



Shoreline Boulevard at Highway 101 Bicycle/Pedestrian Bridge Preliminary Conceptual Design

City Council Study Session - April 28, 2020

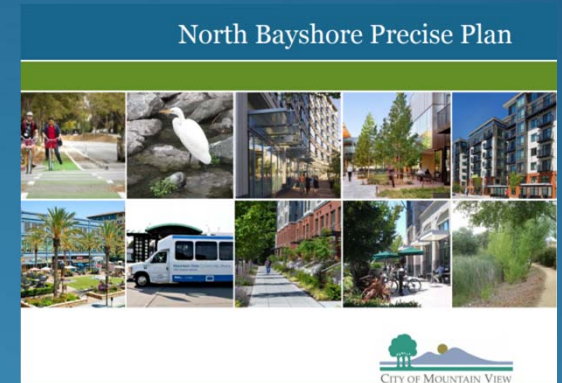
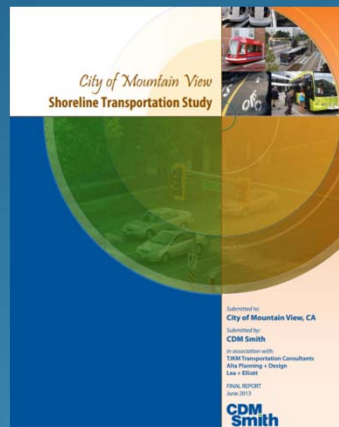
Tina Tseng, Senior Civil Engineer
Lisa Au, Principal Civil Engineer
Public Works Department

Project History Planning Guidelines

Overview

- A. Project History
 - Planning Guidelines
- B. Design Parameters
- C. Goals & Council Questions
- D. Bridge Components
- E. Project Budget
- F. Next Steps
- G. Summary of Council Questions

- Shoreline Transportation Study, 2013
- Shoreline Boulevard Corridor Study, 2014
- North Bayshore Precision Plan



Project History

Long-Term Improvements

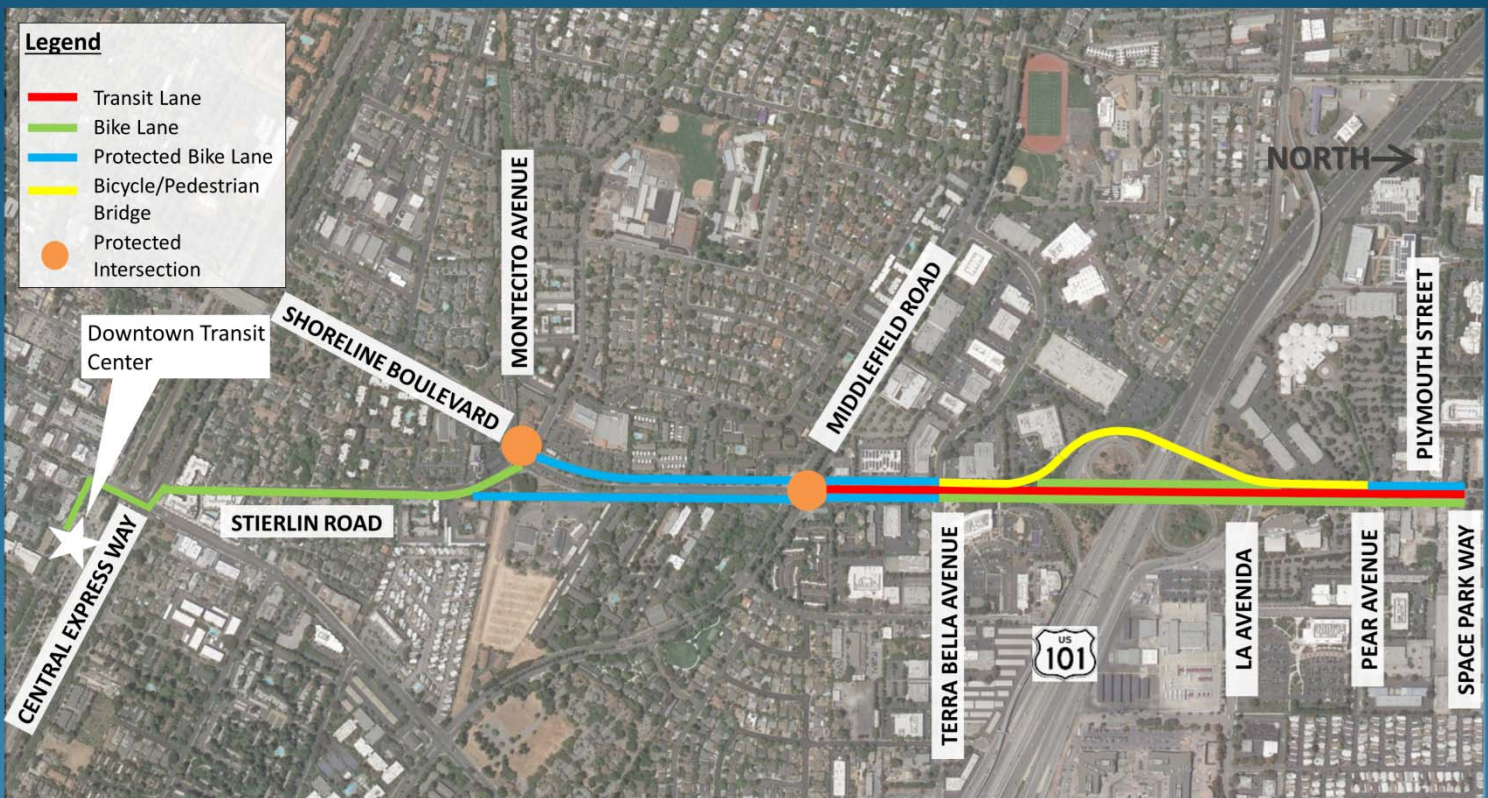
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A. Project History

- Planning Guidelines

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Project History

Bridge Planning Concept

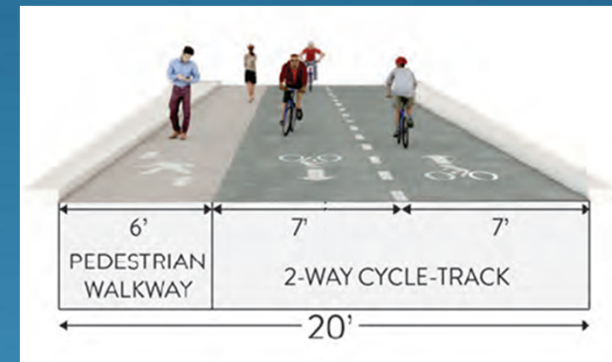
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A. Project Background

- Planning Guidelines
- Long-Term Improvements
- **Bridge Planning Concept**

- B. Design Parameters
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- A 0.67 mile long off-road bicycle/pedestrian crossing
- Two 7' lanes for bicyclists and a 6' lane for pedestrians
- Supports for the future installation of a 12" recycled water pipeline.



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Design Parameters

- Create functional pedestrian/bicycle network
- Provide unimpeded bicyclist and pedestrian access across Highway 101
- Design a structure that optimizes life cycle cost
- Improve intermodal traffic operation
- Meet the required clearances over Highway 101
- Minimize right-of-way acquisitions

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Goals and Council Questions

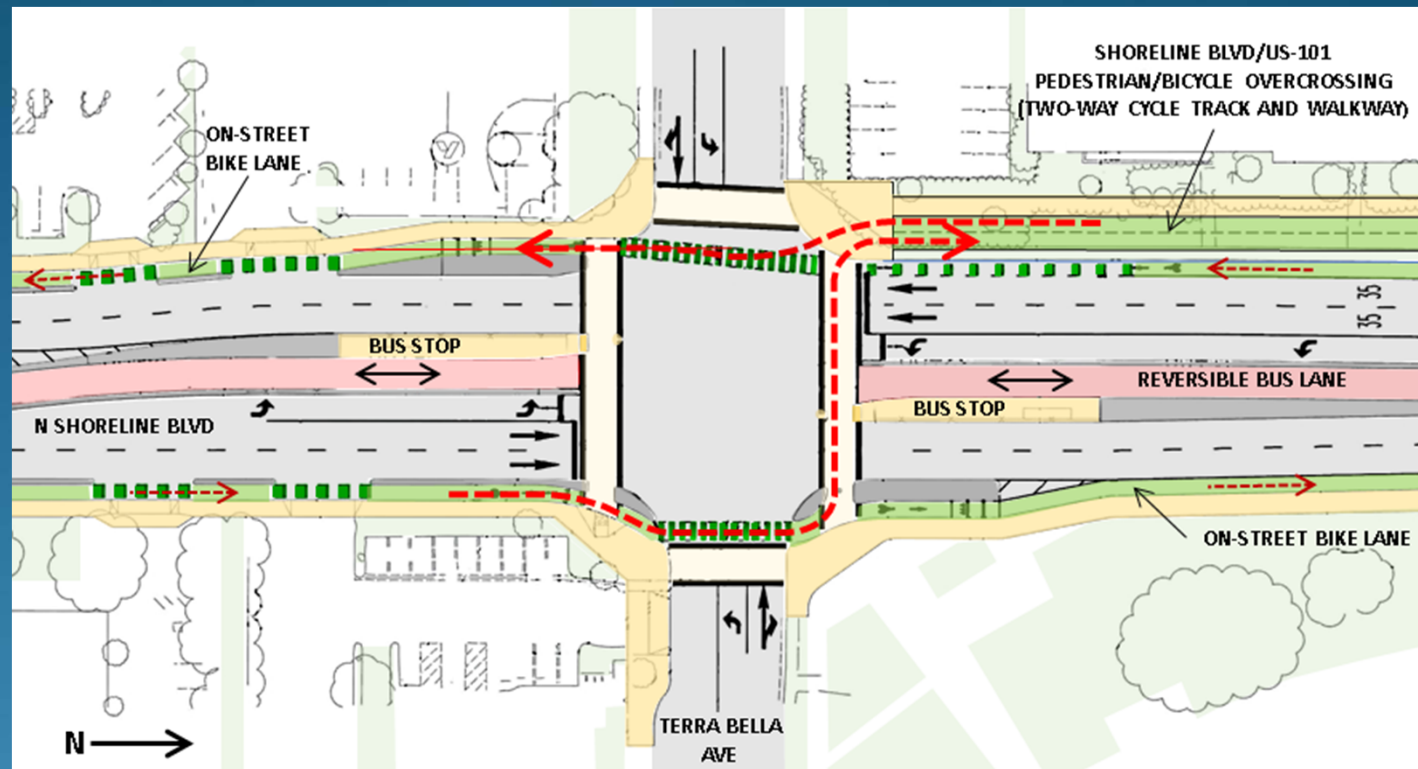
Obtain City Council's comments and directions for each of the 3 bridge components



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 - **Terra Bella Approach**
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Terra Bella Approach



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Terra Bella Approach



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Terra Bella Approach

Council Question #1

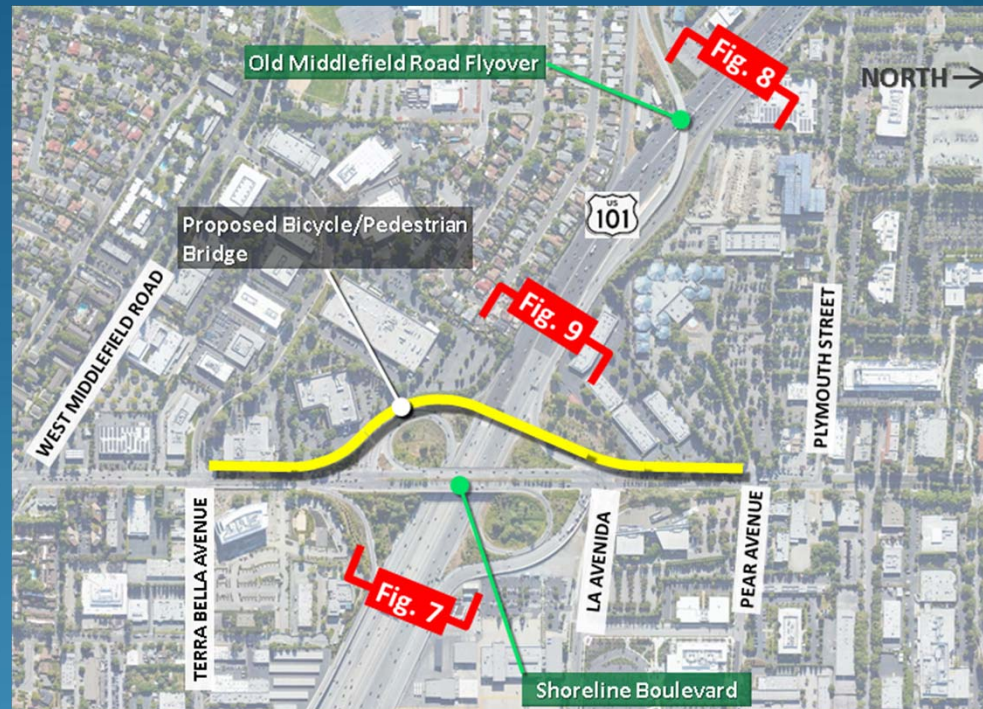
Does the City Council support the recommended concept of the two-way off-street cycle track and sidewalk, including installation of street trees, landscape, and streetlights along the west side of Shoreline Boulevard within the Terra Bella Approach?

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Shoreline Overcrossing

Standard concrete box girder structure is recommended.



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Shoreline Overcrossing

On-the-Bridge Enhancement Options



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Shoreline Overcrossing



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Shoreline Overcrossing

Standard Concrete Box Girder Bridge Example 1



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Shoreline Overcrossing

Standard Concrete Box Girder Bridge Example 2



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Shoreline Overcrossing

Standard Concrete Box Girder Bridge Example 3



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Shoreline Overcrossing

Council Question #2

Does the City Council support the recommended standard bridge structure design (concrete box girder) for the proposed Shoreline Overcrossing with optional enhancements to be reviewed and considered by the City Council in a future meeting?

Pear Approach

Overview

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Elevated Shared Path with Skylight Option



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Street-Level Path

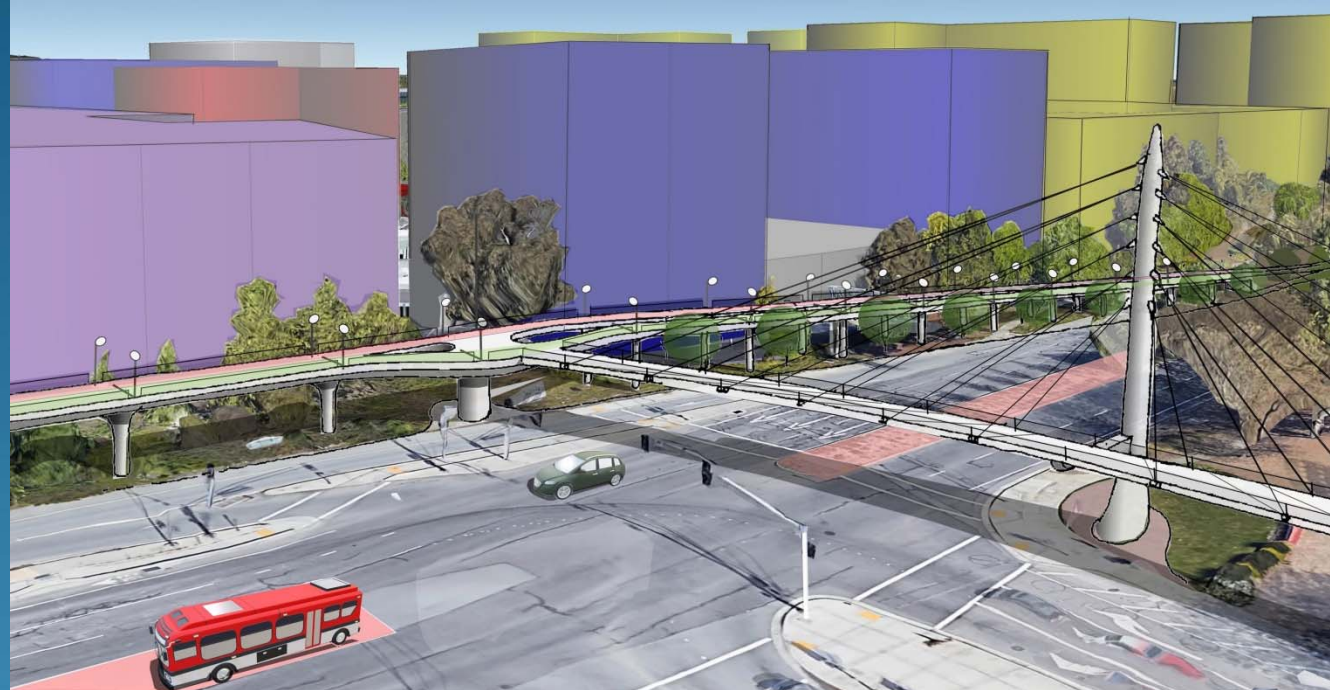


Pear Approach

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Schematic of the possible future east-west connection



Pear Approach

Schematic of the possible future east-west connection



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Council Question #3

Does the City Council support the recommended design considerations such as the skylight option and a wider deck area to facilitate travels on the proposed and future bridges within the Pear Avenue Approach?

Project Budget

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Project Stage	Overall Budget
Design	\$2 million
Construction	\$20 million



Next Steps

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- Continue with the project design and develop alternatives
- Coordinate with B/PAC and Visual Arts Committee-begin the Call for Artists process
- Continue coordination with the Gateway Master Plan & Caltrans
- Present the concept design alternatives to City Council for direction in early 2021

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Summary of Council Questions

1. Support of the recommended concept of the two-way off-street cycle track and sidewalk, including installation of street trees, landscape, and streetlights along the west side of Shoreline Boulevard within the Terra Bella Approach?
2. Support of the recommended standard bridge structure design (concrete box girder) for the proposed Bridge with optional enhancements to be reviewed by the City Council in a future meeting?
3. Support of the recommended design considerations such as the skylight option and a wider deck area to facilitate travels on the proposed and future bridges within the Pear Avenue Approach?