Parks & Leisure Services Commission

Status Update: Diablo Road Trail

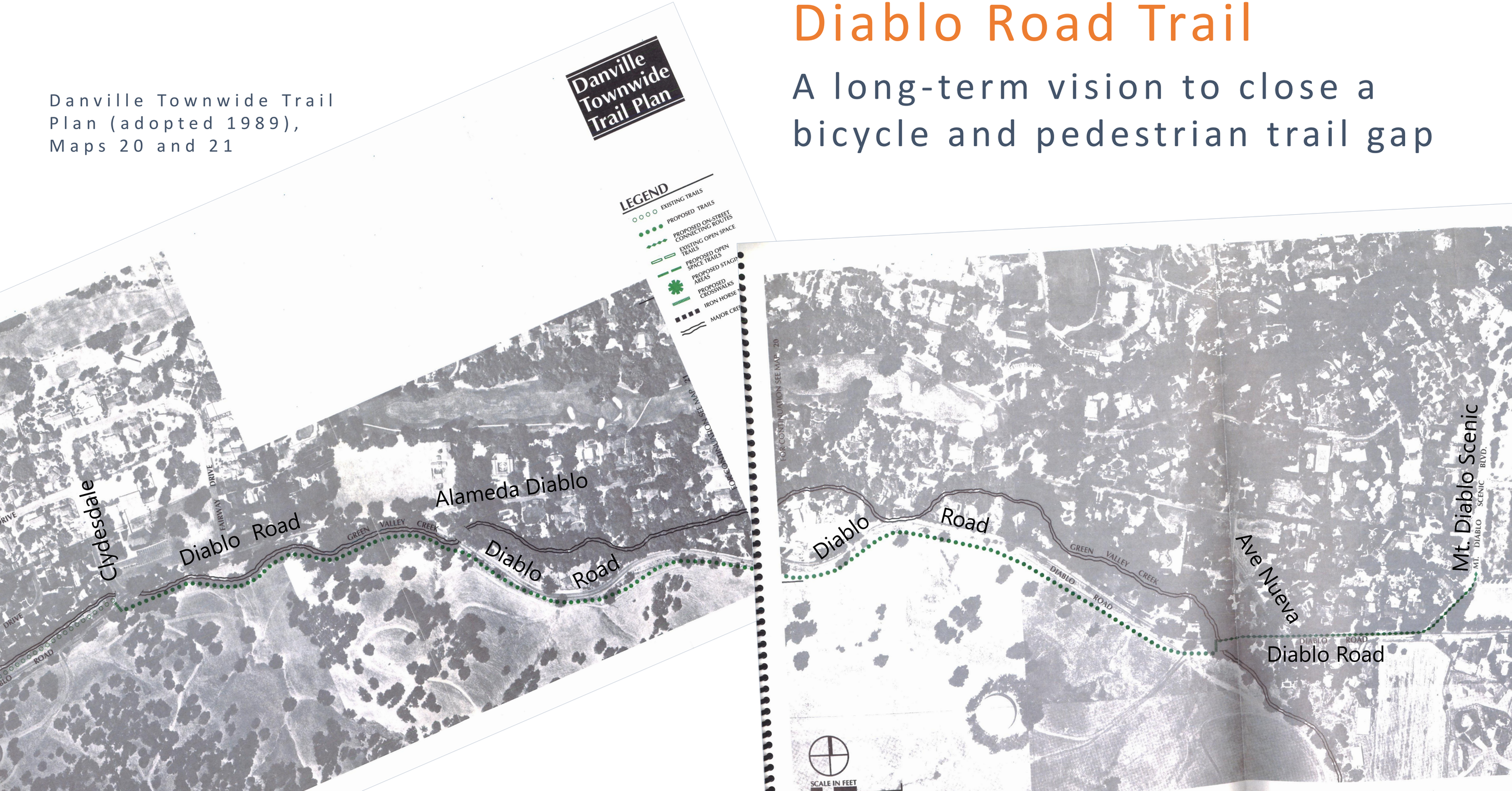
CIP Project C-055

September 12, 2018

Diablo Road Trail

A long-term vision to close a bicycle and pedestrian trail gap

Danville Townwide Trail Plan (adopted 1989), Maps 20 and 21



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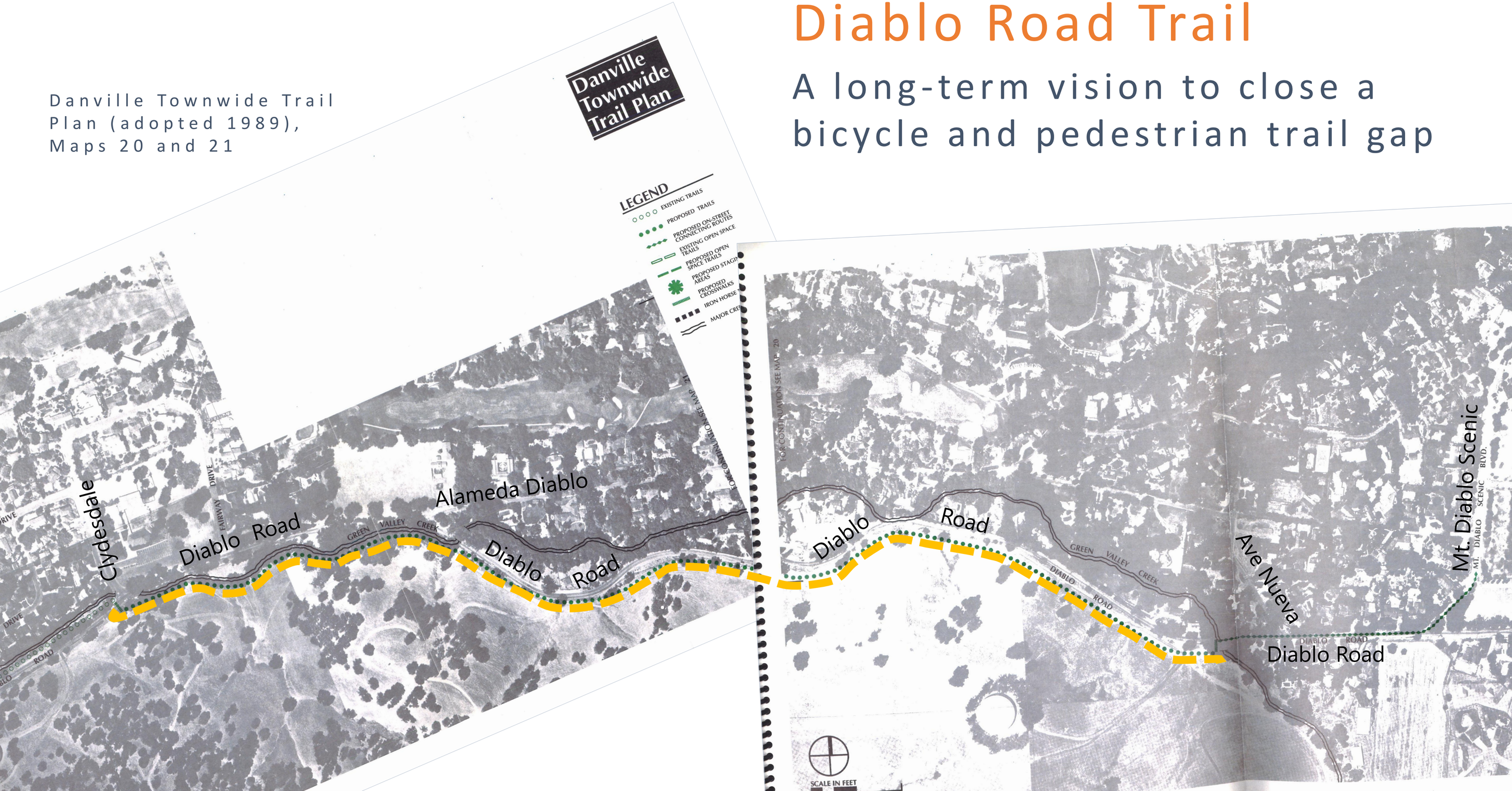
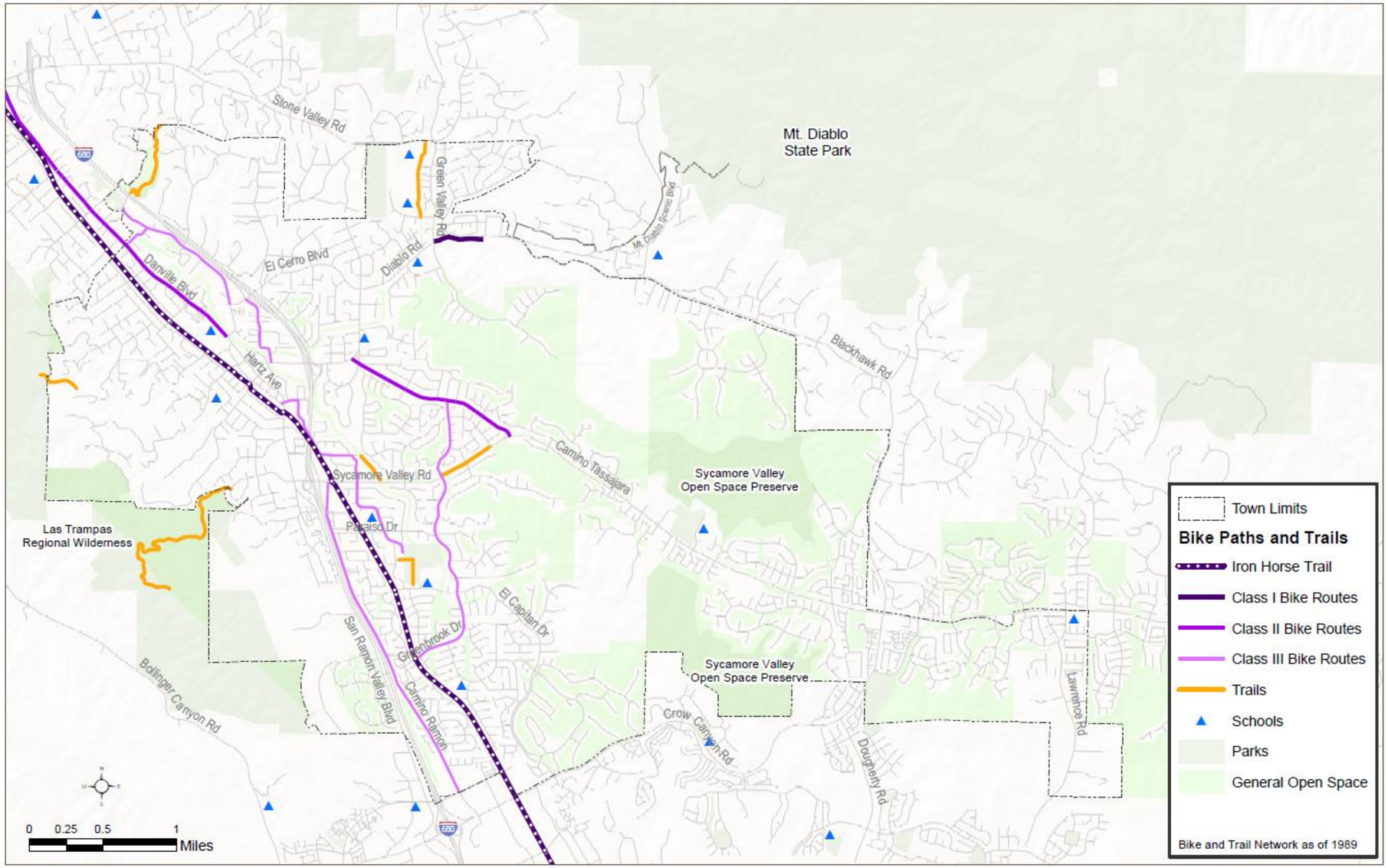
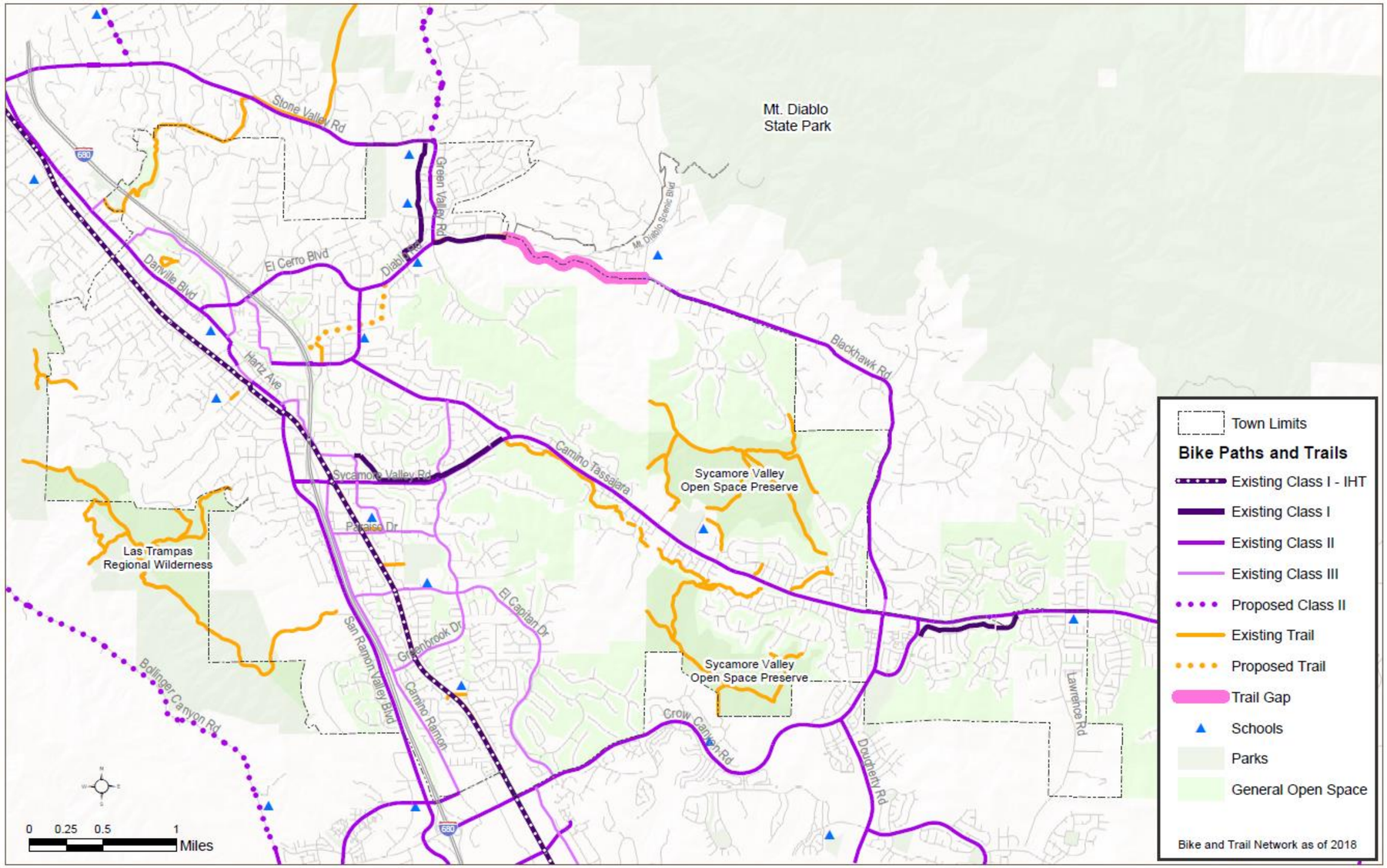


Danville Bicycle & Trail Network: 1989



Danville Bicycle & Trail Network: 2018



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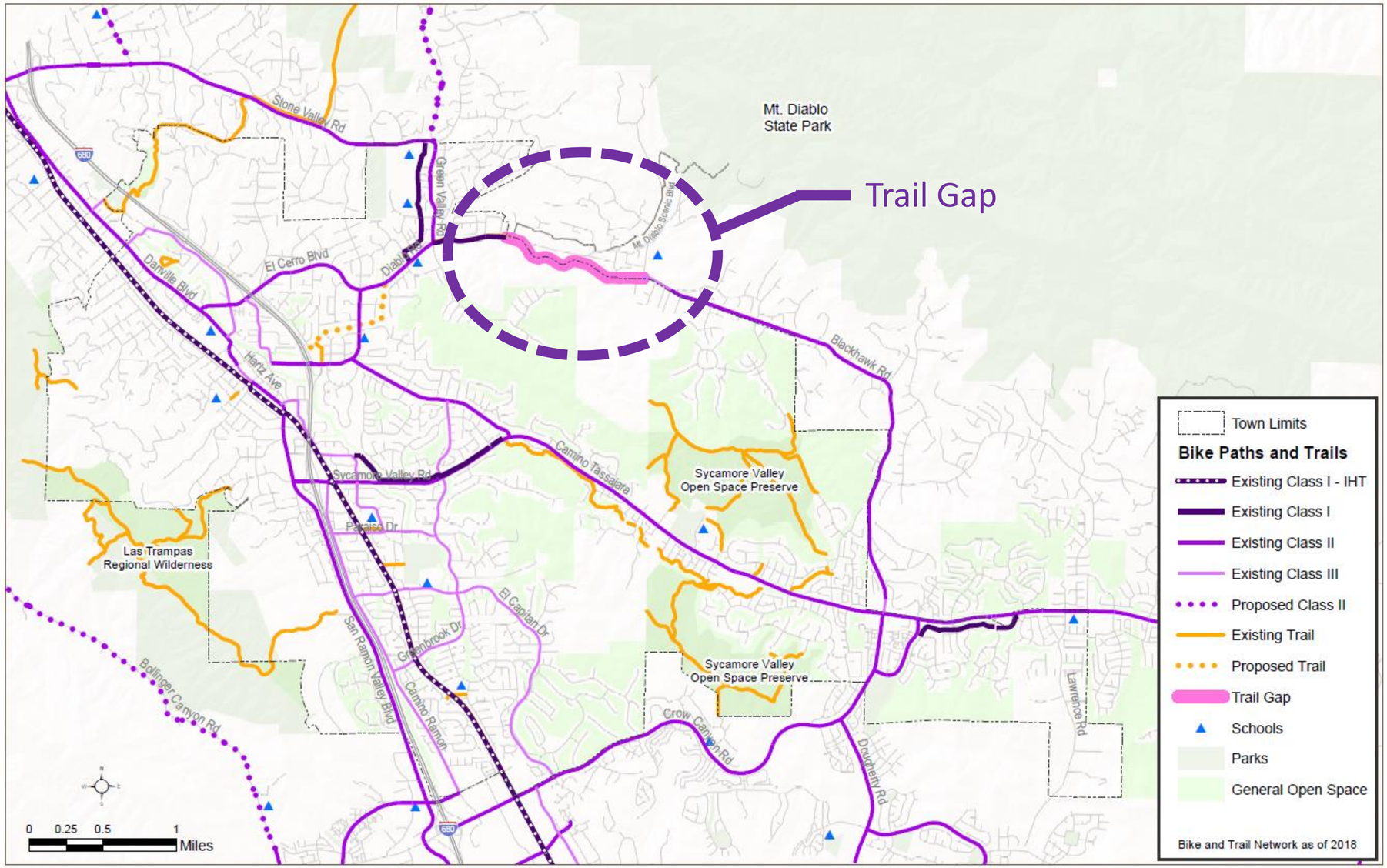
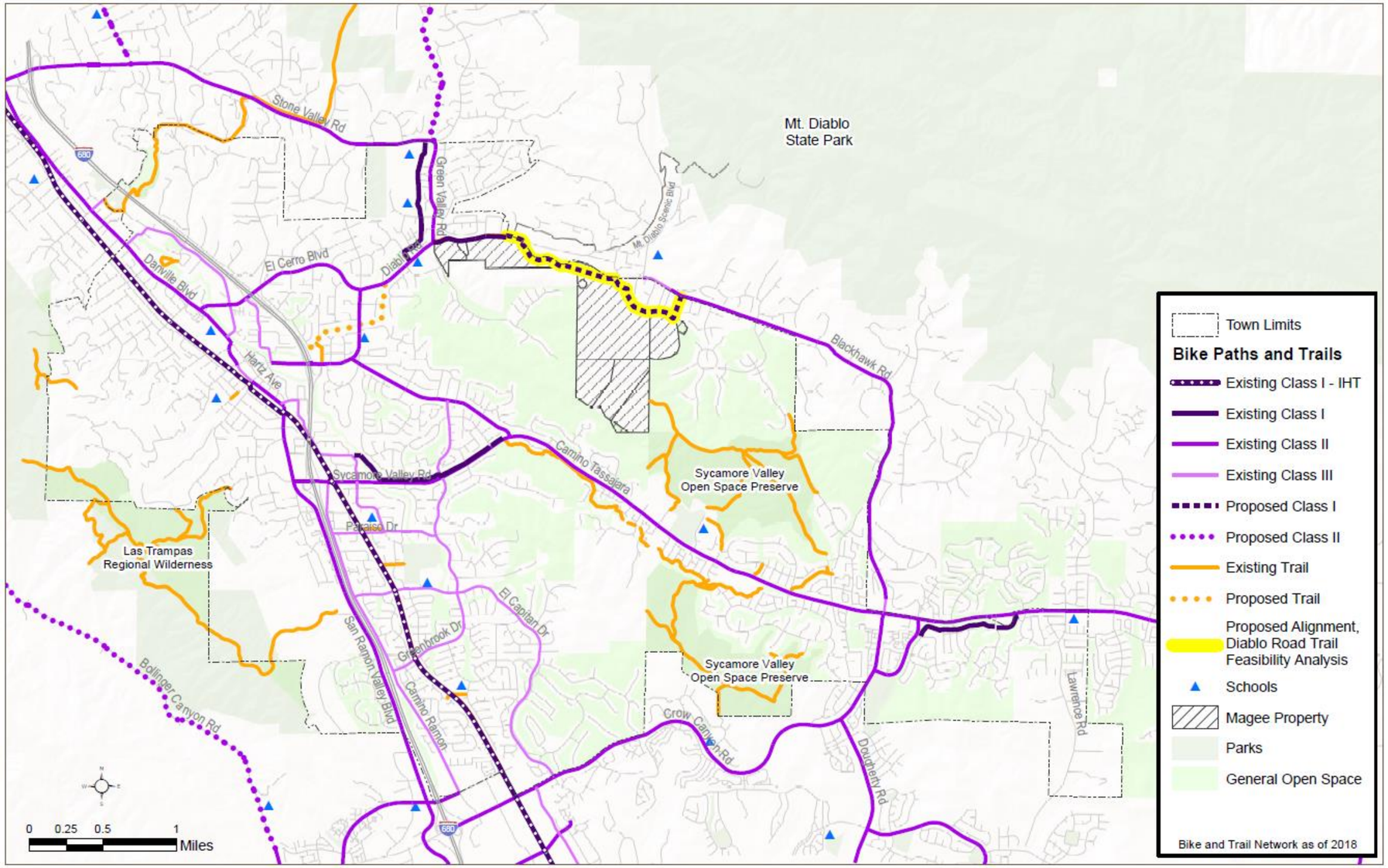


Diablo Road Trail: Conceptual Alignment



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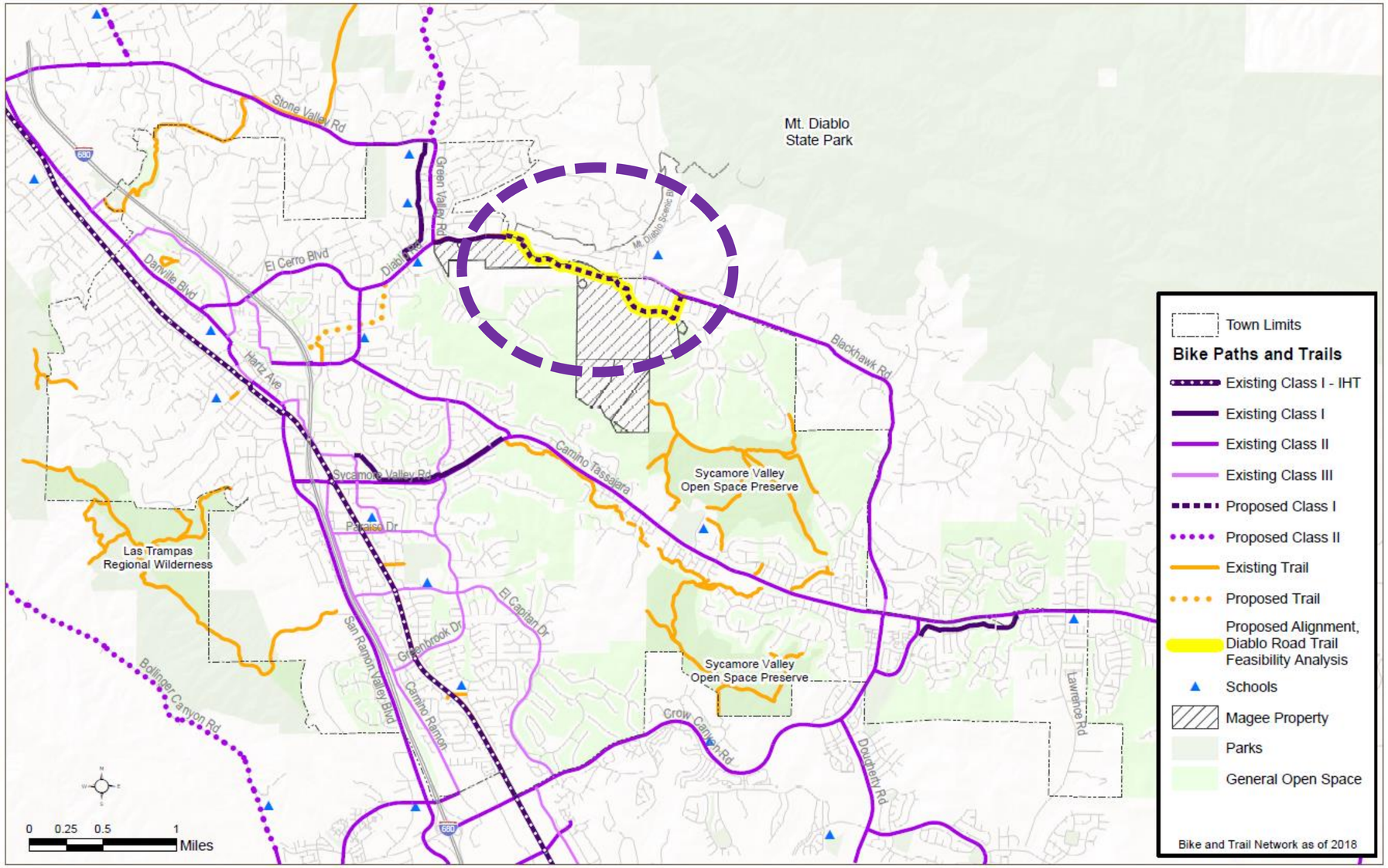
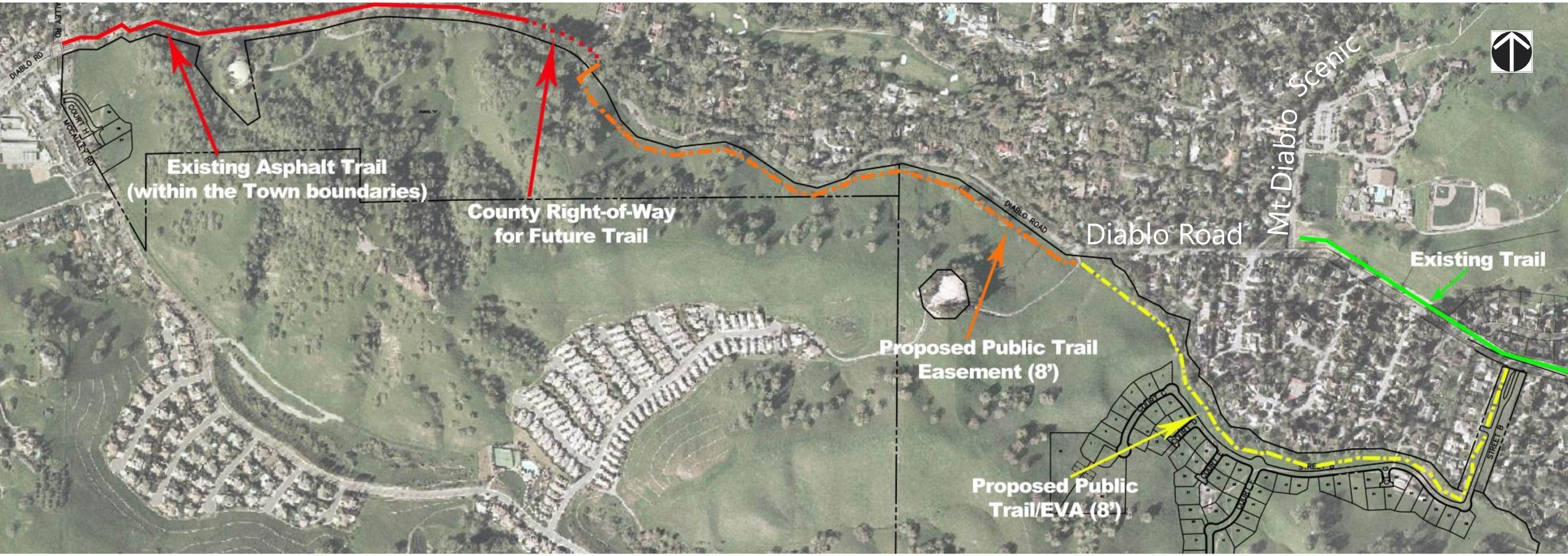


Magee Property: Development Requirements



Magee Property: Conceptual Trail Alignment

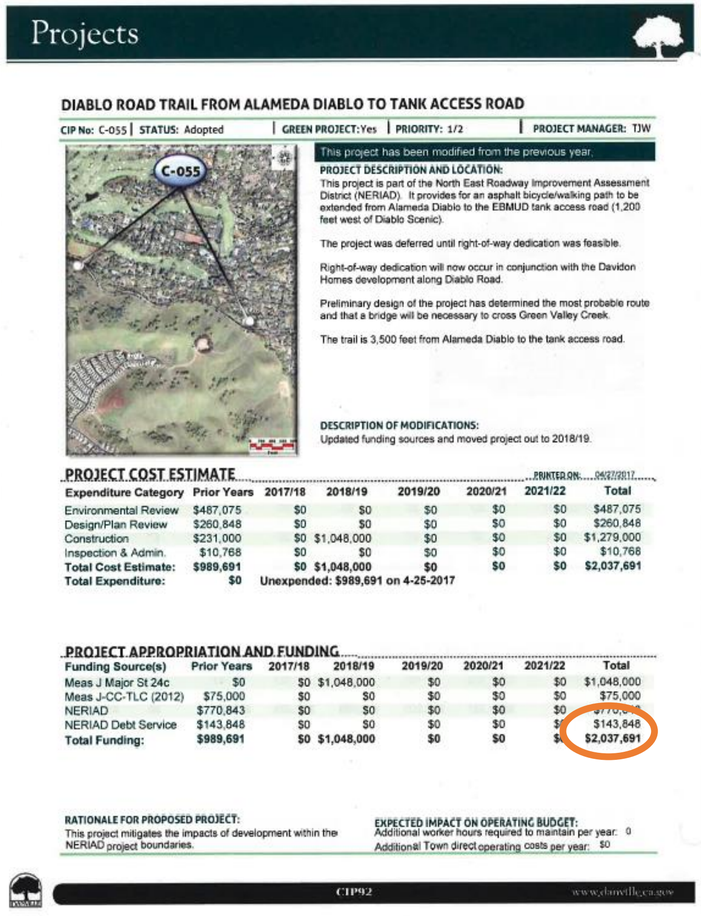
Questions about the Trail:

1. Funding (*Is it a real project*?)
2. Features (*Would it be paved*?)
3. Feasibility (*Can it be built*?)
4. Alternative (*What about bike lanes*?)

Magee Property: Conceptual Trail Alignment

Questions about the Trail:

1. Funding (*Is it a real project*?)
   - Answer: Yes
2. Features (*Would it be paved*?)
   - Answer: Yes
3. Feasibility (*Can it be built*?)
   - Answer: Yes
4. Alternative (*What about bike lanes*?)
   - Answer: Analysis completed



Projects

DIABLO ROAD TRAIL FROM ALAMEDA DIABLO TO TANK ACCESS ROAD

CIP No: C-055 | STATUS: Adopted | GREEN PROJECT: Yes | PRIORITY: 1/2 | PROJECT MANAGER: TJW

C-055

This project has been modified from the previous year.

PROJECT DESCRIPTION AND LOCATION:
This project is part of the North East Roadway Improvement Assessment District (NERIAD). It provides for an asphalt bicycle/walking path to be extended from Alameda Diablo to the EBMUD tank access road (1,200 feet west of Diablo Scenic).

The project was deferred until right-of-way dedication was feasible.

Right-of-way dedication will now occur in conjunction with the Davidon Homes development along Diablo Road.

Preliminary design of the project has determined the most probable route and that a bridge will be necessary to cross Green Valley Creek.

The trail is 3,500 feet from Alameda Diablo to the tank access road.

DESCRIPTION OF MODIFICATIONS:
Updated funding sources and moved project out to 2018/19.

PROJECT COST ESTIMATE PRINTED ON: 04/27/2017

Expenditure Category	Prior Years	2017/18	2018/19	2019/20	2020/21	2021/22	Total
Environmental Review	$487,075	$0	$0	$0	$0	$0	$487,075
Design/Plan Review	$260,848	$0	$0	$0	$0	$0	$260,848
Construction	$231,000	$0	$1,048,000	$0	$0	$0	$1,279,000
Inspection & Admin.	$10,768	$0	$0	$0	$0	$0	$10,768
Total Cost Estimate:	**$989,691**	**$0**	**$1,048,000**	**$0**	**$0**	**$0**	**$2,037,691**
Total Expenditure:	**$0**	**Unexpended: $989,691 on 4-25-2017**					

PROJECT APPROPRIATION AND FUNDING

Funding Source(s)	Prior Years	2017/18	2018/19	2019/20	2020/21	2021/22	Total
Meas J Major St 24c	$0	$0	$1,048,000	$0	$0	$0	$1,048,000
Meas J-CC-TLC (2012)	$75,000	$0	$0	$0	$0	$0	$75,000
NERIAD	$770,843	$0	$0	$0	$0	$0	$770,843
NERIAD Debt Service	$143,848	$0	$0	$0	$0	$0	$143,848
Total Funding:	**$989,691**	**$0**	**$1,048,000**	**$0**	**$0**	**$0**	**$2,037,691**

RATIONALE FOR PROPOSED PROJECT:
This project mitigates the impacts of development within the NERIAD project boundaries.

EXPECTED IMPACT ON OPERATING BUDGET:
Additional worker hours required to maintain per year: 0
Additional Town direct operating costs per year: $0

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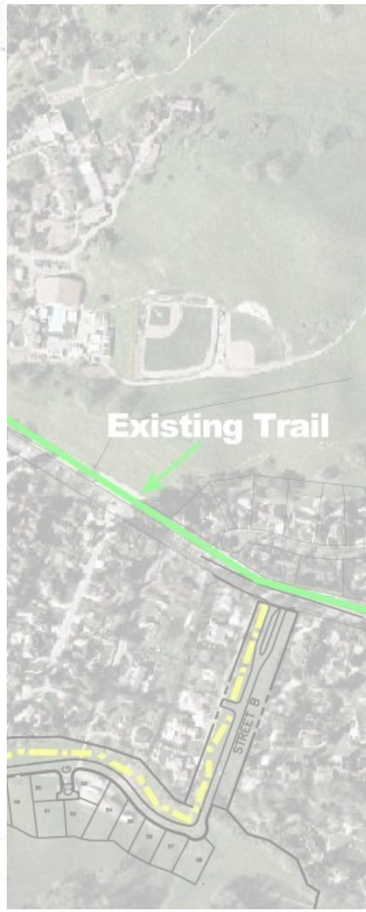
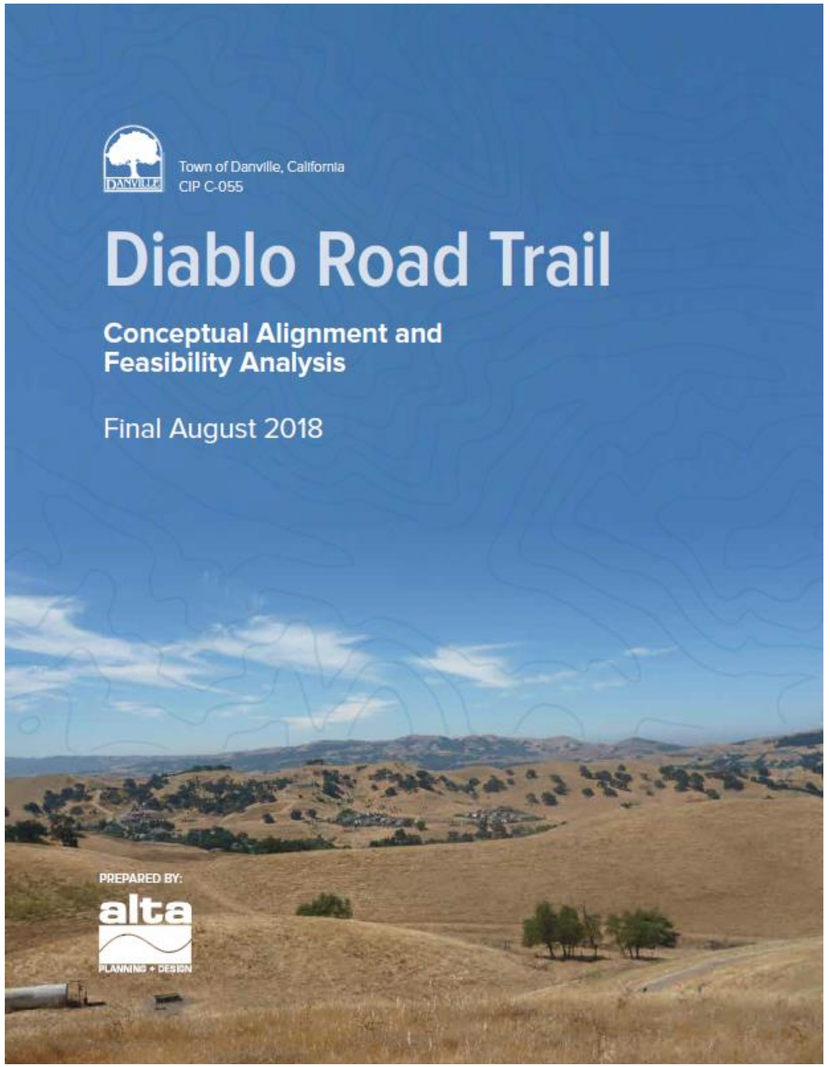


Feasibility Analysis

Assessment of Options:

1. Road Crossings
2. Drainage Crossings
3. Hill Alignments

Estimate of Costs

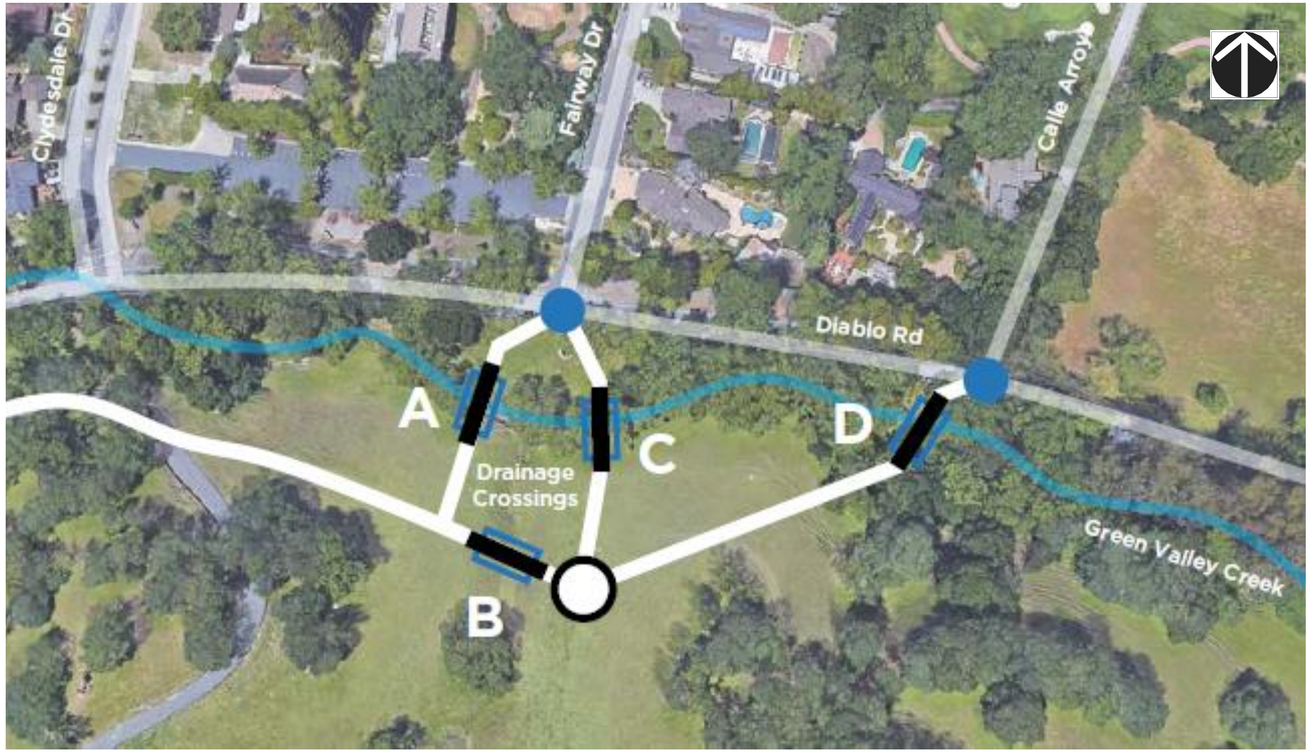


Existing Emergency Vehicle Access
Diablo Road
Hill Alignment 1
Hill Alignment 2
Hill Alignment 3
D
3
C
B
Calle Arroyo
Street Crossing Options
2
A
Drainage Crossing Options
Fairway Dr
Street Crossing Option
1
Clydesdale Dr
Trail with Alignment Options

Roadway Crossing Options

ROAD CROSSING: SUMMARY		1 Private Driveway	2 Fairway Drive West	2 Fairway Drive East	3 Calle Arroyo
Length	Length of crossing & trail connection	900'	400'	300'	450'
Potential Impacts	Tree removal, stream & habitat intrusion	Minimal	Minimal	Minimal	Minimal
Roadway Visibility	Level of visibility at street crossing	Good	Good	Good	Adequate
Trail Amenities	Space available for trailhead	Yes	Yes, limited	Yes, limited	No
Cost Estimate	Cost estimate of path construction only	$120,000 – $140,000	$80,000 – $100,000	$80,000 – $100,000	$90,000 – $110,000

Drainage Crossing Options



DRAINAGE CROSSING: SUMMARY		A	B	C	D
Bridge Length	Prefabricated 10' wide bridge	75'	75'	75'	85'
Potential Impacts	Tree removal, stream & habitat intrusion	Minimal	Minimal	Moderate	Moderate
Street Access	Connection to street crossings	Fairway Dr (west)	Clydesdale Dr & Fairway Dr (west)	Fairway Dr (east)	Calle Arroyo
Cost Estimate	Cost estimate for drainage crossing only	$500,000 – $700,000	$250,000 – $350,000	$600,000 – $800,000	$600,000 – $800,000

Hill Alignment Options

HILL ALIGNMENT 1

Length	Length of hill alignment trail	2,200'
Potential Impacts	Tree removal, stream & habitat intrusion	Minimal
Route Directness	Relative directness of overall route	Indirect
Scenic Views	Access to scenic views	Yes
Cost Estimate	Cost estimate based on construction	$750,000 – $1,000,000

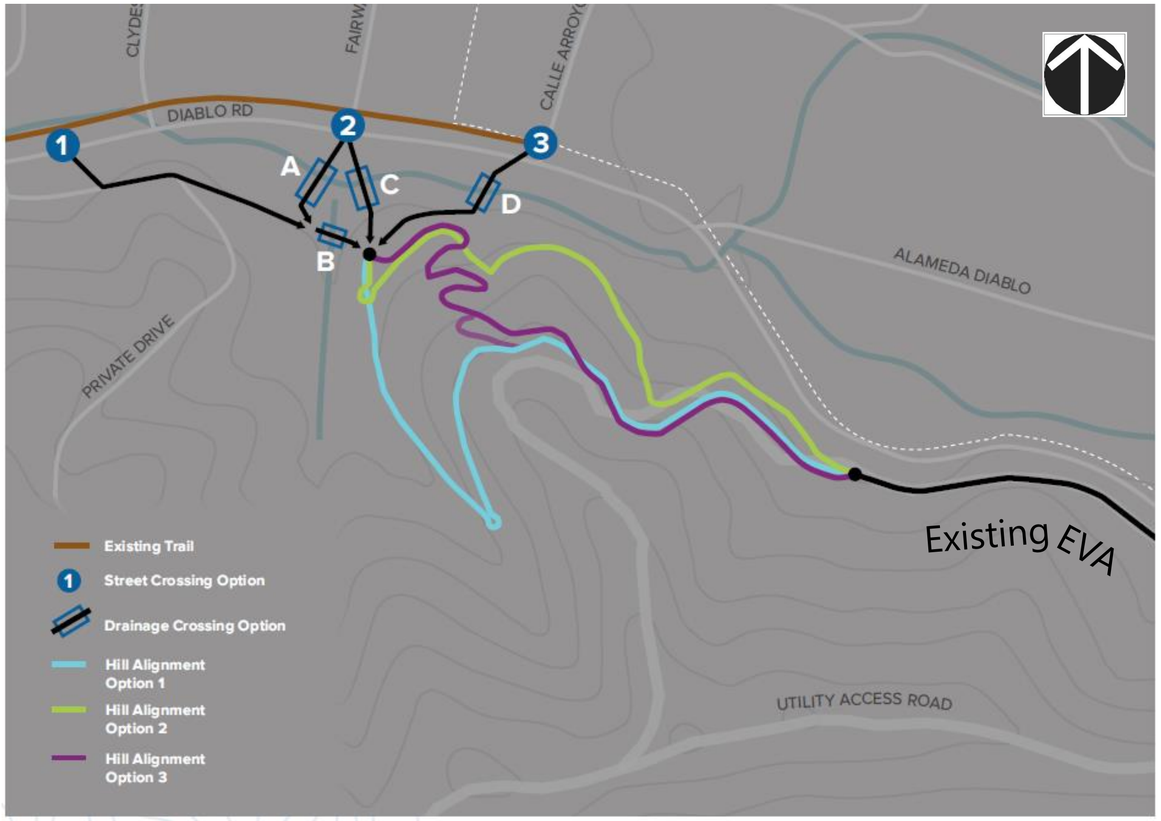
HILL ALIGNMENT 2

Length	Length of hill alignment trail	1,650'
Potential Impacts	Tree removal, stream & habitat intrusion	Major
Route Directness	Relative directness of overall route	Direct
Scenic Views	Access to scenic views	No
Cost Estimate	Cost estimate based on construction	$500,000 – $750,000

HILL ALIGNMENT 3

Length	Length of hill alignment trail	1,700'
Potential Impacts	Tree removal, stream & habitat intrusion	Minimal
Route Directness	Relative directness of overall route	Direct, switchbacks
Scenic Views	Access to scenic views	Yes
Cost Estimate	Cost estimate based on construction	$500,000 – $750,000

Diablo Road Trail: Feasibility Study Summary



Road Crossing *Pages 16-19*		Drainage Crossing *Pages 20-23*		Hill Alignment *Pages 24-27*		Emergency Vehicle Access		Cost Estimate
1 Private Driveway	+	B	+	1	+	☑	=	$1,570,000 - $1,940,000
		B		2				$1,320,000 - $1,690,000
		B		3				$1,320,000 - $1,690,000
2 Fairway Drive	+	A + B	+	1	+	☑	=	$2,030,000 - $2,600,000
		A + B		2				$1,780,000 - $2,350,000
		A + B		3				$1,780,000 - $2,350,000
		C		1				$1,880,000 - $2,350,000
		C		2				$1,630,000 - $2,100,000
		C		3				$1,630,000 - $2,100,000
3 Calle Arroyo	+	D	+	1	+	☑	=	$1,890,000 - $2,360,000
		D		2				$1,640,000 - $2,110,000
		D		3				$1,640,000 - $2,110,000

Analysis: Diablo Road Widening for Bike Lanes

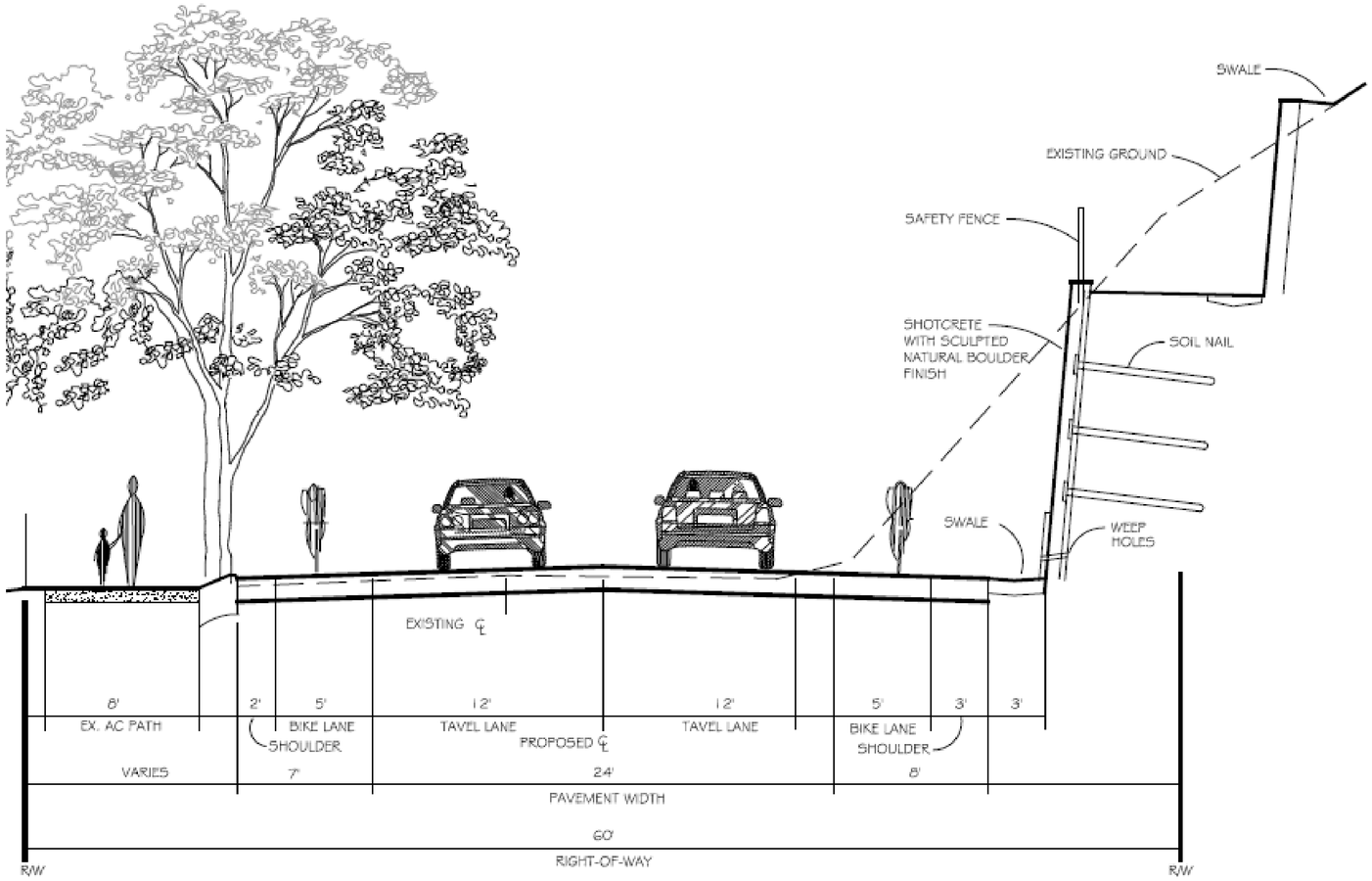
In-House Assessment:

1. Road configuration (*What would it look like*)
2. Potential Impacts (*Environmental and fiscal*)

Project Limits: Diablo Road, Green Valley Road to Mt. Diablo Scenic

Distance: 1.35 miles

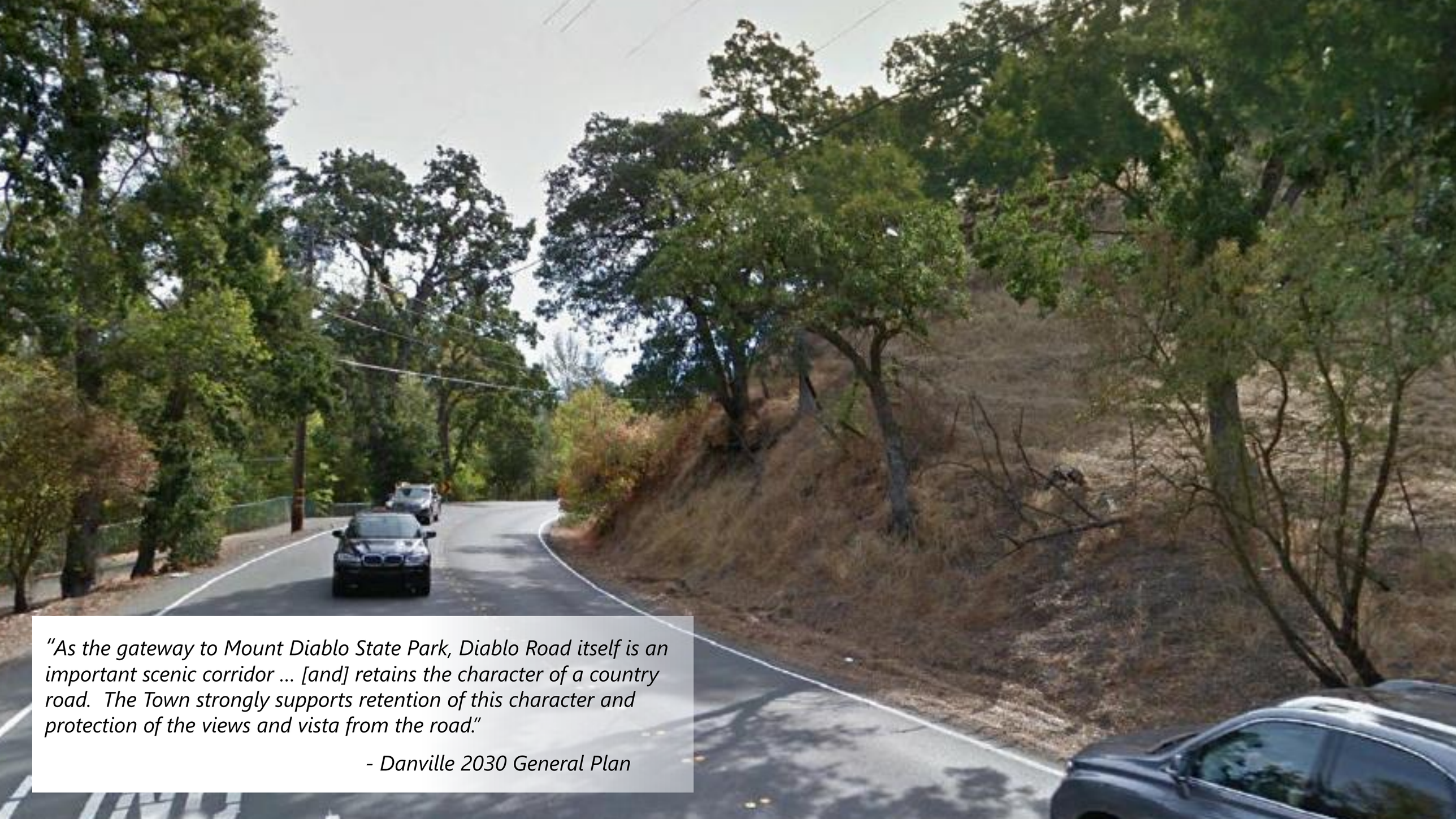
Analysis: Diablo Road Widening for Bike Lanes



42-Foot Roadway Cross Section provides for:

- Two 12-foot travel lanes
- Two 5-foot bike lanes
- Two (2-ft and 3-ft) shoulders
- One 3-foot drainage swale

Lane and shoulder widths consistent with current AASHTO standards



"As the gateway to Mount Diablo State Park, Diablo Road itself is an important scenic corridor … [and] retains the character of a country road. The Town strongly supports retention of this character and protection of the views and vista from the road."

- Danville 2030 General Plan

SOIL NAIL
WEEP HOLES
EXISTING ℄
8'
EX. AC PATH
2'
5'
BIKE LANE
SHOULDER
12'
TAVEL LANE
PROPOSED ℄
12'
TAVEL LANE
5'
BIKE LANE
3'
SHOULDER
3'
VARIES
7'
24'
8'
PAVEMENT WIDTH
60'
RIGHT-OF-WAY
R/W
R/W

Analysis: Diablo Road Widening for Bike Lanes (cont'd)

Environmental Impact include

- Removal of 341 Oak trees
- Grading of 61,000+ cubic yards of soil
- Constructing ~5,450 linear feet of retaining walls, ranging from 3-17 feet high
- Realigning Green Valley Creek
- Relocating 47 utility poles and all fire hydrants
- Temporary one-lane travel on Diablo Road during 18-24 month construction period

Analysis: Diablo Road Widening for Bike Lanes

Project Component Source: 2017 Contract Cost Data, California Department of Transportation		**Estimated Cost**
Project Design Engineering, surveys, geotechnical services, environmental permits		$8,100,000
Site Preparation		$23,758,000
• Site mobilization and traffic control:	$7,000,000	
• Tree removal (341 Oak trees):	$1,705,000	
• Removal of fences, road rail, retaining walls, drainage systems, etc.	$1,863,000	
• Clearing and grubbing:	$3,500,000	
• Utility relocation (47 poles; all fire hydrants):	$6,500,000	
• Culvert crossing and creek realignment:	$2,950,000	
• Miscellaneous administrative:	$240,000	
Construction		$15,751,074
Contingency (15%)		$7,141,361
Estimated Total (Design & Construction):		**$54,750,435**

Comparison: I-680 Auxiliary Lanes, Segment 2 = Approx. **$34 million**

Diablo Road Trail (CIP Project C-055)

Recommendation

- Accept informational status update
- Provide conceptual feedback

Questions?