MOBILITY 5

5.1 INTRODUCTION

Efficient, safe, and convenient transportation is critical to Dixon's long-term livability and growing economy. Dixon residents have a century-and-a-half long history of prioritizing access to good transportation: in 1871, the whole town moved from its first location at Silveyville to be adjacent to the new Vaca Valley railroad tracks. Buildings were lifted onto log rollers and relocated to the current downtown location, and the town was renamed Dixon. Today, Dixon continues to build on its existing connectivity with strengthened regional connections, bicycle and pedestrian improvements, more access to transit, and enhanced use of the railroad tracks.

This Element addresses mobility and transportation in Dixon, including the comprehensive transportation network of roads, rail, transit, and biking and walking facilities; efficiency in the circulation systems to reduce congestion; local connectivity by a variety of transportation modes; active transportation like walking and biking; downtown accessibility; and transport of goods through and around Dixon. Where topics, policies, and actions from other Elements overlap with Mobility, references to those chapters are included.

5.2 DIXON'S TRANSPORTATION NETWORK

A comprehensive transportation network gives residents and visitors multiple options for getting around Dixon and connecting to its many nearby destinations. By providing many safe, attractive transportation options, the City can ensure that all residents have equitable access to transport, including youth, seniors, persons with disabilities, and low-income residents.

According to the U.S. Census, the vast majority of commuters in Dixon drive to work, most often using single-occupant vehicles. From 2013 through 2018, about 92 percent of Dixon residents' trips to work were made by private vehicle: about 80 percent of work trips were made by people driving alone, and 13 percent were carpools. About two percent of commuters walked to work, less than one percent of commuters bicycled to work, and a tenth of one percent took transit to work. About four percent of Dixon residents worked from home. These numbers have remained relatively consistent over the past two decades, as shown in Table M-1.

Table M-1: Commuter Mode Split in Dixon

Commute Mode Choice	2000	2018
Workers 16 Years or Older	7,329	9,001
Drive alone	78.0%	79.8%
Carpool	14.9%	12.5%
Transit	0.5%	0.1%
Bike	0.7%	0.4%
Walk	1.9%	2.1%
Work from home	2.0%	4.2%

Data source: US Census 2000, ACS 2018 (5-year estimates).

While more people may walk, bike, and take transit for errands and leisure trips, there is significant potential to expand alternative transportation within and around Dixon. The General Plan contains policies and actions that aim to increase mode share for walking, biking, and transit, and balance the needs of all users of the transportation network and have been developed as part of the 2020 Solano Transportation Authority's (STA) Active Transportation Plan for consistency with regional efforts.

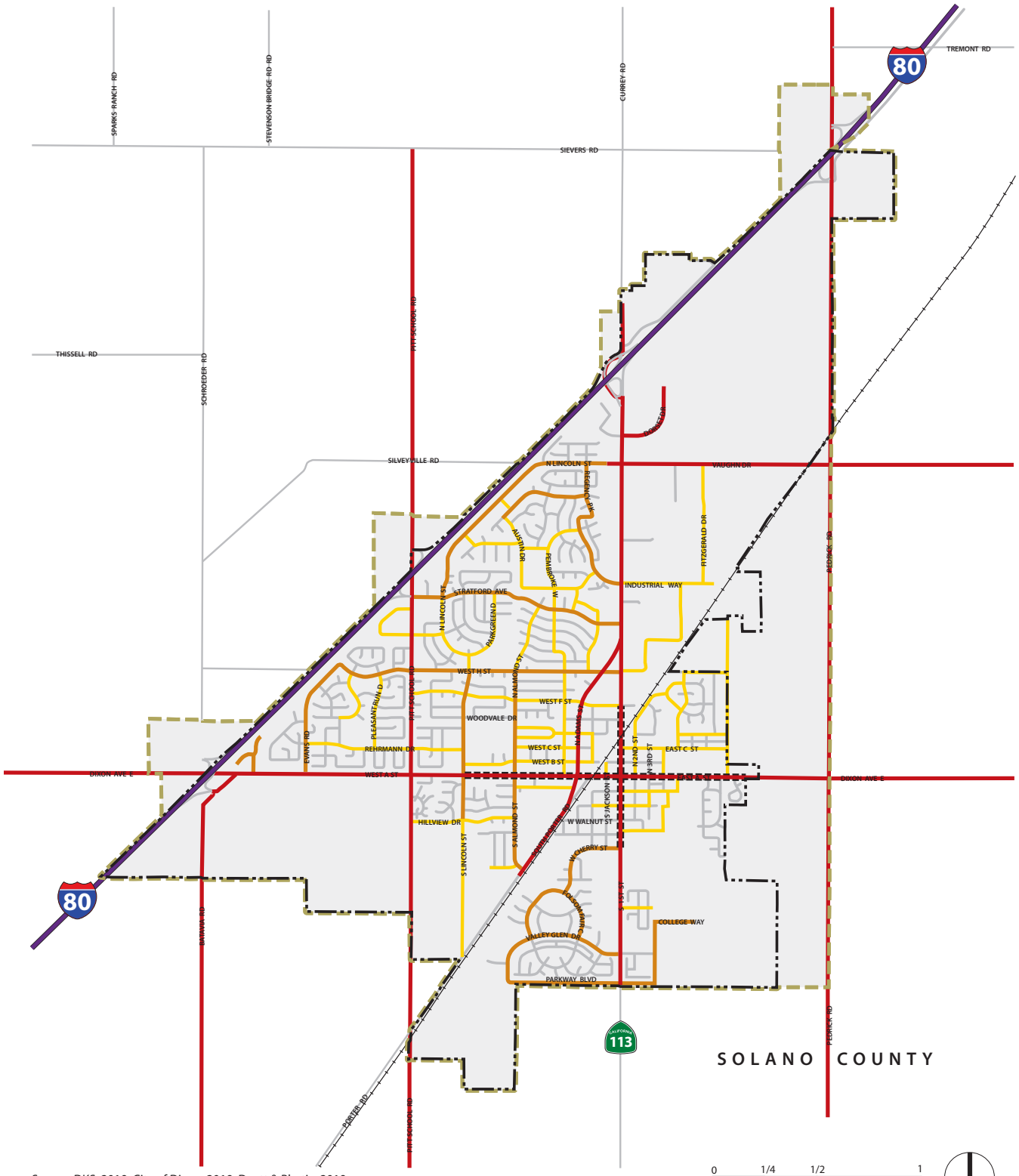
COMPREHENSIVE TRANSPORTATION NETWORK

Highways, Arterials, and Local Streets

The Circulation Diagram (Figure M-1) depicts the proposed circulation system to support development under the Land Use Diagram. The system is represented by a set of roadway classifications that have been developed to guide long range transportation planning in Dixon to balance access and capacity. These classifications are outlined in Table M-2. The classification system consists of arterials, collectors, and local streets through the City. I-80 forms the northwest boundary of most of Dixon, and, with five freeway interchanges serving the City, provides access to the regional vehicular network. SR-113 runs north-south through Dixon, through downtown, and is a major route for agricultural goods transport. Through Dixon, SR-113 is two lanes wide between Cherry Street and H Street, with a center two-way left turn lane provided between the Union Pacific Railroad tracks and Industrial Way; north of H Street, SR-113 widens to four lanes. South of Cherry Street, SR-113 becomes a four-lane divided highway until its southbound culmination at Parkway Boulevard, with two left-turn lanes, one through-lane, and one right-turn lane.

The local street system in the Dixon Planning Area is primarily developed on a north-south/east-west grid system. Dixon Avenue/West A Street, H Street and Stratford Avenue provide principal east-west circulation in Dixon. Pitt School Road, Lincoln Street, Almond Street, Adams Street and First Street provide principal north-south circulation. Pedrick Road, a two-lane rural highway, runs along the eastern edge of the Planning Area in a north-south direction and serves as one of Dixon's I-80 interchanges.

Figure M-1: Circulation Diagram



Source: DKS, 2019, City of Dixon, 2019; Dyett & Bhatia, 2019.

- Freeway
- Historic Main Street
- Arterial
- Minor Arterial/ Major Collector
- Collector
- Local
- Railroad
- Dixon City Limit
- Sphere of Influence

Table M-2: Dixon Roadway Classifications

Category	Function	Typical Design Features
Arterial	Provides mobility and carries higher vehicular traffic volumes.	One-two lanes each direction with left turn pockets or center left turn lane and bicycle facilities.
Minor Arterial/Major Collector	Connects principal arterials and provides access to individual neighborhoods and some individual properties.	One lane each direction, bicycle lanes, limited on-street parking.
Collector	Provides route through neighborhoods between arterials and minor arterial/major collector facilities as well as access to individual properties. Lower volumes and speeds suitable for bicycle routes.	One lane each direction with on-street parking.
Local Streets	Provides access to individual properties. Lower volumes and speeds suitable for bicycle routes. Should receive no more than 1000 vehicles per day in traffic.	One lane each direction with on-street parking.
Historic Main Street	Provides mobility and carries higher vehicular traffic volumes but also access to historic residential properties and downtown businesses.	One lane each direction with on-street parking and street trees, planting strip, and/or distinctive street lighting.

Data source: US Census 2000, ACS 2018 (5-year estimates).

Dixon's street system is also the primary pedestrian network. Existing sidewalks and crosswalks allow for safe pedestrian travel within neighborhoods and to local parks and shops throughout Dixon. Most streets in Dixon are served by sidewalks on both sides of the roadway, but street crossings aren't always well-marked or protected by stoplights or stop signs. Ensuring that pedestrian facilities are safe, well-connected, and prioritized will help Dixon achieve a more balanced mode share.

"Complete streets" have been designed to safely accommodate all modes of travel for users of all ages and abilities. Many of Dixon's roads were designed primarily for car travel when they were first built. Rethinking Dixon's roads as "complete streets" will allow people to safely walk, bicycle, drive, and take transit, sharing the street. While no traffic fatalities occurred within Dixon from 2012 through 2017, there were 487 total traffic collisions and 10 severe injuries. In six percent of these collisions, a pedestrian was hit by a vehicle. Prioritizing the safety of all users over motor vehicle flow ensures that people in Dixon can stay safe while using any mode of travel.

COMPLETE STREETS

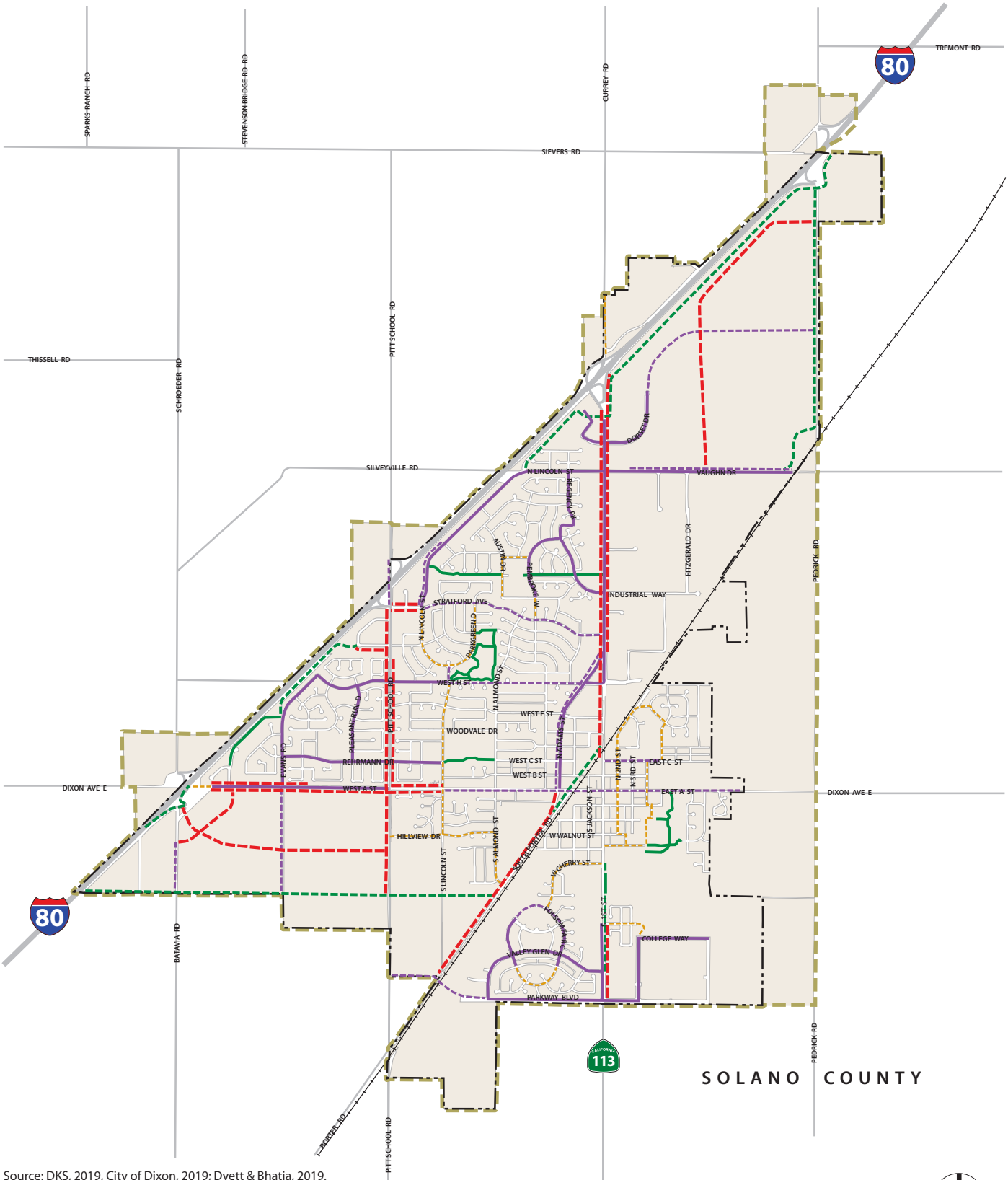
"Complete Streets" are streets that have been designed to safely and comfortably accommodate all users, regardless of age, ability, or mode of travel. Many street designs historically privileged private vehicle travel above other transport modes; Complete Streets aim to correct past imbalances and ensure that roadways are safe and friendly for pedestrians, bicyclists, and transit riders, too.

Several miles of bike lanes, protected paths, and shared routes allow bicyclists to connect through Dixon, and shared roads allow cyclists to bike to other local destinations. There are a few off-street paths in Dixon: a path between North Lincoln Street and First Street which passes through a residential neighborhood and the Gretchen Higgins Elementary School site; a short bike path adjacent to the Dixon Shopping Center from Gateway Drive to Evans Road; and a short path through Hall Memorial Park and Northwest Park. There are bike lanes along North Lincoln Street north of Stratford Avenue, continuing along Vaughn Road to connect with the existing Dixon/Davis Bikeway, a series of roads with bike lanes on them. There are also bike lanes on portions of SR 113, North Adams Street, West H Street, and West A Street. The City has designated bike routes along Stratford Avenue, Industrial Way, Fitzgerald Drive, and sections of West H Street, SR 113/First Street, and East A Street. Completed in 2015, the West B Street pedestrian undercrossing connects the future intermodal station area to the downtown area east of the railroad tracks, has dramatically improved pedestrian and bicyclist safety across the railroad tracks. Figure M-2 shows the existing and planned bicycle and pedestrian network in Dixon.

Planned Improvements

First Street/State Route (SR) 113 is a major arterial linking Dixon from north to south. It runs through the downtown area, where it is designated an Historic Main Street, and through the SR 113 corridor north of downtown, where significant commercial and residential growth is anticipated. As this corridor becomes an increasingly important connection between downtown and new residential neighborhoods to the south, several traffic and infrastructure concerns will need to be addressed. Currently, the segment between East Chestnut Street and Country Fair Drive is most constrained in terms of right-of-way (ROW) and lacks continuous bicycle facilities. Pedestrian crossing safety is also a concern at the Dixon Mayfair site. This facility regularly

Figure M-2: Existing and Planned Bicycle and Pedestrian Network



Source: DKS, 2019, City of Dixon, 2019; Dyett & Bhatia, 2019.

0 1/4 1/2 1 MILES

Existing Bicycle Facilities

- Class I Multi-Use Path
- Class II Bicycle Lane

Proposed Bicycle Facilities

- Class I Multi-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route
- Class IV Separated Bikeway

- Railroad
- Dixon City Limit
- Sphere of Influence

hosts well-attended events, requiring large crowds to cross First Street to reach the site from the parking lot. In addition, school-related traffic in the mornings causes significant congestion along this segment. Backups are caused by southbound left-turning vehicles at East Chestnut, leading to the back entrance of Dixon High School, and at the driveway to the Neighborhood Christian School. Lacking left turn pockets, these movements cause significant queues to form. The Chestnut Street intersections are planned to be signalized as part of a development agreement. Side street traffic from West Cherry Street also encounters high levels of delay during peak hours. Policies and actions within the Mobility Element, such as M-1.1, M-1.3, M-1.4, M-2.1, M-2.6, M-2.E, and M-2.F, help promote safe and efficient access throughout the city and provide guidance and actions to address school-related traffic. City collaboration with the Dixon Unified School District will be critical to improving traffic congestion issues associated with travel to and from schools.

To accommodate projected development patterns, address ongoing circulation and safety concerns, the short-term and long-term improvements outlined in Table M-3 will enhance First Street's performance as a multi-modal corridor and make it safer for all users.

Additionally, a planned overcrossing at Parkway Boulevard would extend Parkway Boulevard from Valley Glen Drive west to Pitt School Road, with an overcrossing of Porter Road and the Union Pacific Railroad (UPRR) tracks. The Parkway Boulevard project is intended to relieve traffic congestion on West A Street and to provide an east-west connection between the Southwest Dixon Specific Plan area,

Table M-3: First Street (SR-113) Corridor Improvements

Corridor Segment	Short-Term Improvements	Long-Term Improvements
Parkway Boulevard to north of Valley Glen Drive	• None recommended	• Restripe and reallocate lanes to allow for Class IV separated bikeway on both sides of street (as recommended in ATP Plan)
North of Valley Glen Drive to County Fair Drive	• Restripe and reallocate lanes for southbound Class II bicycle lane	• Widen southbound sidewalk into multi-use path for bicyclists and pedestrians
County Fair Drive to West Chestnut Street	• Add Rectangular-Rapid-Flashing Beacon (RRFB) and high visibility crosswalk at Dixon May Fair entrance • Add curb bulbout to reduce crossing distance at First and Cherry streets	• Widen southbound sidewalk into multi-use path for bicyclists and pedestrians
West Chestnut Street to south of Mayes Street	• Add left-turn storage pocket to access the school • Remove parking and landscaping between East Chestnut and Walnut Street and add Class II bike lanes in both directions	• None recommended

the Valley Glen development and Dixon High School. This project would pave the way for an at-grade separated rail crossing at West A Street, a precursor to a future rail station opening.

Roadway improvements in Dixon need to be coordinated with sewer and water agencies to ensure that new projects and maintenance are performed as efficiently as possible, and that proactive maintenance is performed in a timely manner. And as new streets are built to serve new residential developments, Traffic Impact Fees should continue to be used to fund multi-modal transportation infrastructure. The streets should have well-connected sidewalk and bike facilities, as well as green infrastructure and stormwater controls. (For more information on Low Impact Design and stormwater management, see Chapter 2: Natural Environment.)

Rail and Transit Service

The Union Pacific Railroad tracks cut diagonally through Dixon, generally parallel to I-80; however, Dixon is not currently served by passenger rail. Dixon was formerly a stop on the Capitol Corridor Amtrak trains that run along the tracks, but passenger service was stopped passenger service in the 1960s. According to the STA's 2015 Rail Corridor Study, Dixon is the recommended location for a facility for longer-term service if additional Capitol Corridor stops in Solano County are to be considered. The General Plan contains policies and actions to bring passenger rail back to Dixon, linking the community to the Bay Area, Sacramento and destinations beyond via the Capitol Corridor.

For destinations within Dixon, the City operates a dial-a-ride transit service called Readi-Ride which provides curb-to-curb service. Residents can call during business hours to request a pick-up, and those in need of extra assistance can bring a companion along on the bus for free. The service has increased in popularity so much in recent years that reservations are now required a day in advance for morning service. According to STA's 2016 Short Range Transit Plan, future ridership is projected to increase with population growth. Future ridership should be accommodated without service expansion, although capacity limits will be applied to peak operating periods that coincide with morning and afternoon school bell times.

For transit service to and from other regional destinations, Fairfield and Suisun Transit (FAST) runs an express bus service called the Blue Line. The Blue Line picks up at the Dixon Park & Ride Station near I-80, and connects Dixon with Sacramento's Capitol Mall, UC Davis, Solano Town Center in Fairfield, transportation centers in Fairfield and Vacaville, and Pleasant Hill BART station. The FAST buses all include bike racks so that riders can make bike connections on either end of the trip. However, the Blue Line has limited hours that only cater to traditional commuting times. Taking transit wouldn't be an option for anyone commuting to a job with non-traditional or unpredictable hours, and the bus doesn't run at all on Sundays. Going forward, creating more flexible transit opportunities to get to and from Dixon will help to balance the City's transportation system and give more options to those who need them, including youth, low-income, senior, and disabled residents.

Comprehensive, Proactive System Planning

Integrating planning for roads, rails, paths, and sidewalks is a critical step towards meeting Dixon's goal of having a safe, balanced, efficient transportation system that works for all residents and visitors. Creating "complete streets" will be an on-going citywide effort, and will need to be continuously evaluated for effectiveness. Emerging technologies can also impact the existing transportation system; smartphones, for example, make transit schedules and bike routes more accessible, and can be used to call private ride-share programs run by Transportation Network Companies (TNCs) like Lyft and Uber. Self-driving cars are on the road in some parts of the United States, and may impact transportation patterns in Dixon soon. Other alternative transportation options like e-bikes, e-scooters, and car- or bike-sharing could also become popular. As new technologies emerge, a Technical Advisory Committee can help Dixon proactively adapt and plan for change.

EFFICIENT CIRCULATION

An efficient circulation system ensures that Dixon residents can chose the transportation mode that works best for the trip they want to make that improvements to bicycle and pedestrian systems conform to national standards, that residents aren't wasting time sitting in traffic, that emergency vehicles can reach emergencies in as little time as possible, and that greenhouse gases aren't being generated by unnecessary car trips.

Level of Service (LOS)

Given Dixon's overall development pattern and that Dixon's vehicular mode share is anticipated to remain relatively high, LOS continues to be a useful measure of the potential localized effects of development and land use changes on the transportation network and on the efficiency of vehicular travel. Thus, LOS continues as an important measure of mobility in the City even as the General Plan seeks to balance LOS with other considerations and measures.

LOS represents a qualitative description of the traffic operations experienced by the driver at an intersection or along a roadway segment. It ranges from LOS "A", with no congestion and little delay, to LOS "F", with excessive congestion and delays. Table M-4 provides definitions for different LOS levels.

Table M-4: Level of Service Definitions

LOS	Definition
Level of Service A	Free-flow travel with freedom to maneuver
Level of Service B	Stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in convenience, and maneuvering freedom
Level of Service C	Stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream
Level of Service D	High-density, but stable flow. Users may experience restriction in speed and freedom to maneuver, with poor levels of convenience
Level of Service E	Operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions
Level of Service F	Forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion

LOS/VMT/Community Character Tradeoffs

With a commitment to Complete Streets and a desire to accommodate other users such as pedestrians and bicyclists, it is particularly important that LOS thresholds, which are commonly evaluated to determine the size and design of the roadway system or the feasibility of development, are balanced with other metrics that seek to reduce vehicle travel and enhance community values. This approach requires consideration of the following tradeoffs associated with different LOS thresholds, which ensures that the policy will represent clear community priorities and provide specific exceptions when other community values are considered more important than LOS:

1. **Costs.** Because LOS policies influence the size and type of transportation infrastructure investments, maintaining a higher LOS (e.g. LOS A, B, or C) may be an inefficient use of public funds when considering the cost to build, operate, and maintain the roadway network.
2. **Safety.** Higher LOS thresholds are often associated with higher vehicle speeds for peak and non-peak hours, which increases the potential for and severity of collisions between vehicles and bicyclists or pedestrians.
3. **Alternative Transportation Modes.** Traditional LOS policy measures driver comfort and convenience, which means that considerations for pedestrians or bicyclists using the same facility are not always incorporated.
4. **Physical Space.** The goal of an efficient transportation network is to increase the capacity for person-trips, not just vehicle-trips. Maintaining a higher LOS policy typically focuses on using the public right-of-way or road space to move automobiles through the network instead of people.
5. **Air Quality and GHG.** LOS thresholds influence travel speeds and may induce vehicular travel in the case where driving is made easier. Cut-through traffic is an example of induced travel in Dixon. Higher speeds and induced vehicle travel can both result in higher levels of air pollutant and GHG emissions.
6. **Community Character.** Achieving LOS thresholds may require changes to the roadway, such as road widening, that can influence the character of neighborhoods by changing the building-to-street relationship, or removing opportunities for green infrastructure and wide sidewalks alongside streets. Some of the proposed mixed-use areas in the General Plan have streets that would need to have additional pedestrian crossings, street trees, pedestrian-scaled lighting and other features to enable them to be more comfortable for pedestrians, rather than widened to accommodate additional traffic flow.

It is expected that decision-makers and community members will use the policy tradeoffs listed above to make decisions about LOS thresholds on specific roadways should they road conditions change during the implementation of this General Plan.

Vehicle Miles Traveled

VMT is the State preferred performance metric for environmental analyses pursuant to CEQA to describe the overall amount of travel in the City based on distance and is directly related to fuel consumption, air pollution, and GHG emissions. VMT is defined as the total mileage traveled by all vehicles. Although VMT relates specifically to automobiles, it is able to capture the effects of development patterns such as land use mix and density along with transit, bike, and pedestrian infrastructure improvements by reflecting their impacts on vehicle trip generation and trip lengths. The City will use a combination of LOS and VMT metrics to ensure the efficient movement of people and goods as well as reductions in GHG emissions.

Efforts to reduce VMT may include locating housing and jobs near transit stations, implementing transportation demand management (TDM) strategies such as road or parking pricing, commute trip reduction programs, transit system improvements, or providing facilities for modes of transportation other than single occupant vehicles. Introducing a greater mix of land uses can also reduce VMT in that residents may have better access to resources and opportunities such as entertainment, shopping, and jobs, thus reducing the length of their trips.

Transportation Demand Management (TDM)

Traffic congestion can be also reduced by strategic traffic management techniques, called Transportation Demand Management (TDM). TDM strategies aim to reduce the amount of motor vehicle traffic and manage parking to make travel behaviors more sustainable. During peak periods and at major destinations like schools and employment centers, cities can manage vehicles instead of just building wider roads and larger parking lots. Strategies may include promoting carpooling and car-sharing, transit subsidies or reimbursements, paid parking, and the provision of bicycle support facilities at workplaces.

Standards for Service

Dixon aims to have all intersections achieve at least a LOS D. When a train is coming through Dixon, traffic congestion sometimes exceeds this threshold as drivers wait for the train to pass. Long-term, the planned grade-separated rail crossing at A Street and Parkway Boulevard Overcrossing will help to alleviate this congestion. Until these grade-separated crossings are constructed, a "queue-cutter" signal, which prevents vehicles from stopping on train tracks as a result of a downstream signalized intersection's red light, would help to relieve congestion and improve safety.

And while LOS ratings are useful for measuring traffic flow, this narrow approach fails to consider overall mobility, the existing and desired land use character of the community or conditions for non-automobile users. Balancing traffic flow with other important concerns, especially safety for pedestrians and cyclists, will help Dixon's streets work better for everyone. To better reflect and promote the paradigm shift towards non-automobile-based transportation within Dixon, the traditional approach to transportation planning must be expanded to address "complete streets." Efforts to improve the City's network of streets, sidewalks, and services must meet important circulation and mobility goals and also contribute to broader efforts to

create safe and attractive environments for human interaction. And when streets feel safer and more comfortable for walking and biking, those modes become more attractive and can help to reduce overall congestion by getting people out of their cars.

In Dixon, these efficient circulation strategies need to be coordinated with the Dixon Police and Fire departments to ensure that emergency access is always maintained, and with the Dixon Unified School District, which can work with the City to decrease congestion from drop-off and pick-up, including assignment of students to schools that are closest to their homes. Other agencies that Dixon needs to coordinate with include the US Department of Transportation, Caltrans, the Metropolitan Transportation Commission, and STA. Through proactive collaboration, Dixon can ensure that transportation dollars are being spent efficiently and in a way that aligns with the City's long-term goals.

TRANSPORTATION AGENCIES

United States Department of Transportation (USDOT)

The US DOT coordinates all federal transportation work. Under the USDOT, the Federal Highway Administration (FHWA) builds and maintains the National Highway System; the Federal Railroad Administration (FRA) invests in and enforces safety regulations along rail corridors throughout the United States; the Federal Transit Administration provides financial and technical assistance to local public transit systems and oversees transit safety; and the National Highway Traffic Safety Administration (NHTSA) works to improve safety on roadways through education, research, safety standards, and enforcement.

California Department of Transportation (Caltrans)

Caltrans is responsible for the state highway system, including more that 50,000 miles of California's highway and freeway lanes, the state ferry system, and the state-supported Amtrak routes, including Capitol Corridor. Solano County is part of Caltrans District 4.

Metropolitan Transportation Commission (MTC)

MTC is the transportation planning, financing, and coordinating agency for the nine-county San Francisco Bay Area. The Agency carries out long-range planning for the region, including around transit-oriented development, transportation sustainability, and funding for transportation projects. MTC's Plan Bay Area 2040 is one of the key long-range planning documents affecting Dixon's mobility future.

Solano Transportation Authority (STA)

The STA is responsible for countywide transportation planning, funding, and project prioritization. Created through a Joint Powers Agreement between Benicia, Dixon, Fairfield, Rio Vista, Suisun City, Vacaville, Vallejo, and Solano County, STA coordinates with other regional agencies to continually improve Solano County's transportation system.

INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems (ITS) refers to a set of tools that facilitates a connected, integrated transportation system. Applications of ITS includes adaptive traffic prioritization signals aimed at congestion management and improving traffic flow, and the collection and dissemination of real-time travel information such as transit arrivals or traffic incident alerts. Other applications of ITS to be considered as transportation patterns change and emerging technologies come online may include connecting autonomous vehicles and smart city integration.

GOAL M-1: Plan, design, construct, and maintain a transportation network that provides safe and efficient access throughout the city and optimizes travel by all modes.

COMPREHENSIVE TRANSPORTATION NETWORK

POLICIES

M-1.1 Maintain a transportation network that is efficient and safe, that removes barriers (e.g. accessibility near freeways and rail lines), and that optimizes travel by all modes.

M-1.2 Maintain a hierarchy of streets that includes arterials, collectors, and local streets, balancing the needs of all users in a safe and appropriate manner, including youth, seniors, persons with disabilities, and low-income households.

M-1.3 Design, construct, operate, and maintain city streets based on a "complete streets" concept that enables safe, comfortable, and attractive access and travel for pedestrians, bicyclists, motorists, and transit users of all ages and abilities.

M-1.4 Make safety the first priority of citywide transportation planning. Prioritize pedestrian, bicycle and automobile safety over motor vehicle level of service and motor vehicle parking.

M-1.5 Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders through appropriate roadway modifications and improvements.

M-1.6 Ensure that improvements to the transportation network support a land use pattern that connects the community, integrates neighborhoods, provides multi-modal access and facilitates travel among Dixon's neighborhoods.

M-1.7 Coordinate transportation planning with emergency service providers to ensure continued emergency service operation and service levels.

M-1.8 To the extent allowed by law, use the City's Traffic Impact Fee to fund bicycle, pedestrian, transit, and road improvements so that development pays its fair share toward a circulation system that optimizes travel by all modes.

M-1.9 Require new residential development projects to implement best practices for street design, stormwater management and green infrastructure.

M-1.10 Prioritize roadway upkeep by maintaining good street pavement condition in Dixon to reduce the need for costly future repairs and to minimize wear and tear on individual vehicles.

M-1.11 Coordinate roadway improvements with other transportation and utility infrastructure improvements such as sewer and water.

ACTIONS

M-1.A Implement roadway safety and efficiency improvements to SR 113 as outlined in Table M-3.

M-1.B Pursue funding for the construction of grade separated rail crossings at Parkway Boulevard and West "A" Street and a bypass route at Vaughn Road to increase connectivity across the rail tracks and promote safety.

M-1.C Provide new connections for vehicles, bicycles, and pedestrians across the railroad.

M-1.D Consider adopting the National Association of City Transportation Officials (NACTO) Urban Street Design Guide and Urban Bikeway Design Guide to direct future improvement projects.

M-1.E Use the Transportation Technical Advisory Committee as a forum for advice on adapting to new advances in mobility technology.

M-1.F Consider creating a Strategic Plan with implementation and funding strategies (such as a sales tax, parcel tax, local gas tax, and other mechanisms) for street repair to ensure that repairs and maintenance are undertaken regularly, efficiently, and equitably.

GOAL M-2: Manage the city's transportation system to minimize congestion, improve flow and improve air quality.

EFFICIENT CIRCULATION

POLICIES

M-2.1 Ensure that the street network functions for the automobile, yet is easily accessible, safe, and convenient for other modes of travel and for users of all ages, abilities, and income levels.

M-2.2 Prioritize pedestrian, bicycle, and automobile safety over traffic flow.

M-2.3 Maintain a street classification system that establishes user mode priorities and associated performance standards for each type of street, and avoid directing arterial traffic onto neighborhood streets.

M-2.4 Maintain a minimum level of service of "D" citywide for planning purposes.

M-2.5 Improve east-west circulation in Dixon, with a particular focus on A Street, First Street and Pedrick Road grade crossings of the rail line.

M-2.6 Employ strategies to effectively coordinate, manage, and reduce traffic, particularly during peak periods and at major destinations such as employment hubs, schools, and Downtown Dixon.

M-2.7 Decrease dependence on single-occupant vehicles by increasing the attractiveness of other modes of transportation.

M-2.8 Require traffic studies for new development to include analysis of intersections, roadway segments, and alternative modes of transportation and facilities that may be affected by development proposals.

M-2.9 Recognize uncongested access to the freeway from employment areas in the north of the city as a competitive advantage for Dixon and prioritize improvements accordingly.

M-2.10 Ensure adequate emergency vehicle access in all areas of Dixon by continuing to involve the Police and Fire Departments in the development review process.

ACTIONS

M-2.A Identify, study and fund appropriate roadway and intersection improvements and other transportation improvement projects so as to maintain a minimum level of service of "D" citywide.

M-2.B Establish performance standards for each street type that include adequate emergency vehicle use. Include the following considerations in establishing performance metrics:(i) quality and connectivity of pedestrian facilities, based on best practice design guidelines including the California Manual on Uniform Traffic Control Devices (MUTCD) and the National Association of City Transportation Officials (NACTO) Urban Street Design Guide; (ii) quality and connectivity of the bicycle facilities, based on best practice design guidelines including the California MUTCD, Caltrans Highway Design Manual Chapter 1000, and the NACTO Urban Bikeway Design Guide; (iii) quality of the transit facilities and service, based on best practice design guidelines, including the NACTO Transit Street Design Guide, as well as on the service capacity and frequency as compared to measured or projected demand; (iv) adequacy of emergency access provided, as measured by the efficiency of emergency access routes and the presence or absence of barriers along primary routes.

M-2.C Secure additional funding necessary to complete transportation improvement projects designed to improve east-west connections in Dixon including the Parkway Boulevard Overcrossing, Vaughn Road realignment, the West "A" Street undercrossing, and redesignation of SR-113.

M-2.D Install a “queue-cutter” signal at the A Street railway crossing as an interim solution to address eastbound queuing and improve safety at this location.

M-2.E Work with the Dixon Unified School District to ensure that decisions regarding student school assignments are analyzed to reduce peak period motor vehicle trips to and from school sites.

M-2.F Work with the Dixon Unified School District (DUSD) to resolve traffic congestion issues associated with student drop-off and pick-up.

5.3 IMPROVING CONNECTIONS WITHIN AND AROUND DIXON

LOCAL CONNECTIVITY

Dixon is a small city with relatively flat topography, so most local destinations are an easy walk or bike ride away. And Dixon is close to many regional destinations and employment centers: UC Davis is within biking distance, and Sacramento and the Bay Area are short bus rides away.

Currently, though, there are some barriers to efficient transit, walking, and biking connections. The General Plan contains policies and actions to facilitate greater bus, train, automobile, bike, and pedestrian connections.

To help people choose to walk and bike, all legs of the journey should feel safe and pleasant. Dixon can enhance pedestrian and bike connections to important community destinations between parks, schools, commercial centers, and neighborhoods, making sure that there are continuous routes and direct connections. New developments should provide direct connections between neighborhoods, as well, with pathways or streets designed for walkers and bikers. These paths, routes, and lanes will all be part of an integrated multi-use system within Dixon and connecting beyond – safe, pleasant, universally accessible. The Solano County Active Transportation Plan prioritizes projects across Solano County and plans for several new bicycle connections and pedestrian improvements linked to a local active transportation backbone network within Dixon. As this bike and pedestrian network is developed, it will be designed to help residents of all ages and abilities enjoy and use the facilities: curb ramps, safe crossings, and clear sidewalks help those with disabilities, but also facilitate travel by senior citizens, parents with strollers, and young children riding bikes or scooters.

At the train track crossings, these users also require better infrastructure to facilitate safe crossings. Working with STA, the Union Pacific Railroad, and Amtrak, the City of Dixon can improve sidewalks, gate technology, and signal coordination.

To improve transit connectivity, the City will work with other local agencies to increase transit access through new routes, expanded hours, or expansion of the Readi-Ride program. A citywide mobility assessment that looks at park and ride facilities, existing shuttle services, and how transit connects with other travel modes will identify barriers and opportunities for improved transit. And as Dixon expands its transit offerings, it will prioritize the needs of seniors, minorities, low-income, disabled, and transit-dependent residents to ensure that everyone can make the trips they need.

ACTIVE AND ALTERNATIVE TRANSPORTATION

Active transportation, including walking, biking, scootering, rollerblading, and use of other small-wheeled devices, lets people complete their commutes and errands while staying healthy and enjoying the outdoors. Alternative transportation methods can include other small-wheeled devices such as mobility scooters, skateboards, electric and non-electric scooters, roller skates, and tricycles. New mobility technologies, such as e-bikes and e-scooters, can allow wider range of people are able to reach destinations that were once deemed too far or too difficult to reach without a car. When people can walk and bike instead of drive, the roads are less congested, there is less of a need for parking spaces, there is less wear and tear on the City's roads, and there are fewer automobile emissions, making the air and water healthier, too. Non-motorized transport can save families money on transportation costs; it is accessible to people of all ages and incomes. Active and alternative transportation can even help to strengthen communities by allowing for chance encounters with friends and neighbors and providing more eyes on the street to deter crime. Making sure that Dixon's streets are safe and comfortable for everyone who wants to walk, bike, or use alternative transportation will benefit the whole community.

There are many ways that Dixon can encourage people to do more walking and biking. Ensuring that people feel safe on streets and paths is a critical first step. Where possible, separate shared-use paths for walkers and bikers can be wonderful community amenities for people of all ages and abilities. Dixon has some existing shared use paths, including through Westside and Northwest parks, and a longer east-west connection from North Lincoln Street through First Street, through Gretchen Higgins Elementary School. Development of a cohesive bicycle and pedestrian network with sufficient space can help to foster an organized and predictable riding environment for

TRAFFIC CALMING

Traffic calming is a strategy that uses street design to slow cars down and increase safety for drivers, bikers, and pedestrians. Traffic calming measures can include speed bumps, narrower lanes, roundabouts, tree planters and pocket parks, sidewalk bulbouts, speed tables, and different paving types. Using a combination of these strategies on local and collector streets can make them safer and more comfortable for everyone.

all users. Adding more separate paths throughout Dixon, and ensuring that existing paths are well-maintained will help more residents enjoy low-stress walking and biking. On other routes along streets, traffic calming measures can help to make walking and biking more comfortable by slowing vehicle speeds.

Beyond basic safety, a number of other strategies can make people more likely to walk and bike. In a hot climate like Dixon's, shade trees can make a huge difference in temperatures. Asphalt absorbs heat, and in the summer, it can be dangerous for some people, including seniors, to walk outside in unshaded places. Trees can help to regulate temperature and make walking and biking comfortable year-round. Interesting architectural details, windows, and front porches can make walking through neighborhoods more interesting, and, of course, seeing other people out and about makes journeys more enjoyable. And ensuring that important destinations, such as employment centers, commercial centers, schools, shops, and cafes, have direct connections to Dixon's neighborhoods and to each other can help make active transportation a viable alternative to automobile travel. Working with local bicycling advocacy groups and STA to implement recommended projects in the Solano County Active Transportation Plan will help to address obstacles to walking and biking in Dixon. Shared mobility services, such as bikeshare, scooter share, or carshare, can also help to reduce vehicle ownership or decrease single-occupant vehicle trips.

Dixon can also help promote active transportation and roadway safety through awareness programs, education, and citywide events. Expanding the Safe Routes to School Program, which some area schools have begun participating in, will help more Dixon children get to school safely on bike or on foot, while reducing congestion during drop-off and pick-up hours. Creating an accompanying Safe Routes for Seniors program, targeting pedestrian improvements near senior living centers and near the Dixon Senior/ Multi-Use Center, will help those with limited mobility take advantage of safe active transportation. Other programs, like a regular Sunday Streets event that would close certain blocks of Dixon to traffic for limited hours, can help to promote walking and biking and bring the community together.

ACCESSIBLE DOWNTOWN

As the heart of the City, the shops, restaurants, and businesses downtown depend on strong connections to the community, through walkers, bikers, and drivers. Balancing the needs of different users downtown can make sure that it's easy for everyone in Dixon to get downtown.

Maintaining adequate parking within easy walking distance to businesses downtown is a key strategy in ensuring good downtown access. To inform development of parking strategies, a downtown parking needs assessment would be needed to determine how much parking is currently provided downtown, how parking is being utilized, and if parking demand exceeds capacity. A parking needs assessment can also determine which unused spaces could be better utilized, such as the potential for shared parking, where parking spots are used by more than one user, like an office worker and

a person visiting downtown for dinner. Where possible, encouraging drivers to park once in downtown and walk between destinations can help reduce circling and congestion, and supports local business by having more people walking past shop windows.

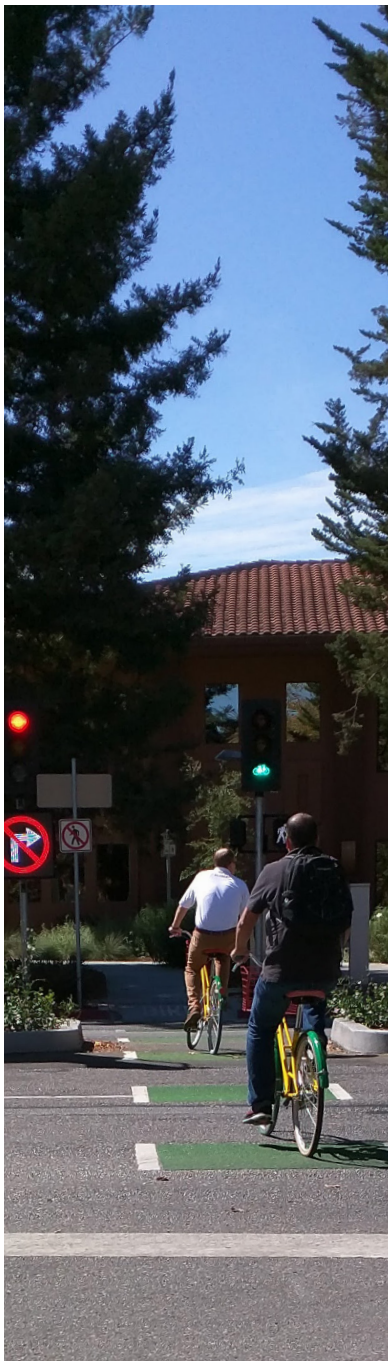
For cyclists of all ages, ensuring that there are safe, convenient connections throughout Dixon will increase accessibility to downtown attractions. Providing buffered lanes through downtown or a protected bicycle boulevard near downtown will allow families to bicycle downtown together instead of driving. And having plenty of convenient, well-designed bike parking at key locations can help to encourage cycling, too.

Creating strong and safe pedestrian connections to downtown from surrounding neighborhoods can help promote walking to downtown and reduce the need for parking spaces. And everyone is a pedestrian once they reach downtown; after people park their cars and their bikes, they walk at least a few steps to their destinations. Ensuring that sidewalks are wide enough, in good repair, and have amenities such as benches, planters and trees, and public art can make the downtown experience more enjoyable for everyone, supporting local businesses and fostering the existing historic sense of place.

For all users, building the planned grade-separated rail crossing at A Street will improve safety, reduce congestion, and help to knit Dixon together for people using all different types of transport.

And working with Amtrak to bring a passenger rail station back to downtown Dixon will dramatically improve downtown's regional connections. With a grade-separated crossing and good pedestrian and bicycle connections to downtown, an Amtrak station with connections to Sacramento, Davis, and the Bay Area could enable residents and employees to easily commute in and out of Dixon and to travel car-free to regional destinations like downtown Sacramento and San Francisco on the weekends. A passenger rail stop could also bring more regional visitors to downtown Dixon, supporting local shops and restaurants, as well as contributing to the City's tax revenue.

GOAL M-3: Facilitate convenient and safe pedestrian, bicycle, transit, and vehicular connections between neighborhoods and to destinations in Dixon and neighboring communities.



LOCAL CONNECTIVITY

POLICIES

M-3.1 Enhance pedestrian, bicycle and transit connections to, from and between parks, community centers, neighborhoods, recreation facilities, libraries, schools, commercial centers and other community destinations in Dixon for all users.

M-3.2 Ensure that new development provides physical connections to surrounding neighborhoods.

M-3.3 Foster an integrated multi-use trail system that provides universally accessible, safe, pleasant and convenient links within the city and to destinations beyond.

M-3.4 Expand the regional bicycle and pedestrian trail network, in collaboration with the Solano Transportation Authority, surrounding communities, and other partners.

M-3.5 Increase regional transit ridership to and from Dixon and expand shuttle service to Amtrak.

M-3.6 Participate in and contribute to regional programs to improve commute alternatives and efficiency.

M-3.7 Prioritize the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.

M-3.8 Encourage provision of a variety of transportation services for seniors and community members with limited mobility.

M-3.9 Increase safety at train crossings with improved gate technology and signal coordination, in partnership with Solano Transportation Authority, Union Pacific Rail Road, and Amtrak.

ACTIONS

M-3.A Work with the Solano Transportation Authority to study the feasibility of expanding express bus routes and frequency to Davis and UC Davis, and Amtrak stations from a central location in Dixon.

M-3.B Conduct a mobility needs assessment and identify solutions to improve transit service for Dixon residents and employees. The study should assess park and ride facilities, shuttle service to Fairfield and Davis Amtrak stations, multi-modal connectivity, and safety among other issues and opportunities.

M-3.C Work with Caltrans, Solano County, Fairfield and Suisun Transit, and the Solano Transportation Authority to identify and seek funding for improvements that make intra-city travel easier, including for transit, bicycles, and pedestrians.

M-3.D In partnership with transit providers and consistent with the Short Range Transit Plan, explore the expansion of Readi-Ride services as funding allows, to offer greater connectivity within Dixon.

M-3.E Consider assessing through a study or survey the need for local bicycle and walking trail improvements that complement those included in the Countywide Bicycle Master Plan.

GOAL M-4: Facilitate travel within the city and to surrounding communities by alternatives to the automobile and reduce vehicle miles travelled.

ACTIVE TRANSPORTATION

POLICIES

M-4.1 Promote cycling and walking as healthy, affordable and viable transportation options in Dixon for all residents through education, incentives, citywide events such as Sunday Streets events, and programs such as Safe Routes to School and Safe Routes for Seniors programs.

M-4.2 Promote roadway safety for all road users through education and awareness programs and campaigns.

M-4.3 Increase bicycle ridership for work, errands and leisure trips.

M-4.4 Regularly maintain bicycle and pedestrian paths and trails, including sweeping, weed abatement and surface maintenance.

M-4.5 Encourage pedestrian-friendly design features in new development such as sidewalks, street trees, on-street parking, gathering spaces, gardens, outdoor furniture, art and interesting architectural details.

M-4.6 Enhance the existing bicycle/pedestrian network by adding planting pockets with street trees to provide shade, calm traffic and enhance the pedestrian realm, prioritizing routes that link destinations such as employment centers, commercial centers, schools and downtown Dixon.

M-4.7 Continue to implement traffic calming measures to slow traffic on local and collector residential streets, and contribute to the safety of non-motorized road users.

M-4.8 Require new or redesigned parking lots to optimize pedestrian and bicycle safety and provide green infrastructure for aesthetic and stormwater management purposes.

ACTIONS

M-4.A Work with bicycle advocacy groups, Solano Transportation Authority and other partners to identify obstacles and impediments to cycling and develop strategies to address them. The assessment could involve a survey and should consider safety, infrastructure availability, network maintenance, and ease of mobility around the City.

M-4.B Collaborate with senior advocacy organizations to develop a "safe routes for seniors" program that provides pedestrian improvements tailored to residents with limited mobility throughout Dixon, especially near senior living centers and destinations such as the Dixon Senior Center.

GOAL M-5: Ensure Downtown Dixon is an inviting place where it is safe and easy to walk, bike, drive, and park.

ACCESSIBLE DOWNTOWN

POLICIES

M-5.1 Plan for a multi-modal downtown where the transportation network accommodates and balances the needs of pedestrians, cyclists, drivers, and rail, shuttle, and transit passengers.

M-5.2 Promote a walkable downtown and enhance the pedestrian environment with improvements for safety and amenities such as planters, street furniture, and public art.

M-5.3 Increase bicycle accessibility downtown by providing bike paths and bicycle parking infrastructure.

M-5.4 Work to bring passenger rail to Downtown Dixon, through advocacy and actions to satisfy established thresholds for passenger rail service.

M-5.5 Improve connections to the Dixon Train Station and provide safe, easy, attractive access across the railway tracks for all roadway users.

M-5.6 Provide a sufficient amount of convenient parking to serve existing and new development while balancing economic development, livability, sustainability and public safety.

M-5.7 Encourage drivers to park once and then walk between destinations in downtown Dixon.

M-5.8 Encourage shared parking where complementary demand timing is demonstrated in order to optimize parking spaces in mixed use areas such as downtown Dixon.

ACTIONS

M-5.A Seek funding for mobility improvements downtown, including pedestrian and bicycle improvements and a grade-separated rail crossing at A Street.

M-5.B Conduct a downtown parking needs assessment to inform development of parking strategies for downtown, including provision of parking facilities, event parking management, and shared parking strategies.

M-5.C Install buffered bicycle lanes along First Street to the High School and along A Street to the Civic Center, or a bicycle boulevard on residential streets parallel to current bicycle routes such as on Hall Park Drive to the High School and Mayes Street to the Civic Center.

M-5.D Provide secure bicycle racks along First Street and in key locations throughout the downtown, such as the train station and Dixon Public Library.

5.4 SAFE AND EFFICIENT GOODS MOVEMENT

Dixon benefits from ready access to the regional transportation network, with excellent rail and to freeway connections that make it a prime location for businesses active in goods movement. In 2018, Solano County farms exported produce throughout the United States and to 31 countries, with major international exports to Canada, South Korea, China, and Japan; local farms can easily get their produce to major food distribution hubs for delivery worldwide on the highways and the Union Pacific Rail lines running through the City. Industrial areas of Dixon also benefit from robust road and rail systems, and can distribute goods easily throughout the region and the world.

The Metropolitan Transportation Commission's 2016 San Francisco Bay Area Goods Movement Plan projects 22 freight trains and 34 passenger trains running daily along the rail corridor through Dixon in 2020, using the tracks at 75 percent of their capacity. Leveraging Dixon's rail infrastructure to ensure that local businesses have the connections and configurations necessary to support goods transport to cargo transportation will involve coordinating with State and regional agencies, including Caltrans, STA, and Union Pacific. Coordinating proactively with these entities to enhance safety, use of the rails, and minimize adverse impacts like noise will help to maintain Dixon's competitive advantage.

Trucking is another critical component of the regional freight and goods movement system. I-80 is the region's most important trucking route, but SR-113 also carries significant truck traffic. According to Caltrans, truck traffic accounted for approximately seven percent of traffic on SR-113 from 2010 through 2015, and Solano Transportation Authority predicts that trucking will increase by around 1.25 percent per year. Pursuing the re-alignment of SR-113 will help to alleviate through traffic through Downtown and maintain Dixon's small-town atmosphere, while facilitating free-flowing regional transportation of goods. Additionally, the General Plan requires the City to monitor the rail crossing at Pedrick Road to identify any safety or efficiency concerns with truck crossings.

The Dixon Municipal Code designates through truck routes, for the use of trucks moving goods through the city, and local truck routes for the use of trucks making deliveries within the community. Shown on Figure M-3, truck traffic is restricted to these designated roadways in order to minimize wear and tear on City streets and promote safety on residential streets. Additionally, the Municipal Code establishes an overnight truck parking program that limits where drivers may park overnight, balancing support for the goods movement industry with neighborhood livability.

GOAL M-6: Provide for safe, efficient goods movement by road and rail.

POLICIES

M-6.1 Maintain designated truck routes within Dixon and regulate truck traffic to allow for both economic development and a high quality of life in residential neighborhoods.

M-6.2 Continue to coordinate with State and regional agencies on the planning and implementation of the regional transportation system.

M-6.3 Pursue opportunities to leverage Dixon's rail infrastructure to provide enhanced cargo service, including new track connections and configurations to support rail served businesses.

M-6.4 Improve safety and minimize adverse noise, vibrations and visual impacts of operations in the Amtrak rail corridor and truck routes on adjacent public facilities, schools and neighborhoods.

M-6.5 Coordinate proactively with rail operators to minimize negative impacts and maximize benefits to Dixon from any future rail service that runs through Dixon.

M-6.6 Support improvements to regional goods movement facilities, such as truck scales, that facilitate local economic development.

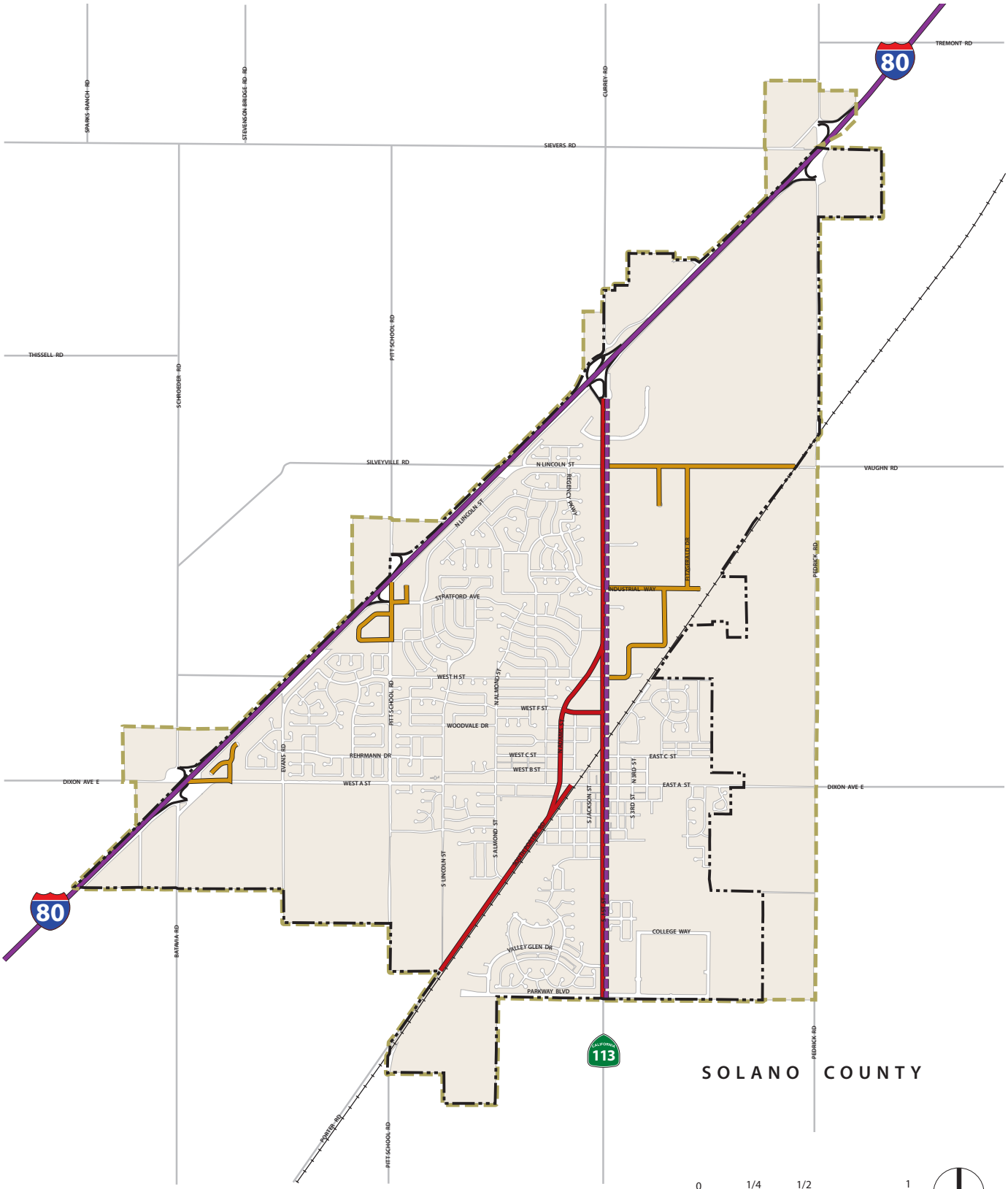
ACTIONS

M-6.A Work with Caltrans to study options for re-rerouting SR 113 away from Downtown Dixon.

M-6.B Prioritize sidewalk and pedestrian improvements to improve safety at the First Street/SR 113 grade crossing of the rail line, where the tracks separate a school from a mainly residential area.

M-6.C Monitor the rail crossing at Pedrick Road, particularly during the harvest months, and identify actions needed to ensure safe and efficient truck crossings at this location.

Figure M-3: Designated Truck Routes



Source: DKS, 2019, City of Dixon, 2019; Dyett & Bhatia, 2019.

Through Truck Route
Delivery Truck Route
STAA Route
STAA Access Route
Railroad
Dixon City Limit
Sphere of Influence