Noyo Harbor Multimodal Circulation Access Plan

Draft Plan

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Mendocino Council of Governments

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SPECIAL THANKS TO SCOTT HOCKETT FOR ALLOWING USE OF THE NOYO FISH COMPANY'S OUTDOOR DINING AREA FOR PROJECT WORKSHOPS!

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Introduction and Study Purpose

Noyo Harbor, located at the southern edge of Fort Bragg in Mendocino County, is a vibrant coastal hub that supports a mix of commercial fishing, visitor-serving businesses, dining, recreation, and maritime industry. Nestled below the Noyo Harbor Bridge on State Route 1, the Harbor is a critical economic and cultural asset for the region. The area currently lacks safe and accessible active transportation infrastructure, as well as transit access. Vehicle circulation is constrained by narrow roadways and a single vehicular entry and exit point, creating access concerns.

This plan, funded by a Federal Transit Administration Section 5304 (Sustainable Communities Competitive Program) grant administered by Caltrans, provides a comprehensive study of transportation access, safety, and circulation in and around Noyo Harbor. This plan examines options to reduce motorized and non-motorized conflicts, improve safety, and support reduced reliance on single-occupancy vehicles by introducing non-vehicular and transit access. As part of the study, the project team evaluated the feasibility of installing a walkway into Noyo Harbor consisting of a complete connected sidewalk along North Harbor Drive and when the right-of-way becomes constrained, a walkway along the hillside of the harbor. The study also considered an ADA accessible split stairway under Highway 1 to allow access from hotels on either side of the highway and connection to the coastal trail.

This final plan will serve as a roadmap for implementing multimodal improvements in Noyo Harbor and may be used by local, regional, state, or tribal agencies such as the City of Fort Bragg, Mendocino Council of Governments (MCOG), Mendocino County, Caltrans, Noyo Harbor District, Mendocino Transit Authority, and the Sherwood Valley Band of Pomo Indians to pursue future funding and project development. This plan was informed by community and tribal engagement, building on past efforts including the 2017 North Harbor Access Plan and the 2019 Noyo Harbor Community Sustainability Plan. In alignment with goals outlined in the California Transportation Plan (CTP) 2050 and the Climate Action Plan for Transportation Infrastructure (CAPTI), this plan supports state objectives for improving accessibility, equity, and climate resilience by investing in safe, multimodal transportation networks. Ultimate project implementation will depend on right-of-way availability, permitting, and interagency coordination.


WRAP

Harbor Context

History of the Harbor

Location and Operation

Noyo Harbor, located on the Mendocino County coast just south of the City of Fort Bragg, serves as the region's primary all-weather port between Bodega Bay and Humboldt Bay. It supports a sizable commercial fishing fleet, sport fishermen, and recreational boaters. The Noyo Harbor District was established in 1950 and is governed by a five-member Harbor Commission, with appointments made by both the Fort Bragg City Council and the Mendocino County Board of Supervisors. The District owns and operates the 256-berth marina and related facilities on the south side of the Noyo River, including a boat launch, hoist, pier, parking and storage areas, restrooms, showers, a maintenance shop, and Grader Park, which hosts community events. On the north side of the harbor, the District oversees commercial fishing operations, fish markets, restaurants, and other businesses serving locals and tourists. The north side also has a parking lot.

Fishing and Other Uses

The north side of Noyo Harbor is home to a concentration of waterfront businesses that provide services to commercial and recreational users. Based on business interviews and employment estimates, the harbor supports approximately 409 workers during peak season and 295 during the off-season. The area also draws visitors interested in its natural beauty, fishing opportunities, and cultural heritage. Currently, the City of Fort Bragg and the Harbor District are engaged in a three-year planning effort to develop the Noyo Harbor Blue Economy Visioning, Resiliency, and Implementation Plan. This Noyo Harbor Multi-Modal Circulation Plan is intended to align with the timing and goals of the Blue Economy Plan, ensuring coordinated recommendations that support both economic vitality and improved access.

Native History

The Sherwood Valley Band of Pomo Indians, a federally recognized tribe, has ancestral homelands extending from the Highway 101 corridor through the redwood forests to the coast. They have occupied and utilized these lands since time immemorial, maintaining original rights to protect the land, air, water, and food sources. The Sherwood Valley Rancheria, established in 1909, is governed under a Constitution and Bylaws approved in 1974. The Tribal Council represents individual members and strives to promote the protection of natural resources for future generations. The tribe administers various programs, including environmental protection, education, health services, and youth programs, reflecting their commitment to community well-being and cultural preservation. Their involvement in regional environmental initiatives, such as the Kai Poma project, highlights their commitment to coastal stewardship, restoration efforts, and connection to the harbor.

Context within Mendocino County

As of 2020, the California Department of Finance estimated Mendocino County's population at 88,388. Of this total, 59,330 residents live in unincorporated areas, while 29,058 reside in the county's four incorporated cities: Ukiah (16,029), Fort Bragg (7,471), Willits (5,117), and Point Arena (441). Ukiah serves as the largest urban center, while Fort Bragg and the surrounding coastal region stretching south to the Navarro River form another significant population hub. Beyond these centers, much of the county remains rural, with large areas of undeveloped land and low population density. These characteristics contribute to the county's scenic, natural environment but also present challenges for transportation planning and public service delivery. The Mendocino Council of Governments (MCOG) is responsible for transportation planning within Mendocino County. Jurisdiction within Noyo Harbor falls under both the City of Fort Bragg and Mendocino County. Part of the harbor is located within the City of Fort Bragg city limits, and part is within Mendocino County, as shown on **Figure 1** below.

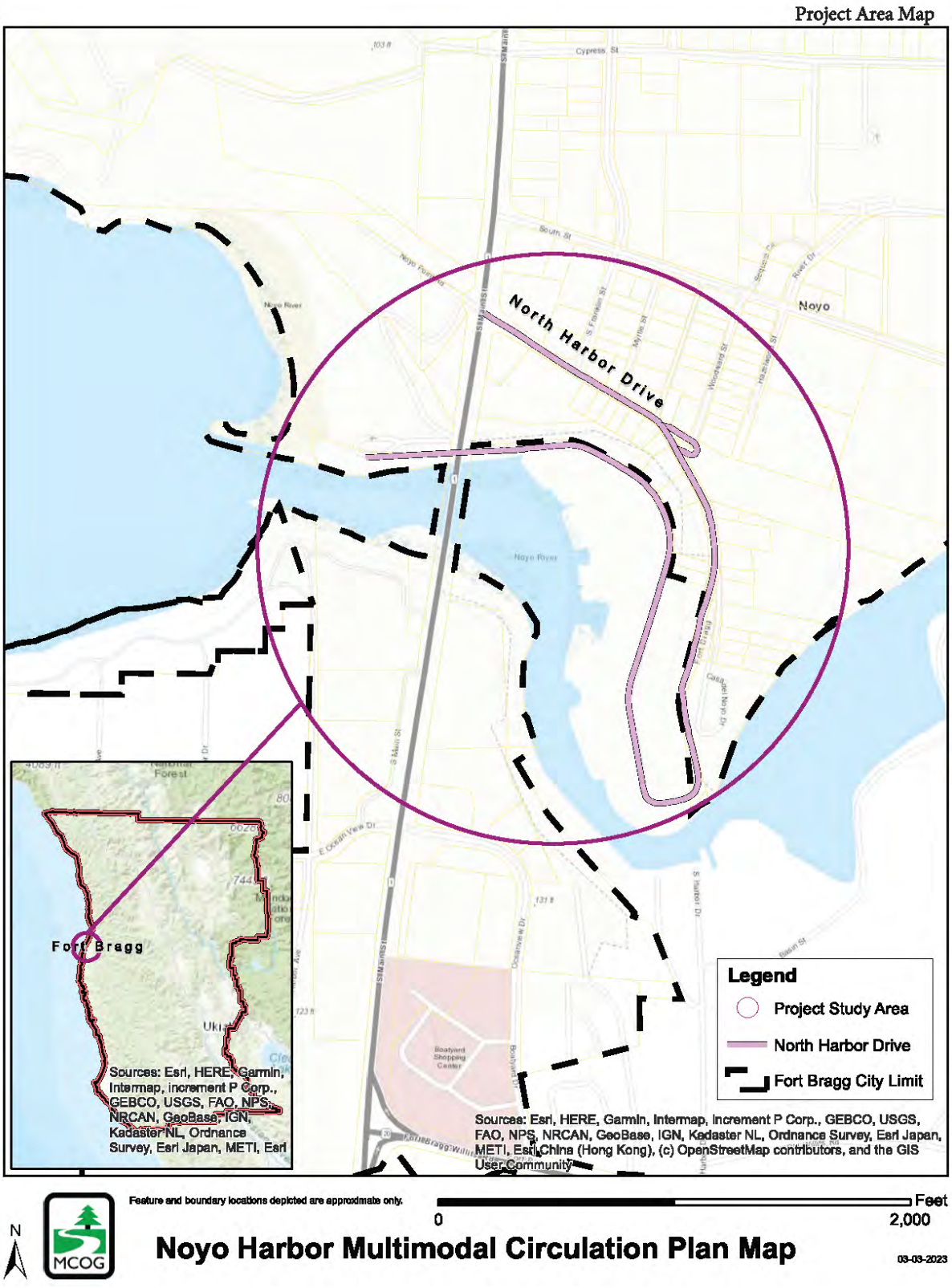


Figure 1: Noyo Harbor Multimodal Circulation Plan Map

Previous Plans

1992 Noyo Harbor Plan

The 1992 Noyo Harbor Plan provides foundational guidance for the long-term development and preservation of Noyo Harbor. It emphasizes the need to balance economic activity—particularly commercial fishing—with recreational, environmental, and public access goals. The plan identifies circulation and access challenges, particularly the lack of pedestrian infrastructure, limited parking, and constrained roadway widths, which complicate safe and efficient movement through the harbor. While dated, the plan underscores the importance of improving multimodal access and internal circulation, enhancing pedestrian safety, and protecting the harbor's working waterfront character.

2011 South Main Street Access and Beautification Plan

The South Main Street Plan focuses on improving transportation safety, access, and streetscape conditions along a key segment of State Route 1 in southern Fort Bragg, which connects directly to Noyo Harbor. The plan identifies a range of challenges, including high vehicle speeds, limited pedestrian crossings, narrow or missing sidewalks, and poor multimodal connectivity—many of which affect access to and from the harbor area. Recommendations include traffic calming, improved crosswalks, transit stop enhancements, and dedicated bicycle and pedestrian infrastructure. While not exclusively focused on Noyo Harbor, the corridor's southern segment serves as a gateway to the harbor, making these improvements critical for supporting safe and accessible multimodal circulation in the broader area.

2016 Caltrans Transportation Concept Report State Route 1

For each State highway, the Transportation Concept Report is a document that identifies current and projected operating conditions, establishes a 20-year planning concept, identifies facility deficiencies in relation to the concept, and identifies broad and flexible options to achieve the 20-year concept. The Transportation Concept Report for State Route 1 (SR 1 or locally called Highway 1) identifies Noyo Harbor and the surrounding Fort Bragg area as key locations for addressing multimodal access and safety along the Highway 1 corridor. The report highlights challenges such as narrow shoulders, limited pedestrian and bicycle infrastructure, and constrained rights-of-way—particularly in the Noyo Bridge and North Harbor Drive segments. It recommends enhancing active transportation connectivity, improving safety for all modes, and supporting access to key destinations like Noyo Harbor. Specifically, the report supports future improvements that align with State goals for complete streets, climate resilience, and equity, reinforcing the need for multimodal circulation projects like the Noyo Harbor access and trail improvements.

2017 City of Trails Supplemental Trail Feasibility Studies

The Supplemental Trails Report and its Appendix B focus on planning and design concepts for trail improvements in and around Fort Bragg, including North Harbor Drive heading into Noyo Harbor. The report outlines preliminary engineering designs for a separated path along North Harbor Drive, addressing steep terrain, limited right-of-way, and existing infrastructure constraints such as guardrails and retaining walls. The designs propose structural decking, engineered backfill, and safety features (e.g., handrails, curb walls) to maintain a consistent walkway width and elevation, ensuring accessibility and safety.

See **Appendix A. Noyo Harbor Trail Easement & Alignment** of this report for additional background on easements and alignment options.

2019 Caltrans Climate Change Vulnerability Assessment Summary Report

The Caltrans District 1 Vulnerability Assessment Summary Report (2019) identifies the Fort Bragg area and adjacent coastal segments of Highway 1 in Mendocino County as vulnerable to climate-related hazards, including coastal bluff erosion, sea level rise, and storm surge. While Noyo Harbor is not mentioned by name, its proximity to Highway 1 and Fort Bragg suggests it may be subject to similar risks. The report underscores the importance of planning for adaptation and resilience, recommending strategies such as elevating infrastructure, rerouting, and integrating natural defenses to maintain connectivity and protect transportation assets in at-risk coastal areas. These findings support the relevance of incorporating climate resilience into future multimodal and circulation improvements serving the Noyo Harbor area.

2019 Mendocino County Pedestrian Facility Needs Inventory and Engineered Feasibility Study

The 2017–2018 MCOG Mendocino County Pedestrian Inventory and Needs Assessment identifies pedestrian safety and connectivity challenges across multiple communities, including Fort Bragg. While Noyo Harbor is not directly referenced, the assessment highlights key pedestrian gaps and needs in the Fort Bragg area—especially around coastal corridors and tourist-serving destinations—that are consistent with the context of Noyo Harbor. The report emphasizes the importance of filling sidewalk gaps, improving crossings, and addressing limited pedestrian infrastructure in areas with constrained rights-of-way. These findings reinforce the need for multimodal circulation improvements in and around Noyo Harbor to enhance safe, accessible pedestrian connections, especially in support of tourism, recreation, and local economic activity.

2019 Noyo Harbor Community Sustainability Plan

The Noyo Harbor Community Sustainability Plan (CSP) provides a comprehensive overview of the Harbor's commercial port and waterfront activities, evaluates critical infrastructure and services, and outlines stakeholder-driven recommendations to support long-term economic, environmental, and social sustainability. The CSP was prepared by the Noyo Harbor District with funding and support from the State Coastal Conservancy. The plan aimed to promote the sustainability of the fishing community and working waterfront by providing a strategic framework to strengthen economic, community, and environmental benefits. The CSP integrates input from a diverse range of stakeholders—including commercial fishermen, charter operators, local businesses, residents, and representatives from the City of Fort Bragg and local non-governmental organizations (NGOs)—gathered through surveys, interviews, and public meetings. The plan's recommendations are grounded in an assessment of the Harbor's operational context and are designed to promote the resilience and continuity of Noyo Harbor's fishing community and working waterfront.

Recommendations included circulation improvements, establishing secondary emergency access to/from the north harbor; and improving parking and access for pedestrians and bicyclists.

2019 Traffic Impact Analysis for Grocery Outlet Store

The proposed Grocery Outlet Store project consists of a 16,000 square foot store located on an approximately 1.6 acre site on the west side of Franklin Street between South Street and North Harbor Drive. Access to the site will be provided via driveways on Franklin Street and on North Harbor Drive. The Traffic Impact Analysis for the proposed store concluded that, while the project would increase vehicle trips and activity near the Noyo Harbor area, particularly at the Franklin Street and North Harbor Drive intersections, it would not significantly degrade traffic operations or safety. The project is expected to generate up to 1,818 new vehicle trips on Saturdays and 1,094 on weekdays (after accounting for pass-by trips), with most access occurring via Franklin Street. While it will add delay at the Main Street/South Street intersection, the level of service (LOS D) remains acceptable under local standards. The study also found that the project would not create significant impacts to pedestrian, bicycle, or transit facilities, and that site access and sight distances are adequate. While the TIA found individual project trips manageable, cumulative growth reinforces the need for proactive circulation planning.

2022 Mendocino County Regional Transportation Plan & Active Transportation Plan

The 2022 Mendocino County Regional Transportation Plan & Active Transportation Plan (RTP-ATP), prepared by the Mendocino Council of Governments (MCOG), recommends improvements to enhance multimodal safety, access, and connectivity within Noyo Harbor and its immediate surroundings. Key recommendations include creating a one-way vehicle loop to reduce conflicts and improve circulation, adding a secondary emergency access route, and constructing a roundabout or similar intersection control at SR 1/North Harbor Drive/Noyo Point Road. The plan also calls for upgraded pedestrian and bicycle facilities to strengthen connections between the harbor and surrounding areas.

A Sidewalk for North Harbor Drive Presentation

The “A Sidewalk for North Harbor Drive” presentation was a community member presentation given to the Fort Bragg Planning Commission by author Stephen Heckeroth in August of 2024 to advocate for a sidewalk to be installed on North Harbor Drive. The presentation includes images of the existing conditions of North Harbor Drive and diagrams of potential options for acquiring land and installing a sidewalk on four sections of the road.

Technical Advisory Group

With support from MCOG, appropriate representatives were identified to serve on a Technical Advisory Group (TAG) to inform the study. The TAG included representatives from agencies such as: Noyo Harbor District, Mendocino Transit Authority, Sherwood Valley Band of Pomo, City of Fort Bragg, County of Mendocino, MCOG, Caltrans, and others as noted in **Table 1** below. The TAG met roughly once a month to offer feedback on the plan's progress and guidance on next steps.

Table 1: Technical Advisory Group Members

Agency	Representative
Caltrans Planning – District 1	Tatiana Ahlstrand
Caltrans Planning – District 1	Eric Brunton
Caltrans Planning – District 1	Joseph Caminiti
Caltrans Planning – District 1	Brett Gronemeyer
Caltrans Planning – District 1	Paul Hailey
Caltrans Planning – District 1	Alexis Kelso
Caltrans Planning – District 1	Andreas Krause
Caltrans Planning – District 1	Michael Lydon
Caltrans Planning – District 1	Cassie Nichols
Caltrans Planning – District 1	Joben Penuliar
Caltrans Planning – District 1	Colin Rice
City of Fort Bragg	Sarah McCormick*
City of Fort Bragg	Chantell O'Neal
Mendocino Council of Governments Administration	Nephele Barrett
Mendocino Council of Governments Planning	Loretta Ellard
Mendocino County Department of Transportation	Alicia Winokur
Mendocino County Department of Transportation	Jason Wise
Mendocino Transit Authority	Jacob King
Noyo Harbor District	Anna Neumann*
Noyo Fish Company	Scott Hockett
Sherwood Valley Tribe	Hazel Ramirez**
Sherwood Valley Tribe	Valerie Stanley**
Sherwood Valley Tribe	Javier Silva*
Sherwood Valley Tribe	Bernadette Rafanan **

*TAG members interviewed during stakeholder meetings.
**TAG members that did not attend meetings

Stakeholder Interviews:

City of Fort Bragg

JULY 19TH, 2024

City staff emphasized the need for renewed investment in Noyo Harbor, highlighting its importance to Fort Bragg and the growing interest in the blue economy[1]. Staff underscored the value of collaboration and commended Anna Neumann's leadership and success in securing funding, encouraging continued partnerships with organizations such as the Noyo Center for Marine Science and the West Development Center. Staff shared some concerns about previous planning proposals, including the one-way street concept, and expressed support for practical, community-informed projects such as the harbor walkway. Staff also noted the deteriorating condition of the stairway[2], originally owned by the Mendocino Land Trust and now under City ownership, and suggested it be rebuilt to improve pedestrian safety and maintain required public access. Staff acknowledged the importance of ongoing sea level rise studies and encouraged coordination with key stakeholders, including the tribe and local property owners. Staff offered their support as an advocate for the project moving forward.

Harbor District

OCTOBER 22ND, 2024

The Harbor District provided detailed feedback during the Existing Conditions Workshop and during the interview on October 22nd. They are supportive of a Y-shaped stairway under the bridge, especially if it connects to the Cypress parking lot (located on the west side of Highway 1, down W Cypress St.) and the existing path parallel to Highway 1. While they are supportive of improved circulation, they believe any road extension should be for emergency access only, emphasizing the need for a secondary egress point near the beach due to flooding concerns. The Harbor District supports a roundabout, but only if North Harbor Drive remains two-way.

Parking and transit challenges were also key concerns. The Harbor District highlighted the limited parking options at the top of the harbor and suggested alternatives such as a water taxi operating between the south and north harbor using existing docks. They support clearing brush instead of widening North Harbor Drive and are in favor of a multi-use path connecting to and through the harbor, with appropriate crossings to improve pedestrian connectivity. They also support efforts to make better use of existing private parking areas. While recognizing sea level rise as a factor, they pointed out that land in the harbor is rising faster than the sea and recommended the project team align with city and county studies. The Harbor District noted that a drawbridge between the harbor sides is not feasible due to frequent boat traffic and Coast Guard operations.

[1] The blue economy encompasses both traditional ocean-based industries like fishing and shipping, as well as emerging sectors such as aquaculture, renewable energy, and marine biotechnology—all aimed at driving sustainable economic growth, supporting livelihoods, and preserving ocean health through responsible use of marine resources and data-driven innovation. https://noyooceancollective.org/blue-economy/

[2] The stairwell was improved in June/July of 2025 in anticipation of the 4th of July Salmon BBQ but continues to suffer from poor visibility, wayfinding and accessibly.

Harbor Lite Lodge

OCTOBER 22ND, 2024

The Harbor Lite Lodge expressed strong support for improving pedestrian access into and through Noyo Harbor, particularly through enhancements to the existing stairway adjacent to the lodge. The stairs are frequently used by both locals and hotel guests, and the Lodge actively encourages guests to use them rather than walking along North Harbor Drive. The Lodge supports the idea of a "Y" stairway configuration—one leg connecting directly to the Harbor Lite Lodge and another offering public access from the road on the west side—ensuring both private guest use and easier public access. While the stairs are jointly maintained by the lodge and the city, recent maintenance was done with materials donated by the Skunk Train. The Lodge also noted existing issues with people camping under the bridge.

Figure 2: Salmon BBQ, July 2025

Regarding circulation improvements, the Lodge supports a one-way access system into the harbor and is open to a road extension, provided it remains one-way to encourage visits to the harbor rather than bypassing it for the beach. They also support the installation of a roundabout with crosswalks to improve pedestrian safety, especially for hotel guests crossing to the nearby restaurant. The Lodge favors adding a walkway in the harbor and a multi-use path into the harbor to improve pedestrian access. They also mentioned the importance of planning around key community events like the July 4th Salmon BBQ and fireworks, which significantly affect harbor traffic and access.

Harbor Business Owner

OCTOBER 21ST, 2024

During the Existing Conditions Workshop, project staff had an informal conversation with a harbor business owner, and their input was recorded on a comment card. The business owner expressed support for low-impact improvements to enhance safety and access in Noyo Harbor. They recommended adding edge lines to better define the roadway and suggested creating an informal walkway with improved drainage rather than building formal sidewalks. They also supported the idea of a roundabout at the Highway 1/North Harbor Drive intersection and emphasized the need for defined loading zones for morning deliveries to Sea Pal Cove. For parking, they suggested formalizing layouts using temporary materials like fire hoses. Additionally, the business owner proposed using e-bikes to help people travel between the upper parking areas and the harbor.

Local Resident

SEPTEMBER 30TH, 2024

The local resident primarily walks to and through Noyo Harbor but occasionally drives in bad weather or when accompanied by family. They expressed concerns about public access through property owned by tribal members, citing issues with trespassing, loitering, and camping, especially from nearby hotel guests. While supportive of emergency services and Fish and Wildlife using these access points, they are not in favor of opening land owned by tribal members to expanded public circulation, such as bike or pedestrian pathways, particularly along the bluff.

The local resident is supportive of certain infrastructure improvements, including a potential roundabout to ease traffic congestion during peak tourist times, though they would want to review its design. They prefer enhancements that minimize infrastructure impacts, such as expanding existing gravel areas for walking rather than formal sidewalks and supports adding signage to direct people to trail access points. They support reducing vehicle trips into the harbor through options like a small, free shuttle.

Engagement Strategy and Process

Various outreach efforts were conducted as part of the Noyo Harbor Multimodal Circulation Plan (MCP) to actively engage local stakeholders and collect meaningful community input. **Table 2** summarizes the various outreach activities carried out to ensure broad and inclusive participation throughout the planning process. These events are discussed in further detail in the Existing Conditions Workshop and Two-Day Charrette sections. See **Appendix B. Noyo Harbor Outreach Strategy** for more information on outreach.

These events played a key role in informing both the development and future implementation of the MCP, reflecting the community's significant influence on project direction. All outreach materials were made available in both English and Spanish to maximize accessibility. See **Appendix C. Promotional Material** for more information on materials used to promote community events.

Table 2: Summary of Engagement Activities

	Date	Location	Attendance
Noyo Harbor Festival	September 21, 2024	Old Captain Flint's Lot	200+ people
Existing Conditions Workshop	October 21, 2024	Noyo Fish Company	15-20 people
Two-Day Charrette	April 14 and 15 2025	Noyo Fish Company	30-40 people

Project Webpage

A dedicated project webpage was launched on the Noyo Ocean Collective site, serving as the central platform for information related to the MCP. It included project scope, planning timelines, details on public meetings, downloadable project documents, and links to surveys.

The webpage was regularly updated throughout the planning process to reflect project progress and encourage ongoing engagement. Key features such as the comment map and travel survey allowed community members to provide input in multiple formats.

The webpage Is available at https://noyooceancollective.org/multimodal-circulation-plan.

Figure 3: Project Website

Advertisement and Media

Both digital and physical methods were utilized to promote the project at various stages. Online content including graphics, updates, and event announcements was shared in English and Spanish via the project website and stakeholder social media pages. These efforts were bolstered by following and collaborating with key local organizations to increase visibility.

Figure 4: Noyo Harbor Plan Social Media (English and Spanish)

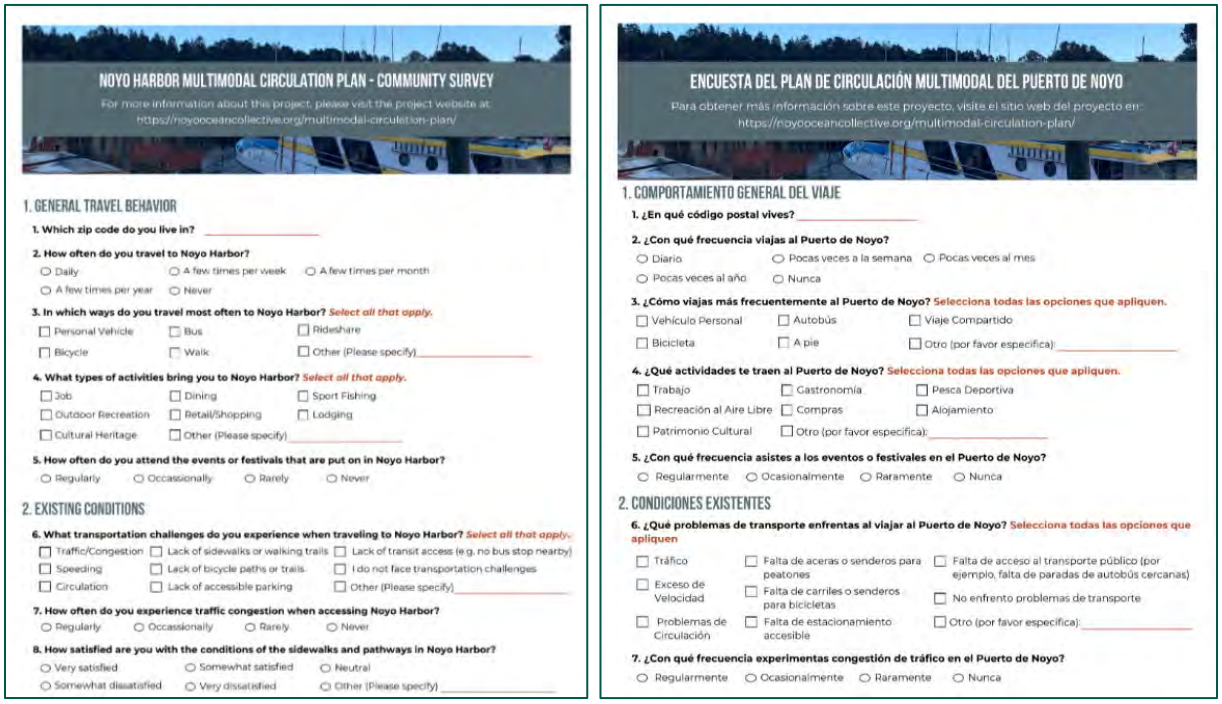
Flyers were distributed at key community locations in the weeks leading up to events, ensuring timely notice for residents. In addition, a press list provided by the Mendocino Council of Governments was used to reach local radio and news outlets. Attendees often cited these sources (radio, flyers, and social media) as how they learned about the events, demonstrating the effectiveness of the outreach approach.

Figure 5: Noyo Circulation Plan Flyers

Survey

A concise, user-friendly survey was created to gather input on transportation needs and priorities in the Noyo Harbor District. Designed to be completed in five to ten minutes (16 questions), the survey encouraged broad participation while minimizing time demands.

The survey was hosted on SurveyMonkey, linked on the project webpage, and circulated through multiple communication channels to maximize reach. Hard copies were also made available at public events, ensuring accessibility for all participants and capturing a diverse range of community perspectives.



NOYO HARBOR MULTIMODAL CIRCULATION PLAN - COMMUNITY SURVEY

For more information about this project, please visit the project website at: https://noyooceancollective.org/multimodal-circulation-plan/

1. GENERAL TRAVEL BEHAVIOR

1. Which zip code do you live in? _____

2. How often do you travel to Noyo Harbor?
○ Daily ○ A few times per week ○ A few times per month
○ A few times per year ○ Never

3. In which ways do you travel most often to Noyo Harbor? *Select all that apply.*
☐ Personal Vehicle ☐ Bus ☐ Rideshare
☐ Bicycle ☐ Walk ☐ Other (Please specify)_____

4. What types of activities bring you to Noyo Harbor? *Select all that apply.*
☐ Job ☐ Dining ☐ Sport Fishing
☐ Outdoor Recreation ☐ Retail/Shopping ☐ Lodging
☐ Cultural Heritage ☐ Other (Please specify)_____

5. How often do you attend the events or festivals that are put on in Noyo Harbor?
○ Regularly ○ Occassionally ○ Rarely ○ Never

2. EXISTING CONDITIONS

6. What transportation challenges do you experience when traveling to Noyo Harbor? *Select all that apply.*
☐ Traffic/Congestion ☐ Lack of sidewalks or walking trails ☐ Lack of transit access (e.g. no bus stop nearby)
☐ Speeding ☐ Lack of bicycle paths or trails ☐ I do not face transportation challenges
☐ Circulation ☐ Lack of accessible parking ☐ Other (Please specify)_____

7. How often do you experience traffic congestion when accessing Noyo Harbor?
○ Regularly ○ Occassionally ○ Rarely ○ Never

8. How satisfied are you with the conditions of the sidewalks and pathways in Noyo Harbor?
○ Very satisfied ○ Somewhat satisfied ○ Neutral
○ Somewhat dissatisfied ○ Very dissatisfied ○ Other (Please specify) _____

ENCUESTA DEL PLAN DE CIRCULACIÓN MULTIMODAL DEL PUERTO DE NOYO

Para obtener más información sobre este proyecto, visite el sitio web del proyecto en: https://noyooceancollective.org/multimodal-circulation-plan/

1. COMPORTAMIENTO GENERAL DEL VIAJE

1. ¿En qué código postal vives? _____

2. ¿Con qué frecuencia viajas al Puerto de Noyo?
○ Diario ○ Pocas veces a la semana ○ Pocas veces al mes
○ Pocas veces al año ○ Nunca

3. ¿Cómo viajas más frecuentemente al Puerto de Noyo? Selecciona todas las opciones que apliquen.
☐ Vehículo Personal ☐ Autobús ☐ Viaje Compartido
☐ Bicicleta ☐ A pie ☐ Otro (por favor especifica): _____

4. ¿Qué actividades te traen al Puerto de Noyo? Selecciona todas las opciones que apliquen.
☐ Trabajo ☐ Gastronomía ☐ Pesca Deportiva
☐ Recreación al Aire Libre ☐ Compras ☐ Alojamiento
☐ Patrimonio Cultural ☐ Otro (por favor especifica): _____

5. ¿Con qué frecuencia asistes a los eventos o festivales en el Puerto de Noyo?
○ Regularmente ○ Ocasionalmente ○ Raramente ○ Nunca

2. CONDICIONES EXISTENTES

6. ¿Qué problemas de transporte enfrentas al viajar al Puerto de Noyo? Selecciona todas las opciones que apliquen
☐ Tráfico ☐ Falta de aceras o senderos para peatones ☐ Falta de acceso al transporte público (por ejemplo, falta de paradas de autobús cercanas)
☐ Exceso de Velocidad ☐ Falta de carriles o senderos para bicicletas ☐ No enfrento problemas de transporte
☐ Problemas de Circulación ☐ Falta de estacionamiento accesible ☐ Otro (por favor especifica): _____

7. ¿Con qué frecuencia experimentas congestión de tráfico en el Puerto de Noyo?
○ Regularmente ○ Ocasionalmente ○ Raramente ○ Nunca

Figure 6: Project Survey Printout (English and Spanish)

Noyo Harbor Festival

The project team participated in the existing Noyo Harbor Festival on September 21, 2024, hosted by the Noyo Harbor District. Held at the old Captain Flint's Lot on North Harbor Drive, the event featured local crafts, food, and beverages. The project booth, operated by Green DOT and placed near the festival entrance, ensured high visibility.

Figure 7: Noyo Harbor Festival

To incentivize participation, attendees could spin a prize wheel after completing a survey or comment card. This approach proved highly successful, generating over 80 responses and engaging a broad cross-section of the community. For an analysis of the survey results please see Section 3 Public Participation Data and Analysis. The event drew more than 200 attendees, including Fort Bragg residents, Harbor business owners, people from the fishing industry, and tourists. Outreach for the event included flyers, social media posts, website updates, and media promotions.

Existing Conditions Workshop

An in-person workshop was held on October 21, 2024 from 9am-3pm at the Noyo Fish Company. The goal of the workshop was to understand current conditions; reach consensus on project goals and objectives; and ideate on potential recommendations. The outdoor venue, located at the harbor entrance, was generously donated for the event. Promotion was conducted through flyering, online platforms, and local media.

Figure 8: Existing Conditions Workshop

The workshop began with an overview of the study's purpose to develop a multimodal circulation plan that improves access to and through Noyo Harbor. The project team then explained the workshop's goal: to hear from the community about existing conditions, transportation barriers, and potential opportunities. Approximately 15–20 people attended, including elected officials, business owners, members of the fishing industry, and other community members. The primary focus was to understand existing conditions from the community's perspective and identify short- and long-term priorities. The event featured two guided walking tours, which allowed participants to provide real-time input on specific locations. Attendees also shared feedback through maps, exhibits, sign-in sheets, and comment cards, offering both quantitative and qualitative insights.

Key issues and concerns identified in this workshop are discussed below in the Existing Challenges section.

Figure 9: Existing Conditions Walking Tour

Figure 10: Existing Conditions Exhibit

Promotion

In addition to the outreach described in the Engagement Strategy section, the TAG and project team were invited to participate in the workshop along with the additional stakeholders listed in **Table 3**.

Table 3: Invited Stakeholders

Noyo Harbor Stakeholders	Noyo Harbor Stakeholders
Noyo Harbor	Coast Chamber of Commerce
Noyo Harbor Commission	Visit Mendocino
Noyo Harbor Businesses	News Media
Noyo Harbor Tours	MendoVoice
All Aboard Adventures	Mendofever
Noyo Harbor Inn	Fort Bragg Advocate News
Additional Co. of Mendocino	KZYX Radio
Mendo. County CEO	KNYO Radio
Office of Emer. Services	KOZT Radio
Planning & Building Dept.	K-WINE Radio
Law Enforcement	Elected Legislative Officials
Mendocino County Sheriff	State Congressman
CHP	State Senator
Police Department	State Assemblymember
Police Department	Fort Bragg Mayor
Fire/EMS	Co. Supervisor (Ft Bragg area)
CalFire	Miscellaneous
EMS	GrassRoots Institute
Redwood Coast Fire Protection District	Blue Zones Project Mendo Co.
Coast Life Support District	Mendo Coast Rec & Park Dist.
Fort Bragg Rural Fire Dist.	Noyo Center for Marine Science
Tourism	

Existing Challenges

- Community members expressed strong interest in improving multimodal access, safety, and connectivity throughout Noyo Harbor. By far, the most frequent requests were for safe and comfortable pedestrian facilities in the Harbor and connecting to the Harbor. Attendees favored a less formal walkway design that could evolve through community engagement. Concerns around parking confusion led to calls for formalized layouts and added off-street parking. Additional wayfinding signage—especially around the Noyo Harbor Inn—was recommended to improve navigation.
- Ideas like a water taxi service to reduce vehicle congestion during events received interest, as did a potential road extension with stakeholder preference leaning toward emergency or non-vehicular access only. Finally, there was general community support for a roundabout, with further design refinement planned through future engagement.

Project Ideas

The Existing Conditions Workshop identified a range of project concepts to address transportation challenges in Noyo Harbor. Key themes included improving pedestrian access with walkways and crosswalks, enhancing safety and circulation through parking management and wayfinding, and expanding transportation options via water taxis and extended bus service. Participants also supported improving coastal access through a stairway and emergency access road, and voiced interest in long-term intersection improvements such as a roundabout or traffic signal at Highway 1 @ North Harbor Drive. The full detailed list of projects is discussed in the report section **Project Recommendations**.


CAITO FISHERIES INC
PINKY B

Survey Data and Analysis

The Noyo Harbor survey responses (n=164) demonstrate strong community support for pedestrian and bicycle infrastructure improvements, with significant concerns about safety and accessibility. Notably, qualitative and quantitative feedback reinforce the need for multimodal improvements in the harbor area.

The quantitative data from the Noyo Harbor survey revealed that nearly all (94%) of visitors selected that they often travel by personal vehicle, suggesting a transportation system that has evolved to primarily serve one mode effectively, while disincentivizing other modes like walking (16%) and cycling (6%). Responses also show that the lack of sidewalks and walking trails (cited by 64% of respondents) and traffic and congestion (60% of respondents) are key transportation challenges of the infrastructure system, highlighting a system operating beyond its intended capacity and perpetuating unsafe travel for pedestrians and cyclists. These challenges are consistent with respondents' priorities and desired transportation improvements, with strong support for walking and bicycling improvements to both existing gaps and the potential for safer, more accessible travel options within the Harbor, reflecting a community vision that prioritizes walkability and sustainable mobility within the harbor area.

The open-ended survey responses and written comments provide qualitative insights that complement the quantitative data, roughly divided into three categories of concern: Infrastructure Safety Concerns, Parking and Circulation Issues, and Emergency Access and Evacuation. Respondents shared similar concerns to those found in the quantitative data around pedestrian and bicycle safety and further emphasized concerns around parking and traffic flow problems, especially during tourist seasons and emergency situations. You can find more information on survey response data in **Appendix D. Survey Data and Analysis**.

Two Day Charrette

The two-day Charrette was held at Noyo Fish Company in Noyo Harbor on April 14th and 15th, 2025. The charrette ran from 11am-6:30pm on the 14th and from 9am-7pm on the 15th. The goal of the charrette was to summarize what we have heard through stakeholder engagement and outreach; describe analysis and considerations to date; present initial information on feasibility and cost of items; and request feedback and prioritization on initial recommendations. Approximately 30–40 attendees participated over the two days, including local stakeholders, elected officials, tribal members, business owners, and residents. In addition to the outreach described in the Engagement Strategy section, the TAG and project team were invited to participate in the charrette along with the additional stakeholders listed in **Table 3**.

The two-day charrette was held in an open-house format, allowing attendees to drop in at their convenience. A published schedule focused discussion on specific project elements, allowing targeted feedback and attendance.

Schedule – April 14th

11-11:30am	**Orientation & Overview**
11:30am-12:30pm	**Cantilevered Walkway along North Harbor Drive & Staircase Under Highway 1 Bridge** - Consultant available to dive deep & sketch out design ideas (possible site walks)
1:30-2pm	**Cantilevered Walkway along North Harbor Drive & Staircase Under Highway 1 Bridge (cont.)**
2-3pm	**Walkway through Harbor** - Consultant available to dive deep & sketch out design ideas (possible site walks)
3-5pm	**Formalize and Redesign Parking & Improved Wayfinding** - Consultant available to dive deep & sketch out design ideas (possible site walks)
5-6pm	**Transit (Buses & Water Taxi)** - Consultant available to dive deep & sketch out design ideas (possible site walks)

Figure 11: Charrette "Run of Show" – April 14th

Draft Project List

Each day started with an orientation to the space and overview of the process to date, including the Existing Conditions Workshop. This continued throughout the day whenever a new stakeholder arrived. The charrette took attendees through each of the project ideas from the Existing Conditions Workshop in detail, including a walk to the project site to discuss challenges and opportunities in real time. Day one included a deep dive into the structured walkway along North Harbor Drive and staircase under the Highway 1 bridge, walkway through the harbor, parking redesign and wayfinding, and transit (buses and water taxis). Day two included a deep dive into the possible road extension and roundabout, a continuation of the walkway through the harbor, and an initial summary before breaking for lunch.

Similar to the Existing Conditions Workshop, the Charrette also engaged stakeholders through posters, including one assessing interest in different treatment options for the intersection of Highway 1 and North Harbor Drive. For other potential projects, real time sketching on scaled aerials gave community members a chance to provide additional input and see how solutions might be put into place.

Community Presentation and Final List of Projects

On the second day, the project team synthesized community feedback on each project component into a final presentation, which drew about 20 attendees. The presentation generated in-depth discussion on priorities and feasibility, helping to solidify community-driven recommendations for the Plan. The full detailed list of projects is discussed in the report section **Project Recommendations**.

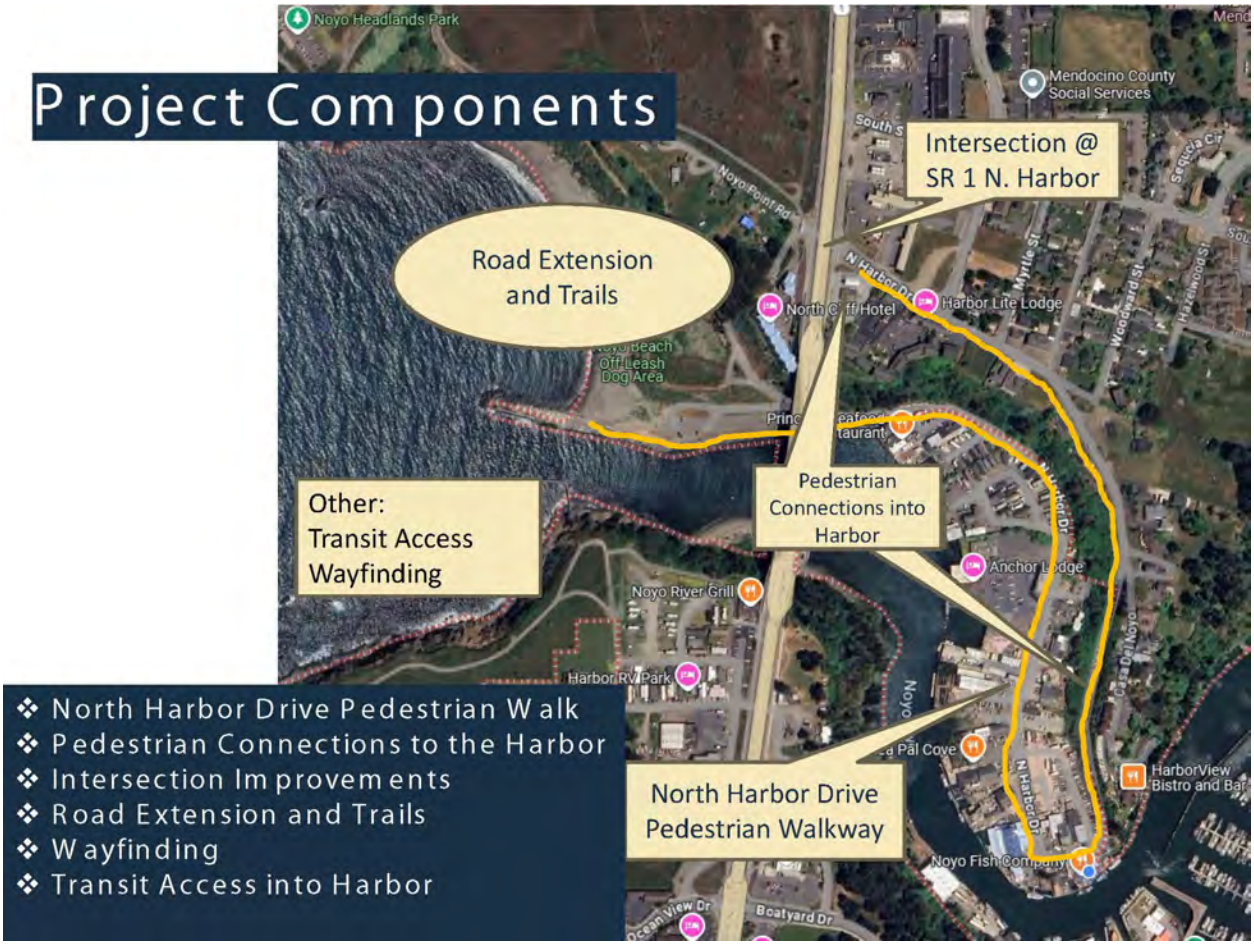


Figure 12: Charrette Final Presentation

Figure 13: Charrette Presentation Attendance

Project Recommendations

Following the Two-Day Workshop, the TAG and project team reconvened on Tuesday May 6th and Tuesday June 3rd, 2025 to review the full list of draft project recommendations generated through community input and on-site engagement. The group carefully evaluated each concept based on feasibility, alignment with community priorities, safety and access benefits, and consistency with broader planning goals. Through this collaborative process, the group provided detailed feedback, refined the language and scope of certain projects, and reached consensus on which concepts to advance. The result is a final list of recommended projects that reflects both community vision and technical considerations, as outlined below.

List of Project Recommendations

This section outlines the list of project recommendations with implementing agencies, preliminary cost estimates, available funding sources, and implementation plan and schedule.

NOYO HARBOR MULTIMODAL CIRCULATION PLAN

0 0.05 0.1MILES

FIGURE 14: PROJECT MAP

FORT BRAGG, CA
NOYO HARBOR
39°25'40" N 123°48'20" W

Timeline

PROJECT LIST

Short-Term
- 1 Wayfinding
- 2 Bus Stops
- 3 Stairway Under Highway 1

Mid-Term
- 4 Water Taxis
- 5A Walkway through Harbor
- 5B Parking Restriping

Opportunistic
- 6 Walkway into Harbor
- 7 Emergency Access Extension & Coastal Trail Connection

Short-Term & Long-Term
- 8 Intersection Improvements at Highway 1 and North Harbor Drive

Unmapped: Parking Mangement

RECOMMENDED PROJECTS AND TIMELINES

- Short-Term: < 5 Years
- Mid-Term: 5 - 10 Years
- Long-Term: > 10 Years
- Opportunistic

Estimated Project Timelines

Short-term <5 years

Mid-term 5-10 years

Long-term >10 years

Opportunistic (when opportunity presents itself)

*These timelines are listed in **Table 4** below.*

Table 4: Noyo Harbor Project Summary

Project Number	Project Name	Lead Agency	Funding Sources	Priority Level	Cost Estimate
1	Wayfinding	Harbor District	Harbor District (some existing funding)	Short-term	$29K*
2	Bus Routes	Mendocino Transit Authority / Harbor District	Federal Transit 5310b, Federal Transit Administration 5311, Federal Transit Administration 5339b Pilot Program, Transportation Development Act (State Transit Assistance)	Short-term	$165K*
3	Stairway under Highway 1	City of Fort Bragg (with Caltrans coordination)	Highway Safety Improvement Program, Prop 4 (Coastal Conservancy), California Transportation Commission Active Transportation Program, Evacuation funds	Mid-term	$2.4M*
4	Water Taxis	Harbor District	Private funding	Mid-term	Soft Costs: Up to $100K Capital Costs: $10K - $25K
5 (A&B)	Walkway through Harbor	Harbor District	Highway Safety Improvement Program and California Transportation Commission Active Transportation Program	Mid-term	Walkway through Harbor: $1.6M* Structured Walkway over Water: $442K* Parking Restriping: $166K*

Project Number	Project Name	Lead Agency	Funding Sources	Priority Level	Cost Estimate
**	Parking Management	Harbor District	Private funding	Short-term	$10K - $25K
6	Walkway into Harbor	City of Fort Bragg	Highway Safety Improvement Program, California Transportation Commission Active Transportation Program, Reconnecting Communities	Opportunistic	Walkway into Harbor: $767K* Structured Walkway on Hillside: $808K*
7	Emergency Access Extension and Coastal Trail Connection	City of Fort Bragg	Prop 4 (Coastal Conservancy), Ocean Protection Council, Tribal Restoration (North Coast Resource Partnership)	Opportunistic / Short-term	$674K*
8	Intersection Improvements at Highway 1 and North Harbor Drive	Caltrans	Highway Safety Improvement Program, State Highway Operations Protection Program	Short-term (initial), Long-term (roundabout/ signal)	Short-term: $282K* Long-term: $1.5M (traffic signal), $3M (roundabout)

* Projects include detailed cost estimates, located in **Appendix G**.
**Project not included in Figure 14: Project Map.

Wayfinding

Project Description

This project proposes the design and installation of a comprehensive wayfinding system throughout Noyo Harbor. The system would include destination signage to guide visitors to key locations such as hotels, restaurants, restrooms, and beach access; vehicle signage to direct drivers to the parking and turnaround point at the end of North Harbor Drive; and interpretive signage highlighting the harbor's rich history, including its indigenous heritage, fishing industry, and logging legacy. Together, these elements aim to improve navigation, visitor experience, and cultural awareness throughout the harbor.

Figure 15: Existing Wayfinding on North Harbor Drive

Vehicles

Currently, Noyo Harbor suffers from a lack of wayfinding. The area contains minimal directional signage, with only basic pedestrian safety warnings present along North Harbor Drive. Visitors and residents face significant challenges in navigating to and within the harbor area due to the absence of clear, consistent directional indicators. The existing signage is primarily focused on safety messaging rather than providing navigation assistance, leaving users without adequate guidance to locate specific destinations, services, or amenities within the harbor.

The current lack of clear vehicular directional signage creates confusion for drivers seeking parking areas or attempting to navigate the harbor. Vehicle wayfinding signage must account for the Harbor's unique physical constraints, including the dead-end configuration of North Harbor Drive and limited

turn-around space at the waterfront. Clear signage should direct drivers to available parking areas and inform them that a designated turn-around is located at the end of North Harbor Drive. This would help reduce traffic congestion, avoid confusion, and minimize conflicts between vehicles and pedestrians.

Interpretive Signage

Noyo Harbor possesses rich historical and cultural significance that remains largely unrecognized through interpretive signage. The area's indigenous history, logging heritage, and fishing industry traditions provide compelling content for educational signage that would enhance visitor experience while preserving local knowledge. Current interpretive elements are limited, with only scattered historical markers that fail to provide comprehensive context about the harbor's evolution and cultural importance.

A robust interpretive signage program could incorporate the Harbor's fishing industry heritage, highlighting the ongoing commercial fishing operations and their significance to the local economy. Logging history interpretation could acknowledge the area's role in the timber industry and the transformation of the landscape over time. Indigenous history interpretation could present the original inhabitants' connection to the land and waterways, providing context for contemporary visitors about the area's deeper cultural significance. Indigenous history signage would be developed in consultation with the Sherwood Valley Band of Pomo Indians, ensuring it reflects the perspectives and knowledge of the Tribe, their enduring connection to the land and waterways, and the area's deeper cultural significance.

The interpretive signage should be compromised of weather-resistant materials suitable for the marine environment, with engaging visual elements including historical photographs, maps, and illustrations. Strategic placement near key viewpoints, historical sites, and gathering areas would maximize educational impact while complementing the navigation and destination wayfinding elements. Integration of QR codes or similar technology could provide access to additional digital content, allowing for more comprehensive storytelling while maintaining clean, readable physical signage design.

Figure 16: Existing Interpretive Signage

Figure 17: Existing Interpretive Signage

Implementing Agency

The Noyo Harbor District would serve as the lead agency for this project, overseeing the design, placement, and installation of all wayfinding and interpretive signage within the harbor.

Potential Funding Sources

- The Noyo Harbor District has some existing funding available to support the design and installation of the wayfinding system. Additional funding sources may be explored as needed to expand or enhance signage elements.

Cost Estimation

$28,750 – Includes design, labor, and materials for wayfinding and interpretive signs.

Implementation Plan and Schedule

This is a short-term project anticipated to be implemented within the next five years. With some funding already available and minimal infrastructure requirements, the project can move forward quickly to improve navigation and visitor experience throughout the harbor.

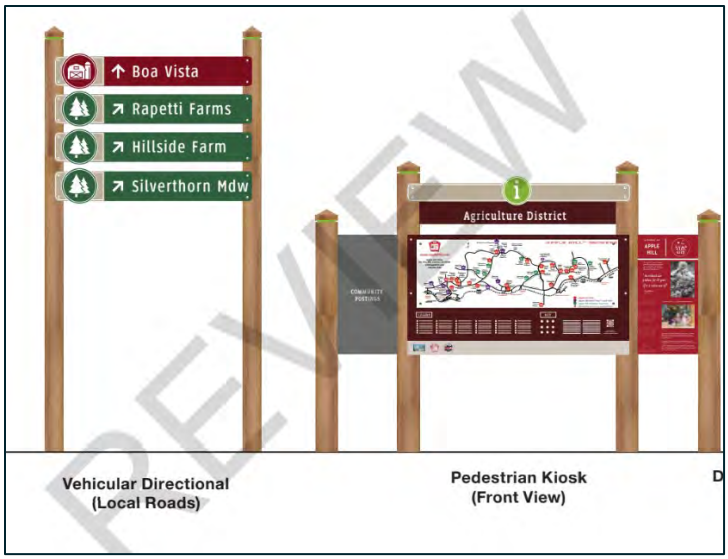


Figure 18: Example Wayfinding 1

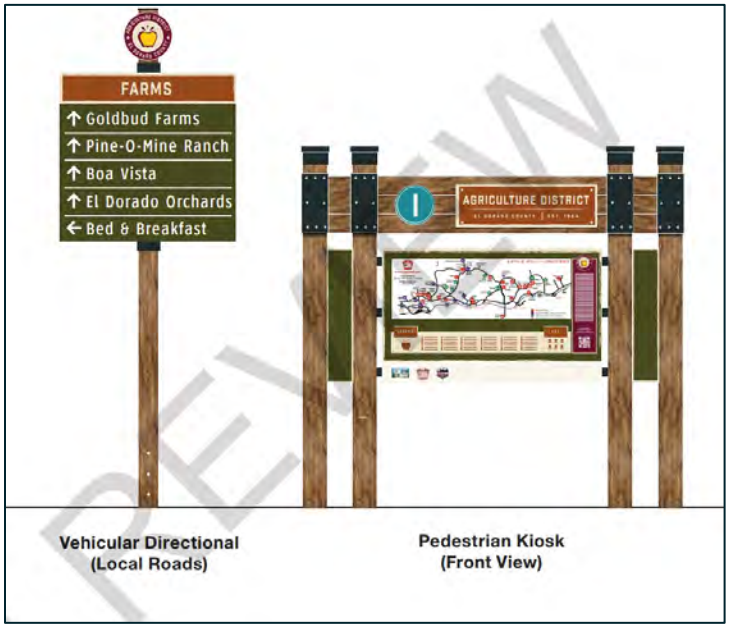


Figure 19: Example Wayfinding 2

Figure 20: Example Wayfinding 3

Bus Routes

Figure 21: Mendocino Transit Authority

Project Description

This project proposes extending an existing bus route into Noyo Harbor to improve access for workers, residents, and visitors. Bus stops could be located near new crosswalks at the southern end of North Harbor Drive and under the Highway 1 bridge, providing closer connections to key harbor destinations such as the commercial fishing district, restaurants, and recreational facilities.

Currently, public transit access to the harbor is limited. The Mendocino Transit Authority (MTA) operates three regional fixed routes—Route 5 (BraggAbout), a local circulator; Route 65 (CC Rider), which connects from inland via SR 20; and Route 60 (The Coaster), serving the coast via SR 1. MTA also provides Dial-A-Ride service, but current stops are approximately one mile—about a 30-minute walk—from the harbor. This creates substantial barriers for transit-dependent users.

The project envisions a circulator route that would connect the harbor more effectively with Fort Bragg's downtown core and existing transit network. This enhanced connectivity would support both residents and tourists by providing reliable, convenient access to harbor amenities without requiring personal vehicular transportation.

Implementing Agency

The Mendocino Transit Authority (MTA) would lead planning for the potential bus route extension, including the placement of stops and provision of signage and amenities such as benches. The Noyo Harbor District would coordinate on-site implementation, including the installation of signage, benches, or other infrastructure located on Harbor District property. Any work within the State right-of-way may require ADA review, safety clearances, and permits from Caltrans.

Potential Funding Sources

- Federal Transit 5310b
- Federal Transit Administration 5311
- Federal Transit Administration 5339b Pilot Program

- Transportation Development Act (State Transit Assistance)

Cost Estimation

$165,352 – Includes design and installation of bus stop signage, bus stop pads and shelters, and other needed modifications.

Implementation Plan and Schedule

This is a short-term project anticipated to be implemented within the next five years, aligning with near-term transit planning cycles and infrastructure improvements to expand access and support increased harbor activity.

LEGEND

BUS STOP

Figure 22 – Bus Stops

Fehr & Peers

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Stairway under Highway 1

Project Description

This project proposes the design and construction of a Y-shaped stairway with an ADA-accessible ramp system beneath the Highway 1 bridge, enhancing coastal access and connectivity between key destinations in Noyo Harbor. The proposed infrastructure would provide linkage to The Harbor Lite Lodge and North Cliff Hotel on either side of the highway, requiring an easement or updated easement for access, and would provide a direct connection to the coastal trail.

The stairway would consist of two access points, one on each side of Highway 1, meeting at a central landing underneath the bridge. In parallel, a meandering ramp would offer ADA-compliant access and others who require a low-slope, non-stair route. The ramp alignment would be designed to minimize grading and environmental impacts while maintaining comfortable, intuitive movement through the corridor.

Figure 23: Existing Pedestrian Facilities[3]

[3] The stairwell was improved in June/July of 2025 in anticipation of the 4th of July Salmon BBQ but continues to suffer from poor visibility, wayfinding and accessibly.

Implementing Agency

The City of Fort Bragg would serve as the lead agency, with coordination from Caltrans due to the facility's location under a state highway bridge. To accomplish an ADA compliant ramp system, land outside of Caltrans right-of-way (ROW) would be required. The project will also require coordination with the California Coastal Commission and compliance with applicable permit requirements.

Potential Funding Sources

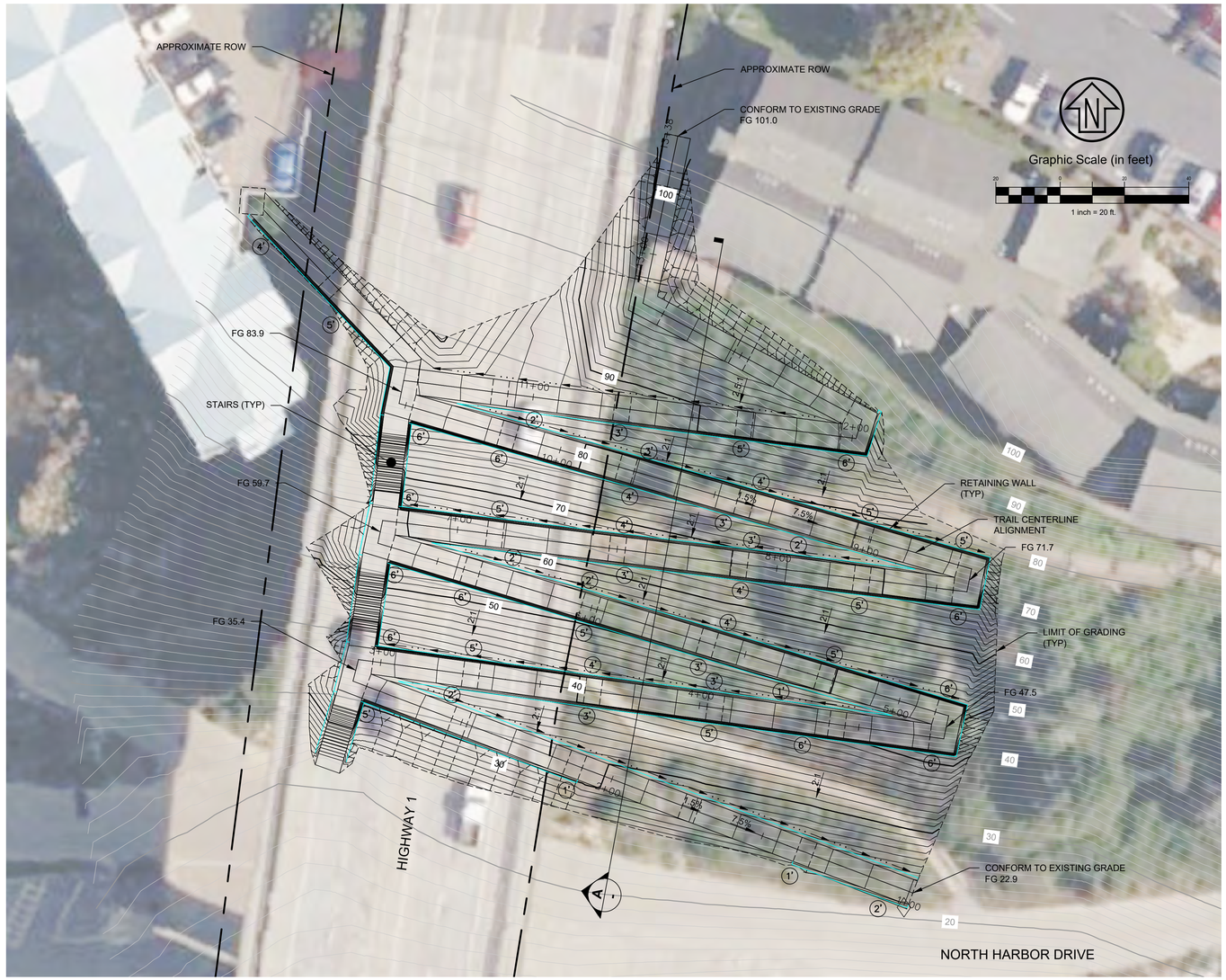
- Highway Safety Improvement Program (HSIP): Potential funding for the stairway as a safer alternative to at-grade crossings of Highway 1. Consider bundling with the walkway through the harbor to enhance competitiveness.
- Proposition 4 (California Coastal Conservancy): Supports projects that improve public coastal access, making this stairway a strong fit.
- Active Transportation Program (ATP): Potential funding for pedestrian improvements, though this program is highly competitive.
- Evacuation-related funding: The ramp and stairway could serve as a secondary evacuation route in emergencies, potentially qualifying for resilience or emergency preparedness grants.

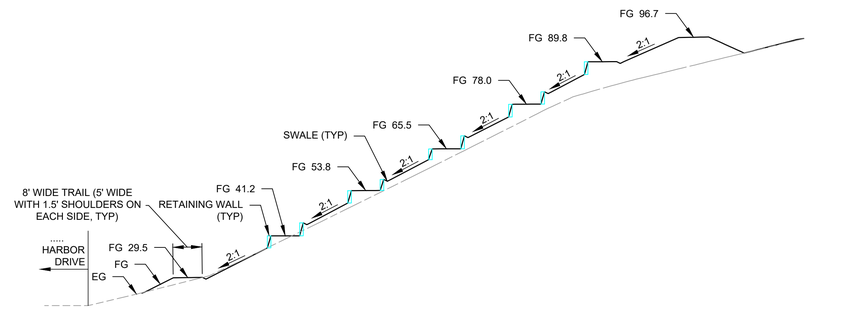
Cost Estimation

$2,438,356 – Includes design, land clearing, and complete construction. This assumes no cost to acquire additional land within the footprint of the stairway that is outside of Caltrans ROW.

Implementation Plan and Schedule

This is a mid-term project, anticipated to be implemented within the next 5 to 10 years, depending on funding availability and coordination with Caltrans.





SECTION A
SCALE: NTS

Figure 24: Stairway Under Highway 1

LEGEND

- RETAINING WALL
- X' — RETAINING WALL HEIGHT
- LIMIT OF GRADING

CSW ST2
Engineering
Landscape Architecture
Surveying
Urban Planning
504 Redwood Blvd, #310
Novato, CA 94947
415.533.1864
CSWST2.com

Rev	Date	Description

Checked
Drawn
Designed

City Of
Fort Bragg
County Of
Mendocino
State Of
California

Prepared Under the Direction of:

Sheet
EX1.0

Scale:	1" = 20'
Date:	07/21/2025
Project Number:	2400072
Plan File:	

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Water Taxis

Project Description

This project explores the development of a water taxi service within Noyo Harbor to enhance transportation options, reduce vehicle dependence, and improve access to key destinations on both sides of the harbor. The harbor's protected waters and existing marine infrastructure make it well-suited for this service, which would operate between strategic public access docks and offer scenic, low-impact travel for residents and visitors. By providing an alternative to roadway travel and parking, the water taxi could ease congestion, support local businesses, and offer an environmentally sustainable transportation option that complements recreational use and enhances the harbor's appeal as a destination.

Water taxis could be operated by local fisher people utilizing existing six-pack licenses[4], particularly during busy festival and event days when roadway congestion and parking demand peak. In addition to alleviating pressure on limited harbor roadways and parking areas, the service would support local businesses, promote sustainable tourism, and create a unique, memorable visitor experience that aligns with the harbor's working character. A more permanent option should be considered as a transit opportunity as well as a recreational feature. This could require the purchase of a vessel and regular funding of "ferry" operators. Any permanent infrastructure would be required to be ADA compliant.

Figure 25: July 4th Salmon BBQ, Noyo Harbor

The combination of improved land-based transit and innovative water taxi services would position Noyo Harbor as a more accessible and attractive destination while supporting sustainable transportation goals for the broader Mendocino Coast region. Operating a water taxi could also serve as a supplemental income source for local fishing companies, helping diversify their revenue streams.

[4] A six-pack license is officially known as the Operator of Uninspected Passenger Vessels (OUPV) license, issued by the USCG. It allows the license holder to carry up to six paying passengers on an uninspected vessel. This is described in the Code of Federal Regulations (46 CFR § 10.467) and is detailed in Coast Guard licensing handbooks. https://wow.uscgaux.info/content.php?category=captains-license-info&unit=054-09

Figure 26: Fishing Boat in Noyo Harbor

Figure 27: Fort Lauderdale Water Taxi

Figure 28: Amsterdam Water Taxi

Implementing Agency

The Noyo Harbor District would serve as the lead agency for this project, overseeing coordination, implementation, and potential partnerships with local operators. The project may also require coordination with vessel operators and potential review by the U.S. Coast Guard.

Potential Funding Sources

- Private funding would be needed.

Cost Estimation

Capital Costs: $10,000 to $25,000 – Includes kiosks and signage.

Soft Costs: Up to $100,000 – Includes start-up, coordination, and advertising.

Implementation Plan and Schedule

This is a mid-term project, anticipated to be implemented within the next 5 to 10 years, as operational models are explored and funding becomes available.

LEGEND

TAXI — WATER TAXI STOP

WATER TAXI ROUTE

Fehr & Peers

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Figure 29 – Water Taxis

Walkway through Harbor

Project Description

This project proposes the construction of a pedestrian walkway through Noyo Harbor to improve safety, accessibility, and circulation for all users. The walkway would begin at the bottom of the hill on the north side of North Harbor Drive and continue through the harbor area along the south side of the roadway, ultimately extending out to the beach. New crosswalks would be added at the southeastern and southwestern corners of the harbor. The intent is to create a continuous, clearly defined route for people walking through the harbor area.

Due to space constraints immediately before the Highway 1 bridge underpass, the walkway in this section would be constructed on posts over the water. The walkway would continue under the bridge and out to the beach, consistent with the design used throughout the rest of the harbor. Design elements would prioritize durability, ease of maintenance, and visual compatibility with the working waterfront. Materials such as pervious concrete and removable bollards are recommended to reflect the harbor's character, accommodate both routine operations and occasional large vehicle or equipment access. Pervious concrete also offers the added benefit of supporting stormwater infiltration, creating an accessible walking surface without necessitating costly modifications to existing drainage systems.

In tandem with the walkway improvements, it's recommended to restripe the public beach parking lot and uses fire hoses or other tactical urbanism interventions in the area under the Highway 1 bridge to create more clearly defined and expanded parking capacity. Additional opportunities to formalize on-street parking on the north side of North Harbor Drive within the harbor should be explored. Currently the north side features informal or undefined parking areas. Formalizing parking would improve organization, more clearly define driveways, reduce roadway clutter, and enhance safety for all users. All improvements would be implemented in compliance with applicable permit requirements and in coordination with relevant agencies.

Implementing Agency

The Noyo Harbor District would serve as the lead agency for implementation, with the City of Fort Bragg and the Mendocino County Department of Transportation (DOT) identified as key stakeholders given their jurisdictional roles and adjacent infrastructure responsibilities.

Potential Funding Sources

- Highway Safety Improvement Program (HSIP): Supports pedestrian safety features like crosswalks and bollards
- Active Transportation Program (ATP): Funds walkway construction and accessibility improvements

Cost Estimation

Walkway through Harbor: $1,592,408 – Includes design, land clearing, demolition, utilities, and complete construction of walkway. Estimate also includes parking reallocation on the landside of North Harbor Drive.

Structured Walkway over Water: $441,719 – Includes design, land clearing, demolition, and complete construction.

Parking Lot Restriping: $166,375 – Includes design, demolition, slurry seal and striping.

Parking Reallocation on Landside of North Harbor Drive: $307,656 – Includes design, demolition, and restriping.

Implementation Plan and Schedule

This project is anticipated to be implemented in the mid-term (5-10 years), allowing time for project development, stakeholder coordination, and securing competitive funding.

MATERIALS FOR WALKWAY THROUGH HARBOR

Permeable Pavement

Example Path Delineation

LEGEND

- SIDEWALK INTO HARBOR
- STRUCTURED WALKWAY ALONG HILLSIDE
- WALKWAY THROUGH HARBOR
- STRUCTURED WALKWAY OVER WATER
- CROSSWALK

Fehr & Peers

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Figure 30 – Walkway into and through Harbor

LEGEND

NEW PARKING SPACES

Fehr & Peers

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Figure 31 – Parking Restriping

Parking Management

Project Description

This project aims to improve parking efficiency within Noyo Harbor by restriping public off-street lots to clearly define parking spaces, circulation paths, and loading areas. The Harbor District owns or leases a small number of spaces used by local businesses such as the Noyo Center Field Station and Casa del Sol, while the majority of parking in the harbor is located on private property and serves adjacent businesses. The Harbor District would lead implementation of this project and work collaboratively with private property owners to encourage restriping of their lots. Improvements to private lots would be voluntary, with participation at the discretion of the property owner. This coordinated effort would promote a more organized, accessible, and consistent parking experience throughout the harbor and reduce potential conflicts among vehicles, pedestrians, and loading zones.

Implementing Agency

The Noyo Harbor District would serve as the lead agency for this project, overseeing restriping of public lots and coordinating with private property owners to encourage consistent improvements throughout the harbor.

Potential Funding Sources

- Private funding would be needed.

Cost Estimation

$10,000 to $25,000 – Includes restriping of off-street parking lots.

Implementation Plan and Schedule

This is a short-term project expected to be implemented within the next five years, given its relatively low cost and ease of implementation.

Walkway into Harbor

Project Description

This project proposes the installation of a continuous, connected walkway along North Harbor Drive, beginning at the intersection with Highway 1 and extending into the harbor area. The route would start as a traditional poured concrete sidewalk along the southern portion of North Harbor Drive, where sufficient right-of-way (ROW) exists. This sidewalk would provide a safe, accessible path for pedestrians traveling between Highway 1 and harbor-area destinations.

As North Harbor Drive descends into the harbor, the right-of-way becomes significantly constrained, presenting physical challenges for conventional sidewalk construction. To address this, the project recommends the installation of a structured walkway along the hillside, as described in the 2017 City of Trails Supplemental Trail Feasibility Studies.

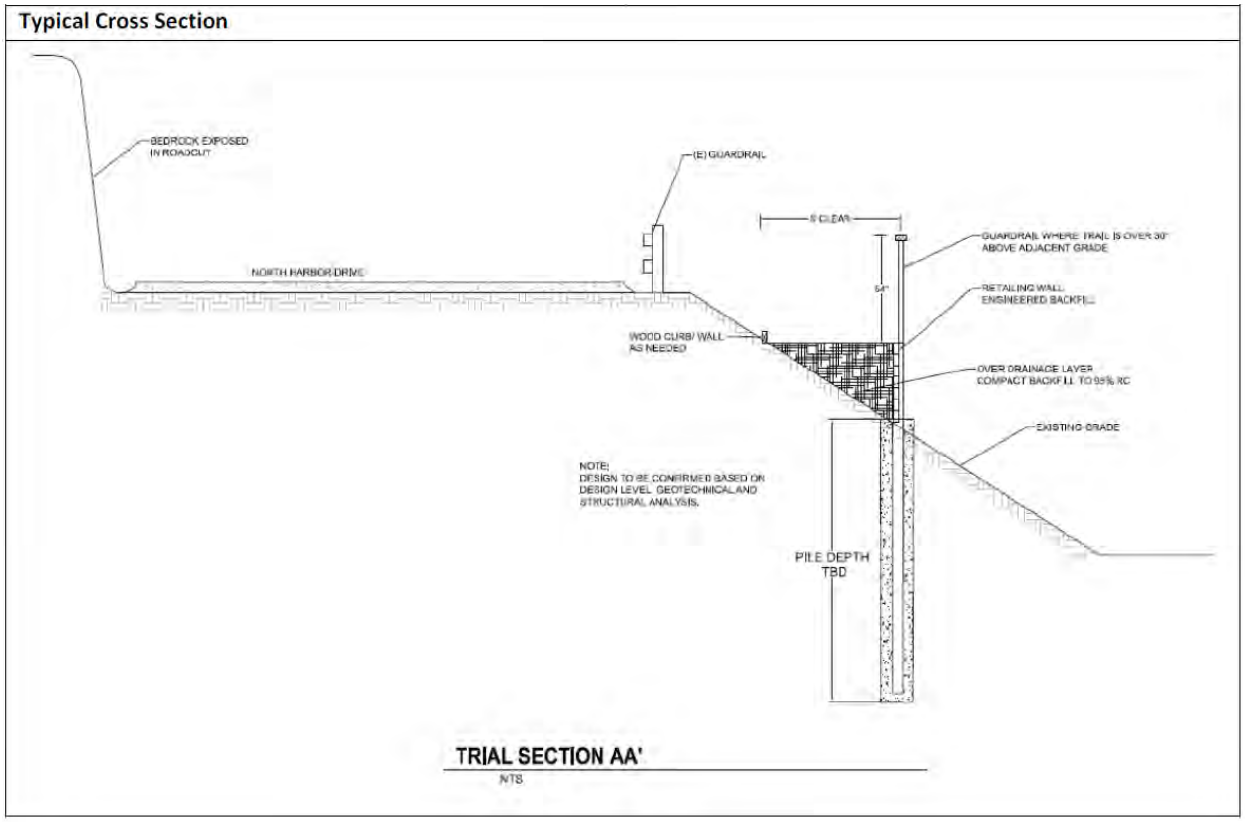


Figure 32: Typical Cross Section – City of Trails: Supplemental Trail Feasibility Studies

Given the steep terrain and history of erosion in the area, creating a maintenance and hillside stabilization plan is recommended to retain slope integrity and protect both the roadway and the new pedestrian infrastructure. This may include measures such as retaining walls, erosion control vegetation, and regular inspections. In addition, the plan recommends a program of routine vegetation management, especially where overgrowth encroaches onto the roadway and shoulder, reducing visibility and pedestrian space. Consideration should be given to permit requirements for hillside stabilization and the installation of the walkway.

Implementing Agency

The City of Fort Bragg is the lead agency for this project and would be responsible for planning, design, construction, and ongoing maintenance of the walkway infrastructure.

Potential Funding Sources

- Highway Safety Improvement Program (HSIP) – which could support the sidewalk and structured walkway elements as part of a broader effort to reduce pedestrian–vehicle conflicts and improve traffic safety along North Harbor Drive
- Active Transportation Program (ATP) – a competitive statewide grant program focused on increasing walking and biking, enhancing safety, and improving access to key destinations
- Reconnecting Communities Grant Program (RCP) – a competitive federal grant program advancing community-centered transportation connection projects, restoring community connections and access to daily needs such as jobs, food, and recreation

Cost Estimation

Walkway into Harbor: $767,113 - Includes design, land clearing, utilities, and complete construction.

Structured Walkway on Hillside: $808,225 – Includes design, land clearing, utilities, and complete construction.

Implementation Plan and Schedule

The implementation timeline for this project is opportunistic and will depend on the availability of funding through competitive programs such as HSIP and ATP.

Emergency Access Extension and Coastal Trail Connection

Project Description

This project proposes the formalization of a road extension at the west end of North Harbor Drive, just west of the Highway 1 bridge, to create a connection to Noyo Point Road. The extension would serve as a dedicated emergency access-only route, providing a critical secondary pathway into and out of Noyo Harbor during emergencies such as natural disasters, road blockages, or evacuation scenarios. Although informal today, the route is already used by law enforcement during high-traffic events like the 4th of July Salmon Festival, underscoring its strategic importance. Currently, North Harbor Drive is the only roadway access into the harbor, leaving the area vulnerable in the event of an emergency.

Through community conversations, there has also been strong interest in incorporating bicycle and pedestrian access along this emergency route to improve non-motorized connectivity within the harbor and to the adjacent coastal trail. The route could function as both an emergency bypass and a low-volume path for walking and biking, offering a safe and scenic alternative for users traveling between the harbor and the surrounding coastal network.

In tandem with the road extension, a coastal trail connection from the harbor could be created by routing a shared-use path along the perimeter of the existing dredge spoils site. This trail segment would provide a direct link to the broader coastal trail system and help activate the western edge of the harbor. Strategically, this trail connection could be integrated into the short-term dredge spoils remediation and protection project, minimizing cost by combining infrastructure improvements and reducing the need for duplicative permitting or environmental clearance processes.

Implementing Agency

The City of Fort Bragg is identified as the lead agency for this effort and would need to coordinate with regional partners, environmental resource agencies, and stakeholders to advance design and implementation.

Potential Funding Sources

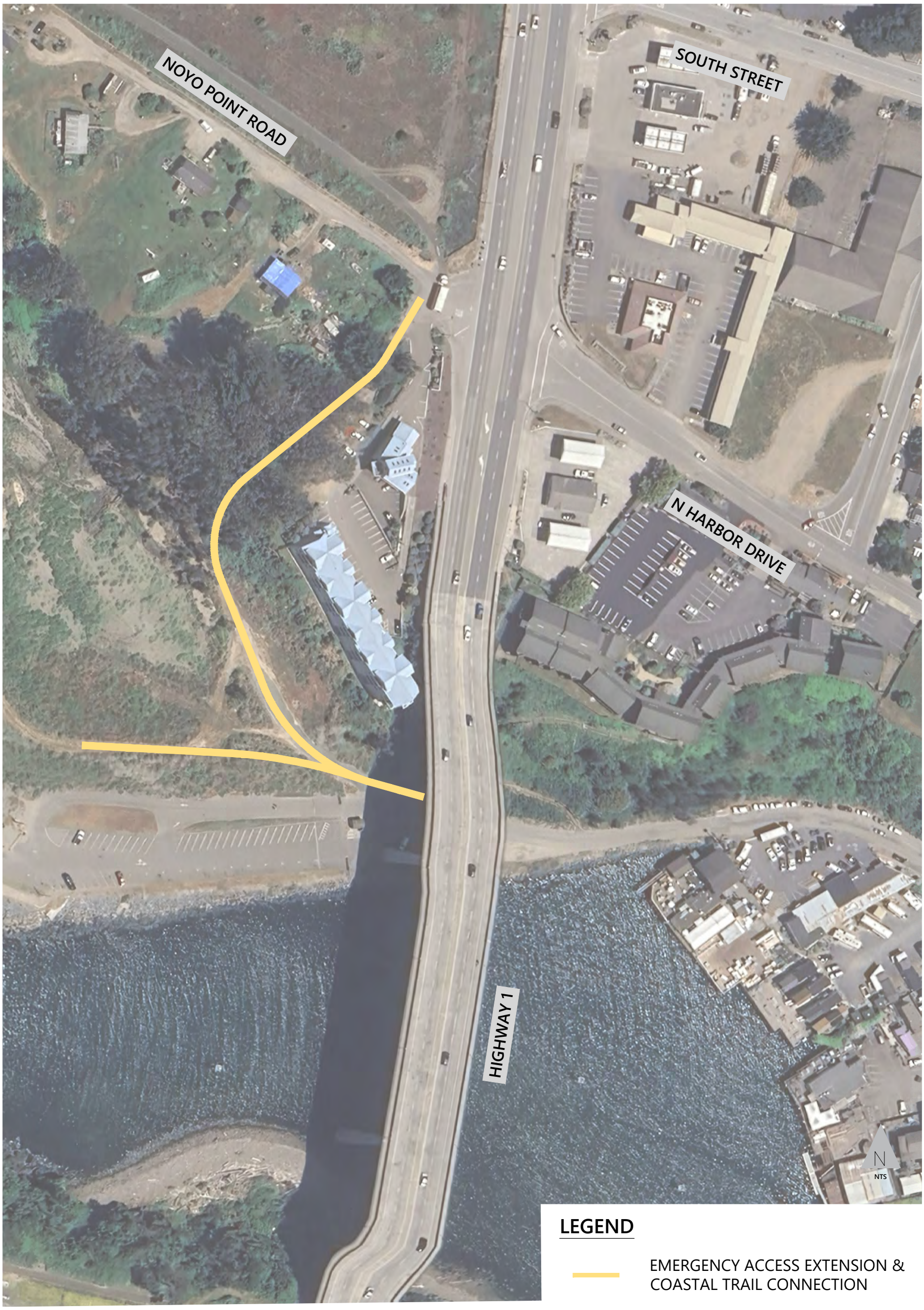
- Proposition 4 (California Coastal Conservancy) – for improving public coastal access
- Ocean Protection Council (OPC) – for climate adaptation and resilience planning
- Tribal restoration and access funding via the North Coast Resource Partnership – particularly for projects with co-benefits to cultural access, habitat restoration, and emergency response

Cost Estimation

$674,266 – Includes design, land clearing, and complete construction.

Implementation Plan and Schedule

The implementation timeline for this project is opportunistic and will depend on the availability of funding, with construction expected to proceed once sufficient resources are secured.



LEGEND

EMERGENCY ACCESS EXTENSION & COASTAL TRAIL CONNECTION

Fehr & Peers

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Figure 33 – Emergency Access Extension & Coastal Trail Connection

Intersection Improvements at Highway 1 and North Harbor Drive

Project Description

Intersection improvements at Highway 1 @ North Harbor Drive aim to enhance safety, access, and traffic operations at the primary gateway into Noyo Harbor. The intersection currently faces challenges related to turning conflicts and limited pedestrian infrastructure. A phased approach was identified, combining near-term safety measures with a long-term intersection redesign.

Short-term improvements include the following:

- Reinstating the prohibition of left turns from North Harbor Drive onto Highway 1 to minimize turning conflicts and improve traffic flow.
- Installing a raised median near the Noyo Gas Stop to eliminate unsafe cut-throughs.
- Constructing a pedestrian crosswalk at the southern leg of the intersection, equipped with a Pedestrian Hybrid Beacon to enhance safety for people walking and biking.

For long-term improvements, it is recommended that Caltrans, as the lead agency, evaluate intersection control alternatives using the Intersection Systemic Options Assessment Process (ISOAP). ISOAP is a performance-based, data-driven framework developed by Caltrans to guide the selection of intersection control treatments based on safety performance, operational efficiency, and multimodal needs. This process often results in the selection of roundabouts, which have been shown to reduce the frequency and severity of crashes compared to traditional stop- or signal-controlled intersections.

The evaluation should consider a variety of configurations, including a three-leg roundabout as a space-efficient solution, as well as single-lane and multi-lane roundabouts. Preliminary analysis conducted for this study indicates that a multi-lane roundabout or signal would operate favorably and that a single-lane roundabout could be operationally challenged. There may also be potential for a turbo multi-lane roundabout, which uses channelized lanes to reduce speeds and minimize lane changing, enhancing both safety and traffic flow. See **Appendix E. Traffic Counts** and **Appendix F. Level of Service Analysis** for more information on the analysis conducted.

Community feedback during outreach events expressed some interest in both roundabouts and traffic signals, though support was not overwhelming for either option and, relative to other improvements like the walkway in the harbor and the Y-shaped stairwell, updates to the traffic control of this intersection were a lower priority (improving the pedestrian crossing was a higher priority). The ISOAP process provides a structured way for Caltrans to assess these options objectively, ensuring the final treatment supports state goals for safety, multimodal access, and operational effectiveness at this critical coastal intersection.

Figure 34: Potential Three-leg Roundabout

Implementing Agency

Caltrans would serve as the lead agency for both the planning and implementation of intersection improvements at Highway 1 and North Harbor Drive, given its jurisdiction over the state highway system.

Potential Funding Sources

- Highway Safety Improvement Program (HSIP) – which could support the intersection redesign and construction as part of a broader effort to reduce pedestrian–vehicle conflicts and improve traffic safety at the Highway 1 / North Harbor Intersection
- State Highway Operations Protection Program (SHOPP) – which could support the intersection redesign and construction as part of a broader effort addressing safety and operational improvement on Caltrans right-of-way

Cost Estimation

Short-term: $281,738 – Includes design, demolition, and complete construction.

Long-term: $1,500,000 – Includes design and construction of a traffic signal. $3,000,000 – Includes design and construction of a single-leg roundabout.

Implementation Plan and Schedule

Short-term improvements, including the pedestrian crossing and left-turn prohibition, are anticipated to occur within the next five years, while long-term solutions–such as a roundabout or traffic signal–are expected to be implemented over a longer horizon, likely exceeding ten years, depending on project development and funding availability.

Figure 35 – Intersection Improvements at Highway 1 and North Harbor Drive

Fehr & Peers

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Appendix A. Noyo Harbor Trail Easement & Alignment

2012-18131
Recorded at the request of:
COASTAL LAND TRUST
12/06/2012 03:19 PM
Fee: $31.00 Pgs: 1 of 7

OFFICIAL RECORDS
Susan M. Ranochak - Clerk-Recorder
Mendocino County, CA

Recording requested by and when recorded please return to:

Coastal Land Trust
27401 Albion Ridge Road
Albion, CA 95410

Attn: _____

(Space above this line reserved for Recorder's use)

GRANT OF PUBLIC ACCESS TRAIL EASEMENT

APN Nos. 018-120-21, 018-120-22, 018-130-54, Mendocino County

The grant of this PUBLIC ACCESS TRAIL EASEMENT ("Trail Easement") dated 11-30-12 is made by MR. JAMES HURST, MS. BARBARA HURST, MR. JASON HURST, MS. TRACY PERRYMAN HURST, and MR. J. ERIK HURST ("Grantors") in favor of the COASTAL LAND TRUST, a non-profit organization ("Grantee") with respect to the following parcels of land (the "Property") more particularly described in Exhibit "A" and incorporated by reference. RFT W930

Street Address:	120 North Harbor Drive		
Municipality:	Fort Bragg	County:	Mendocino
APN Numbers:	018-120-21,018-120-22, 018-130-54	State:	California

1. Trail Easement
By signing this Public Access Trail Easement, Grantors grant to Grantee a trail easement in perpetuity to establish and make available for public use a trail and right-of-way in the location within the Property described and shown in Exhibit "A". The Trail Easement includes the right to construct, replace, remove, or modify a public trail in, upon, over, and across the Property and install signage in connection with public use of the trail.

2. Public Enters at Own Risk
Persons using the trail do so at their own risk and without any charge for access, consistent with Civil Code section 846. Grantors assume no duty to inspect or maintain the trail or warn of any defects or dangerous conditions except in cases of persons who are expressly invited rather than merely permitted to come upon the premises by the Grantee.

3. Recorded Document
This Trail Easement is to be recorded against the Property so as to be perpetually binding upon the undersigned Grantors and their successors and assigns as Owners of the Property.

4. Exhibits
Exhibit "A" is made a part of this Agreement by this reference.

5. Defense of Claims
If a trail user asserts a claim for bodily injury or property damage caused by an unsafe condition on the trail, and the unsafe condition was not the fault of Grantors' or anyone on the Property at the invitation of Grantors, then Grantee agrees to defend such claim on behalf of both Grantors and Grantee and, if such defense is not successful, to hold Grantors harmless from any judgment entered against Grantors on account of such claim.

6. Successors and Assigns
The terms "Grantee" and "Grantors," wherever used in this Trail Easement, and any pronouns used in place of those terms, mean Grantee and Grantors' successors, assigns, and lessees.

IN WITHNESS THEREOF, Grantors have executed this Grant of Public Access Trail Easement to Grantee as of the date set forth above.

GRANTORS:

JAMES HURST

BARBARA HURST

JASON HURST

TRACY PERRYMAN HURST

J. ERIK HURST

State of California

County of Mendocino

S. E. RACK
COMM. # 1911287
NOTARY PUBLIC-CALIFORNIA
MENDOCINO COUNTY
My Comm. Exp. OCT. 31, 2014

On 11-30-, 2012 before me, S. E. Rack, personally appeared James Hurst, Barbara Hurst, Jason Hurst, and Tracy Perryman Hurst

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) ~~is~~/are subscribed to the within instrument and acknowledged to me that ~~he~~/she/they executed the same in ~~his~~/her/their authorized capacity(ies), and that by ~~his~~/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

S. E. Rack, Notary

EXHIBIT A

TO THE PUBLIC ACCESS TRAIL EASEMENT

Map of Real Property and Public Access Trail Easement

EXHIBIT A

EASEMENT DESCRIPTION

A pedestrian easement of varying width *(shown on Exhibit B)* in the northwest quarter of the northwest quarter of Section 18, Township 18 North, Range 17 West, Mount Diablo Base and Meridian, described as follows:

Commencing at the section corner common to Section 7,12,13 and 18 of Township 18 North, Ranges 17 and 18 West, Mount Diablo Base and Meridian; thence South 27° 10' 14" East, 464.65 feet to an iron bar *(Deed Record S22° 58'E, 498.24')* ; thence South 59° 20' 30" East, 298.82 feet to a 1" diameter rebar tagged LS 3184 *(Deed Record S60° 36' E, 298.82')* ; Thence South 59° 20' 30" East along the southerly line of North Harbor Drive, 260.00 feet to the true point of beginning of this Easement Reference Line; thence along the reference line, which is the centerline of the existing sidewalk and trail, the following course and distance:

Bearing	S 28° 42' 40" W	29.19 feet;
Thence	S 30° 53' 31" W	26.80 feet;
Thence	N 78° 30' 13" W	14.07 feet;
Thence	S 11° 24' 42" W	25.74 feet;
Thence	S 36° 46' 00" E	06.60 feet;
Thence	S 11° 02' 05" W	14.75 feet;
Thence	S 30° 15' 24" W	07.39 feet;
Thence	S 55° 10' 06" W	05.55 feet;
Thence	S 76° 41' 02" W	06.69 feet;
Thence	N 79° 12' 08" W	42.67 feet;
Thence	S 70° 48' 00" W	54.46 feet;
Thence	S 38° 03' 33" W	61.99 feet;
Thence	S 36° 46' 16" W	28.83 feet;
Thence	N 79° 52' 17" W	05.89 feet;
Thence	S 80° 45' 42" W	09.25 feet;
Thence	N 72° 26' 14" W	31.83 feet;
Thence	S 68° 18' 53" W	11.09 feet;
Thence	N 84° 58' 24" W	13.48 feet;
Thence	N 75° 46' 13" W	34.92 feet;
Thence	N 68° 41' 52" W	21.14 feet;

Thence	N 82° 56' 52" W	32.88 feet;
Thence	S 85° 52' 02" W	37.13 feet;
Thence	S 79° 33' 31" W	15.92 feet;
Thence	S 71° 59' 03" W	19.82 feet,

more or less, to the easterly sideline of State Highway One, thence within the right of way of State Highway One:

Bearing	S 65° 23' 32" W	23.17 feet;
Thence	S 02° 29' 39" E	15.74 feet;
Thence	S 42° 08' 00" E	20.78 feet,

more or less, to the Easterly sideline of State Highway One, thence continuing on the land of the Grantor:

Bearing	S 42° 13' 49" E	24.54 feet;
Thence	S 69° 05' 52" E	08.37 feet;
Thence	S 82° 53' 24" E	16.13 feet;
Thence	S 69° 24' 13" E	56.11 feet;
Thence	S 51° 24' 26" E	17.32 feet;
Thence	S 30° 06' 46" E	08.29 feet,

more or less, to the Northerly sideline of North Harbor Drive.

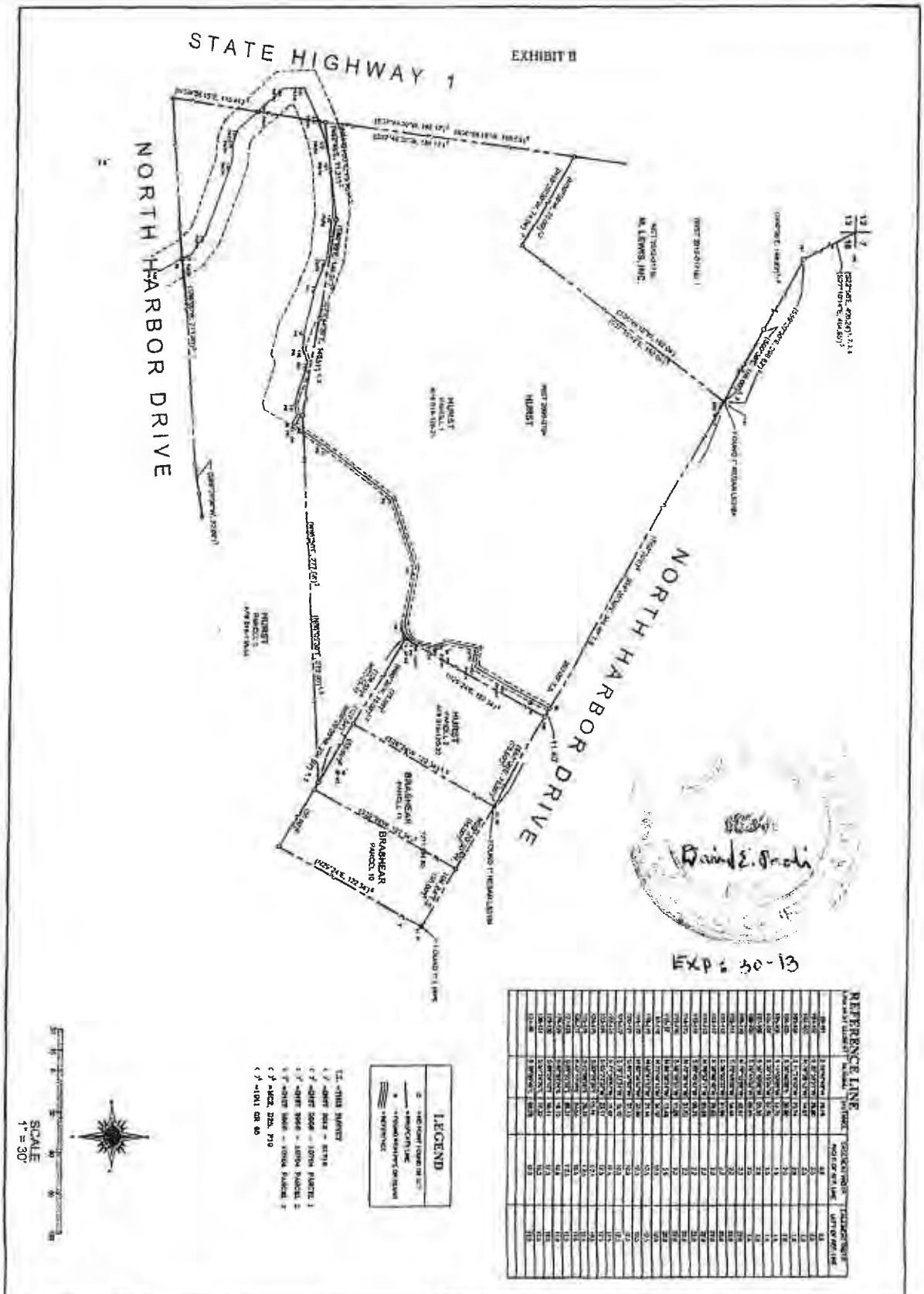
The intent is that the sidelines of the easement be shortened and extended as needed to form continuous easement sidelines parallel to the easement reference line as shown on Exhibit B.

It is understood that a portion of the easement described above extends into the right-of-way of California State Highway 1 and the Grantors can only grant usage for the portion of easement within their ownership.

All bearings used in this description are based upon a survey recorded in Map Case 2, Drawer 25, Page 19, Mendocino County Records.

David E. Parli

Exp 6-30-13



1 OF 1

LOCATION: HARBOR LITE LODGE
120 NORTH HARBOR DRIVE
FORT BRAGG, CALIFORNIA 95437

PROJECT: MAP:
COASTAL CONSERVANCY
PROPOSED TRAIL EASEMENT

FORT BRAGG, CALIFORNIA

David E. Paoli, P.E.
Civil Engineer - R.C.E. 38543

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Nevada

On Nov. 26, 2012 (Date) before me, [illegible] (Here Insert Name and Title of the Officer)

personally appeared J. Erin Hurst (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

LEE FRASER-SHONTZ
Commission # 1885121
Notary Public - California
Nevada County
My Comm. Expires May 2, 2014

Signature _____ (Signature of Notary Public)

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Grant Deed Nevada Property Trust Conveyance

Document Date: _____ Number of Pages: 3

Signer(s) Other Than Named Above: James Hurst, Justin Hurst, Barbara Hurst, Tracy Perryman

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
- ☐ Individual
- ☐ Corporate Officer — Title(s): _____
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: _____
- ☐ Individual
- ☐ Corporate Officer — Title(s): _____
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
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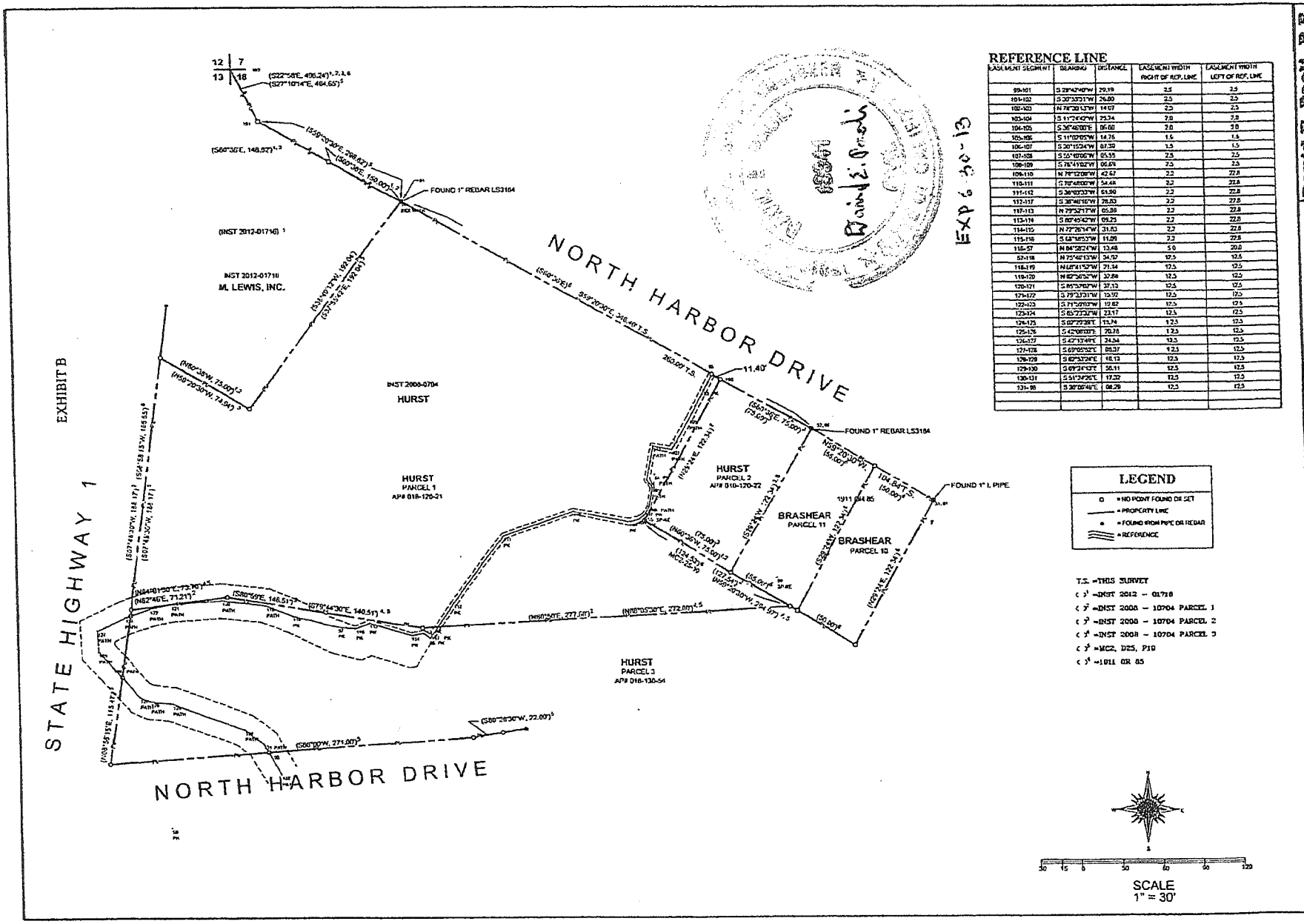

REFERENCE LINE

EASEMENT SEGMENT	BEARING	DISTANCE	EASEMENT WIDTH RIGHT OF REF. LINE	EASEMENT WIDTH LEFT OF REF. LINE
99-101	S 28°42'48"W	29.19	2.5	2.5
101-102	S 30°33'31"W	26.80	2.5	2.5
102-103	N 78°30'13"W	14.07	2.5	2.5
103-104	S 11°24'40"W	75.34	2.5	2.5
104-105	S 36°46'00"E	06.60	2.5	2.5
105-106	S 11°00'05"W	14.76	1.5	1.5
106-107	S 30°15'24"W	67.39	1.5	1.5
107-108	S 55°47'06"W	05.55	2.5	2.5
108-109	S 76°41'02"W	06.65	2.5	2.5
109-110	N 78°12'06"W	42.67	2.5	22.8
110-111	S 70°48'00"W	54.48	2.5	22.8
111-112	S 36°00'33"W	64.90	2.5	22.8
112-137	S 38°46'16"W	78.83	2.5	27.8
137-113	N 79°32'17"W	05.89	2.5	22.8
113-114	S 80°45'42"W	09.25	2.5	22.8
114-115	N 72°26'14"W	31.80	2.5	22.8
115-116	S 68°18'53"W	11.28	2.5	27.8
116-57	N 84°58'24"W	13.48	5.0	20.0
57-118	N 75°40'13"W	34.92	12.5	12.5
118-119	N 68°41'57"W	21.34	12.5	12.5
119-120	N 82°36'52"W	37.89	12.5	12.5
120-121	S 86°37'02"W	37.13	12.5	12.5
121-122	S 79°23'31"W	13.92	12.5	12.5
122-123	S 71°50'03"W	10.82	12.5	12.5
123-124	S 85°23'02"W	23.17	12.5	12.5
124-125	S 60°29'38"E	15.74	12.5	12.5
125-126	S 42°08'09"E	20.78	12.5	12.5
126-127	S 42°13'49"E	24.56	12.5	12.5
127-128	S 69°05'52"E	84.37	12.5	12.5
128-129	S 89°53'09"E	48.13	12.5	12.5
129-130	S 69°24'43"E	36.11	12.5	12.5
130-131	S 51°34'26"E	17.32	12.5	12.5
131-98	S 30°00'46"E	66.28	12.5	12.5

David E. Pack, P.E.
Civil Engineer • R.C.E. 18361
• CIVIL ENGINEERING • WATER RESOURCES STUDIES
• SUBDIVISIONS • FLOOD STUDIES
• LAND SURVEYING
1700 E. Perkins
Ukiah, CA 95482
(707) 462-4681
(707) 462-2251

PROJECT: MAP:
COASTAL CONSERVANCY
PROPOSED TRAIL EASEMENT
FORT BRAGG, CALIFORNIA

DRAWING TITLE:
LOCATION: HARBOR LITE LODGE
120 NORTH HARBOR DRIVE
FORT BRAGG, CALIFORNIA 95437

DATE:	6/22/12
DRAWN BY	AK
REVISIONS:	

1 OF 1

JOB #: 1121

Exp 6-30-13

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N 4000

N 5000

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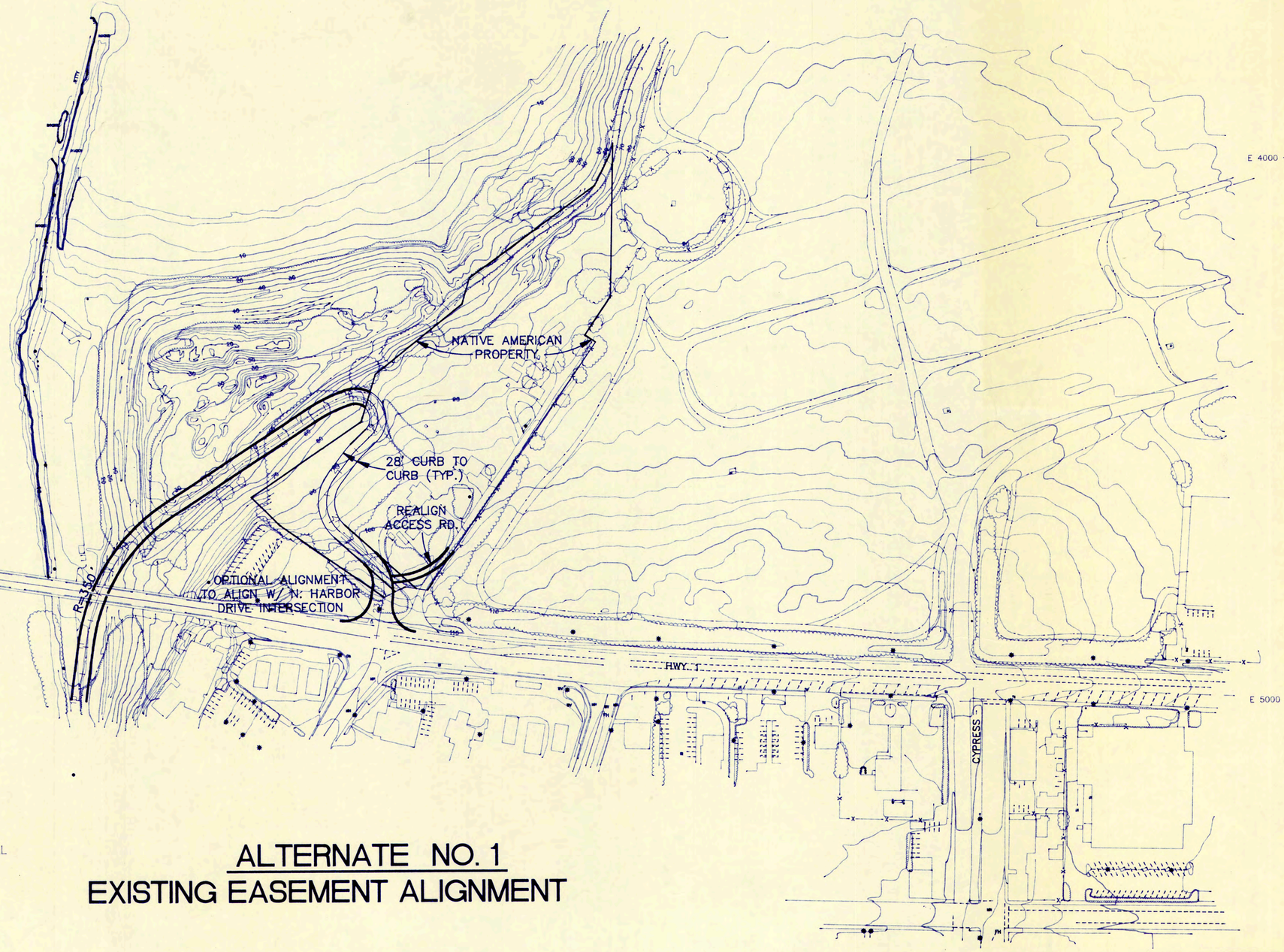
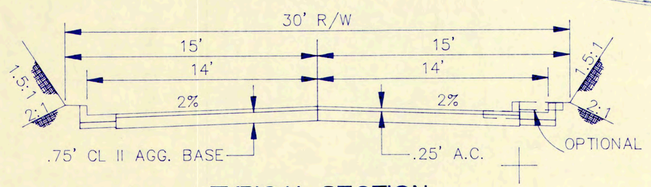
E 5000

SCALE 1"=100'





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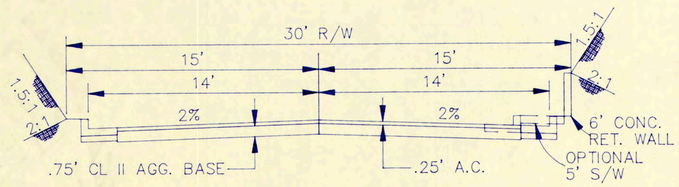
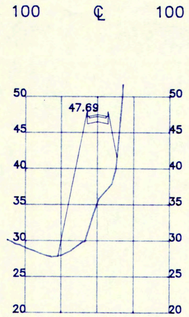


TYPICAL SECTION

STA. 10+00 TO STA. 11+00

ALTERNATE NO. 1
EXISTING EASEMENT ALIGNMENT

WILLDAN ASSOCIATES
ENGINEERS & PLANNERS
141 STONY CIRCLE, SUITE 260
SANTA ROSA, CALIFORNIA 95401
(707) 542-6822



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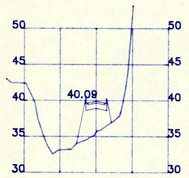

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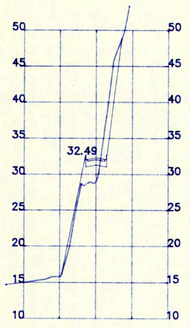

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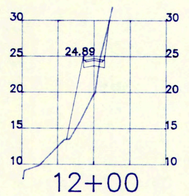

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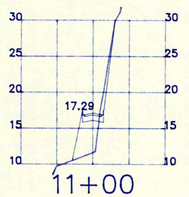

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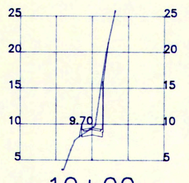

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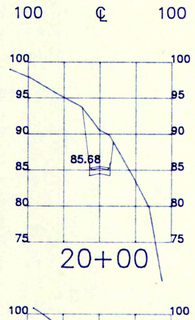

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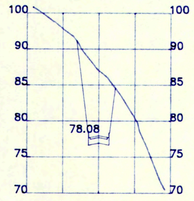

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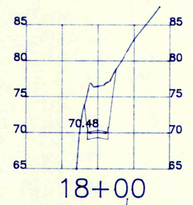

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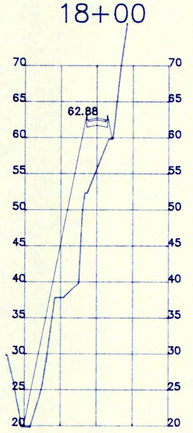

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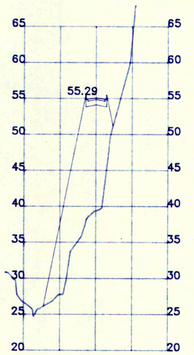

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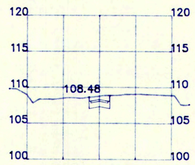

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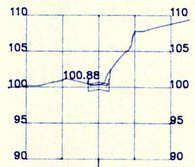

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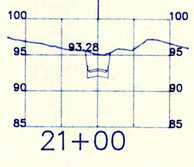

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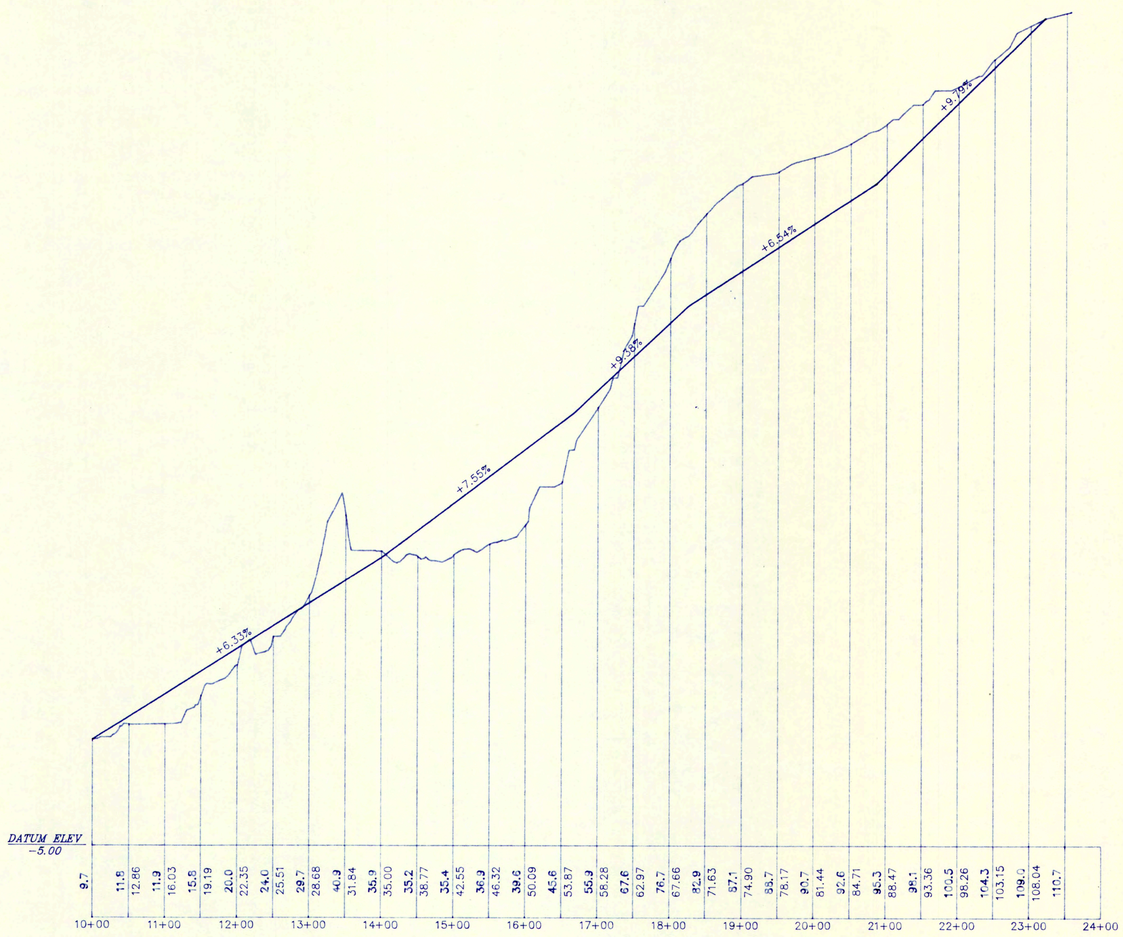
100 ℄ 100

100 ℄ 100



ALT–1

SCALE:
HORIZ. 1"=100'
VERT. 1"=10'

WILLDAN ASSOCIATES
ENGINEERS & PLANNERS
141 STONY CIRCLE, SUITE 260
SANTA ROSA, CALIFORNIA 95401
(707) 542-6822

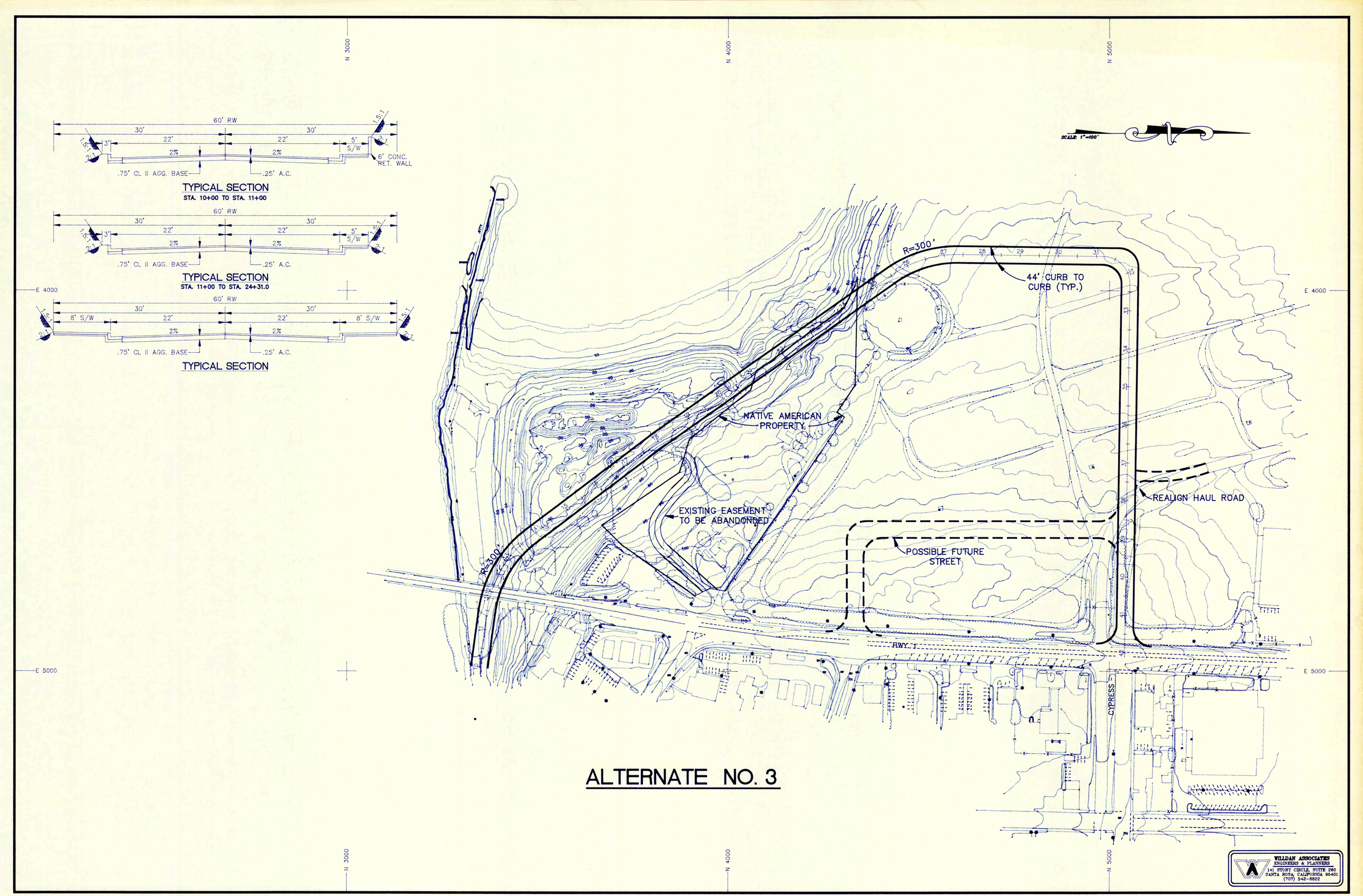
TYPICAL SECTION

STA. 10+00 TO STA. 11+00

TYPICAL SECTION

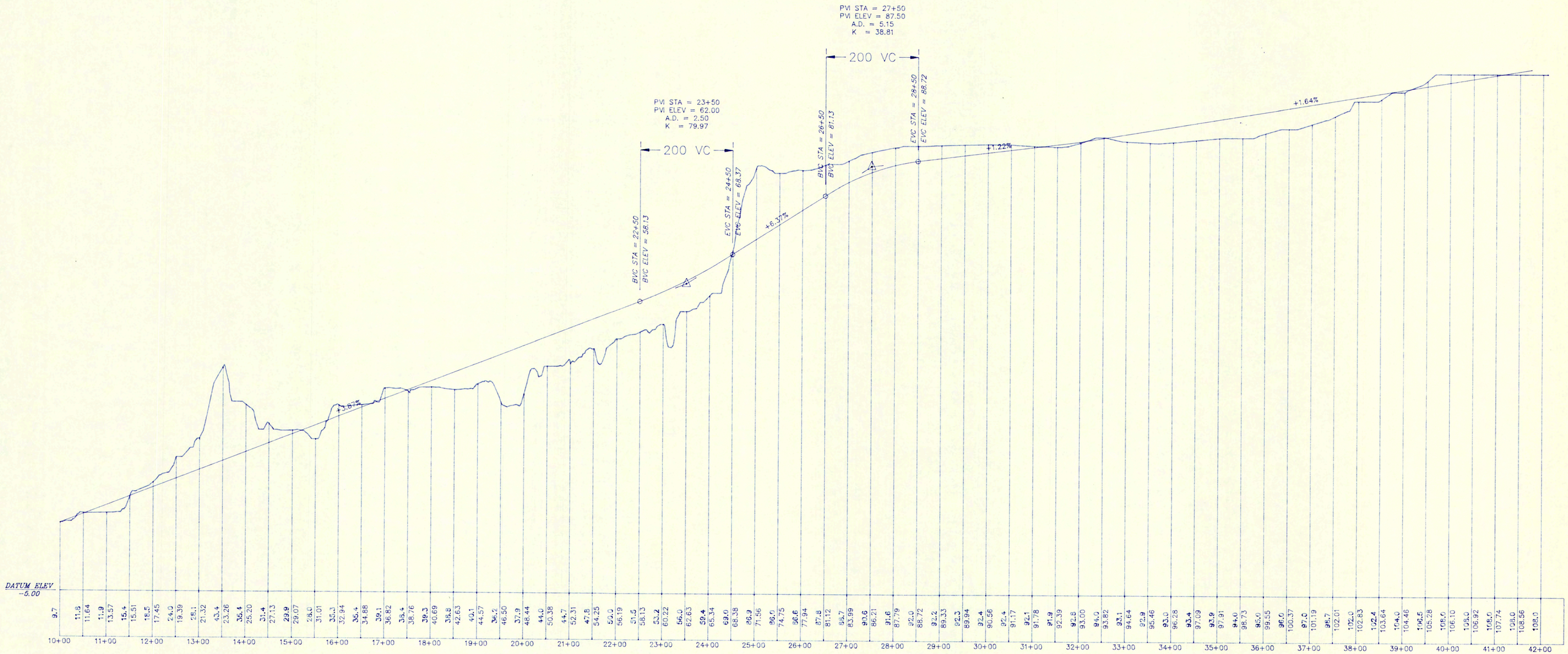
STA. 11+00 TO STA. 24+31.0

TYPICAL SECTION



ALTERNATE NO. 3

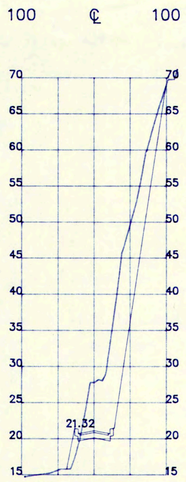
WILLDAN ASSOCIATES
ENGINEERS & PLANNERS
141 STONY CIRCLE, SUITE 260
SANTA ROSA, CALIFORNIA 95401
(707) 542-8822



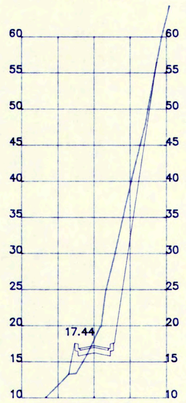
ALT-3

SCALE:
HORIZ. 1"=100'
VERT. 1"=10'

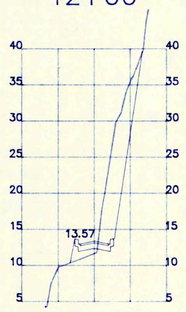
WILLDAN ASSOCIATES
ENGINEERS & PLANNERS
141 STONY CIRCLE, SUITE 260
SANTA ROSA, CALIFORNIA 95401
(707) 542-6822



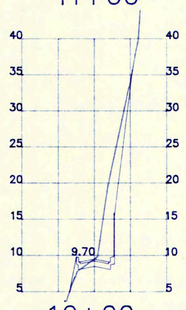
13+00



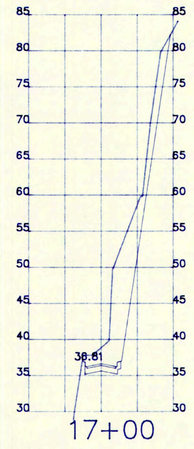
12+00



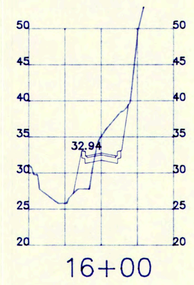
11+00



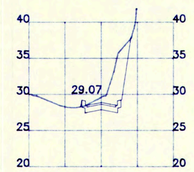
10+00



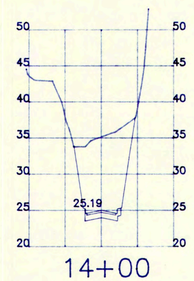
17+00



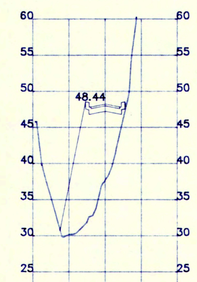
16+00



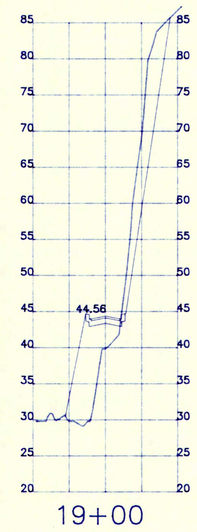
15+00



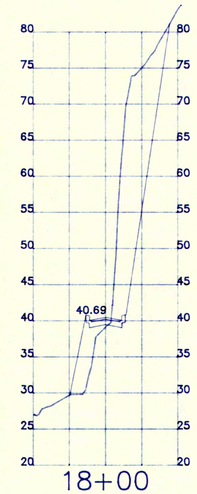
14+00



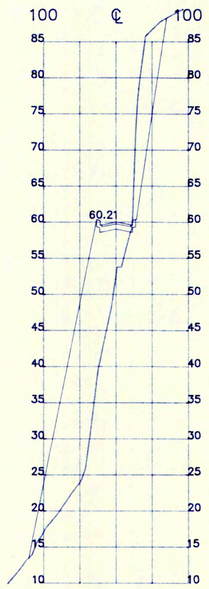
20+00



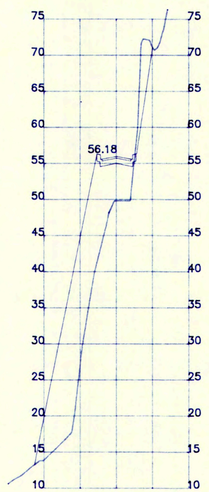
19+00



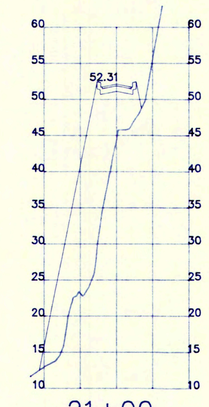
18+00



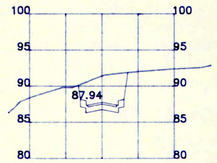
23+00



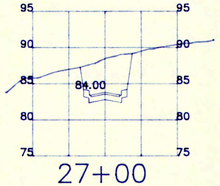
22+00



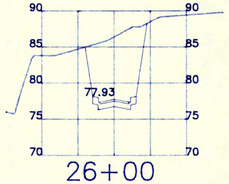
21+00



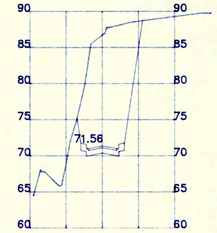
28+00



27+00



26+00



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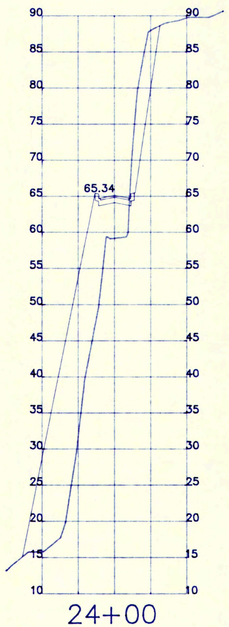

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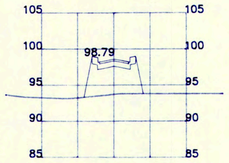
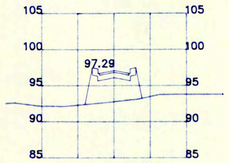
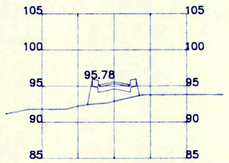


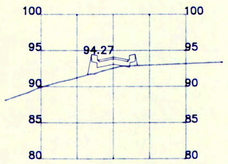
35+00



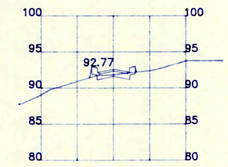
34+00



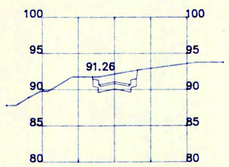
33+00



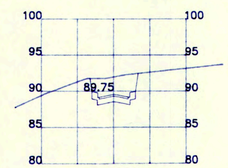
32+00



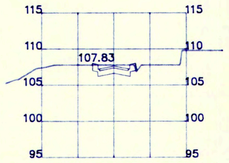
31+00



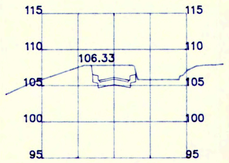
30+00



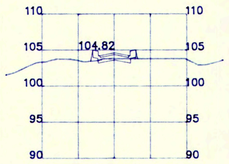
29+00



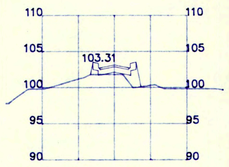
41+00



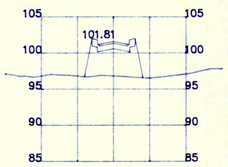
40+00



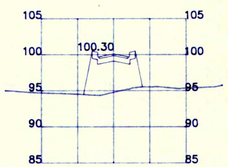
39+00



38+00



37+00



36+00

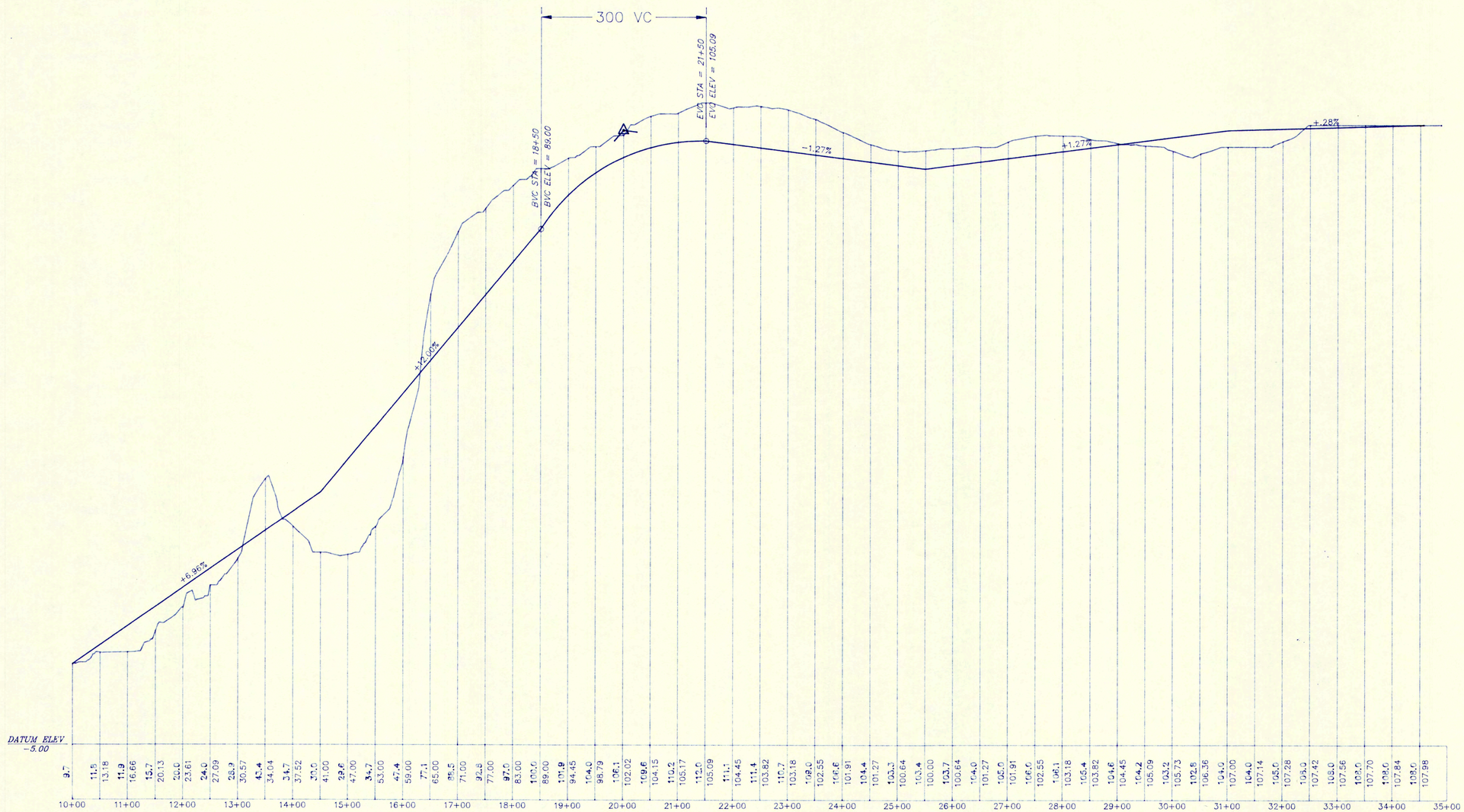
100 ℄ 100

SCALE:
HORIZ. 1"=100'
VERT. 1"=10'

ALT-3

WILLDAN ASSOCIATES
ENGINEERS & PLANNERS
141 STONY CIRCLE, SUITE 260
SANTA ROSA, CALIFORNIA 95401
(707) 542-6822

PVI STA = 20+00
PVI ELEV = 107.00
A.D. = 13.27
K = 22.60



ALT. 4

SCALE:
HORIZ. 1"=100'
VERT. 1"=10'

WILLDAN ASSOCIATES
ENGINEERS & PLANNERS
141 STONY CIRCLE, SUITE 280
SANTA ROSA, CALIFORNIA 95401
(707) 542-6822

N 3000

N 4000

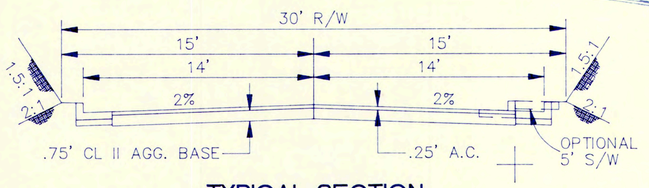
N 5000

SCALE 1"=100'

E 4000

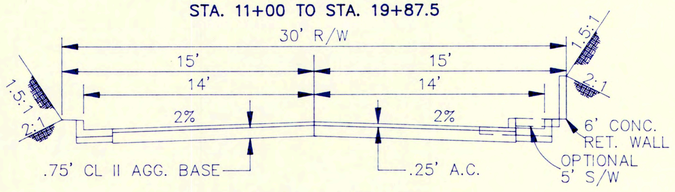
E 5000

TYPICAL SECTION



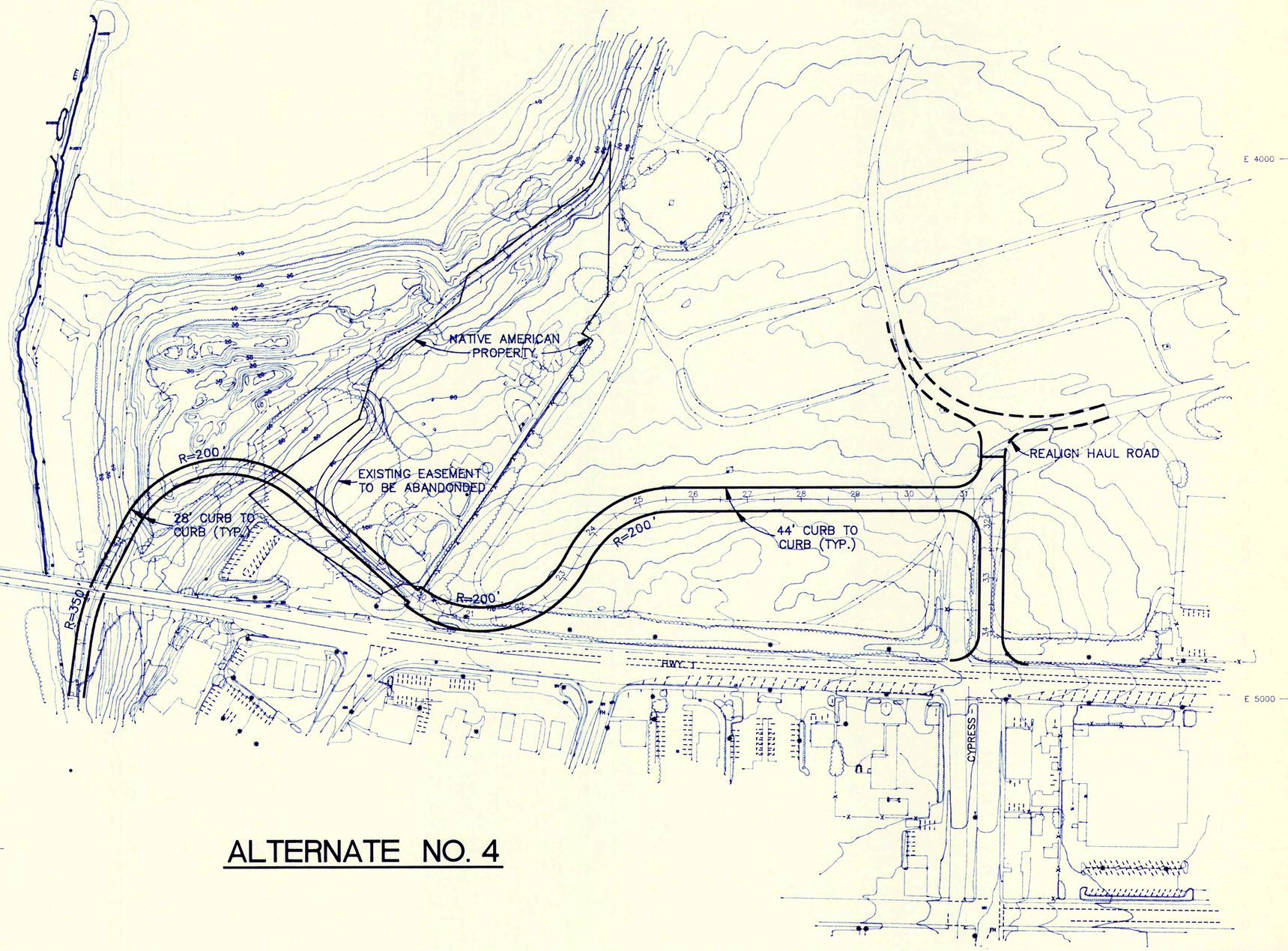
TYPICAL SECTION

STA. 11+00 TO STA. 19+87.5



TYPICAL SECTION

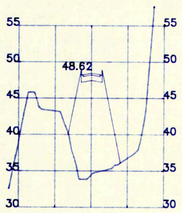
STA. 10+00 TO STA. 11+00



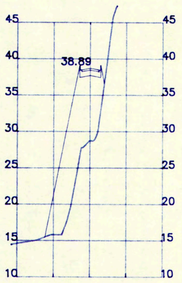
ALTERNATE NO. 4

WILLDAN ASSOCIATES
ENGINEERS & PLANNERS
141 STONY CIRCLE, SUITE 260
SANTA ROSA, CALIFORNIA 95401
(707) 542-8822

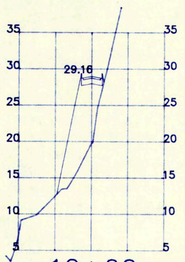
100 ℄ 100



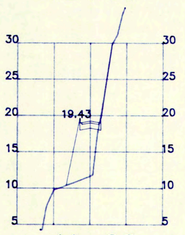
14+00



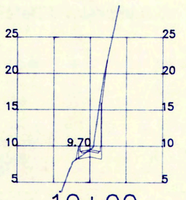
13+00



12+00



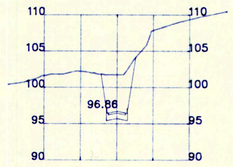
11+00



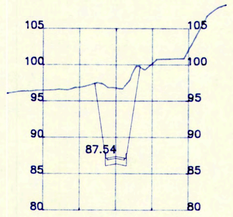
10+00

100 ℄ 100

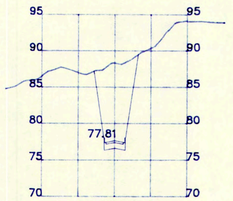
100 ℄ 100



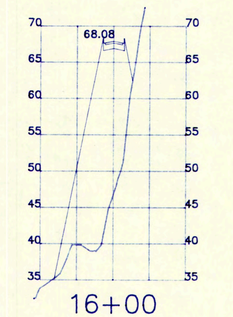
19+00



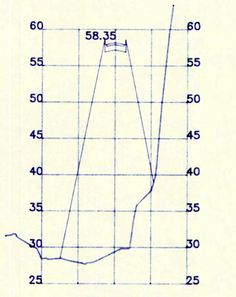
18+00



17+00



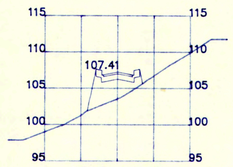
16+00



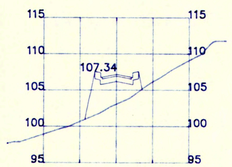
15+00

100 ℄ 100

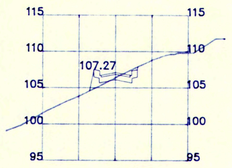
100 ℄ 100



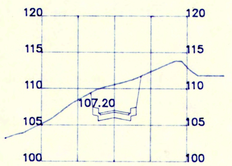
26+00



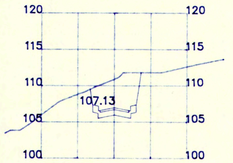
25+00



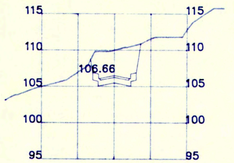
24+00



23+00



22+00



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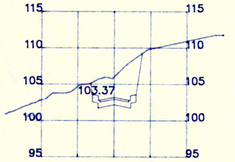

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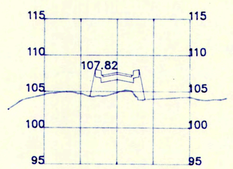

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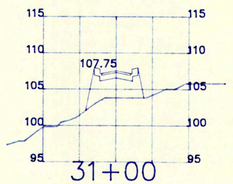

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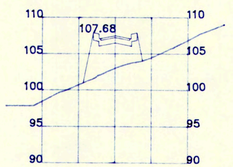

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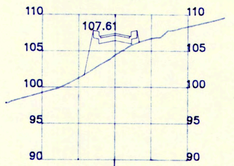

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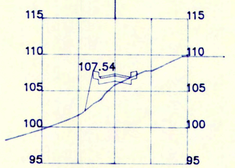

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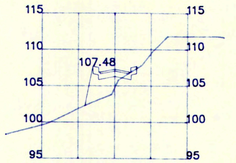

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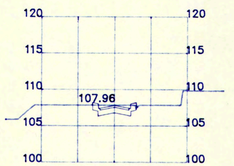

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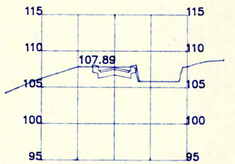

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ALT. 4

SCALE:
HORIZ. 1"=100'
VERT. 1"=10'

WILLDAN ASSOCIATES
ENGINEERS & PLANNERS
141 STONY CIRCLE, SUITE 260
SANTA ROSA, CALIFORNIA 95401
(707) 542-6822

Appendix B. Noyo Harbor Outreach Strategy

NOYO HARBOR 2025 MULTIMODAL CIRCULATION PLAN

AUGUST 2024

OUTREACH STRATEGY

PREPARED BY

GREEN DOT TRANSPORTATION SOLUTIONS

STRATEGY OVERVIEW

A variety of tools will be used to comprise a comprehensive community outreach program for the Noyo Harbor Multimodal Circulation Plan. Methods will include community workshops, pop-ups, individual stakeholder communication, and many methods of comment/ input.

STAKEHOLDER ENGAGEMENT

A stakeholder list was developed by local and regional participants in the planning process and can be flexible as the project moves along. Stakeholder engagement is important to:

- Provide relative local expertise.
- Oversee plan development.
- Monitor milestones.
- Adjust as necessary.

The goal of our outreach strategy is to ensure all voices are heard and the desires of each stakeholder group is included and addressed in the Plan. We will do this in a calculated fashion through focused interviews, community meetings, pop-up presence, and in-person and media presence.

FOCUSED INTERVIEWS

Up to six focused interviews will be conducted with interested stakeholders at key project milestones. These one-on-one and small-group interviews, facilitated in collaboration with the Stakeholder Advisory Committee, will gather detailed feedback on the Plan. This approach will help uncover key concerns, mobility issues, and local priorities and will foster open and direct dialogue throughout the duration of the project.

COMMUNITY ENGAGEMENT EVENTS

A minimum of three public engagement events will be conducted to gather input for the Plan. Where possible, the project team will coordinate outreach opportunities with the Noyo Harbor Blue Economy planning effort to maximize efficiency. The project team will also present the Draft Plan to the MCOG Board at the appropriate time. Outreach events will include interactive exercises to encourage participation. Large graphics and visuals will accompany each event. The following outreach events are proposed.

POP UP AT NOYO HARBOR FESTIVAL SEPTEMBER 2024

Th project team will stage a booth at the Noyo Harbor Festival during the existing conditions analysis and information gathering phase of the project. This will serve as the initial introduction of the Plan to the community and will present an opportunity for the project team to discuss existing conditions, and key concerns with stakeholders and the community. This will facilitate an opportunity to reach consensus on project goals and objectives in addition to envisioning potential recommendations.

Anticipated Meeting Location:

- Noyo Harbor

EXISTING CONDITIONS WORKSHOP OCTOBER 2024

The project team will facilitate a traditional community workshop in October to kick off the project to the public. This will include an initial presentation on current conditions and the project background, followed by an interactive discussion. This meeting will be intended to help generate discussion around issues, opportunities and potential project improvements.

Anticipated Meeting Location:

- Noyo Harbor - Exact Location TBD

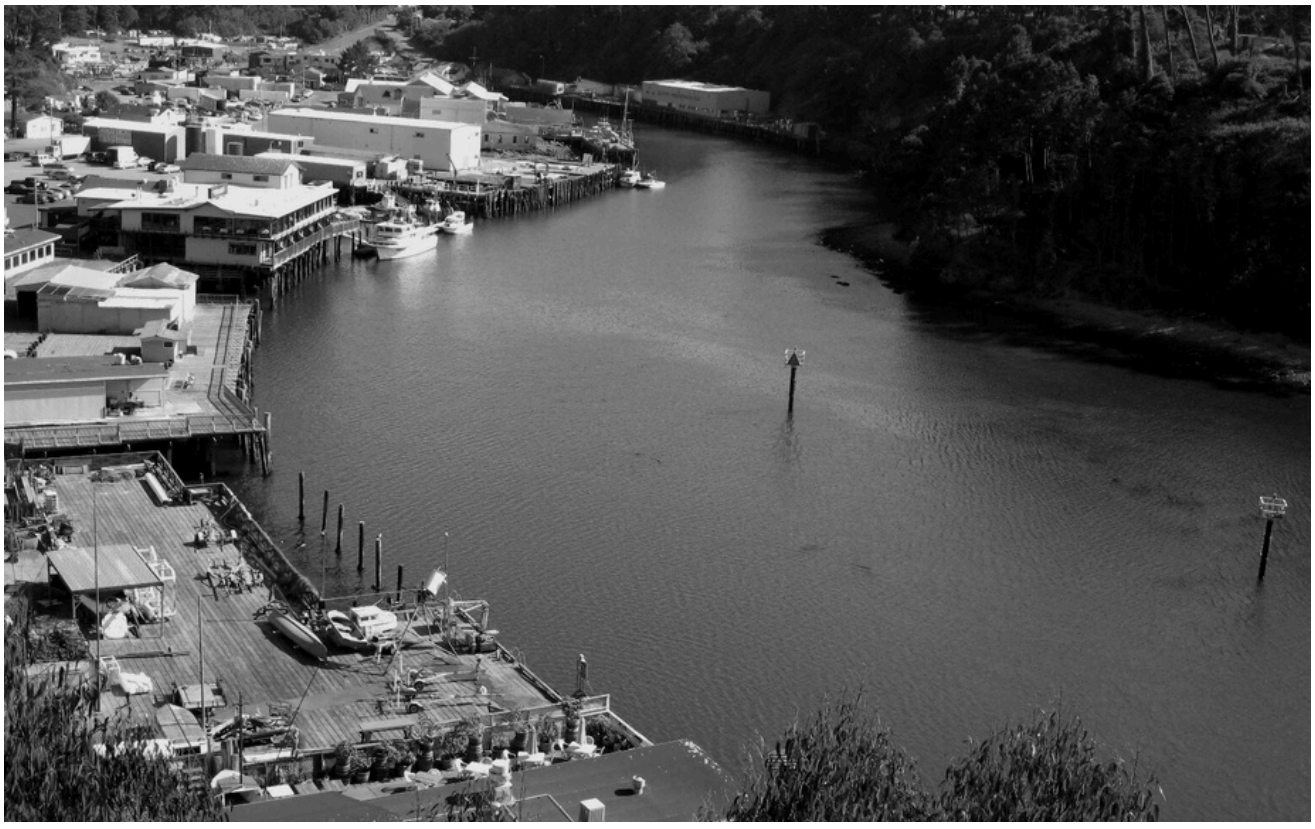
COMMUNITY ENGAGEMENT EVENTS

TWO DAY CHARETTE - SPRING 2025

The charrette will span two days in the spring of 2025 and will bring together residents, key stakeholders and community members for a collaborative, multi faceted workshop. The project team will celebrate the history and significance of Noyo Harbor and will facilitate a collaborative process to envision improvements through various activities, including exhibits, interactive sessions, presentations, and site tours. Hands-on working sessions with attendees will aid the project team in identifying project concepts that address the mobility needs in and around Noyo Harbor. The charrette will feature walking excursions to offer participants a comprehensive view of the area and will help attendees visualize potential improvements.

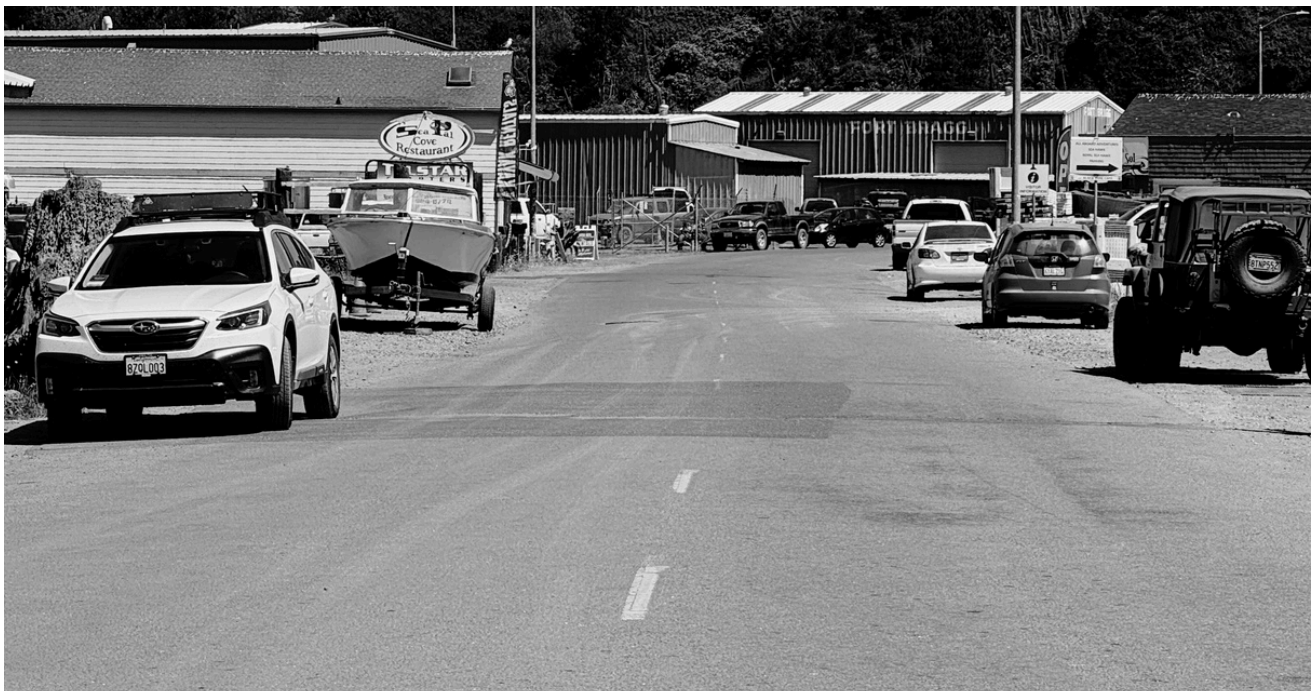
Anticipated Meeting Location:

- Noyo Harbor - Exact Location TBD



PUBLIC ENGAGEMENT QUESTIONNAIRE

To facilitate participation, an online and printed survey will be created via SurveyMonkey. The online survey will be administered with questions that the project team agrees upon to gauge the community's needs and desires. Data will ultimately be presented in the Plan. The survey will be distributed at community meetings and pop-up events in hard-copy format as well as through an online link on the project webpage.



MEDIA STRATEGY & SCHEDULE

WEBSITE

The project team will develop maps, graphics, and language for the City of Fort Bragg website throughout the duration of the Plan development. Deliverables will include, but are not limited to;

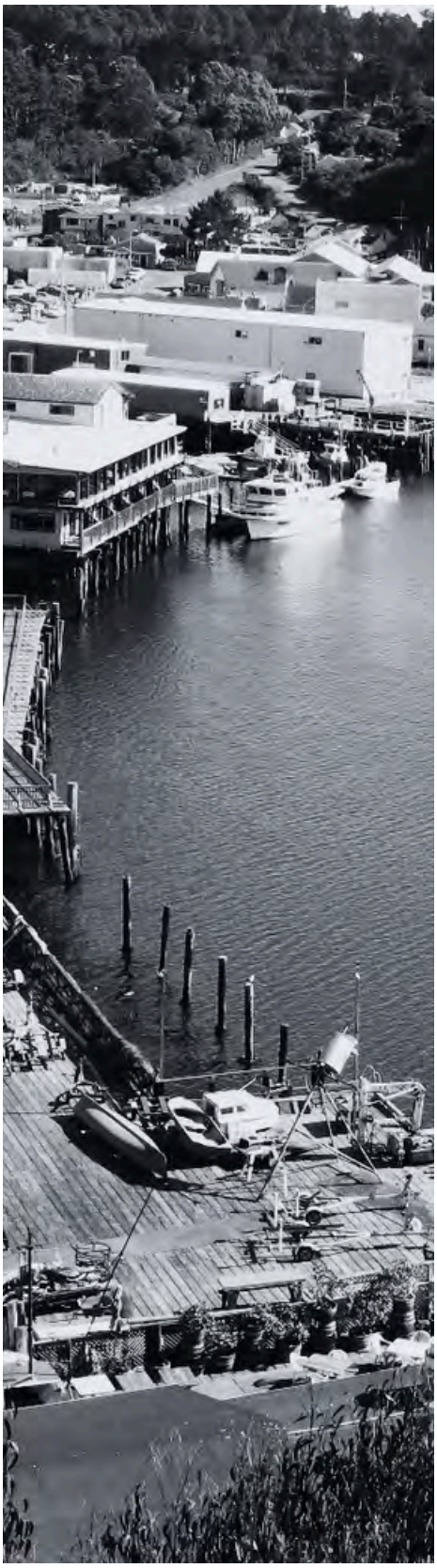
- Project Information and timeline
- Interactive Map
- Community meetings/workshop notice
- Public Meeting agendas
- Link to survey questionnaire
- Link to Draft Plan

STAKEHOLDER EMAILS

The project team will use the stakeholder list to distribute project information at key points throughout the project. Project updates, upcoming community meeting invites, stakeholder meeting invites and other project information will be distributed by email.

MEDIA AND PHYSICAL ADVERTISING

The project team will develop digital and physical flyers and graphics to promote engagement opportunities. A list of local businesses and community gathering spaces will be compiled for physical flyer distribution including local harbor businesses, fish markets, Noyo Fish Co., harbor community areas, DAC organizations, transit buses, and throughout the City of Fort Bragg.



SOCIAL MEDIA

The project team will work with the project partners to generate an online media presence on existing accounts. The primary purpose of this effort is to generate online discussion about the Plan and to notify the public about upcoming community workshops. The consultants will work with MCOG and the project team to compile a list of community groups and their social media accounts for plan information distribution. This will give exposure to the project, therefore encouraging collaboration from stakeholders and the public. Posts will include meeting announcements, project updates, survey access, links to the project website, etc.

DRAFT POSTS

- From boats to walking paths, explore the evolution of transportation in Noyo Harbor. Our 2025 plan is paving the way for a connected community.
- Introducing the Noyo Harbor 2025 Multimodal Circulation Plan, designed to enhance mobility and connectivity. Join us in shaping our community's future!
- Interested in sharing your ideas for walking, transit, and roadway safety enhancements in your community? Join us at an upcoming in-person workshop to delve into the Noyo Harbor 2025 Multimodal Circulation Plan!

Appendix C.
Promotional Material

NOYO HARBOR MULTIMODAL CIRCULATION PLAN

This planning study will position the Harbor for funding opportunities to help internal circulation for cars and trucks in the harbor as well as improve safety and access for pedestrians and bicyclists. The focus of the project is transportation, mobility, and access in Noyo Harbor that improves economic activity, daily business operations, and organizes tourist activity.

SCAN HERE FOR ADDITIONAL INFORMATION

NOYOOCEANCOLLECTIVE.ORG/MULTIMODAL-CIRCULATION-PLAN/

NOYO HARBOR MULTIMODAL CIRCULATION PLAN

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NOYOOCEANCOLLECTIVE.ORG/MULTIMODAL-CIRCULATION-PLAN/

TRANSPORTATION PLANNING BENEFITS EVERYONE

BENEFITS OF INVESTING IN TRANSPORTATION INFRASTRUCTURE

SAFETY

Can decrease traffic injuries, collisions, and fatalities by identifying transportation issues.

ACCESSIBILITY

Can increase harbor access to enjoy the amenities of the area.

SUPPORTS LOCALS

Can increase access to local businesses, supporting the economy.

PROMOTE HEALTHY HABITS

Can increase physical activity while reducing health issues through active transportation.

HOW DO YOU MOVE?

Let us know what transportation improvements you would like to see in Noyo Harbor!

SCAN HERE
to take our survey

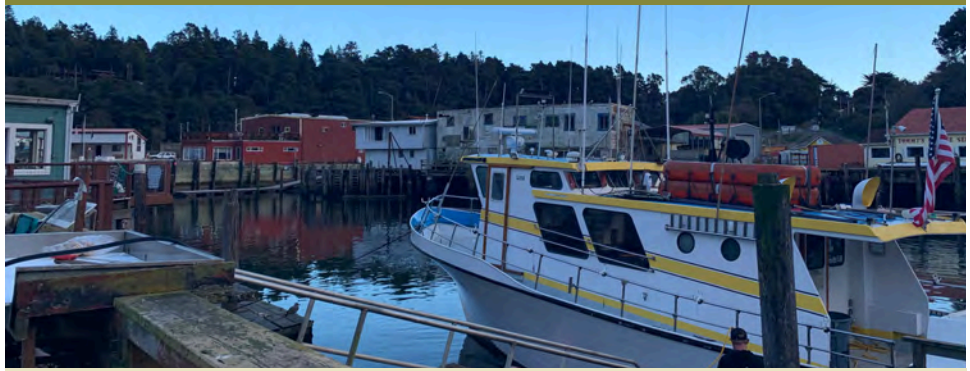
https://www.surveymonkey.com/r/NoyoHarbor

*Español disponible en el sitio web.

QUESTIONS? CONTACT US!

Jeff Schwein
jeff@greendottransportation.com

TRANSPORTATION PLANNING BENEFITS EVERYONE



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QUESTIONS? CONTACT US!

Jeff Schwein
jeff@greendottransportation.com

NOYO HARBOR MULTIMODAL CIRCULATION PLAN: EXISTING CONDITIONS WORKSHOP

OPEN HOUSE
Monday, October 21st from 9 AM - 3 PM

Located at the Noyo Fish Company @ 32440 N Harbor Dr, Fort Bragg, CA

Walking tours at 10 AM & 2 PM

SCAN HERE FOR ADDITIONAL INFORMATION

NOYOOCEANCOLLECTIVE.ORG/MULTIMODAL-CIRCULATION-PLAN/

NOYOHARBOR MULTIMODAL CIRCULATION PLAN: EXISTING CONDITIONS WORKSHOP

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*Español disponible en el sitio web.

QUESTIONS? CONTACT US!

Jeff Schwein
jeff@greendottransportation.com

PLAN DE CIRCULACIÓN MULTIMODAL DEL PUERTO DE NOYO:TALLER DECONDICIONES EXISTENTES

JORNADA DE PUERTAS ABIERTAS
Lunes, 21 de Octubre de
9 A.M. A 3 P.M.

Ubicación en Noyo Fish Company @
32440 N Harbor Dr, Fort Bragg, CA

¡Tours presenciales a las 10 AM y 2 PM!

ESCANEA AQUÍ PARA OBTENER INFORMACIÓN ADICIONAL

NOYOOCEANCOLLECTIVE.ORG/MULTIMODAL-CIRCULATION-PLAN/

LA PLANIFICACIÓN DEL TRANSPORTE NOS BENEFICIA A TODOS

BENEFICIOS DE INVERTIR EN INFRAESTRUCTURA DE TRANSPORTE

SEGURIDAD

Puede disminuir las lesiones, colisiones y accidentes mortalesen la carretera al identificarproblemas de transporte

APOYO LOCAL

Puede mejorarel acceso a negocios locales, apoyando la economía

ACCESIBILIDAD

Puede mejorarel acceso al puerto para disfrutar de las comodidades de la zona

PROMOVER HÁBITOS SALUDABLES

Puede aumentarla actividad física y reducirproblemas de salud a través del transporte activo

¿CÓMO TE MUEVES?

¡Dínos qué mejoras en el transporte te gustaría ver en el Puerto de Noyo!

ESCANEA AQUÍ para participar en nuestra encuesta
https://www.surveymonkey.com/r/NoyoHarbor

***Español disponible en el sitio web.**

¿ PREGUNTAS? ¡CONTÁCTANOS!

Jeff Schwein
jeff@greendottransportation.com

PLAN DE CIRCULACIÓN MULTIMODAL DEL PUERTO DE NOYO

Este proyecto estudiará el transporte multimodal (peatonal, en bicicleta y transporte público) enel Puerto de Noyo, con el objetivo de mejorar la seguridad y reducir los viajes en vehículo.

¡DÍNOS QUÉ MEJORAS QUISIERAS VER!

PUERTAS ABIERTAS

21 DE OCTUBRE
9AM-3PM

Noyo Fish Company
32440 N Harbor Dr,
Fort Bragg, CA 95437

ESCANEA AQUÍ PARA MÁS INFO

¡TOURS PRESENCIALES A LAS 10 AM Y 2 PM!

Página web
https://bit.ly/4eue6nc

Encuesta
https://bit.ly/3TU6nXB

***Español disponible en el sitio web.**

Contact Information:

Project Manager

Kelly Bond

K.Bond@fehrandpeers.com

FOR IMMEDIATE RELEASE

Join Us at the Noyo Harbor Multimodal Circulation Plan Charrette – Contribute to a Collaborative Vision for Mobility, Safety, and Accessibility

The Project Team for the Noyo Harbor Multimodal Circulation Plan invites community members, stakeholders, and local leaders to participate in a two-day charrette; an interactive and collaborative meeting focused on shaping the future of mobility, safety, and accessibility in Noyo Harbor.

The two-day, open-house style event will be held at the ***Noyo Fish Company (32440 N Harbor Dr, Fort Bragg, CA)*** and is scheduled for:

- ***Monday, April 14, 2025*** | 11:00 AM - 6:30 PM
- ***Tuesday, April 15, 2025*** | 9:00 AM - 7:30 PM

Residents are welcome to visit anytime during open-house hours to learn about the project and provide feedback on transportation issues in Noyo Harbor and ideas for the future.

Community engagement is vital to this initiative, and we encourage everyone to attend, share insights, and contribute to the planning process.

For more information and to take our survey, visit:
http://www.noyooceancollective.org/multimodal-circulation-plan/

Información del contacto:

Gerente de proyecto

Kelly Bond

K.Bond@fehrandpeers.com

PARA PUBLICACIÓN INMEDIATA

Únase a nosotros en la Charrette del Plan de Circulación Multimodal del Puerto de Noyo: contribuya a una visión colaborativa para la movilidad, la seguridad y la accesibilidad.

El equipo del proyecto del Plan de Circulación Multimodal del Puerto de Noyo invita a los miembros de la comunidad, las partes interesadas y los líderes locales a participar en una charrette de dos días; una reunión interactiva y colaborativa. centrado en dar forma al futuro de la movilidad, la seguridad y la accesibilidad en Noyo Harbor.

El evento de dos días, estilo jornada de puertas abiertas, se llevará a cabo en ***Noyo Fish Company (32440 N Harbor Dr, Fort Bragg, CA)*** y está programado para:

- ***Lunes, 14 de abril de 2025*** | 11:00 a. m. - 6:30 p. m.
- ***Martes, 15 de abril de 2025*** | 9:00 a. m. - 7:30 p. m.

Los residentes pueden visitarnos en cualquier momento durante el horario de puertas abiertas para conocer el proyecto y brindar comentarios sobre problemas de transporte en Noyo Harbor e ideas para el futuro.

La participación de la comunidad es vital para esta iniciativa y alentamos a todos a asistir, compartir ideas y contribuir al proceso de planificación.

Para obtener más información y realizar nuestra encuesta, visite: http://www.noyooceancollective.org/multimodal-circulation-plan/

NOYO HARBOR MULTIMODAL CIRCULATION PLAN

Mobility-Safety-Accessibility

Join Us!

Two-Day Charrette

WHAT IS A CHARRETTE?

A CHARRETTE IS A COLLABORATIVE SET OF MEETINGS WHERE PARTICIPANTS COME TOGETHER TO ***DISCUSS IDEAS AND DEVELOP SOLUTIONS FOR A PROJECT.***

SCAN FOR PROJECT WEBSITE & SURVEY:

www.noyooceancollective.org

WHEN:

MONDAY, APRIL 14TH
11:00 AM - 6:30 PM
TUESDAY, APRIL 15TH
9:00 AM - 7:30 PM

WHERE:

Noyo Fish Company
32440 N Harbor Dr
Fort Bragg, CA 945437

MENDOCINO COUNTY 1850

Caltrans

FORT BRAGG, CA NOYO HARBOR 39°25'40" N 123°48'20" W

MCOG

CITY OF FORT BRAGG CALIFORNIA

ENCUESTA DEL PLAN DE CIRCULACIÓN MULTIMODAL DEL PUERTO DE NOYO

movilidad-seguridad-accesibilidad

Únete a nosotros!

Unas Talleres de dos días!

¿QUÉ ES UN TALLER?

UN TALLER ES UN GRUPO DE REUNIONES EN QUE PARTICIPANTES VIENEN JUNTOS ***PARA CONVERSAR SOBRE IDEAS Y SOLICIONES POR UN PROYECTO.***

ESCANEAR AQUÍ PARA EL SITIO WEB:

www.noyooceancollective.org

CUANDO:

El lunes, el 14 de abril
11:00 AM - 6:30 PM y
El martes, 15 de abril
9:00 AM - 7:30 PM

UBICACIÓN:

Noyo Fish Company
32440 N Harbor Dr
Fort Bragg, CA 945437

Mendocino County 1850 · Caltrans · Fort Bragg, CA Noyo Harbor 39°25'40" N 123°48'20" W · MCOG · City of Fort Bragg California

Appendix D. Survey Data and Analysis

Survey Data and Analysis

The Noyo Harbor survey responses (n=164) demonstrate strong community support for pedestrian and bicycle infrastructure improvements, with significant concerns about safety and accessibility. Notably, qualitative and quantitative feedback reinforce the need for multimodal improvements in the harbor area.

Quantitative Analysis

The quantitative data from the Noyo Harbor survey provides a robust statistical foundation for understanding current transportation patterns, user demographics, and community priorities. With 164 responses representing harbor users, the data reveals clear patterns in travel behavior, infrastructure needs, and community priorities. The data from a few key questions are discussed further in this analysis.

Current Transportation Mode Share (Question 3)

With respondents able to choose multiple frequented modes of transportation to the harbor, nearly all (94%) of visitors selected that they often travel by personal vehicle, suggesting a transportation system that has evolved to primarily serve one mode effectively. Walking (16%) and cycling (6%) remain limited, hindered by unsafe or inadequate infrastructure. The near absence of public transit users (0.6%) reflects the limitations of the regional transit systems in serving destinations such as the Harbor. These figures underscore the current in-accessibility of the harbor by alternative transportation modes.

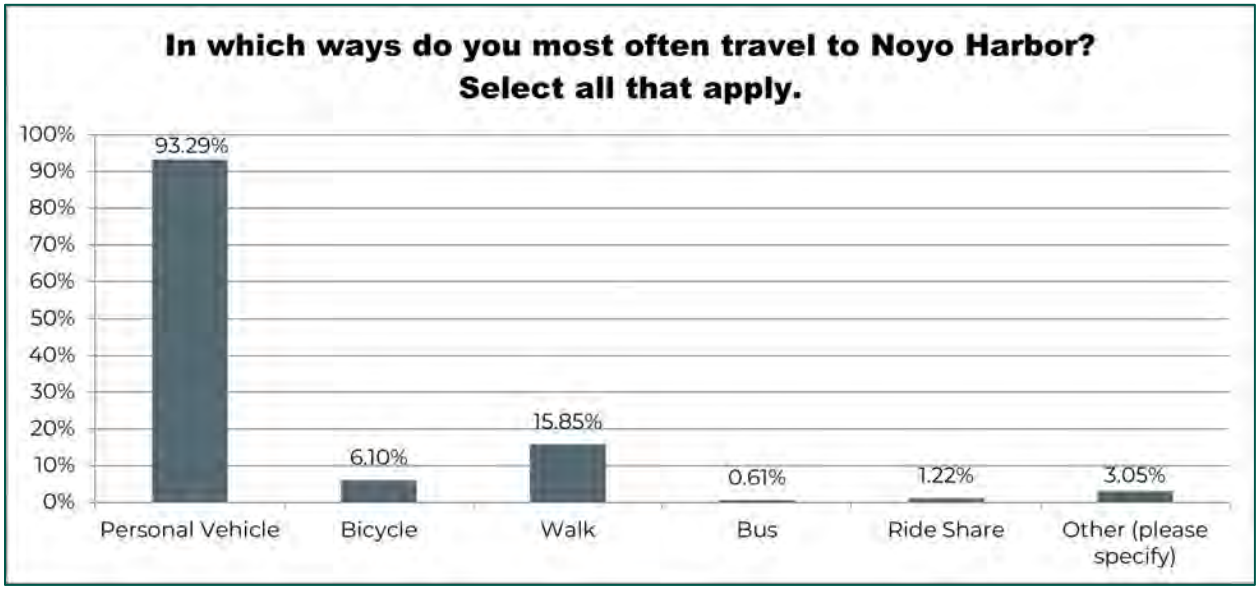


Figure D-1: Survey Question 3

Transportation Challenges (Question 6)

The transportation challenges noted by respondents portrays an infrastructure system that lacks comprehensive planning for multiple user types.

The lack of sidewalks and walking trails are cited by 64% of respondents while 34% of respondents noted bicycle path deficiency. In a location where nearly a quarter of users visit daily, the absence of safe pedestrian and bicycle infrastructure forces people into dangerous compromises such as walking or cycling in roadways. Additionally, nearly 60% of respondents cite traffic and congestion as an issue, highlighting a system operating beyond its intended capacity.

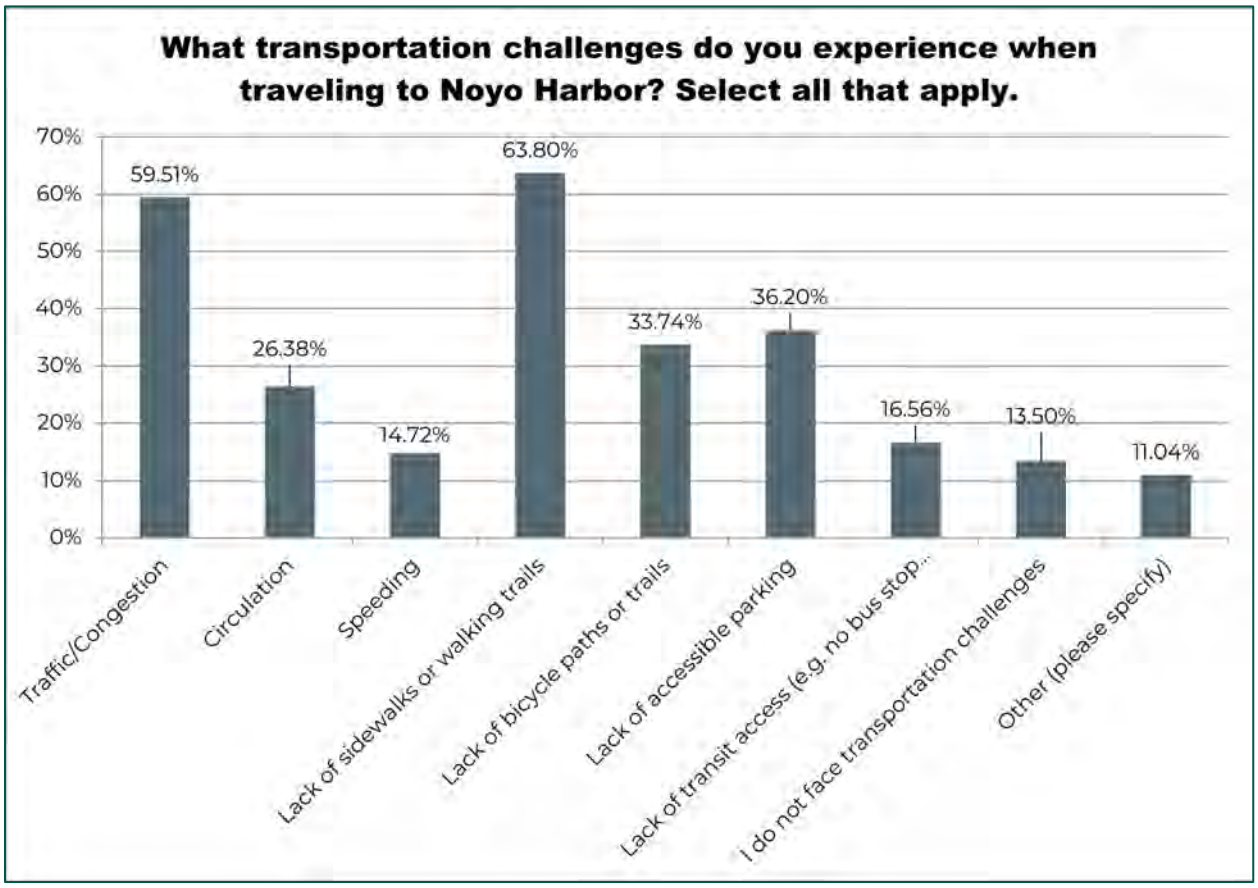


Figure D-2: Survey Question 6

Priority Rankings Analysis (Question 13)

The priority rankings highlight clear community values and expectations. Strong support for walking and bicycling improvements points to both existing gaps and the potential for safer, more accessible travel options within the Harbor. The moderate priority placed on parking suggests a willingness to balance vehicle access with more sustainable transportation choices. Many respondents also appear to recognize that improving overall circulation may be a more effective way to address transportation challenges.

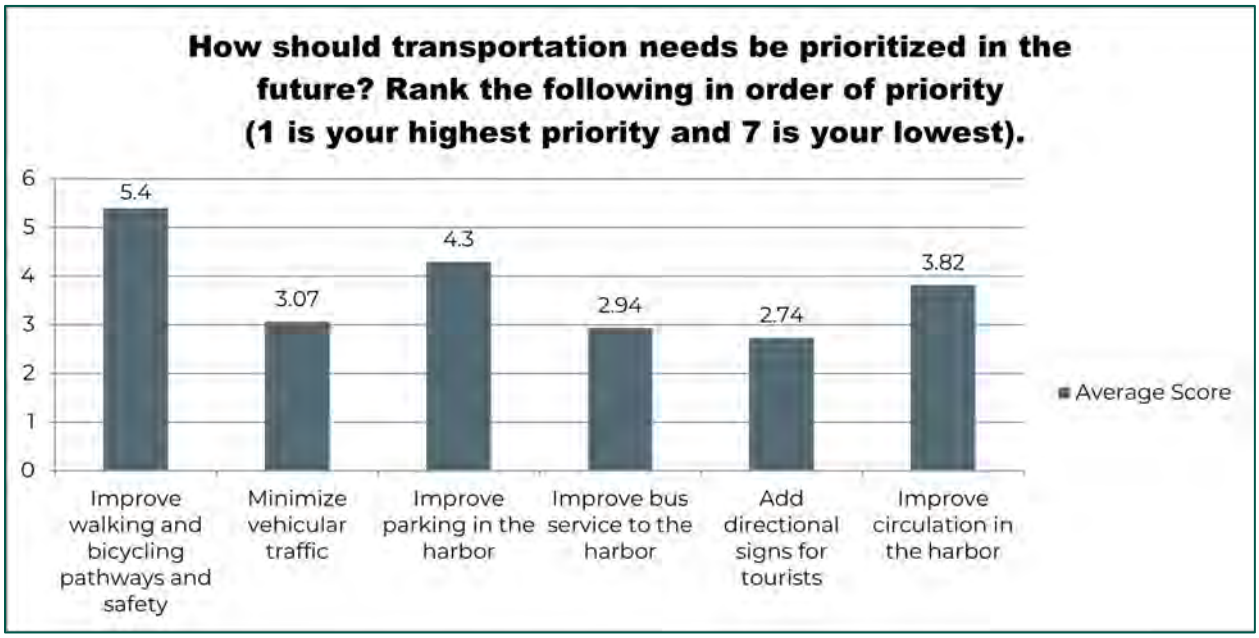


Figure D-3: Survey Question 13

Desired Transportation Improvements (Question 14)

The improvement preferences complement the responses from the priority rankings. There is overwhelming support for improved sidewalks and pathways (76%) and for bicycle infrastructure (47%) suggesting openness to solutions that might reduce car dependency while improving overall accessibility. The moderate interest in expanded parking (49%) indicates there is still a perceived need to accommodate vehicle access, especially for visitors or those traveling from longer distances. However, the stronger support for active transportation improvements reflects a community vision that prioritizes walkability and sustainable mobility within the harbor area.

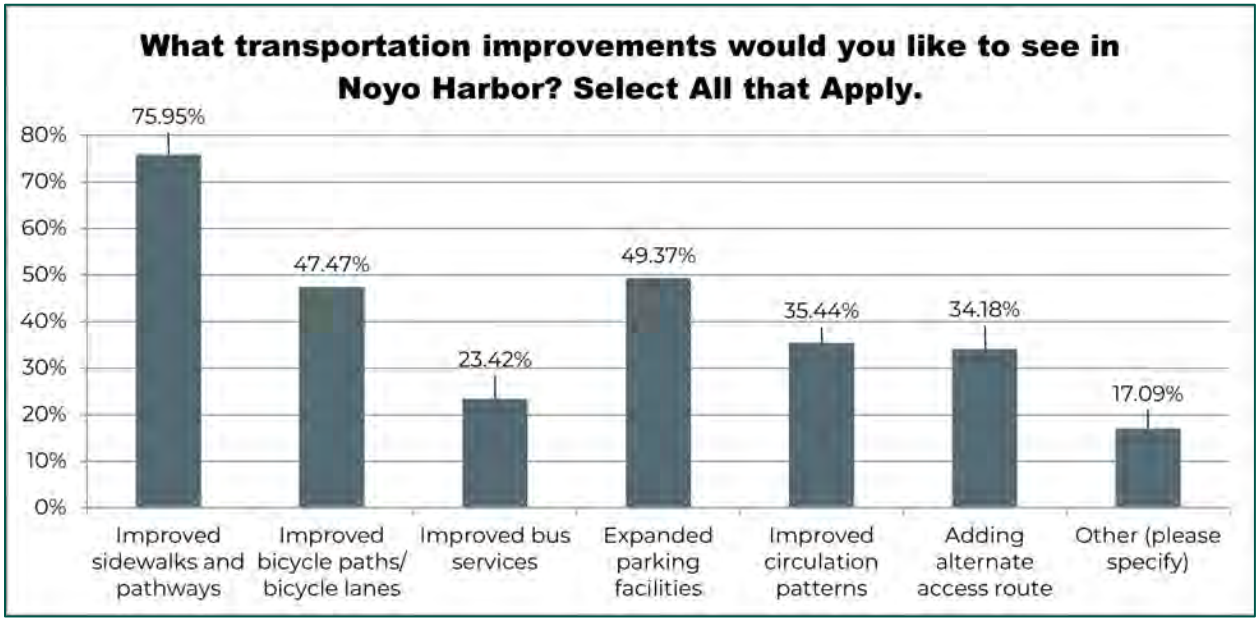


Figure D-4: Survey Question 14

Qualitative Analysis

The open-ended survey responses and written comments provide qualitative insights that complement the quantitative data. These qualitative themes emerge from 71 detailed responses to the final open-ended question, plus numerous comments throughout the survey. Common language patterns, repeated phrases, and emotional intensity in responses highlight recurring concerns, shared frustrations, and community values.

Infrastructure Safety Concerns

- Pedestrian Safety
    - Multiple references to "no sidewalks" with respondents asking, "what sidewalks?"
    - Dangerous pedestrian conditions: "pedestrians walk in the middle of the road"
    - Deteriorating staircase access: "stairs are dilapidated and some missing altogether"
    - Poison oak overgrowth blocking pedestrian routes
- Bicycle Safety Barriers
    - North Harbor Drive described as "too narrow to feel safe"
    - Lack of bike parking facilities
    - Steep terrain challenges: "big hill to get out"
    - Vehicle-bicycle conflicts due to unmarked bike access

Parking and Circulation Issues

- Parking Constraints
    - Tourist season congestion: "parking is a huge issue during tourist season"
    - Need for "expanded parking options with highly visible signage"
    - Gravel parking areas described as having "big holes"
- Traffic Flow Problems
    - Narrow road conditions requiring vehicles to cooperate
    - Need for improved circulation patterns
    - Calls for one-way traffic solutions (though some opposition exists)

Emergency Access and Evacuation

- Repeated calls for "second way to exit the harbor"
- Tsunami evacuation concerns (average concern level: 36/100 scale)
- Emergency response access limitations
- "One way in – one way out" creates vulnerability

Appendix E. Traffic Counts

Appendix E Narrative

Appendix E presents Existing (2024), Calibrated (2024), and Forecast (2048) turning movement counts at Highway 1 and North Harbor Drive. Each item included in this Appendix is explained below.

- Existing Turning Movement Counts
    - Includes the turning movement counts collected on October 22nd, 2024 from 6:15 – 9:00 AM and 3:00 – 5:00 PM.
    - Also includes calibrated PM Peak Volumes using Streetlight data.
- Noyo Harbor Roundabout Volumes Presentation
    - A presentation given on February 18th, 2025, explaining the methodology used to calibrate the PM volumes and calculate the future year (2044) volumes.
- 2024 Growth Factors Memorandum
    - Caltrans Memorandum outlining District 1's Growth Factor Approach to forecasting on Caltrans facilities.
- Forecasted Turning Movement Counts (2044)
    - Turning movement volumes used to evaluate intersection operations in 2044, calculated using District 1's Growth Factor Approach.
- Caltrans 2022 Average Annual Daily Traffic (AADT)
    - Traffic volume context on Highway 1 in Mendocino County.

Turning Movement Counts
Highway 1 / North Harbor Drive
Date 10/22/2024
Time of Day 6:15 - 9:00 AM / 3:00 - 5:00 PM
Collected by Fehr & Peers

	Northbound			Westbound			Southbound			Eastbound			Total	Trucks	Bikes		Peds			
Starting at	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	Vehicles	(all approaches)	NB Thru	SB Thru	North Leg	East Leg	South Leg	West Leg
15-MINUTE COUNT																				
6:15 AM	1	40	1	2	0	1	2	45	0	0	0	0	92	0	0	0	0	0	0	0
6:30 AM	0	38	1	6	0	1	3	45	0	0	0	1	95	0	0	0	0	0	0	0
6:45 AM	0	78	3	4	0	4	6	84	0	0	0	1	180	6	0	0	0	1	0	0
7:00 AM	0	61	4	2	0	5	2	87	2	0	0	0	163	11	2	0	0	0	0	1
7:15 AM	0	92	3	4	0	3	2	93	0	1	0	0	198	10	2	0	0	2	0	0
7:30 AM	0	161	5	2	0	3	1	88	2	0	0	0	262	7	0	0	0	1	0	0
7:45 AM	0	275	1	5	0	4	6	153	0	1	0	2	447	11	0	2	0	1	0	0
8:00 AM	1	204	5	10	0	4	3	204	0	1	0	0	432	7	1	1	2	2	0	0
8:15 AM	0	188	13	5	0	4	5	187	1	0	0	1	404	15	1	0	0	0	0	0
8:30 AM	1	212	6	6	0	4	3	175	0	0	0	1	408	12	0	1	0	3	1	3
8:45 AM	0	183	3	5	0	6	4	208	0	0	0	0	409	16	1	1	0	1	0	2
Peak hour (7:45 to 8:45 AM)	2	879	25	26	0	16	17	719	1	2	0	4	1691	45	2	4	2	6	1	3
15-MINUTE COUNT																				
3:00 PM	2	249	6	3	0	14	11	234	0	1	0	1	521	14	2	4	4	1	1	0
3:15 PM	1	224	19	6	0	10	7	263	0	1	0	2	533	10	2	2	0	1	0	0
3:30 PM	0	197	15	5	0	13	11	273	0	0	0	0	514	14	1	1	0	2	0	2
3:45 PM	1	259	10	8	0	9	7	230	0	1	0	0	525	17	1	2	0	0	0	0
4:00 PM	1	247	10	9	0	13	7	262	2	0	0	0	551	17	3	4	0	1	0	0
4:15 PM	2	242	16	4	0	8	3	224	0	0	0	2	501	9	4	2	1	0	0	3
4:30 PM	0	191	12	10	0	17	10	248	3	1	0	2	494	5	3	2	0	2	0	0
4:45 PM	0	236	16	7	0	11	9	234	2	1	0	1	517	10	6	0	0	2	0	0
Peak hour (3:15 to 4:15 PM)	3	927	54	28	0	45	32	1028	2	2	0	2	2123	58	7	9	0	4	0	2

Calibrated 2024 PM Peak Volumes Using Streetlight

	Northbound			Southbound			Eastbound			Westbound			Total	Trucks	Bikes		Peds			
Starting at	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	Vehicles	(all approaches)	NB Thru	SB Thru	North Leg	East Leg	South Leg	West Leg
3:00 PM	2.4	295.2	7.1	13.0	277.5	0.0	1.2	0.0	1.2	3.6	0.0	16.6	617.8	11.85701831	2.371404	2.371404	0	1.185702	0	0
3:15 PM	1.2	265.6	22.5	8.3	311.8	0.0	1.2	0.0	2.4	7.1	0.0	11.9	632.0	16.59982563	1.185702	1.185702	0	2.371404	0	2.371404
3:30 PM	0.0	233.6	17.8	13.0	323.7	0.0	0.0	0.0	0.0	5.9	0.0	15.4	609.5	20.15693112	1.185702	2.371404	0	0	0	0
3:45 PM	1.2	307.1	11.9	8.3	272.7	0.0	1.2	0.0	0.0	9.5	0.0	10.7	622.5	20.15693112	3.557105	4.742807	0	1.185702	0	0
Peak Hour Vehicles Total	5	1102	59	43	1186	0	4	0	4	26	0	55	2482	69	8	11	0	5	0	2
Peak Hour Truck	0.13	30.52	1.64	1.18	32.86	0.00	0.10	0.00	0.10	0.72	0.00	1.51	68.77							
Peak Bike Volume		8			11									PM Peak Hour Fact	0.981707			PM PED Peak Hour Fa		0.375
Total Veh + Bike	5	1110	59	43	1196	0	4	0	4	26	0	55	2482	HV Percentage	0.027711					

FEHR PEERS

Noyo Harbor Roundabout Volumes

Project Team Meeting
February 18th, 2025

Count Collection

Intersection: North Harbor Drive / Highway 1

Tuesday, October 22nd

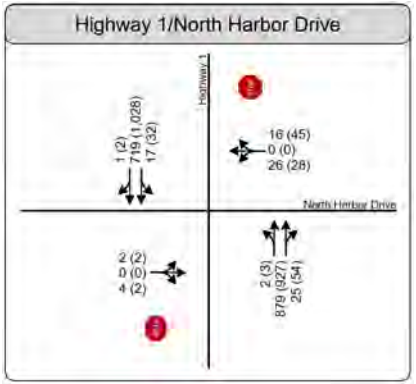
6:15 AM – 9:00 AM
3:00 PM – 5:00 PM

Source: Google

Peak Hour

AM Peak: 7:45 AM – 8:45 AM

PM Peak: 3:15 PM – 4:15 PM



	Northbound			Westbound			Southbound			Eastbound			Total	Trucks	Bikes		Peds			
Starting at	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	Vehicles	(all approaches)	NB Thru	SB Thru	North Leg	East Leg	South Leg	West Leg
15-MINUTE COUNT																				
6:15 AM	1	40	1	2	0	1	2	45	0	0	0	0	92	0	0	0	0	0	0	0
6:30 AM	0	38	1	6	0	1	3	45	0	0	0	1	95	0	0	0	0	0	0	0
6:45 AM	0	78	3	4	0	4	6	84	0	0	0	1	180	6	0	0	0	1	0	0
7:00 AM	0	61	4	2	0	5	2	87	2	0	0	0	163	11	2	0	0	0	0	1
7:15 AM	0	92	3	4	0	3	2	93	0	1	0	0	198	10	2	0	0	2	0	0
7:30 AM	0	161	5	2	0	3	1	88	2	0	0	0	262	7	0	0	0	1	0	0
7:45 AM	0	275	1	5	0	4	6	153	0	1	0	2	447	11	0	2	0	1	0	0
8:00 AM	1	204	5	10	0	4	3	204	0	1	0	0	432	7	1	1	2	2	0	0
8:15 AM	0	188	13	5	0	4	5	187	1	0	0	1	404	15	1	0	0	0	0	0
8:30 AM	1	212	6	6	0	4	3	175	0	0	0	1	408	12	0	1	0	3	1	3
8:45 AM	0	183	3	5	0	6	4	208	0	0	0	0	409	16	1	1	0	1	0	2
Peak hour (7:45 to 8:45 AM)	2	879	25	26	0	16	17	719	1	2	0	4	1691	45	2	4	2	6	1	3
15-MINUTE COUNT																				
3:00 PM	2	249	6	3	0	14	11	234	0	1	0	1	521	14	2	4	4	1	1	0
3:15 PM	1	224	19	6	0	10	7	263	0	1	0	2	533	10	2	2	0	1	0	0
3:30 PM	0	197	15	5	0	13	11	273	0	0	0	0	514	14	1	1	0	2	0	2
3:45 PM	1	259	10	8	0	9	7	230	0	1	0	0	525	17	1	2	0	0	0	0
4:00 PM	1	247	10	9	0	13	7	262	2	0	0	0	551	17	3	4	0	1	0	0
4:15 PM	2	242	16	4	0	8	3	224	0	0	0	2	501	9	4	2	1	0	0	3
4:30 PM	0	191	12	10	0	17	10	248	3	1	0	2	494	5	3	2	0	2	0	0
4:45 PM	0	236	16	7	0	11	9	234	2	1	0	1	517	10	6	0	0	2	0	0
Peak hour (3:15 to 4:15 PM)	3	927	54	28	0	45	32	1028	2	2	0	2	2123	58	7	9	0	4	0	2

Calibration to Reflect the Seasonal Peak Using Streetlight Data

AM

Our 7:45 AM – 8:45 AM peak period counts exceeded the Streetlight metrics across various scenarios. According to Streetlight, October 2024 Weekday AM had the highest recorded volumes, but **our actual counts were even higher**. Therefore, we **used our recorded counts for the Existing AM**.

Calibration to Reflect the Seasonal Peak Using Streetlight Data

PM

Streetlight metrics showed that Summer PM volumes exceeded October PM volumes on both weekdays and Saturdays, with Saturday having the highest PM volumes.

Within the 3-5 PM window, we identified 3:15-4:15 PM as the peak hour in both the October 2024 weekday and Summer 2024 Saturday datasets. We then calculated the percentage change between these datasets and applied it to our existing 3:15-4:15 PM counts to estimate a Summer weekend peak hour.

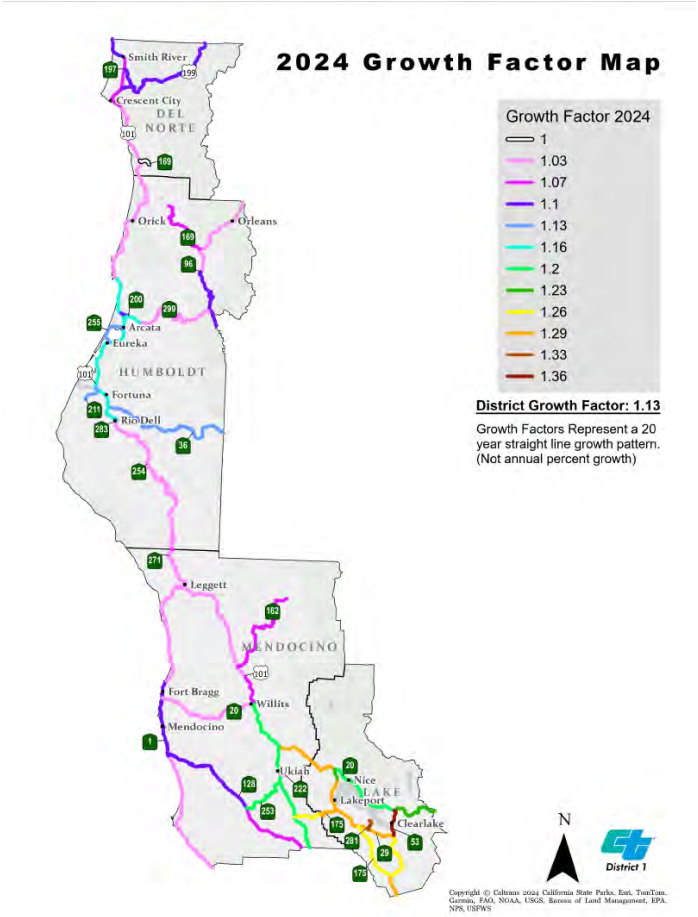
Streetlight Metric Comparisons:

- Summer Weekday and Summer Saturday > October Weekday and October Saturday
- Summer Saturday > Summer Weekday

	Total TMC
Streetlight Summer Saturday 3-4 Total Volume	1360
Streetlight October Saturday 3-4 Total Volume	1147
Multiplier	1.185702

2044 Forecasted Volumes

We used the standard Caltrans D1 Growth Factor Methodology for a 20-year forecast. We applied a growth factor of 1.1 for our intersection.



Source: Google

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

M e m o r a n d u m

To: MATT BRADY
TOM FITZGERALD
RICHARD MULLEN
DERECK GOODWIN

Date: February 12, 2024

File: Growth Factors

From: BRANDON LARSEN
Deputy District Director,
Planning and Local Assistance
Brandon Larsen

Subject: 2024 Growth Factors

Attached are the 2024 District 1 growth factor summary, the 2024 District Growth Factor Map, and a "Using D1 Growth Factors" tutorial.

Prior to 1984, Caltrans District 1 projected future traffic volumes based solely on historical growth. Future volumes were calculated using an annual percent increase that was derived from historical traffic volumes. We found that this method produced acceptable results in the short to mid-term, but due to compounding, long-range predictions (20 years or more) tended to be overestimated.

In 1984, in order to eliminate the long-range distortion noted above, we began calculating growth factors as a 20-year straight-line determinant. For example, a segment of highway with a growth factor of 1.4 is predicted to have a 40% increase in traffic over the next 20-years. Likewise, it is predicted to have a 20% increase over 10 years.

Historically, District staff has developed growth factors based on both projected travel trends and historical growth from two data sources—the "California Motor Vehicle Stock Travel and Fuel Forecast" (CMVSTAFF) and historical Average Vehicle Mile Traveled (AVMT) comparisons from "Traffic Volumes on the California State Highway System." Since CMVSTAFF was not available for more recent updates, county growth factor targets were developed based on California Air Resources Board traffic growth projections and historic traffic growth data, as well as other factors such as land use/ potential development.

For the 2024 Growth Factor update, since CMVSTAFF is no longer produced, we undertook an extensive analysis of historical volumes on District 1 routes (using Caltrans Traffic Volumes). We also consulted the California Statewide Travel Demand Model, as well as Department of Finance population statistics for all four counties in District 1.

Growth Factors were adjusted, primarily using growth trends from 1990-2020. The result was an overall (approximately 35% from previous) reduction in forecasted growth for District 1 routes.

Our growth factors are applied over highway segments that were determined using observed conditions; these segments vary in length, but they are not longer than fifty miles. Traffic volumes over segments are based on a calculated weighted average to reflect volumes (Annual Average Daily Traffic) for the entire segment. While actual growth at the local level can vary considerably, we are looking at overall growth over the long-term. If more specific data or information are available for a particular location (actual counts, planned development, etc.) it may be advisable to calculate a location-specific rate. However, for the purposes of facility design (20-year, or greater, design-life) our generalized segment growth factors are appropriate. It should be noted that our growth factors forecast traffic growth only for the mainline (State Routes); local streets should be examined separately.

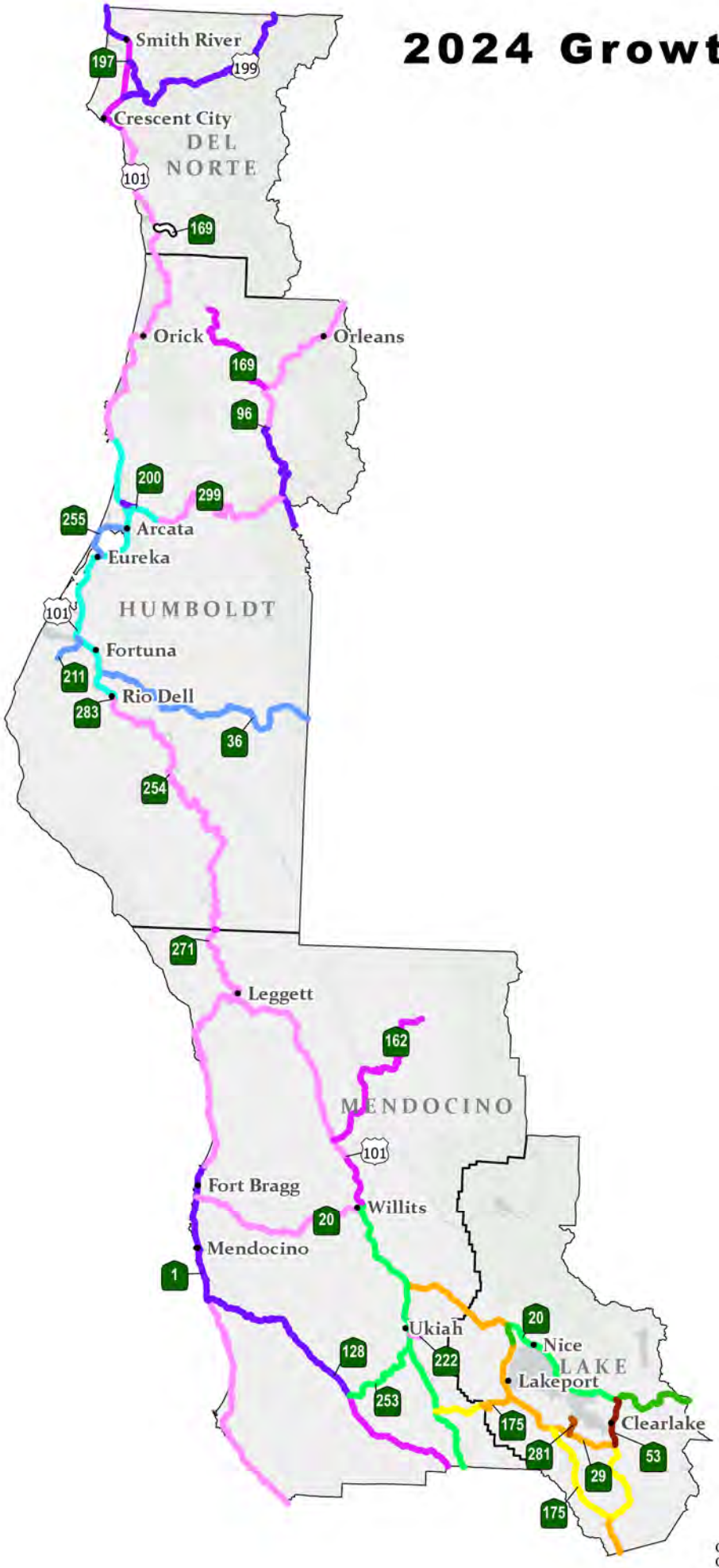
If you have any questions regarding the growth factors, please contact District 1 System Planning Branch.

Attachments:

Using District 1 Growth Factors Tutorial
2024 Growth Factor Summary
2024 Growth Factor Map

c:
SHERI RODRIGUEZ
LISA BUGLEWICZ
BRYAN THOMAS
JESSE ROBERTSON
HQ System Planning
North Region Travel Forecasting

2024 Growth Factor Map



Growth Factor 2024

- 1
- 1.03
- 1.07
- 1.1
- 1.13
- 1.16
- 1.2
- 1.23
- 1.26
- 1.29
- 1.33
- 1.36

District Growth Factor: 1.13

Growth Factors Represent a 20 year straight line growth pattern. (Not annual percent growth)

N

District 1

District 1 - Growth Factor Summary

20-Year Growth Factors

Segment	2024 GF
MEN-1-0.00/40.27	1.03
MEN-1-40.27/64.86	1.10
MEN-1-64.86/105.57	1.03
MEN-20-0.00/33.16	1.03
MEN-20-33.22/44.11	1.29
LAK-20-0.00/8.34	1.29
LAK-20-8.34/31.62	1.20
LAK-20-31.62/46.48	1.23
LAK-29-0.00/5.81	1.29
LAK-29-5.81/20.31	1.26
LAK-29-20.31/48.40	1.29
LAK-29-48.40/52.54	1.23
HUM-36-0.00/45.68	1.13
LAK-53-0.00/7.45	1.36
HUM-96-0.00/16.00	1.10
HUM-96-16.00/44.98	1.03
MEN-101-0.10/47.27	1.20
MEN-101-47.27/55.90	1.07
MEN-101-55.90/104.15	1.03
HUM-101-0.00/51.84	1.03
HUM-101-51.84/100.71	1.16
HUM-101-100.71/137.14	1.03
DN-101-0.00/23.85	1.03
DN-101-23.85/39.98	1.07
DN-101-39.98/46.49	1.10
MEN-128-0.00/29.58	1.10
MEN-128-29.58/50.90	1.07
MEN-162-0.00/34.05	1.07
DN-169-0.0/3.52	1.00
HUM-169-13.20/33.84	1.07
MEN-175-0.00/9.85	1.26
LAK-175-0.00/8.19	1.29
LAK-175-8.25/28.04	1.26
DN-197-0.00/7.08	1.10
DN-199-0.51/36.41	1.10
HUM-200-0.00/2.68	1.10
HUM-211-73.20/79.16	1.13
MEN-222-0.00/2.15	1.03
MEN-253-0.00/17.18	1.20
HUM-254-0.00/46.53	1.03
HUM-255-0.0/8.80	1.13
MEN-271-0.0/22.72	1.03
HUM-271-0.00/0.31	1.07
LAK-281-14.00/17.00	1.33
HUM-283-0.00/0.36	1.03
HUM-299-0.00/5.93	1.16
HUM-299-5.93/38.83	1.03
HUM-299-38.83/43.04	1.10
District Growth Factor	**1.13**

Using District 1 Growth Factors

- To project volumes **20 years** into the future, multiply the base year traffic volume by the growth factor (GF).

  Formula: (GF)*(Base Year Volume) = Projected Volume

  Example: The base year volume (2012) is 1500 AADT. The 20-year growth factor for that segment of highway is 1.3. What is the 2032 volume?

  (1.3)*(1500) = 1950 The projected 2032 traffic volume (AADT) for this segment is 1950.

- To project volumes **Less than or greater than 20 years** into the future, use the following formula:

  Formula: $[1 + \frac{(\mathrm{GF}-1)*(\#\text{ of years into future})}{20}] * (\text{starting volume}) = \text{Projected Volume}$

  Example: The Base year volume in 2012 is 700 AADT. The 20- year growth factor is 1.4.

  A) What is the volume in 27 years?

  $\left[1 + \left(\frac{(1.4-1)*(27)}{20}\right)\right] * (700) = 1078$ The projected volume in 2039 is 1078.

  B) What is the volume in 7 years?

  $\left[1 + \left(\frac{(1.4-1)*(7)}{20}\right)\right] * (700) = 798$ The projected volume in 2019 is 798.

Forecasted Turning Movement Counts (2044)

Highway 1 / North Harbor Drive

Year 2048

Time of Day 7:45 - 8:45 AM / 3:00 - 4:00 PM

	Northbound			Southbound			Eastbound			Westbound			Total
Starting at	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	Vehicles
7:45 AM	0	302.5	1.1	6.6	168.3	0	1.1	0	2.2	5.5	0	4.4	491.7
8:00 AM	1.1	224.4	5.5	3.3	224.4	0	1.1	0	0	11	0	4.4	475.2
8:15 AM	0	206.8	14.3	5.5	205.7	1.1	0	0	1.1	5.5	0	4.4	444.4
8:30 AM	1.1	233.2	6.6	3.3	192.5	0	0	0	1.1	6.6	0	4.4	448.8
Period Total	2	967	28	19	791	1	2	0	4	29	0	18	1860
Peak Hour Truck	0.06	25.73	0.73	0.50	21.05	0.03	0.06	0.00	0.12	0.76	0.00	0.47	49.50
Peak Bike Volume		2			4								
Total Veh + Bike	2	969	28	19	795	1	2	0	4	29	0	18	1860

AM Peak Hour Factor 1

HV Ratio 0.03

Growth Factor 1.1

	Trucks (all approac	Bikes NB Thru	Bikes SB Thru	Peds North Leg	Peds East Leg	Peds South Leg	Peds West Leg	Peds Total
	12.1	0	2.2	0	1.1	0	0	1.1
	7.7	1.1	1.1	2.2	2.2	0	0	4.4
	16.5	1.1	0	0	0	0	0	0
	13.2	0	1.1	0	3.3	1.1	3.3	7.7
Period Tot	50	2	4	2	7	1	3	13

AM PED Peak Hour Fa 0.428571

	Northbound			Southbound			Eastbound			Westbound			Total
Starting at	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	Vehicles
3:00 PM	2.6	324.8	7.8	14.3	305.2	0.0	1.3	0.0	1.3	3.9	0.0	18.3	679.5
3:15 PM	1.3	292.2	24.8	9.1	343.0	0.0	1.3	0.0	2.6	7.8	0.0	13.0	695.2
3:30 PM	0.0	256.9	19.6	14.3	356.1	0.0	0.0	0.0	0.0	6.5	0.0	17.0	670.4
3:45 PM	1.3	337.8	13.0	9.1	300.0	0.0	1.3	0.0	0.0	10.4	0.0	11.7	684.7
Peak Hour Total	5	1212	65	47	1304	0	4	0	4	29	0	60	2730
Peak Hour Truck	0.14	33.58	1.81	1.30	36.14	0.00	0.11	0.00	0.11	0.80	0.00	1.66	75.65
Peak Bike Volume		9			12								
Total Veh + Bike	5	1221	65	47	1316	0	4	0	4	29	0	60	2730

PM Peak Hour Factor 1

HV Ratio 0.03

	Trucks (all approac	Bikes NB Thru	Bikes SB Thru	Peds North Leg	Peds East Leg	Peds South Leg	Peds West Leg	Peds Total
	13.0	2.6	2.6	0	1.304272	0	0	1.304272
	18.3	1.3	1.3	0	2.608544	0	2.608544	5.217088
	22.2	1.3	2.6	0	0	0	0	0
	22.2	3.9	5.2	0	1.304272	0	0	1.304272
Period Tot	76	9	12	0	5	0	3	8

PM PED Peak Hour Fa 0.375

Caltrans 2022 Average Annual Daily Traffic (AADT)

DISTRICT	ROUTE	ROUTE_SFX	COUNTY	PM_PFX	PM	PM_SFX	LOCATION DESCRIPTION	BACK_PEAK_HOUR	BACK_PEAK_MADT	BACK_AADT	AHEAD_PEAK_HOUR	AHEAD_PEAK_MADT	AHEAD_AADT
01	001		MEN		0.000		SONOMA/MENDOCINO COUNTY LINE				440	4650	3000
01	001		MEN		1.020		NORTH LIMITS GUALALA	440	4650	4000	410	3200	2700
01	001		MEN		5.090		FISH ROCK ROAD	320	3600	3100	210	3600	3100
01	001		MEN		14.692		POINT ARENA, SOUTH CITY LIMITS	240	2600	2200	240	2850	2400
01	001		MEN		15.180		POINT ARENA, RIVERSIDE DRIVE	470	4150	1640	250	2800	2600
01	001		MEN		15.740		POINT ARENA, LAKE STREET	320	2800	2390	250	2500	2430
01	001		MEN		16.166		POINT ARENA, NORTH CITY LIMITS	250	2800	2300	250	2800	2300
01	001		MEN		19.340		MOUNTAIN VIEW ROAD, MANCHESTER, SOUTH	190	2500	2100	220	2150	1850
01	001		MEN		34.900		NORTH LIMITS ELK	220	1550	1215	160	1600	1330
01	001		MEN		40.273		JCT. RTE. 128 EAST	270	3800	3000	620	3700	2970
01	001		MEN		47.500		LITTLE RIVER, AIRPORT ROAD	480	4200	3300	650	5200	4200
01	001		MEN		50.040		COMPTCHE/UKIAH ROADS	660	6700	5390	860	8500	7300
01	001		MEN	R	50.560		MENDOCINO, JACKSON STREET	700	7500	5500	730	8200	7600
01	001		MEN	R	51.490		MENDOCINO, LANSING STREET	1000	10200	8100	1000	10200	8900
01	001		MEN	R	55.780		NORTH LIMITS CASPAR	1150	10300	8850	1250	13000	11000
01	001		MEN		57.220		GIBNEY LANE	1350	14000	11000	1400	14200	11300
01	001		MEN		59.250		SIMPSON LANE	1700	16000	13300	1900	19000	16700
01	001		MEN		59.803		JCT. RTE. 20 EAST	1900	19000	11000	1900	22000	4850
01	001		MEN		60.680		FORT BRAGG, CYPRESS AVENUE	2000	24200	21300	1500	20300	17700
01	001		MEN		61.471		FORT BRAGG, REDWOOD AVENUE	1500	20300	17700	1800	20000	17700
01	001		MEN		62.360		FORT BRAGG, NORTH CITY LIMITS	1400	14000	12100	1200	10100	8100
01	001		MEN		62.800		AIRPORT ROAD, FORT BRAGG, NORTH	1200	10100	8100	1000	8200	6300
01	001		MEN	R	64.858		MAC KERRICHER STATE PARK	880	6100	4850	340	2150	1560
01	001		MEN		77.660		WESTPORT, NORTH	180	1300	900	140	1800	1300
01	001		MEN		90.874		JCT. RTE. 211 NORTH	130	860	570	100	1100	550
01	001		MEN		105.501		LEGGETT, JCT. RTE. 271	140	1200	800	120	1100	720
01	001		MEN		105.578		LEGGETT, JCT. RTE. 101	330	1000	630			

Appendix F. Level of Service Analysis

Appendix F Narrative

Appendix B presents detailed traffic operations analysis for the intersection of Highway 1 and North Harbor Drive. The appendix includes Synchro and SIDRA modeling outputs for existing (2024) and future (2044) scenarios during AM and PM peak periods. Both signalized and roundabout control alternatives were evaluated.

Traditional Intersection Scenarios

- 2024 (Existing) AM Peak
    - Unsignalized, Side Street Stop Control, Existing Lane Configuration
    - Intersection Level of Service (LOS) A
    - This scenario supports free flow operations on Highway 1, and delay under 30 seconds per vehicle for eastbound and westbound traffic.
- 2024 (Existing) PM Peak
    - Unsignalized, Side Street Stop Control, Existing Lane Configuration
    - Intersection Level of Service (LOS) A
    - This scenario supports free flow operations on Highway 1, and delay under 30 seconds per vehicle for eastbound and westbound traffic.
- 2044 (Future Volumes) AM Peak
    - Signalized
    - Intersection Level of Service (LOS) A, Existing Lane Configuration
    - This scenario supports free flow operations on Highway 1, and delay under 30 seconds per vehicle for eastbound and westbound traffic.
- 2044 (Future Volumes) PM Peak
    - Signalized
    - Intersection Level of Service (LOS) A, Existing Lane Configuration
    - This scenario supports free flow operations on Highway 1, and delay under 30 seconds per vehicle for eastbound and westbound traffic.

Roundabout Intersection Scenarios

- 2024 (Existing Volumes) AM Peak
    - Unsignalized, 1-Lane Roundabout
    - Intersection Level of Service (LOS) B
    - This scenario supports minimal delay for all approaches
- 2024 (Existing Volumes) PM Peak
    - Unsignalized, 1-Lane Roundabout
    - Intersection Level of Service (LOS) E
    - This scenario supports minor delays for eastbound and westbound approaches, and major delays for northbound and southbound approaches
- 2024 (Existing Volumes) AM Peak
    - Unsignalized, 2-Lane Roundabout
    - Intersection Level of Service (LOS) A
    - This scenario supports free flow operations for all approaches
- 2024 (Existing Volumes) PM Peak

    - Unsignalized, 2-Lane Roundabout
    - Intersection Level of Service (LOS) A
    - This scenario supports free flow operations for all approaches
- 2048 (Future Volumes) AM Peak
    - Unsignalized, 1-Lane Roundabout
    - Intersection Level of Service (LOS) B
    - This scenario supports minimal delay for all approaches
- 2048 (Future Volumes) PM Peak
    - Unsignalized, 1-Lane Roundabout
    - Intersection Level of Service (LOS) F
    - This scenario supports minor delays for eastbound and westbound approaches, and significant delays for northbound and southbound approaches
- 2048 (Future Volumes) AM Peak
    - Unsignalized, 2-Lane Roundabout
    - Intersection Level of Service (LOS) A
    - This scenario supports free flow operations for all approaches
- 2048 (Future Volumes) PM Peak
    - Unsignalized, 2-Lane Roundabout
    - Intersection Level of Service (LOS) A
    - This scenario supports free flow operations for all approaches

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	4	26	0	16	2	881	25	17	723	1
Future Volume (veh/h)	2	0	4	26	0	16	2	881	25	17	723	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	2	0	4	27	0	17	2	927	26	18	761	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	100	9	59	146	0	31	598	2623	74	507	2706	4
Arrive On Green	0.06	0.00	0.06	0.06	0.00	0.06	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	365	164	1058	888	0	559	687	3446	97	574	3555	5
Grp Volume(v), veh/h	6	0	0	44	0	0	2	467	486	18	371	391
Grp Sat Flow(s),veh/h/ln	1587	0	0	1447	0	0	687	1735	1808	574	1735	1825
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.1	5.3	5.3	0.6	3.9	3.9
Cycle Q Clear(g_c), s	0.2	0.0	0.0	1.8	0.0	0.0	4.0	5.3	5.3	5.9	3.9	3.9
Prop In Lane	0.33		0.67	0.61		0.39	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	168	0	0	177	0	0	598	1320	1376	507	1320	1389
V/C Ratio(X)	0.04	0.00	0.00	0.25	0.00	0.00	0.00	0.35	0.35	0.04	0.28	0.28
Avail Cap(c_a), veh/h	527	0	0	526	0	0	598	1320	1376	507	1320	1389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	0.0	27.6	0.0	0.0	2.8	2.3	2.3	3.3	2.2	2.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.7	0.0	0.0	0.0	0.7	0.7	0.1	0.5	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.6	0.0	0.0	0.0	0.7	0.7	0.1	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.9	0.0	0.0	28.3	0.0	0.0	2.8	3.1	3.1	3.4	2.7	2.7
LnGrp LOS	C			C			A	A	A	A	A	A
Approach Vol, veh/h		6			44			955			780	
Approach Delay, s/veh		26.9			28.3			3.1			2.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	52.2	7.8	52.2	7.8
Change Period (Y+Rc), s	6.5	4.5	6.5	4.5
Max Green Setting (Gmax), s	31.0	18.0	31.0	18.0
Max Q Clear Time (g_c+I1), s	7.3	2.2	7.9	3.8
Green Ext Time (p_c), s	6.1	0.0	4.7	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	3.6
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

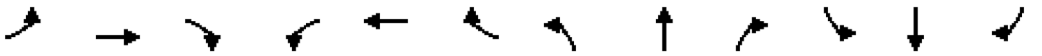
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	4	26	0	55	5	1110	59	43	1196	0
Future Volume (veh/h)	4	0	4	26	0	55	5	1110	59	43	1196	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	4	0	4	27	0	56	5	1133	60	44	1220	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	128	22	59	110	5	73	391	2496	132	401	2584	0
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.74	0.74	0.74	0.74	0.74	0.00
Sat Flow, veh/h	525	302	827	421	69	1016	446	3351	177	458	3561	0
Grp Volume(v), veh/h	8	0	0	83	0	0	5	586	607	44	1220	0
Grp Sat Flow(s),veh/h/ln	1654	0	0	1506	0	0	446	1735	1793	458	1735	0
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	0.0	0.3	7.8	7.8	2.5	8.3	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	3.2	0.0	0.0	8.6	7.8	7.8	10.3	8.3	0.0
Prop In Lane	0.50		0.50	0.33		0.67	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	209	0	0	188	0	0	391	1292	1336	401	2584	0
V/C Ratio(X)	0.04	0.00	0.00	0.44	0.00	0.00	0.01	0.45	0.45	0.11	0.47	0.00
Avail Cap(c_a), veh/h	533	0	0	527	0	0	391	1292	1336	401	2584	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.0	0.0	0.0	27.3	0.0	0.0	4.7	2.9	3.0	4.9	3.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	1.6	0.0	0.0	0.1	1.2	1.1	0.6	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.2	0.0	0.0	0.0	1.2	1.3	0.2	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.0	0.0	0.0	29.0	0.0	0.0	4.8	4.1	4.1	5.5	3.6	0.0
LnGrp LOS	C			C			A	A	A	A	A	
Approach Vol, veh/h		8			83			1198			1264	
Approach Delay, s/veh		26.0			29.0			4.1			3.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	51.2	8.8	51.2	8.8
Change Period (Y+Rc), s	6.5	4.5	6.5	4.5
Max Green Setting (Gmax), s	31.0	18.0	31.0	18.0
Max Q Clear Time (g_c+I1), s	10.6	2.3	12.3	5.2
Green Ext Time (p_c), s	7.8	0.0	8.9	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	4.8
HCM 7th LOS	A

Notes

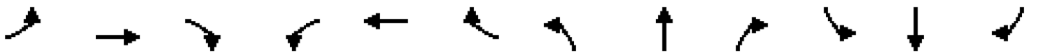
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	4	29	0	18	2	969	28	19	795	1
Future Volume (veh/h)	2	0	4	29	0	18	2	969	28	19	795	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.97	0.97		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	2	0	4	32	0	20	2	1053	30	21	864	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	106	25	102	167	20	56	509	2465	70	420	2545	3
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.72	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	255	249	1008	692	202	559	623	3444	98	508	3556	4
Grp Volume(v), veh/h	6	0	0	52	0	0	2	530	553	21	422	443
Grp Sat Flow(s),veh/h/ln	1512	0	0	1453	0	0	623	1735	1807	508	1735	1825
Q Serve(g_s), s	0.0	0.0	0.0	0.7	0.0	0.0	0.1	7.5	7.5	1.1	5.5	5.5
Cycle Q Clear(g_c), s	0.2	0.0	0.0	1.8	0.0	0.0	5.5	7.5	7.5	8.6	5.5	5.5
Prop In Lane	0.33		0.67	0.62		0.38	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	233	0	0	244	0	0	509	1242	1294	420	1242	1306
V/C Ratio(X)	0.03	0.00	0.00	0.21	0.00	0.00	0.00	0.43	0.43	0.05	0.34	0.34
Avail Cap(c_a), veh/h	615	0	0	615	0	0	509	1242	1294	420	1242	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	0.0	25.0	0.0	0.0	4.2	3.5	3.5	5.2	3.2	3.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	0.0	1.1	1.0	0.2	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.7	0.0	0.0	0.0	1.4	1.5	0.1	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.4	0.0	0.0	25.5	0.0	0.0	4.3	4.6	4.5	5.5	3.9	3.9
LnGrp LOS	C			C			A	A	A	A	A	A
Approach Vol, veh/h		6			52			1085			886	
Approach Delay, s/veh		24.4			25.5			4.5			4.0	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		49.4		10.6		49.4		10.6				
Change Period (Y+Rc), s		6.5		4.5		6.5		4.5				
Max Green Setting (Gmax), s		27.0		22.0		27.0		22.0				
Max Q Clear Time (g_c+I1), s		9.5		2.2		10.6		3.8				
Green Ext Time (p_c), s		6.4		0.0		4.9		0.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			4.9									
HCM 7th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	2	28	0	45	3	927	54	32	1028	2
Future Volume (veh/h)	2	0	2	28	0	45	3	927	54	32	1028	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.97	0.97		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	2	0	2	30	0	49	3	1008	59	35	1117	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	144	24	78	125	15	93	407	2380	139	425	2540	5
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.71	0.71	0.71	0.71	0.71	0.71
Sat Flow, veh/h	531	237	769	411	151	918	491	3329	195	516	3553	6
Grp Volume(v), veh/h	4	0	0	79	0	0	3	525	542	35	545	574
Grp Sat Flow(s),veh/h/ln	1537	0	0	1479	0	0	491	1735	1789	516	1735	1825
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	0.0	0.2	7.4	7.4	1.8	7.8	7.8
Cycle Q Clear(g_c), s	0.1	0.0	0.0	2.9	0.0	0.0	8.0	7.4	7.4	9.2	7.8	7.8
Prop In Lane	0.50		0.50	0.38		0.62	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	247	0	0	233	0	0	407	1240	1279	425	1240	1304
V/C Ratio(X)	0.02	0.00	0.00	0.34	0.00	0.00	0.01	0.42	0.42	0.08	0.44	0.44
Avail Cap(c_a), veh/h	522	0	0	518	0	0	407	1240	1279	425	1240	1304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	0.0	25.5	0.0	0.0	5.2	3.5	3.5	5.4	3.6	3.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	0.0	0.0	0.0	1.1	1.0	0.4	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.1	0.0	0.0	0.0	1.4	1.5	0.2	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.3	0.0	0.0	26.3	0.0	0.0	5.3	4.6	4.5	5.8	4.7	4.6
LnGrp LOS	C			C			A	A	A	A	A	A
Approach Vol, veh/h		4			79			1070			1154	
Approach Delay, s/veh		24.3			26.3			4.5			4.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	49.4	10.6	49.4	10.6
Change Period (Y+Rc), s	6.5	4.5	6.5	4.5
Max Green Setting (Gmax), s	31.0	18.0	31.0	18.0
Max Q Clear Time (g_c+I1), s	10.0	2.1	11.2	4.9
Green Ext Time (p_c), s	6.8	0.0	7.4	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	5.4
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

MOVEMENT SUMMARY

Site: 1 [Hwy 1/North Habor Drive, 1-Lane (Ready) (Site Folder: Existing AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	2	2.7	2	2.7	0.801	11.9	LOS B	15.0	382.8	0.44	0.11	0.44	30.0
8	T1	All MCs	931	2.7	931	2.7	0.801	11.9	LOS B	15.0	382.8	0.44	0.11	0.44	30.5
18	R2	All MCs	26	2.7	26	2.7	0.801	11.9	LOS B	15.0	382.8	0.44	0.11	0.44	30.3
Approach			960	2.7	960	2.7	0.801	11.9	LOS B	15.0	382.8	0.44	0.11	0.44	30.5
East: N Harbor Drive															
1	L2	All MCs	27	2.7	27	2.7	0.111	10.4	LOS B	0.4	10.0	0.69	0.69	0.69	21.5
6	T1	All MCs	1	2.7	1	2.7	0.111	10.4	LOS B	0.4	10.0	0.69	0.69	0.69	21.6
16	R2	All MCs	17	2.7	17	2.7	0.111	10.4	LOS B	0.4	10.0	0.69	0.69	0.69	21.6
Approach			45	2.7	45	2.7	0.111	10.4	LOS B	0.4	10.0	0.69	0.69	0.69	21.5
North: Highway 1															
7	L2	All MCs	18	2.7	18	2.7	0.660	10.1	LOS B	7.4	189.6	0.33	0.10	0.33	30.7
4	T1	All MCs	764	2.7	764	2.7	0.660	10.1	LOS B	7.4	189.6	0.33	0.10	0.33	31.2
14	R2	All MCs	1	2.7	1	2.7	0.660	10.1	LOS B	7.4	189.6	0.33	0.10	0.33	31.0
Approach			783	2.7	783	2.7	0.660	10.1	LOS B	7.4	189.6	0.33	0.10	0.33	31.2
West: Noyo Point Road															
5	L2	All MCs	2	2.7	2	2.7	0.016	7.8	LOS A	0.1	1.4	0.63	0.54	0.63	22.3
2	T1	All MCs	1	2.7	1	2.7	0.016	7.8	LOS A	0.1	1.4	0.63	0.54	0.63	22.4
12	R2	All MCs	4	2.7	4	2.7	0.016	7.8	LOS A	0.1	1.4	0.63	0.54	0.63	22.4
Approach			7	2.7	7	2.7	0.016	7.8	LOS A	0.1	1.4	0.63	0.54	0.63	22.4
All Vehicles			1796	2.7	1796	2.7	0.801	11.0	LOS B	15.0	382.8	0.40	0.12	0.40	30.4

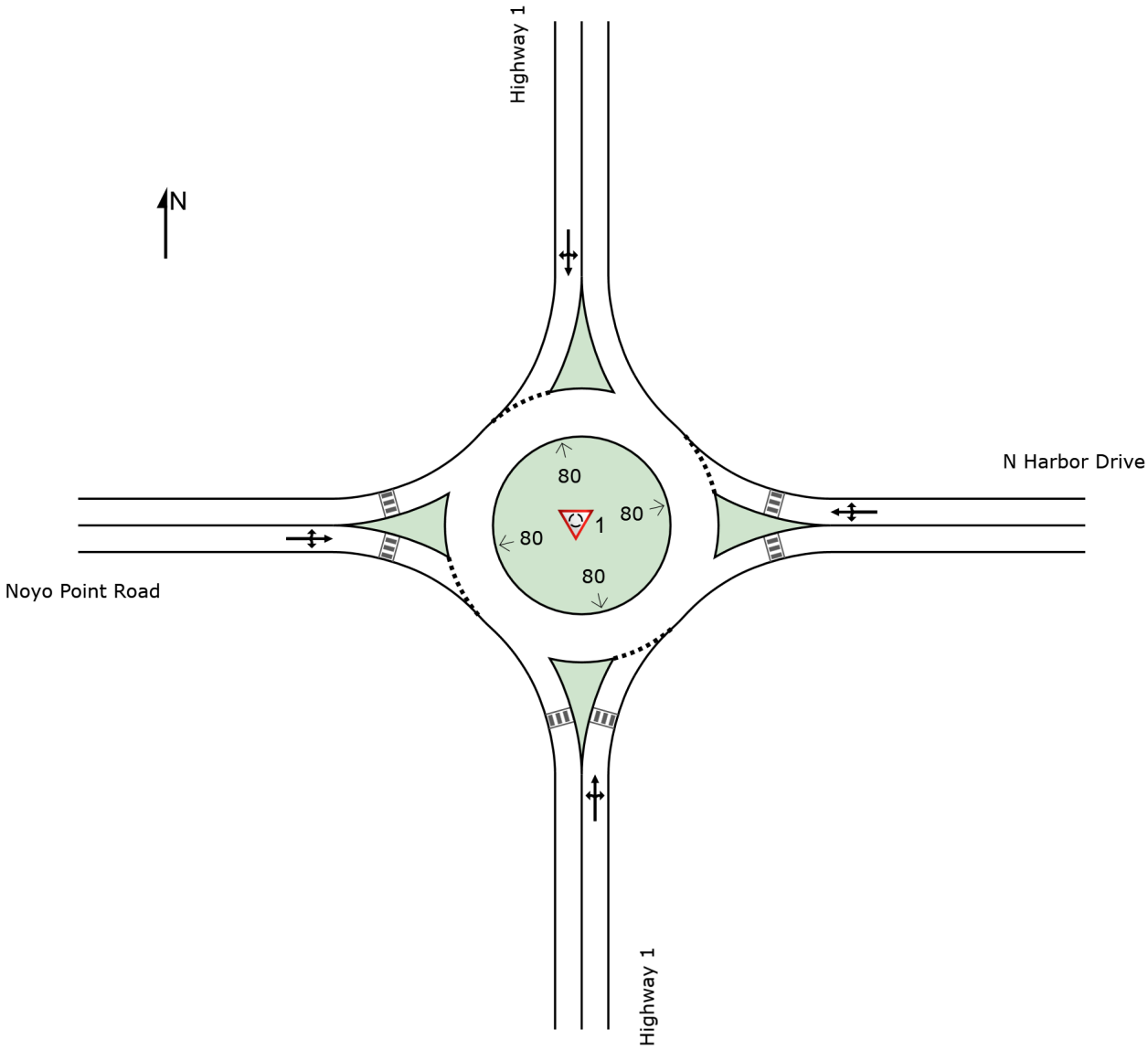
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: 1 [Hwy 1/North Habor Drive, 1-Lane (Ready) (Site Folder: Existing AM)]

NA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 1 [Hwy 1/North Habor Drive, 1-Lane (Ready) (Site Folder: Existing PM (Volumes Updated for 1-Lane))]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	5	2.8	5	2.8	1.066	40.8	LOS F	115.5	2938.2	1.00	1.31	1.49	21.6
8	T1	All MCs	1174	2.8	1174	2.8	1.066	40.8	LOS F	115.5	2938.2	1.00	1.31	1.49	21.9
18	R2	All MCs	62	2.8	62	2.8	1.066	40.8	LOS F	115.5	2938.2	1.00	1.31	1.49	21.8
Approach			1241	2.8	1241	2.8	1.066	40.8	LOS E	115.5	2938.2	1.00	1.31	1.49	21.9
East: N Harbor Drive															
1	L2	All MCs	27	2.8	27	2.8	0.259	15.6	LOS C	0.9	23.8	0.78	0.79	0.81	20.6
6	T1	All MCs	1	2.8	1	2.8	0.259	15.6	LOS C	0.9	23.8	0.78	0.79	0.81	20.8
16	R2	All MCs	58	2.8	58	2.8	0.259	15.6	LOS C	0.9	23.8	0.78	0.79	0.81	20.7
Approach			87	2.8	87	2.8	0.259	15.6	LOS C	0.9	23.8	0.78	0.79	0.81	20.7
North: Highway 1															
7	L2	All MCs	45	2.8	45	2.8	1.109	40.9	LOS F	161.6	4104.6	1.00	1.31	1.50	21.6
4	T1	All MCs	1265	2.8	1265	2.8	1.109	40.9	LOS F	161.6	4104.6	1.00	1.31	1.50	21.9
14	R2	All MCs	1	2.8	1	2.8	1.109	40.9	LOS F	161.6	4104.6	1.00	1.31	1.50	21.8
Approach			1311	2.8	1311	2.8	1.109	40.9	LOS E	161.6	4104.6	1.00	1.31	1.50	21.8
West: Noyo Point Road															
5	L2	All MCs	4	2.8	4	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.1
2	T1	All MCs	1	2.8	1	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.3
12	R2	All MCs	4	2.8	4	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.2
Approach			10	2.8	10	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.2
All Vehicles			2649	2.8	2649	2.8	1.109	39.9	LOS E	161.6	4104.6	0.99	1.29	1.47	21.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1 [Hwy 1/North Habor Drive, 2-Lane (Ready) (Site Folder: Existing AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	2	2.7	2	2.7	0.401	6.4	LOS A	2.4	60.5	0.14	0.04	0.14	32.9
8	T1	All MCs	931	2.7	931	2.7	0.401	6.2	LOS A	2.4	60.5	0.14	0.03	0.14	33.6
18	R2	All MCs	26	2.7	26	2.7	0.401	6.1	LOS A	2.3	58.6	0.13	0.03	0.13	33.4
Approach			960	2.7	960	2.7	0.401	6.2	LOS A	2.4	60.5	0.14	0.03	0.14	33.6
East: N Harbor Drive															
1	L2	All MCs	27	2.7	27	2.7	0.091	8.4	LOS A	0.3	7.5	0.62	0.62	0.62	22.1
6	T1	All MCs	1	2.7	1	2.7	0.091	8.4	LOS A	0.3	7.5	0.62	0.62	0.62	22.2
16	R2	All MCs	17	2.7	17	2.7	0.091	8.4	LOS A	0.3	7.5	0.62	0.62	0.62	22.2
Approach			45	2.7	45	2.7	0.091	8.4	LOS A	0.3	7.5	0.62	0.62	0.62	22.1
North: Highway 1															
7	L2	All MCs	18	2.7	18	2.7	0.327	5.8	LOS A	1.7	44.4	0.16	0.05	0.16	33.0
4	T1	All MCs	764	2.7	764	2.7	0.327	5.7	LOS A	1.7	44.4	0.15	0.04	0.15	33.8
14	R2	All MCs	1	2.7	1	2.7	0.327	5.6	LOS A	1.7	42.8	0.15	0.04	0.15	33.6
Approach			783	2.7	783	2.7	0.327	5.7	LOS A	1.7	44.4	0.15	0.04	0.15	33.8
West: Noyo Point Road															
5	L2	All MCs	2	2.7	2	2.7	0.013	6.5	LOS A	0.0	1.1	0.56	0.47	0.56	22.8
2	T1	All MCs	1	2.7	1	2.7	0.013	6.5	LOS A	0.0	1.1	0.56	0.47	0.56	22.9
12	R2	All MCs	4	2.7	4	2.7	0.013	6.5	LOS A	0.0	1.1	0.56	0.47	0.56	22.9
Approach			7	2.7	7	2.7	0.013	6.5	LOS A	0.0	1.1	0.56	0.47	0.56	22.9
All Vehicles			1796	2.7	1796	2.7	0.401	6.1	LOS A	2.4	60.5	0.16	0.06	0.16	33.2

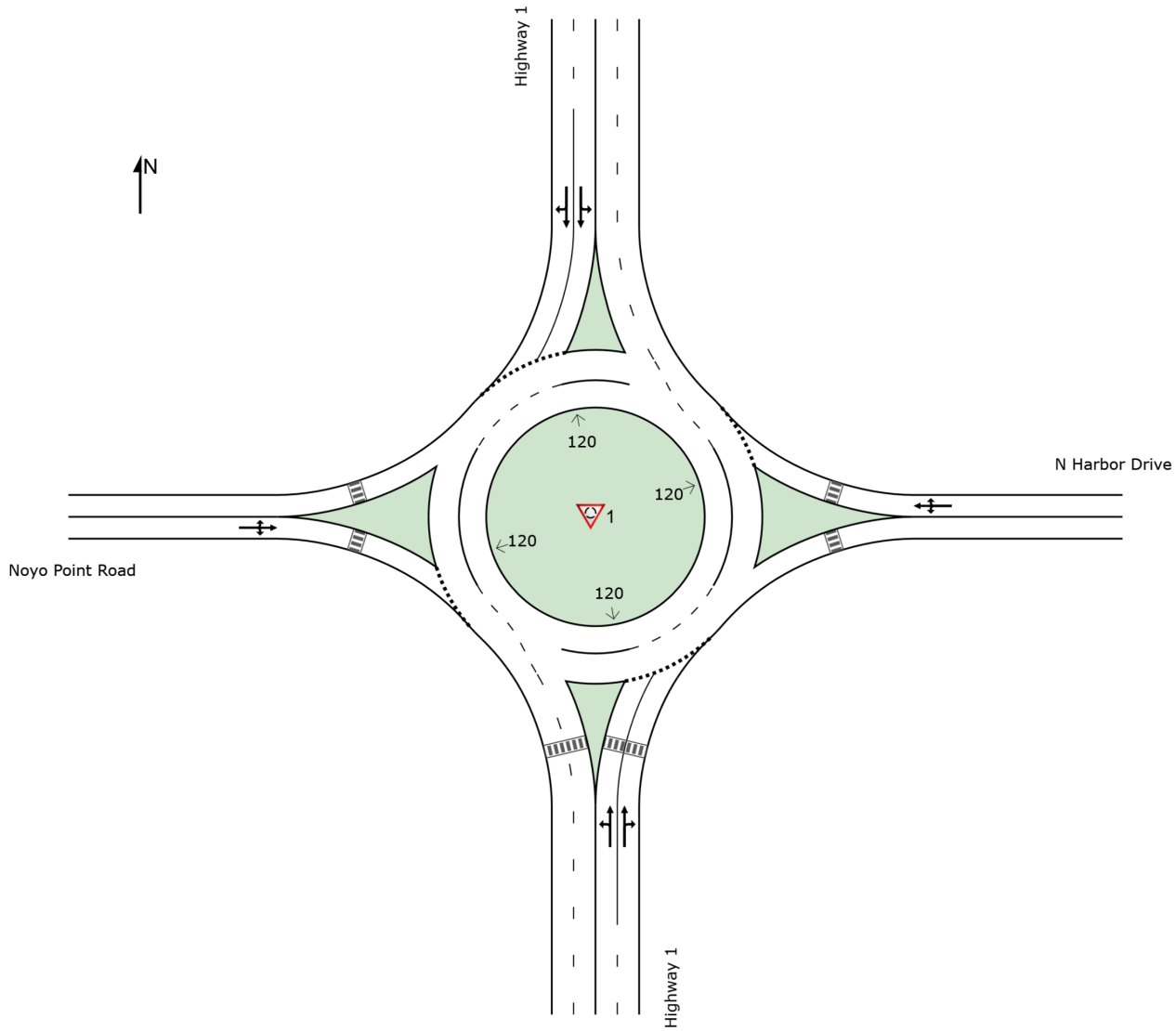
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: 1 [Hwy 1/North Habor Drive, 2-Lane (Site Folder: Existing AM)]

NA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 1 [Hwy 1/North Habor Drive, 2-Lane (Ready) (Site Folder: Existing PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	5	2.8	5	2.8	0.532	8.7	LOS A	3.9	98.6	0.29	0.10	0.29	31.8
8	T1	All MCs	1174	2.8	1174	2.8	0.532	8.5	LOS A	3.9	98.6	0.28	0.10	0.28	32.4
18	R2	All MCs	62	2.8	62	2.8	0.532	8.4	LOS A	3.8	95.3	0.27	0.10	0.27	32.2
Approach			1241	2.8	1241	2.8	0.532	8.5	LOS A	3.9	98.6	0.28	0.10	0.28	32.4
East: N Harbor Drive															
1	L2	All MCs	27	2.8	27	2.8	0.224	13.0	LOS B	0.7	18.2	0.73	0.73	0.73	21.4
6	T1	All MCs	1	2.8	1	2.8	0.224	13.0	LOS B	0.7	18.2	0.73	0.73	0.73	21.5
16	R2	All MCs	58	2.8	58	2.8	0.224	13.0	LOS B	0.7	18.2	0.73	0.73	0.73	21.4
Approach			87	2.8	87	2.8	0.224	13.0	LOS B	0.7	18.2	0.73	0.73	0.73	21.4
North: Highway 1															
7	L2	All MCs	45	2.8	45	2.8	0.550	8.5	LOS A	4.2	108.5	0.24	0.07	0.24	31.7
4	T1	All MCs	1265	2.8	1265	2.8	0.550	8.4	LOS A	4.2	108.5	0.23	0.07	0.23	32.4
14	R2	All MCs	1	2.8	1	2.8	0.550	8.2	LOS A	4.1	104.4	0.23	0.07	0.23	32.3
Approach			1311	2.8	1311	2.8	0.550	8.4	LOS A	4.2	108.5	0.23	0.07	0.23	32.4
West: Noyo Point Road															
5	L2	All MCs	4	2.8	4	2.8	0.029	11.3	LOS B	0.1	2.1	0.73	0.73	0.73	21.6
2	T1	All MCs	1	2.8	1	2.8	0.029	11.3	LOS B	0.1	2.1	0.73	0.73	0.73	21.7
12	R2	All MCs	4	2.8	4	2.8	0.029	11.3	LOS B	0.1	2.1	0.73	0.73	0.73	21.7
Approach			10	2.8	10	2.8	0.029	11.3	LOS B	0.1	2.1	0.73	0.73	0.73	21.7
All Vehicles			2649	2.8	2649	2.8	0.550	8.6	LOS A	4.2	108.5	0.27	0.11	0.27	31.8

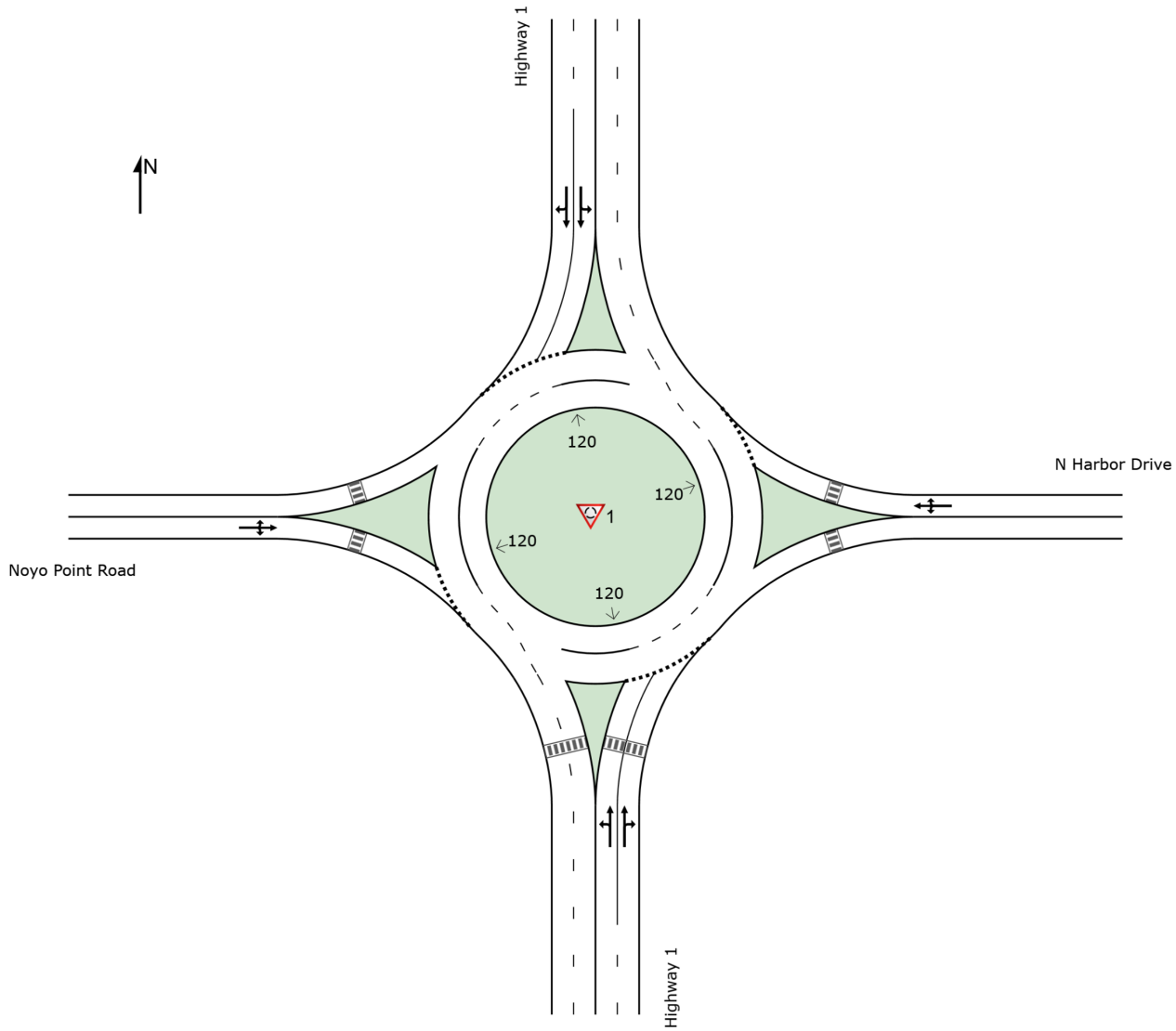
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: 1 [Hwy 1/North Habor Drive, 2-Lane (Ready) (Site Folder: Existing PM (Volumes Updated for 1-Lane))]

NA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

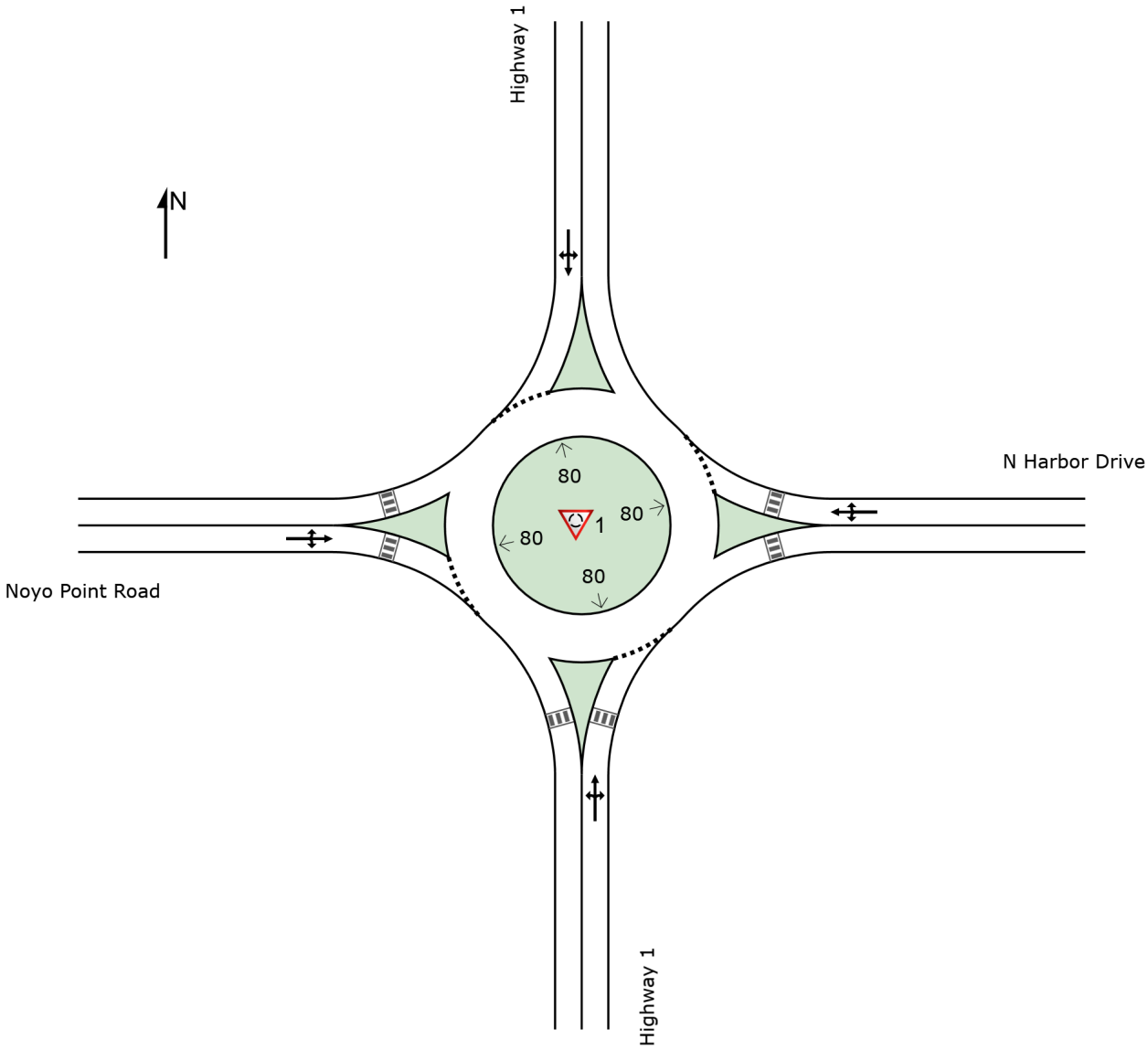


SITE LAYOUT

Site: 1 [Hwy 1/North Habor Drive, 1-Lane (Ready) (Site Folder: Existing PM (Volumes Updated for 1-Lane))]

NA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.

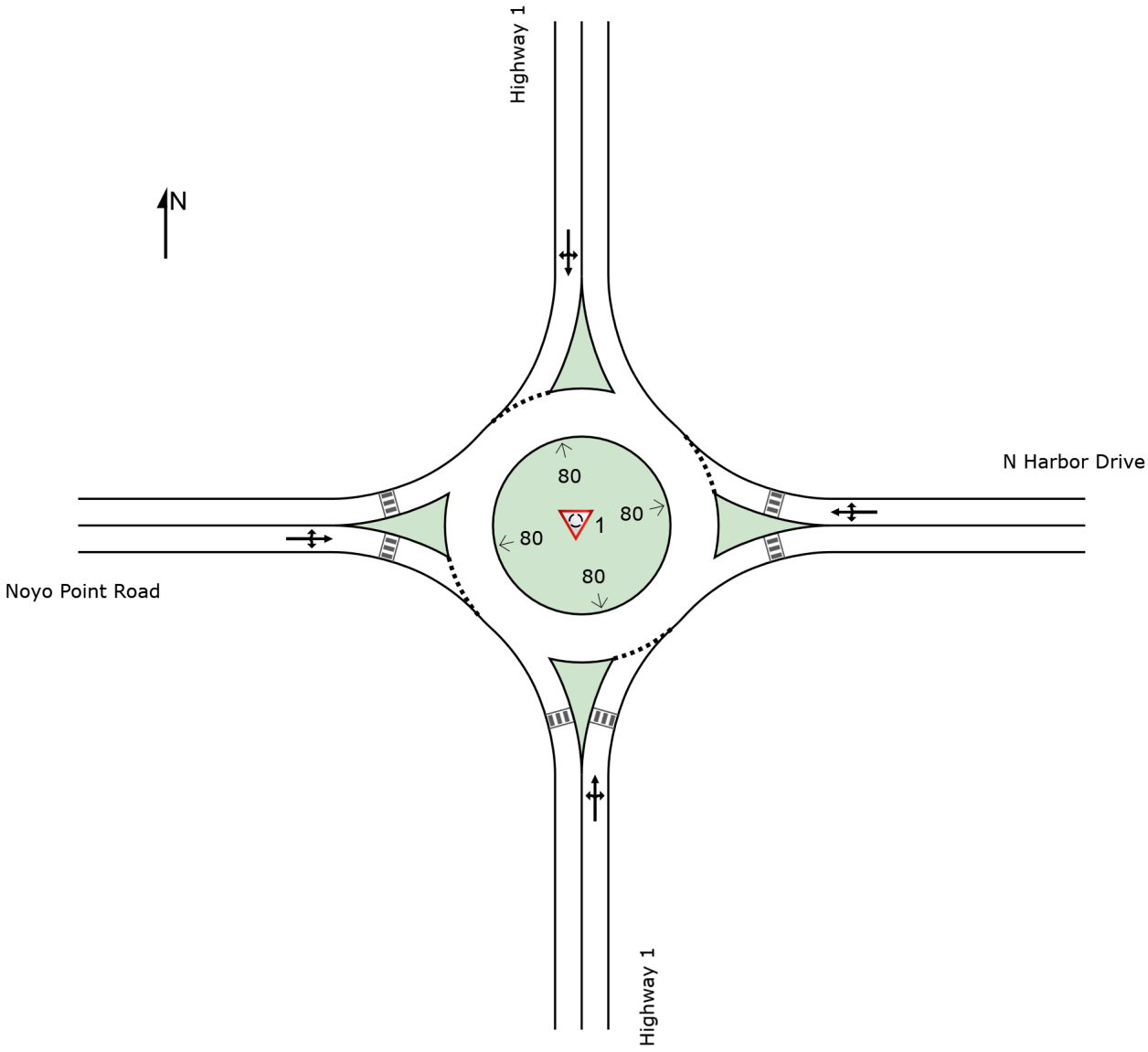


SITE LAYOUT

Site: 1 [Hwy 1/North Habor Drive, 1-Lane (Ready) (Site Folder: 2044 AM (Volumes Updated for 1-Lane Roundabout))]

NA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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MOVEMENT SUMMARY

Site: 1 [Hwy 1/North Habor Drive, 1-Lane (Ready) (Site Folder: 2044 AM (Volumes Updated for 1-Lane Roundabout))]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	2	3.0	2	3.0	0.883	14.6	LOS B	25.8	658.0	0.72	0.19	0.72	28.9
8	T1	All MCs	1024	2.7	1024	2.7	0.883	14.6	LOS B	25.8	658.0	0.72	0.19	0.72	29.4
18	R2	All MCs	30	2.7	30	2.7	0.883	14.5	LOS B	25.8	658.0	0.72	0.19	0.72	29.2
Approach			1056	2.7	1056	2.7	0.883	14.6	LOS B	25.8	658.0	0.72	0.19	0.72	29.4
East: N Harbor Drive															
1	L2	All MCs	31	2.7	31	2.7	0.138	12.0	LOS B	0.5	12.3	0.72	0.72	0.72	21.1
6	T1	All MCs	1	2.7	1	2.7	0.138	12.0	LOS B	0.5	12.3	0.72	0.72	0.72	21.3
16	R2	All MCs	19	2.7	19	2.7	0.138	12.0	LOS B	0.5	12.3	0.72	0.72	0.72	21.2
Approach			51	2.7	51	2.7	0.138	12.0	LOS B	0.5	12.3	0.72	0.72	0.72	21.2
North: Highway 1															
7	L2	All MCs	20	2.7	20	2.7	0.729	11.7	LOS B	10.0	253.8	0.42	0.13	0.42	30.0
4	T1	All MCs	841	2.7	841	2.7	0.729	11.7	LOS B	10.0	253.8	0.42	0.13	0.42	30.5
14	R2	All MCs	1	2.7	1	2.7	0.729	11.7	LOS B	10.0	253.8	0.42	0.13	0.42	30.3
Approach			862	2.7	862	2.7	0.729	11.7	LOS B	10.0	253.8	0.42	0.13	0.42	30.5
West: Noyo Point Road															
5	L2	All MCs	2	2.7	2	2.7	0.017	8.5	LOS A	0.1	1.5	0.65	0.58	0.65	22.1
2	T1	All MCs	1	2.7	1	2.7	0.017	8.5	LOS A	0.1	1.5	0.65	0.58	0.65	22.3
12	R2	All MCs	4	2.7	4	2.7	0.017	8.5	LOS A	0.1	1.5	0.65	0.58	0.65	22.2
Approach			7	2.7	7	2.7	0.017	8.5	LOS A	0.1	1.5	0.65	0.58	0.65	22.2
All Vehicles			1976	2.7	1976	2.7	0.883	13.2	LOS B	25.8	658.0	0.59	0.18	0.59	29.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1 [Hwy 1/North Habor Drive, 1-Lane (Ready) (Site Folder: 2044 PM (Volumes Updated for 1-Lane))]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	5	2.8	5	2.8	1.172	70.2	LOS F	151.8	3861.9	1.00	1.56	1.89	16.9
8	T1	All MCs	1291	2.8	1291	2.8	1.172	70.2	LOS F	151.8	3861.9	1.00	1.56	1.89	17.0
18	R2	All MCs	69	2.0	69	2.0	1.172	70.2	LOS F	151.8	3861.9	1.00	1.56	1.89	17.0
Approach			1365	2.7	1365	2.7	1.172	70.2	LOS F	151.8	3861.9	1.00	1.56	1.89	17.0
East: N Harbor Drive															
1	L2	All MCs	31	2.8	31	2.8	0.283	16.2	LOS C	1.0	26.6	0.78	0.81	0.84	20.5
6	T1	All MCs	1	2.8	1	2.8	0.283	16.2	LOS C	1.0	26.6	0.78	0.81	0.84	20.7
16	R2	All MCs	63	2.8	63	2.8	0.283	16.2	LOS C	1.0	26.6	0.78	0.81	0.84	20.6
Approach			95	2.8	95	2.8	0.283	16.2	LOS C	1.0	26.6	0.78	0.81	0.84	20.6
North: Highway 1															
7	L2	All MCs	50	2.8	50	2.8	1.224	78.4	LOS F	193.0	4903.8	1.00	1.55	1.87	15.9
4	T1	All MCs	1391	2.8	1391	2.8	1.224	78.4	LOS F	193.0	4903.8	1.00	1.55	1.87	16.0
14	R2	All MCs	1	2.8	1	2.8	1.224	78.4	LOS F	193.0	4903.8	1.00	1.55	1.87	16.0
Approach			1442	2.8	1442	2.8	1.224	78.4	LOS F	193.0	4903.8	1.00	1.55	1.87	16.0
West: Noyo Point Road															
5	L2	All MCs	4	2.8	4	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.1
2	T1	All MCs	1	2.8	1	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.3
12	R2	All MCs	4	2.8	4	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.2
Approach			10	2.8	10	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.2
All Vehicles			2912	2.8	2912	2.8	1.224	72.3	LOS F	193.0	4903.8	0.99	1.53	1.85	16.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 1 [Hwy 1/North Habor Drive, 2-Lane (Ready) (Site Folder: 2044 AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	2	3.0	2	3.0	0.442	6.9	LOS A	2.8	71.3	0.16	0.04	0.16	32.7
8	T1	All MCs	1024	2.7	1024	2.7	0.442	6.7	LOS A	2.8	71.3	0.15	0.04	0.15	33.4
18	R2	All MCs	30	2.7	30	2.7	0.442	6.6	LOS A	2.7	69.1	0.15	0.04	0.15	33.1
Approach			1056	2.7	1056	2.7	0.442	6.7	LOS A	2.8	71.3	0.15	0.04	0.15	33.4
East: N Harbor Drive															
1	L2	All MCs	31	2.7	31	2.7	0.112	9.5	LOS A	0.4	9.1	0.65	0.65	0.65	21.9
6	T1	All MCs	1	2.7	1	2.7	0.112	9.5	LOS A	0.4	9.1	0.65	0.65	0.65	22.0
16	R2	All MCs	19	2.7	19	2.7	0.112	9.5	LOS A	0.4	9.1	0.65	0.65	0.65	22.0
Approach			51	2.7	51	2.7	0.112	9.5	LOS A	0.4	9.1	0.65	0.65	0.65	21.9
North: Highway 1															
7	L2	All MCs	20	2.7	20	2.7	0.361	6.2	LOS A	2.0	51.3	0.17	0.05	0.17	32.8
4	T1	All MCs	841	2.7	841	2.7	0.361	6.1	LOS A	2.0	51.3	0.17	0.05	0.17	33.6
14	R2	All MCs	1	2.7	1	2.7	0.361	6.0	LOS A	2.0	49.5	0.16	0.05	0.16	33.4
Approach			862	2.7	862	2.7	0.361	6.1	LOS A	2.0	51.3	0.17	0.05	0.17	33.6
West: Noyo Point Road															
5	L2	All MCs	2	2.7	2	2.7	0.014	7.1	LOS A	0.0	1.1	0.58	0.51	0.58	22.7
2	T1	All MCs	1	2.7	1	2.7	0.014	7.1	LOS A	0.0	1.1	0.58	0.51	0.58	22.8
12	R2	All MCs	4	2.7	4	2.7	0.014	7.1	LOS A	0.0	1.1	0.58	0.51	0.58	22.8
Approach			7	2.7	7	2.7	0.014	7.1	LOS A	0.0	1.1	0.58	0.51	0.58	22.7
All Vehicles			1976	2.7	1976	2.7	0.442	6.5	LOS A	2.8	71.3	0.17	0.06	0.17	33.0

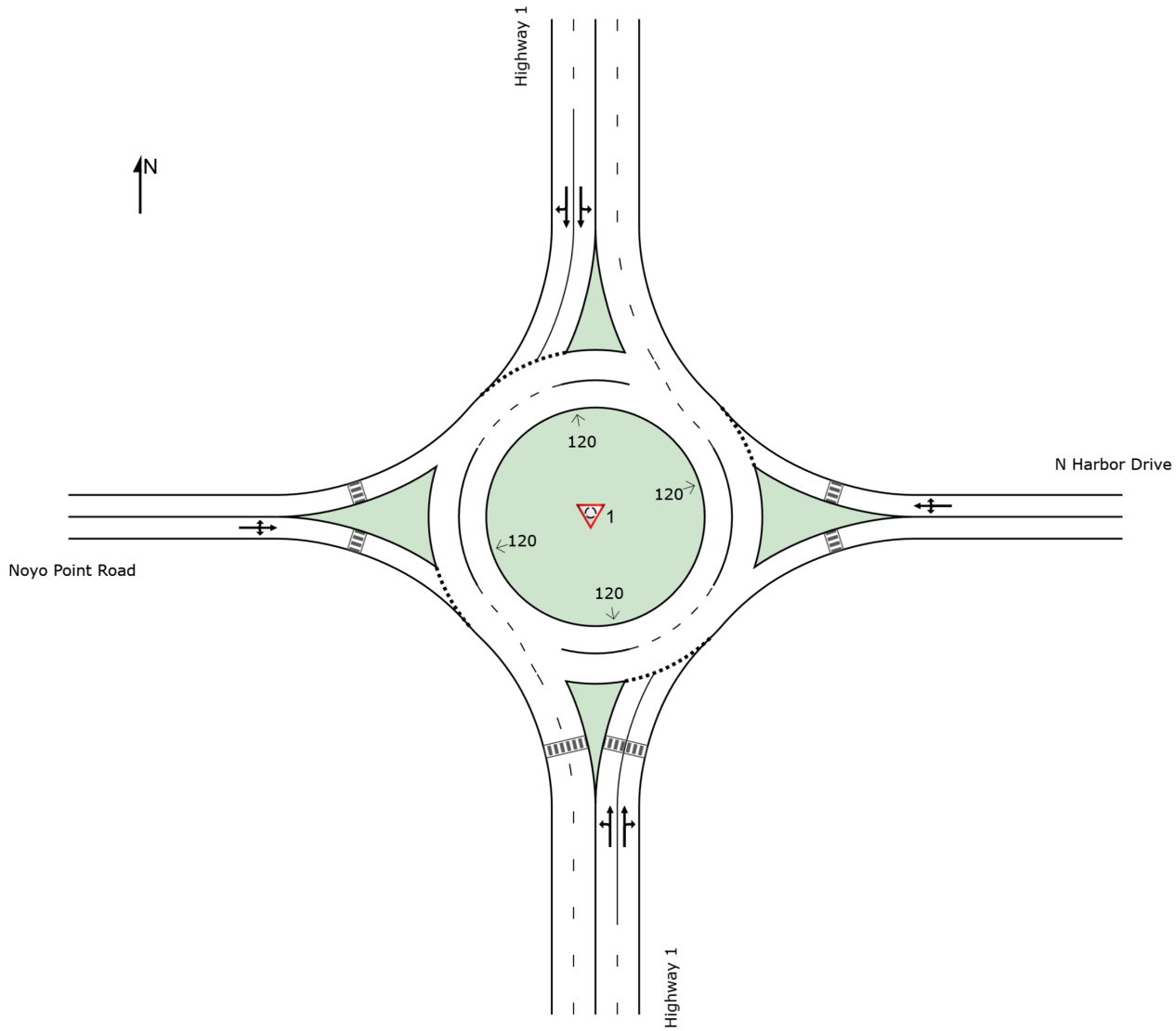
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: 1 [Hwy 1/North Habor Drive, 2-Lane (Ready) (Site Folder: 2044 AM (Volumes Updated for 1-Lane Roundabout))]

NA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 1 [Hwy 1/North Habor Drive, 2-Lane (Ready) (Site Folder: 2044 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	5	2.8	5	2.8	0.587	9.7	LOS A	4.7	121.1	0.34	0.12	0.34	31.4
8	T1	All MCs	1291	2.8	1291	2.8	0.587	9.5	LOS A	4.7	121.1	0.33	0.12	0.33	32.0
18	R2	All MCs	69	2.0	69	2.0	0.587	9.3	LOS A	4.6	117.1	0.32	0.12	0.32	31.8
Approach			1365	2.7	1365	2.7	0.587	9.5	LOS A	4.7	121.1	0.33	0.12	0.33	32.0
East: N Harbor Drive															
1	L2	All MCs	31	2.8	31	2.8	0.277	15.8	LOS C	0.9	23.2	0.77	0.82	0.88	20.8
6	T1	All MCs	1	2.8	1	2.8	0.277	15.8	LOS C	0.9	23.2	0.77	0.82	0.88	20.9
16	R2	All MCs	63	2.8	63	2.8	0.277	15.8	LOS C	0.9	23.2	0.77	0.82	0.88	20.9
Approach			95	2.8	95	2.8	0.277	15.8	LOS C	0.9	23.2	0.77	0.82	0.88	20.9
North: Highway 1															
7	L2	All MCs	50	2.8	50	2.8	0.607	9.6	LOS A	5.3	135.0	0.29	0.09	0.29	31.3
4	T1	All MCs	1391	2.8	1391	2.8	0.607	9.4	LOS A	5.3	135.0	0.28	0.09	0.28	32.0
14	R2	All MCs	1	2.8	1	2.8	0.607	9.2	LOS A	5.1	130.0	0.27	0.08	0.27	31.9
Approach			1442	2.8	1442	2.8	0.607	9.4	LOS A	5.3	135.0	0.28	0.09	0.28	32.0
West: Noyo Point Road															
5	L2	All MCs	4	2.8	4	2.8	0.033	13.1	LOS B	0.1	2.4	0.76	0.76	0.76	21.3
2	T1	All MCs	1	2.8	1	2.8	0.033	13.1	LOS B	0.1	2.4	0.76	0.76	0.76	21.4
12	R2	All MCs	4	2.8	4	2.8	0.033	13.1	LOS B	0.1	2.4	0.76	0.76	0.76	21.4
Approach			10	2.8	10	2.8	0.033	13.1	LOS B	0.1	2.4	0.76	0.76	0.76	21.3
All Vehicles			2912	2.8	2912	2.8	0.607	9.7	LOS A	5.3	135.0	0.32	0.13	0.32	31.4

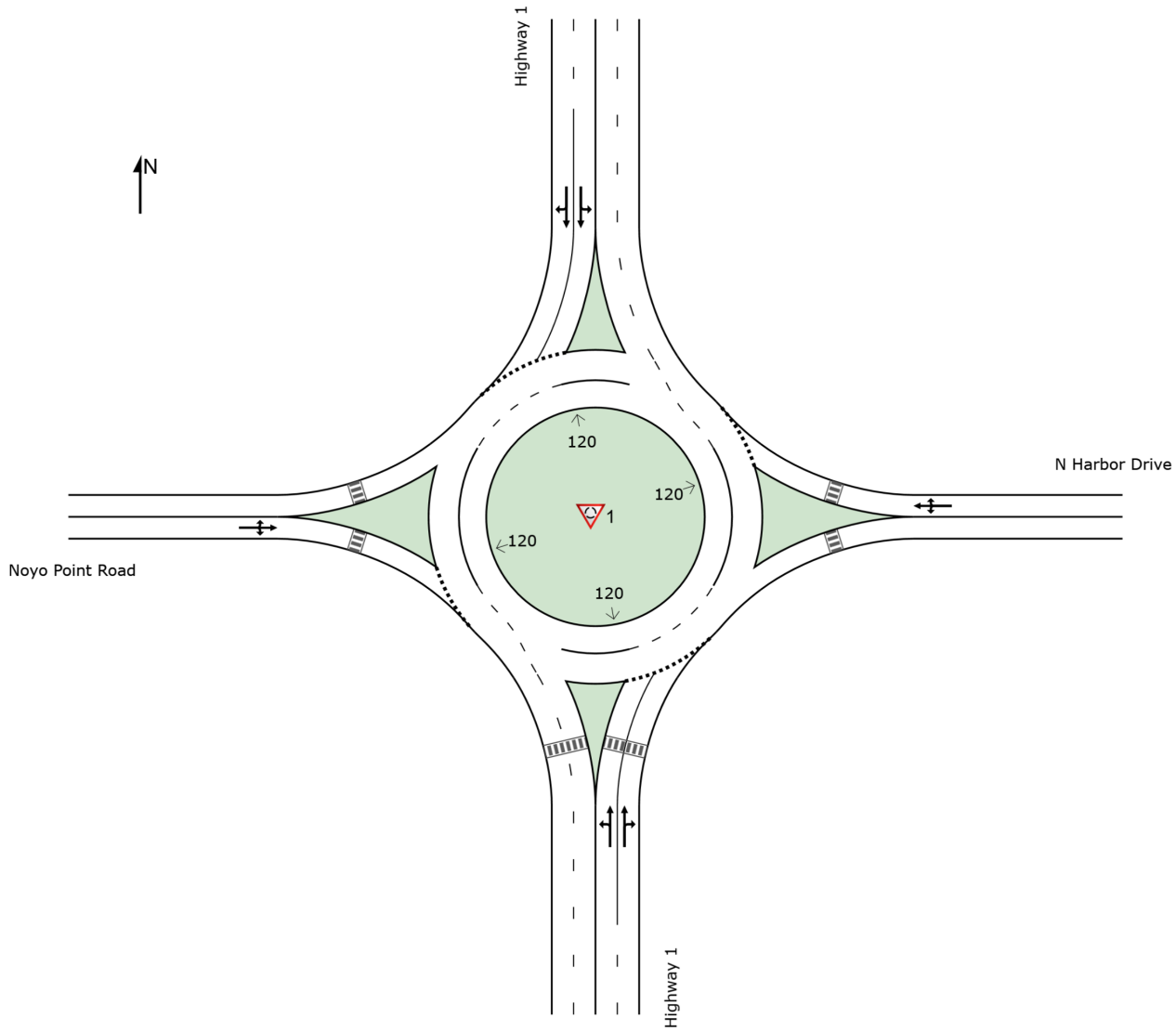
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

Site: 1 [Hwy 1/North Habor Drive, 2-Lane (Ready) (Site Folder: 2044 PM (Volumes Updated for 1-Lane))]

NA
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Appendix G.
Cost Estimates

NOYO HARBOR - WALKWAY INTO HARBOR
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 69,737.50	25%	$ 69,737.50
102	Water Pollution Control	1	LS	$ 8,000.00	25%	$ 10,000.00
103	Construction Layout	1	LS	$ 10,000.00	25%	$ 12,500.00
104	Traffic Control	1	LS	$ 20,000.00	25%	$ 25,000.00
				Task 100A Subtotal		**$ 117,237.50**
200A	**DEMOLITION**					
201A	Asphalt Demolition and Disposal	1,150	SF	$ 10.00	25%	$ 14,375.00
202A	Portland Cement Concrete (PCC) Curb & Gutter Demolition and Disposal	70	LF	$ 70.00	25%	$ 6,125.00
203A	Relocate Sign	4	EA	$ 500.00	25%	$ 2,500.00
204A	Adjust Utilities to Grade	5	EA	$ 2,500.00	25%	$ 15,625.00
205A	Relocate Manhole	1	EA	$ 10,000.00	25%	$ 12,500.00
206A	Remove Guardrail	25	LF	$ 20.00	25%	$ 625.00
				Task 200A Subtotal		**$ 51,750.00**
200B	**DEMOLITION**					
201B	Clear and Grub	2875	SF	$ 1.00	25%	$ 3,593.75
202B	Asphalt Demolition and Disposal	1,550	SF	$ 10.00	25%	$ 19,375.00
203B	Portland Cement Concrete (PCC) Flatwork Demolition and Disposal	350	SF	$ 6.00	25%	$ 2,625.00
204B	Portland Cement Concrete (PCC) Curb & Gutter Demolition and Disposal	75	LF	$ 70.00	25%	$ 6,562.50
205B	Remove Wooden Fence	80	LF	$ 20.00	25%	$ 2,000.00
206B	Relocate Sign	5	EA	$ 500.00	25%	$ 3,125.00
207B	Adjust Utilities to Grade	2	EA	$ 2,500.00	25%	$ 6,250.00
208B	Remove Guardrail	310	LF	$ 20.00	25%	$ 7,750.00
209B	Relocate Mailbox	1	EA	$ 250.00	25%	$ 312.50
				Task 200B Subtotal		**$ 51,593.75**
300A	**STREETS AND SIDEWALKS**					

301A	Asphalt Paving Conform	1	TONS	$ 1,200.00	25%	$ 1,500.00
302A	Concrete Sidewalk	1,100	SF	$ 40.00	25%	$ 55,000.00
303A	Vehicular Concrete Sidewalk	130	SF	$ 50.00	25%	$ 8,125.00
304A	Aggregate Base	25	TONS	$ 45.00	25%	$ 1,406.25
305A	Concrete Curb and Gutter	230	LF	$ 80.00	25%	$ 23,000.00
306A	Pedestrian Guardrail	25	LF	$ 35.00	25%	$ 1,093.75
				Task 300A Subtotal		**$ 90,125.00**
300B	**STREETS AND SIDEWALKS**					
301B	Earthwork	110	CY	$ 50.00	25%	$ 6,875.00
302B	Concrete Sidewalk	4,100	SF	$ 40.00	25%	$ 205,000.00
303B	Vehicular Concrete Sidewalk	850	SF	$ 50.00	25%	$ 53,125.00
304B	Aggregate Base	95	TONS	$ 45.00	25%	$ 5,343.75
305B	Concrete Curb and Gutter	1,000	LF	$ 80.00	25%	$ 100,000.00
306B	Pedestrian Guardrail	310	LF	$ 35.00	25%	$ 13,562.50
307B	Retainig Wall (4' High)	275	LF	$ 200.00	25%	$ 68,750.00
				Task 300B Subtotal		**$ 452,656.25**
400B	**UTILITIES**					
401B	Streetlight - Adjust to Grade	3	EA	$ 1,000.00	25%	$ 3,750.00
				Task 400B Subtotal		**$ 3,750.00**
	Total Construction Cost (2025 Dollars):					**$ 767,112.50**

Notes:

1. Segment **(A)** consists of the proposed sidewalk in front of Harbor Lite Lodge.
2. Segment **(B)** consists of the proposed sidewalk along North Harbor Drive from Harbor Lite Lodge to Noyo Fishing Center.

NOYO HARBOR - STRUCTURED WALKWAY ON HILLSIDE
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 73,475.00	25%	$ 73,475.00
102	Water Pollution Control	1	LS	$ 5,000.00	25%	$ 6,250.00
103	Construction Layout	1	LS	$ 8,000.00	25%	$ 10,000.00
104	Traffic Control	1	LS	$ 20,000.00	25%	$ 25,000.00
				Task 100 Subtotal		**$ 114,725.00**
200	**DEMOLITION**					
201	Clear and Grub	4750	SF	$ 1.00	25%	$ 5,937.50
202	Asphalt Demolition and Disposal	100	SF	$ 10.00	25%	$ 1,250.00
203	Asphalt Berm Demolition and Disposal	375	LF	$ 10.00	25%	$ 4,687.50
204	Relocate Sign	10	EA	$ 500.00	25%	$ 6,250.00
205	Remove Guardrail	950	LF	$ 20.00	25%	$ 23,750.00
				Task 200 Subtotal		**$ 41,875.00**
300	**STREETS AND SIDEWALKS**					
301	Earthwork	360	CY	$ 50.00	25%	$ 22,500.00
302	Concrete Sidewalk	4,850	SF	$ 40.00	25%	$ 242,500.00
303	Aggregate Base	90	TONS	$ 45.00	25%	$ 5,062.50
304	Concrete Curb and Gutter	1,000	LF	$ 80.00	25%	$ 100,000.00
305	Retainig Wall (4' High)	950	LF	$ 200.00	25%	$ 237,500.00
306	Pedestrian Guardrail	950	LF	$ 35.00	25%	$ 41,562.50
				Task 300 Subtotal		**$ 649,125.00**
400	**UTILITIES**					
401	Streetlight - Adjust to Grade	2	EA	$ 1,000.00	25%	$ 2,500.00
				Task 400 Subtotal		**$ 2,500.00**
	Total Construction Cost (2025 Dollars):					**$ 808,225.00**

NOYO HARBOR - WALKWAY THROUGH HARBOR
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 144,764.38	25%	$ 144,764.38
102	Water Pollution Control	1	LS	$ 10,000.00	25%	$ 12,500.00
103	Construction Layout	1	LS	$ 10,000.00	25%	$ 12,500.00
104	Traffic Control	1	LS	$ 15,000.00	25%	$ 18,750.00
				Task 100 Subtotal		**$ 188,514.38**
200A	**DEMOLITION**					
201A	Clear and Grub	4,850	SF	$ 1.00	25%	$ 6,062.50
202A	Asphalt Demolition and Disposal	5,650	SF	$ 10.00	25%	$ 70,625.00
203A	Relocate Sign	1	EA	$ 1,000.00	25%	$ 1,250.00
204A	Adjust Utilities to Grade	10	EA	$ 2,500.00	25%	$ 31,250.00
205A	Relocate Mailbox	2	EA	$ 250.00	25%	$ 625.00
				Task 200A Subtotal		**$ 109,812.50**
200B	**DEMOLITION**					
201B	Clear and Grub	3100	SF	$ 1.00	25%	$ 3,875.00
202B	Portland Cement Concrete (PCC) Curb Demolition and Disposal	375	LF	$ 10.00	25%	$ 4,687.50
				Task 200B Subtotal		**$ 8,562.50**
300A	**STREETS AND SIDEWALKS**					
301A	Asphalt Paving Conform	15	TONS	$ 150.00	25%	$ 2,812.50
302A	Accessible Walking Surface (Pervious Material)	8,450	SF	$ 45.00	25%	$ 475,312.50
303A	Vehicular Walking Surface (Pervious Material)	1,850	SF	$ 50.00	25%	$ 115,625.00
304A	Aggregate Base (Concrete)	200	TONS	$ 45.00	25%	$ 11,250.00
305A	Aggregate Base (Asphalt)	10	TONS	$ 45.00	25%	$ 562.50
306A	Curb Ramp	110	SF	$ 42.00	25%	$ 5,775.00
307A	Removable Bollards	210	EA	$ 500.00	25%	$ 131,250.00
308A	Truncated Domes	40	SF	$ 55.00	25%	$ 2,750.00

309A	Crosswalk Striping	80	LF	$ 4.00	25%	$ 400.00
				Task 300A Subtotal		**$ 745,737.50**
300B	**STREETS AND SIDEWALKS**					
301B	Accessible Walking Surface (Pervious Material)	3,100	SF	$ 45.00	25%	$ 174,375.00
302B	Aggregate Base	60	TONS	$ 45.00	25%	$ 3,375.00
303B	Removable Bollards	60	EA	$ 500.00	25%	$ 37,500.00
				Task 300B Subtotal		**$ 215,250.00**
400B	**STORMWATER FACILITIES**					
401B	Through-Curb Drain	5	EA	$ 500.00	25%	$ 3,125.00
402B	Modify Existing Drainage Structure	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 400B Subtotal		**$ 9,375.00**
500A	**UTILITIES**					
501A	Fire Hydrant - Adjust to Grade	2	EA	$ 2,500.00	25%	$ 6,250.00
502A	Streetlight - Adjust to Grade	1	EA	$ 1,000.00	25%	$ 1,250.00
				Task 500A Subtotal		**$ 7,500.00**
600	**PARKING REALLOCATION**					
601	Clear and Grub	8,000	SF	$ 1.00	25%	$ 10,000.00
602	Sawcut	2,000	LF	$ 0.75	25%	$ 1,875.00
603	Earthwork	350	CY	$ 50.00	25%	$ 21,875.00
604	Asphalt Paving	300	TONS	$ 150.00	25%	$ 56,250.00
605	Aggregate Base	425	TONS	$ 45.00	25%	$ 23,906.25
606	Retaining Wall (4' High)	750	LF	$ 200.00	25%	$ 187,500.00
607	Striping	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 600 Subtotal		$ 307,656.25
	Total Construction Cost (2025 Dollars):					**$ 1,592,408.13**

Notes:

1. Segment **(A)** consists of the proposed walkway along North Harbor Drive from Noyo Fishing Center to Princess Seafood Resturant.
2. Segment **(B)** consists of the proposed walkway along the parking lot.

NOYO HARBOR - STRUCTURED WALKWAY OVER WATER
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 40,156.25	25%	$ 40,156.25
102	Water Pollution Control	1	LS	$ 10,000.00	25%	$ 12,500.00
103	Construction Layout	1	LS	$ 5,000.00	25%	$ 6,250.00
104	Traffic Control	1	LS	$ 15,000.00	25%	$ 18,750.00
				Task 100 Subtotal		**$ 77,656.25**
200	**DEMOLITION**					
201	Clear and Grub	50	SF	$ 25.00	25%	$ 1,562.50
				Task 200 Subtotal		**$ 1,562.50**
300	**STREETS AND SIDEWALKS**					
301	Pedestrian Structure Over Water	1	LS	$ 290,000.00	25%	$ 362,500.00
				Task 300 Subtotal		**$ 362,500.00**
	Total Construction Cost (2025 Dollars):					**$ 441,718.75**

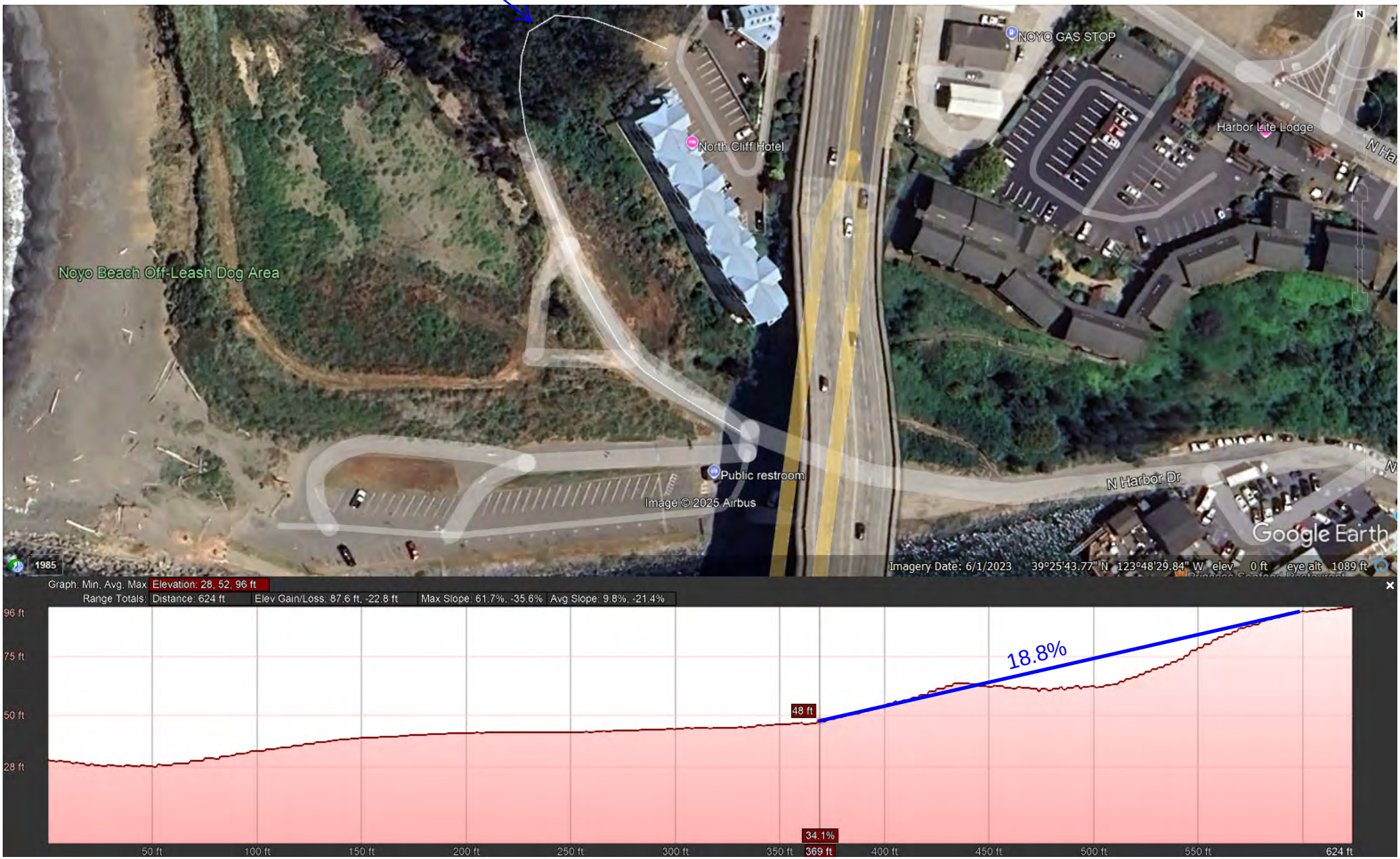
NOYO HARBOR - PARKING RESTRIPING
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 15,125.00	25%	$ 15,125.00
102	Water Pollution Control	1	LS	$ 2,000.00	25%	$ 2,500.00
103	Construction Layout	1	LS	$ 5,000.00	25%	$ 6,250.00
104	Traffic Control	1	LS	$ 2,000.00	25%	$ 2,500.00
				Task 100 Subtotal		**$ 26,375.00**
200	**DEMOLITION**					
201	Remove Striping	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 200 Subtotal		**$ 6,250.00**
300	**STREETS AND SIDEWALKS**					
301	Slurry Seal	37,500	SF	$ 1.00	25%	$ 46,875.00
302	Signs and Posts	3	EA	$ 1,500.00	25%	$ 5,625.00
303	Striping	1	LS	$ 15,000.00	25%	$ 18,750.00
304	Parking Area Under Highway 1	1	LS	$ 50,000.00	25%	$ 62,500.00
				Task 300 Subtotal		**$ 133,750.00**
	Total Construction Cost (2025 Dollars):					**$ 166,375.00**

NOYO HARBOR - EMERGENCY ACCESS EXTENSION
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 61,296.88	25%	$ 61,296.88
102	Water Pollution Control	1	LS	$ 20,000.00	25%	$ 25,000.00
103	Construction Layout	1	LS	$ 15,000.00	25%	$ 18,750.00
104	Traffic Control	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 100 Subtotal		**$ 111,296.88**
200	**DEMOLITION**					
201	Clear and Grub	12850	SF	$ 1.00	25%	$ 16,062.50
202	Asphalt Demolition and Disposal	25	SF	$ 10.00	25%	$ 312.50
203	Remove Trees	1	LS	$ 40,000.00	25%	$ 50,000.00
				Task 200 Subtotal		**$ 66,375.00**
300	**STREETS AND SIDEWALKS**					
301	Earthwork	1,000	CY	$ 50.00	25%	$ 62,500.00
302	Import	900	CY	$ 60.00	25%	$ 67,500.00
303	Asphalt Paving	325	TONS	$ 150.00	25%	$ 60,937.50
304	Aggregate Base	445	TONS	$ 45.00	25%	$ 25,031.25
305	Concrete Curb & Gutter	650	LF	$ 80.00	25%	$ 65,000.00
306	Retaining Wall (4' to 10' Height)	650	LF	$ 250.00	25%	$ 203,125.00
307	Signs and Posts	1	LS	$ 5,000.00	25%	$ 6,250.00
308	Striping	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 300 Subtotal		**$ 496,593.75**
	Total Construction Cost (2025 Dollars):					**$ 674,265.63**

APPROXIMATE PROPOSED EMERGENCY ACCESS EXTENSION ALIGNMENT FOR COST ESTIMATION

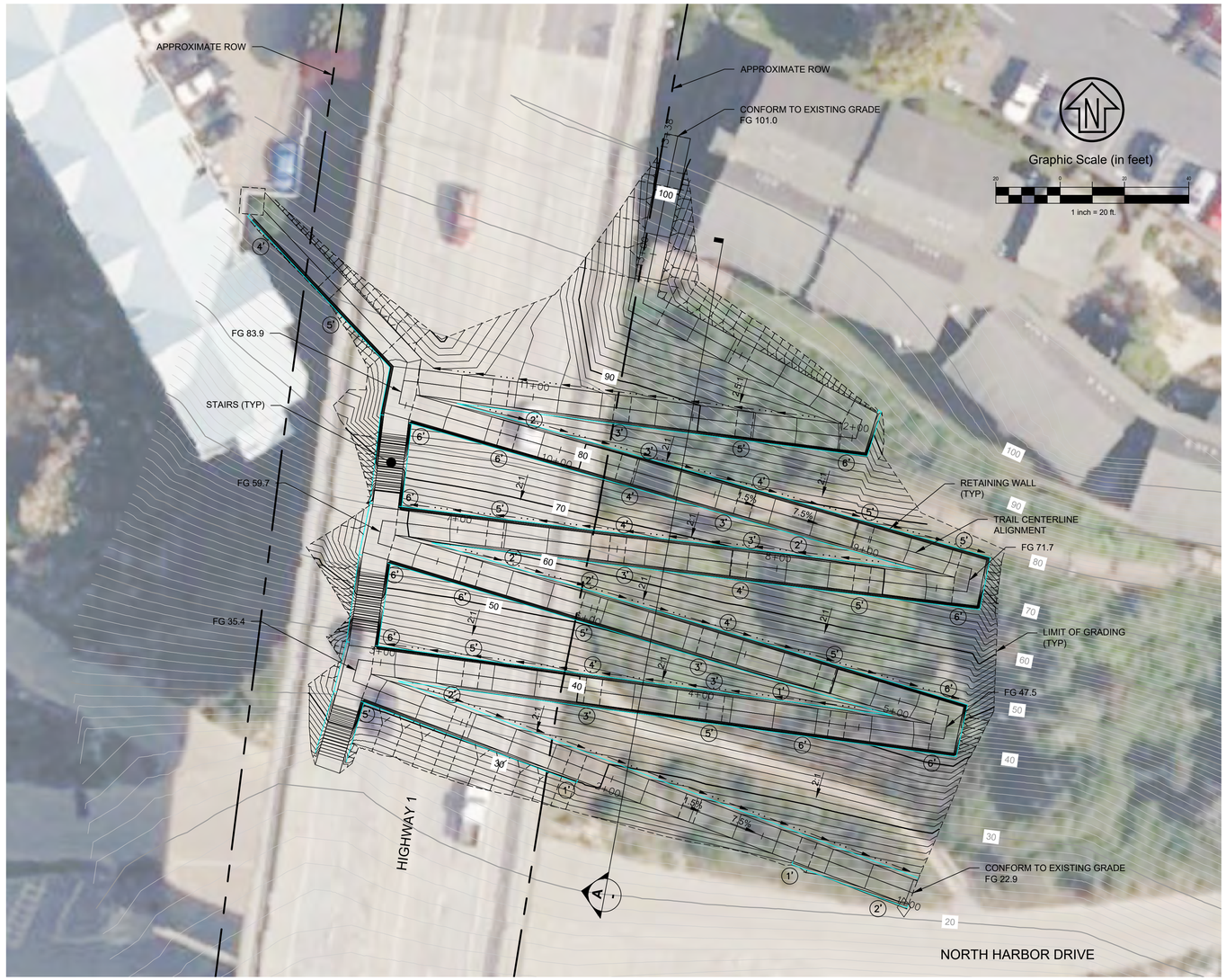


NOYO HARBOR - INTERSECTION IMPROVEMENTS AT HIGHWAY 1 AND NORTH HARBOR DRIVE
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 25,612.50	25%	$ 25,612.50
102	Water Pollution Control	1	LS	$ 5,000.00	25%	$ 6,250.00
103	Construction Layout	1	LS	$ 5,000.00	25%	$ 6,250.00
104	Traffic Control	1	LS	$ 20,000.00	25%	$ 25,000.00
				Task 100 Subtotal		**$ 63,112.50**
200	**DEMOLITION**					
201	Asphalt Demolition and Disposal	1,850	SF	$ 10.00	25%	$ 23,125.00
202	Sawcut	400	LF	$ 0.75	25%	$ 375.00
				Task 200 Subtotal		**$ 23,500.00**
300	**STREETS AND SIDEWALKS**					
301	Concrete Raised Median	1,850	SF	$ 40.00	25%	$ 92,500.00
302	Aggregate Base	35	TONS	$ 45.00	25%	$ 1,968.75
303	Concrete Curb	385	LF	$ 65.00	25%	$ 31,281.25
304	"No Left Turn" Sign	1	EA	$ 500.00	25%	$ 625.00
305	Rectangular Rapid Flashing Beacon (RRFB)	2	EA	$ 22,500.00	25%	$ 56,250.00
306	Striping	1	LS	$ 10,000.00	25%	$ 12,500.00
				Task 300 Subtotal		**$ 195,125.00**
	Total Construction Cost (2025 Dollars):					**$ 281,737.50**

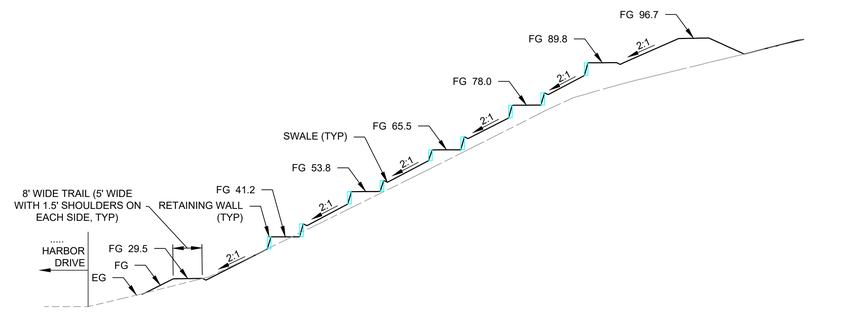
NOYO HARBOR - STAIRWAY UNDER HIGHWAY 1
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 221,668.75	25%	$ 221,668.75
102	Water Pollution Control	1	LS	$ 20,000.00	25%	$ 25,000.00
103	Construction Layout	1	LS	$ 20,000.00	25%	$ 25,000.00
104	Traffic Control	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 100 Subtotal		**$ 277,918.75**
200	**DEMOLITION**					
201	Clear and Grub	38000	SF	$ 1.00	25%	$ 47,500.00
202	Remove Tree	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 200 Subtotal		**$ 53,750.00**
300	**STREETS AND SIDEWALKS**					
301	Earthwork	4,000	CY	$ 50.00	25%	$ 250,000.00
302	Import	3,500	CY	$ 60.00	25%	$ 262,500.00
303	Fine Grading	10,000	SF	$ 1.00	25%	$ 12,500.00
304	Aggregate Base	280	Tons	$ 45.00	25%	$ 15,750.00
305	Resiliant Surfacing (Assume 3" AC)	185	Tons	$ 150.00	25%	$ 34,687.50
306	Concrete Stairs	80	CY	$ 9,000.00	25%	$ 900,000.00
307	Retaining Wall (2' to 8' Height)	2,000	LF	$ 250.00	25%	$ 625,000.00
308	Signs and Posts	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 300 Subtotal		**$ 2,106,687.50**
	Total Construction Cost (2025 Dollars):					**$ 2,438,356.25**



LEGEND

- RETAINING WALL
- (X') RETAINING WALL HEIGHT
- LIMIT OF GRADING



SECTION A

SCALE: NTS

CSW ST2
Engineering
Landscape Architecture
Surveying
Urban Planning
504 Redwood Blvd, #310
Novato, CA 94947
415.533.1864
CSWST2.com

Rev	Date	Description	Designed	Drawn	Checked

NOYO HARBOR IMPROVEMENTS
TRAIL UNDER HIGHWAY 1

City Of
Fort Bragg

County Of
Mendocino

State Of
California

Prepared Under the Direction of:

Sheet
EX1.0

Scale:	1" = 20'
Date:	07/21/2025
Project Number:	2400072
Plan File:	

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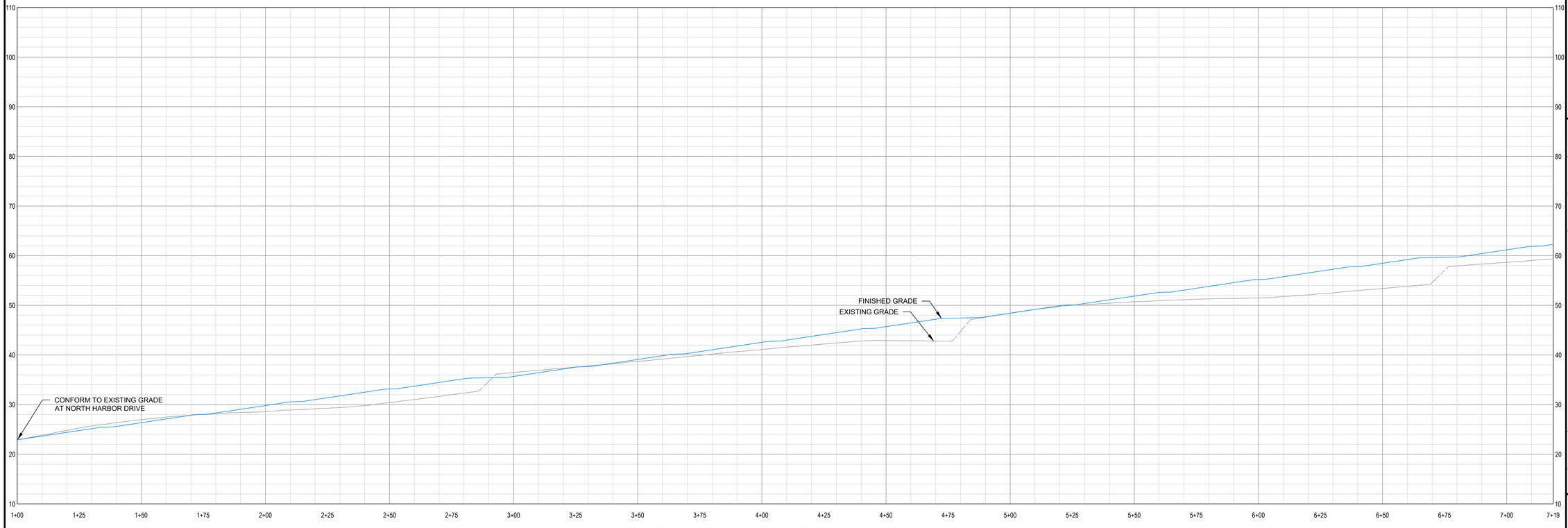
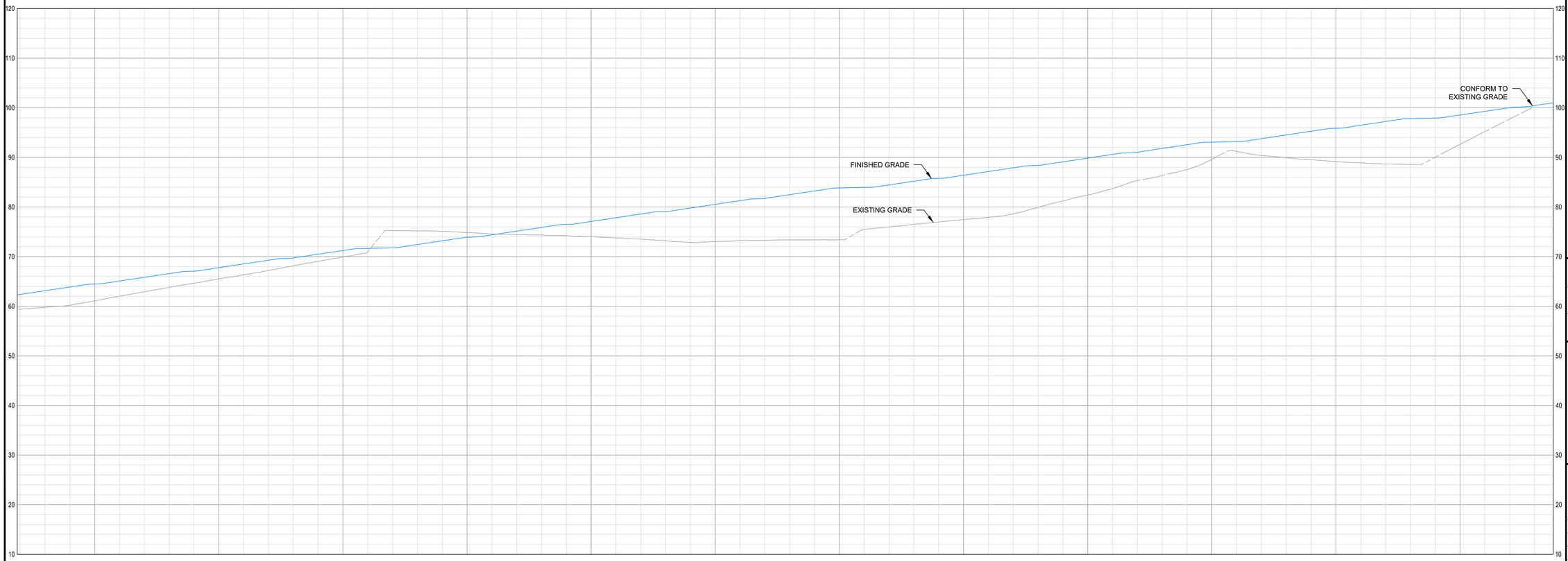


TRAIL CENTERLINE ALIGNMENT - STA 1+00 TO 7+19

SCALE: HOR. 1" = 20' VERT. 1" = 10'



CSW ST2
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Rev	Date	Description	Designed	Drawn	Checked

NOYO HARBOR IMPROVEMENTS
TRAIL UNDER HIGHWAY 1

City Of
Fort Bragg

County Of
Mendocino

State Of
California

Prepared Under the Direction of:

Sheet
EX1.1

Scale:	AS SHOWN
Date:	07/21/2025
Project Number:	2400072
Plan File:	

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NOYO HARBOR - WAYFINDING
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**STREETS AND SIDEWALKS**					
101	Wayfinding Sign Design Fee	1	LS	$ 5,000.00	25%	$ 6,250.00
102	Wayfinding Sign (Includes Labor and Materials)	10	EA	$ 800.00	25%	$ 10,000.00
103	Interpretive Sign Design Fee	1	LS	$ 10,000.00	25%	$ 12,500.00
104	Interpretive Sign (Includes Labor and Materials)	2	EA	$ 2,000.00	25%	$ 5,000.00
				Task 100 Subtotal		**$ 28,750.00**
	Total Construction Cost (2025 Dollars):					**$ 28,750.00**

NOYO HARBOR - BUS STOP IMPROVEMENTS
PRELIMINARY COST ESTIMATE
08.12.2025

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	**GENERAL CONDITIONS**					
101	Mobilization/ Demobilization	1	LS	$ 15,032.03	25%	$ 15,032.03
102	Water Pollution Control	1	LS	$ 3,000.00	25%	$ 3,750.00
103	Construction Layout	1	LS	$ 3,000.00	25%	$ 3,750.00
104	Traffic Control	1	LS	$ 5,000.00	25%	$ 6,250.00
				Task 100 Subtotal		**$ 28,782.03**
200	**DEMOLITION**					
201	Clear and Grub	200	SF	$ 1.00	25%	$ 250.00
202	Asphalt Demolition and Disposal	150	SF	$ 10.00	25%	$ 1,875.00
203	Sawcut	175	LF	$ 0.75	25%	$ 164.06
				Task 200 Subtotal		**$ 2,289.06**
300	**STREETS AND SIDEWALKS**					
301	Asphalt Paving	325	TONS	$ 150.00	25%	$ 60,937.50
302	Aggregate Base	15	TONS	$ 45.00	25%	$ 843.75
303	Concrete Bus Pad (20' x 8') (3 Pads)	500	SF	$ 50.00	25%	$ 31,250.00
304	Bus Stop Shelter	3	EA	$ 10,000.00	25%	$ 37,500.00
305	Signs and Posts	1	LS	$ 2,000.00	25%	$ 2,500.00
306	Striping	1	LS	$ 1,000.00	25%	$ 1,250.00
				Task 300 Subtotal		**$ 134,281.25**
	Total Construction Cost (2025 Dollars):					**$ 165,352.34**