

# Nokomis Avenue & Madrone Avenue Bridge Replacement Projects

PUBLIC WORKSHOP | SEPTEMBER 27, 2018



NOKOMIS AVENUE BRIDGE REPLACEMENT

# Tonight's Agenda

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**6:30 – 7:00pm | Open House**

**7:00 – 7:30pm | Presentation**

- ⦿ **Introduction** | *Sean Condry*
- ⦿ **Ross Valley Flood Protection & Watershed Program Overview** | *Tonya Redfield*
- ⦿ **Bridge Projects Overview**
  - ⦿ Nokomis Avenue Bridge | *Steve Mellon & Michele Johnson*
  - ⦿ Madrone Avenue Bridge | *Steve Mellon & Michele Johnson*
  - ⦿ Hydraulics | *James Reilly*
  - ⦿ Environmental Permit Process | *Ray Weiss*
- ⦿ **Current Schedule & Next Steps** | *Sean Condry*

**7:30-7:45pm | Questions & Answers – Sean Condry**

**7:45-8:45pm | Project Station Breakout**

**8:45-9:00pm | Closing Comments – Sean Condry**



# Ross Valley Flood Protection & Watershed Program

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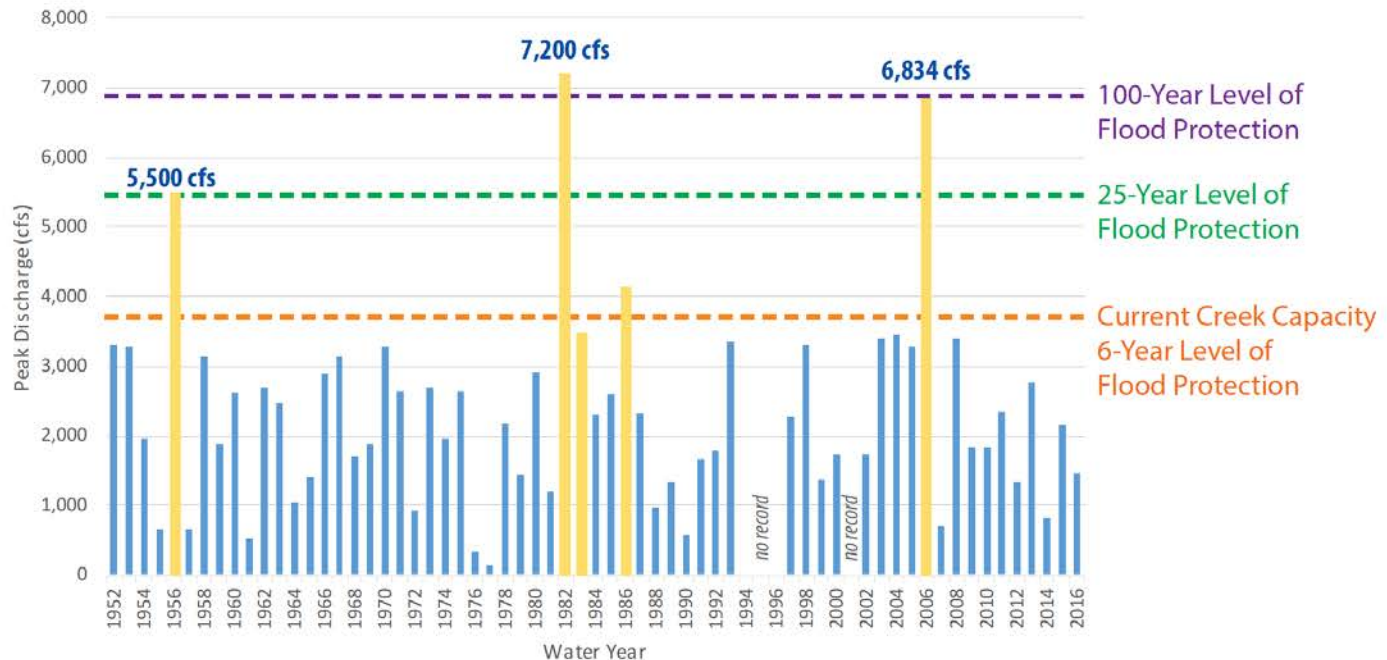
## OVERVIEW





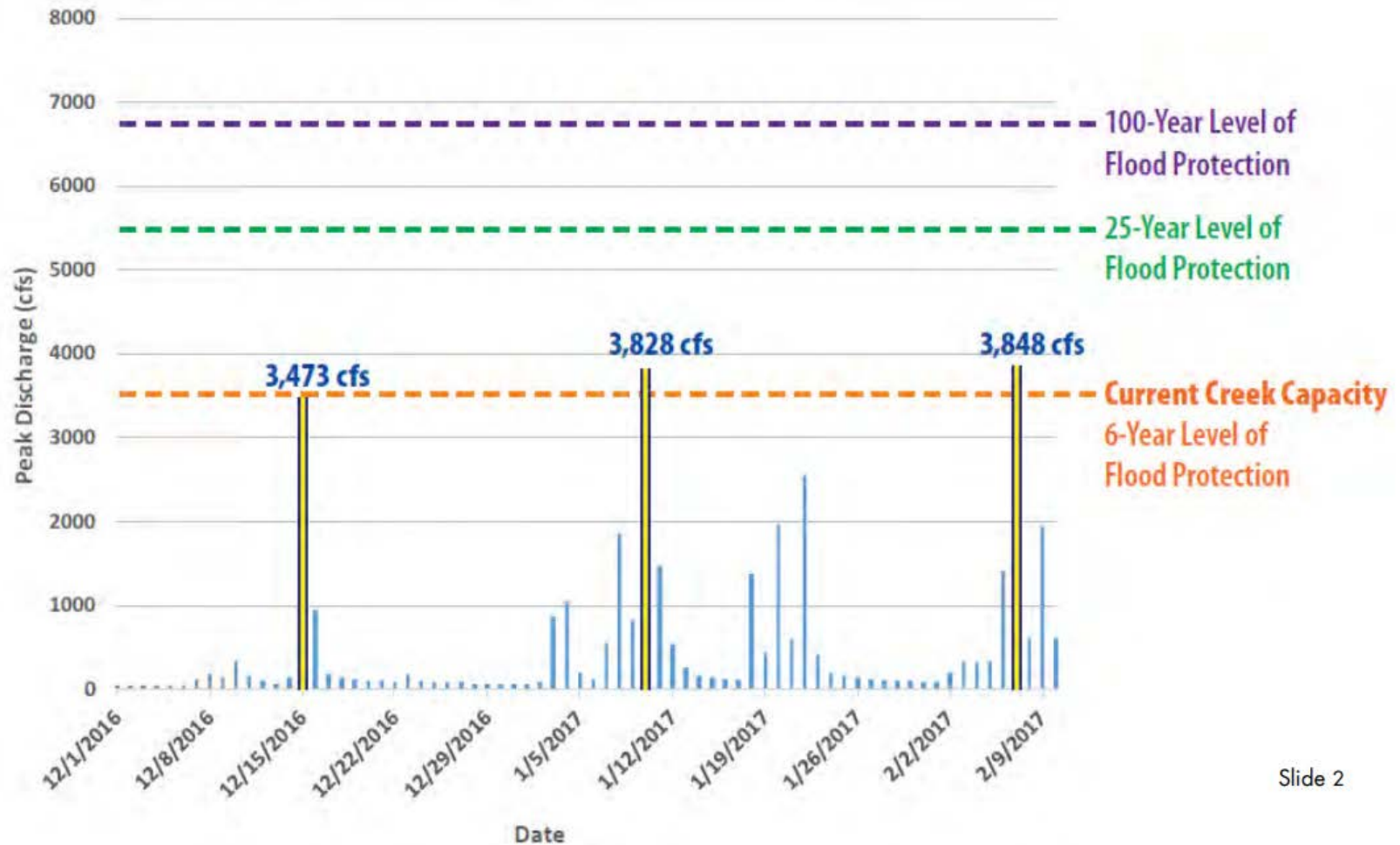
# Historical Flood Records in Ross Valley

Historical annual peak discharges recorded at the Flood Zone 9 Streamflow Gage in Ross, Corte Madera Creek



Ross Valley Watershed Flood Risk Reduction Program

# The Problem | Historical Flooding in Ross Valley



Slide 2

# Tools to Reduce Flooding

## Program Objectives

### Reduce Flow

Flood Storage and  
Diversion

Stormwater  
Infiltration

### Increase Capacity

Structure  
Modification  
Bridge  
Replacement

Flood Flow  
Containment

Channel  
Maintenance

### Prepare for Flooding

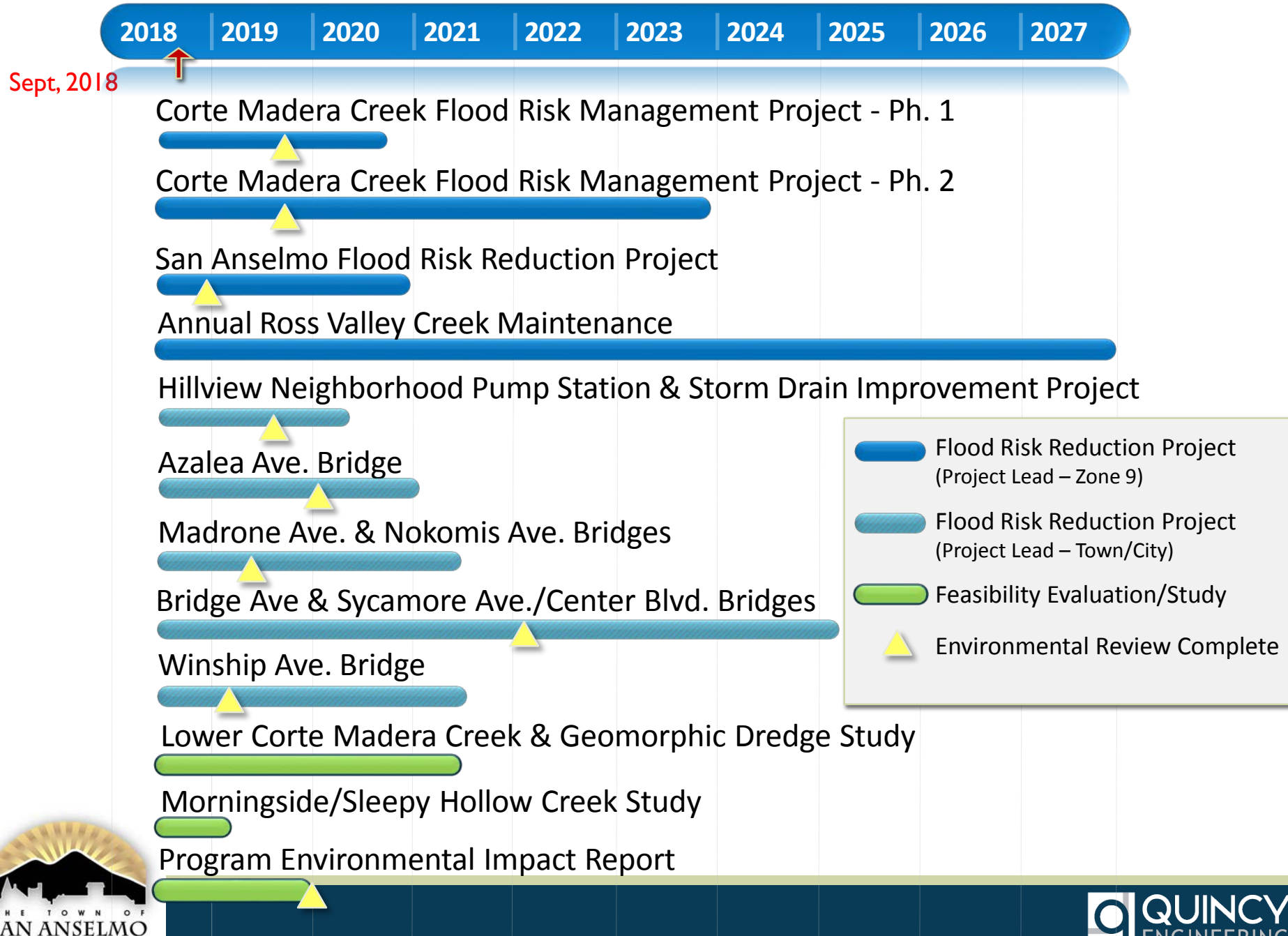
Local Hazard  
Mitigation Planning

Home Elevation  
Flood Proofing

FEMA Community  
Rating System

Green Infrastructure

# 2018 – 2027 Work Plan Timeline



# Bridge Projects

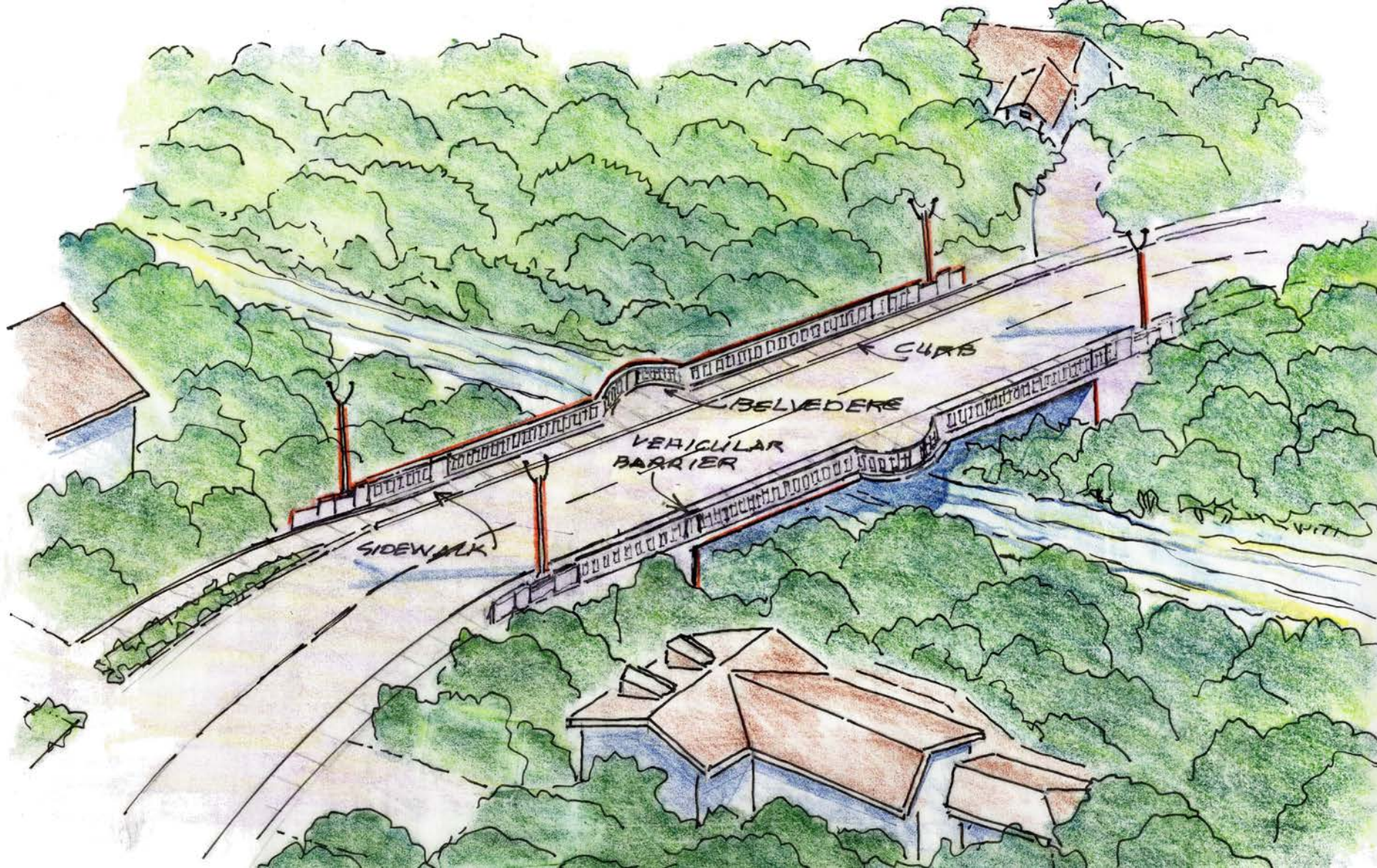
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## NOKOMIS AVENUE & MADRONE AVENUE

***NOTE: All property lines shown are based on MarinMaps and are only intended as illustration and identification of potentially affected parcels. They do not define property boundaries as only a survey can accurately depict such boundaries. Also, see MarinMaps disclaimer.***

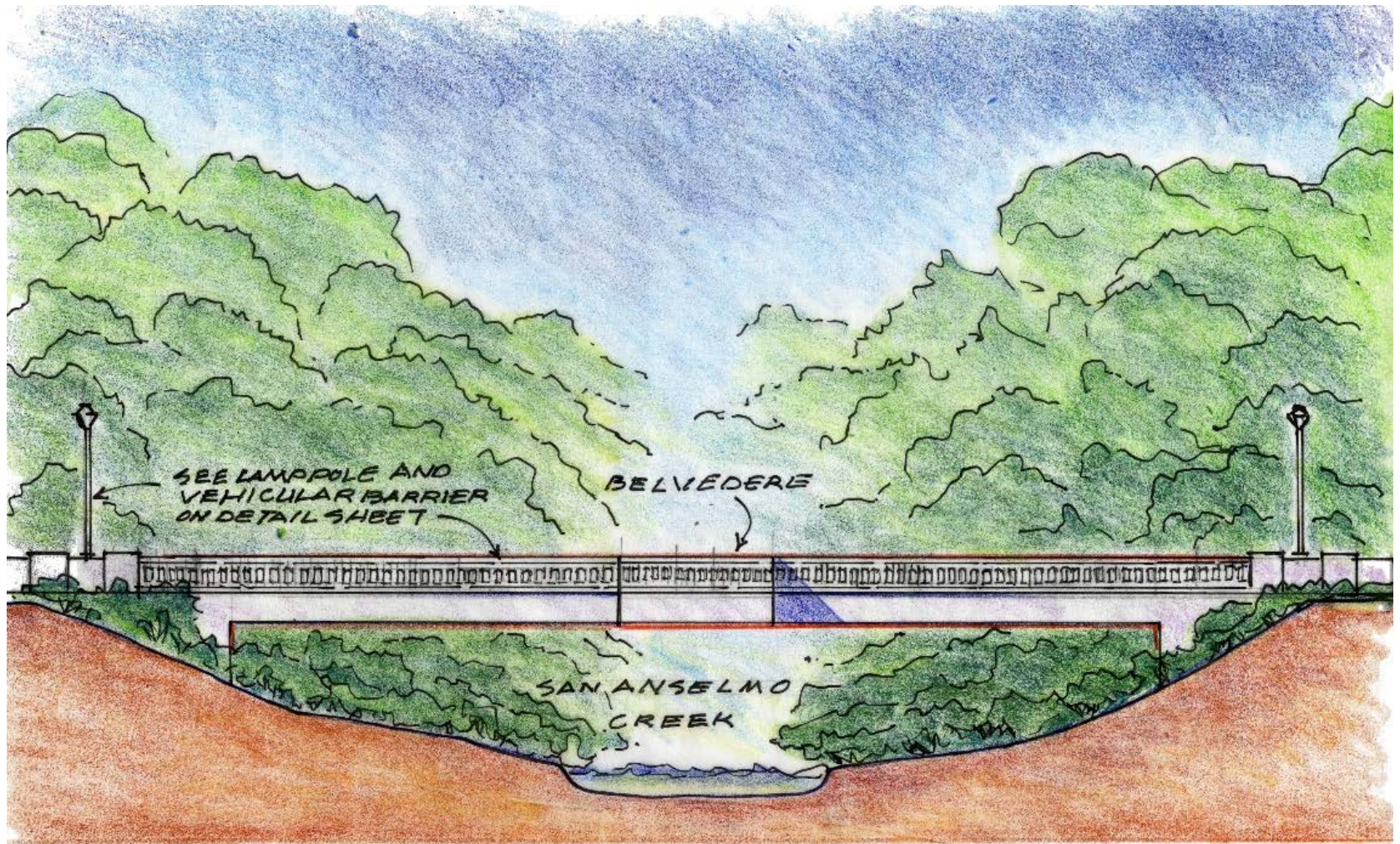






Nokomis Avenue Bridge





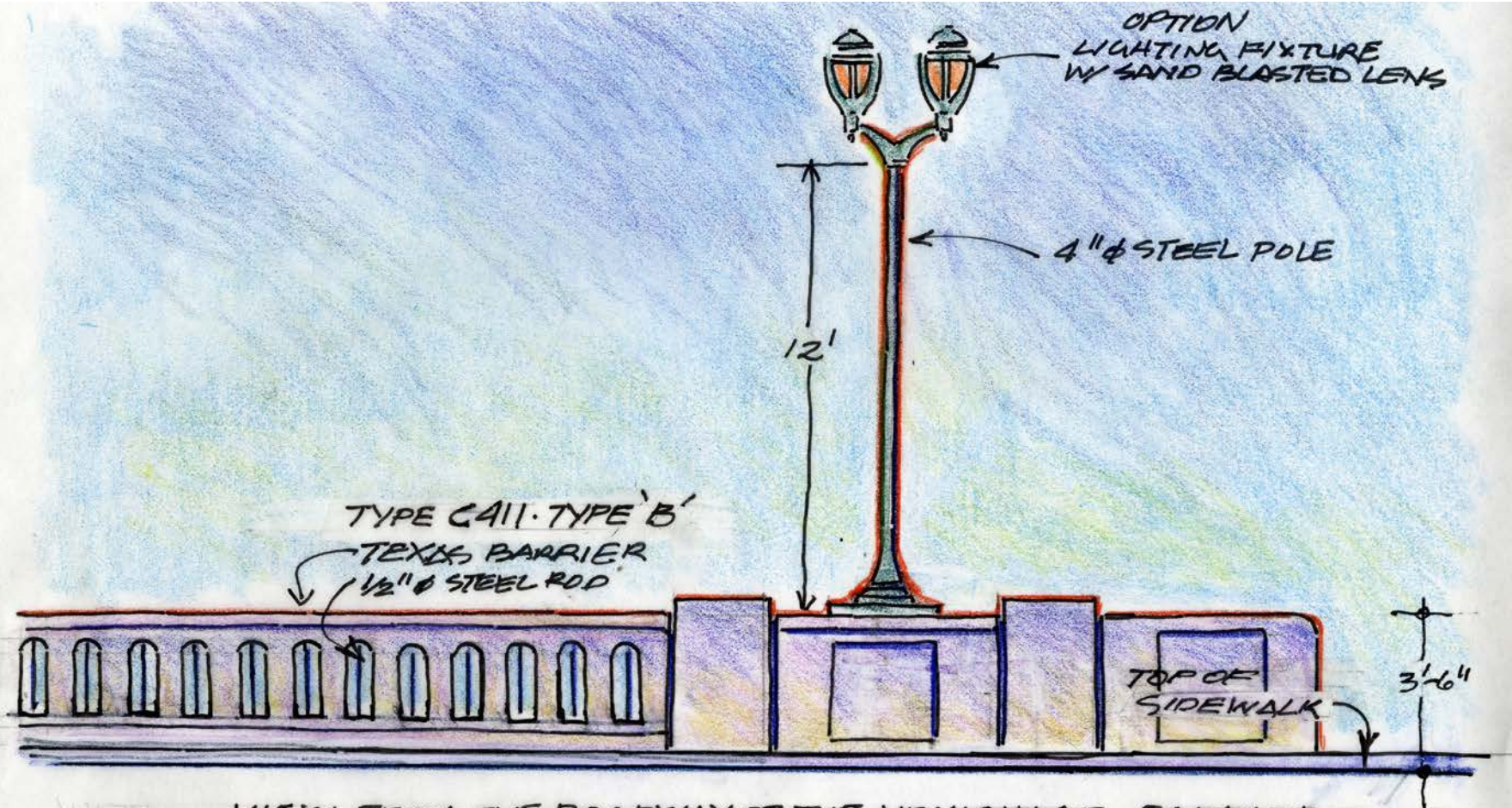
ELEVATION OF BRIDGE SHOWING VEHICULAR BARRIER  
AND SECTION AT CREEK CHANNEL

22

aug 9/10

# Nokomis Avenue Bridge





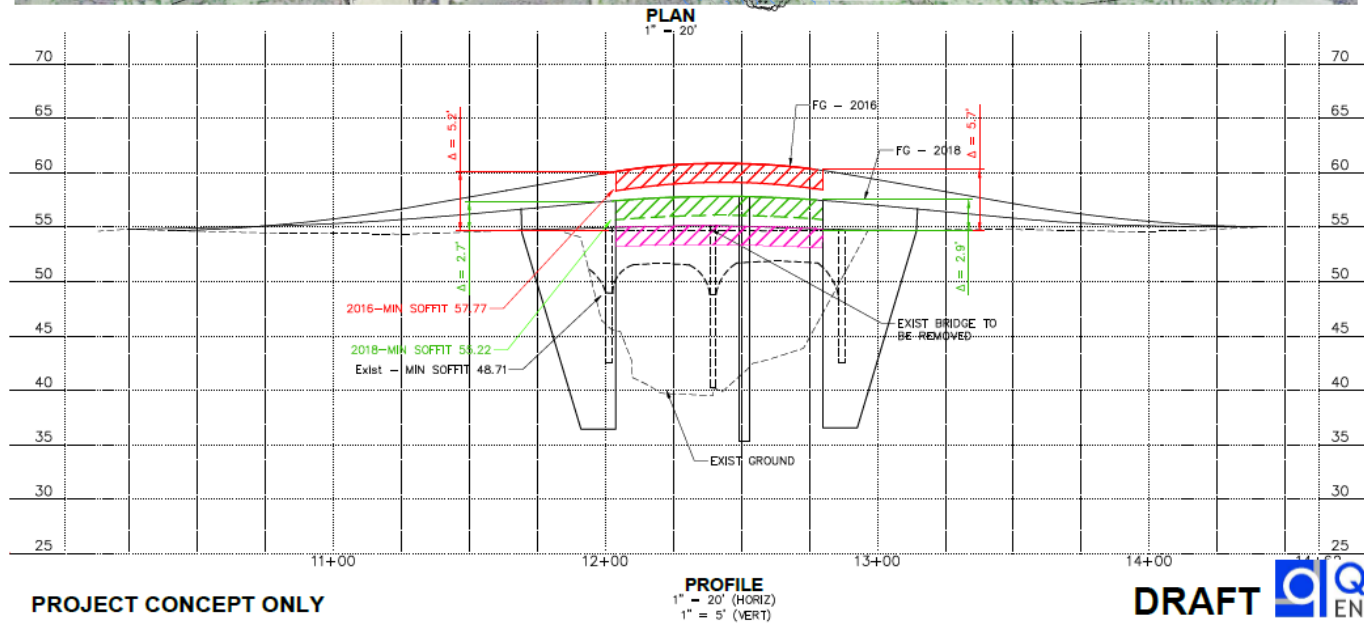
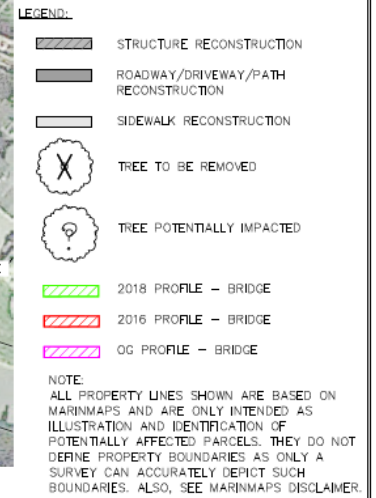
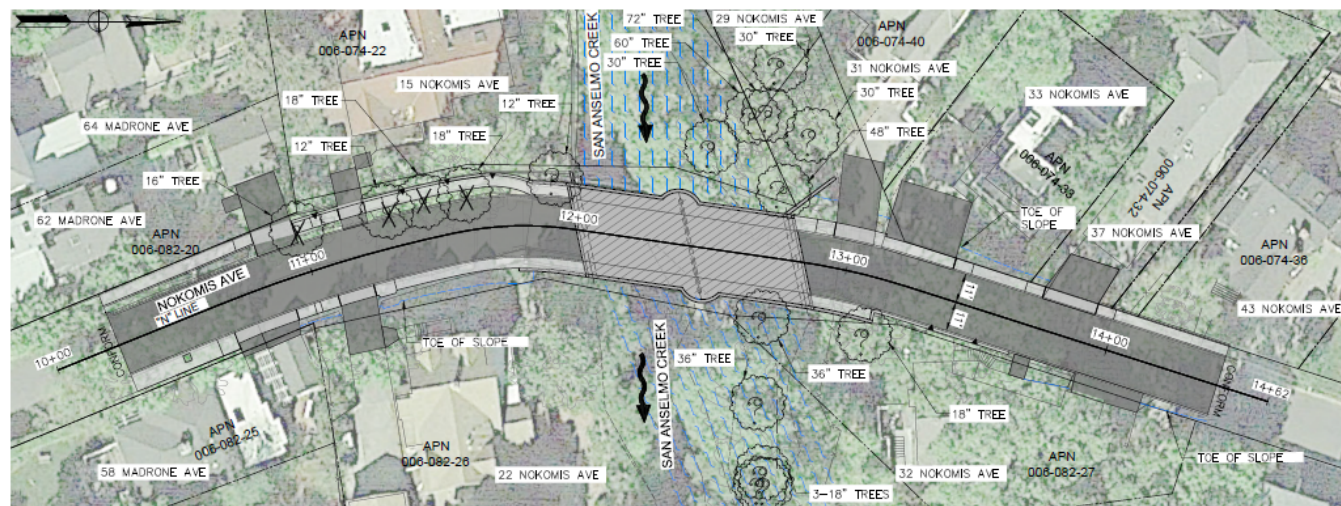
VIEW FROM THE ROADWAY OF THE VEHICULAR BARRIER  
 PLACED AT EACH END OF THE BRIDGE (ON BOTH SIDES)

NOKOMIS AVENUE BRIDGE REPLACEMENT

THE TOWN OF SAN ANSELMO, CALIFORNIA. Aug 8/18

# Nokomis Avenue Bridge



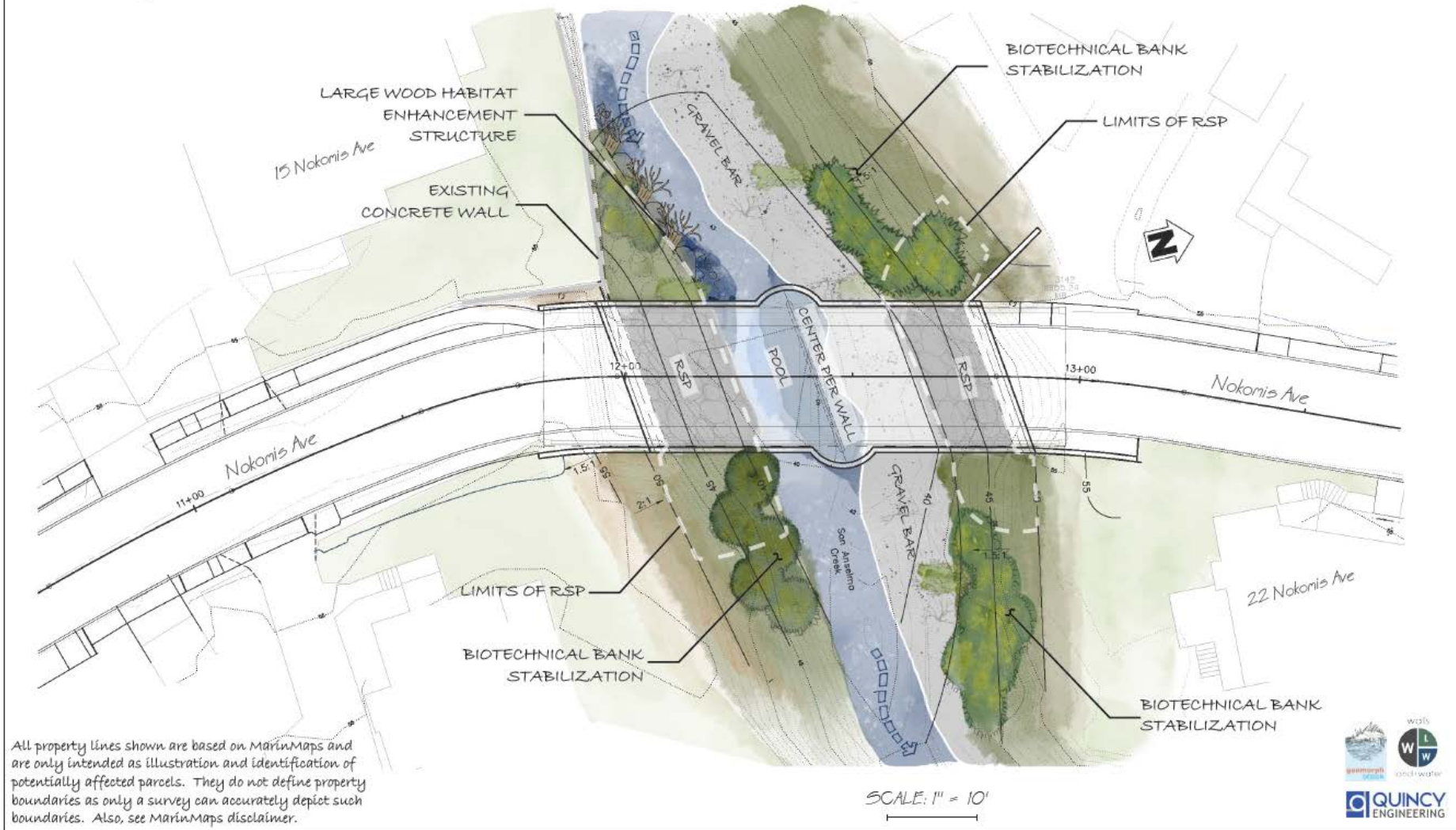


# Nokomis Avenue Bridge

# Nokomis Ave Bridge Replacement

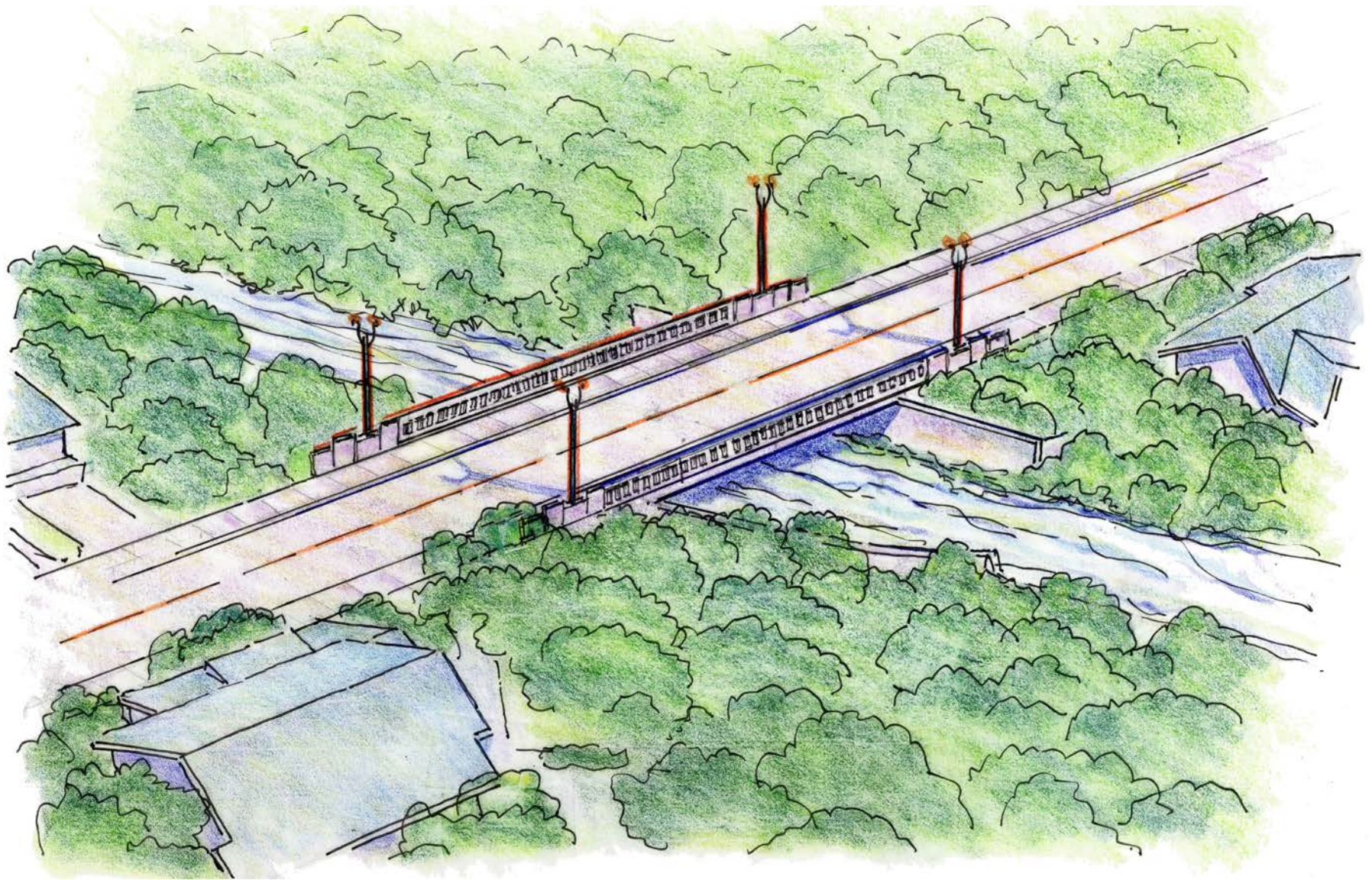
San Anselmo, CA

**DRAFT**



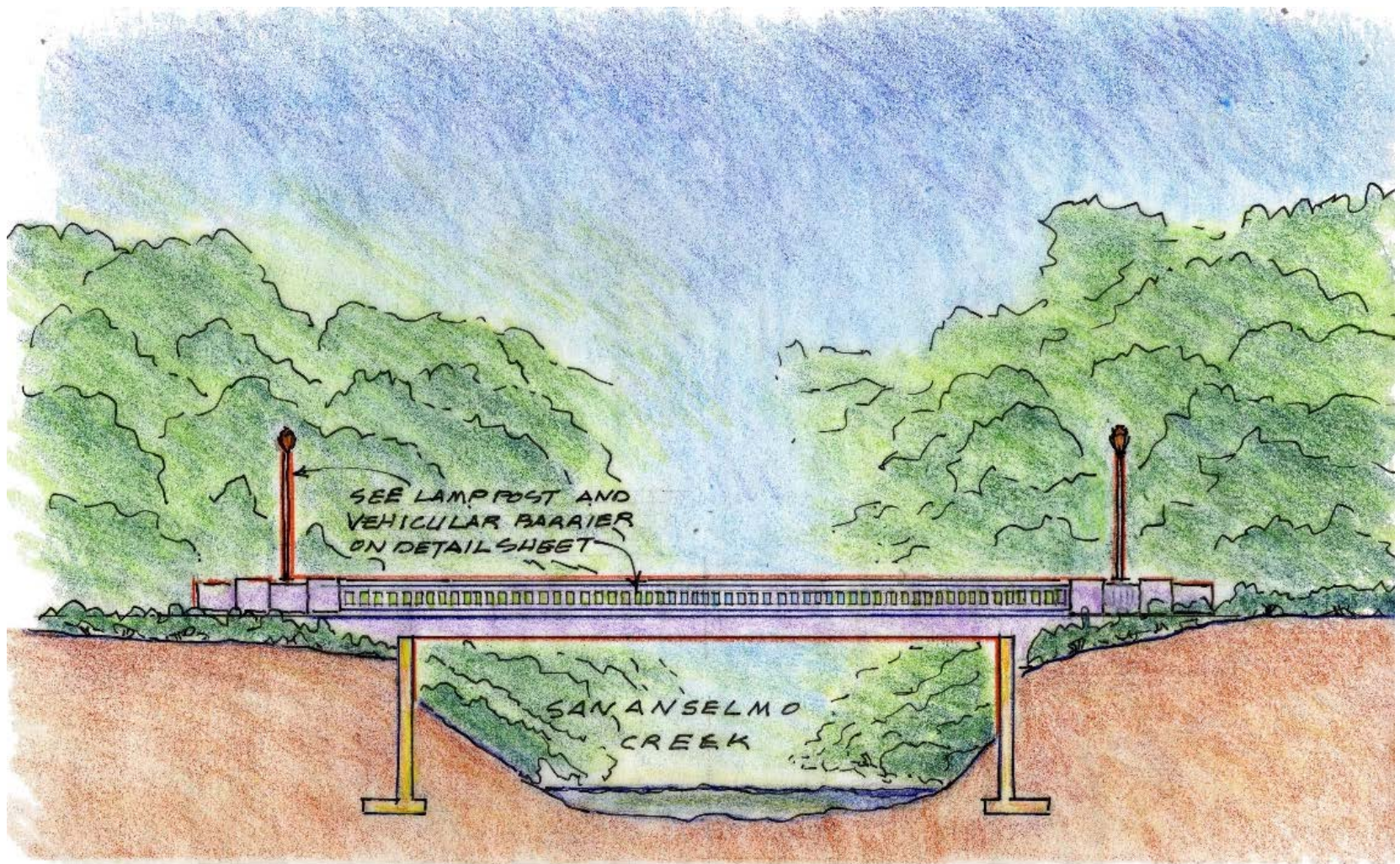
## Nokomis Avenue Bridge | Channel Work





Madrone Avenue Bridge

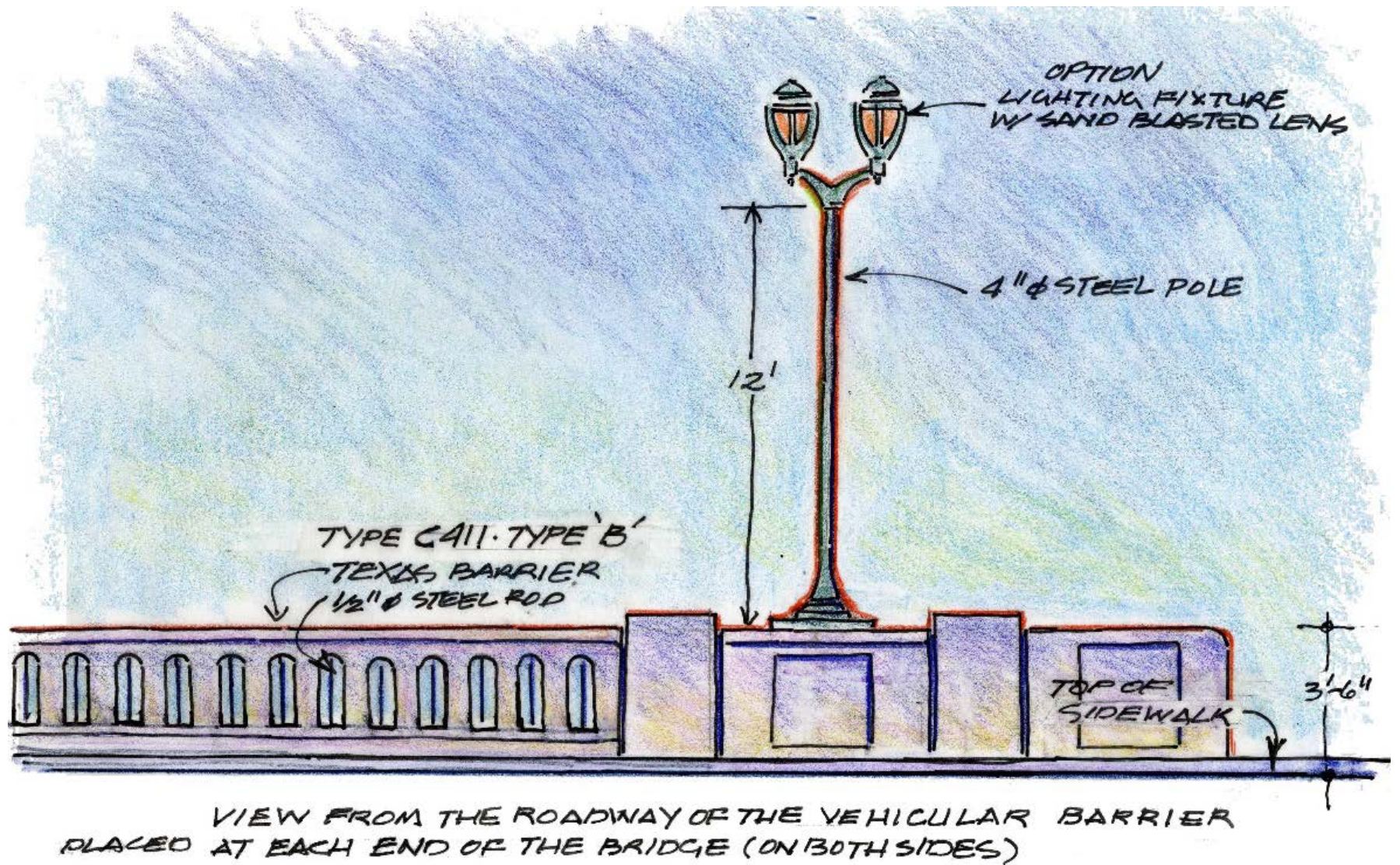




ELEVATION OF BRIDGE SHOWING VEHICULAR BARRIER  
AND SECTION AT CREEK CHANNEL

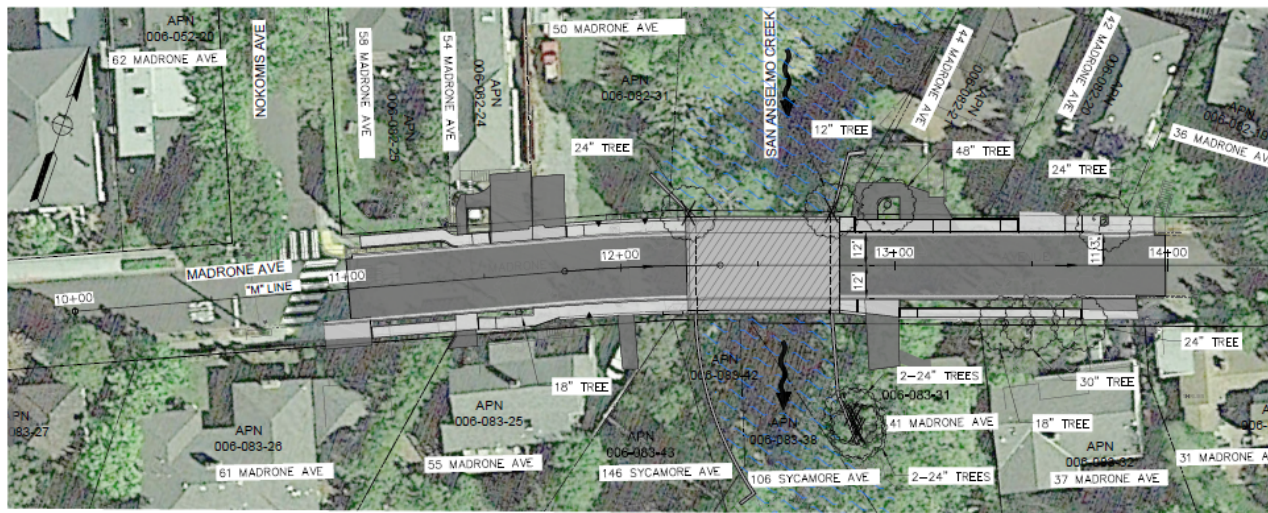
# Madrone Avenue Bridge





# Madrone Avenue Bridge

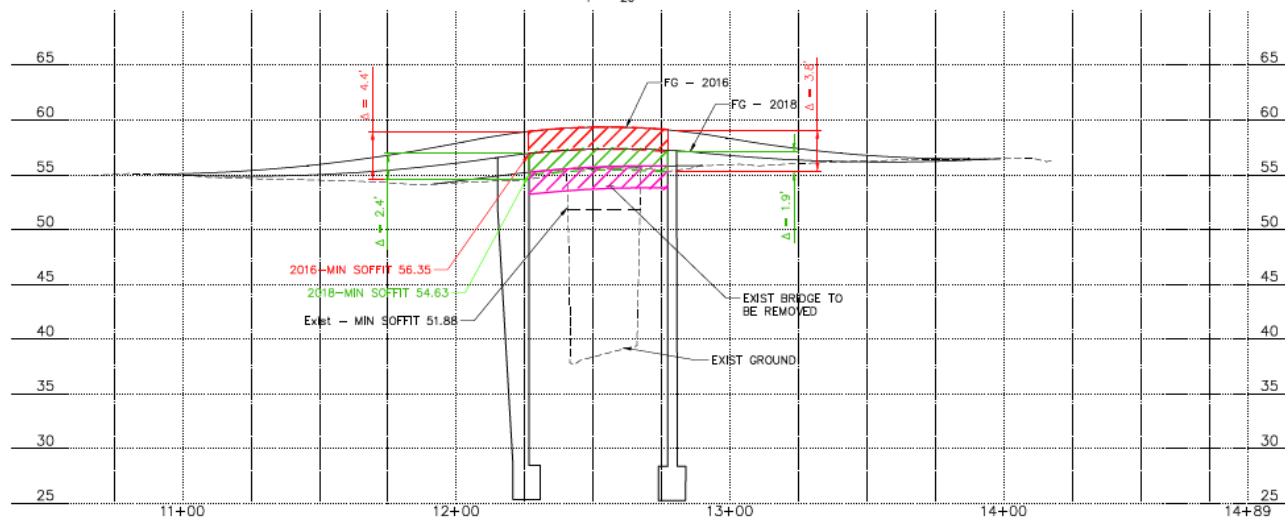




- LEGEND:**
- STRUCTURE RECONSTRUCTION
  - ROADWAY/DRIVEWAY/PATH RECONSTRUCTION
  - SIDEWALK RECONSTRUCTION
  - TREE TO BE REMOVED
  - TREE POTENTIALLY IMPACTED
  - 2018 PROFILE - BRIDGE
  - 2016 PROFILE - BRIDGE
  - OG PROFILE - BRIDGE

**NOTE:**  
ALL PROPERTY LINES SHOWN ARE BASED ON MARINMAPS AND ARE ONLY INTENDED AS ILLUSTRATION AND IDENTIFICATION OF POTENTIALLY AFFECTED PARCELS. THEY DO NOT DEFINE PROPERTY BOUNDARIES AS ONLY A SURVEY CAN ACCURATELY DEPICT SUCH BOUNDARIES. ALSO, SEE MARINMAPS DISCLAIMER.

**PLAN**  
1" = 20'



**MADRONE AVE  
BRIDGE REPLACEMENT**

**PROJECT CONCEPT ONLY**

**PROFILE**  
1" = 20' (HORIZ)  
1" = 5' (VERT)

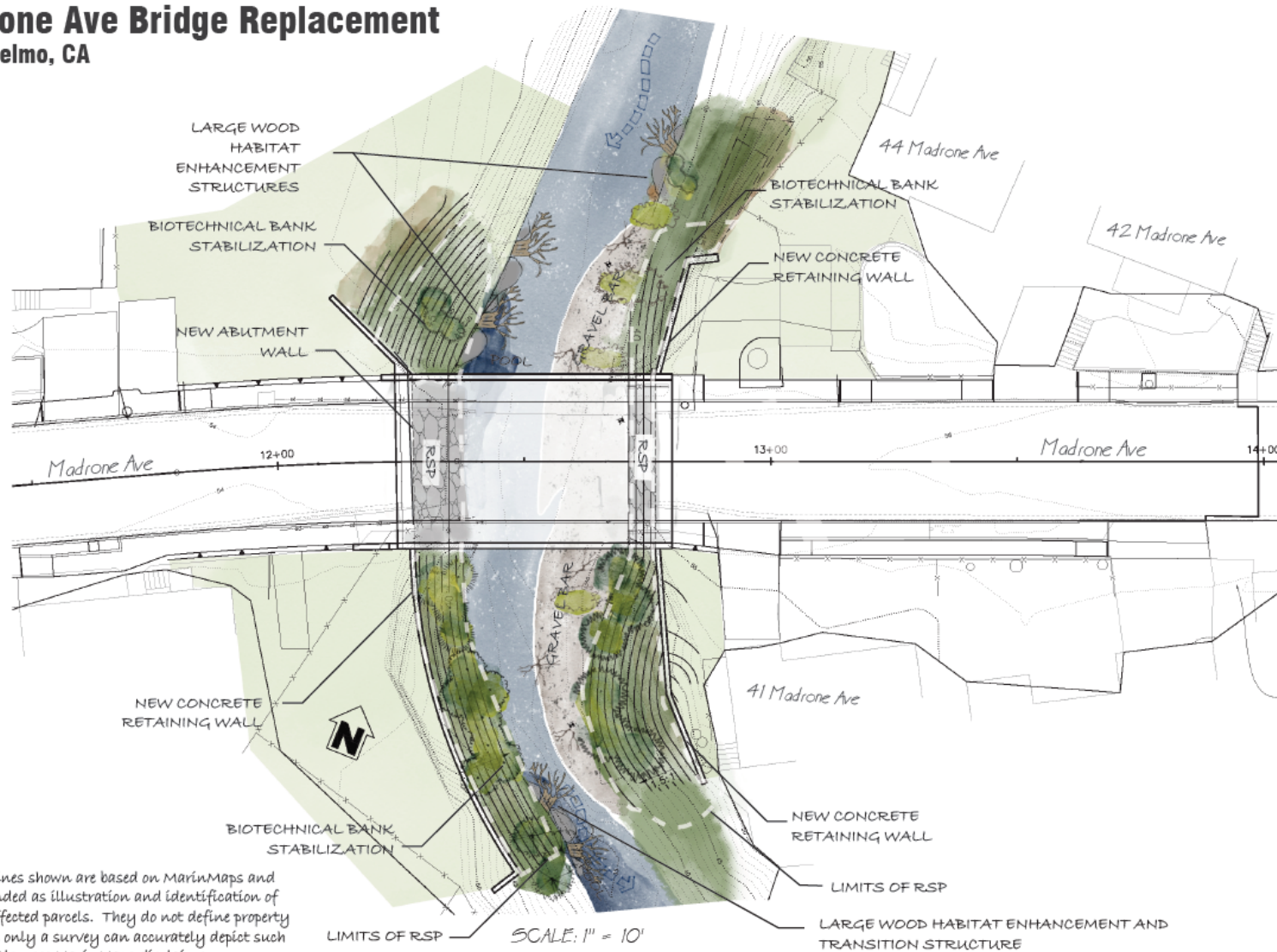
**DRAFT**



# Madrone Avenue Bridge

# Madrone Ave Bridge Replacement San Anselmo, CA

**DRAFT**



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## Madrone Avenue Bridge | Channel Work

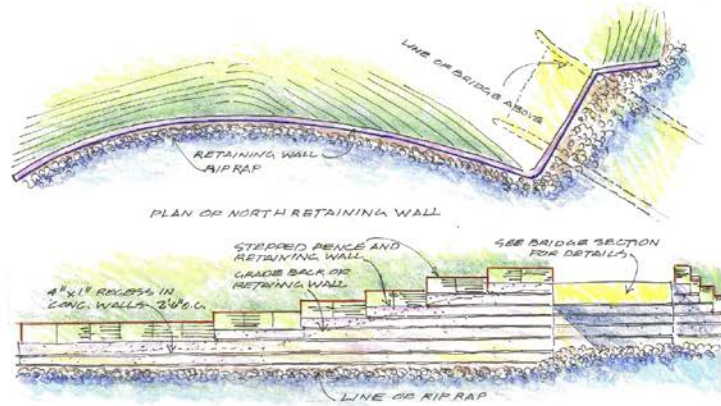


# Retaining Wall Aesthetics

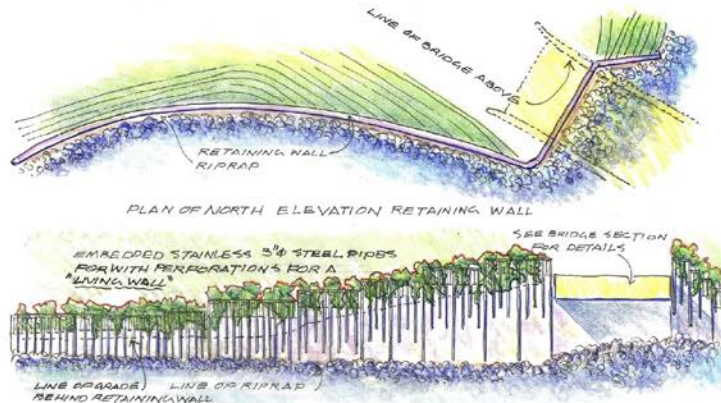




# Retaining Wall Aesthetics



SCHEME ONE ELEVATION OF NORTH RETAINING WALL  
MEADOW WAY BRIDGE OVER SAN ANSELMO CREEK  
10/11/15



SCHEME TWO ELEVATION OF NORTH RETAINING WALL  
MEADOW WAY BRIDGE OVER SAN ANSELMO CREEK  
10/11/15



# Hydraulics

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# Presentation of Computer Model Simulations of Effects of Replacement Bridges on San Anselmo Creek Flooding

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## Overview of Existing Sources and Mechanisms of Flooding

- in Ross Valley
- in the Nokomis-Madrone Neighborhood

## Effects of Nokomis and Madrone Bridges on Flood Reduction

- in Ross Valley
- in the Nokomis-Madrone Neighborhood

# Environmental Permit Process

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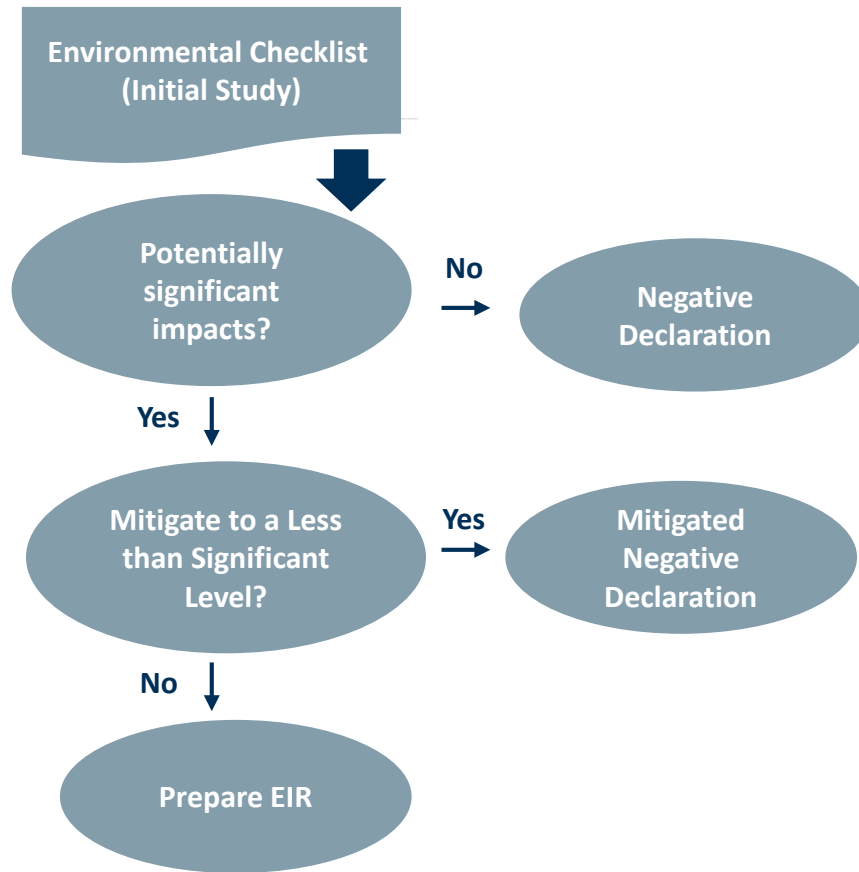


# Environmental Permit Process

<u>Project Phase</u>	<u>Environmental Activity</u>	<u>Anticipated Schedule</u>
Preliminary Design →	<ul style="list-style-type: none"><li>• Collect Baseline Environmental Data</li><li>• Project Description</li><li>• Area of Potential Effect Map</li></ul>	✓ <b>Completed</b>
NEPA Process →	<ul style="list-style-type: none"><li>• Prepare Technical Studies</li><li>• Caltrans Completes NEPA Process</li></ul>	Spring 2018 / Spring 2019
Project Scoping →	<ul style="list-style-type: none"><li>• Public Workshop</li></ul>	Fall 2018
CEQA Process →	<ul style="list-style-type: none"><li>• Prepare CEQA Document</li><li>• Public Review</li></ul>	Winter 2018 / Spring 2019
Regulatory Permitting →	<ul style="list-style-type: none"><li>• U.S. Army Corps of Engineers</li><li>• Regional Water Quality Control Board</li><li>• California Department of Fish and Wildlife</li></ul>	Summer/Fall 2019

# Environmental Permit Process

## CEQA Process



## Environmental Checklist

### Natural Environment

- ✓ Biological Resources
- ✓ Cultural Resources
- ✓ Hydrology, Water Quality, & Flooding

### Human Environment

- ✓ Air Quality
- ✓ Land Use
- ✓ Noise
- ✓ Traffic & Circulation Patterns



# Current Schedule

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Fall  
2018

Select  
Preferred  
Alternative

Winter  
2018/  
2019

Complete  
Environmental  
Process; Obtain  
NEPA & CEQA

Winter  
2018/  
Spring  
2019

Council  
Approval of  
NEPA & CEQA

Late  
Fall  
2019

Final Design  
Complete

Late  
Fall  
2020

Construction  
Complete



Questions  
& Answers

# Project Station Breakout

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