1 Developing the Plan

1.1 Introduction

The City of Fremont is a thriving and sustainable community that strives to meet the needs of all of its residents, workforce, and visitors in an environmentally sensitive manner. Bicycling as a means of transportation to work, the grocery store, or fitness or fun, requires safe and accessible bicycle infrastructure. The quality of the bicycle infrastructure can positively contribute to the overall quality of life in Fremont by encouraging active living and reducing automobile traffic, with its associated noise, pollution, congestion, and global environmental impact. This update to the 2012 Fremont Bicycle Master Plan (the Plan) will provide the City with a clear plan for implementing bicycle-friendly, complete streets in Fremont that encourage people of all ages, abilities, and means to bicycle.

This vision has already been established through the City's planning and policy work to date including the City's General Plan (2011) and the City's Complete Streets Policy (2013). As a result, the purpose of the Plan update is to further clarify and define how the City can plan for, fund, and implement this vision. The Plan creates a roadmap for a comprehensive all ages and abilities bicycle network that is pleasant, safe, convenient, and comfortable for people who bicycle in Fremont. The Plan also addresses goals, policies, design guidelines, funding strategies, and supportive education, encouragement, and enforcement programs. The hallmark of the Plan is a five-year implementation plan for high priority projects.

1.2 Why Update Now?

The City's General Plan includes a policy which calls for the Bicycle Master Plan be updated regularly. The current Fremont Bicycle Master Plan was developed and adopted by the City in 2012 to provide a comprehensive system of bicycle lanes on arterial streets, bicycle routes on residential streets, and paths connecting the City's recreational areas. Since then, the City has done extensive work to build out the bicycle network as the City has adopted progressive, multimodal transportation policies to help Fremont grow sustainably. In addition to change at the local level, important innovations in bicycle network planning and facility design have affected how American cities plan for and build streets for all modes of

transportation, including bicycles at the national level. An update to the Plan is necessary to document the changes to the bicycle network since 2012 and to incorporate important recent innovations in bicycle facility design.

1.2.1 Past Accomplishments

The City of Fremont has striped over 15 miles of buffered bicycle lanes since 2012.

Despite very limited available resources for bicycle planning and implementation, the City has been able to make large strides since 2012. A key aspect of this success has been the close coordination across departments to integrate bicycle planning with the City's ongoing pavement maintenance program. In the last five years the City has striped 15 miles of buffered bicycle lanes through routine repaving projects, installed side street bicycle detection at over 95 signalized intersections and produced a number of educational videos through the City's Vision Zero Plan. To provide enhanced comfort to users of these lanes and to slow vehicle travel speeds the City has gone the extra step of routinely reducing auto travel lane widths to provide space for a striped buffer. The City has also begun to plan for and design protected bikeways and intersections (see **Appendix A Design Guidelines** for more information), such as on Walnut Avenue and Fremont Boulevard, and has secured funding to construct the first phase of these all ages and abilities bikeways.

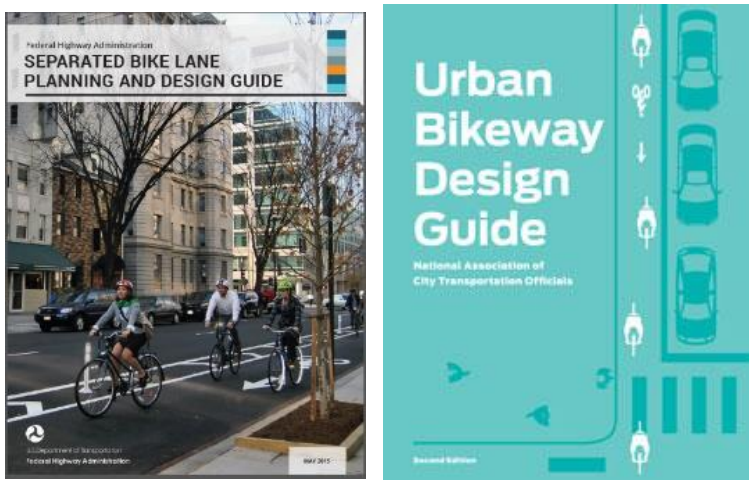
1.2.2 New Vision of Fremont Complete Streets

The 2012 Bicycle Master Plan was adopted as the City was in the midst of a major overhaul of its key planning documents and changing the planning paradigm in Fremont. In December 2011, the City adopted an update to its General Plan, which created a vision for a sustainable, multimodal Fremont that is a great place to live, work, and visit. The Mobility Element establishes policies for expanding transportation choices, reducing dependence on single passenger automobiles, and making it easier to walk, bicycle, and use public transportation in the City. The Element is based on the premise that major streets should become great public spaces that define the identity of the City and support multiple and well-balanced modes of travel. A key tenet is the reduction in the reliance of single occupancy vehicles and the corresponding reduction in vehicle miles traveled (VMT) and greenhouse gas emissions. To increase the number of bicycling trips, Fremont needs a Bicycle Master Plan that is visionary and forward-

looking to address the current and future needs for bicycling, and to establish a robust network of bicycle facilities that attracts people new to bicycling. This vision for a bikeable Fremont is planned for in the context of an overall complete streets approach established through the Complete Streets Policy (2013). These policies have been further established and defined through more recent planning documents including the Council adopted Pedestrian Master Plan (2016) and the adoption of the Vision Zero 2020 traffic safety policy (2016). The goal of the Vision Zero Action Plan is to eliminate traffic fatalities on Fremont roadways by 2020 and has a large emphasis on enhancing bicycle facilities to help protect the most vulnerable users of the roadway.

1.2.3 Innovative Bicycle Planning & Design

At the national level, the landscape for bicycling has changed dramatically, with a variety of new bicycle planning tools and innovative designs tested in the San Francisco Bay Area and across the United States and North America. Numerous best practice design guidelines now detail the state of the practice in bicycle facility design including the Federal Highway Administration (FHWA) *Separated Bike Lane Planning and Design Guide* and the National Association of Transportation Officials (NACTO) *Urban Bikeway Guide, 2nd Edition*. On the planning-side, research has focused on bicycle comfort to help understand bicycle facilities' potential for bicycle ridership and mode shift. The Level of Traffic Stress (LTS) methodology has emerged as an industry standard for assessing bicycle facility comfort level (a quality of service metric). LTS quantifies the comfort level experienced by the typical cyclist on a given roadway by evaluating roadway and bikeway characteristics that cause stress, such as vehicle speeds and volumes and level of physical bikeway separation. The LTS evaluation allows for planning of bicycle networks that are comfortable for riders of all ages and abilities, including young bicyclists and those who may be new to bicycling. As a result, this Plan update will give City staff



The NACTO Urban Bikeway Design Guide, 2nd Edition and the FHWA Separated Bike Lane Planning and Design Guide provide best practice guidance for innovative bicycle facilities in the United States.

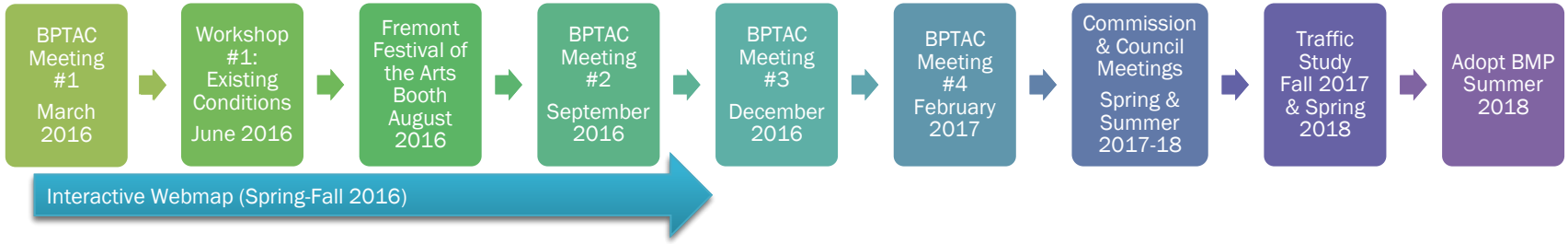
and the public the tools to ensure Fremont stays in the forefront of sustainable transportation planning through the implementation of new but tested best practices in the planning and design of bicycle facilities.

1.3 Plan Development and Community Involvement

Initiated in March 2016, the Plan update was a two year-long process that included several major milestones as outlined below.

Community involvement was key to the development of any planning document, as it allows those who live, work, and visit Fremont to have direct input into the recommendations made in the Plan. The City of Fremont provided several opportunities for members of the public to provide input through the process, including:

- Interactive Webmap
- Bicycle and Pedestrian Technical Advisory Committee (BPTAC) Meetings
- Public Workshop
- Fremont Festival of the Arts Booth



Over the development of the Plan, public input was provided through four Bicycle and Pedestrian Technical Advisory Committee (BPTAC) meetings. These meetings allowed for both general public comments on the various recommendations in the Plan as well as detailed comments and feedback from BPTAC members. The feedback received at each stage of the project has been integrated throughout the Plan, with a focus on many of the engineering recommendations and the implementation plan. A summary of the interactive webmap findings and community workshop is presented in **Chapter 3**.

1.4 Related Plans and Policies

The Plan update is consistent with and informed by local and regional plans. Bicycle plans for Alameda County and the cities of Milpitas, Newark, and Union City were reviewed and considered in developing Fremont's recommended network to promote a coordinated regional bicycle system. A summary of adopted planning documents and their relationship to this Plan is described below.

1.4.1 Regional Plans

Regional Bicycle Plan for the San Francisco Bay Area

The Metropolitan Transportation Commission (MTC) updated the *Regional Bicycle Plan for the San Francisco Bay Area* in 2009. The purpose of the plan is to direct MTC's regional transportation funds for high-priority facilities that serve regional bicycle trips and update the regional bicycle network. The MTC Plan details the length and completion cost of the regional bikeways by county.

Bay Trail Design Guidelines

The draft Bay Trail Design Guidelines provide best practices on path widths, trail crossings, signs and marking, among other bicycle facilities design topics. The Design Guidelines were developed for use on any projects that include the San Francisco Bay Trail.

Plan Bay Area Regional Transportation Plan

MTC (the Metropolitan Planning Organization for the Bay Area) and the Association of Bay Area Governments (ABAG, the regional land use planning agency for the Bay Area) jointly developed Plan Bay Area. Motivated by the California Sustainable Communities and Climate Protection Act of 2008, ABAG developed *Plan Bay Area* in July 2013 as a regional transportation plan that guides the Bay Area in a long-range plan to significantly reduce emissions of greenhouse gases (GHGs) by 2040. The focus of this plan is to devote most (87%) of funding to operate and maintain the existing transportation network, with the remaining budget aimed at next-generation transit projects and other programs that support reducing GHG emissions. Plan Bay Area introduced Priority Development Areas, or PDAs, which are locally-nominated areas with high frequency transit that are designated to receive most of the Bay Area's housing and job growth between now and 2040.

BART Bicycle Plan

The goal of the Bay Area Rapid Transit (BART) *Bicycle Plan* (2012) is to attract more bicycle users and fewer cars to the system. The BART Bicycle Plan outlines the specific strategies needed to encourage passengers to bicycle and creates a Bicycle Investment Tool that BART staff and other transit agencies can use to select the most effective improvements. With a goal to double the share of BART riders bicycling to/from BART by 2022, the

recommended strategies include better cyclist circulation, plentiful bicycle parking, improved bicycle access beyond BART, optimized bicycle accommodations on the train, and more bicycle-supportive policies and programs.

1.4.2 County Plans

Alameda Countywide Bicycle and Pedestrian Master Plans

The Alameda County Transportation Commission (Alameda CTC) adopted the *Countywide Bicycle Plan and Countywide Pedestrian Plan* in 2012. The Plan creates a vision system that focuses on access to transit, central business districts, and other commercial areas, and connections and expansions to the trails network. The Plans ensure connected interjurisdictional networks and guides programming of Measure B and BB bicycle and pedestrian funds.

Countywide Multimodal Arterial Plan

Adopted in 2016, Alameda CTC Countywide Multimodal Arterial Plan (MAP) prepared a comprehensive complete streets assessment and set of recommendations for all arterials in Alameda County. The MAP develops complete streets typologies and priority networks for each travel mode on arterials countywide and then makes recommendations for complete streets improvements based on the highest priority modes for each corridor. Example improvements include dedicated transit facilities, separated bikeways, and pedestrian streetscape improvements. Arterials identified for Fremont include Paseo Padre Parkway, Fremont Boulevard, Peralta Boulevard, and Mission Boulevard. Separated bikeways are proposed for numerous corridors in Fremont including portions of Fremont Boulevard, Paseo Padre Parkway, Grimmer Boulevard, Mission Boulevard, Decoto Road, Ardenwood Boulevard, Niles Boulevard, Central Avenue, Peralta Avenue, Mowry Avenue, Walnut Avenue, Osgood Road, Auto Mall Parkway, Warren Avenue, and Warm Springs Boulevard.

1.4.3 Fremont and Neighboring Local Jurisdictions Plans

City of Fremont General Plan

The Mobility Element of the *City of Fremont General Plan*, adopted in 2011, provides the vision and framework for a citywide network of complete streets, including a strong policy backing for bicycle improvements throughout the City. The General Plan includes goals regarding complete streets, a citywide Vehicle Miles Traveled (VMT) reduction goal, and policies for an improved bicycle network. The General Plan ultimately plans for a network of complete streets across the City, of which biking is a key component and balanced against driving, walking and transit. General Plan Policy 3-1.1 states this clearly: "Design major streets to balance the needs of automobiles with the needs of pedestrians, bicyclists, and transit users. Over time, all Fremont's corridors should evolve into multi-modal streets that offer safe and attractive choices among different travel modes." Routing recommendations for primary bicycle routes and proposed bicycle facility types are provided.

City of Fremont Complete Streets Policy

The City of Fremont adopted a *Complete Streets Policy* in 2013 in accordance with the California Complete Streets Act of 2008. Complete Streets principles for the City focus on balancing the needs of automobiles with the needs of pedestrians, bicyclists, and transit users and considering opportunities to implement complete streets as part of all projects. The policy expresses the City's commitment to creating and maintaining complete streets that provide safe and comfortable travel along and across streets while preserving efficiency for all modes. Complete streets improvements outlined by the City include a variety of bicycle-related amenities such as bicycle lanes, bicycle routes, and bicycle parking facilities. The complete streets policy was adopted with the intent to implement through the City's General Plan, specific plans, stakeholder engagement, and coordination with private developers.

City of Fremont - Union Pacific Railroad Corridor Trail Feasibility Study

The *Union Pacific Railroad (UPRR) Corridor Trail Feasibility Study* examines a stretch of the Union Pacific rail corridor to be converted into a nine-mile mixed-use trail. The study identifies design constraints and provides preliminary design recommendations. The proposed trail would extend from Niles Canyon south through the east side of Fremont. The study provides recommendations for the alignment and design approach by breaking

the project into five segments. The UPRR Corridor Trail is now identified in the local, County and Regional Plans as the Fremont portion of the East Bay Greenway Trail.

Fremont Downtown Community Plan

The *Fremont Downtown Community Plan* provides for the creation of a vibrant central "downtown" area that will unite the City and serve as a regional destination. The transportation section focuses on existing conditions in the area and identifies deficient or missing bicycle facilities. *The Fremont Downtown Community Plan* identified a need to connect the bicycle route on Walnut Avenue to the bicycle facilities on Stevenson Boulevard, which has been recently implemented through installation of buffered bicycle lanes on Civic Center Drive. The Plan also calls for consistent bicycle facilities on Mowry Avenue and Stevenson Boulevard.

Centerville Framework Plan

The *Centerville Framework Plan* provides a vision for development activity occurring in the Centerville area of Fremont. The *Centerville Framework Plan* gives recommendations for land uses, transportation, and streetscape design. The vision is to create a walkable, transit-oriented, and neighborhood serving commercial and mixed-use district. This plan gives design recommendations for bicycle facilities on Fremont Boulevard through the Centerville District and locations for installation of bicycle parking.

Warm Springs/South Fremont Community Plan

The *Warm Springs/South Fremont Community Plan* provides a vision for a new urban district, which will be a hub of innovation and social vibrancy in an area that is quickly changing with the new Warm Springs BART station, housing developments, and advanced research and development companies moving in. The *Warm Springs/South Fremont Community Plan* identifies bicycle connections throughout the area as an important aspect of the transportation network and gives recommendations for proposed bicycle facilities on local roads in the area. Bicycle lanes are proposed on Warm Springs Boulevard between South Grimmer Boulevard and Reliance Way. Completion of these bicycle lanes will create continuous bicycle lanes on Warm Springs Boulevard/Osgood Road/Driscoll Road between Mission Boulevard (SR 262) in Warm Springs and Mission Boulevard (SR 238) in northeast Fremont. The *Warm Springs/South Fremont Community Plan* also proposes the completion of bicycle improvements at the Fremont Boulevard/I-880 interchange and bike route improvements on all neighborhood streets as the street network develops.

Fremont City Center Community Plan

The *Fremont City Center Community Plan* provides a vision to change an auto-oriented suburban area into a walkable, vibrant, transit-oriented city center. The focus of these improvements is providing a more urban City Center that is walkable, with amenities such as trees, benches, plazas, and public art. Bicycle facility recommendations are provided based on street type. Buffered bicycle lanes are suggested for the four major arterial streets in the City Center including Mowry Avenue, Stevenson Boulevard, Paseo Padre Parkway, and Fremont Boulevard. The *Fremont City Center Community Plan* specifies bicycle lanes and optional bicycle corrals for connector streets such as Civic Center Drive and Sundale Drive. Shared lanes or striped bicycle lanes are recommended for smaller local streets such as Liberty Street.

Milpitas Bikeways Master Plan Update

The *Milpitas Bikeways Master Plan*, updated in 2009, sets forth several recommendations for trail and on-street facilities that directly connect to Fremont. The *Milpitas Bikeways Master Plan* identifies the need for pedestrian and bicycle links connecting to Fremont at Warm Springs Boulevard, Green Valley Road, Dixon Landing Road, and the Coyote Creek Trail. A combination of trails, bicycle lanes and bicycle routes are proposed to increase bicycle connectivity.

Union City Pedestrian and Bicycle Master Plan

The *Union City Pedestrian and Bicycle Master Plan,* updated in 2012, provides several recommendations for trail and on-street facilities that directly connect to western Fremont. The *Union City Pedestrian and Bicycle Master Plan* identifies the need for bicycle links connecting to Fremont at the Bay Trail and Ardenwood Boulevard. Existing bicycle facilities that connect to Fremont include Class II bike lanes along Alvarado Boulevard from Union City Boulevard to the Fremont border, Alvarado-Niles Road from Almaden Boulevard to the Fremont border, and Mission Boulevard from Decoto Road to the Fremont border. Proposed improvements include bicycle lane striping along Union City Boulevard between Smith Street and the Fremont border and re-striping along Decoto Road between Mission Boulevard and the Fremont border.

Newark Bicycle and Pedestrian Master Plan

The *Newark Bicycle and Pedestrian Master Plan* (approved by City Council in 2017) provides several recommendations for trail and on-street facilities that directly connect to Fremont. The *Newark Bicycle and Pedestrian Master Plan* identifies bicycle links connecting to Fremont at Central Avenue,

Mowry Avenue, Stevenson Avenue, Thornton Avenue, Lake Boulevard, Newark Boulevard and the Bay Trail. A combination of trails, bicycle lanes and bicycle routes on large arterials are proposed to increase bicycle connectivity in the north-south and east-west directions.

SR 84 Relinquishment Study

The City of Fremont is working with Caltrans to relinquish to local control State Route 84 (SR 84), which runs along Thornton Avenue, Fremont Boulevard, Peralta Boulevard and Mowry Avenue between Interstate 880 and Mission Boulevard (SR 238). The purpose of the project is to give Fremont control over the right-of-way through Centerville and adjacent neighborhoods. The alignment traverses the Centerville PDA and the provides access to schools and transit. The project would implement complete streets enhancements and also includes long-term plans and concepts for widening Mowry Avenue between Overacker Avenue and Mission Boulevard (SR 238) or consideration of separated bicycle and pedestrian paths/tunnels. This requires significant investment and coordination with railroad operators due to the two active rail trestles crossing that portion of Mowry Avenue.

East Bay Greenway: Central Park to Alameda Creek Scoping Study

In 2016, the City prepared an initial East Bay Greenway Scoping Study from the Niles Area to Central Park to identify key issues, initial engineering considerations, and order of magnitude cost information. This document developed preliminary engineering plans, engineering cost estimates and construction schedule and will allow the City to pursue grants to complete engineering design and environmental studies, and pursue capital improvement funds.

East-West Connector

The East-West Connector project will provide a new expressway link between I-880 and Mission Boulevard (SR 238) by widening part of Decoto Road and Paseo Padre Parkway and constructing a new roadway between Paseo Padre Parkway and Mission Boulevard. In addition, pedestrian and bicycle facilities will be constructed as part of the project, including a Class I path parallel to the new east-west connector roadway. The Final Environmental Impact Report has been completed and is available to the public.

Newark-Fremont Bay Trail Study

The City collaborated with the San Francisco Bay Trail and the City of Newark to prepare the Newark-Fremont Bay Trail Study, which defined a preferred alignment for the Bay Trail through the two cities. The study details interim on-street alignments, Bay Trail path alignments, connector trails, and loop/spur trails to provide access to the Bay Trail.