

Memo

To: Arianna Nuri & Tina Hugg, Midpen
From: Andrew Lee, PE, TE; Venera Mandanas, EIT; Parisi Transportation Consulting
Joakim Osthus, PE, Mead & Hunt
Date: February 16, 2023
Subject: **Hawthorns Area of Windy Hill Open Space Preserve,
DRAFT Existing Transportation Conditions Technical Memo**

This technical memorandum summarizes Parisi Transportation Consulting's (Parisi) initial findings of the existing transportation and circulation conditions at the Hawthorns Area of Windy Hill Open Space Preserve (Hawthorns Area). This memo provides an overview of the surrounding circulation network (e.g., roadways and trails), a summary of recent traffic counts and collisions, a study of potential vehicle driveways for public access into the Hawthorns Area site, and a summary of relevant local and regional plans and policies.

1. PROJECT DESCRIPTION

The 79-acre Hawthorns Area is in the Town of Portola Valley (Town) in San Mateo County (Figure 1). The Hawthorns Area is in close proximity to two Midpeninsula Regional Open Space District (Midpen) preserves: Windy Hill Open Space Preserve (Windy Hill), which is approximately one mile away via Alpine Road, and Thornewood Open Space Preserve (Thornewood), which is approximately three miles away via Portola Road (Figure 2). Midpen is preparing a long-term use and management plan for the Hawthorns Area with recommendations to steward the site's natural, cultural, and historic resources and introduce ecologically sensitive public access. The plan will include specific actions to open the Hawthorns Area to the public, including general specifications for an access driveway, parking area, and other public amenities. Access to the Hawthorns Area for land management purposes is currently provided by one driveway originating at Alpine Road and two driveways off Los Trancos Road (Figure 3).

2. EXISTING SITE ACCESS

Where it bounds the Hawthorns Area, **Alpine Road** is a two-lane minor arterial roadway with a posted speed limit of 35 miles per hour. The roadway ranges between 35 and 60 feet wide between the edges of the roadway shoulder.

Along the boundary of the Hawthorns Area, **Los Trancos Road** is a two-lane local road with a posted speed limit of 35 miles per hour. The roadway ranges between 20 and 36 feet wide between the edges of the roadway shoulder.

2.1 AVERAGE DAILY TRAFFIC VOLUMES

The Town collected traffic counts across nine days in October 2019 as part of a separate traffic study¹. The counts are summarized below (Table 1) and the locations are noted on Figure 2.

There are two counts collected on Alpine Road where it bounds the north side of the Hawthorns Area (location 2 and 3) and one count on Los Trancos Road south of the east property boundary (location 6).

Table 1 Portola Valley 2019 Average Daily Traffic Volumes

#	Roadway Segment	Approx. Distance to Hawthorns Area	Roadway Classification ²	Weekday Average	Weekend Average
1	Alpine Road north of Westridge Road	1.5 miles east	Minor Arterial	12,100	9,300
2	Alpine Road east of Nathhorst Road	On the Project north boundary	Minor Arterial	7,800	5,600
3	Alpine Road west of Portola Road	On the Project north boundary	Major Collector	3,300	2,500
4	Alpine Road east of Willowbrook Road	0.8 miles west	Major Collector	300	400
5	Arastradero Road at the Town Limit	0.8 miles east	Local Road	3,700	2,900
6	Los Trancos Road near the Town Limit*	0.2 miles south	Local Road	3,000	2,100
7	Portola Road north of Wayside Road	2.0 miles north	Minor Arterial	6,000	4,800

Source: Town of Portola Valley, 2019.

The peak hour traffic volumes for the roadway segments bounding the Hawthorns Area are presented below (Table 2). Weekday peak hours correspond to morning and afternoon commute times: 7 to 9 AM and 4 to 6 PM. The Saturday peak hours of traffic were typically around noon (11 AM to 1 PM) and Sunday peaks occurred slightly earlier, between 10 AM and noon.

The weekday daily traffic on Alpine Road on the project boundary ranges between one quarter to two-thirds of the road's peak daily traffic demand within the Town limits at Westridge Road (12,000 daily vehicles), approximately one mile south of the Highway 280 interchange with Alpine Road.

¹ <https://www.portolavalley.net/departments/public-works/public-works-projects/2019-town-wide-traffic-counts>

² California Department of Transportation (Caltrans) California Road System Functional Classification (2022). <https://dot.ca.gov/programs/research-innovation-system-information/office-of-highway-system-information-performance/functional-classification>

Table 2 Portola Valley 2019 Average Daily Traffic Volumes

#	Roadway Segment	Average Weekday Peak Hour		Average Weekend Peak Hour
		AM	PM	
2	Alpine Road east of Nathhorst Road			
	Eastbound	360	400	370
	Westbound	410	330	260
3	Alpine Road west of Portola Road			
	Eastbound	270	170	160
	Westbound	260	150	160
6	Los Trancos Road near the Town Limit*			
	Northbound	170	150	110
	Southbound	120	140	120

2.2 COLLISION HISTORY

Using data from Statewide Integrated Traffic Records Systems (SWITRS) reports, Parisi completed a collision analysis for the Hawthorns Area spanning from 2016 to 2021. The collision analysis study area for the Hawthorns Area includes Alpine Road from Echo Lane to Golden Oak Drive (0.7 mile) and Los Trancos Road from Alpine Road to the town limits (0.4 mile, see Table 3). There were 13 collisions in total, including two at the Alpine Road / Los Trancos Road intersection, as summarized in Table A-1 of the Appendix.

The collision rate along Alpine Road is slightly higher than the Statewide average rate for comparable rural highways (0.92 vs. 0.82) but is approximately 20 percent lower than the collision rate on Los Trancos Road (0.92 vs. 1.14). There were four bicyclist-involved collisions, including two severe injury crashes, and no pedestrian-involved collisions. The reasons for collisions were unsafe speed (five crashes), automobile right of way (four crashes), improper turning (two crashes) and one collision due to hazardous parking (Table A-1).

These data indicate that measures to reduce vehicle speeds, like warning signs and refreshed pavement markings, providing greater separation between drivers and bicyclists, and maintaining or improving sight distance should be incorporated in the design for a future driveway entrance for public access into the Hawthorns Area site.

Table 3 Hawthorns Area Roadway Collision Rates

	A	B	C over 6 years	D=(C*1,000,000) / [(B*365*6 yrs)*(A)]	Statewide Average Collision Rate (c/mvm)**
Roadway Segment	Length (miles)	ADT	# of Collisions	Collision Rate (c/mvm)***	
Alpine Road, Saddleback to Portola	0.5	7800	11*	0.92	0.82
Alpine Road, Portola to Golden Oak	0.2	3300			
Los Trancos Road, Alpine Road to Town Limits (Rolling Terrain)	0.4	3000	3 *	1.14	1.19
2-Lane Highway, Rural, Flat Terrain, <55 MPH	Collision rate applied to Alpine Road.				0.78+ (.35/ADT in thousands)
2-Lane Highway, Rural, Rolling Terrain, < 55 MPH	Collision rate applied to Los Trancos Road.				1.07+ (.35/ADT in thousands)

*Two collisions at the Alpine Rd. / Los Trancos Road intersection

**Rates from Caltrans [2016 Collision Data on California State Highways](#).

*** c/mvm – [Collisions per Million Vehicle Miles, calculated as](#)

$$\frac{[\text{Collisions} \times 1,000,000]}{[\text{Average Daily Traffic} \times 365 \text{ days} \times \# \text{ of study years} \times \text{Roadway Segment Length}]}$$

2.3 TRAIL, WALK, AND BIKE NETWORK

The Town's public trail network runs along the perimeter of the Hawthorns Area (Figure 4). The Alpine, Sweet Springs, Firethorne, and Los Trancos Trails are designated hiking and equestrian routes; there is a section of the Alpine Trail between Indian Crossing Road and Portola Road where bicycling is permitted. Allowed uses are indicated on trail posts.

Among the on-street circulation network, there are marked crosswalks at the Alpine Road / Portola Road intersection. There are no continuous sidewalks in the study area apart from the trail network. The striped shoulders on Alpine Road and Portola Road function as on-street bike lanes, although there are no signs or markings indicating them as designated bikeways. Alpine Road and Portola Road are popular local bicycling routes.

2.4 TRANSIT FACILITIES

SamTrans provides two school-oriented bus routes through the Town. Route 85 connects the towns of Woodside and Portola Valley to Ormondale Elementary School and Corte Madera School. Route 85 services Ormondale Elementary School and Woodside High School. Each route runs once per day on weekday afternoons only. The nearest stops near the Hawthorns Area are located near the Portola Road / Alpine Road intersection and the Alpine Road / Golden Oak Drive intersection. The bus route maps and schedules are provided as Figure 5 and Figure 6.

3. SIGHT DISTANCE EVALUATION AND SITE ACCESS RECOMMENDATION (PREPARED BY MEAD & HUNT)

Location: This evaluation is for the existing and potential driveway access points to the Hawthorns Area from Alpine Road and Los Trancos Road. Three locations along Alpine Road and two locations along Los Trancos Road have been evaluated. Figure 3 shows the locations of all evaluated access points.

Description: Alpine Road is a two-lane roadway with no roadside parking. The posted speed limit is 35 mph. The roadway is lined with trees and part of the west side of the street has a steep embankment starting at the paved shoulder.

Los Trancos Road is a two-lane roadway with no roadside parking. The posted speed limit is 35 mph with an advisory speed of 25 mph in the northbound direction. The roadway makes an S-turn at the location of the two evaluated driveway locations. There are existing trees on both sides of the roadway; most are set back from the roadway and do not obstruct the roadway visibility.

There are no existing traffic control devices or pedestrian crossings at any of the evaluated intersections. A future driveway is assumed to have stop control.

Sight Distance Evaluation: Appendix B includes exhibits showing the available sight distances at each of the five evaluated driveway locations. Sight distances have been compared to criteria included in AASHTO's A Policy on Geometric Design of Highways and Streets, 2018 7th Edition (HDM).

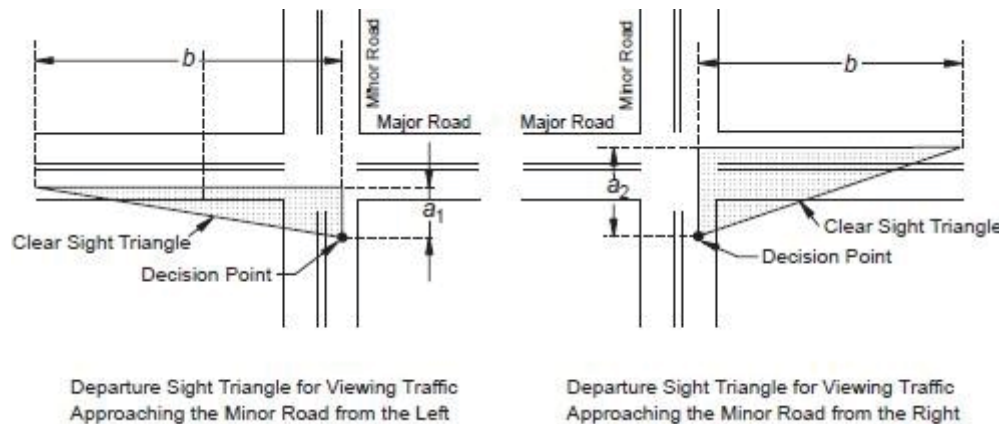


Exhibit 1 AASHTO Departure Sight Triangle Diagram

Exhibit 1 (above) shows the departure sight distance diagram for both left and right turns. The posted speed limits for these segments of roadway are based on engineering traffic and safety surveys (ET&S) prepared by the Town every five to seven years. Consistent with the California Manual for Setting Speed Limits (2020), "Speed limits set by E&TS are normally set near the 85th

percentile speed. The 85th percentile speed is the speed at or below which 85 percent of the traffic is moving, and statistically represents one standard deviation above the average speed.”

The posted speed limits for the evaluated locations along both Alpine Road and Los Trancos Road is 35 mph. As such, the 85th percentile speed is assumed to be near 35 mph and below 45 mph. Required distances for left- and right-turn departures and stopping sight distances for design speeds of 35 mph and 45 mph are shown in Table 4 below. Grades of roadways are generally flat, so no adjustments to the required sight distances have been made due to the grade of either the major roadway or the potential driveways.

Table 4 Sight and Stopping Distance Requirements per AASHTO

	Left Turn Sight Distance	Right Turn Sight Distance	Stopping Sight Distance
Passenger Vehicle (35 mph)	386 ft	335 ft	250 ft
Passenger Vehicle (45 mph)	497 ft	430 ft	360 ft

The estimated intersection sight distances at the evaluated driveway locations are shown in Table 5. Those distances are compared to the distance requirements in Table 4.

Table 5 Intersection Sight Distance Summary

Location	Approximate Intersection Sight Distance Left (Right)	Meets HDM Criteria?	Meets Stopping Sight Distance Criteria?	Issue	Potential Mitigation
Current Alpine Road Driveway	490' (590')	Yes	Yes		
Original Alpine Road Driveway	695' (570')	Yes	Yes		
Potential Alpine Road Driveway	440' (650')	Yes	Yes		
Los Trancos Road Driveway (North)	265' (304')	No	Yes	Curvature of roadway	None
Los Trancos Road Driveway (South)	140' (125')	No	No	Curvature of roadway	None

All three locations along Alpine Road have adequate sight distance for both left and right turns. Neither of the two driveway locations along Los Trancos Road provide adequate sight distance for either a right or left turn. The main reason for the inadequate sight distance is the curvature of Los Trancos Road at these locations. Remedying the deficient sight distance would require realignment of a portion of Los Trancos Road; it is expected that this would be prohibitively expensive and time consuming and thus not identified as a feasible mitigation.

Recommendations: Based on the evaluation of the existing sight distance, it is recommended that any driveway entrance for public access to the Hawthorns Area be located along Alpine

Road. Any final design of the intersection should include analysis of any required adjustment to required stopping and intersection sight distances based on the grade of Alpine Road.

If an entrance is used for private entry, then it is recommended that deficiencies be mitigated by appropriate signage/markings.

LIST OF APPENDICES

Appendix A: Figures and Tables

Appendix B: Sight Distance Exhibits & Photos

Appendix C: Summary of Relevant Plans and Policies

APPENDIX A: FIGURES AND TABLES

Figure 1 Hawthorns Area – Local Map

Figure 2 Hawthorns Area – Regional Map

Figure 3 Hawthorns Area – Aerial Map + Driveway Locations

Figure 4 Town of Portola Valley Public Trail Network

Figure 5 SamTrans Route 85 Map & Schedule

Figure 6 SamTrans Route 87 Map & Schedule

Table A-1. The Hawthorns Area Reported Collisions, 2016-2021

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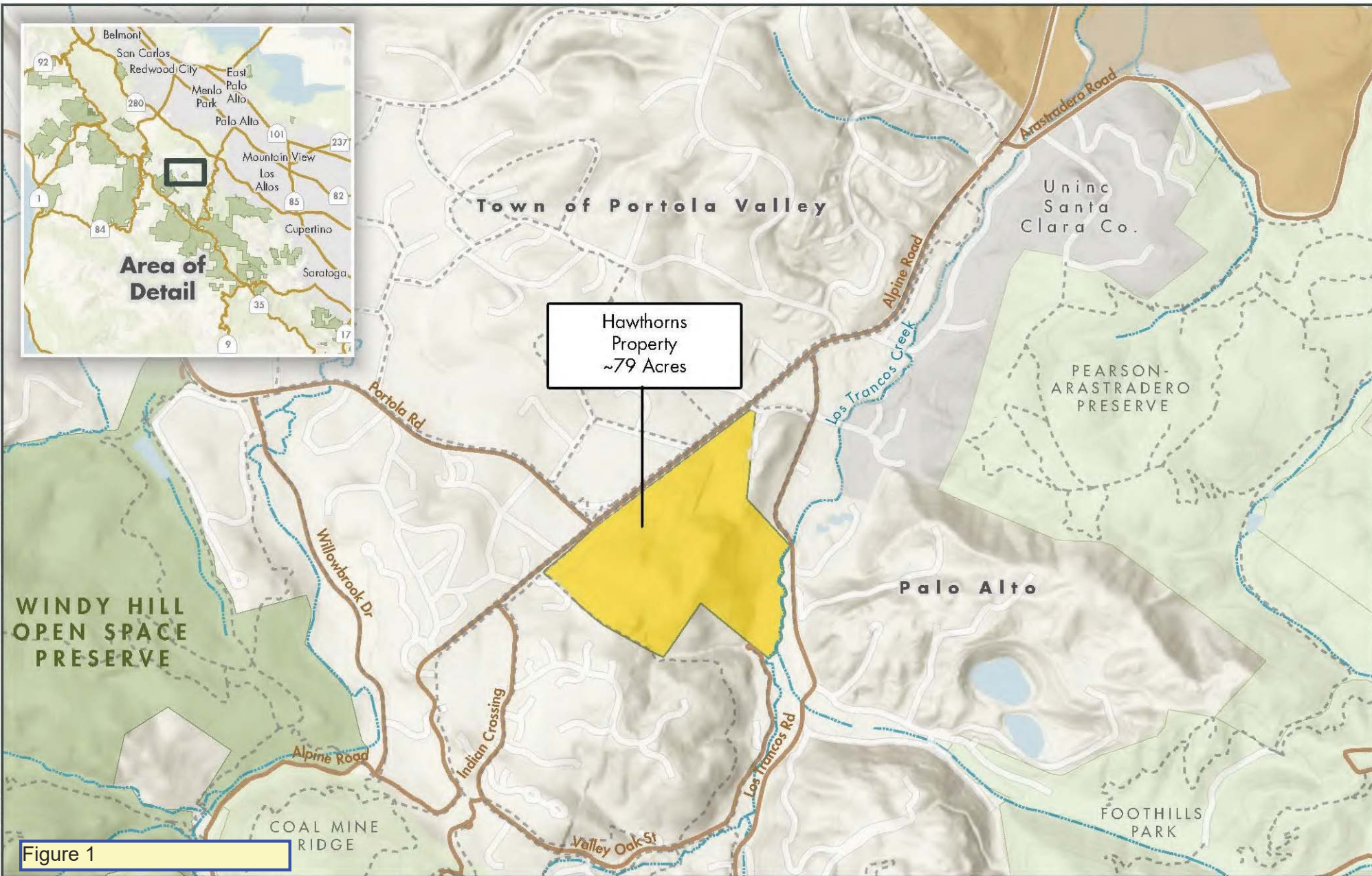
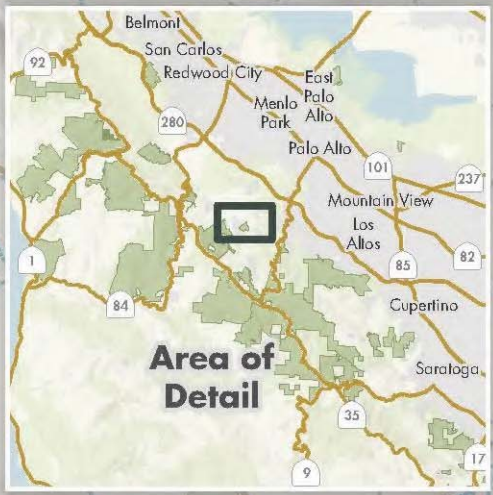








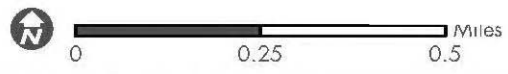
Figure 1

Hawthorns Area - Local Map

- | | |
|---|---|
|  MROSD Preserves |  Other Public Agency |
|  Other Protected Lands |  Hawthorns Area |
|  Private Property |  Unincorporated Area |

ATTACHMENT 2

Midpeninsula Regional
Open Space District
(Midpen)
6/18/2021



While the District strives to use the best available digital data, these data do not represent a legal survey and are merely a graphic illustration of geographic features.

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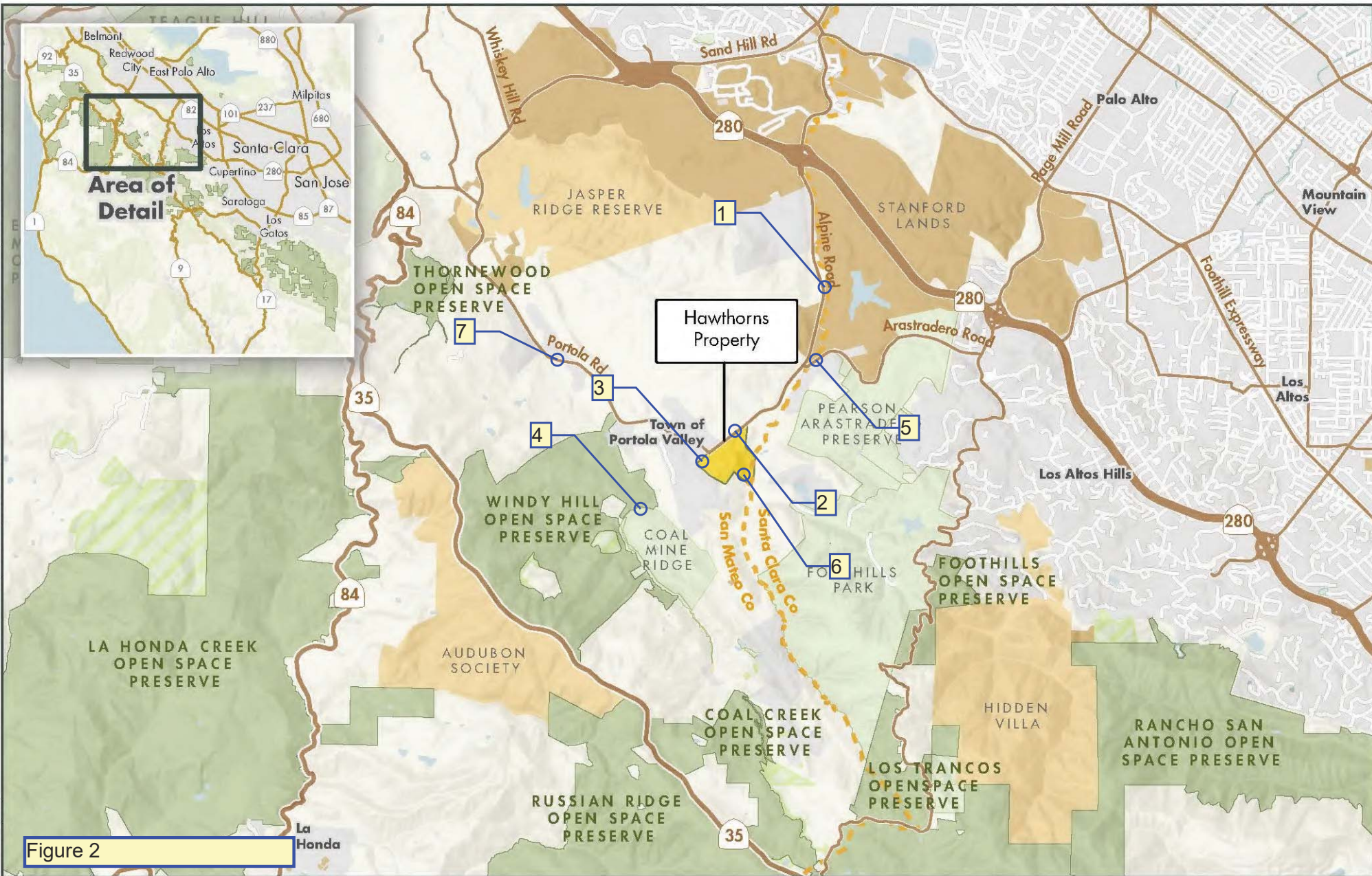


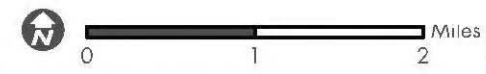
Figure 2

Hawthorns Area - Regional Map

- | | |
|--|--|
| MROSD Preserves | Land Trust |
| Other Protected Lands | Other Public Agency |
| Private Property | Hawthorns Area |

2019 Traffic Count Locations

ATTACHMENT 2 Midpeninsula Regional Open Space District
 (Midpen)
 6/16/2021



While the District strives to use the best available digital data, these data do not represent a legal survey and are merely a graphic illustration of geographic features.

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Created By: flopez



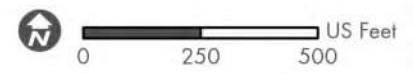
Figure 3

Hawthorns Area - Aerial Map

-  Hawthorns Area
-  Building

ATTACHMENT 2


Midpeninsula Regional
Open Space District
(Midpen)
9/9/2022




While the District strives to use the best available digital data, these data do not represent a legal survey and are merely a graphic illustration of geographic features.


Town of Portola Valley Public Trail Network


 Hawthorns area

 Building

Trail use type

 Bicycle route

 Hiking, equestrian uses

 Hiking, bicycling, equestrian uses

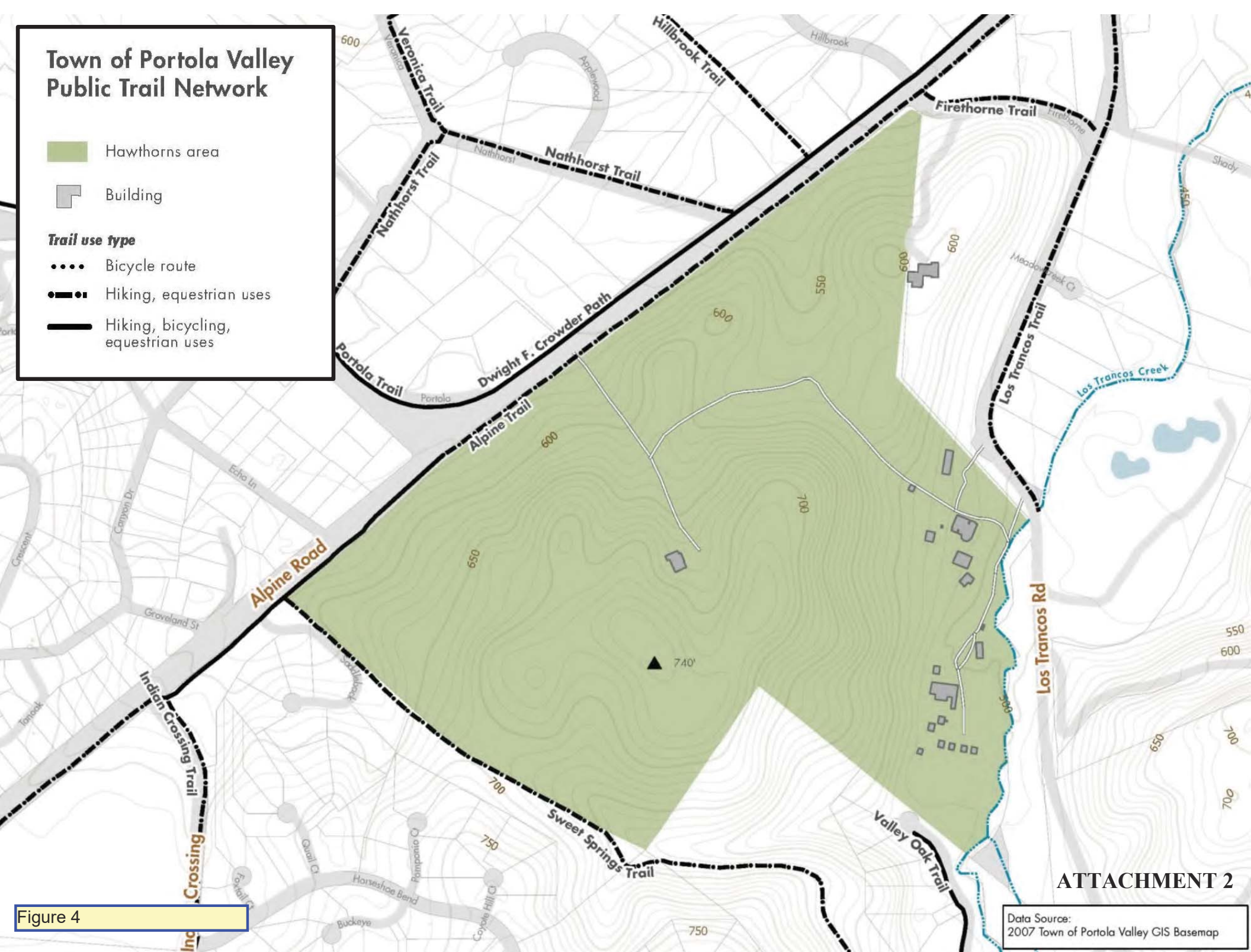


Figure 4

ATTACHMENT 2

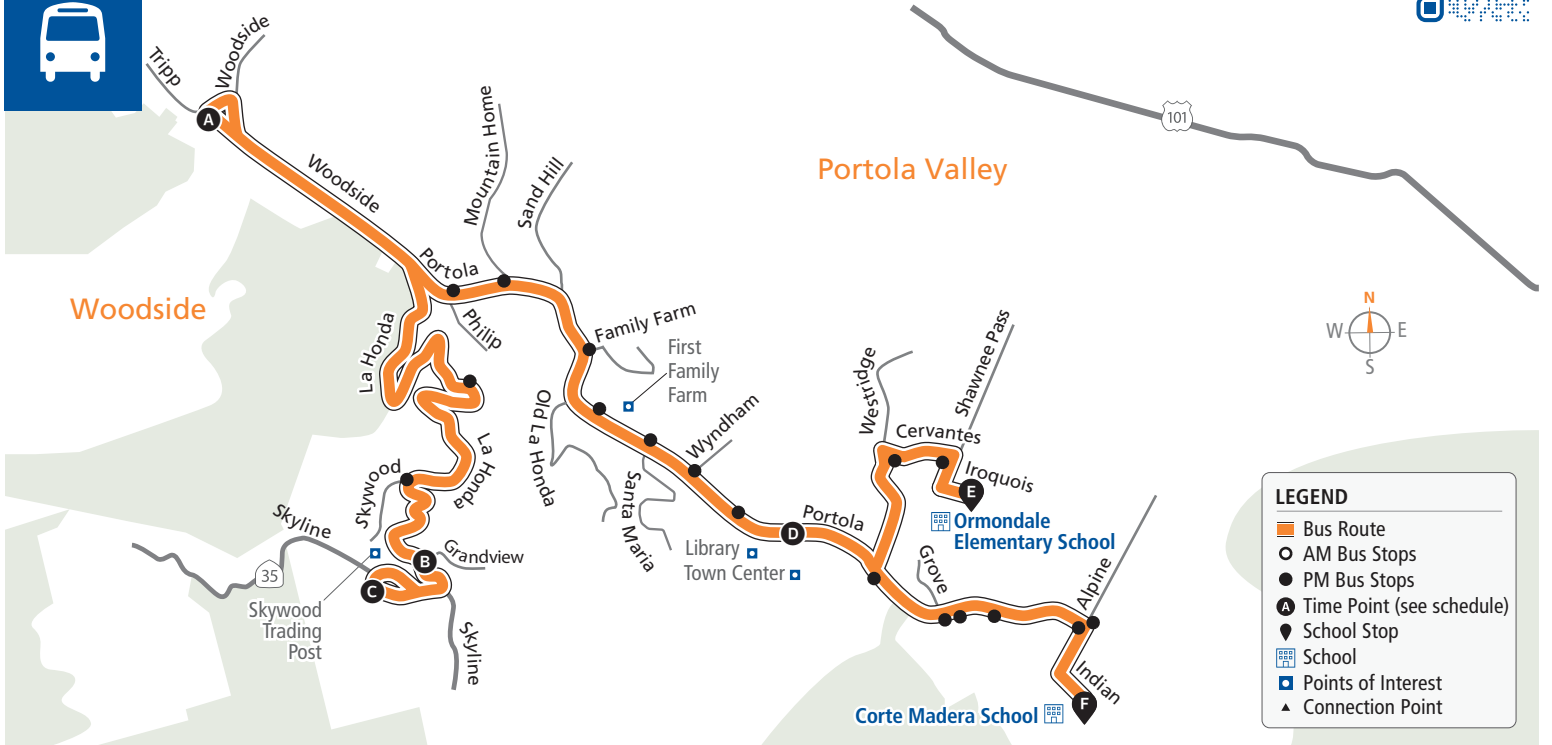
Data Source:
2007 Town of Portola Valley GIS Basemap

85

samtrans.com/85
School Oriented Route



Effective 11/06/2022



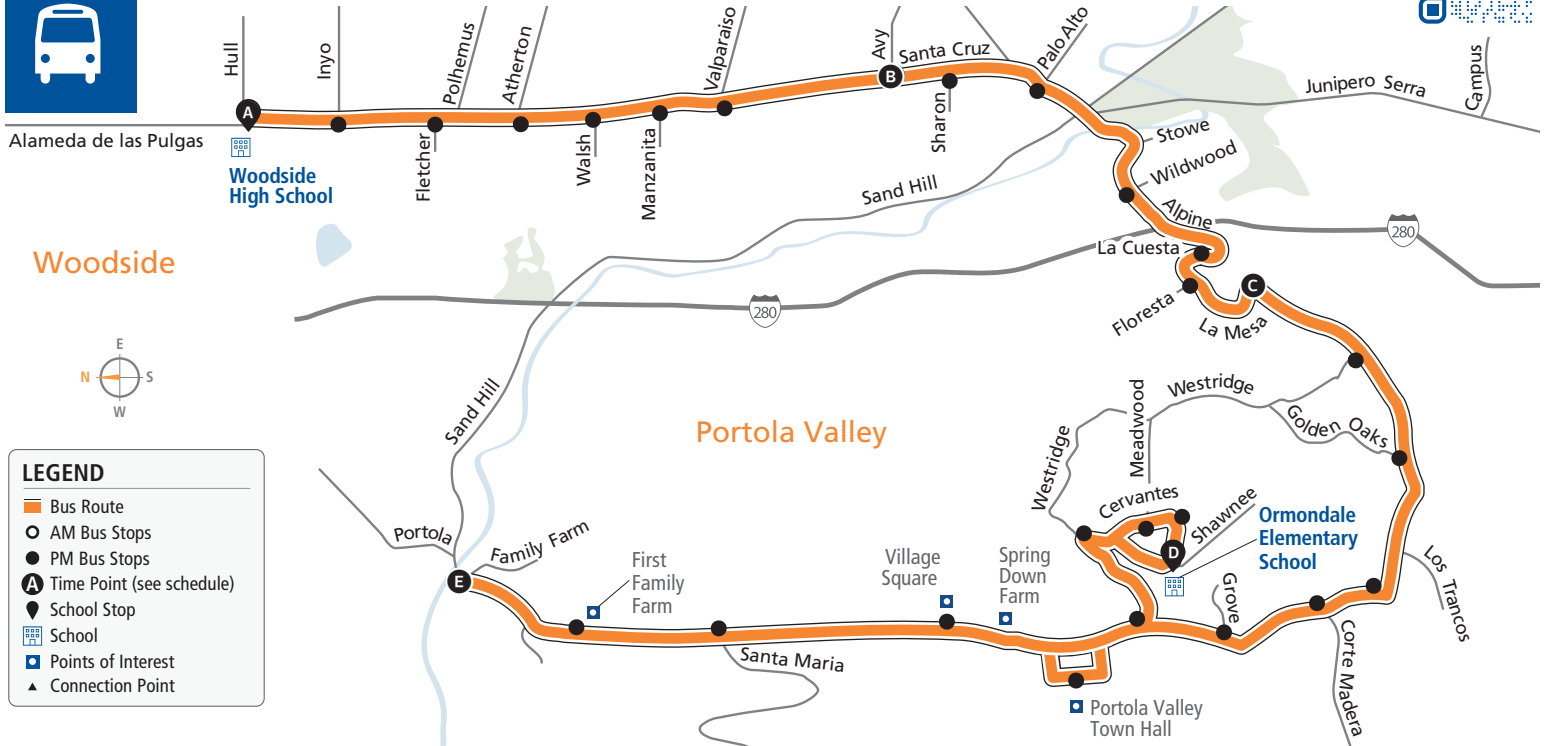
PM to La Honda/Grandview

Bus Stops	Mon, Tues, Thurs & Fri	Wednesdays Only	Bus Stops	Mon, Tues, Thurs & Fri	Wednesdays Only
E Ormondale Elementary School	3:05p	12:30p	Portola/Village		
Shawnee Pass/Cervantes			Portola/Wyndham		
Cervantes/Meadwood			Portola/Santa Maria		
Portola/Grove			Portola/First Family Farm		
Portola/Corte Madera			Portola/Family Farm		
Portola/Alpine			Portola/Mountain Home		
F Corte Madera School	3:19p	12:42p	Portola/Phillip		
Portola/Alpine			A Tripp/Woodside	3:32p	12:52p
Portola/Woodside			La Honda/Fox Hill		
Portola/Grove			La Honda/Skywood		
Portola/Westridge			B Skyline Blvd/La Honda	3:47p	1:10p
D Portola Valley Town Hall	3:26p	12:47p	C La Honda/Grandview	3:54p	1:17p
					2:35p

Figure 5

samTrans	Bus Fares				Bus Fares					
	Cash	Clipper*	Day Pass	Monthly Pass	Cash	Clipper*	Day Pass	Monthly Pass		
	Youth (Age 18 & younger)	\$1.10	\$1.00	\$2.00	\$27.00	Adult (Age 19 through 64)	\$2.25	\$2.05	\$4.50	\$65.60

*Free 2-hour transfers between local SamTrans routes on Clipper or SamTrans Mobile App. Tickets available on SamTrans Mobile. 🍏 🤖



PM to Portola/Family Farm

Bus Stops	Wednesdays Only	Mon, Tues, Thurs, & Fri Only	Bus Stops	Wednesdays Only	Mon, Tues, Thurs, & Fri Only
A Alameda de las Pulgas/Hull	2:50p	3:55p	Alpine/Golden Oak		
Alameda de las Pulgas/Inyo			Portola/Alpine		
Alameda de las Pulgas/Fletcher			Portola/Woodside		
Alameda de las Pulgas/Atherton			Portola/Grove		
Alameda de las Pulgas/Walsh			Westridge/Cervantes		
Alameda de las Pulgas/Manzanita			D Ormondale Elementary School	3:18p	4:23p
Alameda de las Pulgas/Valparaiso			Shawnee/Cervantes		
B Alameda de las Pulgas/Avy	2:55p	4:00p	Cervantes/Meadwood		
Alameda de las Pulgas/Sharon			Portola/Westridge		
Santa Cruz/Palo Alto			Portola Valley Town Hall		
Alpine/Wildwood			Portola/Village		
La Cuesta/Alpine			Portola/Santa Maria		
La Cuesta/West Floresta			Portola/First Family Farm		
C La Mesa/Alpine	3:06p	4:11p	E Portola/Family Farm	3:26p	4:31p
Alpine/Westridge					

Figure 6

samTrans	Bus Fares				Cash				Clipper* Day Pass				Monthly Pass			
	Youth (Age 18 & younger)	\$1.10	\$1.00	\$2.00	\$27.00	Adult (Age 19 through 64)	\$2.25	\$2.05	\$4.50	\$65.60						

*Free 2-hour transfers between local SamTrans routes on Clipper or SamTrans Mobile App. Tickets available on SamTrans Mobile.

Table A-1. The Hawthorns Area Reported Collisions, 2016-2021

Year	Primary Road	Nearest Intersection	Collision Severity	Violation Category	Collision Type	Pedestrian Collision	Bicycle Collision
2016	ALPINE RD	HILLBROOK DR	Other Visible Injury	Unsafe Speed	Other	No	Yes
2017	ALPINE RD	PORTOLA RD	Complaint of Pain	Unsafe Speed	Rear End	No	No
2018	ALPINE RD	LOS TRANCOS RD	Other Visible Injury	Unsafe Speed	Other	No	Yes
2018	ALPINE RD	GOLDEN OAK DR	Property Damage Only	Unsafe Speed	Hit Object	No	No
2019	ALPINE RD	GOLDEN OAK DR	Complaint of Pain	Unsafe Speed	Rear End	No	No
2019	GOLDEN OAK DR	ALPINE RD	Property Damage Only	Unsafe Speed	Rear End	No	No
2020	PORTOLA RD	ALPINE RD	Other Visible Injury	Improper Turning	Broadside	No	No
2021	ALPINE RD	GOLDEN OAK DR	Severe Injury	Automobile Right of Way	Overtaken	No	Yes
2021	PORTOLA RD	ALPINE ROAD	Other Visible Injury	Automobile Right of Way	Broadside	No	No
2021	ALPINE RD	LOS TRANCOS RD	Severe Injury	Automobile Right of Way	Other	No	Yes
2021	ALPINE RD	LOS TRANCOS RD	Property Damage Only	Hazardous Parking	Hit Object	No	No

APPENDIX B: SIGHT DISTANCE EXHIBITS & SITE PHOTOS



PRELIMINARY
NOT FOR CONSTRUCTION



Parisi
TRANSPORTATION CONSULTING

800 Bancroft Way, Ste 203
Berkeley, CA 94710
(510) 343-6400

DESIGNER: VM
CHECKER: AL
APPROVER: AL

MIDPENINSULA REGIONAL OPEN SPACE DISTRICT
HAWTHORNS AREA
CURRENT ALPINE ROAD DRIVEWAY

REVISIONS		DATE	SCALE
NO.	DESCRIPTION	12/23/2022	1"=40'
		PTC PROJECT NO. 22036	
		DRAWING	SD-1
		SHEET NO.	1 OF 5



PRELIMINARY
NOT FOR CONSTRUCTION



Parisi
TRANSPORTATION CONSULTING

800 Bancroft Way, Ste 203
Berkeley, CA 94710
(510) 343-6400

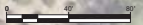
DRIVER: VM	CHECKER: AL
DESIGNER: VM	APPROVER: AL

MIDPENINSULA REGIONAL OPEN SPACE DISTRICT
HAWTHORNS AREA
ORIGINAL ALPINE ROAD DRIVEWAY

REVISIONS		DATE	SCALE
NO.	DESCRIPTION	12/23/2022	1" = 40'
		PTC PROJECT NO. 22036	
		DRAWING SD-2	
		SHEET NO. 2 OF 5	



SIGHT DISTANCE REQUIREMENTS PER HDM		
GOVERNING SPEED (MPH)	RIGHT TURN CORNER SIGHT DISTANCE (FT)	LEFT TURN CORNER SIGHT DISTANCE (FT)
35	335	386
45	430	497



PRELIMINARY
NOT FOR CONSTRUCTION



Parisi
TRANSPORTATION CONSULTING

800 Bancroft Way, Ste 203
Berkeley, CA 94710
(510) 343-6400

DRAWN: VM	CHECKED: AL
DESIGNER: VM	APPROVED: AL

MIDPENINSULA REGIONAL OPEN SPACE DISTRICT
HAWTHORNS AREA
POTENTIAL ALPINE ROAD DRIVEWAY

REVISIONS		DATE	SCALE
NO.	DESCRIPTION	12/23/2022	1" = 40'
		PTC PROJECT NO. 22036	
		DRAWING SD-3	
		SHEET NO. 3 OF 5	



SIGHT DISTANCE REQUIREMENTS PER HDM		
GOVERNING SPEED (MPH)	RIGHT TURN CORNER SIGHT DISTANCE (FT)	LEFT TURN CORNER SIGHT DISTANCE (FT)
35	335	386
45	430	497



PRELIMINARY
NOT FOR CONSTRUCTION



Parisi
TRANSPORTATION CONSULTING
800 Bancroft Way, Ste 203
Berkeley, CA 94710
(510) 343-6400

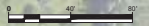
DRAWN: VM	CHECKED: AL
DESIGNED: VM	APPROVED: AL

MIDPENINSULA OPEN SPACE DISTRICT
HAWTHORNS AREA
NORTH LOS TRANCOS ROAD DRIVEWAY

REVISIONS		DATE	SCALE
NO.	DESCRIPTION	12/23/2022	1" = 40'
		PTC PROJECT NO. 22036	
		DRAWING SD-4	
		SHEET NO. 4 OF 5	



SIGHT DISTANCE REQUIREMENTS PER HDM		
GOVERNING SPEED (MPH)	RIGHT TURN CORNER SIGHT DISTANCE (FT)	LEFT TURN CORNER SIGHT DISTANCE (FT)
35	335	386
45	430	497



PRELIMINARY
NOT FOR CONSTRUCTION



Parisi
TRANSPORTATION CONSULTING

800 Bancroft Way, Ste 203
Berkeley, CA 94710
(510) 343-6400

DRAWN: VM	CHECKED: AL
DESIGNER: VM	APPROVED: AL

MIDPENINSULA OPEN SPACE DISTRICT
HAWTHORNS AREA
SOUTH LOS TRANCOS ROAD DRIVEWAY

REVISIONS		DATE	SCALE
NO.	DESCRIPTION	12/23/2022	1" = 40'
		PTC PROJECT NO. 22036	
		DRAWING SD-5	
		SHEET NO. 5 OF 5	

Hawthorns Area Transportation Study



Current Alpine Rd Driveway Looking East



Current Alpine Rd Driveway Looking West

Hawthorns Area Transportation Study



Original Alpine Rd Driveway Looking East



Original Alpine Rd Driveway Looking West

Hawthorns Area Transportation Study



North Los Trancos Rd Driveway Looking North



North Los Trancos Rd Driveway Looking South

Hawthorns Area Transportation Study



South Los Trancos Rd Driveway Looking North



South Los Trancos Rd Driveway Looking South

APPENDIX C: SUMMARY OF RELEVANT PLANS AND POLICIES

The following section summarizes planning work undertaken in parallel to the Hawthorns Area study and their potential relevance to the Project.

MIDPEN PROJECTS

Rancho San Antonio Multimodal Access Project

Conducted from 2019 through 2020, the Rancho San Antonio Multimodal Access project explored and evaluated non-motorized mobility, transit options, and parking alternatives for Midpen's Rancho San Antonio Open Space Preserve in Santa Clara County to encourage visitors to use greener modes of transportation and reduce parking demand and traffic, while maintaining equitable access for both local and regional visitors. The resulting report identified 26 potential TDM strategies that were scored and prioritized. The first priority TDM strategies are the following:

- Bike facilities
- New and improved bike access
- Subsidized ride-hail
- Free or low-cost shuttle service
- Carpool restricted lot
- Dynamic or variable signage

The study report also includes high-level next steps for the prioritized TDM strategies. Several first priority TDM strategies are currently being planned and implemented.

Purisima Creek Redwoods Multimodal Access Project

The Purisima Creek Redwoods Multimodal Access project was commissioned by Midpen in mid-2021 and completed in November 2022. The project's goals were to evaluate the existing parking, access and visitation; identify ways to address high visitor parking and traffic demand, including increasing non-drive modes; and develop an implementation plan for the preferred strategies. High priority travel demand management (TDM) strategies produced by the study include the following measures:

- Parking management: Parking reservations during peak periods. Priority parking for carpools or reserved parking.
- Parking capacity: Configure parking areas to delineate parking stalls to improve parking efficiency.
- Alternative modes: Bicycle parking at trailheads. Shuttles from satellite parking lots.

- Traveler information: Social media outreach to publicize TDM strategies. Real-time parking lot occupancy traveler information.

Applicability to the Hawthorns Area

Both the Rancho San Antonio and Purisima Creek Redwoods Multimodal Access studies provide a framework through which strategies for the Hawthorns Area can be viewed and evaluated. Rancho San Antonio is a well-visited preserve and is located in a more urban setting whereas Purisima Creek is situated in a more rural, coastal area in unincorporated San Mateo County. Certain TDM strategies (or iterations of the strategies) identified for these two preserves may be applicable to the Hawthorns Area based on level of use expected and likelihood of effectiveness.

LOCAL BIKE AND PEDESTRIAN MASTER PLANS

Town of Portola Valley

The following section summarizes the plans, policies and committees that govern multimodal circulation in the Town of Portola Valley; this section also includes references to recent studies commissioned by the Town to address circulation and traffic safety issues.

General Plan

Multimodal circulation in the Town of Portola Valley is governed by the Town General Plan Circulation Element and Trails and Paths Element. Policies relevant to the Hawthorns Area include the Town's desire to emphasize the "country lane" quality of roads to the maximum extent possible while still meeting an acceptable level of safety (3106.1). Alpine Road is identified as a major arterial roadway that should be maintained as a two-lane road within Town Limits (3110) and also as one of two corridors that the Town should monitor for safety problems (Circulation Element Appendix 1).

Town Bicycle, Pedestrian and Traffic Safety (BPTS) Committee

The Town has a Bicycle, Pedestrian and Traffic Safety (BPTS) Committee that meets monthly. Based on meeting agendas from 2022, the BPTS meetings typically discuss traffic collisions and citations as reported by the County Sheriff's department, project updates by Town Public Works staff, parking conditions at the Windy Hill Preserve, and public questions. This committee has also discussed the Town's interest in widening and/or realigning the existing Alpine Trail to accommodate better access along the Hawthorns property's frontage on Alpine Road. The Hawthorns Area Plan includes evaluation of a potential trail alignment. The BPTS has an assigned liaison to assist with the Midpen Hawthorns Area Plan project.

Town Trail and Paths Committee

The Town has a Trail and Paths Committee that meets monthly. Based on meeting agendas from 2022, the committee meetings typically discuss maintenance needs on the Town's trail network. The Trails and Paths Committee has an assigned liaison to assist with the Midpen Hawthorns Area Plan project.

BPTS 2019-2020 Safety Study

The Town commissioned a pedestrian safety study in 2019 to identify areas needing safety improvements.³ The Town's consultant, Krupka Consulting, solicited input through interviews with community representatives, from outreach via social media, and at public meetings. The study identified a list of issues and opportunities near schools and on the Alpine Road and Portola Road corridors and developed a list of proposed improvements to address these issues. In the Hawthorns Area vicinity, the Safety Study observed and recommended the following:

- A3 Alpine / Golden Oak (West)
 - Observation: Limited motorist and pedestrian visibility (sight distance) between two reversing curves and conflicts at local street and driveway intersections.
 - Recommendation: crosswalk signs, markings, and rapid flashing beacons
- A4 Alpine / Los Trancos
 - Observation: Conflicts between eastbound drivers making right turns, southbound drivers leaving the Portola Valley Garage, and pedestrians and bicyclists. Overgrown foliage from the northbound Los Trancos Road approach.
 - Recommendations: Advisory and warning signs and lane markings
- A5 Alpine / Portola
 - Observations: Notable pedestrian volumes crossing Portola Road, drivers making "rolling stops" to turn right from Alpine onto Portola Road, and high A.M. commute vehicle traffic demand at the southbound right turn onto Alpine Road. There is an adult crossing guard stationed here during school commute times.
 - Recommendations: crosswalk signs and markings

The Town Council accepted the recommendations of the safety study in August 2019 and directed Town staff to develop improvements for funding in the Town's five-year Capital Improvements Program and apply for grant funding.

Traffic Improvement Projects 2021

Based on the 2019/2020 Safety Study, the Town installed crosswalk signs and pavement markings at nine (9) intersections in 2021, including three locations on Alpine Road, at Portola Road, Corte Madera Drive, and Westridge Drive.⁴ According to BPTS Committee notes from April 2022, nine of

³ <https://www.portolavalley.net/government/town-committees/bicycle-pedestrian-traffic-safety-committee/bpts-2019-2020-safety-study>

⁴ <https://www.portolavalley.net/departments/public-works/traffic-improvement-project>

the 14 locations are complete and the remaining five (5) locations are awaiting rapid flashing beacon installations.⁵

BPTS Portola Road & Willowbrook Drive Parking Study, December 2021.

The Town commissioned a study of parking restrictions at the Portola Road / Willowbrook Drive intersection in response to overflow parking by visitors to Windy Hill Preserve⁶. The study evaluated proposed parking restrictions that included no parking areas denoted by red curb paint and signs, signs advising drivers to avoid parking in the roadway shoulders or trails, and signs indicating allowable off-pavement parking areas.

The study found substantial weekend midday parking demand on Portola Road, Willowbrook Drive and Alpine Road attributed to Windy Hill visitors, with peak parking demand at 10am; the sampled day yielded 30 to 60 parked cars on Portola Road north of Willowbrook Drive and 60 to 90 parked cars in the Willowbrook Drive/Alpine Road area south of the Willowbrook Drive divided road. The count day also showed 120 to 150 bicycles and 50 to 60 pedestrians per hour in both directions on Portola Road, and 10 to 20 bicycles and 20 to 30 pedestrians per hour in both directions on Willowbrook Drive. Both pedestrians and bicyclists tend to use the roadway shoulder, which can lead to intermodal conflicts with drivers making parking maneuvers.

According to the study, the recommendations from the study were either implemented by Town staff in November 2021 or are in the design process.

Applicability to the Hawthorns Area

The Town's ongoing traffic and travel demand management will inform the access design for the Hawthorns Area and identify potential operational issues needing further management.

Caltrans District 4 Bike Plan (2018)

The Caltrans District 4 Bike Plan identifies infrastructure improvements that can enhance bicycle safety and mobility throughout District 4 and remove some of the barriers to bicycling in the region. The Plan was developed in cooperation with local and regional partners to ensure that the improvements on the State Highway system complement proposals for local networks.

Applicability to the Hawthorns Area

The plan identifies Highway 84 as a mid-tier project. Better bicycle connection to areas around Portola Valley could encourage bicycle access to the Hawthorns Area.

The ⁵ <https://www.portolavalley.net/home/showpublisheddocument/16536/637974685171000000>

⁶ <https://www.portolavalley.net/home/showpublisheddocument/15940>

SHUTTLE/TRANSIT

SamTrans – Proximate Transit Routes

Several SamTrans routes currently provide service in the vicinity of the Hawthorns Area and were recently updated following the Reimagine SamTrans planning process. The following is a brief description of their routes and their service.

Route 85

Route 85 is a school-oriented route that provides PM weekday service from Ormondale School to La Honda/Grandview. The bus route serves Woodside and Portola Valley with stops including Portola Valley Town Hall and Skyline Boulevard & La Honda Road. The stop closest to the Hawthorns Area is located at Portola Road & Alpine Road and while this stop may provide opportunities to visit the Hawthorns Area, the route is in operation only on weekdays after school hours so opportunities would be limited.

Route 87

Route 87 is a school-oriented route that provides PM weekday service from Woodside High to Portola Valley. The bus route serves Palo Alto, Portola Valley, Woodside, Atherton, and Menlo Park with stops including Portola Valley Town Hall. The stop closest to the Hawthorns Area is located at Alpine Road & Golden Oak Drive. While this stop may provide opportunities to visit the Hawthorns Area, the route is in operation only on weekdays after school hours so opportunities would be limited.

Applicability to the Preserve

These routes may serve as opportunities to incorporate multimodal travel options to the Hawthorns Area using a combination of transit and other modes. However, it should be acknowledged that operation is limited due to nearby routes being based on after school hours. There is also a partnership opportunity with SamTrans to explore other transit (e.g., microtransit) or shuttle possibilities together.