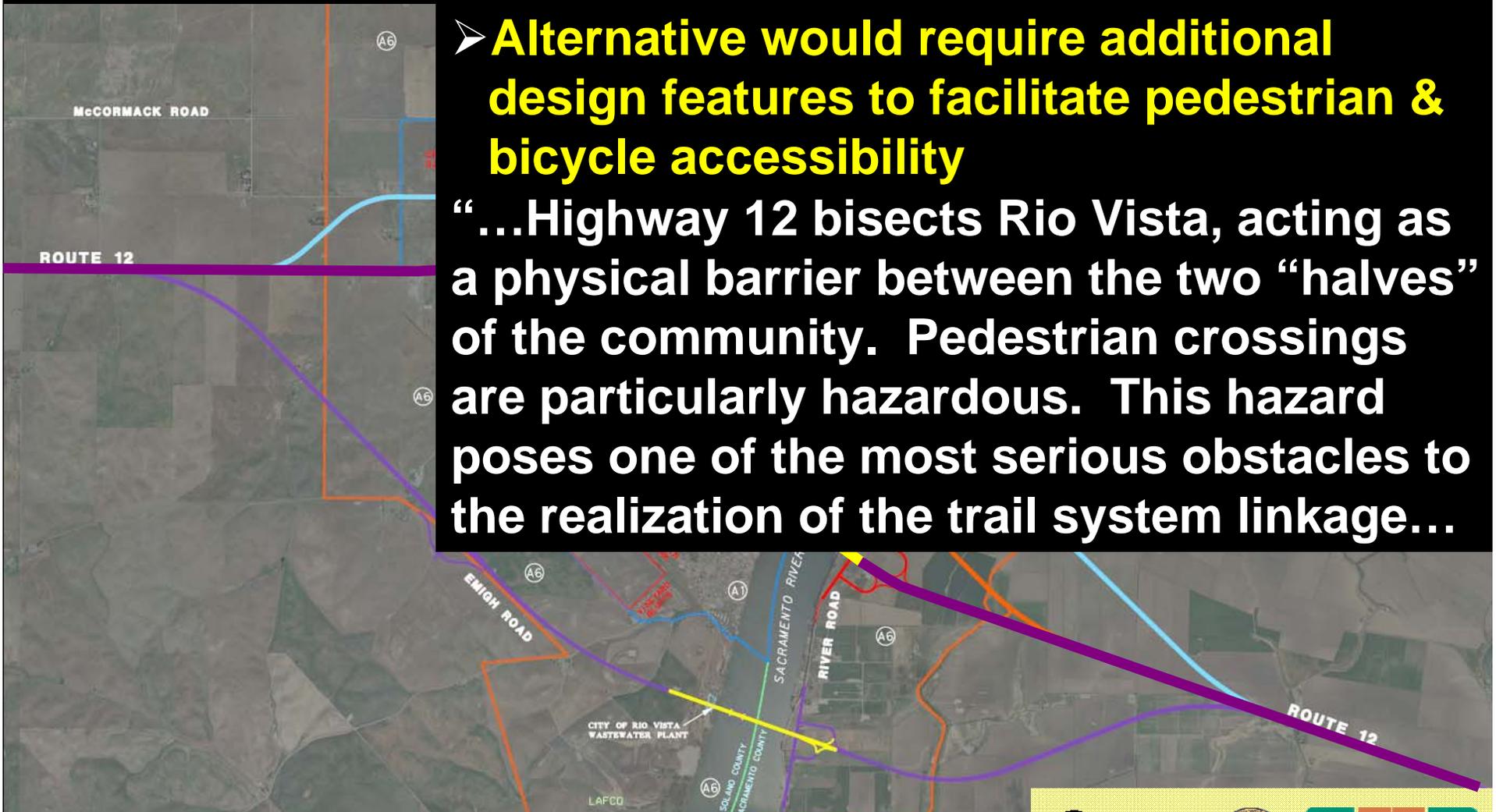
- Limits impact to primary delta zone
- Limits new agricultural land impacts



## Existing Route Alternative: Challenges

➤ **Alternative would require additional design features to facilitate pedestrian & bicycle accessibility**

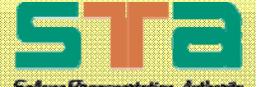
“...Highway 12 bisects Rio Vista, acting as a physical barrier between the two “halves” of the community. Pedestrian crossings are particularly hazardous. This hazard poses one of the most serious obstacles to the realization of the trail system linkage...



FHWA



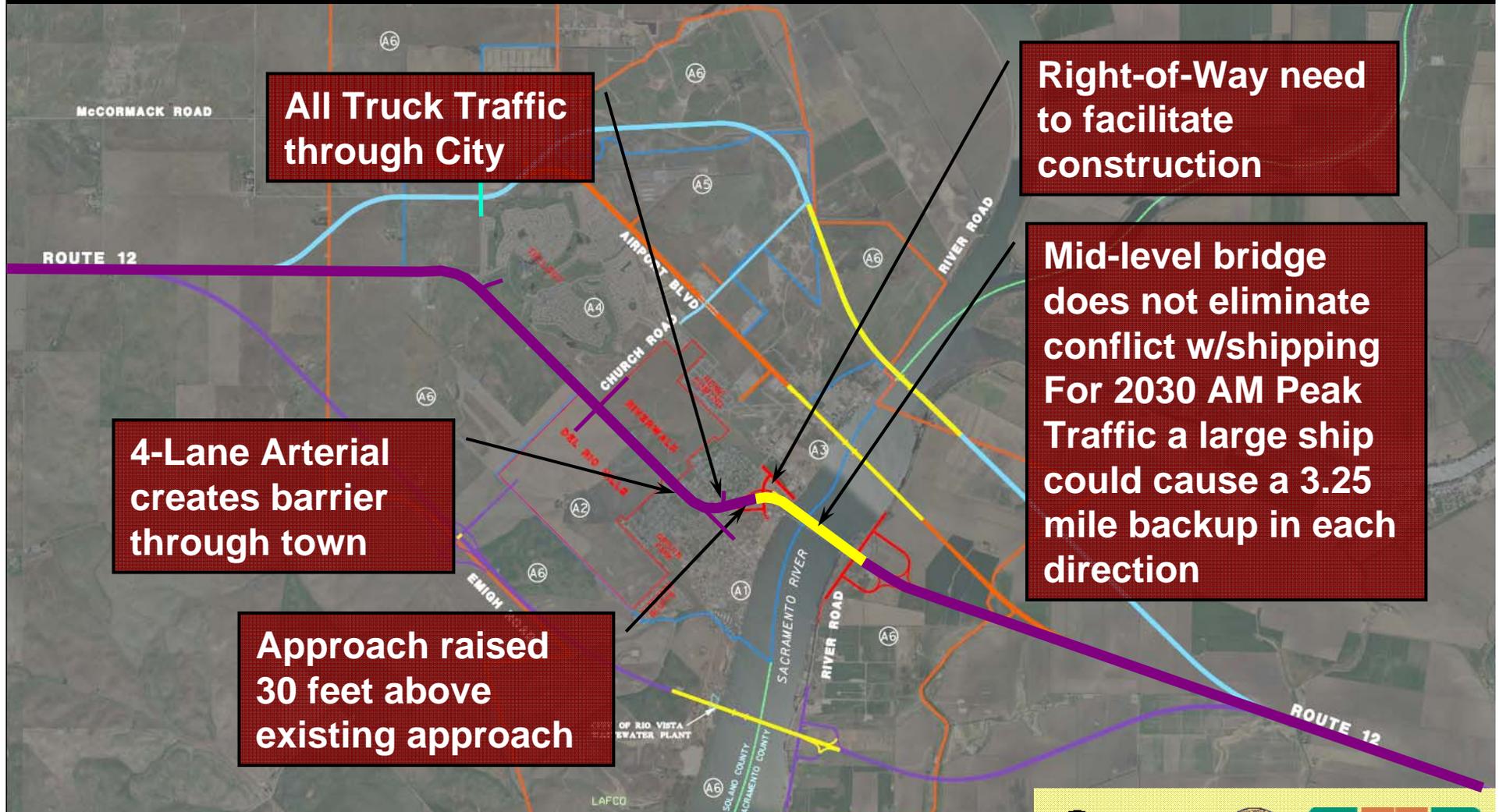
Edgars



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# Project Update

## Existing Route Alternative: Challenges



All Truck Traffic through City

Right-of-Way need to facilitate construction

Mid-level bridge does not eliminate conflict w/shipping For 2030 AM Peak Traffic a large ship could cause a 3.25 mile backup in each direction

4-Lane Arterial creates barrier through town

Approach raised 30 feet above existing approach



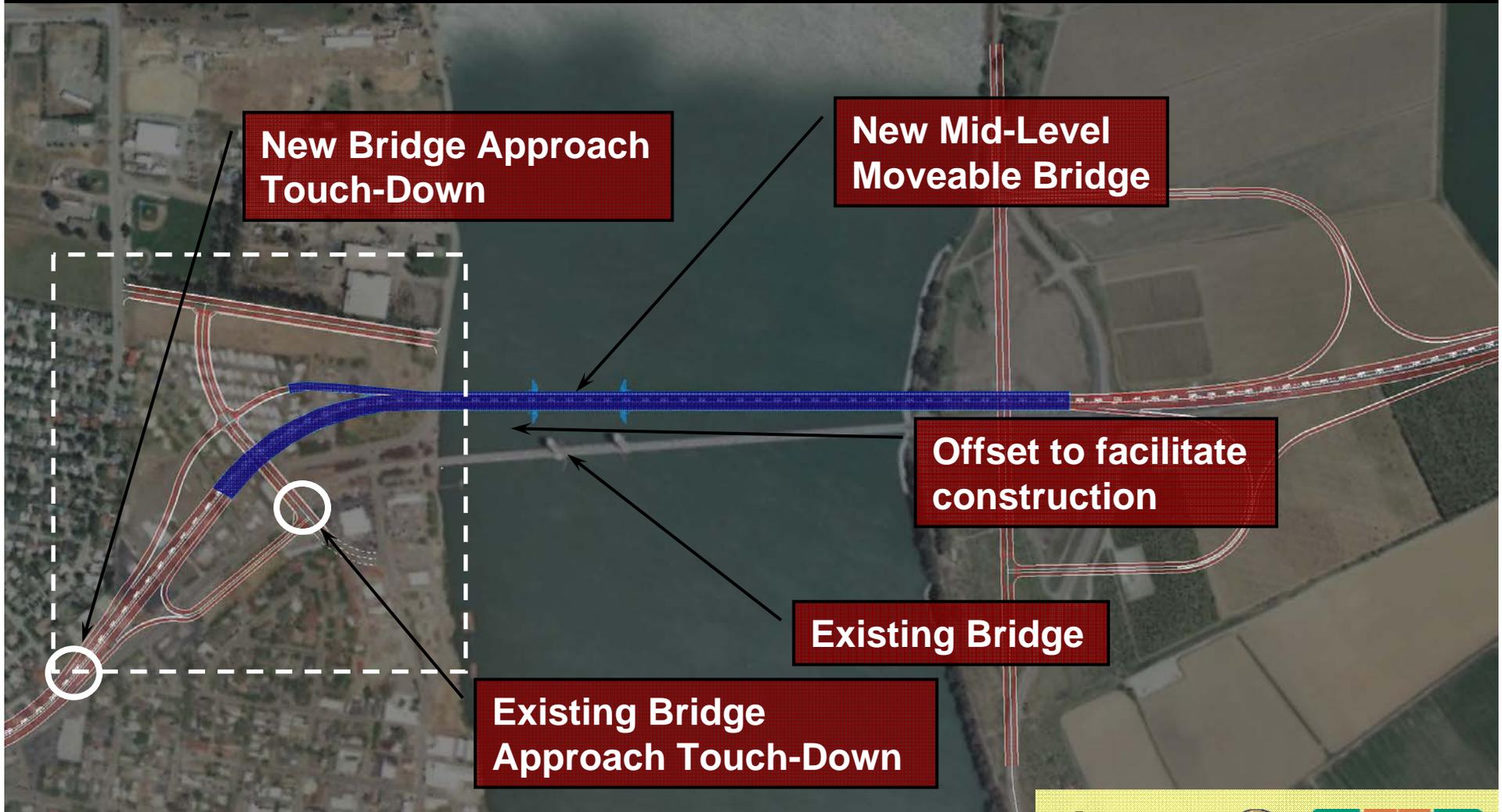
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# Project Update

## Existing Route Alternative: Challenges



# Project Update

## Existing Route Alternative: Challenges



**Significant right-of-way impacts that would require takes of residences and businesses, and would require relocations**



# Project Update

## Existing Route Alternative from City Hall



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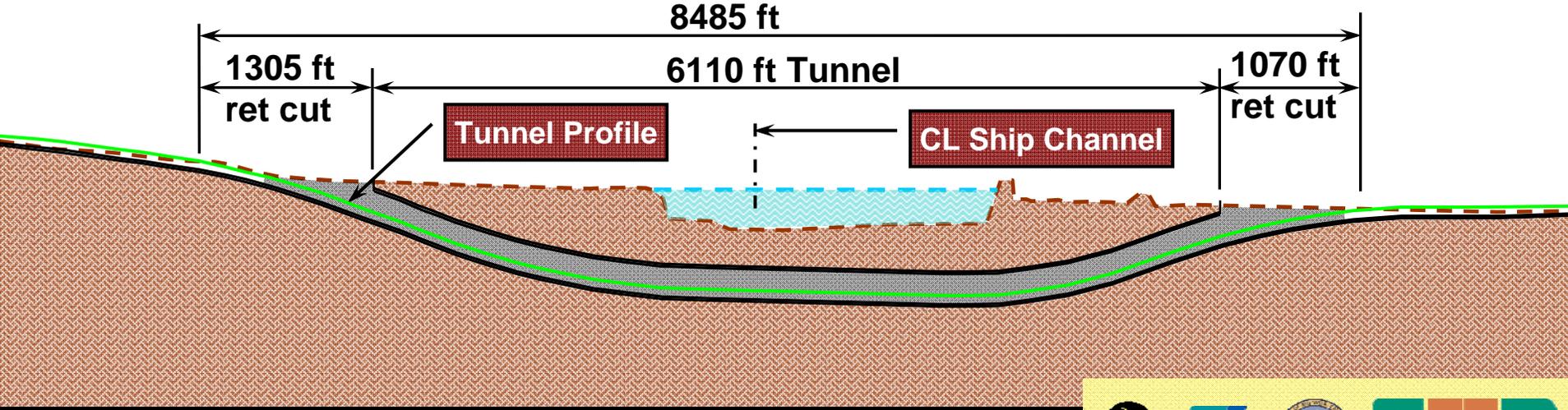


# Existing Route Alternative



# Project Update

## Existing Route Tunnel Alternative



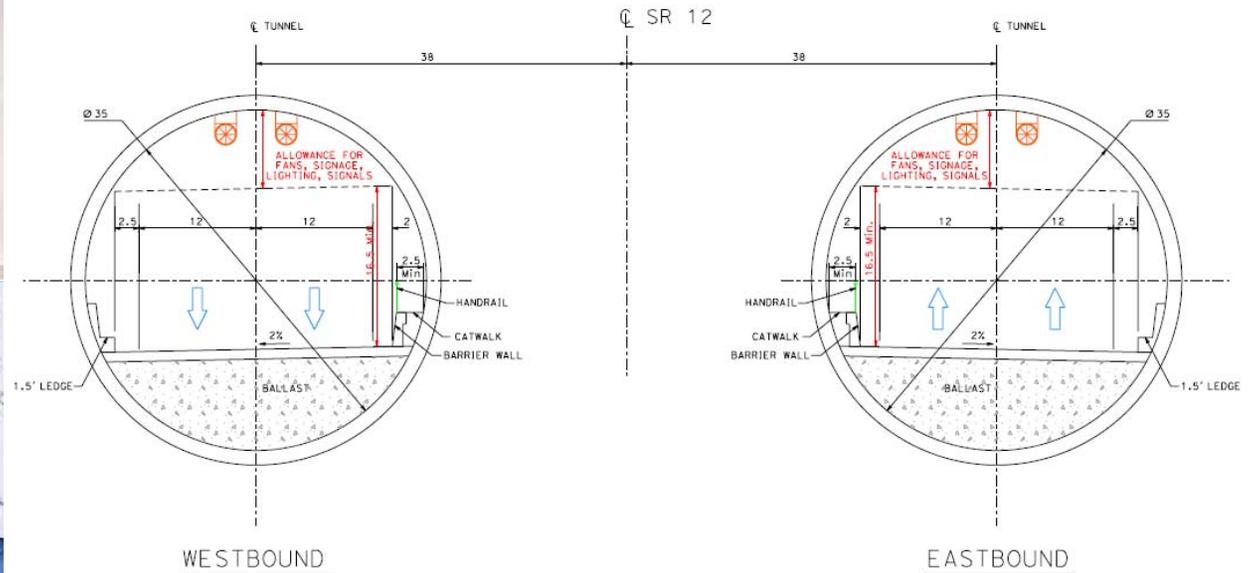
# Project Update

## Existing Route Tunnel Alternative



Cutterhead for the River Elbe TBM, manufactured by Hoesch Rothe Erde

### Twin Bore

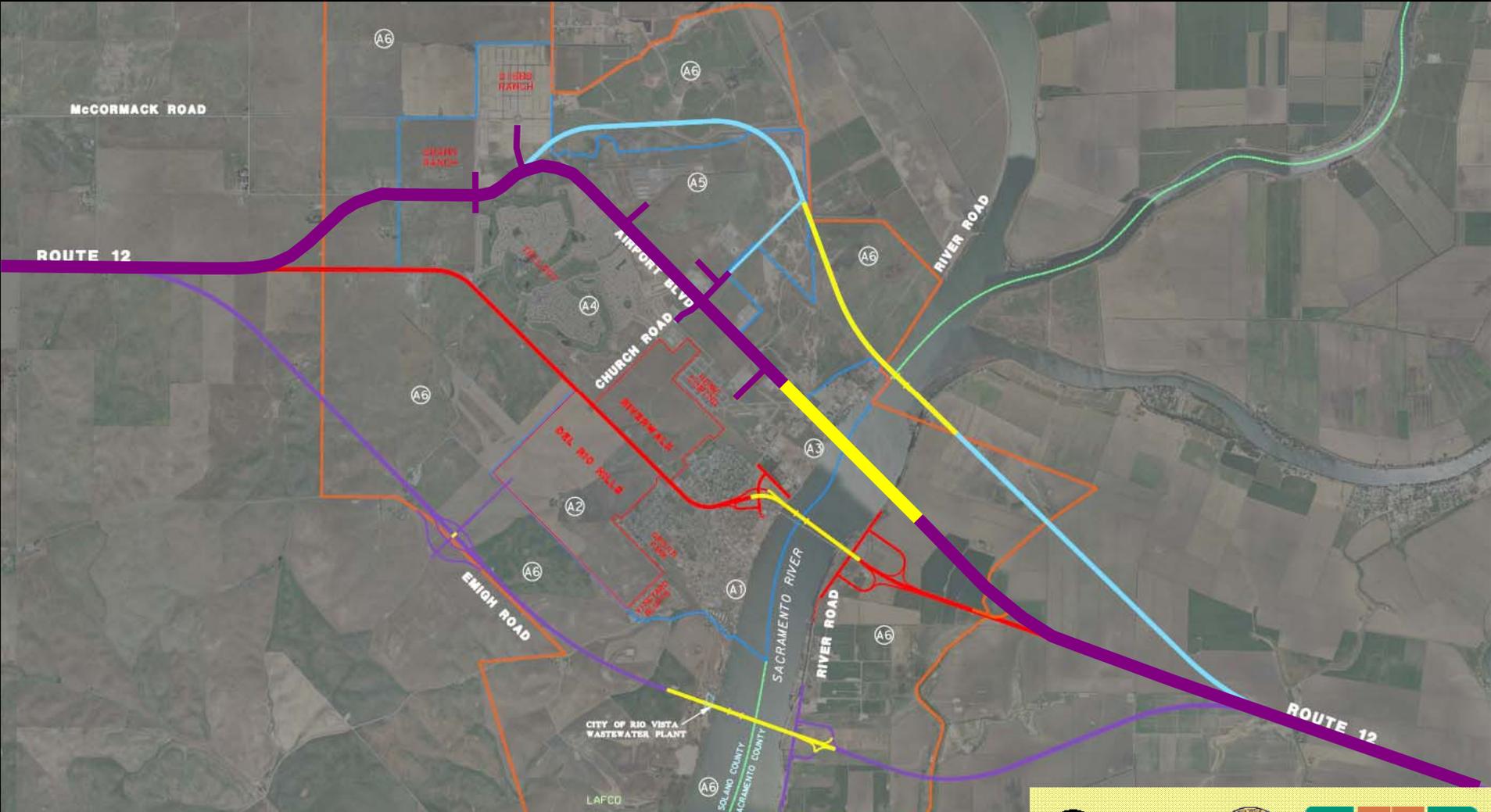


Tunnel Boring Machine



# Project Update

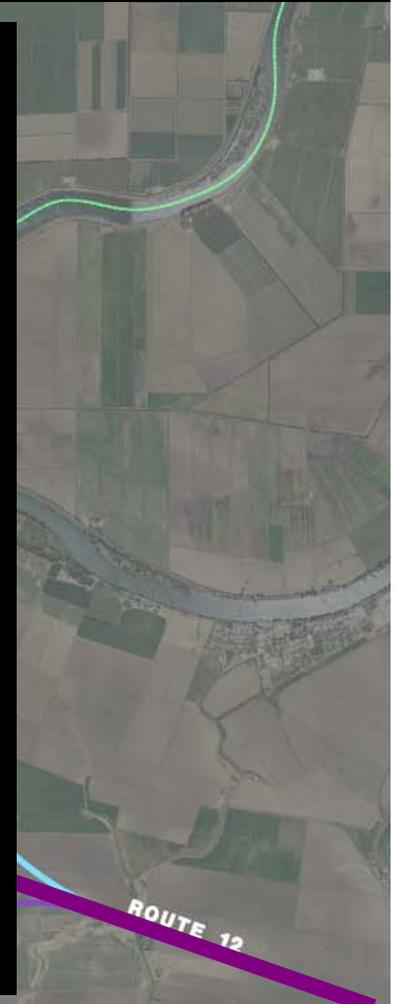
## Airport Road Alternative: Advantages



# Project Update

## Airport Road Alternative: Advantages

- **Consistent with General Plan Language**
- **Removes Truck Traffic from town center**
- **Takes advantage of an existing corridor**
- **As an Expressway, Provides opportunity for multiple access points**
- **Eliminates road/river traffic conflict**
- **Shortest bypass length & least cost alternative**
- **Least impact to primary delta zone**
- **Minimizes impact to agricultural land**



LAFCO  
SOLANO  
ACRAMES



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## Airport Road Alternative: Advantages



➤ **Alternative is consistent with current General Plan language**

“... the General Plan Steering Committee recommended Airport Road as a potential bypass route with more community benefits and fewer drawbacks than the (other bypass alternatives).”

“The City shall support an alignment along Airport Road as the preferred alternative, until further information is obtained.”



# Project Update

## Airport Road Alternative: Advantages

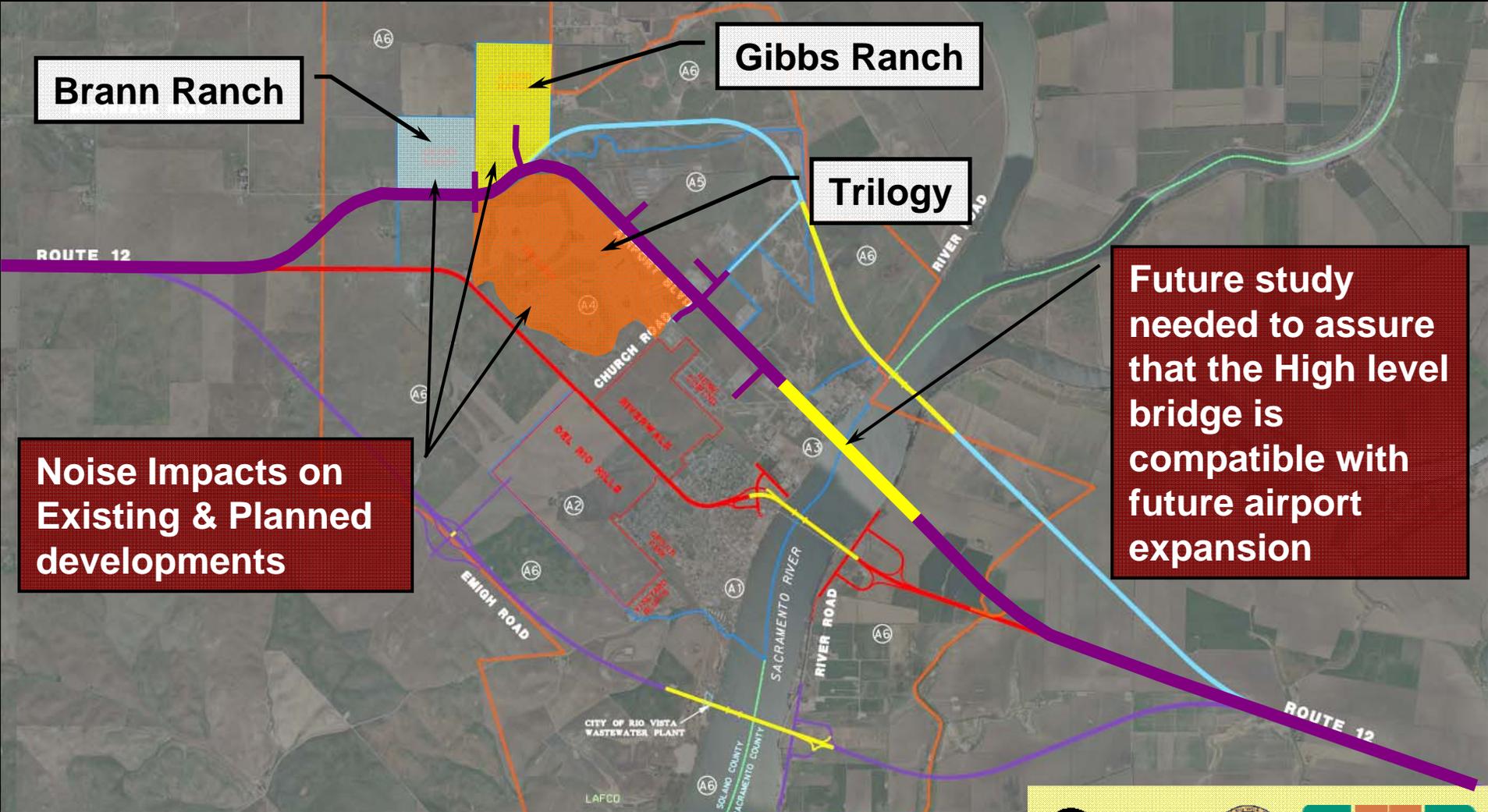


➤ As urban expressway – opportunity for several access points to existing and planned roads



# Project Update

## Airport Road Alternative: Challenges



Noise Impacts on Existing & Planned developments

Future study needed to assure that the High level bridge is compatible with future airport expansion

# Project Update

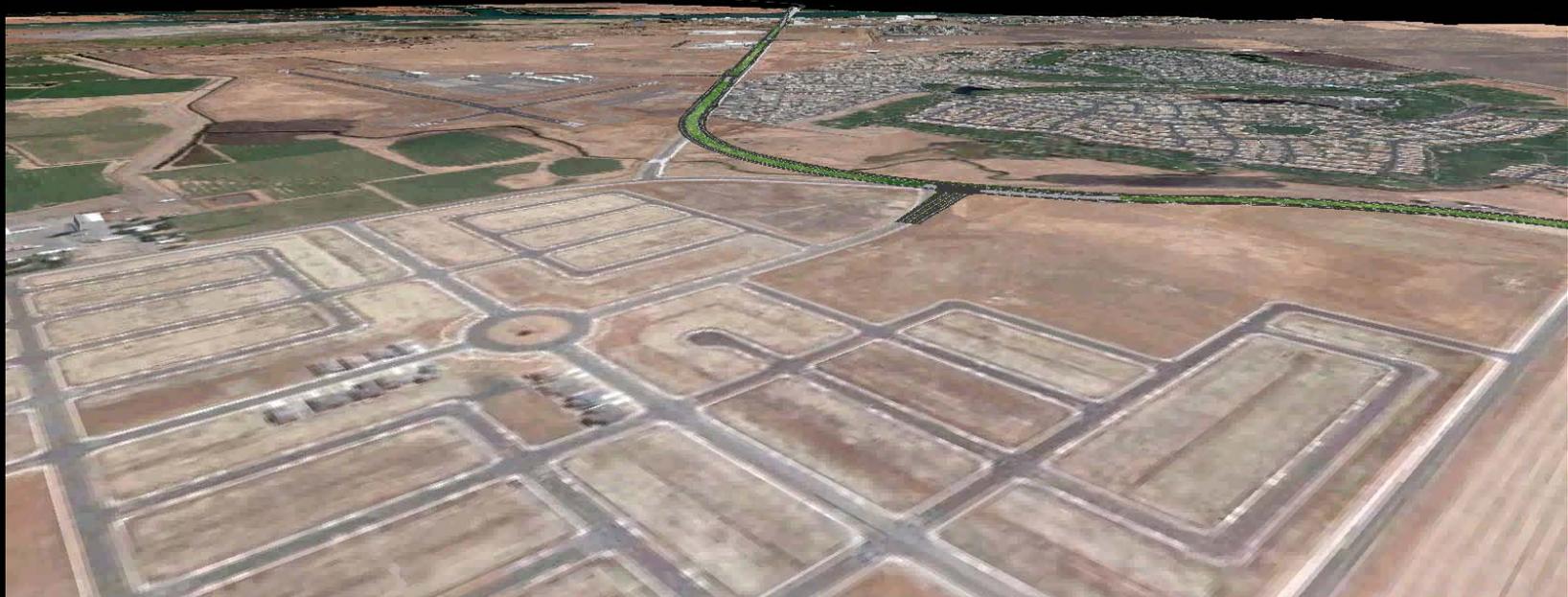
## Airport Road Alt: Airport Rd South of Sullivan



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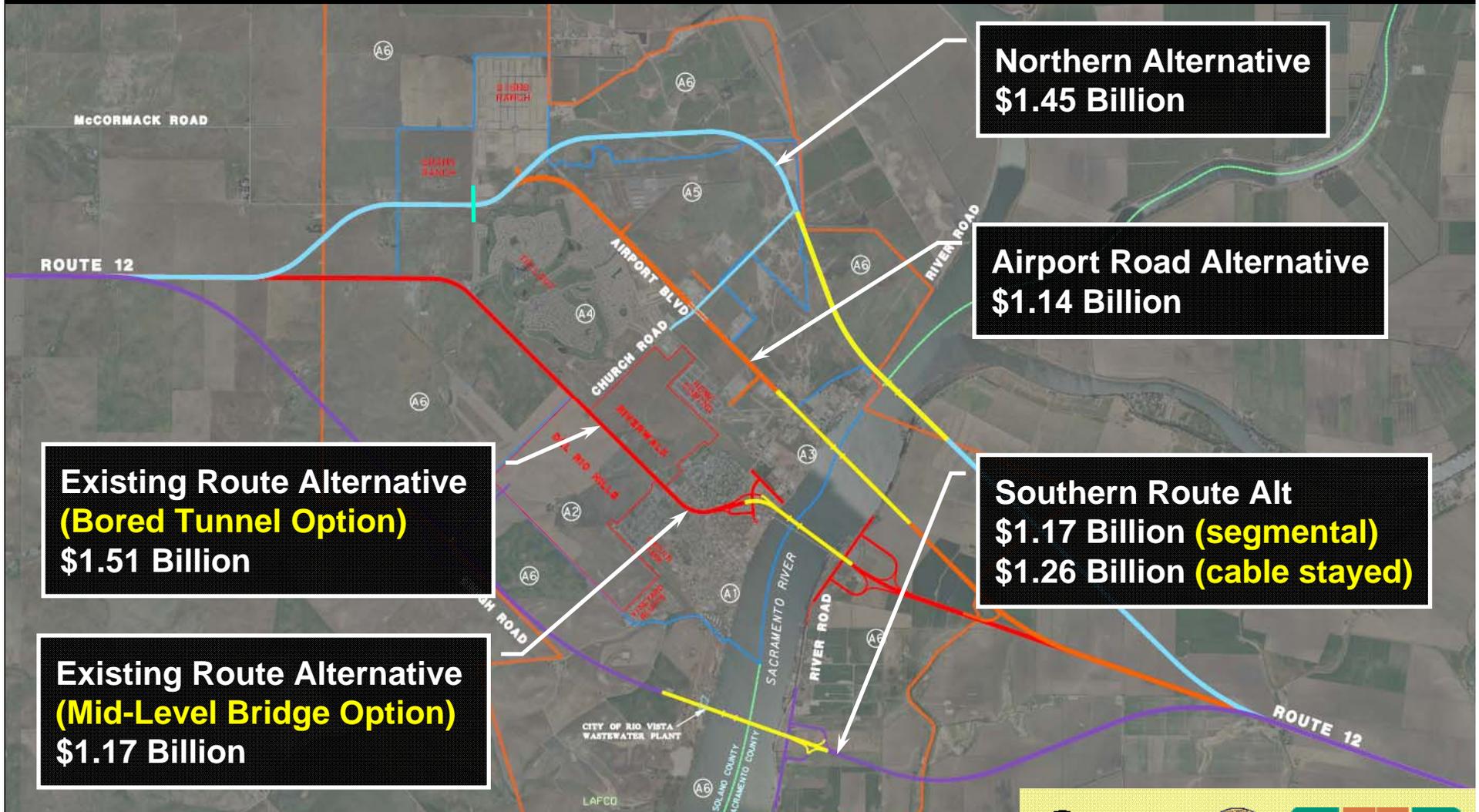


# Airport Road Alternative



# Estimated Project Costs

## Total Cost for Programming Escalated to Year 2022



- **Project Requires Significant Funding Up Front:**
  - Environmental Clearance
  - Design Engineering
  - Right-of-Way Acquisition
- **Potential Funding Sources Available Today:**
  - State [State Transportation Improvement Program (STIP)]
  - Federal (Grants, Earmarks, etc.)
  - Local (Developer Impact Fees, Transportation Sales Tax, etc.)
  - Tolls



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# Funding Strategies

- **Local, State & Federal Funds:** Likely not a feasible strategy
  - Limited – budget issues and intense competition for available funds
  - Would require reallocation of already programmed funds
- **Toll on NEW Bridge:** Likely not a feasible strategy
  - Toll revenue not sufficient to fund project delivery
  - More than \$400 Million needed from other sources
- **Toll Existing & New Bridge + Multiple Funding Sources:**
  - Seek Federal, State & Local funds to help get Environmental Phase going
  - Toll existing bridge to establish revenue stream for completion of environmental clearance, design and right-of-way acquisition.
  - Existing bridge toll could fund incremental improvements along SR12
  - New bridge toll would fund bond payments, operations & maintenance



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# Funding Strategies

## ➤ Concerns Regarding Tolls

- 40% - 45% of bridge traffic originates or terminates in Rio Vista
- 55% - 60% of bridge traffic is through traffic
- Community needs to use the bridge
- A Rio Vista Bridge toll would require 2 tolls to be paid for those City residents that need to travel to Antioch & beyond

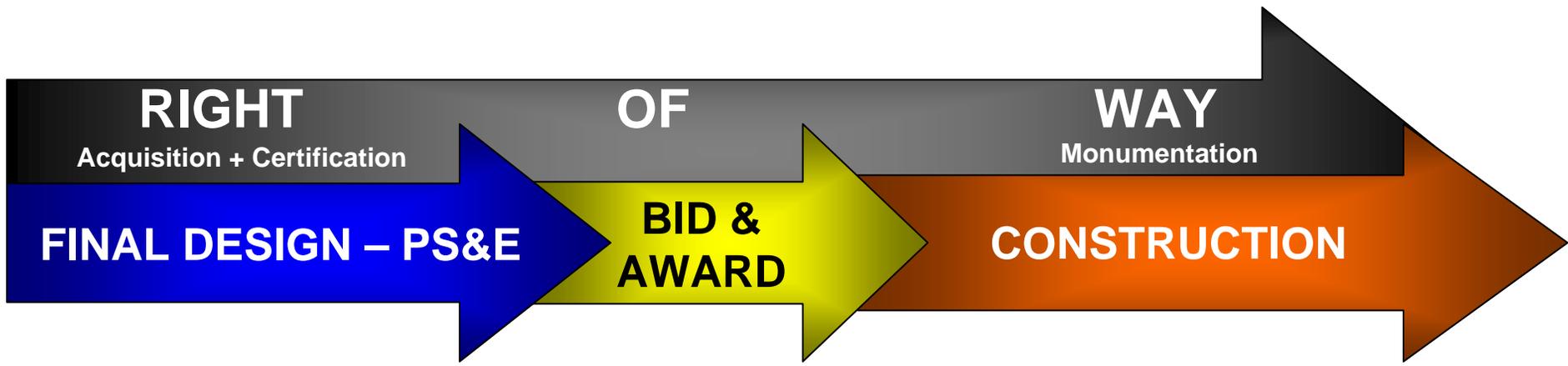
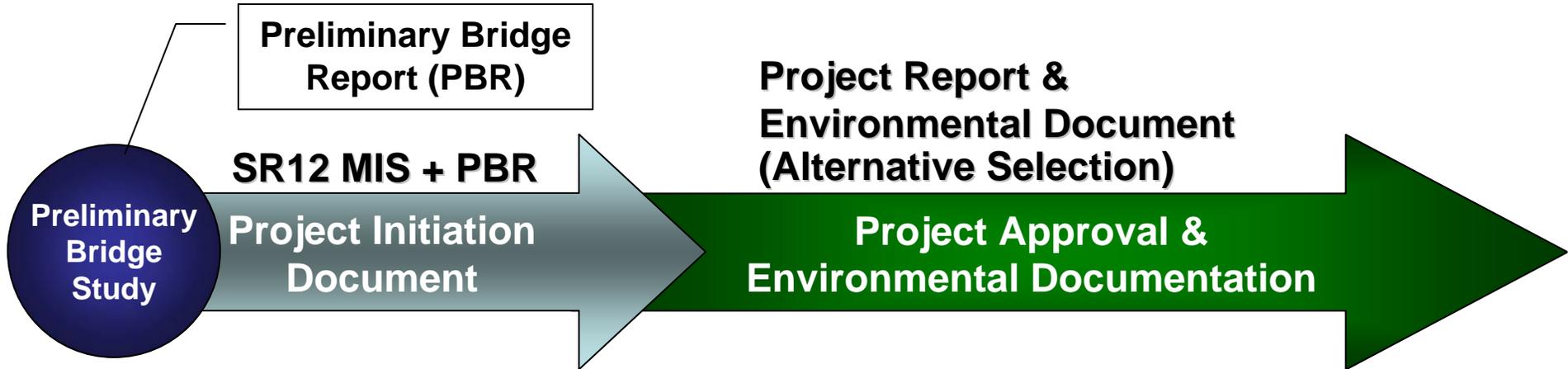
## ➤ Potential Remedy

- Phase tolls in for local residents over time



# What's Next?

## PROJECT DELIVERY PROCESS



# Project Recap

## Corridor Deficiencies

- **SR-12 Corridor is Undersized for Projected Growth**
- **Safety Issues: Little to No Shoulders, No Turn Lanes at Many Intersections & High Accident Rates**
- **Bridge Openings Cause Long Backups/Delays – Port of West Sacramento Planning to Expand Operations**

**Congestion Will Worsen over Time**

## Projected Needs

- **4-Lane SR-12 Facility**
- **4 Lanes Across the River**
- **Minimize/Eliminate Conflict Between Road & River Traffic**



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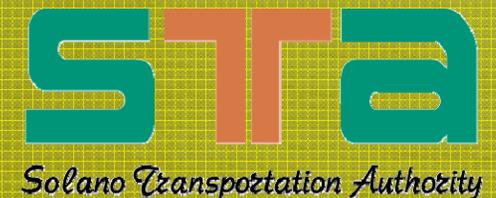


Solano Transportation Authority

# The SR12 Realignment/Rio Vista Bridge Preliminary Study



## COMMENTS/QUESTION & ANSWER



# The SR12 Realignment/Rio Vista Bridge Preliminary Study



**THANK YOU FOR YOUR PARTICIPATION**

