

North Coast Highway 101 Drainage Improvements

Community Participation Plan
January 19, 2021 @ 6 p.m. via Zoom



Meeting Procedures

- ▶ Zoom
- ▶ N101 Drainage Focused
- ▶ Questions and Page Numbers

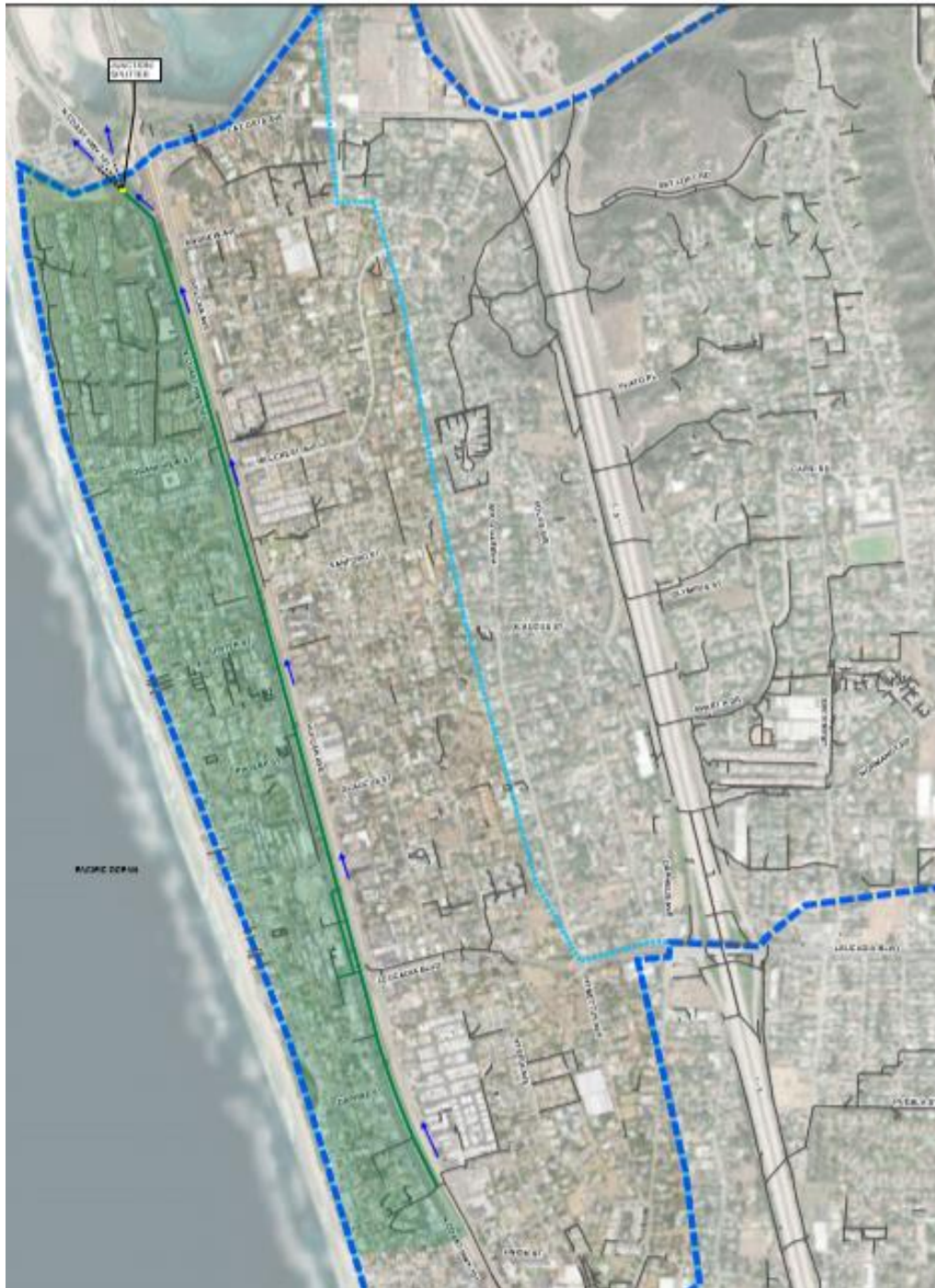
North Coast Highway 101 Drainage Improvements

- ▶ Project Location
- ▶ Project Need
- ▶ Project Overview
- ▶ Opportunities and Constraints
- ▶ Hydrology and Hydraulics
- ▶ Concept Plan
- ▶ Construction Methods
- ▶ Environmental Analysis
- ▶ Project Benefits
- ▶ Potential Schedule



North Coast Highway 101 Drainage Improvements - Project Location

North Coast Highway 101
Basil St. to La Costa Ave.



North Coast Highway 101 Drainage Improvements - Project Need



North Coast Highway 101 Drainage Improvements - Project Overview



- ▶ 1.5 miles of a new stormwater mainline under North Coast Highway 101 to store runoff.
- ▶ Create larger inlets to help drain the roadway faster.
- ▶ Adds new inlets at local low points and at Leucadia Roadside Park.
- ▶ Includes green street improvements to improve water quality.
- ▶ No changes to the existing pipe outfalls

North Coast Highway 101 Drainage Improvements - Opportunities & Constraints

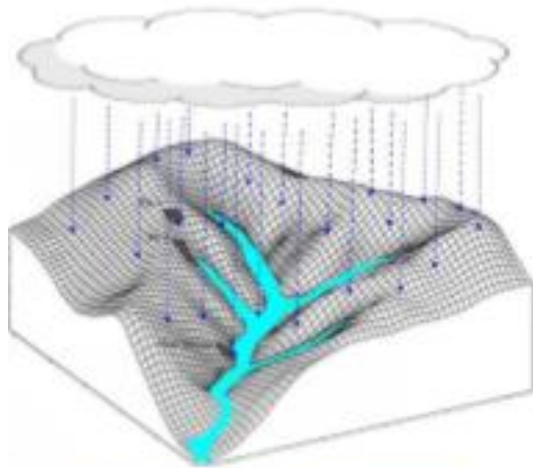
Opportunities

- ▶ Reduce flooding
- ▶ Add stormwater treatment
- ▶ City right of way
- ▶ Existing dissipater

Constraints

- ▶ Existing utilities
- ▶ Traffic
- ▶ Impacts to Businesses and Residents
- ▶ Pipe depth
- ▶ Groundwater & Sandy Soil

North Coast Highway 101 Drainage Improvements - Hydrology



Example of Rain-on-Grid Hydrology

Hydrology

- ▶ 200-acre Tributary Area
- ▶ IDF
- ▶ Runoff Volume

North Coast Highway 101 Drainage Improvements - Hydraulics

Hydraulics

- ▶ No change to the outfall
- ▶ Underground storage in new mainline
- ▶ Pipe diameter from 36" to 66"
- ▶ Outlet volume is metered at junction box



North Coast Highway 101 Drainage Improvements - Concept Plan

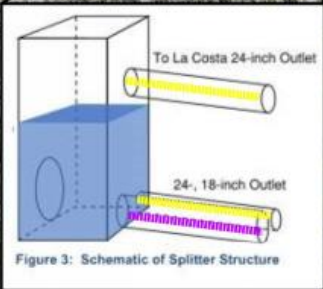
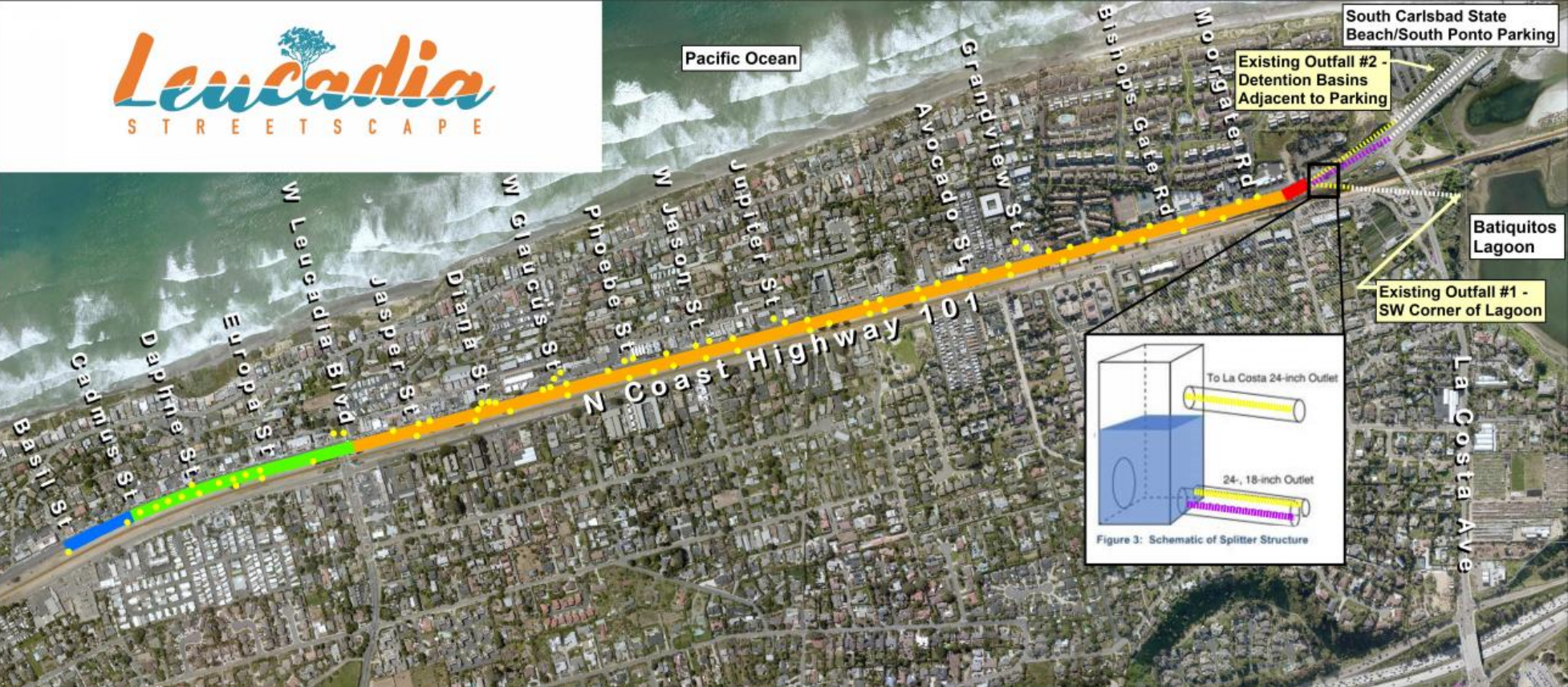


Figure 3: Schematic of Splitter Structure

- ▶ ~77 New Inlets
- ▶ 36" to 66" Mainline
- ▶ Junction Structure
- ▶ Existing Dissipator



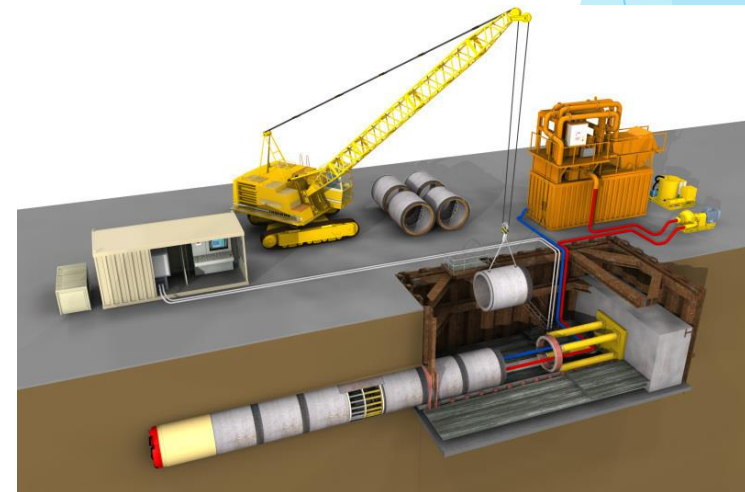
LEGEND	
█	= 36" RCP
█	= 48" RCP
█	= 60" RCP
█	= 66" RCP
▤▤▤▤▤▤▤▤▤▤	= 18" RCP
▤▤▤▤▤▤▤▤▤▤	= 24" RCP

North Coast Highway 101 Drainage Improvements - Construction Methods



- ▶ Open Trench
 - ▶ Standard method
 - ▶ Less expensive
 - ▶ More time
 - ▶ Challenging soil

- ▶ Micro-tunneling
 - ▶ Specialized construction and equipment
 - ▶ More expensive
 - ▶ Faster installation
 - ▶ Can't easily ID conflicts



North Coast Highway 101 Drainage Improvements - Environmental Analysis

- ▶ Biology
- ▶ Water Quality
- ▶ Paleontology



North Coast Highway 101 Drainage Improvements - Biology

Identified existing biological resources

Reviewed potential impacts:

- ▶ Erosion
- ▶ Dilution or Salinity Depression
- ▶ Sedimentation
- ▶ Pollutant Load

FINDING: No adverse impacts to biological resources



North Coast Highway 101 Drainage Improvements - Water Quality

Analyzed pre- and post- project conditions.

Evaluated potential impacts to waterbodies, surface water or wetlands.

- ▶ **FINDING:** No adverse impacts to water quality



North Coast Highway 101 Drainage Improvements - Paleontology



PALEOSERVICES
SAN DIEGO NATURAL HISTORY MUSEUM

Identified the geologic units that may be impacted.

- ▶ Bay Point Formation
- ▶ Santiago Formation

FINDING: Perform paleontological monitoring

- ▶ Fossil salvaging, cleaning, cataloging and donation
- ▶ Final Paleontological Report



and Tan, 2007;
ain Hillshade, Esri et al., 2020

Geologic Map of Project Alignment
North Coast Highway 101 Streetscape
Storm Drain Improvement
City of Encinitas, San Diego County, California

North Coast Highway 101 Drainage Improvements - Project Benefits

- ▶ Reduction in flooding benefits:

- ▶ Vehicles
- ▶ Cyclists
- ▶ Pedestrians
- ▶ Businesses
- ▶ Residents

- ▶ Reduced pollutant load via:

- ▶ Biofiltration
- ▶ Dispersion
- ▶ Landscaping

North Coast Highway 101 Drainage Improvements - Path Forward

- ▶ Concept Design is Complete
- ▶ CEQA Technical Studies are Complete
- ▶ Obtaining Public Input
- ▶ Coastal Development Permit
- ▶ The Coast Highway 101 Drainage Improvement Project could be included in a Phase 2 of the Leucadia Streetscape project.
- ▶ Construction of Phase 2 could begin in Summer 2021, pending CDP approval and City Council approval of funding.

QUESTIONS?

