CONNECT THE COASTSIDE

Draft CTMP Presentation

Technical Advisory Committee Review

DKS

September 16, 2019

COUNTY OF SAN MATEO FOUNDED 1856

Presentation Outline

- Introductions and Overview
- Technical content review
- Discussion
- Funding and Implementation
- Discussion
- Wrap up and Next steps

Overview and Project Background

CONNECT THE COASTSIDE

CTMP Scope

- Comprehensive Transportation Management Plan
- Requirement of LCP for Midcoast Unincorporated San Mateo County

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CONNECT THE COASTSIDE

Timeline

2014

- Board Approval
- Project Kick-off
- TAC/MCC/HMB Introduction
- Public Workshop #1 (Introduction)
- Buildout Analysis Report

2015

- TAC review:
  - Buildout Analysis
  - Trans. Alternatives
  - Land Use Strategies
- MCC/HMB Presentation
- Public Workshop #2 (Alternatives)
- **Revised Public Outreach Scope**
- TAC Review:
  - Forecast/Standard
- MCC/HMB Presentation
- Public Workshop #3 (Forecast/Standards)
- Planning Commission

2016

- TAC review:
  - Revised Land Use and Transportation Alternatives
- Public Workshop #4 (Improvements)
- Planning Commission

2017

- **Revised Scope for Cypress Roundabout Analysis**
- Roundabout Charette
- Continuing Technical Work

2018

- Continuing Technical Work
- Development of Draft CTMP

2019

- **Revised Scope for Moss Beach Roundabout Analysis and Project Completion**
- TAC review:
  - Draft CTMP

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Coordination with Other Studies

- Highway 1 Safety and Mobility Improvement Studies
- Highway 1 Congestion Management Project
- City of Half Moon Bay General Plan Update
- Plan Princeton
- San Mateo County Congestion Management Plan
- Golden Gate National Recreation Area Parking Assessment

Transportation Performance Standards

Proposed for Midcoast Region

Intersection Level of Service

- Minor Changes as compared to Countywide C/CAG CMP standards
- Addition of Caltrans warrant impact threshold
- Inclusion of roundabouts as community preferred control method

Level of Service	Average Control Delay (sec/veh)		Description
	Signalized Intersections	Unsignalized Intersections[1]	
A	≤ 10	≤ 10	Free flow/Insignificant Delay
B	> 10 and ≤ 20	> 10 and ≤ 15	Stable Operation/Minimal Delay
C	> 20 and ≤ 35	> 15 and ≤ 25	Stable Operation/Acceptable Delay
D	> 35 and ≤ 55	> 25 and ≤ 35	Approaching Unstable/Tolerable Delay
E	> 55 and ≤ 80	> 35 and ≤ 50	Unstable Operation/Significant Delay
F	> 80	> 50	Forced Flow/Excessive Delay

Source: **2000 *Highway Capacity Manual, Transportation Research Board, 2000.***

Notes: [1]Worst Approach Delay (in seconds per vehicle) for Unsignalized Intersections

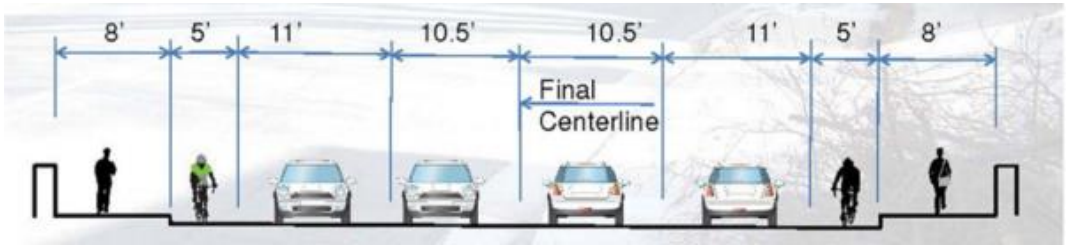
Roadway Level of Service

- Existing Standard based only on volume and Capacity
- Infeasible given lack of alternative routes and no desire to widen Highway 1
- Proposed revision of standard based on travel time and multimodal cross-section

$$Delay\ Index = \frac{Peak\ Hour\ Travel\ Time}{Freeflow\ Travel\ Time}$$

Deficiency Standard is:

- 3.0 with over 80% bicycle facility coverage
- 2.0 with under 80% bicycle facility coverage



Pedestrian Level of Service

- No Existing Standards
- Proposed design standards based on pedestrian demand and adjacent vehicle demand

Traffic Volumes (veh/hr)	Suggested Improvements	Pedestrian Demand		
		Low (Empty)	Medium to High (Land Use)	Hot Spots
0-800	Walkways		X	X
800-1600	Walkways		X	X
	Curb		X	X
	Ped scale street lighting		X	X
> 1600	Walkways		X	X
	Curb	X	X	X
	Ped scale street lighting		X	X
	Presence of buffer			X

Segment Treatments

Traffic Volumes (veh/hr)	Suggested Improvements	Pedestrian Demand		
		Low (Empty)	Medium to High (Land Use)	Hot Spots (Key Destinations)
0-800	Crosswalk		X	X
800-1600	Crosswalk		X	X
	Ladder Crosswalk			X
	Intersection Lighting		X	X
	Pedestrian Signal/PPB **(Sig)**		X	X
	Countdown in Signal **(Sig)**			X
1600-2000	Crosswalk		X	X
	Ladder Crosswalk		X	X
	Intersection Lighting		X	X
	Pedestrian Signal/PPB **(Sig)**		X	X
	Countdown in Signal **(Sig)**		X	X
	Beacon Signs for Pedestrians **(Unsig)**			X
> 2000	Crosswalk		X	X
	Ladder Crosswalk		X	X
	Intersection Lighting		X	X
	Pedestrian Signal/PPB **(Sig)**		X	X
	Countdown in Signal **(Sig)**		X	X
	Beacon Signs for Pedestrians **(Unsig)**		X	X
	Curb Extensions			X
	Median Refuge **(4+ lanes)**			X

Intersection Treatments

Bicycle Level of Service

- No Existing Standards
- Proposed design standards based on gap closure and adjacent vehicle demand
- Proposed 85% recreational destination bicycle parking utilization standard to encourage usage

Traffic Volumes (veh/hr)	Suggested Improvements	Bicycle Demand		
		Low	Medium	High
0-800	Class III bikeway	X	X	X
800-1600	Class III bikeway	X		
	Class II bikeway		X	X
1600-2000	Class II bikeway	X	X	
	Class IV separated bikeway			X
	Intersection bike detection **(Signal)**			X
> 2000	Class II bikeway	X		
	Class IV separated bikeway		X	X
	Intersection bike detection **(Signal)**		X	X
	Dashed intersection bike lane			X
	Left-turn intersection bike lane			X

Facility and Intersection Treatments

Transit Level of Service

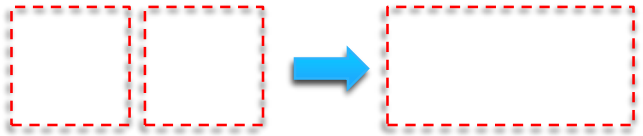
- No Existing Standards
- Proposed 85% utilization for route frequency
- Amenity standards focused on local context rather than compared to high demand transit corridors

Buildout Conditions

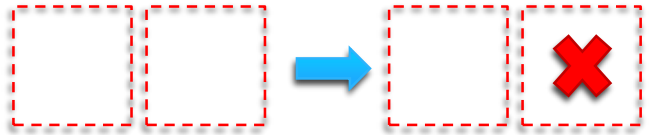
Based on Constrained Forecast

Land Use Strategies

- Lot Merger Program



- Lot Retirement Program



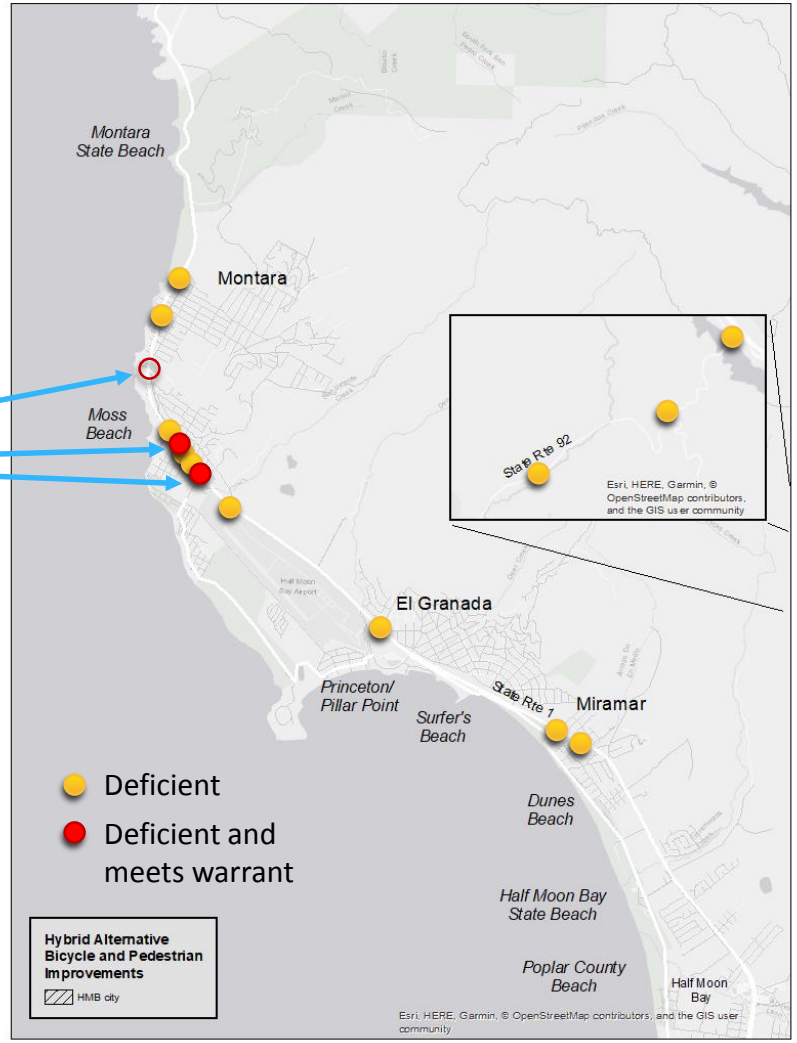
- Development Review and Transportation Mitigation Fee Program

Total Project List Cost

Distribution of fee based on project size and impact

Intersection Deficiencies

Currently undergoing Caltrans ICE analysis process to review control options



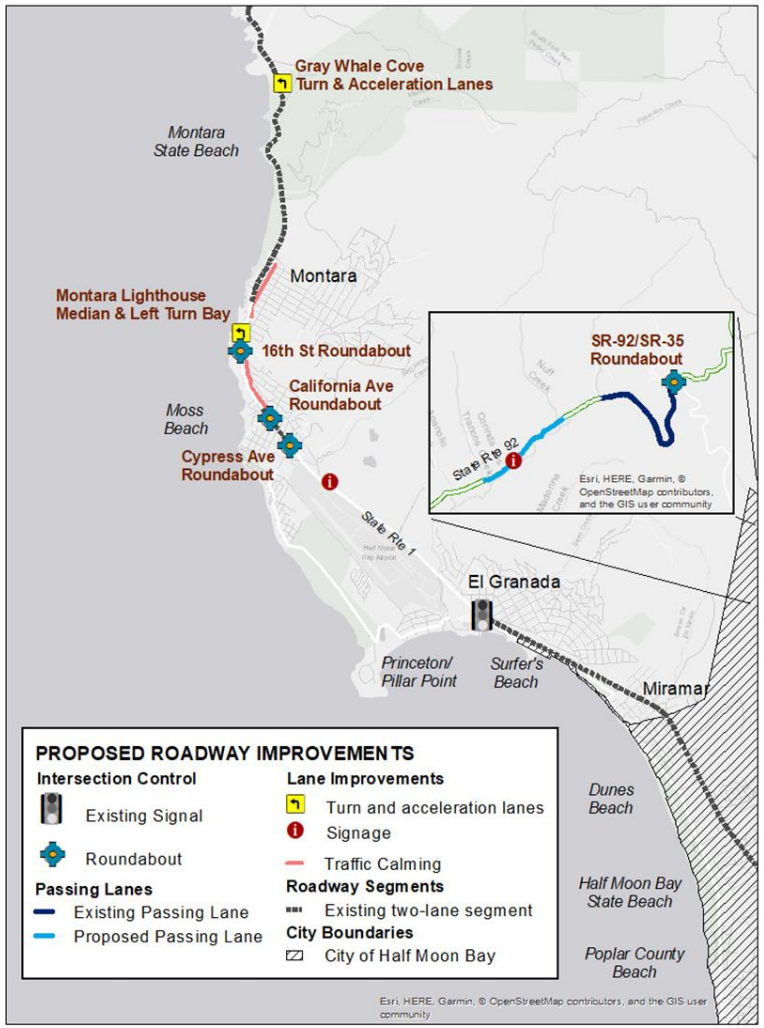
Roadway Deficiencies

Location	Direction of Travel	Operating Standard	Freeflow Travel Time (s)	AM Peak Hour		PM Peak Hour		Weekend Peak Hour	
				Travel Time (min)	Delay Index	Travel Time (min)	Delay Index	Travel Time (min)	Delay Index
Highway 1 from 1st Street to Mirada Road	NB	2	6.5	08:02	1.24	08:24	1.29	08:34	1.32
	SB			08:28	1.30	08:38	1.33	18:31	**2.85**

Deficient without parallel bicycle facilities

Intersection and Roadway Projects

- Deficiency Projects
  - Intersection Control Roundabout or Signal
- Safety and Circulation
  - Paved shoulder and curb
  - Turn lanes and acceleration lanes
  - Side street stop signs
  - Local street calming
  - SR-92 lanes and signage



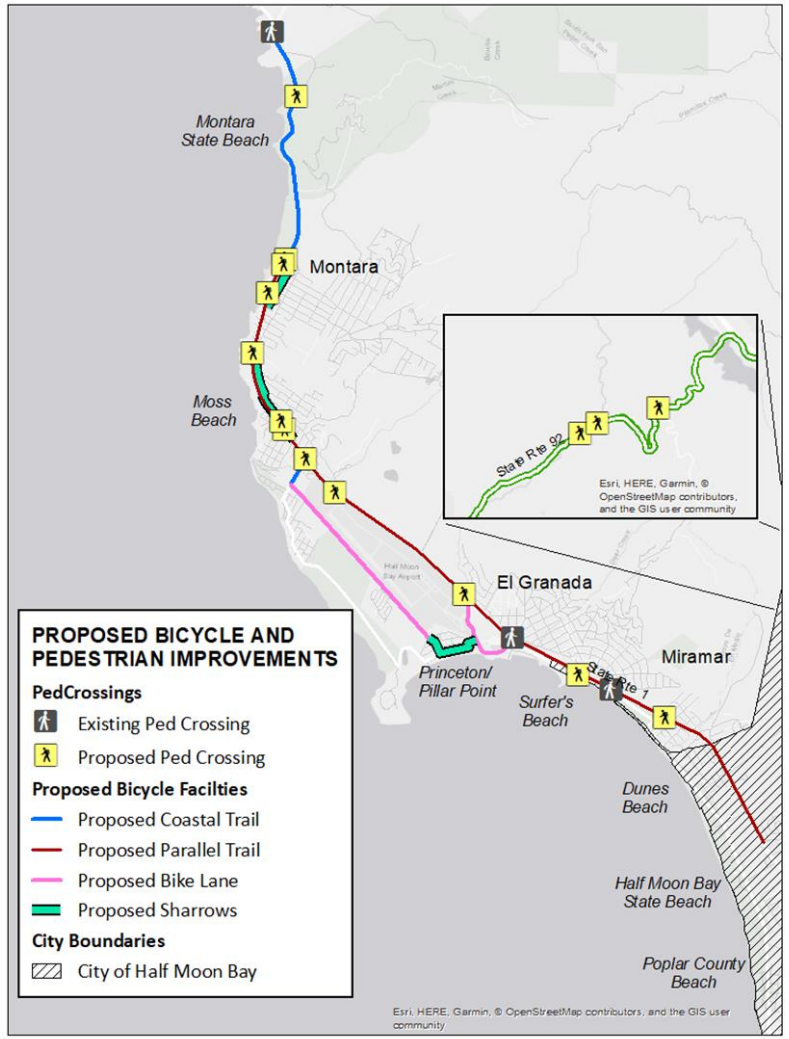
- Project Sources
  - Highway 1 Safety and Mobility Study
  - Development Impact identification
  - CTMP analysis

Pedestrian and Bicycle Deficiencies

- Significant Systemwide lack of:
  - Safe pedestrian crossings
  - Defined cross-section with grade-separation between vehicle and pedestrian travel
  - Comprehensive bicycle facilities

Pedestrian and Bicycle Projects

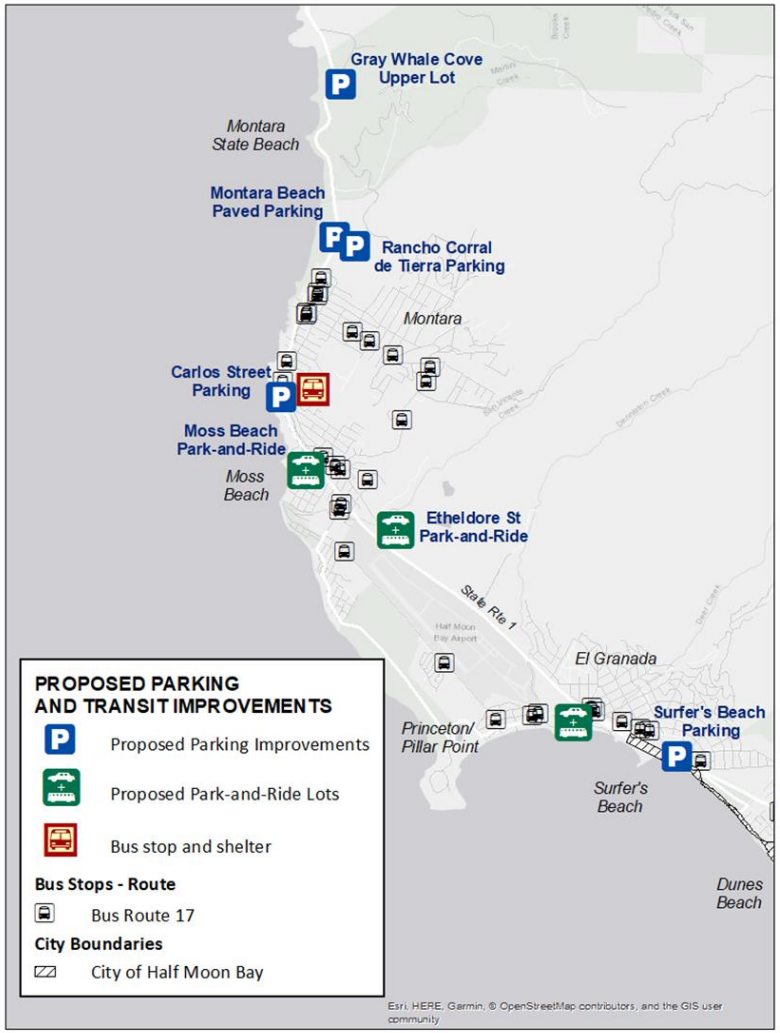
- Deficiency Projects
  - Regular pedestrian crossings with beacons
  - Highway 1 Parallel Trail
  - Highway 1 Class II bicycle lanes
- Safety and Circulation
  - El Granada and Moss Beach pedestrian and bicycle improvements
  - Parallel bicycle facilities



- Project Sources
  - Highway 1 Safety and Mobility Study
  - CTMP analysis

Transit and Parking Projects

- Deficiency Projects
  - Transit shelter installation
- Safety and Circulation
  - Park & Ride lots
  - Increased Samtrans Service frequency
  - Increased recreational parking facilities



- Project Sources
  - Highway 1 Safety and Mobility Study
  - Coastside Access Study
  - CTMP analysis

TAC Discussion

Standards, Deficiencies, and Project Lists

Funding and Implementation

Identified Project Costs

Facility	Total Project Cost (in 2018 dollars)
Roadway	$33,341,200
Pedestrian and Bicycle	$63,802,800
Parking	$2,794,800
Recommended Projects Total	**$99,938,800**

Funding Sources and Categorization

- Federal
  - DoT
  - FHWA
- State
  - Caltrans
  - Office of Traffic Safety
  - Dept of Park and Rec & Natural Resources Agency
- Regional
  - MTC
  - BAAQMD
  - C/CAG

- Highway Improvements/Roadway Maintenance
- Pedestrian and Bicycle Improvements
- Enhancement/TOD/Transportation for Livable Communities/Congestion Management
- Transit Capital/Operations
- Safety

Implementation

Priority Actions		
Implementation Action	**Lead and Partners**	**Project Completion Date**
Implement Lot Merger Program	County Planning Staff	June 2020
Complete Project Implementation Documents for Moss Beach Roundabouts	County Planning Staff with Consultant Assistance	June 2020
Complete Construction of Phase 1 of Parallel Trail	San Mateo County Department of Planning and Building	December 2021
Develop Transportation Impact Fee Ordinance for Public Review and Board Adoption	San Mateo County Departments of Planning and Building and Public Works	December 2020
Ongoing Actions		
Transportation Facility Maintenance	Caltrans, San Mateo County Departments of Parks and Public Works, California State Parks, GGNRA, Private Land Owners	
Monitor Auto Traffic		
Monitor Building Permits for New Construction	San Mateo County Departments of Planning and Building	
Seek and Obtain Grant Funds for CTMP Projects	San Mateo County Departments of Planning and Building, Parks, and Public Works; California State Parks, C/CAG	
Collaborated with SamTrans and C/CAG on Bus Service Improvements	San Mateo County Departments of Planning and Building	

TAC Discussion

Funding and Implementation

Next Steps – Plan Adoption

- Plan Presentation and Revision
  - MCC/HMB and Planning Commission presentations
  - Final Public Outreach
  - Board approval

Next Steps – Project Evaluation

Project Evaluation Metrics		
Project Cost	Project design, capital and permitting cost	1 to 3 (H to L)
Ease of Implementation	Funding, permitting, and environmental	1 to 3 (H to L)
Multimodal Connectivity	Measures extent that a project fills a gap in existing bicycle, pedestrian or transit networks	1 to 3 (L to H)
Safety and Circulation	Safety Bonus	1 to 3 (L to H)
Shoreline Access	Bonus for enhanced shoreline public access	1 to 3 (L to H)
Annual Cost	Operations and Maintenance	1 to 3 (H to L)
Overall Score	Total obtained score	1 to 3 (H to L)

- Project Scores
  - Sum over all categories
  - Highest priority projects have a score over 12
  - Lowest priority projects have a score under 8

Thank you!

- TAC comments by September 30
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