



CITY OF NOVATO
PUBLIC WORKS

Complete Streets & Pathways Oversight Committee

Regular Meeting Agenda

***Updated**

CITY ADMINISTRATIVE OFFICES
WOMACK CONFERENCE ROOM - 2nd Floor
922 MACHIN AVENUE
NOVATO, CA 94945

Wednesday, November 16, 2022 - 5:30 PM

Chair

Mark Birnbaum

Vice Chair

Meherdad Namiranian

Members

Joakim Osthus

Nestor Shnasse

Ed Schulze

Mark Vanderscoff

Casey Ward

Matthew Leonard

Vacant, Alternate Member 2

Staff Liaison

Chris Blunk, Public Works Director

The Complete Streets & Pathways Oversight Committee meetings are usually held on the second Wednesday of every other month.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Julie Eichner at (415) 899-8994. Notification at least 48 hours prior to the meeting will enable the City to make reasonable accommodation to help insure accessibility to this meeting.

** This agenda was updated to add the Attachment for Item E.6*

A. WELCOME

A.1 Call to Order, and Roll Call

B. APPROVAL OF FINAL AGENDA

C. Approve the meeting minutes of September 21, 2022

D. GENERAL PUBLIC COMMENTS

All members of the public wishing to address the Committee, are requested to submit a speaker card in advance to the Staff Liaison. The Staff Liaison will call the names of speakers from the cards. In addition to receiving comment from the public during the Public Comment period, the Staff Liaison

will recognize persons from the audience who wish to address the Committee on a particular agenda item at the time that item is considered.

There is a three-minute time limit to speak although the Staff Liaison may shorten the time based on the number of speakers or other factors. A speaker may not yield his or her time to another speaker.

For issues raised during Public Comment that are not on the published agenda, except as otherwise provided under the Ralph M. Brown Act, no action can legally be taken. The Committee may direct that the item be referred to the Staff Liaison for action or may schedule the item on a subsequent agenda.

E. GENERAL BUSINESS

These items include significant and administrative actions of special interest and will usually include a presentation and discussion by the Committee. They will be enacted upon by a separate vote.

E.1 Welcome New Committee Member/s

E.2 Discuss Ways to Coordinate with Safe Routes to School (C. Blunk)

E.3 Discussion on San Marin Drive at San Mateo-Traffic Study/Counts Findings (K. Jeong)

E.4 Discussion on Simmons Lane bike path Virginia Avenue to Novato Boulevard and Pioneer Park Traffic Calming (C. Blunk)

E.5 Update on Capital Improvement Program Projects (C. Blunk)

E.5.1 CIP 09-003 Grant Avenue/Virginia Avenue Bridge

E.5.2 CIP 21-005 Rowland Blvd Project Updates

E.5.3 Olive Ave between Railroad and Redwood Status

E.6 Review Updated Bicycle and Pedestrian Master Plan- Consider Recommendation Approval by the City Council (see attachment) (C. Blunk)

Added 11/9/22: City of Novato Bicycle / Pedestrian Plan Addendum 1

F. COMMITTEE AND LIAISON REPORTS

This section is used for Commissioners and the Staff Liaison to orally report on topics that can be considered for discussion at a future meeting

F.1 Next Meeting Date (January 18, 2023)

G. ADJOURNMENT (7:00 PM – TIME APPROXIMATE)

If urgent matters arise after the publication of the regular agenda, there will be an addendum. It will be posted at the referenced locations mentioned in the Affidavit of Posting by Tuesday 5:00 p.m., before the meeting.

Materials, that are submitted to members of the Complete Streets & Pathways Oversight Committee after the distribution of the agenda packet will be made available on the City of Novato website at novato.org when practical and provided that City staff is able to post those documents prior to the meeting. When non-confidential written materials are distributed to members of the Complete Streets & Pathways Oversight Committee during a public meeting by staff or a member of the Complete Streets & Pathways Oversight Committee, it shall be made available online following that meeting.

AFFIDAVIT OF POSTING

I, Laura McDowall, certify that on November 9, 2022, I caused to be posted the updated agenda of the November 16, 2022, meeting of the Complete Streets & Pathways Oversight Committee on the City Community Service Board at 922 Machin Ave and on the City's website at novato.org.

/Laura McDowall/

Laura McDowall, City Clerk



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CITY OF NOVATO
CALIFORNIA

Department of Public Works Engineering Division

File / Document: City of Novato Bicycle / Pedestrian Plan

Addendum 1 (November 2022)

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novato.org

Mayor
Eric Lucan
Mayor Pro Tem
Susan Wernick
Councilmembers
Denise Athas
Pat Eklund
Mark Milberg

City Manager
Adam McGill

The *City of Novato Bicycle / Pedestrian Plan* provides for a recommended citywide network of sidewalks, bicycle paths, lanes, and routes, along with pedestrian- and bicycle-related programs and support facilities, intended to ensure bicycling and walking become a more viable transportation option for people who live, work, and recreate in Novato.

It is important to remember that the lists of bikeway and pedestrian projects are flexible concepts that serve as guidelines to those responsible for implementation. The priority projects list, and perhaps even the overall system and segments themselves, may change over time as a result of changing bicycling patterns and implementation constraints and opportunities. Project prioritization is not meant as an absolute value, rather as an indication of project's relative importance only. These priorities should be considered a living document. The B/PAC and City staff should review the priority projects list on a regular basis to ensure that it reflects the most current priorities, needs, and opportunities for implementing the bikeway network in a logical and efficient manner. In particular, the list should be adjusted to take advantage of all available funding opportunities and grant cycles. As projects are implemented and taken off the list, new projects should be moved up into priority projects status.

This Addendum 1 modifies the *City of Novato Bicycle / Pedestrian Plan* as noted below. Information contained herein supersedes prior information contained elsewhere in the:

[*City of Novato Bicycle / Pedestrian Plan*](#)

The summary description, if provided, may not include the full extent of such modifications or clarifications (Figures / Maps will be revised with the next complete update of the *City of Novato Bicycle / Pedestrian Plan*). The modifications in this Addendum 1 will become part of the *City of Novato Bicycle / Pedestrian Plan* after adoption by the City Council.

This Addendum 1 (November 2022) consists of 18 pages.

The following sections of the *City of Novato Bicycle / Pedestrian Plan* have been updated/revised and shall be replaced with the attached. The projects listed within the revised section 5.3 (Project Prioritization) should be considered the most current list of projects, reflecting work completed and new projects identified since the compilation of the lists in sections 4.6 (Proposed Bikeway Network) and 5.1 (Proposed Pedestrian Network) of the 2015 *City of Novato Bicycle / Pedestrian Plan*.

- 4.2 Multi-Modal Connections
- 4.3 Traffic Signal Bicycle Detection
- 4.7 Recommended Bicycle Programs & Policies
- 5.2 Recommended Pedestrian Program & Policies
- 5.3 Project Prioritization

Should you have any question, or require any additional information, please do not hesitate to call the undersigned at (415) 899 – 8237 or at pskala@novato.org

Sincerely

Petr Skala, Associate Engineer.

4.2 Multi-Modal Connections

Providing bicycle access to public transit allows bicyclists to extend the distance they are able to travel. Novato residents have access to scheduled transit service provided by Sonoma-Marin Area Rail Transit, Marin Transit and Golden Gate Transit.

Sonoma-Marin Area Rail Transit (SMART) stations offer both standard bike parking facilities and secure BikeLink lockers, while each two-car SMART train has the capacity to accommodate up to 24 bicycles. SMART currently provides rail service between the Sonoma County Airport north of Santa Rosa and Larkspur, including service to three Novato stations. Several sections of previously existing and newly constructed pathway will eventually form part of a continuous Class I multi-use path that will improve bicycle and pedestrian access to the stations and along the rail corridor. Station locations are included in the bicycle facility maps for visualization of current and future intermodal connections.

Most Golden Gate Transit bus stops within the City of Novato have bicycle racks located at the stops. Up to three bicycles can fit on racks mounted to the front of all Golden Gate Transit buses less than 60 feet long. The Marin County Transit District has included an element in their long-range transit plan to upgrade all bus-mounted front bicycle racks from two to three capacity fixtures, with many buses now accommodating three bikes. Additionally, all buses longer than 60 feet are outfitted with racks that allow two bicycles to ride in the underfloor luggage area.

The following bus stops in Novato have bicycle racks that hold five bicycles or more :

- South Novato Boulevard at Diablo Avenue
- Novato Boulevard at Eucalyptus Avenue
- US 101 Southbound Ramp at Atherton Avenue
- US 101 Southbound Ramp at Rowland Boulevard
- US 101 Southbound Ramp at De Long Avenue
- US 101 Southbound Ramp at Alameda del Prado
- Rowland Boulevard Park & Ride Lot
- Redwood Boulevard at Grant Avenue

4.3 Traffic Signal Bicycle Detection

The City of Novato follows the State of California Department of Transportation (Caltrans) standards for the design, construction, and operations of bicycle signal detection at traffic signals. Caltrans design and construction standards are published in the California Standard Plans (CSP) and if updated prior to publication of new versions, the Revised Standard Plans (RSP), together with the California Standard Specifications (CSS). Caltrans operational standards are published in the California Manual on Uniform Traffic Control Devices.

The CSP and RSP include electrical details and the CSS include workmanship standards for design and construction of inductive loop detectors, including Types A, B, C, D, E, and Q. Where inductive loops are specified in a traffic signal installation or modification project, the City of Novato uses Type C for bike lanes and Type D loops at the front of a vehicle travel lane for bicycle detection. The CSS include electrical details for video detection systems, which the City of Novato also uses to provide bicycle (and vehicular) detection. The decision on whether to choose inductive loop detection or video detection is typically determined on a cost basis. Challenges with inductive loops are that their sensitivity is not always consistent, and they may not detect non-ferrous bicycle frames. Video detection, especially high-quality equipment, is not subject to this problem, though these systems can be cost prohibitive to install.

Nearly all traffic signals in Novato include bicycle signal detection at City-owned and operated traffic signals, though not all approaches at all signals are equipped. Further, there are some traffic signals owned and operated by Caltrans, who maintains control of the equipment, including bicycle detection equipment.

The CA MUTCD includes standards for programming traffic signals to serve bicyclists. Chapter 4 includes requirements to provide sufficient green and yellow time for bicyclists to traverse the intersection's various bicycle travel-ways assuming a 15 feet/second travel speed. Such timing has been implemented at city-owned traffic signals.

Maintenance of traffic signals, including detection equipment, is currently performed by the City of Novato electrical maintenance contractor. The traffic signal maintenance program includes preventative maintenance checks at all City-owned signals six times annually. These checks do not include testing for the adequacy of bicycle detection. Preventative maintenance duties should include testing for bicycle detection in future traffic signal maintenance contracts.

In 2011, the Marin County Department of Public Works installed ten video cameras or bicycle specific sensors embedded in the pavement at major intersections in Novato that are frequently used by bicyclists. The upgrades cost \$348,000 and were part of a larger \$25-million active transportation pilot program in Marin County. Table 4-5 and Table 4-6 list the current locations for bicycle detection

[No further changes to Section 4.3 tables]

Table 4-5: Existing Traffic Signal Bicycle Detection Locations

Main Street	Side Street
De Long Avenue	Reichert Avenue
Grant Avenue	7th Street
Ignacio Boulevard	Palmer Drive
Main Gate Road	Randolph Drive
Nave Drive	Bolling Drive
Nave Drive	Main Gate Road
Nave Drive	North Hamilton Parkway
Novato Boulevard	7th Street/Tamalpais Avenue
Novato Boulevard	Diablo Avenue
Novato Boulevard	Grant Avenue
Novato Boulevard	Simmons Lane/Wilson Avenue
Redwood Boulevard	De Long Avenue/Diablo Avenue
Redwood Boulevard	Grant Avenue
Redwood Boulevard	Lamont Avenue
Redwood Boulevard	Landing Court/Novato Fire Station
South Novato Boulevard	Arthur Street
South Novato Boulevard	Center Road/Garden Court
South Novato Boulevard	Rowland Boulevard
South Novato Boulevard	Sunset Parkway
San Marin Drive	West Campus Drive
Vintage Way	Driveway #1
Vintage Way	Driveway #2
Nave Drive	Safeway Market Place Driveway
Bel Marin Keys Boulevard	Commercial Boulevard
Bel Marin Keys Boulevard	Digital Drive
Ignacio Boulevard	Alameda Del Prado
Rowland Boulevard	Redwood Boulevard
Rowland Boulevard	Rowland Way
Rowland Boulevard	Vintage Way
San Marin Drive	East Campus Drive
San Marin Drive	Redwood Boulevard
Redwood Boulevard	Olive Avenue

Table 4-6: Other Traffic Control Devices

Traffic Control Device	Location
Radar Feedback Sign (2)	Olive Avenue WB/EB adjacent to school
Radar Feedback Sign (2)	Center Road WB/EB adjacent to school
Radar Feedback Sign (1)	Main Gate Road WB adjacent to school
Pedestrian Activated Flashing Beacons	46 Galli Drive (adjacent to BioMarin)

4.7 Recommended Bicycle Programs & Policies

Support programs and policies are an important component of a bicycle transportation system. Bikeway facilities alone are not sufficient to increase bicycling. The bicycling environment needs to be improved by providing bicyclists places to store their bicycles at work locations, and restrooms to shower and change clothes. In addition, bicycle racks on buses, directional signage intended for cyclists, route maps and educational and encouragement programs would be helpful to bicyclists. Programs such as bikeway management and maintenance improve bicyclists' safety, and promotional and educational programs support the cultural shift that encourages bicycling as a mode of transportation.

The following section includes both general and specific recommendations for support facilities and programs. Some of these recommendations will also improve Novato's pedestrian experience; additional programs and policies specific to pedestrians are described in Section 5.2.

4.7.1 Bicycle Parking and End-of-trip Facilities Recommendations

Bicycle parking includes standard bike racks, covered lockers, enclosed lockers, bike spas, and corrals. Other end-of-trip facilities include showers and changing facilities.

Bicycle Parking Inventory

Create an inventory of existing bicycle parking and update the inventory annually. The inventory should be geo-located and maintained by the City of Novato.

Increase Public Bicycle Parking Facilities and Encourage/Mandate Provision of Shower and Changing Facilities

The City of Novato should review City ordinance requirements for bicycle lockers and showers and consider strengthening these requirements as needed. In implementing these standards and regulations, the City should seek to provide bicycle lockers at public destinations, including park-and-ride lots, major bus stops, community centers, libraries, parks, schools, and shopping centers. All bicycle parking should be in a safe, secure, covered area if possible. Large employers should be encouraged to provide secure indoor parking, covered bicycle corrals, or bicycle lockers.

The City of Novato should work with employers to implement the requirements for providing bicycle parking, shower, and changing facilities for employees as called for in City ordinance and as a component of all commute and traffic demand management programs (per Municipal and Building Codes).

The B/PAC should periodically review the effectiveness of the existing standards and ordinances and update them with best practices as needed.

As of 2021, current city code contains capacity requirements for bike parking in new commercial and multi-family development. The B/PAC recommends that these requirements be updated in line with current best practices regarding both physical properties and location of bike parking. For example, short-term bicycle spaces should be required to enable securing the bicycle frame and one wheel with a U-type lock and provide two points of contact with the bicycle's frame. Adequate spacing between bicycles should also be required.

The location of public bicycle parking is also a key consideration that should be subject to minimum code requirements. Short-term bicycle parking should be placed to allow convenient and visible access to the main building entrances. If the required bicycle parking is not visible

from the main entrance, a sign should be posted at the entrance indicating the location of the bicycle parking.

Provide Valet Bike Parking at Public Events

A formal program to provide closed-in secure bicycle corrals at all large public events to encourage residents and visitors to bicycle rather than drive should be instituted. The bicycle coalitions in Marin County and San Francisco have been providing free bicycle parking at events. The valet parking works much like a coat check: the cyclist gives their bicycle to the attendant, who tags the bicycle with a number and gives the cyclist a claim stub. When the bicyclist returns to get her or his bicycle, she or he presents the claim stub, and the attendant retrieves her or his bicycle for them. Locks are not needed. The Marin County Bicycle Coalition (MCBC) will also park strollers, rollerblades, electric scooters and other human- or electric-powered transportation devices. Valet parking could be sponsored by the City in partnership with the Marin County Bicycle Coalition and/or other providers or sponsors. Volunteers are critical to the success of such a program as they are typically used to staff the corral during the events.

Bikeways and Development Policies Recommendations

Private development presents an excellent opportunity to integrate active transportation into newly constructed or redeveloped environments. Similar to the bicycle parking and end-of-trip facilities requirements described above, a policy should be developed concerning bikeway construction as a part of redevelopment or new construction to ensure that all roadways impacted by development adhere to the City's *Complete Streets Policy*. As stated in that policy, Complete Streets infrastructure must be incorporated into all construction, retrofit, or alteration of city streets. Based on specific criteria, bikeways could be required for development permits or bicycle facilities could be incorporated into the City's traffic mitigation strategies. Bikeways to be constructed should be identified in the *Novato Bicycle / Pedestrian Plan* and be reviewed by staff with the involvement of the B/PAC. End of trip facilities should be integrated according to national and international best practices.

4.7.2 Safe Routes to School Recommendations

Identifying and improving routes for children and school staff to walk or bicycle to school is an effective means of reducing morning traffic congestion and addressing safety problems around schools. The City also recognizes the contribution that active transportation can make in addressing climate change, fighting obesity in both children and adults, and in setting an example for students as to the utility and "coolness" of riding locally.

Most effective school commute programs are joint efforts of the school district and City or County, with parent organizations adding an important element. The traffic calming, route maps, School-Pool efforts, and infrastructure improvements that result from an extensive Safe Routes to School plan benefit not only students and staff walking and biking to school, but also other cyclists and pedestrians that are using routes near schools.

The City of Novato should continue its support of the Safe Routes to Schools program within the Novato Unified School District and charter schools. Bicycle alterations at local schools should be coordinated with citywide bicycle infrastructure alterations to create a seamless network by which children and school staff can travel safely by bicycle and on foot. The City

should encourage NUSD to provide adequate quantities of enclosed, secure, covered bicycle parking at all schools for both students and staff, as well as sufficient short-term parking for visitors. The City should work with NUSD to provide engineering and construction assistance needed to modify streets to make it easier for students and staff to access bicycle parking from the streets.

4.7.3 Traffic Calming Recommendations

Traffic calming programs are beneficial for bicyclists, as well as pedestrians especially if programs succeed in reducing the speed differential between automobile and bicyclist travel speeds. However, if not appropriately designed, some physical traffic calming devices can present hazards for cyclists. For example, chokers or median islands narrow the space between bicycles and cars, compromising a cyclist's safety.

Physical traffic calming solutions should take into account cyclists' needs; incorporate design features and signage that ensure that cyclists and motorists have enough room to share the lane; and clearly establish right-of-way priorities.

The City of Novato should adopt a traffic calming program that identifies roadways with a history of unsafe motor vehicle operations, roadway configurations that encourage speeding, poor delineation of pedestrian crossings, and other potential bicycle- and pedestrian-related safety issues. Once identified, the traffic calming program should provide a toolbox of potential countermeasures and designates a clear process for implementing traffic calming measures.

4.7.4 Maintenance Recommendations

Providing ongoing maintenance is often identified as one of the chief obstacles in the implementation of local bicycle and pedestrian plans in Marin County. Novato's pedestrian pathways and bikeways should be well-maintained. Some tasks, such as repairing damaged and potholed roadway surfaces, clearing plant overgrowth and regular sweeping are associated with routine roadway maintenance. Additional care and attention should be taken to ensure bikeways are included in the maintenance and that conditions that are hazardous to cyclists are recognized and addressed, since conditions that are acceptable for automotive use may not be sufficient for safe bicycle travel. For example, street sweeping activities should include the bicycle lane and not transfer debris out of the roadway and into the bicycle lane. Other maintenance activities could include refreshing bike lane lines and markings, refresh bicycle stencils and Shared Lane Markings, and replacing faded bike-related signs.

Develop a Funding Source for the Bicycle Maintenance Program

Bikeways are an integral part of Novato's transportation network, and maintenance of the bikeway network should be part of the ongoing maintenance program for all city transportation facilities. As such, bikeway network maintenance should be adequately funded. In addition to maintenance funds from general revenue, the City may also want to consider pursuing other methods of securing funding for bikeway and pathway maintenance. Examples of alternative funding include "adopt-a-trail" programs, project-specific fundraising, and the sale of city-developed bicycle maps. The Transportation Authority of Marin has undertaken development of maintenance strategies for countywide pathways which may provide insights into development of a similar program for bikeways in Novato.

Intersection and Bikeway Spot Improvement Program

The City should ensure that a mechanism exists to evaluate the bikeway network, to alleviate potential hazards and to improve conditions for bicyclists at specific intersections and locations.

Bikeway maintenance should include both regular maintenance checks at appropriate intervals and responses to reported issues as resources allow. Training should be provided if necessary, to ensure that public works employees recognize bicycle hazards such as:

- Improperly designed or placed drainage grates
- Cracks or seams in the pavement
- Overhanging tree limbs or other obstacles located along bikeways
- Areas where lane changes are difficult (e.g., bicycle lane to left-turn pocket)
- Signal timing problems (e.g., green phase too short)
- Locations where motor vehicle traffic blocks bike facilities on a regular basis

4.7.5 Interchange Improvement Program

Freeway interchanges present opportunities for conflict between people driving and active transportation users. The City should develop a program to identify interchange area improvements for bicyclists and pedestrians and coordinate these improvements with Caltrans.

4.7.6 Improve Visibility of DPW Maintenance Request System

In the future, all printed and online bicycle education materials and maps should include the Department of Public Works maintenance request website and phone number.

4.7.7 Periodically Analyze Bicycle Accident Data

The City should evaluate bicycle accident data periodically to determine if any specific intersection locations appear to have higher accident rates than statewide averages, which may require additional investigation.

4.7.8 Bicycle Signal Detection Recommendations

The following recommendations are intended to expand the City's existing bicycle signal detection efforts to include bicycles along all designated lanes/routes and at key intersections.

Calibrate Loop Detectors and Video Detection Devices

While detector loops and video detection facilitate faster and more convenient motorist trips, if they are not calibrated properly or stop functioning, they can frustrate cyclists waiting for signals to change, unaware that their bicycle is not being detected. As part of their maintenance program, the City should ensure that all existing loops and video detection devices are calibrated and operable for bicycle users. Traffic signal preventative maintenance schedules should include testing of signal detection systems to ensure they work to detect bicycles.

Develop Policy of Installing Bicycle-Calibrated Loop Detectors or Video Detection with Bicycle Zones at Signalized Intersections

As noted in Section 4.3 above, the City has a policy of installing bicycle-calibrated loop detectors or video detection at all city-owned signalized intersections as they are repaved, when they are modified, and at new signal installation locations. For new installations it is recommended that the City provide video detection when funding permits, and standard bicycle detection when inductance loops are installed.

Where video detection is currently or planned to be in use, it is recommended that the City continue and expand its practice of incorporating additional detection zones for bicycles, especially for intersections with sidepaths, wide curb lanes or Class II bikeways. Video image detection should sense bicycles in all approach lanes and also on the left side of right-turn channelization islands. Some video systems can estimate approach speed, and this capability could be used to extend the green time for slow objects assumed to be bicycles.

Apply Pavement Stenciling to Indicated Detection Areas

Since most bicyclists, as well as motorists, do not know how loop detectors or video detection work, all detector loops and video detection areas expected to be used by cyclists should be marked by a pavement stencil such as the *Caltrans Standard Plan A24C* bicycle detection marking that shows cyclists where to stop to activate the loop or video detection. Educational materials distributed by the City should describe how to activate bicycle detectors. Stencils should be refreshed as needed along with other roadway markings.

Install New Traffic Signal Bicycle Detection

Install or provide maintenance for bicycle signal detection at the following locations:

- Novato Boulevard and Arthur Street
- Novato Boulevard and Grant Avenue
- Alameda del Prado and Ignacio Boulevard
- Redwood Boulevard and Rowland Boulevard

4.7.9 Protect Bicycle Facilities from Removal

The City should implement a practice that prohibits the removal of existing bikeway and pedestrian facilities. For example, Class II bicycle lane facilities should not be removed at a future date to increase motor vehicle capacity without a thorough study analyzing the alternatives and unless the bicycle accommodation is replaced by another facility of equal or greater utility to cyclists. As stated in the City's *Complete Streets Policy* adopted in 2016, any projects involving removal of existing bicycle facilities or other impacts to Novato's bicycle and pedestrian network should be reviewed by the Bicycle and Pedestrian Advisory Committee early in the planning process.

4.7.10 Multi-modal Connection Recommendations

The City of Novato should work with the Golden Gate Transit, Marin County Transit District, and Sonoma-Marín Area Rail Transit to continue to expand bicycle access to buses and trains. Bicycle travel to transit stops and stations should be enhanced in order to make the transfer between bicycle and transit travel as convenient as possible. Key components to enhancing transit-bicycle connections include: providing both standard bicycle racks and covered bike parking or lockers at transit stops, ; installing bicycle- and pedestrian-oriented wayfinding signs near key transit stops and connected bikeways such as the SMART path; and providing educational materials regarding transit and bikes-on-transit, including maps to and from stations and stops. Continuing improvements to bicycle rack capacity on buses will benefit Novato cyclists who use Marin Transit and Golden Gate Transit.

4.7.11 Education Program Recommendations

Statewide trends show that the lack of education for bicyclists, especially younger students, continues to be a leading cause of collisions. Studies of collisions locations around California consistently show the greatest concentration of accidents is directly adjacent to elementary, middle, and high schools. Most education and encouragement programs and activities will likely be cooperative efforts between the City of Novato, the Novato Police Department, the Marin County Sheriff, the County of Marin, the Transportation Authority of Marin (TAM), and local bicycle groups such as the Marin County Bicycle Coalition.

Continue and Expand Existing Education Programs

Existing school education programs should be continued, and funding for TAM's Safe Routes to School programming should be supported by City officials. For adult education, the City should work with law enforcement and the Marin County Bicycle Coalition to publicize local adult bicycle education and safety programs, including "Share the Road" and "Street Skills" classes. Novato should continue to offer "Bicycle Traffic School" in the form of "Street Skills" classes in lieu of fines.

Educate Motorists

Motorist education on the rights of bicyclists and pedestrians is limited. Many motorists mistakenly believe, for example, that bicyclists do not have a right to ride in travel lanes, or do not understand the concept of sharing the road with bicyclists. The City should enforce existing traffic laws for both motorists and bicycles.

The City should also continue to partner with TAM on implementing the Street Smarts Marin program in Novato. The campaign targets bicyclist, pedestrian, and motorist behavior and educates the public on safe roadway behavior through banners and signs.

Shared-use Path and Trail Etiquette

Informing trail users of acceptable etiquette is a common issue when multiple user types are sharing a facility. Yielding the right-of-way is a courtesy and yet a necessary part of a safe trail experience involving multiple trail users. Trail right-of-way information should be posted at trail access points and along the trail. The message must be clear and easy to understand. The most common observed behaviors involve yielding of cyclists to pedestrians and, potentially, golf carts and other users.

The education of trail users is a critical part of creating a safe trail environment for all trail users. Guidelines should be clearly posted at trail access points. Educational curricula, similar to the "Safe Routes to School" programs, could be used to encourage safe practices of various trail users. The purpose of trail etiquette is to promote user safety and enhance the enjoyment of all users. Below is a sample of the most common items that should be covered in trail etiquette:

- Motorized vehicles, other than power-assisted wheelchairs, are prohibited with the exception of electric bicycles at the following bike path segments:
 - Gate Six in Sausalito to the former Marin County Heliport
 - The west shoulder of US 101 from Lincoln Avenue to Los Ranchitos Road
 - The west shoulder of US 101 from Miller Creek Road to Alameda Del Prado
 - State Route 37 to Hamilton Drive

- Keep to the right except when passing
- Bicycle speed limit of 15 MPH
- Bicyclists yield to pedestrians
- Give an audible warning before passing (and a thank you in kind)
- Pets must always be on short leashes
- Travel no more than two abreast
- Reduce speeds when children are present

4.7.12 Encouragement Program Recommendations

Encouragement programs are vital to the success of the *Novato Bicycle / Pedestrian Plan*. Encouragement programs work to get more people out of their cars and bicycling and walking, which will help to reduce traffic congestion and air pollution, as well as improve the quality of life in Novato. In addition to government efforts, involvement by the private sector in raising awareness of the benefits of bicycling is important and can range from small incremental activities by non-profit groups, to efforts by the largest employers in the City. Specific programs are described below.

Bike Fairs and Races

Hosting bike fairs and races in Novato can raise the profile of bicycling in the area and provide entertainment for all ages at the same time. Bike fairs and races, similar to bike-to-work day events and bike rodeos currently hosted by the City provide an opportunity to educate and encourage current and potential bicyclists. These events can also bring visitors to Novato that may contribute to the local economy.

Bike-to-Work and Bike-to-School Days

The City of Novato should participate in the annual Bike-to-Work day in May, in conjunction with the California bike-to-work week activities. City staff should be present at energizer stations along the route to promote the plan and other programs. The City may also consider participating with Novato Unified School District (NUSD) in bike-to-school days.

4.7.13 Novato Bicycle Facilities Map

Producing a bicycle facilities map is the primary tool for showing bicyclists all the designated bikeways in Novato. The City of Novato should work with the Marin County Bicycle Coalition (MCBC) to produce a Novato-specific bicycle map that is updated at appropriate intervals. The Novato Bicycle Map should clearly show the type of facility (path, lane, or route) as well as include basic safety information, significant destinations, and location of bicycle parking facilities, public bathrooms, water fountains, transit stops, and bicycle facilities in the neighboring communities. Selling advertising space on the map to local restaurants, shops and bicycle stores could offset the cost of developing and printing. The map could also be sold for a nominal fee. Distribution points for the map include: City offices, the libraries, the community center, local schools, bicycle shops and other recreational retail outlets. In addition, the City should work with Google Maps, OpenStreetMap, and other online map application program interfaces (APIs).

5.2 Recommended Pedestrian Programs & Policies

This section outlines priority actions for improving walking in Novato, with a focus on meeting plan objectives, including the strong desire to improve safety while maintaining existing infrastructure. Note that many of the recommendations for bicycle programs and policies found in Section 4.7 above also apply to pedestrian facilities as noted, while the current section focuses on recommendations with special applicability to improving Novato's pedestrian experience. For example, policies requiring that bicycle and pedestrian facilities be integrated in new development and that bicycle and pedestrian facilities should be maintained with regularly scheduled maintenance visits are detailed above. The following sections summarize positive actions that can be undertaken or considered as part of this plans' implementation using the "Five E's" of transportation planning: *engineering, education, enforcement, encouragement, and evaluation.*

5.2.1 Engineering

The *City of Novato Complete Streets Policy*, adopted in 2016, and the *City of Novato General Plan 2035*, adopted in 2020, require that all planning and design of projects affecting the transportation system be consistent with all relevant City plans, including the Bicycle and Pedestrian Master Plan. The City should accordingly adopt a more rigorous policy for pedestrian accommodation, including specific streets (e.g., all minor and collector arterials) where ADA-compliant sidewalks or pathways are a priority. These recommendations should be included in the City's adopted Standards as permitted/desired treatments.

5.2.2 Education

Community education can improve the experience of walkers in Novato by reaching both pedestrians and those who impact the pedestrian experience. For instance, improved knowledge of safe routes to schools and right-of-way rules that guide interactions between pedestrians, bicyclists, and motorists can reduce conflict and improve safety. Meanwhile, better understanding of the rights of pedestrians by other members of the community, such as drivers interacting with other roadway users and property owners responsible for maintaining safe walking conditions on sidewalks, will also improve Novato's pedestrian experience. The city should present both of these user groups with relevant information through existing outreach channels and education materials, while also supporting the educational efforts of Safe Routes to School and other community organizations.

5.2.3 Encouragement

Residents and community members are excellent resources for garnering support and enthusiasm for pedestrian facility improvements. The City could work with volunteers to substantially reduce implementation and maintenance costs, particularly for unpaved walkways. Local schools, community groups, or dedicated neighbors' groups may help sponsor projects, possibly by working with a local designer or engineer. Work parties can be formed to help clear right-of-way where needed. Local construction companies can donate or discount services. Potential partners and volunteer sources include Novato Parks and Recreation Department, Conservation Corps North Bay, Marin County Bicycle Coalition, and community groups such as Boy Scouts of America and local student organizations.

Create a strong pedestrian culture that welcomes and celebrates walking through:

- Support local advocacy groups and reach out to local schools or groups in order to promote pedestrian-related projects and to maximize public-private funding opportunities such as development of walking maps and/or path maintenance.
- Support bike-to-work and walk-to-work Days by hosting energizer stations and by promoting the events through available media outlets.
- Support International Walk and Roll to School Day in October through coordinated efforts with Novato-area schools.

5.2.4 Enforcement

Strive to improve safety for all users by:

- Considering a 15/20 MPH zone speed limit for application in select school zones.
- Conducting crosswalk “stings” in areas with reported issues.
- Communicate safe and appropriate rules of the road for all roadway users through targeted enforcement and education.
- Encourage the Novato Unified School District, as well as private schools, to fund crossing guards to assist with active school commutes.

5.2.5 Evaluation

Continue to use the B/PAC to evaluate the progress of plan implementation.

Data Collection

Pedestrian counts are important because they provide documentation of actual pedestrian activity, allowing the City to make informed decisions to target improvements in areas where they will be most beneficial. Project-specific “before and after” counts are also valuable to assess progress in encouraging active transportation and are increasingly required to compete for outside grant funding (including the statewide Active Transportation Program, or ATP).

- Create a program to conduct regular pedestrian data collection efforts at strategic screen lines to assess activity level trends.
- Update citywide traffic counts for all modes, including automobile counts, to assist the feasibility and design for including pedestrian facilities in new projects.
- Create and maintain a regularly updated sidewalk inventory and sidewalk condition database, as well as a maintenance plan to address identified issues.

5.3 Project Prioritization

Once a bikeway and pedestrian network has been identified, the next challenge is to identify the priority projects that will offer the greatest benefit to bicyclists and pedestrians once they are implemented. The project prioritization found in the 2015 Bicycle / Pedestrian Plan was developed through a qualitative analysis based on stated priorities of the B/PAC and City staff, priorities communicated by the public at the City of Novato Bicycle / Pedestrian Plan public workshops held on September 17, 2014 and November 12, 2014, priorities from the 2007 *Novato Bicycle Plan*, and the criteria detailed below.

- **Continuity** – Does the project provide new or significantly improved connectivity on established corridors or between major activity areas that does not currently exist or is not currently usable by the general public?
- **Gap Closure** – Does the project provide a new connection between major activity centers or on a major corridor that currently either does not exist or has convenience/safety issues?
- **Demand Patterns** – Does the project serve a significant existing or potential demand, as evidenced by (a) counts or observed activity, (b) comments from the public, (c) connectivity and proximity to major generators, and/or (d) projections from an acceptable demand model?
- **Safety** – Does the project address a significant safety concern in a community as evidenced by collision data, field observations, and/or public perception and comments?
- **Project Readiness** – Are the key feasibility issues of the project (right-of-way, environmental impacts, engineering issues, cost issues, neighborhood support) understood and not expected to negatively affect or delay the project? Has any formal feasibility study, engineering or design been conducted?
- **Multi-Modal Integration** – Does the project provide enhanced connectivity to existing transit services?
- **Cost/Benefit analysis** – Will the project provide the greatest benefit to cyclists and/or pedestrians for the amount of investment required to build it?

It is important to remember that the lists of bikeway and pedestrian projects and programs are flexible concepts that serve as guidelines to those responsible for implementation. The priority projects list, and perhaps even the overall system and segments themselves, may change over time as a result of changing bicycling patterns and implementation constraints and opportunities. Project prioritization is not meant as an absolute value, rather as an indication of project's relative importance only. These priorities should be considered a living document. The B/PAC and City staff should review the priority projects list on a regular basis to ensure that it reflects the most current priorities, needs, and opportunities for implementing the bikeway network in a logical and efficient manner. In particular, the list should be adjusted to take advantage of all available funding opportunities and grant cycles. As projects are implemented and taken off the list, new projects should be moved up into priority projects status.

In 2021, the B/PAC and City staff conducted such a review to bring the outstanding project list and prioritization up to date. In addition to revising the list to reflect work completed since

2015 and to include newly planned projects, a new prioritization score was applied based on the following criteria:

- Gap Closure
- Demand
- Accident History (based on the priority corridors and intersections identified in the 2018 Marin County Travel Safety Plan Systemic Safety Analysis)
- Multi-modal Connections
- Perceived Safety Improvements

The projects listed below are in accordance with this scoring matrix.

5.3.1 Class I Bikeway Proposed Future Projects

1. SMART Path from Hamilton Parkway to Bel Marin Keys Boulevard
2. SMART Path – Olive Avenue to San Marin Drive
3. SMART Path from Hanna Ranch Road to South End of Rowland Boulevard
4. SMART Path from South End of Rowland Blvd to North Side of Novato Creek
5. Palm Drive / South Palm Drive from Hamilton SMART Station to Hamilton Parkway
6. State Route 37 from SMART Path to Atherton Avenue
7. Knolls Trail from Simmons Lane to Butterfield Drive
8. Bay Trail from East of Casa Grande to Southern tip of Hamilton Wetlands Preserve

5.3.2 Class II Bikeway Proposed Future Projects

1. Novato Boulevard from Grant Avenue to Diablo Avenue
2. Olive Avenue from Redwood Boulevard to Railroad Avenue
3. Atherton Avenue from Redwood Boulevard to Bay Tree Hollow
4. Grant Avenue from Novato Boulevard to 7th Street
5. C Street from State Access Road to Main Gate Road
6. State Access Road from Lanham Drive to C Street
7. Hanna Ranch Access Road from State Route 37 to Rowland Way
8. San Marin Drive from Novato Boulevard to Simmons Lane
9. Simmons Lane from Novato Creek to Novato Boulevard
10. Sutro Avenue from Vineyard Road to Center Road
11. Sunset Parkway from Cambridge Street to South Novato Boulevard
12. Redwood Blvd from Margarita Terrace to Class I Connector near Cricklewood

5.3.3 Class III Bikeway Proposed Future Projects

1. Grant Avenue from 7th Street to Redwood Boulevard
2. Diablo Avenue from Center Road to Hill Road
3. Arthur Street from Indian Valley Road to Novato Boulevard
4. Center Road from Sutro Avenue to Novato Boulevard
5. Entrada Commute Bike Connector from Entrada Drive to Commuter Connection Pathway
6. Armstrong Avenue from Atherton Avenue to Cherry Street
7. Tamalpais Avenue from Center Road to Hill Road
8. Chase Street from Cherry Street to Olive Avenue
9. Cherry Street from Armstrong Avenue to Chase Street
10. Palmer Drive from Ignacio Boulevard to Redwood Boulevard
11. Wood Hollow Drive from Redwood Boulevard to Sundance Way
12. Simmons Lane from San Marin Drive to Knolls Trail
13. Indian Valley Road from Southern City Limits to Arthur Street
14. Butterfield Drive from Sundance Way to Knolls Trail
15. Sundance Way from Wood Hollow Drive to Butterfield Drive
16. Redwood Boulevard from Palmer Drive to Enfrente Road Connector Pathway

5.3.4 Class IV Bikeway Proposed Future Projects

1. State Access Road from Nave Drive to SMART Crossing
2. San Marin Drive from Redwood Boulevard to Simmons
3. Redwood Boulevard from San Marin Drive /Atherton Avenue to Margarita Terrace
4. Ignacio Boulevard from Palmer Drive to Sunset Parkway
5. Bel Marin Keys from Digital Drive to City Limits

5.3.5 Pedestrian Project Proposed Future Projects

1. Novato Boulevard from 7th Street to Diablo Avenue: *Construct sidewalks*
2. Redwood Boulevard from 1000 feet north of Rowland Boulevard to 400 feet south of Hill Road: *Sidewalk gap closure*
3. Olive Avenue from Redwood Boulevard to Railroad Avenue: *Sidewalk construction on north side of Olive Avenue and gap closures on south side of Olive Avenue*
4. Redwood Boulevard from Rush Creek Place to Atherton Avenue: *Sidewalk gap closure*
5. Grant Avenue from Novato Boulevard to 8th Street: *Construct sidewalks, crosswalks, and ADA-compliant curb ramps*
6. Armstrong Avenue from 200 feet south of Atherton Avenue (Novato RV Park) to Atherton Avenue: *Construct sidewalks and crosswalk*

7. De Long Avenue from Reichert Avenue to Sherman Avenue: *Widen sidewalk, construct bulb-outs, and consider removal of some on-street parking*
8. South Novato Boulevard at Safeway Center Road / Bridgecreek Apartments: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
9. Novato Boulevard from Nave Court to Novato Fair Shopping Center west entrance: *Mid-block crossing with flashing beacons*
10. Loma Verde Elementary School Path from Ignacio Boulevard to Calle de la Mesa: *Palmer Drive / Loma Verde Gap Closure – Coordinate with Marin County to utilize the existing easement between Calle de la Mesa and Ignacio Boulevard to provide a direct connection from Palmer Drive to the walkway that connects to Loma Verde Elementary School*
11. Sutro Avenue from Vineyard Road to Novato Boulevard: *Correct numerous sidewalk gaps*
12. Chase Street from Olive Avenue to Peach Street: *Sidewalk gap closure on east side of Chase Street*
13. Grant Avenue at Virginia Avenue: *Intersection alterations such as a continental high-visibility crosswalk and advanced yield markings along the south leg, stop sign warrant study at the south approach, or optical lane markings at all approaches*
14. Novato Charter School: *Intersection alterations (Main Gate Road); Pedestrian crossing alterations (Hamilton Parkway and SMART)*
15. Mill Road from Trumbull Avenue to Louise Avenue: *Construct sidewalk on north side of Mill Road and gap closure on south side*
16. Hamilton Elementary School: *Solar Powered Radar Speed Information Sign installations; Reduce sign clutter along Main Gate Road, update signage to comply with the California MUTCD 2014 standards, high-visibility striping or raised crosswalk and yield markings at crosswalk in front of school; Consider restriping Bolling Circle and Randolph Drive to ten-foot travel lanes with bike lanes and parking on one side*
17. Peach Street from Chase Street to Olive Elementary: *Consider converting to woonerf (a living street, that is designed to prioritize pedestrians over motorized users).*
18. Alameda Del Prado at Alameda Del Prado: *Crossing improvements: other enhancements, including curb ramps and traffic signs and markings*
19. San Marin Drive at San Andreas Drive: *Crossing improvements including removal of right-turn bypass lanes, curb ramps, high visibility crosswalk markings, and modifications to medians*
20. South Novato Boulevard: Gateway Court Crossing improvements: *Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
21. Redwood Boulevard from Landing Boulevard to Lamont Avenue: *Sidewalk gap closure*
22. San Marin High School: *Solar Powered Radar Speed Information Sign Installations; School area signing and pavement markings; Pedestrian circulation alterations*

23. Ignacio Boulevard at Fairway Drive: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
24. Hamilton Parkway at Puetts Way: *Crosswalk across Hamilton Parkway*
25. Center Road from Apollo Court to Sun Lane: *Concrete bulb-out with sidewalk that extends around driveways*
26. Lu Sutton Elementary School: *Intersection Improvements and traffic calming*
27. South Novato Boulevard at Adele Street: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
28. Bolling Circle between Hutchins Way and Hathaway Drive: *Crosswalk across Bolling Circle*
29. Main Gate Road and Nave Drive: *Crosswalk realignment; shorten crosswalk across Main Gate Road by shifting northern end to the east*
30. San Marin Drive at San Mateo Way: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
31. South Novato Boulevard at Midway Boulevard: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
32. South Novato Boulevard at Joan Avenue: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
33. Entrada Drive at Norman Drive: *Crossing improvements: other enhancements, including curb ramps and traffic signs and markings*
34. Pleasant Valley Elementary School: *Solar Powered Radar Speed Information Sign Installations*
35. Hamilton Parkway between Aberdeen Road and Bristol Lane: *Crosswalk across Hamilton Parkway*
36. Novato Boulevard at Estates Drive: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
37. South Novato Boulevard at Stone Drive: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
38. Washington Street at Garner Drive: *Crossing improvements: other enhancements, including curb ramps and traffic signs and markings*
39. San Marin Drive at Sereno Way: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
40. Novato Boulevard at Thorsson Court / San Miguel Avenue: *Crossing improvements: Rectangular Rapid-Flashing Beacon (RRFB) Ped-activated light warning system, including curb ramps and traffic markings*
41. Novato Boulevard at Grande Vista: *Crossing improvements: other enhancements, including curb ramps and traffic signs and markings*