

CITY OF LARKSPUR

PROJECT UPDATE  
BON AIR ROAD BRIDGE REPLACEMENT AND  
MAGNOLIA AVENUE WATER QUALITY FACILITIES

PRESENTED BY

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U.S. Department  
of Transportation  
**Federal Highway  
Administration**



# Bon Air Bridge



*VIEW FROM AUTO LOOKING NORTHEAST • BON AIR BRIDGE  
LARKSPUR, CALIF.*

# Why Replace the Bridge?

- The Bridge is structurally deficient
- Improve access and safety for pedestrians and bicyclists
  - Multi-use paths,
  - dedicated bike lanes
  - Barrier separation



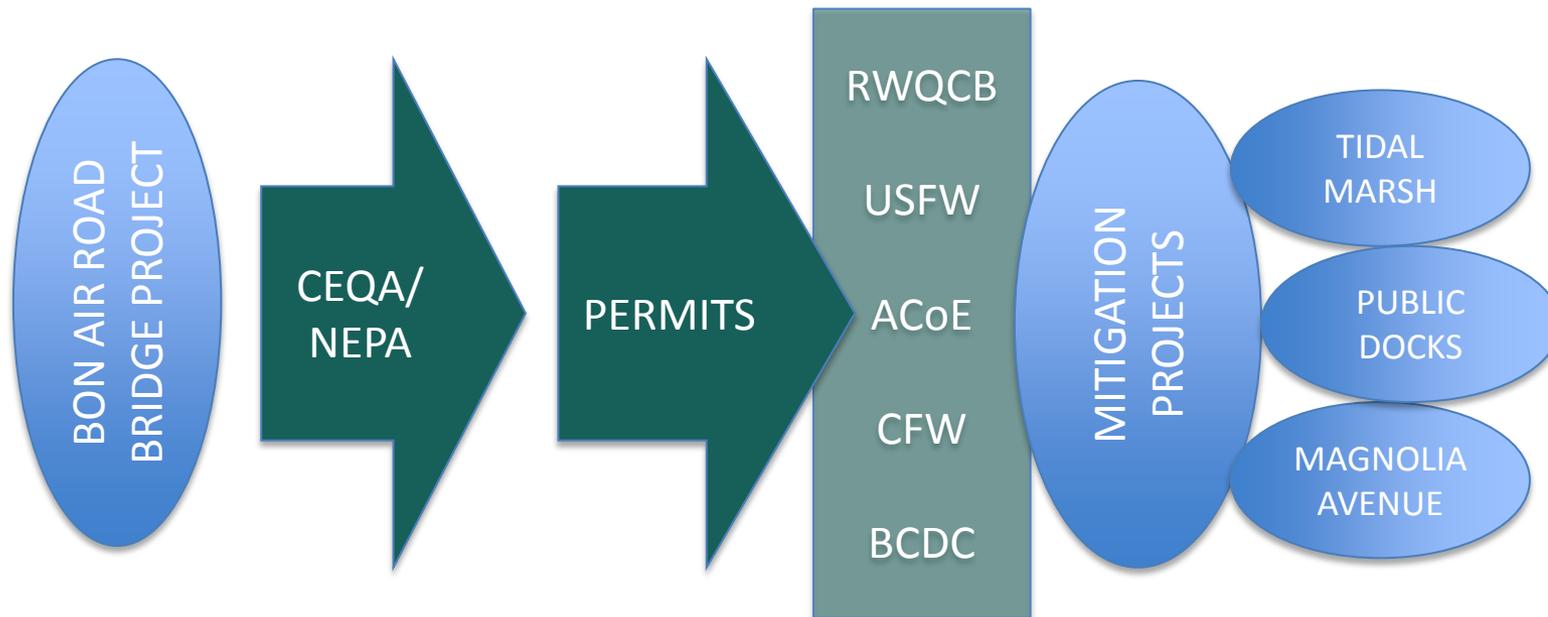
# Bridge History

- 1958 – Original Bridge was built.
  - 1970 and 1994 – Major foundation repair & walkway widening/ seismic retrofit
  - 2000 and 2003 deficiency reports
  - 2005 – Replacement bridge determined to be the most cost-effective
  - **2006 – The City applied for and received funding through the Highway Bridge Replacement Program (federal grant) to replace the Bon Air Bridge.**
  - 2012 – Temporary supports were added to stabilize the structure.
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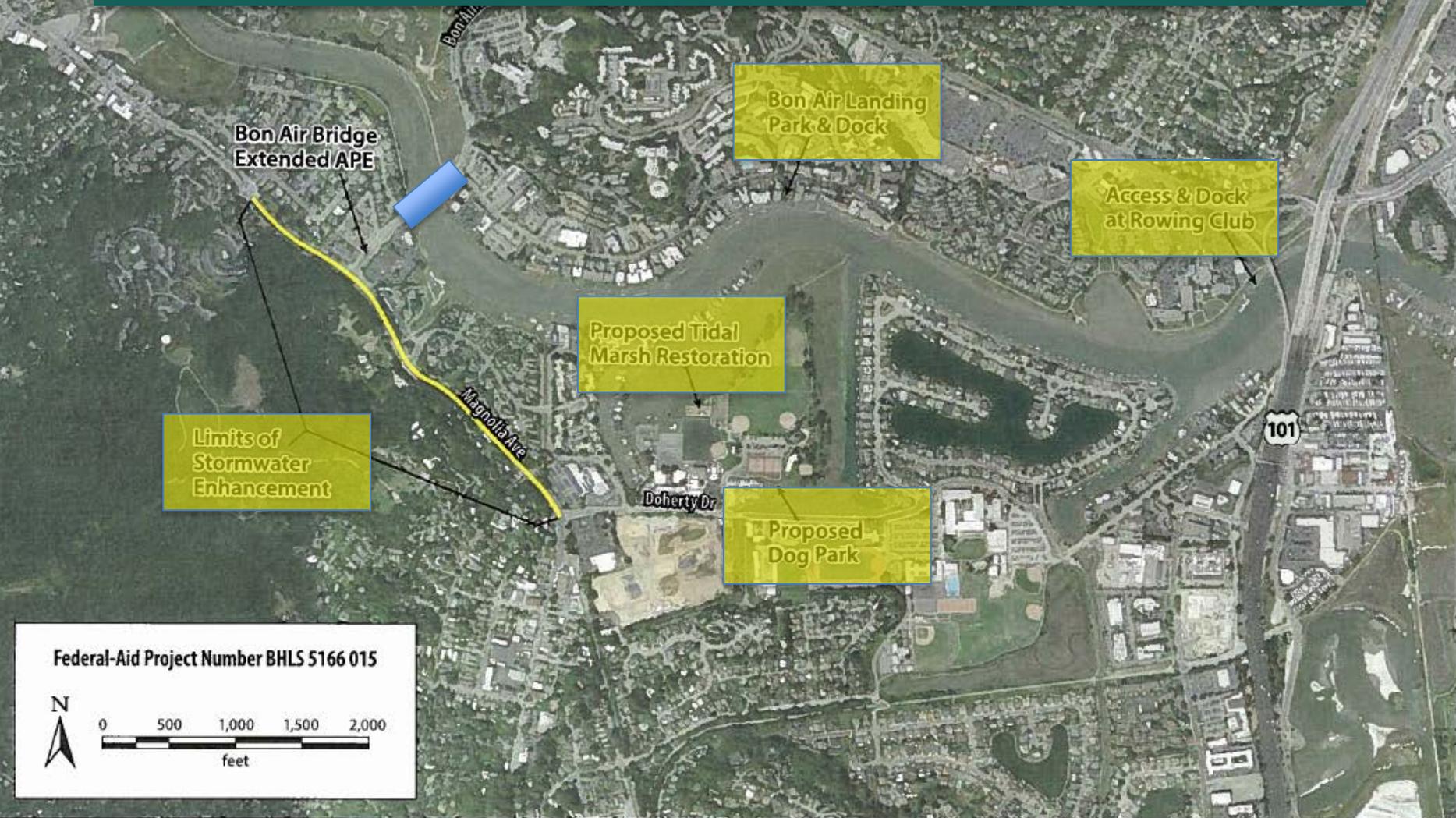
# Project History

- 2006 – The City applied for and received funding through the Highway Bridge Replacement Grant to replace the Bon Air Bridge.
- 2008 – The final concept design for the bridge, a result of extensive public outreach is approved by the City Council.
- 2012 – Both California Environmental Quality Act CEQA and National Environmental Protection Act NEPA certifications were completed for the project, based on the 30% project development plans.
- 2014 – 2015 - Permits obtained through **RWQCB, US Fish & Wildlife, Army Corps of Engineers, California Fish and Wildlife** and **BCDC**.
- 2015 – Design of Mitigation projects triggered by permitting
- 2015 - Utility relocations initiated by Comcast, MMWD, PG&E, and AT&T.
- 2016 - Final design completed.

# Mitigation Projects



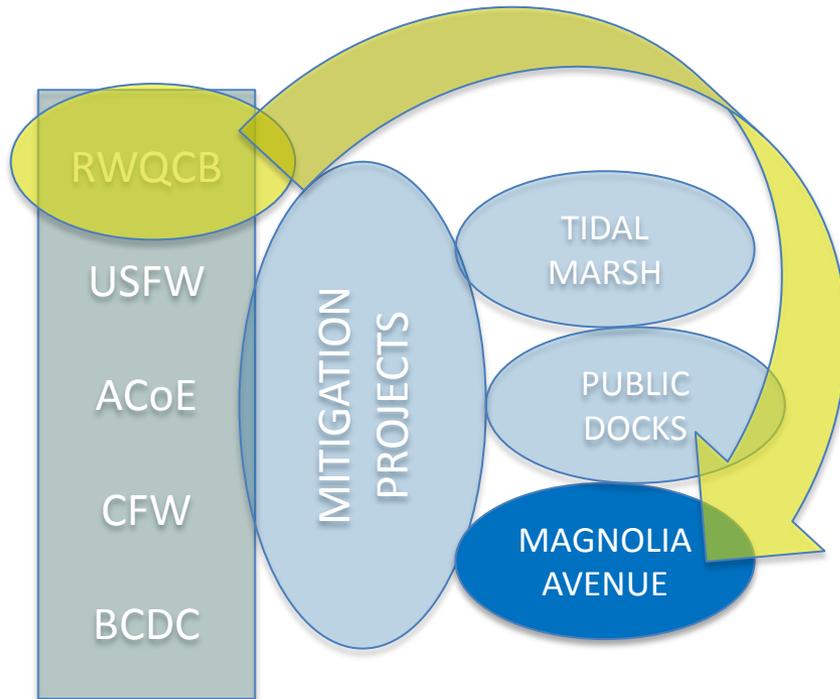
# Environmental Mitigation



APE = Area of Potential Effect

**Figure 1**  
Location of Bon Air Bridge Extended APE and New Offsite APEs

# Mitigation Projects



To compensate for unavoidable impacts from pollutant loads in post-construction stormwater associated with new and replaced impervious surfaces, the Applicant will install, operate, and maintain low impact development (LID) facilities to treat runoff from Magnolia Avenue. Magnolia Avenue feeds into Bon Air Road less than 1000 feet from the Bridge, so the LID facilities will treat similar pollutant loads within the same watershed.

To mitigate for direct and indirect impacts to tidal marsh and creek habitat, the Applicant will restore 0.232 acre of tidal marsh within the Corte Madera Creek Watershed. In addition, the Applicant will restore 0.002 acre of creek habitat by cutting the old bridge columns a minimum of two feet below the mud line.

**California EcoAtlas:** It has been determined through regional, state, and national studies that tracking of mitigation/restoration projects must be improved to better

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Ms. Mary Grace Houlihan

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Water Quality Certification  
CIWQS Reg. Meas. 393161  
CIWQS Place ID 798702

assess the performance of these projects, following monitoring periods that last several years. In addition, to effectively carry out the State's Wetlands Conservation Policy of no net loss to wetlands, the State needs to closely track both wetland losses and mitigation/restoration project success. Therefore, we require that the applicant use the California Wetlands Form to provide Project information related to impacts and mitigation/restoration measures (see Condition No. 7 of this Certification). An electronic copy of the form and instructions can be downloaded at:

# Magnolia Water Quality Facilities

Four methods of offsetting the water quality impacts of the bridge project:

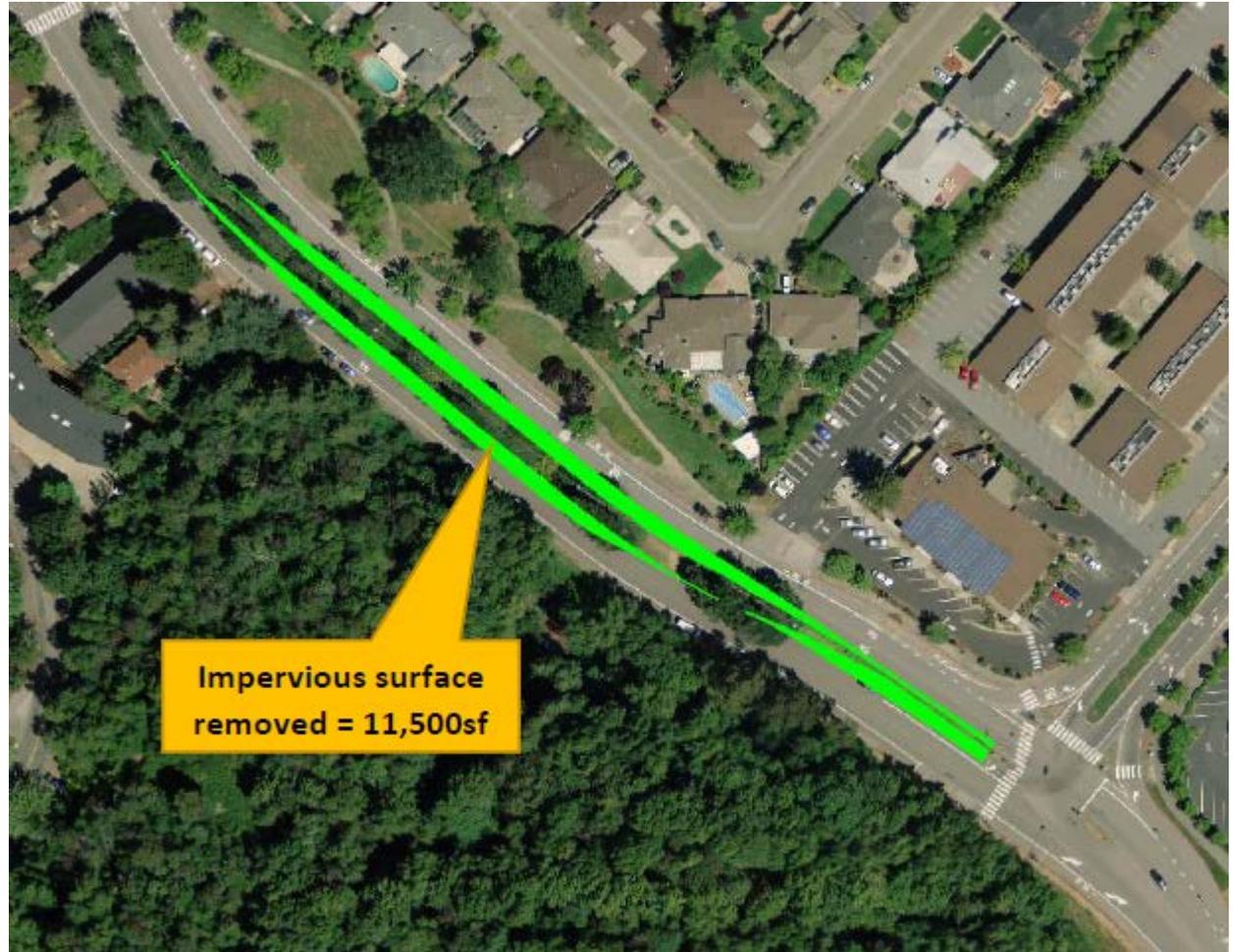
1. Improving the existing drainage ditch
2. **Removing paving to increase the landscaped median**
3. Add grassy swales to the Hillview Greenway
4. Underground infiltration



# Conversion of Asphalt to Landscape

Conversion of asphalt travel lanes to landscaped median:

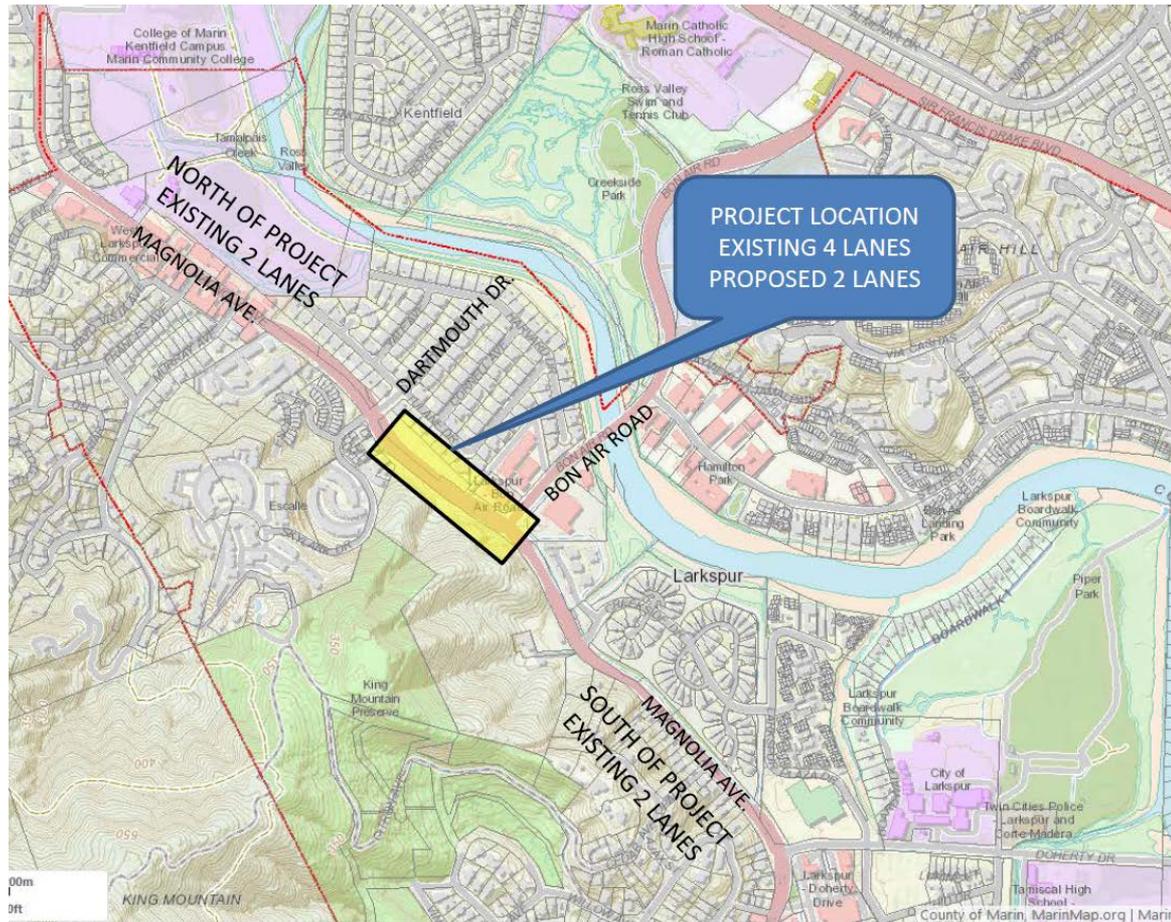
- Partially satisfies 401 permit requirements
- Mitigates tree\ pavement issues
- Allows for replacement landscaping and irrigation



# Impacts of lane reduction

## Viability of lane reduction:

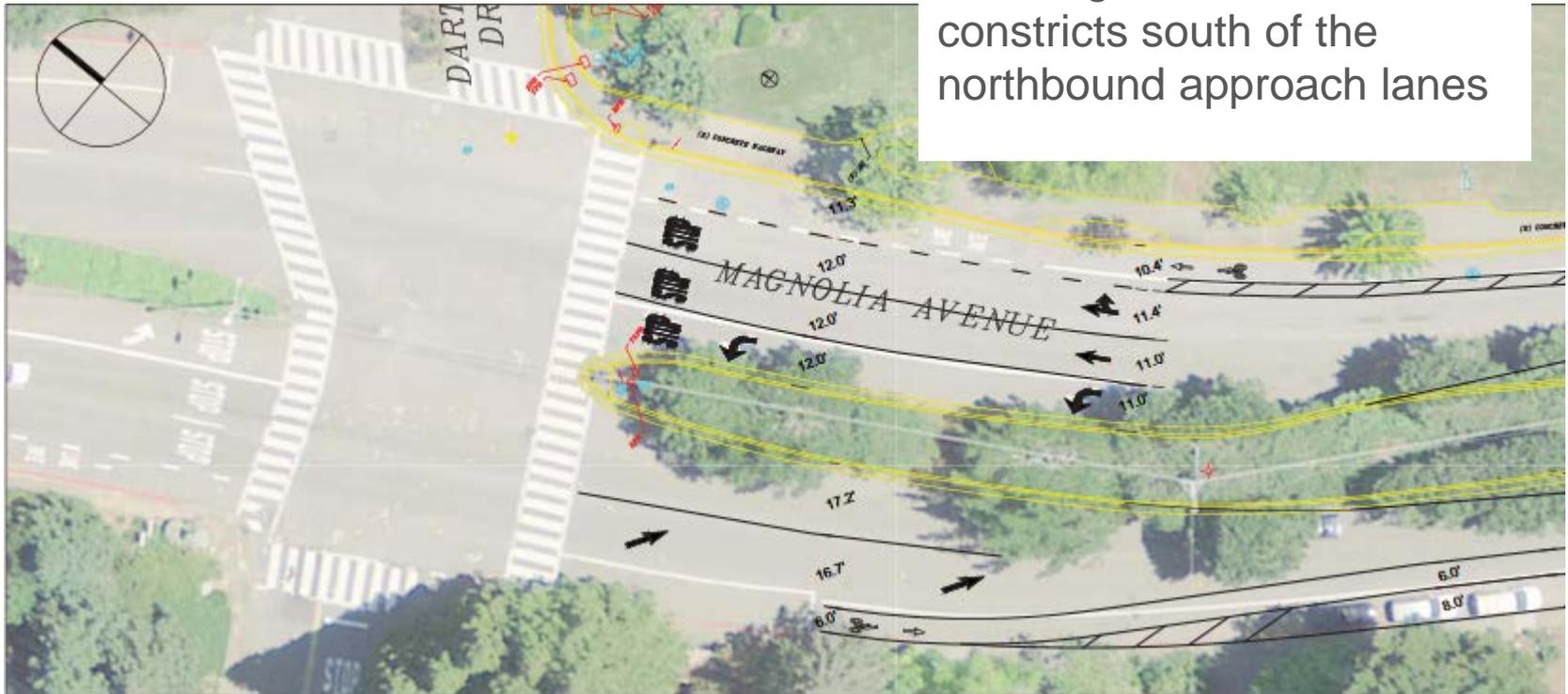
- Consistent w/ segments south and north (already 2 lanes) and south segment carries more traffic
- Magnolia traffic flow controlled primarily by intersection operation, not the number of lanes
- Bon Air/ Magnolia would be similar to Doherty/ Magnolia (which has more traffic)
- Traffic memo – maintains LOS



# Proposed Improvements

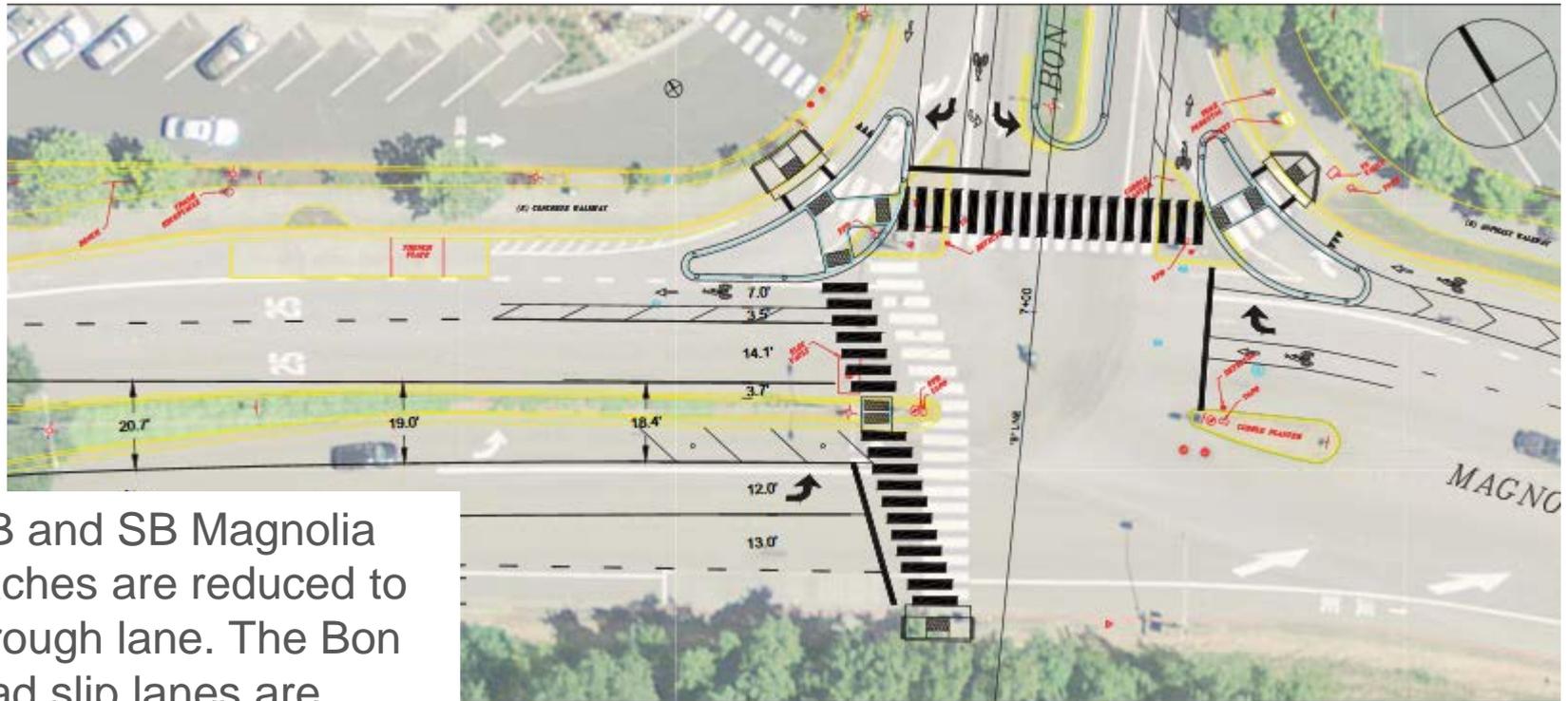
At Dartmouth / Skylark intersection

The intersection remains unchanged. The corridor constricts south of the northbound approach lanes



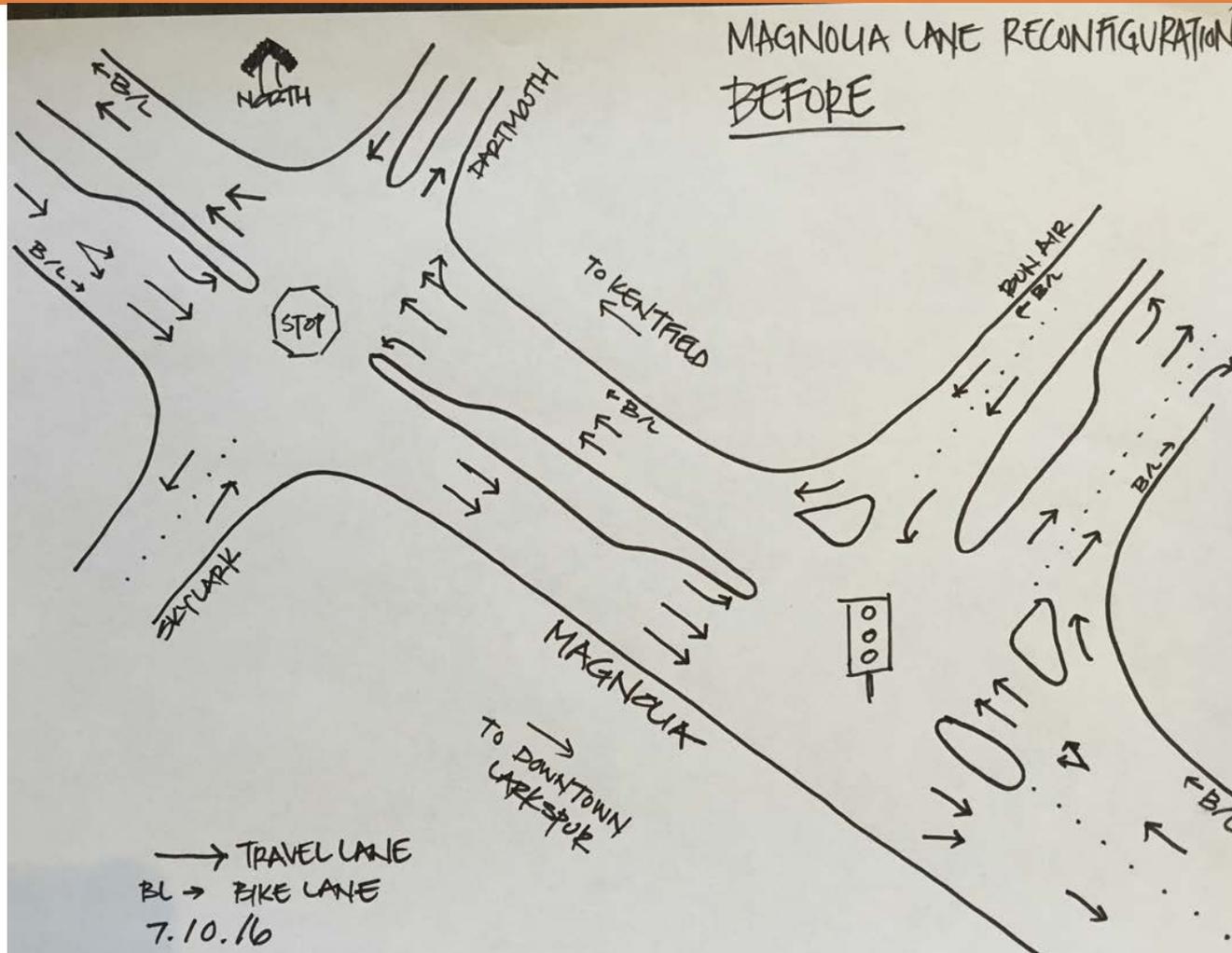
# Proposed Improvements

At Bon Air Road intersection

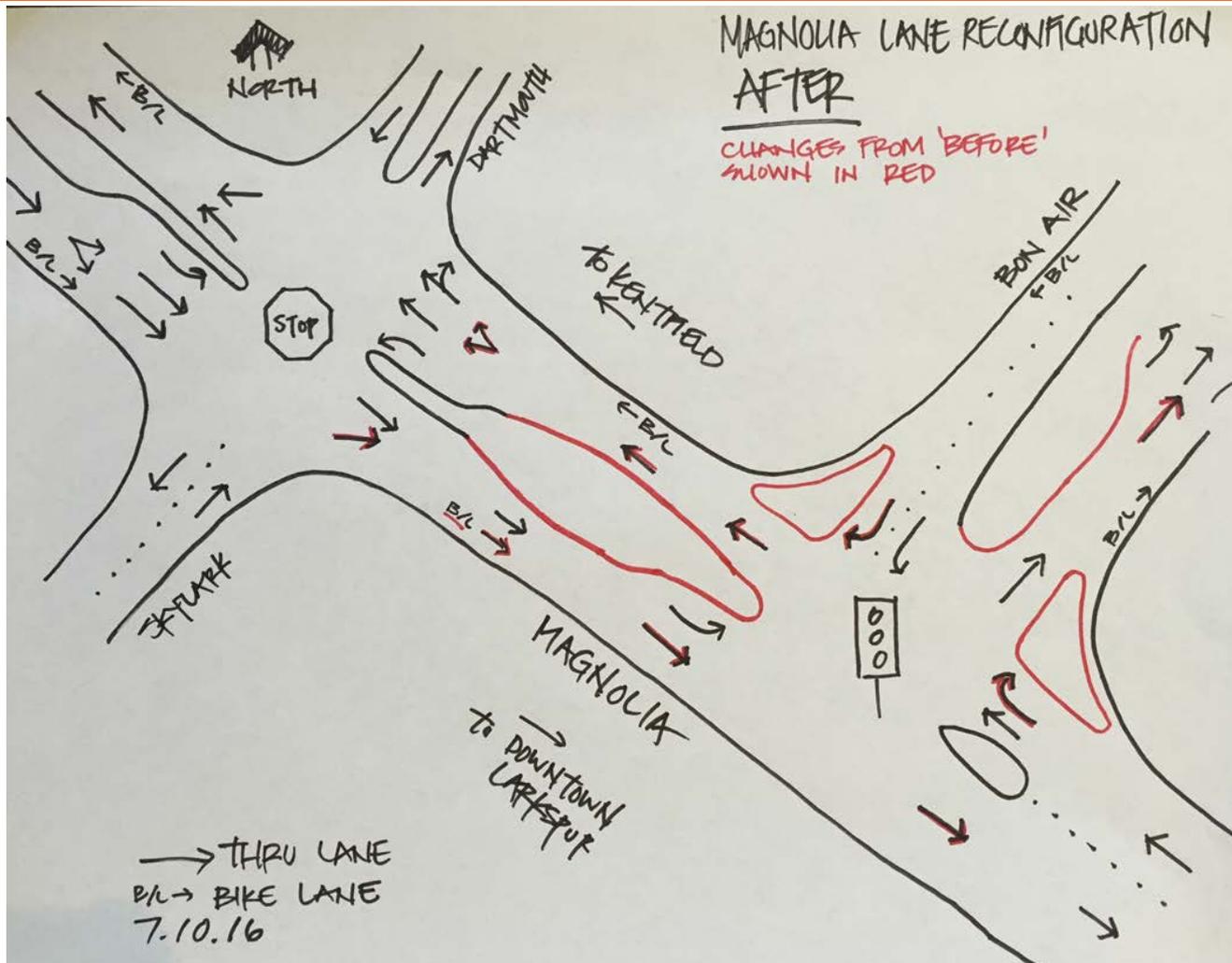


The NB and SB Magnolia approaches are reduced to one through lane. The Bon Air Road slip lanes are eliminated.

# Proposed Improvements Schematic



# Proposed Improvements Schematic



# Proposed implementation

- Bridge Plans complete – waiting for Caltrans process
- Mitigation Plans – final design stage – construction next year
- Magnolia Water Quality Facilities Project lane reduction partially implemented with 15/16 Pavement Project
- City proposes:
  1. Finalizing pavement project using traffic paint (in lieu of permanent thermoplastic striping for northbound lane reduction)
  2. Observing and monitoring the performance of the NB reduced lane configuration.
  3. Documenting NB performance via follow-up traffic study during school year.
  4. Public outreach including follow-up meeting in 4-6 months to share experiences and traffic data.

# Bridge Schedule Update

- **Start - spring 2017**  
close bike lane & upstream walkway
- **Summer 2017 – Fall 2018**  
Install temporary trestles, demolish upstream portion of existing bridge, abutment construction, utility & right-of-way work north and south of the bridge and construct upstream side of new bridge
- **Fall 2018 through summer 2020**  
Move traffic to new upstream bridge, demolish remaining bridge, construct new downstream half
- **Completion - fall 2020**

# Bridge Project Construction Impacts

- Approximately 3-4 years of construction from Fall 2015 to Fall 2019, 5-6 days per week
  - Monday–Friday 7:00AM to 6:00PM, Saturday 8:00AM to 5:00PM
- Periodic night work
- Periodic pedestrian and bike traffic control for safety and utility service requirements
- Periodic one-way traffic on bridge (10- to 15-minute delays)
- Periodic waterway traffic control
- Anticipated full closures:
  - 2 weeks for delivery and installation of precast girders
  - 1 week for closure pour between upstream and downstream halves of new bridge

# Questions?

