Santa Maria General Plan

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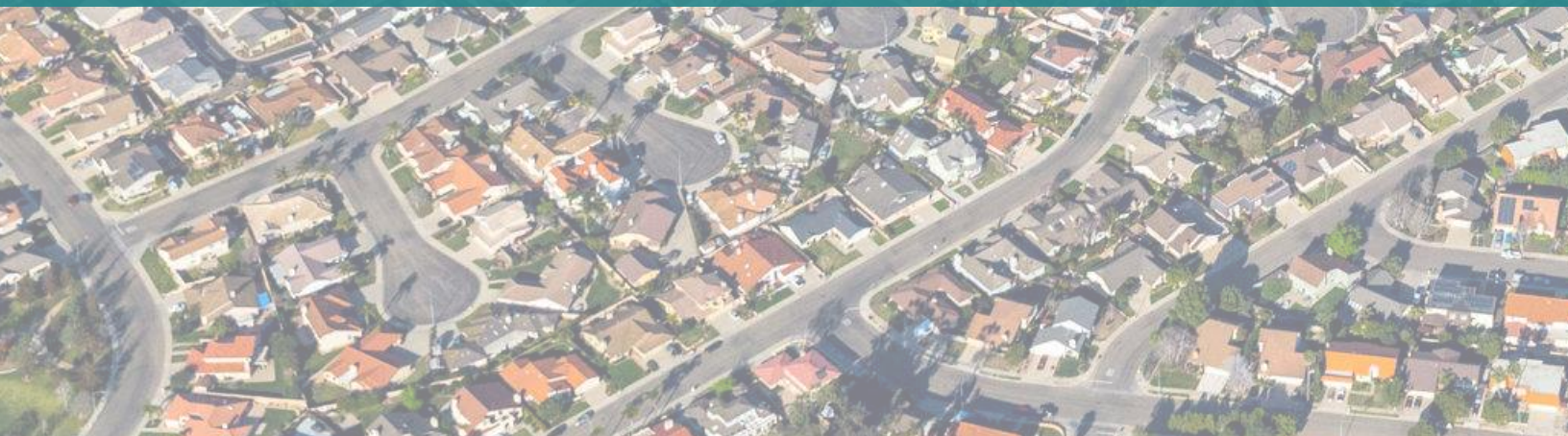
Transportation and Mobility Report

Existing Conditions Report

December 2020



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Existing Conditions Report

The Transportation and Mobility Existing Conditions Report identifies key transportation issues and planning considerations that will be used to inform the Circulation Element in the General Plan Update. This includes an assessment of existing facilities for vehicles, bicycle, pedestrian, transit, and rail and an evaluation of policies and relevant recommendations from other planning documents.

Key Findings

- AB 1358. Assembly Bill 1358 (AB 1358) requires the City of Santa Maria to focus the revision of the Circulation Element of the General Plan on a multimodal transportation system that accommodates all users. This could be accomplished through complete street practices and policies.
- SB 379. Senate Bill (SB) 379 Hazard Mitigation Plan. City of Santa Maria adopted a Hazard Mitigation Plan in July 2017. Per Senate Bill (SB) 379, the climate adaptation strategies must be identified in the Safety Element of the General Plan. This can be accomplished by summarizing and referencing the adaptation information already in the adopted Hazard Mitigation Plan.
- Measure A. Santa Barbara County's Measure A will provide more than 1 billion of estimated local sales tax revenues for transportation projects over its 30-year lifespan to road repair, congestion relief and transportation safety. Current programs in Santa Maria being funded by Measure A are Roadway Maintenance, Specialized Transit for Elderly and Disabled Program, Interregional Transit Program, Safe Routes to School, and the Clean Air Express.
- Downtown Multimodal Streetscape Plan. The Downtown Multimodal Streetscape Plan's goals are to accommodate all users including pedestrians, bicycles, transit riders, automobiles and trucks. This Plan helps to define and rebrand Downtown into a community gathering place and great place to live and visit. This Plan implements raised cycle tracks, wider sidewalks, and on-street parking. It will be important to include these guiding transportation principles for Downtown in the Circulation Element.
- Santa Maria Active Transportation Plan. The Santa Maria Active Transportation Plan is currently out for public review. This Plan will replace the 2009 Santa Maria Bicycle Master Plan and therefore it is important to capture the key findings from this Plan in the Circulation Element.
- Santa Maria Area Transit Short Range Transit Plan. Santa Maria Area Transit (SMAT) Short Range Transit Plan update includes a series of service recommendations in four categories: performance improvement, service enhancement, policy, and innovation/technology. The Plan does take into account the changes in transit due to COVID-19 and revisits each of the recommendations in light of COVID-19, including adjustments to priorities and implementation timelines. The Santa Maria Area Transit (SMAT) Short Term Transit Plan Update recently conducted a virtual open house open for 2 weeks (September 23-October 7, 2020) and there are 21 recommendations from the handout for public outreach included in Appendix B. Many of the recommendations include expanding, adjusting, and retracting existing service. The recommendations for this Plan will be included in the Circulation Element.

- Housing – Employment. There is currently an imbalance with 58.3 percent of the 39,602 individuals in the workforce commuting outside the city for work (based on 2017 Longitudinal Employer-Household Dynamics (LEHD) data). Roughly 11.9 percent of the workforce commutes to the following primary destinations: San Luis Obispo, Orcutt, Los Angeles, and Santa Barbara. The primary area of origin for incoming non-resident workers is Orcutt, which contributes approximately 11.1 percent of all in-coming workers to Santa Maria. A potential strategy to improve the job-housing imbalance is to develop land use policies that incorporate local jobs and residential housing (mixed-use developments) within the same area in reducing vehicle trips and vehicle miles of travel. Other strategies would be to include connected active transportation facilities as an alternate transportation mode.
- Roadway and Functional Classifications. Several roadway segments are below traffic volume thresholds and receive low delay based on the additional roadway capacity. The Circulation Element should evaluate the current and future needs of the roadways and look for opportunities to reclassify the roadway or implement a road diet in repurposing travel lanes for system improvements. These system improvements can include bikeways, pedestrian accommodations, and increased safety.
- Roadway Traffic Volumes and Level of Service (LOS). US 101 interchanges with Santa Maria roadways have deficiencies. US 101 at Main Street (SR 166), Betteravia Road, and Stowell Road need operational and capacity improvements. Betteravia Road is the most congested corridor in the city with several intersections and segments experiencing excessive or unacceptable delays. Main Street (SR 166), Broadway (SR 135), and Stowell Road also have many congested segments and intersections.
- Travel Demand Model. The City's Travel Demand Model land use data has not been updated since 2008. Therefore, in providing a defensible baseline for the General Plan, the travel demand model update is underway. This update will include a new model with current land use data and traffic volumes in producing a calibrated and validated model to local and regional trips. This model will help guide the circulation needs for today and into the future (2045).
- Vehicle Miles Traveled and SB 743. SB 743 took effect July 1, 2020 and fundamentally changed the way Transportation Analysis is conducted as part of the California Environmental Quality Act (CEQA). Automobile Level of Service, although permitted as a local policy threshold and included in the General Plan for conformance, is no longer considered an impact on the environment. Instead, Vehicle Miles of Travel (VMT) is now the primary Transportation Metric for evaluated projects under CEQA. Therefore, the City is currently developing the significant thresholds for Vehicle Miles of Travel, and these results will need to be referenced in the General Plan.
- Travel Time Reliability. There is some unreliability on US 101 around the Santa Barbara/San Luis Obispo County border that extends to the SR 135 (Broadway) off ramp. For other study segments on SR 135, SR 166 (Main Street), and Betteravia Road, all segments have unreliable travel times due to congestion in the AM and PM peak hours for mixed vehicles, passenger vehicles and trucks.
- Safety Analysis. Speeding and automobile right of way violations are the top violation categories for the past five (5) years of city collisions. The City received a State grant from the California Department of Transportation (Caltrans) to conduct a Local Roadway Safety Plan. It is anticipated this safety plan will be started next year, so it will be important to have coordination and consistency with the General Plan Update.

- Transit Services. Per the SMAT Short Term Transit Plan Update, annual ridership declined while cost per rider increased. Decreased ridership is a trend impacting transit operators throughout California and the nation.
- Railway Facilities. The Guadalupe Amtrak Station (GUA) is the closest passenger rail service to Santa Maria. There is a thruway bus service that connects passengers from GUA to the Santa Maria Amtrak Bus Stop (SAT). Since 2016, there has been an increase in ridership of approximately 3.7 percent for a three-year span per the Amtrak Fact Sheet. In addition, the Pacific Surfliner station stop in Guadalupe handled 13,137 passengers to/from cities on connecting Thruway bus service.
- Bikeway Facilities and Pedestrian Facilities. Per the Draft Active Transportation Plan, the goal is to "facilitate the design and implementation of a connected bicycle and pedestrian network to provide safe, affordable, and accessible transportation choices in the community." The final Plan's recommendations will be captured in the General Plan Update.
- Parking. The City's recent parking ordinance, enacted in 2018, allows developers to credit parking in the paved front setback and utilize tandem parking toward the required parking. This new ordinance will only affect medium or high-density developments in allowing more flexibility for construction in infill lots with limited space available.
- Goods and Movement. Santa Maria has two designated Surface Transportation Assistance Act Routes (STAA) truck routes, which are on US 101 and Broadway (SR 135). US 101, Broadway (SR 135), and Main (SR 166) carry the vast majority of STAA truck traffic in terms of absolute volumes. US 101 carries the highest percentage of STAA-sized vehicles, relative to the overall traffic on the route, followed by Main (SR 166) and Broadway (SR 135). On average, STAA-sized trucks make up 5 percent of the overall truck traffic on the segments of State Highways within Santa Maria according to data from Caltrans Annual Average Daily Truck Traffic in 2018. With the added functionality with the new TDM model underway, heavy vehicles (trucks) in Santa Maria will be modeled and alternate routes will be evaluated.
- Aviation Facilities and Services. The Santa Maria Public Airport has seen a decline in enplanements over the last two decades as the number of enplanements peaked at 23,008 in 2018, down from 47,741 in 2010 and 77,738 in 2000.
- Heliports. The City of Santa Maria has four heliports. The authority to regulate development and use of these heliports is shared with the heliport owners and with the Federal Aviation Administration and State of California.
- Transmission Facilities. A redundant power supply is provided by Pacific Gas & Electric (PG&E), through 70KV lines from Divide to Vandenberg (Divide-Vandenberg #1 and Divide-Vandenberg #2), 115KV lines from Mesa (near Nipomo) to Divide (Mesa-Divide #1 and Mesa-Divide #2)., and 230KV lines from Morro Bay to Mesa and Diablo Canyon to Mesa (Morro Bay-Mesa and Diablo-Mesa).
- Pavement System Management. Per the 2019 Pavement Management Report, the overall average PCI for the city is 69, 58.9% of the city's pavement in very good to good condition. However, with the current level of funding at approximately $4.0 million annually, this will result in a PCI loss of 3 points in 5 years to a PCI of 66.

- Programmed Transportation Improvements. The City of Santa Maria is eligible for discretionary (i.e., competitive) and non-discretionary (formula-based apportioned funds) county, federal, State and local transportation funds through a variety of sources.

Organization

This section summarizes the transportation and mobility context for the City of Santa Maria. This report is organized into the following sections:

1. Introduction
2. Housing – Employment Background
3. Roadways and Functional Classifications
4. Roadway Traffic Volumes and Level of Service
5. Vehicle Miles Traveled and SB 743
6. Travel Time Reliability
7. Safety Analysis
8. Transit Services
9. Railway Facilities
10. Bikeway Facilities
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17. Programmed Transportation Improvements
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Purpose of Report

The purpose of the Transportation and Mobility Existing Conditions Report for the Santa Maria General Plan Update is to evaluate the current conditions in defining the transportation and mobility for the city in the future. There will be opportunities to identify new transportation facilities, reclassify roadways that are not serving their functional purpose, and establish new General Plan guidelines.

With the current COVID-19 pandemic, transportation patterns are changing. Since the State of California issued Shelter-in-Place orders in March and subsequently issued guidance to stay home and limit interaction, vehicle traffic patterns have declined compared to 2019 conditions. There are now different vehicle peak hours. Morning peak hours are non-existent except for agriculture, which is typically earlier (around 6 AM), and there is now a significant afternoon peak (11 AM - 1 PM) and varying PM peak hours. In addition, transit ridership is down, and bicycle use is up. However, households with no to limited vehicles still depend on the bus for their transportation. Therefore, it is anticipated that as the economy returns, ridership will increase.

More people are also reducing their overall travel and walking or bicycling for short local trips. It is important for this Existing Conditions Report to acknowledge these changes and the need for alternative modes of transportation. It is also important to note that the long-term effects of the pandemic and subsequent changes to transportation patterns are unknown. However, we are seeing large increases in telecommuting, working from home, and unemployment from the pandemic. The General Plan Update team will monitor transportation conditions in Santa Maria throughout the rest of the General Plan Update process in order to best plan a safe, efficient, and reliable transportation system for all.

Context

The City's current General Plan Circulation Element was adopted in 1994 and amended in 2011. This Existing Conditions Report will evaluate the current transportation and mobility conditions within the City of Santa Maria. Currently, there is an Active Transportation Plan (September 2020) under development that is out for public comment. The Active Transportation Plan will update and replace the City's 2009 Bikeway Plan. In addition, a Short Range Transit Plan is currently out for public comment with a draft final report of August 2020.

Other major changes include the passing of AB 1358 and SB 743. AB 1358 requires the incorporation of complete streets' elements in the development of the General Plan. In addition, SB 743 affects how California Environmental Quality Act (CEQA) assesses transportation impacts (vehicles miles traveled versus delay as a metric).

Regulatory and Guiding Documents

Federal

- Federal Aviation Regulations (FARs). FARs are rules established by the Federal Aviation Administration (FAA) governing all civilian and to a lesser extent military aviation activities in the United States. FARs are designed to promote aviation safety. They are approved through a formal federal rulemaking process and address a wide variety of aviation activities, including aircraft design, flight procedures, pilot training requirements, and airport design. FARs concerning aircraft flight generally preempt any State or local regulations.
- Fixing America's Surface Transportation (FAST) Act (FY2016-FY2021) provides federal funding for surface transportation programs and transforms the policy and programmatic framework for investments to guide the growth and development of the country's vital transportation infrastructure. FAST continues the previous transportation bill's streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. These challenges include improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery.
- Surface Transportation Assistance Act. In 1982 the U.S. Congress, as part of the Surface Transportation Assistance Act of 1982 (STAA), for the first time allowed motor carrier semi-trailers to be up to 53 feet long (and over, as grandfathered in this legislation). In the same Act, Congress created rules for operation of trailers 48 to 53 feet in length and lifted prior restrictions on the overall combination length of highway tractors and semi-trailers. Instead, it imposed a restriction on the dimension between the kingpin on the trailer and the center of the

rear axle on the trailer. This dimension is called the kingpin to rear axle length (KPRA). KPRA dimension is limited to 40 feet on a multi-axle trailer and 38 feet on a single axle trailer when the trailer is 53 feet long and operated in combination with a highway tractor or truck. There is no KPRA limitation when the trailer is 48 feet long.

- The Americans with Disabilities Act (ADA). The ADA legislation prohibits discrimination on the basis of disability. Other Federal laws which affect the design, construction, alteration, and operation of facilities include the Architectural Barriers Act of 1968 (ABA), and the Rehabilitation Act of 1973. These laws apply to all federally funded facilities. The ADA applies to facilities, both public (Title II) and private (Title III), which are not federally funded. Newly constructed and altered facilities covered by Titles II and III of the ADA must be readily accessible to and usable by people with disabilities. In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally-assisted programs is governed by the USDOT regulations (49 CFR part 27) implementing Section 504 of the Rehabilitation Act (29 U.S.C. 794). The Federal Highway Administration (FHWA) has specific ADA policies for statewide planning in 23 CFR 450.210(a)(1) and for metropolitan planning in 23 CFR 450.316(a)(1).

State

- AB 1358. This law enacted in 2011, requires the legislative body of a city or county, upon substantive revision of the circulation element of a general plan, modify the circulation element to plan for a balanced, multimodal transportation system that accommodates all users (motorists, pedestrians bicyclists, goods, etc.).
- California Code of Regulations, Section 3542. This section establishes required airport design standards.
- California Global Warming Solutions Act (AB 32). This law enacted in 2006 (AB 32) set a statewide mandate to roll back greenhouse gas emissions in California to 1990 levels by 2020. To meet the emission reduction goals of AB 32, the California's Sustainable Communities and Climate Protection Act, or SB 375, was enacted to direct the State's metropolitan planning organizations (MPOs) to develop a Sustainable Communities Strategy (SCS) that demonstrates how the region will meet its emission reduction targets.
- Congestion Management Program. The Congestion Management Program (CMP) is the State mandated program (Government Code 65089) aimed at reducing congestion on highways and roads in California. The CMP establishes a designated roadway network of regional significance, roadway service standards, multimodal performance standards and a land use analysis element to identify and mitigate multi-jurisdictional transportation impacts resulting from local land use decisions. Federal, state and local transportation funding is contingent upon local agency compliance with the CMP. SBCAG is the designated Congestion Management Agency for Santa Barbara County and in January 2019, the SBCAG board approved a resolution exempting the region from the State CMP statue.
- SB 375 Sustainable Community Strategy. As a companion document to the RTP, a Sustainable Community Strategy (SCS) is now required in California per SB 375 Sustainable Communities and Climate Protection Act of 2008. This law added a requirement that California's 18 Metropolitan Planning Organizations (MPOs), including SBCAG, align three major components within the regional transportation planning process– land use planning, transportation planning

and funding, and State housing mandates – in order to reduce greenhouse gas (GHG) emissions from cars and light trucks. An SCS must be based on realistic planning assumptions; consider adopted general plans and spheres of influence; and consider natural resources and farmland. It must be internally consistent with the transportation and financing elements of the RTP and consistent with the adopted Regional Housing Needs Allocation. Finally, an SCS must be able to achieve the GHG reduction target established by the California Air Resources Board. SB 375 requires a greater level of land use planning coordination between local agencies (i.e., City of Santa Maria, Santa Barbara County) and MPOs (i.e., SBCAG) to meet the GHG targets established for Santa Barbara County.

- SB 379. SB 379 was adopted on October 8, 2015 and addresses climate adaptation and resiliency strategies for all California cities and counties. If a city or county has an adopted Local Hazard Mitigation Plan (LHMP), climate adaptation strategies must be addressed in the Safety Element of the General Plan. It is noted that the City of Santa Maria adopted a Hazard Mitigation Plan in July 2017. This was an annex to the Santa Barbara County Operational Area Hazard Mitigation Plan.
- The California Complete Streets Act of 2008. This law requires cities and counties to include complete streets policies as part of their general plans so that roadways are designed to safely accommodate all users, including bicyclists, pedestrians, transit riders, children, older people, and disabled people, as well as motorists. It complements existing State policy, which directs Caltrans to "fully consider the needs of non-motorized travelers (including pedestrians, bicyclists and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products." Beginning January 2011, any substantive revision of the circulation element in the general plan of a California local government will include complete streets provisions.
- The California Scenic Highway Program. This is a State designation indicating that a highway is located in an area of outstanding natural beauty. California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263.
- Transportation Development Act (TDA). The TDA provides significant sources of funding for public transportation through the Local Transportation Fund (LTF) and the State Transit Assistance Fund (STA). LTF and STA funds are allocated to communities based on population, taxable sales, and transit performance, and are used to address unmet transit needs. All LTFTF dollars are used for transit in Santa Maria because the city's population is over 100,000.

Local

- Central Coast California Commercial Flows Study. Given the prevalence of goods movement in the Central Coast of California, the Association of Monterey Bay Area Governments (AMBAG) prepared the Central Coast California Commercial Flows Study; the Santa Barbara County Association of Governments (SBCAG) was one of five regional government agencies who participated in the development of the study. The Central Coast California Commercial Flows Study was published February 2012 and has identified strategies to address regional goods

movement issues and coordinate planning/programming objectives as they relate to goods movement.

- Measure A. Measure A (Road Repair, Congestion Relief and Transportation Safety Program) is a transportation measure that was approved by 79 percent of Santa Barbara County voters in November 2008. The Measure is administered by SBCAG providing more than $1 billion of estimated local sales tax revenues for transportation projects in Santa Barbara County over 30 years.
- Regional Transportation Plan. The Fast Forward 2040 is the Regional Transportation Plan and Sustainable Communities' Strategy for Santa Barbara County. This plan was developed and adopted by the Santa Barbara County Association of Governments (SBCAG) in 2017. The RTP complies with State and Federal transportation planning requirements required of urbanized counties for a comprehensive and long-range transportation plan. The RTP is financially constrained multimodal plan that identifies regional transportation improvements needed to improve system maintenance and operations and to improve mobility and accessibility countywide.
- Santa Barbara County Association of Governments (SBCAG). SBCAG is a regional planning agency comprised of the County of Santa Barbara and the Cities of Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, and Solvang. SBCAG serves as the regional transportation planning agency and a technical and information resource for these jurisdictions. SBCAG also serves the region as the Airport Land Use Commission (ALUC) to assure that surrounding land uses are compatible with the five public use airports located within the county.
- Santa Maria Active Transportation Plan (ATP). Santa Maria ATP facilitates the design and implementation of a connected bicycle and pedestrian network to provide safe, affordable, and accessible transportation choices in the community. Through the development of this Plan, the City of Santa Maria is promoting a more sustainable and equitable community by improving safety, mobility, and access while reducing greenhouse gas emissions, improving air quality, and supporting public health for its residents. This new plan is still not finalized (draft out for public comment as of September 2020). It updates the 2009 Bikeway Master Plan and incorporates a performance-based planning approach to quantify the societal benefits of the recommendations. This approach will inform future funding applications to State and federal competitive grant programs for implementation of the Santa Maria ATP.
- Santa Maria Airport Land Use Compatibility Plan (ALUCP). Prepared in August 2019, the Airport Land Use Compatibility Plan (ALUCP) for the Santa Maria Airport is provided by SBCAG's Airport Land Use Commission. The Airport Land Use Commission reviews land use plans and development proposals within Airport Influence Areas. Specifically, the Plan seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace. These plans also provide land use compatibility policies and criteria applicable to local jurisdictions in their preparation or amendments of General Plans.
- Santa Maria Downtown Multimodal Streetscape Concept Plan (DMSCP). The final version of the Downtown Multimodal Streetscape Plan was adopted by City Council in 2019 and is the guiding document for the Downtown core. This plan was awarded a Caltrans Sustainable Communities

Grant in 2016 and is a complete streets plan. The plan focuses on the area along Broadway (SR 135), Cook Road to Fesler Road, and Main Street (SR 166) from Pine Street to Miller Street.

- Santa Maria Area Transit (SMAT) Short Range Transit Plan Update. In 2018, the City of Santa Maria hired a consultant to update to its Short Range Transit Plan (SRTP). This plan is the guiding document for the City's public transit program. Before this update, the most recent full update was completed in 2008, with a subsequent update in 2015 that focused on Santa Maria Area Transit's (SMAT's) evening service and fare policy. The current SRTP update includes a series of service recommendations in four categories: performance improvement, service enhancement, policy, and innovation/technology. The Plan does take into account the changes in transit due to COVID-19 and revisits each of the recommendations in light of COVID-19, including adjustments to priorities and implementation timelines. Final Draft (August 2020) is currently out for review with virtual open houses held in September and October.

Projects of Significance

Downtown Multimodal Streetscape Concept Plan (DMSCP)

In 2015 the City of Santa Maria updated its Downtown Specific Plan, which identified a need for a Downtown multimodal streetscape element. The overall goal was to transform Broadway (SR 135) and Main Street (SR 166) into corridors that accommodate all road users while still accommodating the existing freight and truck traffic. In January 2019, the DMSCP was approved by City Council with the agreement that additional traffic and safety analysis would be performed to evaluate the study intersections and recommended alternatives. This additional traffic and analysis was performed, finalized (February 2020), and coordinated with Caltrans since both Broadway (SR 135) and Main Street (SR 166) are both State Routes. With the Capital Preventive Maintenance (CAPM) on Broadway (SR 135) from Lakeview Road to US 101/SR 135 interchange (Caltrans Project) tentatively set for construction in May 2021, the coordination of the roadway striping and lane configuration between the City and Caltrans is underway. This project includes a pavement overlay, striping, and pavement markings. There will be opportunities to change lane configurations and add Class II bike lanes at appropriate locations.

With Main Street (SR 166) and Broadway (SR 135) being active truck routes through the Downtown core, it is important to engage the trucking community and look for a way to balance the needs. Currently, the City of Santa Maria is actively engaging the trucking community to determine alternate routes that do not entail traversing the Downtown core.

Housing-Employment Background

Transportation Coordination with Land Use

Transportation planning and land use planning go hand-in-hand, as transportation systems need to provide reasonable services to places where people often commute to – employment centers, cultural and civic centers, residential areas, recreational facilities, etc. This also proves essential for the transportation of goods, as road networks must be readily accessible and available for industry. Routing and level of service must be designed to serve the land uses, while at the same time, land use planning should promote development that is compatible with the transportation system. Coordination between transportation and land use is critical to addressing potentially significant traffic impacts before proposed projects are approved.

Determining the transportation impacts at an early stage gives the jurisdiction the opportunity to develop appropriate mitigation and fee measures with the applicants. Higher density uses along public transit routes promote the use of public transit; industrial uses around the airport are compatible with aviation noise and may stimulate activity at the airport; warehousing and distribution facilities near highway interchanges enable easier movement on and off the highway and minimize heavy truck traffic and noise effects on other land uses. The City of Santa Maria's transportation system and land use plans have been developed with these relationships in mind. The General Plan Update should therefore strive to foster compatibility between transportation systems and land use.

Housing-Employment Balance

Land use patterns influence not only the need for Santa Maria residents to travel between different areas within the city and the Santa Maria Valley but also to adjacent counties. The extent to which the City's General Plan Land Use Element plans form a balance between job and housing opportunities can influence work trip travel distances, travel patterns, and congestion.

The Longitudinal Employer-Household Dynamics (LEHD) OnTheMap Version 6 contains an overview of LEHD Origin-Destination Employment Statistics (LODES). The information is based on the US Census Bureau collected information.

Based on the 2017 LODES, approximately 58.3 percent of Santa Maria's workforce commutes outside the city for work. The primary destinations are San Luis Obispo, Orcutt, Los Angeles, and Santa Barbara, where roughly 11.9 percent of the 39,602 individuals in the workforce are out-going commuters. The primary city of origin for incoming non-resident workers is Orcutt, which contributes approximately 11.1 percent of all in-coming workers to the City of Santa Maria.

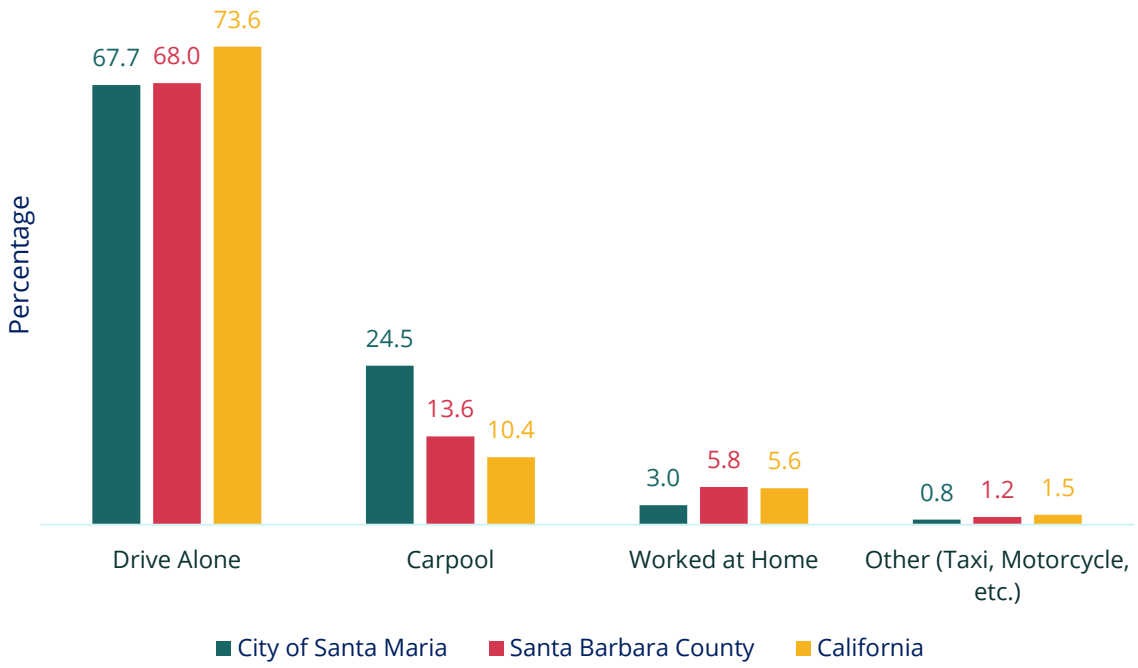
The City of Santa Maria has been and continues to be a workforce "exporter" with more residents commuting outside the city than were staying in the city for work, as analyzed from the obtained ACS data for the years of 2002, 2007, 2012, and 2017. Using this same data, the City of Santa Maria has seen a decrease in the percentage of its workforce staying within the city for work, as 49.4 percent worked in the City of Santa Maria in 2002 compared to 41.7 percent in 2017. Developing land use policies that improve the jobs-housing imbalances is a strategy that could be considered by the City of Santa Maria in this General Plan Update. A potential strategy to improve the job-housing imbalance is to develop land

use policies that incorporate local jobs and residential housing (mixed use developments) within the same area in reducing vehicle trips and vehicle miles of travel. Other strategies would be to include connected active transportation facilities as an alternate transportation mode.

Mode Choice

Morning home-to-work and evening work-to-home return trips are forms of non-discretionary (essential) travel that typically must occur in discreet windows of time during the day. As such, commute traffic is a major contributor to AM/PM peak hour congestion on roadways. Figure 1 below shows the journey to work means of transportation in relation to the County, other incorporated cities within the County, and the State of California.

Figure 1: Journey to Work Mode Split – Santa Maria Compared to Santa Barbara County and State

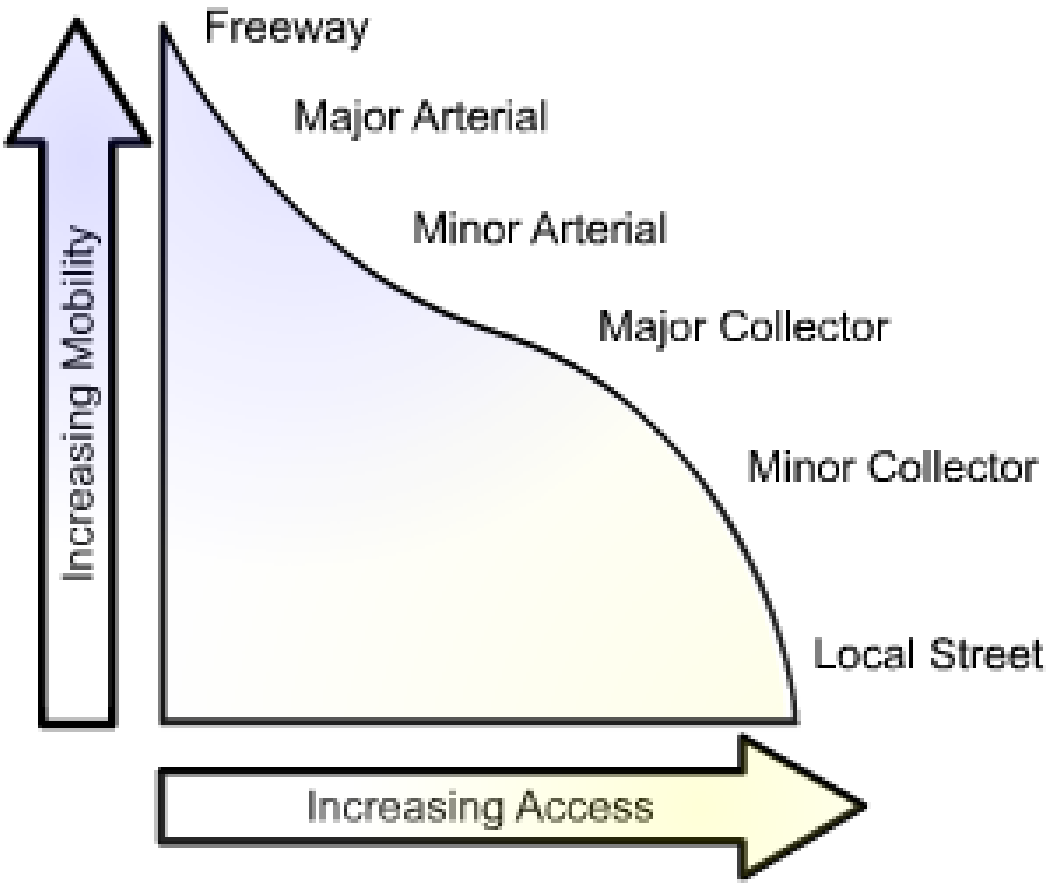


Source: U.S. Census Bureau, 2013-2017, ACS 5-Year Estimates, January 2020.

Roadway and Functional Classifications

This section describes the roadway infrastructure in the City of Santa Maria, including ownership and intended function. The level of connectivity in a roadway network impacts the number of options travelers have in choosing a route between destinations. Lane miles, when spread over multiple facilities, will generally offer more capacity than a single facility with many lanes. As presented in Figure 2, the roadway functional hierarchy is shown with respect to mobility and access (i.e., a major arterial will have more mobility and less access). This roadway functional hierarchy shows the importance of all roadway functional classifications in providing a connected network. In addition, a well-connected system of arterials supported by a secondary network of collectors and local streets can also reduce the traffic disruption impact of construction or collision related events.

Figure 2: Conceptual Roadway Functional Hierarchy



Sources: FHWA, What is Access Management?, Figure 2: Conceptual Roadway Functional Hierarchy, 2020

City of Santa Maria Roadway Classification

According to the City of Santa Maria General Plan Circulation Element, the circulation systems are composed of a wide range of transportation facilities that serve two basic functions, mobility and land access. Table 1 identifies the roadway classification facility types as defined in the Circulation Element.

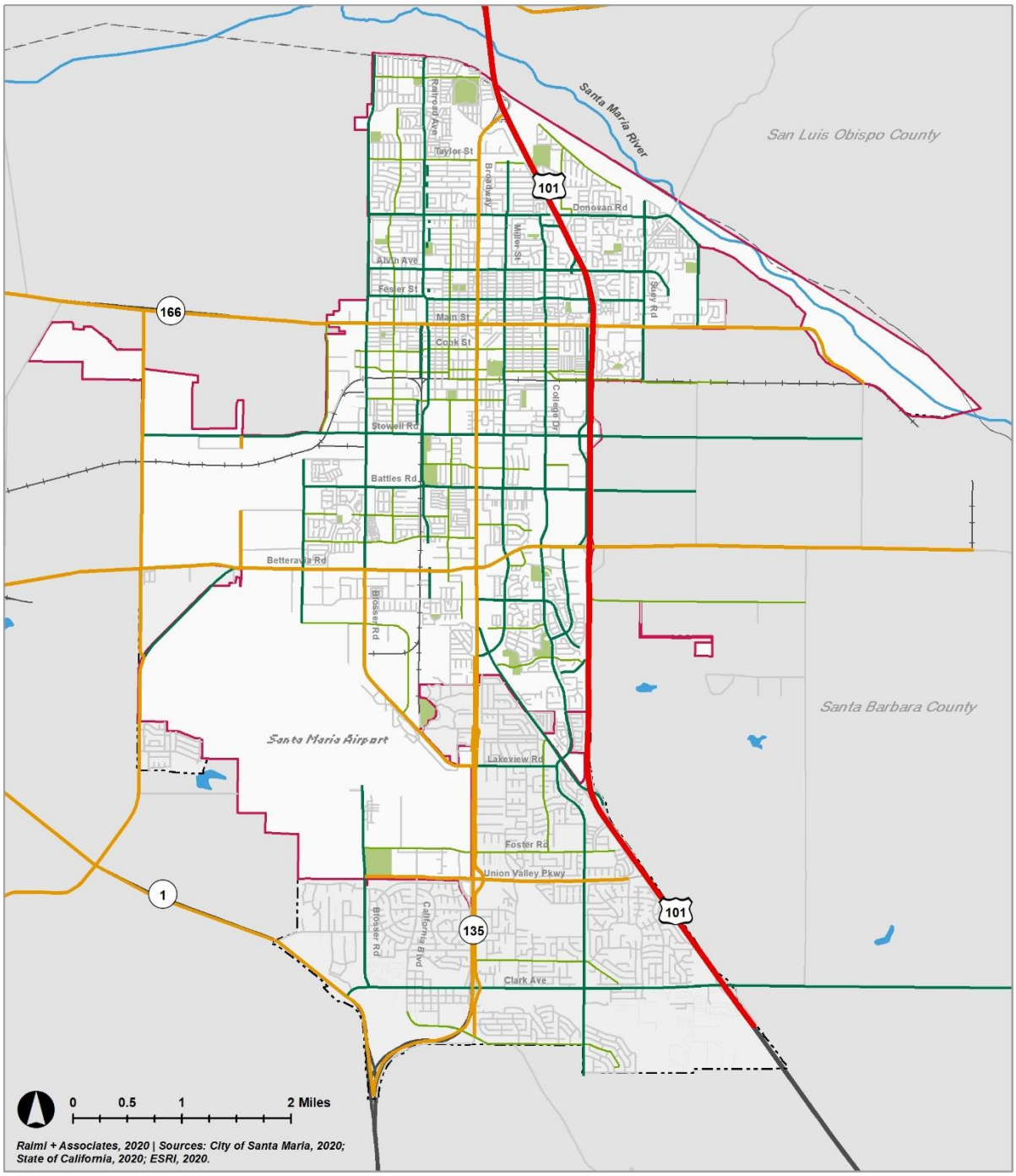
Table 1: Roadway Classification

Facility Type	Emphasis (Mobility versus Land Access)
Freeway	Reserved for limited access, uncontrolled, grade separated facilities, this classification includes US 101. The Freeway provides a high degree of mobility with no direct land access.
Primary Arterial	Provide mobility with intermittent access to Secondary Arterials with minimal direct land access.
Secondary Arterial	Provide mobility via access to Collector Roads and some Local Streets and accommodate access to major traffic generating land uses.
Collector Road	Connect Local Streets with Secondary Arterials and, occasionally, Primary Arterials, and also provide access to major land uses.
Local Streets	Provide access to adjacent land uses as well as access to Collector Roads.
Minor Streets	Provide access to adjacent land uses as well as to Local Streets and, occasionally, Collector Roads. Minor Streets occur only within and serve only residentially-zoned properties.
Roundabouts	Circular intersections that feature, among other important geometric components, a central island, a circulatory roadway, and splitter islands on each approach. Key to the proper implementation of these facilities is the understanding that roundabouts rely upon two basic and important principles: 1) Speed reduction through the facility, achieved through geometric design, which assures optimal operational benefits and safety enhancement; and, 2) The yield-at-entry rule, which requires traffic entering the intersection to yield to traffic that is traveling in the circulatory roadway when conflicts occur between them.

Source: Santa Maria General Plan Circulation Element, 2011.

A map of major roadways by functional classification is provided in Figure 3. In addition, Appendix A has the Circulation Plan from the General Plan update in 2011.

Figure 3: Roadway Functional Classification



Existing Setting

The City of Santa Maria is served by an extensive network of freeways, arterials, collectors, and local roads. The network provides a high level of north-south/east-west connectivity with adjacent counties (i.e., San Luis Obispo, Ventura, and Kern Counties) by way of United States Highway 101 (US 101), State Route 135 (SR 135) and State Route 166 (SR 166) that traverse the city. State Routes 135 and 166 both junction State Route 1 (SR 1) to the west of the city.

State and Federal Roadway Designations

In addition to functional classifications, there are also State and federal roadway designations that define specific distinctions for certain roadways. Designations define the broader functionality of a given highway facility and also define whether a given facility is eligible for federal and State highway funding programs.

Roadways classified under these designations in Santa Maria are shown in Table 2, as are highways that require special scenic conservation treatment (State Highway Code 260).

California Freeway Expressway System. A comprehensive statewide system of access-controlled freeways and expressways identified for their importance to the future development of the State of California (State Highway Code 250-252, 257).

California Scenic Highway System. Portions of the State highway system designated to establish the State's responsibility for the protection and enhancement of California's natural scenic beauty. These roadways, together with the adjacent scenic corridors, require special scenic conservation treatment (State Highway Code 260).

Interregional Road System (IRRS). The IRRS is a system of roadways that provide interregional access to all economic centers in the state. Some roadways are identified as "High Emphasis Routes" due to their critical importance to both interregional and state travel. Routes located outside the boundaries of urbanized areas of over 50,000 population (Census), except as necessary to provide connections for continuation of the routes within those urban areas, are eligible for State discretionary funding.

High Emphasis Route (State Designation). High Emphasis Routes are a subset of the IRRS Routes; non-urbanized portions of these routes connecting urban areas. IRRS Routes are established by Streets and Highways Code, Sections 164.10-164.20.

Focus Route (State Designation). Focus Routes are a subset of High Emphasis Routes that are the highest priority for completion/maintenance. These routes are in non-urbanized areas and will complete a statewide system. These Focus Routes include the original 13 High Emphasis Routes detailed in the 1989 Transportation Blueprint Legislation.

National Highway System (Federal Designation). The National Highway System is a network of highways important to the nation's economy, defense, and mobility.

Surface Transportation Assistance Act Routes (STAA – Federal Designation). The STAA, passed in 1982, allows large trucks to operate on the interstate and certain primary routes collectively called the National Network. These routes, referred to as STAA routes, are designed to accommodate STAA-sized

vehicles (48 to 53 feet from kingpin to rear-axle) specifically providing larger turn radii than typically provided on local roads.

Strategic Highway Network (STRAHNET – Federal Designation). STREHNET is a network of highways that are important to the nation's strategic defense policy and that provide defense access, continuity and emergency capabilities for defense purposes. It is a subsystem of the National Highway Network.

Table 2: National Highway System Designations, City of Santa Maria and Santa Barbara County

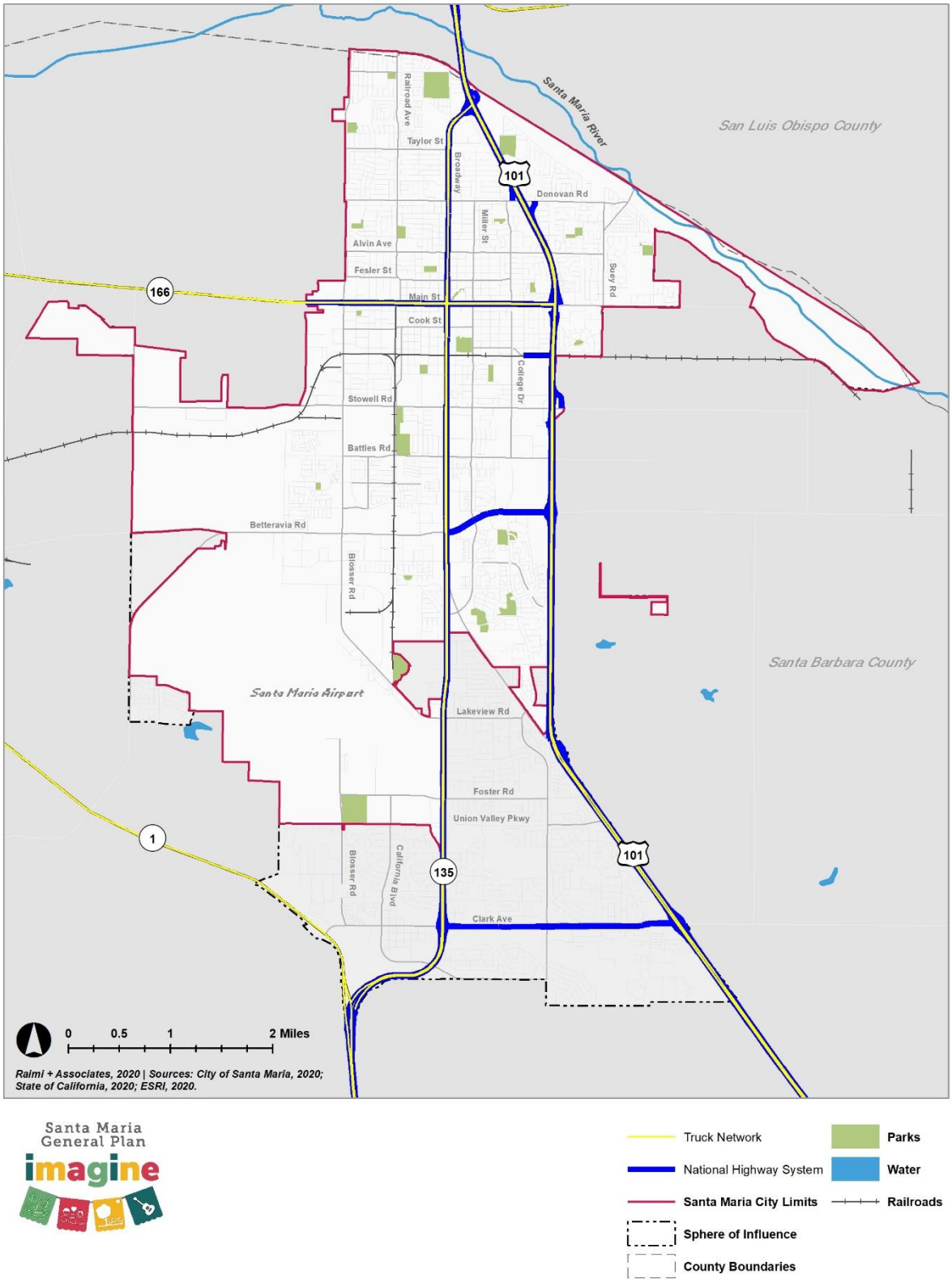
Route	Federal Functional Classification	Freeway and Expressway System	Scenic Highway	IRRS	High Emphasis	Focus Route	National Highway System	STAA	STRAHNET
SR 1	Principal/Minor Arterial	✓	*	✓			✓	✓	
US 101	Other Freeways and Expressways	✓	*	✓	✓	✓	✓	✓	✓
SR 135	Minor Collector/ Principal Arterial	✓		✓			✓	✓	
SR 166	Principal/Minor Arterial	✓					✓	✓	
Betteravia Road (US101 to SR 135)	Other Principal Arterial	✓					✓		

*Designated scenic highways are as follows: SR 1 from US 101 – Las Cruces and US 101 from Goleta's Western Boundary to SR 1 in Las Cruces.

Sources: FHWA, HPMS Functional Classification Codes

All NHS roadways and truck routes are identified on Figure 4.

Figure 4: National Highway System and Truck Network



US 101 and State highways, city streets and county roads carry a large amount of traffic throughout Santa Barbara County. Given that the State highway network forms the primary backbone of the Santa Barbara County network, the State highway system within Santa Barbara County is described in further detail below.

State Route 1

State Route 1 (SR 1) serves as a major north-south corridor traversing along most of the Pacific coastline of California. The route begins in Dana Point (I-5 Junction) and ends in Leggett (junction 101). SR 1 is the longest route in California at approximately 655 miles.

Within Santa Barbara County

SR 1 is functionally a Principal/Minor Arterial facility. The route begins at the Cañada De Las Cruces at Junction SR 101 traversing north through the City of Guadalupe into San Luis Obispo County. SR 1 traverses to the west of the city of Santa Maria. The route encompasses approximately 51 miles.

SR 1 contains a combination of two to four lane conventional highway and two to four lane expressway sections. A two lane highway/expressway is one lane in each direction and a four lane highway/expressway is two lanes in each direction. This route serves as the major access arterial for surrounding communities i.e., Santa Maria, Guadalupe, Orcutt and Lompoc. SR 1 is part the Interregional Road System and is classified as a scenic highway (for certain segments). Additionally, SR 1 is included as part of the STAA truck network.

Caltrans' Transportation Concept Report's (TCRs) goals for development of this corridor include increasing operational capacity for specific segments from existing two to four lane conventional highway (Santa Ynez Bridge to Purisima Road) to a complete four lane conventional highway and from existing two to four lane expressway (SR 135 south of Orcutt to Soloman Road) to two-four lane conventional highway.

US Highway 101

US 101 serves as a major north-south coastal route extending from Los Angeles, California north through Oregon State ending in Tumwater, Washington. US 101 is approximately 1,540 miles.

Within Santa Barbara County

US 101 is functionally an Other Freeway or Expressway facility. The route begins in southern coast of Santa Barbara at the Santa Barbara/Ventura County line traversing north to the City of Santa Maria at the Clark Avenue Interchange to SR 166 East Interchange. The route encompasses approximately 91 miles.

US 101 contains a combination of four-six lane freeway/expressway lane sections. This route serves as the major access freeway/expressway for surrounding communities i.e., Carpinteria, Santa Barbara, Goleta, Solvang, Buellton, Orcutt, and Santa Maria.

TCR's goals for development of this corridor in terms of corridor concept (2035) include increasing the operational capacity for specific segments from existing four-six freeway to a six-lane freeway, assessing

ramp metering viability, interchange improvements, parallel route development and coordinate with agency partners on local route development with inclusion of sustained mobility for bicyclists.

State Route 135

State Route 135 (SR 135) serves as a western north-south bypass corridor of SR 101 in northern Santa Barbara County. The route begins in Los Alamos (Junction US 101) passing north through the City of Santa Maria to US 101 Junction. SR 135 is approximately 21 miles.

SR 135 is functionally a Minor Collector/Principal Arterial facility. Approximately, the first 9.6 miles is a 2-lane conventional highway, the next 7.1 miles is a 4-lane freeway/expressway and the remainder of its length is a four and six-lane conventional highway. Within the City of Santa Maria, SR 135 is known as Broadway, which continues north through the city to the interchange at US 101. This route serves as the major access arterial for surrounding communities i.e., Santa Maria, Orcutt and Los Alamos. SR 135 is part of the Interregional Road System and is included as part of the STAA truck network.

TCR indicates the SR 135 will continue to operate at or under capacity through 2040. Therefore, the corridor concept is to maintain the existing facility for all segments listed in the TCR.

State Route 166

State Route 166 (SR 166) serves as an east-west corridor connecting the Central Coast to the southern San Joaquin Valley. The west end route begins at Highway 1 in Guadalupe, traversing approximately 11 miles east and ending at the Highway 101 and interchange within the city. The portion of SR 166 within the City boundaries is referred to as Main Street and is designated as a two to four-lane Primary Arterial.

East of the US 101, SR 166 begins just north of Santa Maria at Junction 101 (San Luis Obispo County) traversing eastward along the San Luis Obispo/Santa Barbara County line into Kern County ending at SR 99 Junction near Mettler. This portion of the route is approximately 100 miles. SR 166 contains a combination of two-lane Principal and Minor Arterial to four-six lane Principal Arterial Conventional Highway. SR 1 is included as part of the STAA truck network.

TCR indicates the SR 166 will continue to operate at or under capacity through 2040. Therefore, the corridor concept is to maintain the existing facility for all segments listed in the TCR.

Betteravia Road

Betteravia Road from US 101 to Broadway (SR 135) is on the National Highway System. Even though this segment of Betteravia Road is still under the city's jurisdiction, the NHS designation helps to prioritize available federal funding for this segment of Betteravia Road.

Roadway Traffic Volumes and Level of Service

Introduction

This section describes the roadway infrastructure and circulation conditions within the City of Santa Maria. The fundamental objective of a roadway system is to provide access and mobility. If roads are not planned with sufficient capacity to serve development, the road system will fail to provide adequate mobility because motorists would experience long delays and restricted access.

City of Santa Maria Level of Service Thresholds

Level of Service (LOS) is a measure of effectiveness for the roadway and intersections, and acts as an indicator of roadway delay and overall performance. LOS assists in determining when roadway capacity needs to be improved, using a scale of A through F. LOS values A through C are generally considered to be acceptable, although some situations allow for LOS D and E in areas of short peak traffic impacts. LOS for rural highways is largely determined by roadway geometry factors, such as grades, vertical and horizontal curves, and the presence for passing opportunities.

As stated in the current Circulation Element of the City of Santa Maria General Plan (as amended through September 6, 2011), the original Circulation Element was adopted by the City Council on April 17, 1979. The text was reformatted in April 1987 and incorporates amendments made through September 6, 2011. This text updates the current Circulation Element and provides new information, appropriate goals, policies, and implementation programs to guide the City's development.

Additionally, as stated in the current Circulation Element, as a means of implementing the Circulation Plan, goals, objectives, policies, and implementation programs have been developed to assist policy makers and City staff. The Comprehensive Transportation System goal and respective level-of-service related policy and objectives from the 2011 Circulation Element are provided below.

GOAL C.1 Comprehensive Transportation System

To provide and maintain a comprehensive transportation system that provides for the safe and efficient transport of people and goods throughout the city.

POLICY C.1.a Acceptable Levels of Service

The City shall maintain an acceptable peak-hour level of service on all arterials and collectors and at signalized intersections. Service Level D on all roadways and at all signalized intersections shall be the levels maintained.

For long-range development plans, Level of Service D need not be strictly maintained if other policies and action plans indicate that a lesser level of service may be acceptable on a short-term basis providing there are sufficient over-riding considerations.

With regard to property within the boundaries of the Downtown Specific Plan, a project which exceeds vehicle trip generation thresholds determined by the City of Santa Maria, shall complete a traffic study in accordance with the requirements of the Public Works Director/City Engineer. The project shall implement the recommendations of the study so that all intersections operate at a Level of Service (LOS) D or better. If the

Director of the Community Development Department and the Director of the Public Works Department/City Engineer determine that the recommendations of the study are not consistent with the goals of the Downtown Specific Plan; the recommended improvements may not be required provided that equivalent, feasible mitigation is approved and implemented. By way of example, equivalent, feasible mitigation may include the preparation, approval and implementation of a deficiency plan pursuant to Government Code Section 65089.4. (Resolution 2008-163)

OBJECTIVE C.1.a.1 Improved Levels of Service

Arterials and collectors with peak hour levels of service worse than D, and all intersections with peak hour levels of service worse than D, shall be improved to operate at an acceptable peak-hour level of service within the planning period.

OBJECTIVE C.1.a.2 New Development Impacts on Road Network

As new development creates the need, existing local roads within the road network will be improved and additional local and region roads will be constructed, so as to keep all such roads functioning at an acceptable level.

As described above, the City of Santa Maria maintains an acceptable peak-hour Level of Service on all arterials and collectors and at signalized intersections. Service Level D on all roadways and at all signalized intersections shall be the levels maintained. A LOS below D requires a deficiency plan.

Caltrans LOS Thresholds

For roadways under on the State Highway System (SHS) and under Caltrans jurisdiction, the Highway Capacity Manual (HCM) 6th Edition methodology was used. Caltrans' Guide for the Preparation of Traffic Impact Studies contains the following policy pertaining to the LOS standards within Caltrans jurisdiction: Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS.

County of Santa Barbara LOS Thresholds

The LOS definition for freeway segments (stretches of freeway between key on/off ramps) as presented in Table 3 is defined by the County Santa Barbara and Caltrans. As shown, Caltrans utilizes its own screening criteria for determining LOS on freeways under their jurisdiction, based on the density of traffic (expressed in number of vehicles per mile, per lane, per hour). This methodology has been adopted by Caltrans District 5 (which covers the County of Santa Barbara) to evaluate mainline freeway operating conditions and is based on the Highway Capacity Manual.

Table 3: Freeway LOS Screening Classifications (Santa Barbara County)

		LOS (Based on Average Daily Traffic Volumes)				
Roadway Class	# Lanes	A	B	C	D	E
Santa Barbara County						
Freeway	6	44,000	74,400	88,800	99,900	111,000
Freeway	4	29,600	49,600	59,200	66,600	74,000
Freeway	2	18,000	21,000	24,000	27,000	30,000
Caltrans						
Vehicles/Lane/Hour		710	1,170	1,680	2,090	2,350
Sources: County of Santa Barbara, 2014; Caltrans, 2002.						

The LOS definition for roadway segments (stretches of roadways between controlled intersections) is based on the average travel speed along the roadway. As shown in Tables 3 and 4, Santa Barbara County has adopted LOS capacities based on average daily traffic volumes. The roadway capacities listed in the Table are general figures. Some factors that affect specific roadway capacities are frequency of intersections (in the case of surface roadways), degrees of access control, roadway grades, design geometries (horizontal and vertical alignment standards), sight distance, levels of truck and bus traffic, and levels of pedestrian and bicycle traffic.

Table 4: Roadway LOS Screening Classification (Santa Barbara County)

		LOS (Based on Average Daily Traffic Volumes)				
Roadway Class	# Lanes	A	B	C	D	E
Arterial	4	23,900	27,900	31,900	35,900	39,900
Arterial	2	12,000	14,000	16,000	18,000	20,000
Major	4	19,200	22,300	25,500	28,700	31,900
Major	2	9,600	11,200	12,800	14,400	16,000
Collector	2	7,100	8,200	9,400	10,600	11,800
Source: County of Santa Barbara, 2014 and FHWA, 2016.						

Existing Level of Service

Roadway Segment Level of Service

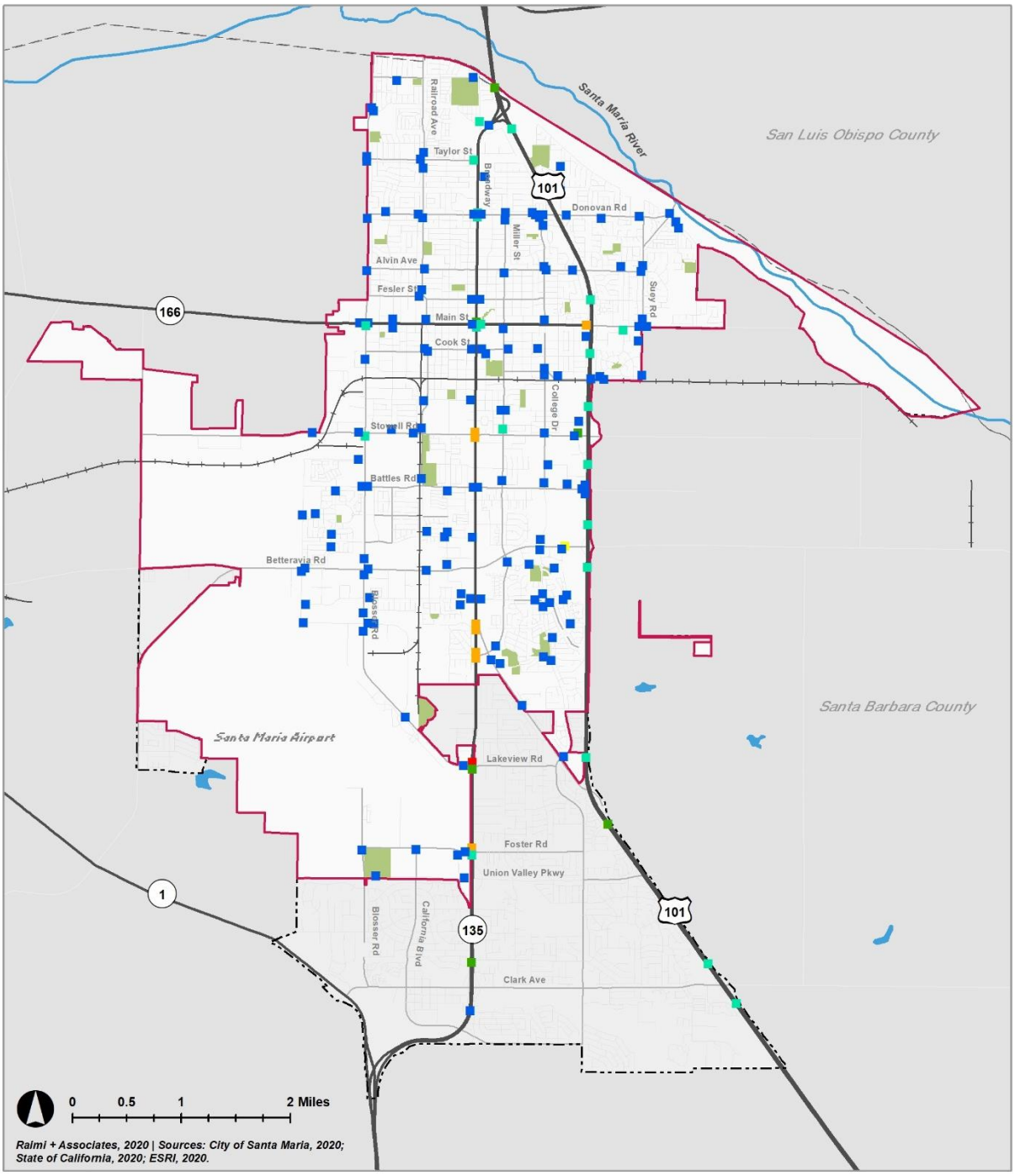
Based on the volume thresholds provided in Tables 3 and 4, relative to roadway segment LOS, Figure 5 presents the LOS per segment. Further detailed analysis is also provided in Appendix A. For roadway segments that have six lanes, Arterial LOS per the Highway Capacity Manual 6th Edition (HCM 6) methodology is used. In capturing a conservative and representative look at current conditions, new traffic volumes for this Existing Conditions analysis were taken from 2019 through the *Streetlight* Data platform that accesses historical traffic data. *StreetLight* uses a proprietary analytic processing engine, Route Science®, to derive the analytics the user needs from Big Data. Route Science algorithmically integrates trillions of spatial data points from millions of devices to include cell phones, fleet management systems, smart phone applications, etc., into trips and activities. It also incorporates dozens of additional spatial and statistical data sets like census and land use information, which enhances these *StreetLight* metrics' contextual richness. In addition, there are key processing steps to include anonymization, data cleansing, patternization, and contextualizations to calibrate the data with

real world conditions. In addition, all 2019 traffic counts obtained from *Streetlight* were then validated with other historical traffic counts in order to ensure a representative data set. Other traffic volumes used outside of Streetlight Data were gathered from historical traffic counts due to COVID-19 traffic conditions.

Based on this analysis presented in Figure 5 and Appendix A, the roadway segments that are shown to operate at LOS D or worse under existing conditions include the following:

- Orcutt Expressway (SR 135), N. of Foster Road at LOS E
- Orcutt Expressway (SR 135), N. of Lakeview Road at LOS F
- Orcutt Expressway (SR 135), N. of Miller Street at LOS E
- Orcutt Expressway (SR 135), S. of Miller Street at LOS E
- Orcutt Expressway (SR 135), N. of Santa Maria Way at LOS E
- Orcutt Expressway (SR 135), S. of Miller Street at LOS E
- Broadway (SR 135), N. of Stowell Road at LOS E
- Broadway (SR 135), S. of Stowell Road at LOS E
- Main Street (SR 166), US 101 SB Off-Ramp at LOS E
- Betteravia Drive, E. of Bradley Drive at LOS D

Figure 5: Segment Level of Service



Road Diets and Reclassification Opportunities

The existing conditions analysis evaluated opportunities for road diets and reclassification of the functional roadway class. Road diets are defined as a travel lane reduction or road rechannelization to correctly size the roadway and allow systemic improvements. These improvements can add a center turning lane or bike lanes and help to reduce vehicle speeds and increase safety for all users. In addition, it is important to have the correct roadway functional classification. Throughout the Circulation Element, the City will look at the current and future traffic volumes and compare the functional roadway classification to recommend any necessary reclassifications. These can include downsizing classifications (e.g., secondary arterial to collector) and increasing classifications (e.g., collector to secondary arterial). It is important in the Circulation Plan to capture the appropriate roadway functional classification as this will dictate roadway cross section and requirements for future developments.

However, this analysis needs to be augmented with analysis of future development and land use designations, city growth, heavy vehicle percentages and truck routes, and ultimate circulation for the city. This augmentation will be captured after the City's Travel Demand Model is updated to forecast base year 2018 and future year 2045 conditions. In addition, it will be important to coordinate Santa Maria ATP recommendations with possible road diet opportunities.

The City is interested in evaluating the current classification of the following roadways for possible downsizing:

- Alvin Avenue: certain segments in residential areas with low ADT and right of way issues;
- Donovan Road: segments with lower volumes in residential areas (away from US 101 and SR 135);
- E Street: need consistency with Area 9 Specific Plan and the General Plan;
- Black Road: need consistency with Area 9 Specific Plan and the General Plan; and
- Mahoney Road: Union Valley Parkway to A Street.

Federal Highway Administration (FHWA) criteria for road diets is based on average daily traffic (ADT) and peak hour. With the traffic volumes for roadway segments in Santa Maria in ADT format, quantification will be based on ADT. Per FHWA, a road diet (4 lanes to a 3 lane cross section (one lane in each direction and two-way left-turn lane (TWLTL)) is appropriate if the roadway has a maximum ADT of 15,000 to 17,500. However, with the intersections along the corridor serving as the choke point, further operational improvements at intersections may be needed. Therefore, it will be important to model the intersections along the possible road diet corridor.

In applying this as a conservative approach, 4-lane roadways with an ADT less than 12,000 vehicles per day (vpd) are identified below for further analysis. The roadways are as follows:

- Main Street, E. of Suey Road and W. of Suey Road
- A Street, S. of Betteravia Drive and S. of Sonya Lane
- Alvin Avenue, W. of Railroad Avenue, W. of College Drive, E. of Bradley Road, W. of Suey Road
- Battles Road, E. and W. of Blosser Road, W. of Bradley, W. of Broadway
- Blosser Road, N. and S. of Taylor Street, N. of Canal Street
- Bradley Road, S. of Cottage Lane, S. of Bello Road, E. of College Drive, S. of Battles

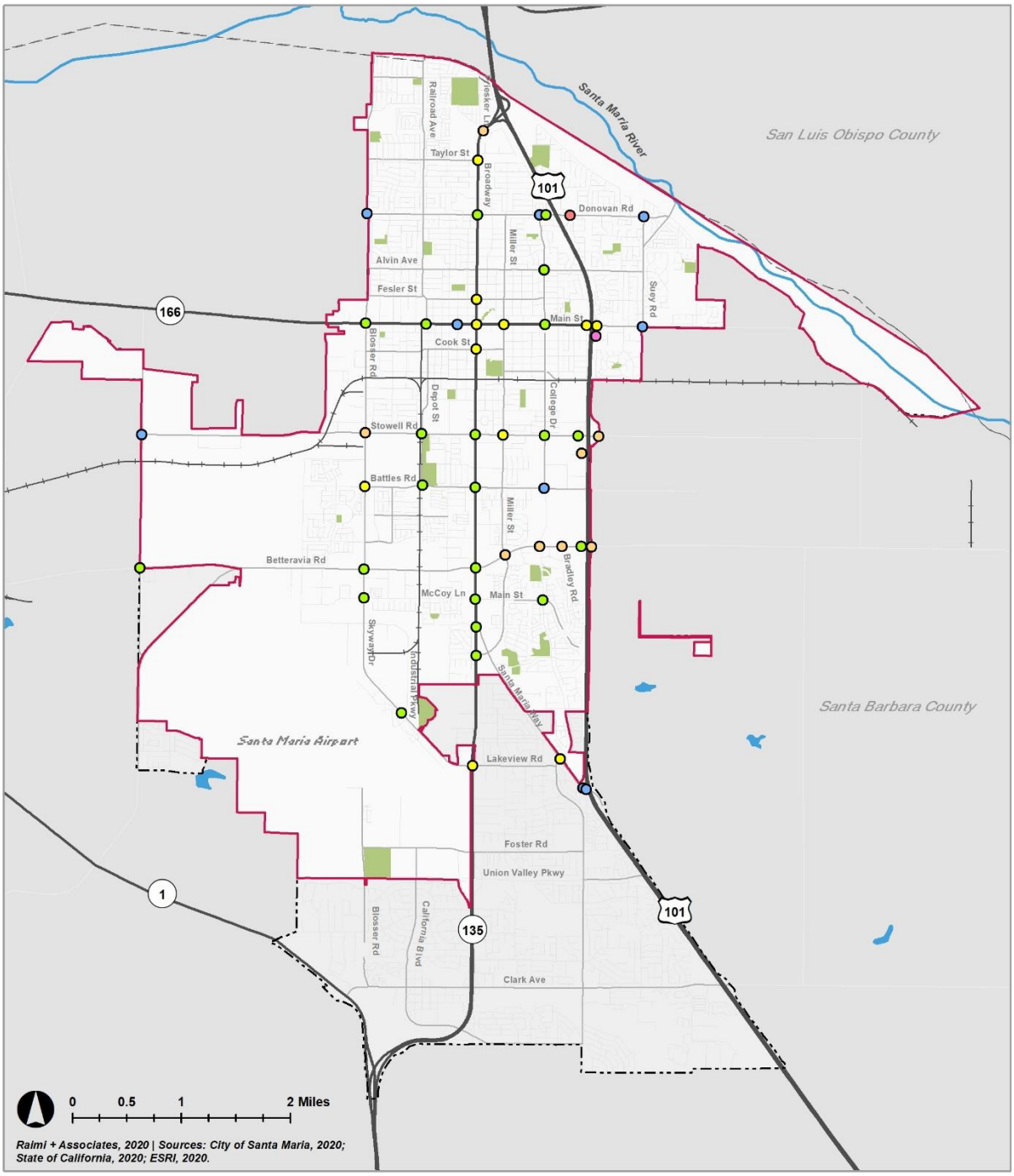
- College Drive, N. of Battles Road (4-lane divided may limit options), N. of Main Street, N. of Alvin Avenue, S. of Donovan Road
- Cook Street, E. and W. of Broadway (4-lane divided may limit options)
- Depot Street, N. of Carmen Lane, N. of Battles Road, N. of Stowell Road
- Donovan Road, W. of Railroad Avenue, W. of Suey Road
- Fesler Street, E. and W. of Broadway (SR 135)
- McCoy Lane, E. of Skyway Drive, E. and W. of College Drive
- Miller Street, S. of Donovan Road, E. of Santa Maria Way
- Panther Drive, S. of Suey Crossing Road
- Santa Maria Way, S. of Miller Way and S. of Dauphin (both sections 4 lane divided which may limit options)
- Stowell Road, W. of Blosser
- Suey Road, N. of Main Street, N. of Alvin Avenue
- Union Valley Parkway, W. of Orcutt Expressway (4 lane divide may limit options)

Intersection Level of Service

Based on historical traffic counts from 2017 to 2019, intersection analysis was performed for approximately 50 key intersections in the City of Santa Maria. For intersections under Caltrans jurisdiction, HCM 6 methodology was used, and for intersections under the City's jurisdiction, Intersection Capacity Utilization (ICU) methodology was used. The results of the intersection analysis are shown in Table 5 and Figure 6. All intersections are operating above LOS D except for the following:

- N. Broadway at Preisker Lane – LOS D
- E. Donovan Road at the NB US 101 Ramps – LOS E
- Nicholson Avenue at the NB US 101 Off-Ramp – LOS F
- NB US 101 Ramps at E. Stowell Road – LOS D
- S. Bradley Road at SB US 101 Ramps – LOS D
- Betteravia Road at NB US 101 Ramps – LOS D
- Miller Street at E. Betteravia Road – LOS D
- S. College Drive at E. Betteravia Road – LOS D
- S. Blosser Road at W. Stowell Road – LOS D
- Miller Street at E. Stowell Road – LOS D

Figure 6: Intersection Level of Service



Santa Maria General Plan imagine

Table 5: City of Santa Maria Intersection Traffic Analysis

Intersection	Control	ICU	ICU LOS	HCM 6 Delay	LOS
N Broadway/Preisker Ln	Signal	-	-	39.6	D
E Donovan Rd/NB US 101 Ramps/ Carlotti Dr	Signal	-	-	59.6	E
E Donovan Rd/SB US 101 Ramps	Signal	-	-	10.5	B
E Main St/Nicholson Ave/NB US 101 On Ramp	Signal	-	-	33.0	C
E Main St/SB US 101 Off Ramp/ S Bradley Rd	Signal	-	-	26.4	C
Nicholson Ave/NB US 101 Off Ramp	AWSC[1]	-	-	56.8	F
NB US 101 Ramps/Nicholson Ave/E Stowell Rd	Three-way Stop (not allowed in HCM)	0.76	D	-	-
S Bradley Rd/E Stowell Rd	Signal	0.69	B	-	-
S Bradley Rd/Columbia Dr/SB US 101 Ramps	Signal	-	-	41.9	D
Betteravia Rd/NB US 101 Ramps	Signal	-	-	37.8	D
Betteravia Rd/SB US 101 Ramps	Signal	-	-	13.3	B
SB US 101 Ramps/Santa Maria Way	TWSC	-	-	8.5	A
N Blosser Rd/W Main St (SR 166)	Signal	-	-	19.9	B
W Main St (SR 166)/N Depot St/S Depot St	Signal	-	-	16.7	B
W Main St (SR 166)/N Pine St/S Pine St	Signal	-	-	9.4	A
Main St (SR 166)/Broadway (SR 135)	Signal	-	-	27.7	C
E Main St (SR 166)/N Miller St	Signal	-	-	27.9	C
E Main St (SR 166)/N College Dr/S College Dr	Signal	-	-	15.7	B
E Main St/N Suey Rd/S Suey Rd	Signal	-	-	9.9	A
N Broadway (SR 135)/W Taylor St	Signal	-	-	29.4	C
N Broadway (SR 135)/Donovan Rd	Signal	-	-	16.0	B
N Broadway (SR 135)/Fesler St	Signal	-	-	24.0	C
S Broadway (SR 135)/Cook St	Signal	-	-	30.1	C
S Broadway (SR 135)/Stowell Rd	Signal	-	-	18.6	B
S Broadway (SR 135)/Battles Rd	Signal	-	-	15.2	B
S Broadway (SR 135)/Betteravia Rd	Signal	-	-	17.3	B
S Broadway (SR 135)/McCoy Ln	Signal	-	-	15.5	B
S Broadway/Orcutt Expy/St Andrews Way/Santa Maria Way	Signal	-	-	14.6	B
Orcutt Expy (SR 135)/Miller St	Signal	-	-	12.8	B
Orcutt Expy (SR 135)/Skyway Dr/Lakeview Rd	Signal	-	-	32.2	C
Miller St/E Betteravia Rd	Signal	0.81	D	-	-
S College Dr/E Betteravia Rd	Signal	0.83	D	-	-
S Bradley Rd/E Betteravia Rd	Signal	0.88	D	-	-
N Blosser Rd/W Donovan Rd	Signal	0.60	A	-	-
E Donovan Rd/N College Dr	Signal	0.55	A	-	-

Intersection	Control	ICU	ICU LOS	HCM 6 Delay	LOS
E Donovan Rd/N Suey Rd*	AWSC[1] (lane configuration not allowed in HCM)	0.40	A	-	-
Alvin Ave/N College Dr	AWSC[1]	-	-	12.6	B
W Stowell Rd/Black Rd	TWSC[2]	-	-	4.3	A
S Blosser Rd/W Stowell Rd	Signal	0.82	D	-	-
S Depot St/W Stowell Rd	Signal	0.67	B	-	-
Miller St/E Stowell Rd	Signal	0.76	C	-	-
E Stowell Rd/S College Dr	Signal	0.69	B	-	-
S Blosser Rd/W Battles Rd	Signal	0.71	C	-	-
Depot St/W Battles Rd	Signal	0.63	B	-	-
E Battles Rd/S College Dr	Signal	0.49	A	-	-
Betteravia Rd/Black Rd	AWSC[1]	-	-	13.2	B
S Blosser Rd/Betteravia Rd	Signal	0.68	B	-	-
Skyway Dr/W McCoy Ln	Signal	0.67	B	-	-
E McCoy Ln/S College Dr	Roundabout	-	-	10.0	B
Skyway Dr/Industrial Pkwy	Signal	0.63	B	-	-
Santa Maria Way/S Bradley Rd/S College Dr	Signal	0.70	C	-	-

Notes:
1. All-Way Stop Control
2. Two-Way Stop Control

Sources: City of Santa Maria, 2020; GHD, 2020.

Travel Demand Model

The City of Santa Maria maintains a local traffic model for future traffic conditions for all major roadways in the city and along the Santa Maria Valley. The current Travel Demand Model (TDM) was developed in 2008 in the VISUM modeling platform. The model uses a three-tiered forecasting process that consists of trip assignment, trip distribution, and trip generation, which then projects the numbers of trips that will be produced and attracted for each land use, based on the assumed future land use conditions. The model then uses a standard gravity equation to assign an origin and destination traffic zone for each trip. Finally, the model assigns each trip to a specific route between its origin and destination.

One of the major functions of the model is to project traffic impacts of potential and actual land use decisions on the local and regional transportation system. These traffic volume projections are designed to give the City of Santa Maria a vision of local traffic congestion that will occur if no additional action is taken. In addition, with SB 743, a model that can capture the full length vehicle trip is critical in capturing the vehicle miles traveled for CEQA transportation impacts.

Therefore, for the purpose of the General Plan and SB 743 requirements, the City's TDM model will be updated with current land use information and traffic volumes and a future 2045 cumulative model will be created. This future model will guide the Circulation Element update and required circulation

changes. In performing this update, added functionality will also be added to include rail, heavy vehicle classification, and daily traffic analysis.

In maximizing compatibility and parity with surrounding jurisdictions' regional models and for future modeling updates, the new model will be in the TransCAD modeling platform. SBCAG and San Luis Council of Governments (SLOCOG) regional TDM models are in TransCAD and future Three County Model for Santa Barbara, San Luis Obispo, and Monterey counties will be also in TransCAD. Also, with the new model using SBCAG's regional model as a base, the full length trips per SB 743 requirements can be captured with the City's TDM model.

Vehicle Miles of Travel and SB 743

County Roadway Inventory and Daily Vehicles Miles Traveled

Countywide maintained road miles (i.e., referred to as centerline miles) and daily vehicle miles of travel (DVMT) data are annually reported for Santa Barbara County by the Federal Highway Performance Monitoring System (HPMS). Daily vehicle miles of travel (DVMT) is a general but robust measure of vehicle activity. It measures the extent of utilization a transportation network experiences by motorists. Although it is not a good indicator of congestion, it is a great indicator of overall vehicle activity. DVMT is commonly applied on a per-household or per-capita basis and is a primary input for regional air quality analyses.

To estimate countywide DVMT, the HPMS program uses a sample-based method that combines daily traffic counts stratified by functional classification of roadway by volume groups to produce sample based geographic estimates of DVMT. HPMS DVMT estimates are considered "ground truth" by the 1990 Federal Clean Act Amendments (November 15, 1990). HPMS DVMT estimates are used to validate baseline travel demand models and to track modeled VMT forecasts over time. HPMS DVMT estimates are reported for each county by local jurisdiction, State highway use, and other State/federal land roadways e.g., State Parks, US Bureau of Land Management, US Forest Service, US Fish and Wildlife Service.

Per SB 743, VMT is now the basis for transportation impact identification and mitigation under the California Environmental Quality Act. VMT is computed by multiplying a given roadway's traffic volume by its centerline segment length.

As shown in Table 6, the mileage (maintained miles) is split nearly evenly between rural and urban roadways for Santa Barbara County comprising about one-half of the total maintained miles. State highways account for slightly under 15 percent of the maintained lane miles.

Table 6: Maintained Miles and Daily Vehicle Miles of Travel, Estimates by Jurisdiction in Santa Barbara County (2018)

Jurisdiction	Maintained Miles			Daily Vehicle Miles of Travel (DVMT) [1000]		
	Rural	Urban	Total	Rural	Urban	Total
Bureau of Indian Affairs		1.71	1.71		1.45	1.45
Santa Barbara County	391.05	413.90	804.95	388.29	851.21	1,239.50
State Highways	163.88	127.86	291.75	2,274.75	3,944.61	6,219.37
State Park Service	19.91	0.79	20.71	1.81	0.71	2.53
U.S. Forest Service	58.68	0.01	58.66	11.20	0.09	11.29
Total	635.89	1,350.58	1,986.48	2,681.86	6,922.70	9,604.56
Source: Caltrans California Public Road Data, 2018.						

SB 743 – Vehicle Miles of Travel

Senate Bill 743 (SB 743) took effect July 1, 2020 and fundamentally changed the way Transportation Analysis is conducted as part of the California Environmental Quality Act (CEQA). Automobile Level of Service, although permitted as a local policy threshold and included in the General Plan for conformance, is no longer considered an impact on the environment. Instead, Vehicle Miles of Travel (VMT) is now the primary Transportation Metric for evaluated projects under CEQA. SB 743 provides agencies the authority to establish their impact thresholds and criteria based on guidance provided by the California Office of Planning and Research (OPR). The City of Santa Maria adopted VMT thresholds on November 3, 2020. The adopted VMT thresholds have been incorporated into the City's Environmental Thresholds and Guidelines document, which is available on the City of Santa Maria website. The findings for the VMT thresholds and subsequent process should be included in the Circulation Element update.

Travel Time Reliability

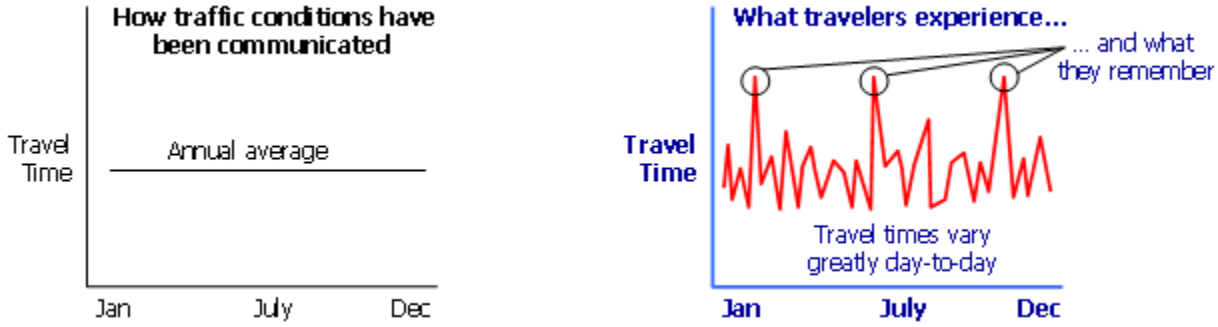
Technical Analysis Parameters & Methodology

The following section outlines the methodology and analysis parameters used to quantify the measures of effectiveness on the roadways on National Highway System (NHS) in the City of Santa Maria. These roadways include US 101, SR 135 (Broadway), SR 166 (Main Street), and Betteravia Road from US 101 to Broadway. The study scenario is 2019.

Travel Time Reliability Methodology

An increasingly important transportation performance metric advocated at both the federal and State levels is travel time reliability. The predictability of travel time can be critical for commuters, goods movement, and transit providers. As such, the federal National Performance Management Rule now specifically mandates State Departments of Transportation and Metropolitan Planning Organizations to measure travel time reliability on the National Highway System. Travel time reliability is defined as the variation in travel time for the same trip from day to day ("same trip" implies a trip made with the same purpose, from the same origin, to the same destination, at the same time of the day, using the same mode, and by the same route). If variability is large, the travel time is considered to be unreliable because it is difficult to generate consistent and accurate estimates for it. If there is little or no variation in the travel time for the same trip, the travel time is considered to be reliable. Figure 7 illustrates the future emphasis on travel time reliability (to minimize disruptions and to improve predictability), and how travel time reliability influences travelers.

Figure 7: Travel Time Reliability as a Performance Measure



Source: Travel Time Reliability: Making It There On Time, All the Time, Texas Transportation Institute, 2005.

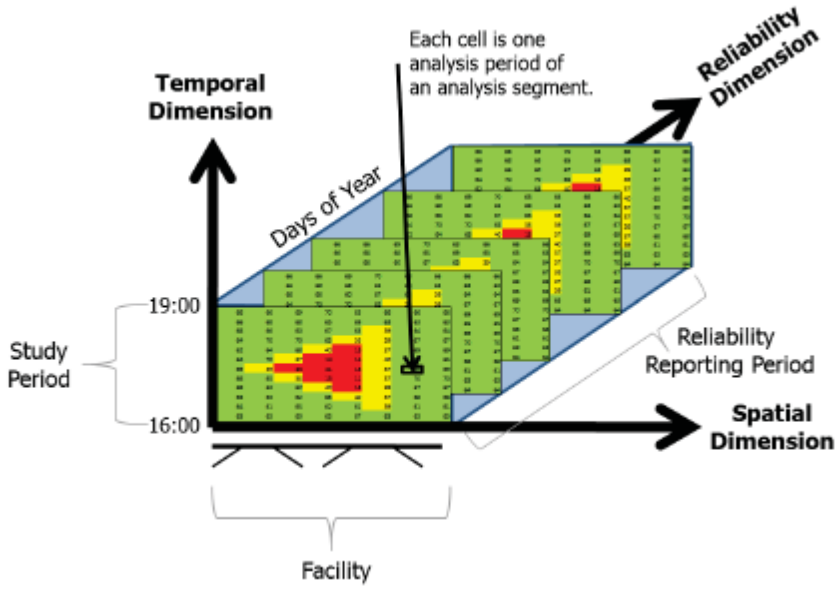
The basic causes of unreliable travel times are an imbalance between demand and capacity and the congestion that can result. Once congestion occurs, travel times become more variable (less reliable and thus less predictable). Moreover, congested facilities lack the resilience to accommodate unexpected travel interruptions, which leads to flow breakdowns and serious degradation of reliability. Travel times

vary from one day to the next because conditions influencing traffic differ each day. The seven sources of congestion that influence travel time reliability are:

- Fluctuations in normal travel;
- Physical bottlenecks;
- Special events;
- Traffic incidents;
- Inclement weather;
- Traffic-control devices; and
- Work zones.

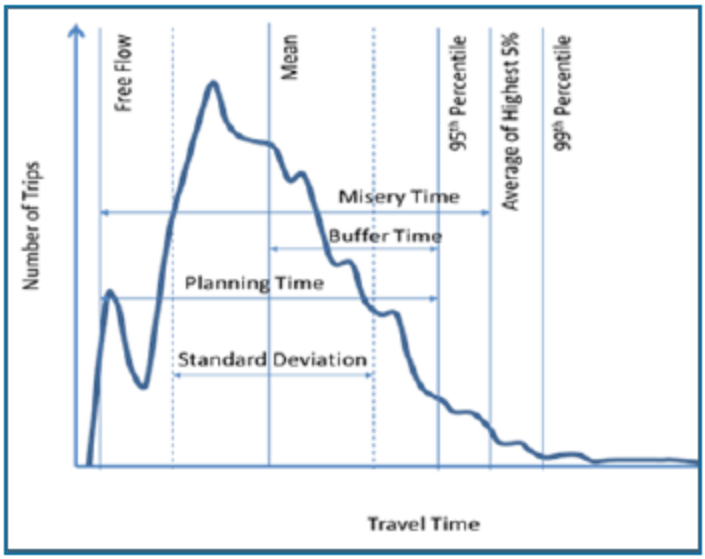
There are several measures available to determine travel time reliability. This study uses Buffer Time and the Buffer Time Index (BTI) to report reliability. Buffer Time is the amount of extra time a person needs to account for above the average travel time to ensure being on time 95 percent of the time (approximately one day late per month). If a commute trip usually takes 30 minutes, but there are periodic issues with weather or traffic incidents that can cause the commute to take 45 minutes, the buffer time would be 15 minutes, causing the commuter to be 15 minutes early on an average day, and late only occasionally. The BTI value normalizes buffer time against the average travel time controlling for distance and typical daily congestion. The BTI is the ratio of Buffer Time against the average travel time and is expressed as an index. The index shows the amount of buffer time relative to average travel time. The relationship between travel time reliability indices is presented in Figure 8. The three dimensions of reliability are the study section of the facility, the daily study period, and the reliability reporting period. Terminology related to travel time reliability is presented in Figure 9.

Figure 8: Travel Time Reliability Variable Chapter 36, HCM 6



Source: Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, Chapter 36, pages 36-37, 2016.

Figure 9: Travel Time Reliability Terminology



Source: Cambridge and Texas Transportation Institute Travel Time Reliability: Making It There On Time, All The Time, 2006.

Performance Measure Definitions (Congestion and Reliability)

The HCM 6 definitions were used to define congestion and reliability. These thresholds reflect heavy congestion (with observed average speed less than 60 percent of the free-flow speed) and unreliable road segments (with a 95th percentile travel time more than 1.5 times longer than the 50th percentile travel time [i.e., average] quantified by Level of Travel Time Reliability). Additionally, segments which have an average speed of 60 to 80 percent of the free-flow speed have been identified to have "moderate" congestion. Table 7 shows the Buffer Time Index (BTI) range and metrics for reliable, moderately reliable, and unreliable travel times. The Table below was used to develop the thematic maps of the results.

Table 7: Reliability – Congestion Matrix

	Reliable	Moderately Reliable	Unreliable
BTI [A] Range	BTI<0.25	0.25>=BTI<0.50	BTI>=0.50
Uncongested [B]	Predictable and efficient	Not always predictable, but usually efficient	Unpredictable, but not often congested
Congested [B]	Predictable and inefficient	Not always predictable, but usually inefficient	Unpredictable, and often congested

[A] BTI: A measure of reliability, measures percentage of travel time devoted to being on time above average travel time.

[B] Free flow speeds were estimated for each segment based on the 85th percentile speeds between 12 am – 3 am, rounded to the nearest 5 mph, from the NPMRDS data.

Definition of congestion prescribed in the National Performance Management Rule (NPMR), is solely based on vehicular speed – regardless of highway characteristics (i.e., 2-lane highway, passing lanes, multilane). The NPMR definition states if average weekday speed on a given segment of a roadway (averaged over 12 months or more) is 60 percent or less than the free flow speed (averaged over 12 months or more), then the segment is considered congested. If this condition is not met, then the segment is considered uncongested. Given the differences in MOE's between agencies, data requirements, and approaches, congruent results for a given facility should not necessarily be expected.

Data Source and Data Reduction

Travel time reliability (and travel times generally) may be measured by recording a sample of the vehicle travel times over a fixed length of facility (probe vehicle method) or by recording the spot speeds of all vehicles as they pass over a set of stationary detectors. Per the National Performance Management Measures Final Rule, the preferred data source for complying with the National Highway Performance Program is the National Performance Management Research Data Set (NPMRDS) from Federal Highway Administration (FHWA). The NPMRDS provides average speed data (five-minute averaging time) for roadway segments designated as part of the National Highway System (NHS). This data is "crowd-sourced" anonymously via a number of sources including mobile phones, vehicles, and portable navigation devices (passenger probe data), and freight probe data is obtained from the American Transportation Research Institute leveraging embedded fleet systems.

The observed point speed data or the point-to-point travel times are filtered, converted into average travel times, and archived for later retrieval. The National Performance Measurement Rule recommends using 12 months of data to reflect a "true" annual average. The FHWA's NPMRDS is one example of a crowd-sourced database of travel times and is utilized in this study. The NPMRDS data was accessed through the RITIS Massive Data Downloader platform.

Travel time and speed data for January 1, 2019 through December 31, 2019 was downloaded for analysis for each direction of each roadway segment. For the purposes of this study, data was filtered and downloaded to isolate typical weekday AM and PM conditions. AM peak hour is considered to be between 6:00 AM to 9:00 AM and PM peak hour is considered to be between 3:00 PM and 6:00 PM, for

trucks, mixed-fleet and vehicle only compositions. Data was also collected for Midnight to 3 AM period in order to calculate free flow speed. In an effort to cleanse the data, extreme high speed outliers (e.g., 90+mph) were evaluated for removal.

All data was processed and summarized based on segmentation (TMC) provided by the NPMRDS data set. The following roadways are part of the National Highway System (NHS) and data was available for them in NPMRDS:

- Northbound and Southbound SR 135 (Broadway) between Post Mile 10.666 (Patterson Road alignment) to US 101 (terminus)
- Eastbound and Westbound SR 166 (Main St) between SR 1 (terminus) to US 101 (terminus)
- Northbound and Southbound US 101 between Santa Maria Way Interchange to Broadway Interchange. (Data was not available for several Northbound US 101 segments between Fesler St to Broadway)
- Eastbound and Westbound Betteravia Rd between US 101 to Broadway (SR 135)

Congestion Results by Segment

Appendix A presents the average travel speeds compared to the free-flow speeds and resulting Congestion characteristics for the roadway segments analyzed for the study roadways for mixed fleet, passenger vehicle only, and trucks, respectively. Congested segments are shown in red. Segments which have an average speed of 60 to 80 percent of the free-flow speed have been identified in yellow in order to identify segments which may experience delays and moderate congestion.

Most segments of SR 166 and SR 135 and all segments on Betteravia Road (from US 101 to Broadway, except for the westbound direction on the approach to Broadway) are experiencing congestion during AM and PM peak period for mixed vehicles, passenger vehicles, and trucks. US 101 is not experiencing any measurable congestion as it runs through Santa Maria. This is due to the widening of the US 101 in Santa Maria.

Travel Time Reliability Results by Segment

Appendix A presents the travel time reliability characteristics, for both directions of the study roadways. These tables show travel time reliability in terms of 95th percentile travel time (in minutes), buffer time (minutes) and Buffer Time Index (BTI). The buffer time is the extra time needed to account for above average travel time, to ensure being on 95 percent of the time. The BTI normalizes buffer time against the average travel time, controlling for distance and regularly occurring congestion.

Per the tables, US 101 is reliable for the widening portions in Santa Barbara County. However, in the AM peak hour for the southbound direction, there is some unreliability due to the interchange at SR 166/Cuyama Lane, which extends to the SR 135 (Broadway) off ramp. For other study segments for SR 135, SR 166, and Betteravia Rd, all segments had unreliable (Buffer Time Index (BTI)>.60) in the AM and PM Peak Period for mixed vehicles, passenger vehicles and trucks.

Safety Analysis

Safety Analysis for the city was conducted based on historical collision data. Historical data for the most recent and complete 5 years, a time period from January 1st, 2015 to December 31st, 2019, was collected from the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS). During this period a total of 8,670 collisions were reported in the city. These collisions were classified, based on location, to be roadways within City jurisdiction and within Caltrans' right-of-way. Collisions within the City's jurisdiction were then classified as intersection and non-intersection collisions. Collisions are associated with an intersection if the collision occurred within 50-ft of the intersection, or rear end collisions occurring within 150-ft of the intersection involving two or more vehicles traveling toward the intersection. Collisions are considered in Caltrans' facility if it took place on the US 101 interchanges (no US 101 mainline collisions were included), Broadway (SR 135), and Main Street (SR 166). All collisions were classified by severity, collision type, primary collision factor violation category, and pedestrian and bicycle collisions. Collisions were analyzed based on categories reported by SWITRS and were not geographically verified.

City of Santa Maria Roadways

For the past five complete years, there were a total of 5,879 collisions that occurred on City roadways (does not include any roadways/intersections on the State Highway System (SHS) including US 101 interchanges, SR 135, and SR 166). There were 2,864 (48.7 percent) intersection related collisions and 3,015 (51.3 percent) non-intersection related collisions. The most common type of collision associated with an intersection is broadside (36.7 percent of intersection collisions). The most common type of collisions at non-intersection collisions were rear-end collisions (34.0 percent of non-intersection collisions). Rear end collisions were also frequent at intersections. Also, the most common violation category for intersection is Automobile-Right of Way Violation (24.2 percent) and most common violation category for non-intersection collision is Improper Turning (23.8 percent) followed by Unsafe Speed (22.9 percent). There were 90 pedestrian-related and 81 bicycle related collision at intersections. At non-intersection locations where were 73 pedestrian-related and 44 bicycle related collisions. Intersection related collisions at City roadways are summarized in Table 8; non-intersection related collisions at City roadways are summarized in Table 9. A more in-depth analysis shows that at intersections the two top categories of collisions are broadside due to automobile right of way violation and rear end due to unsafe speed. At non-intersection locations, the two top categories of collisions are rear end due to unsafe speed and sideswipe due to improper turning.

Table 8: Intersection Related Collisions on City Roadways

Collision Severity	Number of Collisions	Percent of Total
Fatal	5	0.2%
Injury (Severe)	32	1.1%
Injury (Other Visible)	167	5.8%
Injury (Complaint of Pain)	583	20.4%
Property Damage Only	2077	72.5%

Collision Type	Number of Collisions	Percent of Total
Head On	217	7.6%
Sideswipe	460	16.1%
Rear End	681	23.8%
Broadside	1052	36.7%
Hit Object	275	9.6%
Overturned	9	0.3%
Vehicle/Pedestrian	90	3.1%
Other	58	2.0%
Not Stated	22	0.8%

Pedestrian/Bicycle Collision	Number of Collisions
Pedestrian	90
Bicycle	81

Violation Category	Number of Collisions	Percent of Total
Automobile Right of Way	693	24.2%
Unsafe Speed	526	18.4%
Improper Turning	462	16.1%
Traffic Signals and Signs	351	12.3%
DUI/BUI	313	10.9%
Unsafe Starting or Backing	151	5.3%
Unknown	71	2.5%
Unsafe Lane Change	54	1.9%
Following Too Closely	48	1.7%
Wrong Side of Road	46	1.6%
Pedestrian Right of Way	40	1.4%
Not Stated	30	1.0%
Improper Passing	24	0.8%
Other Hazardous Violation	26	0.9%
Pedestrian Violation	15	0.5%
Other Improper Driving	5	0.2%
Other Than Driver (or Pedestrian)	4	0.1%
Impeding Traffic	2	0.1%
Other Equipment	2	0.1%
Brakes	1	0.0%

Table 9: Segment Collisions on City Roadways

Collision Severity	Number of Collisions	Percent of Total
Fatal	4	0.1%
Injury (Severe)	51	1.7%
Injury (Other Visible)	121	4.0%
Injury (Complaint of Pain)	393	13.0%
Property Damage Only	2446	81.1%

Collision Type	Number of Collisions	Percent of Total
Head On	164	5.4%
Sideswipe	807	26.8%
Rear End	1026	34.0%
Broadside	518	17.2%
Hit Object	303	10.0%
Overturned	24	0.8%
Vehicle/Pedestrian	73	2.4%
Other	82	2.7%
Not Stated	18	0.6%

Pedestrian/Bicycle Collision	Number of Collisions
Pedestrian	73
Bicycle	44

Violation Category	Number of Collisions	Percent of Total
Unsafe Speed	691	22.9%
Improper Turning	719	23.8%
DUI/BUI	365	12.1%
Unsafe Starting or Backing	342	11.3%
Automobile Right of Way	332	11.0%
Unsafe Lane Change	96	3.2%
Unknown	111	3.7%
Wrong Side of Road	94	3.1%
Following Too Closely	46	1.5%
Other Than Driver (or Pedestrian)	19	0.6%
Pedestrian Violation	38	1.3%
Other Hazardous Violation	25	0.8%
Improper Passing	34	1.1%
Not Stated	32	1.1%
Other Improper Driving	30	1.0%
Traffic Signals and Signs	22	0.7%
Pedestrian Right of Way	8	0.3%
Hazardous Parking	5	0.2%
Other Equipment	2	0.1%
Impeding Traffic	2	0.1%
Brakes	2	0.1%

Caltrans Roadways

For the past complete five years (2015-2019), there were a total of 2,737 collision reported at Caltrans US 101 intersections and roadways on the SHS in the City of Santa Maria (this does not include US 101 mainline collisions). The majority of collisions (71.3 percent) involved property damage only but there were 8 fatal collisions. The most common type of collision on SHS roadways are rear ends (43.8 percent of all collisions). The top violation category was unsafe speed (35.7 percent), followed by improper turning (15.4 percent). There were 57 pedestrian-related and 75 bicycle-related collisions in Caltrans facilities. In depth analysis of collision data shows that the two top categories of collisions are rear end due to unsafe speed and broadside due to automobile right of way violation. Collisions on Caltrans roadways are summarized in Table 10.

Table 10: Collisions on Caltrans Roadways

Collision Severity	Number of Collisions	Percent of Total
Fatal	8	0.3%
Injury (Severe)	35	1.3%
Injury (Other Visible)	163	6.0%
Injury (Complaint of Pain)	579	21.2%
Property Damage Only	1952	71.3%

Collision Type	Number of Collisions	Percent of Total
Head On	111	4.1%
Sideswipe	435	15.9%
Rear End	1199	43.8%
Broadside	529	19.3%
Hit Object	319	11.7%
Overturned	26	0.9%
Vehicle/Pedestrian	65	2.4%
Other	39	1.4%
Not Stated	14	0.5%

Pedestrian/Bicycle Collision	Number of Collisions
Pedestrian	65
Bicycle	75

Violation Category	Number of Collisions	Percent of Total
Unsafe Speed	976	35.7%
Improper Turning	421	15.4%
Automobile Right of Way	292	10.7%
Traffic Signals and Signs	219	8.0%
DUI/BUI	212	7.7%
Unsafe Lane Change	157	5.7%
Unsafe Starting or Backing	134	4.9%
Following Too Closely	78	2.8%
Unknown	54	2.0%
Wrong Side of Road	41	1.5%
Other Hazardous Violation	37	1.4%
Other Than Driver (or Pedestrian)	33	1.2%
Pedestrian Right of Way	26	0.9%
Pedestrian Violation	20	0.7%
Not Stated	13	0.5%
Improper Passing	11	0.4%
Other Improper Driving	4	0.1%
Other Equipment	6	0.2%
Hazardous Parking	2	0.1%
Impeding Traffic	1	0.0%

Source: The California Highway Patrol, Statewide Integrated Traffic Records Systems (SWITRS), 2020.

Conclusions of Safety Review

This brief safety review is intended to show the general trend of collisions throughout the city. Speeding and automobile right-of-way violations are the top violation categories. In 2019, the City of Santa Maria received a State grant from Caltrans to prepare a Local Roadway Safety Plan (LRSP). Even though the City has yet to initiate the plan preparation, it is anticipated that this work will be started in the next year and some of the findings can be incorporated into the General Plan. The comprehensive LRSP focused on specific problem areas should be implemented to address safety concerns for motorists, bicyclists, and pedestrians throughout the city. In addition, the City funds bicycle safety education for youth.

Transit Services

This section describes the existing transit services in Santa Maria and regional services provided in Santa Barbara County and southern San Luis Obispo County. In addition, the City is currently updating its Short Range Transit Plan.

Existing Transit Providers

There are several transit options available to the residents of Santa Maria. The following sections provide information regarding the 5 transit service providers.

Santa Maria Area Transit (SMAT)

SMAT directly serves the City of Santa Maria with eight fixed routes providing public transportation to local employment centers including, schools, health care facilities, and major attractors (shopping centers, educational government facilities, medical and other uses). These trips are matched with services that extend to neighborhoods within the city. Table 11 shows the SMAT Route Schedule and Figure 10 shows the SMAT System Map.

SMAT
Santa Maria Area Transit

Table 11: SMAT Route Schedule

Route #	Route Name	Hours of Operation	Frequency	Bus Stop Locations
Route 1	Hidden Pines/Broadway/ Transit Center	5:35 AM - 8:49 PM (weekday); 7:40 AM - 6:38 PM (weekend)	40 minutes	Transit Center, Broadway Alvin, Taylor Casa Grande, Railroad Hidden Pines, Broadway Orchard
Route 2	Transit Center/Taylor/ Mussell Senior Center/McCoy	6:30 AM - 9:27 PM (weekday); 8:30 AM - 6:25 PM (weekend)	30-60 minutes	Transit Center, Cook Western, Western Harding, Railroad Taylor, Railroad Alvin, Main Broadway, Park Elizabeth Mussel Senior Center, Miller Battles, Betteravia Target, McCoy Foodmaxx, Miller Betteravia
Route 3	Transit Center/Marian Hospital/Merrill Gardens/Allan Hancock College	6:00 AM - 6:27 PM (weekday); 9:00 AM - 5:53 PM (weekend)	30-40 minutes	Transit Center, Main College, Church Palisades, Donovan Merrill Gardens, Suey Alvin, Bradley Allan Hancock, College Park
Route 4	Transit Center/Miller/ Edwards Community Center/Town Center Mall/VTC/Fairway/Air port	6:00 AM - 9:37 PM (weekday); 9:00 AM - 5:56 PM (weekend)	30-45 minutes	Transit Center, Miller Orchard, Panther Dominguez, Miller Donovan, Pine Morrison, Enos Depot, "A" Street VTC, Santa Maria Airport, Thornburg Carmen

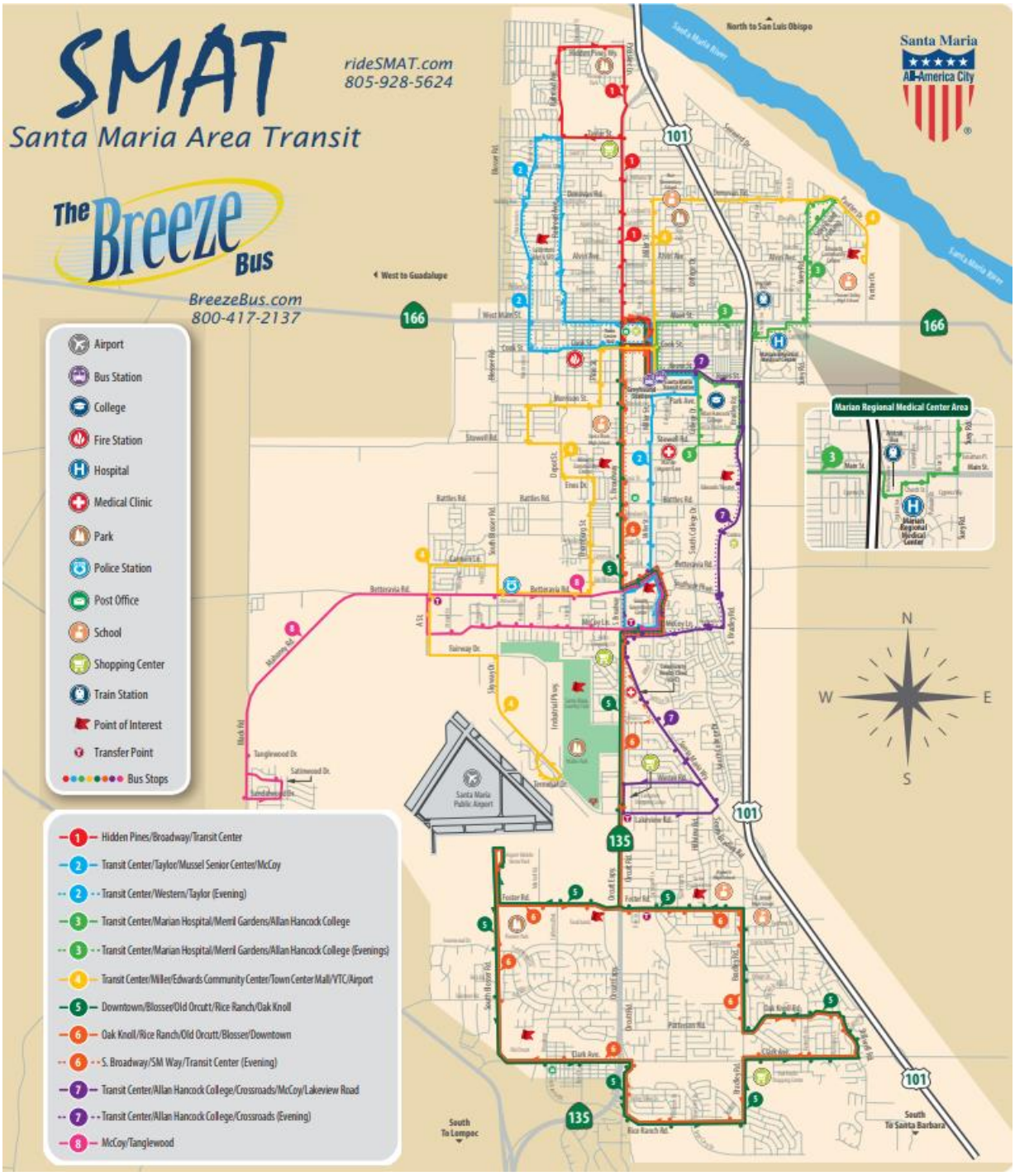
Route 5	Old Orcutt to Oak Knolls (West to East)	5:30 AM - 9:33 PM (weekday); 8:15 AM - 7:52 PM (weekend)	90 minutes	Transit Center, Broadway Morrison (SMHS), Betteravia (Panda Express), McCoy Albertsons, Airport Mobile Home Park, Clark Broadway (Union 76), Clark Oak Knolls Shopping Center, Foster Bradley (RHS), Betteravia Target
Route 6	Old Orcutt to Oak Knolls (East to West)	6:04 AM - 9:34 PM (weekday); 7:30 AM - 7:11 PM (weekend)	90 minutes	Transit Center, Broadway Morrison (SMHS), Broadway Carmen, Sta. Maria Way CHC, Broadway McCoy (Starbucks), Broadway Enos, Betteravia (Panda Express), McCoy Albertsons, Bradley Foster (RHS), Clark Oak Knolls Shopping Center, Airport Mobile Home Park, Evergreen Shopping Center, McCoy Foodmaxx, Betteravia Target
Route 7	Transit Center/Allan Hancock College/Crossroads/ McCoy/ Lakeview Road	6:30 AM - 9:25 PM (weekday); 8:00 AM - 5:55 PM (weekend)	30-60 minutes	Transit Center, Bradley (Taco Bell), Bradley Crossroads (Walmart), McCoy Albertsons, Santa Maria Way CHC, Evergreen Shopping Center, McCoy Foodmaxx
Route 8	McCoy/Tanglewood	6:40 AM - 5:25 PM (weekday); 7:00 AM - 5:25 PM (weekend)	60-120 minutes	McCoy Albertsons, McCoy Skyway, McCoy Westgate, Sandalwood Black Road, Betteravia Blosser (McDonalds), Betteravia (Panda Express)
Source: SMAT, 2020.				

The fare to ride on SMAT varies depending upon age and other variables. Table 12 summarizes basic fares.

Table 12: Basic SMAT Fare

Basic SMAT Fare	$1.50
Student w/ Valid ID	$1.25
Persons w/ Disabilities	$0.75
Medicare Card Holders	$0.75
Children <6 Years Old w/ Adult Fare	$0.75
Children <46" Tall	$0.00
Source: SMAT, 2020.	

Figure 10: SMAT Bus Routes



Santa Maria Short Range Transit Plan Update

SMAT is currently updating the Short Range Transit Plan for Santa Maria Area Transit and as of August 2020 has a draft final report out for public comments. This document focuses on service recommendations in four categories: performance improvement, service enhancement, policy, and innovation/technology. In addition, a marketing plan and impacts of COVID-19 are included in the Plan.

This update includes additional oversight of operations to improve on-time performance of local SMAT routes for improved route connections and overall reliability.

There was a virtual open house open for 2 weeks (September 23-October 7, 2020) and there are 21 recommendations from the current handout for public outreach included in Appendix B. Many of the recommendations include expanding, adjusting, and retracting existing service.

Challenges

In December 2019, the California Air Resources Board (CARB) adopted the Innovated Clean Transit (ICT) regulation, which requires transit agencies in the State to transition 100 percent zero emission bus (ZEB) fleet by 2040. Beginning in 2026, the regulation requires that 25 percent of all buses purchase must be ZEB. Though ZEB technology is the future, the technology has its challenges because the range of ZEBs is less than a current combustion engine bus. This technology differential will require SMAT to install remote charging facilities at its bus yard, transit center, and remote terminal locations. The City will strive to be the leader to develop a rollout plan for North Santa Barbara County to insure compatibility and service reliability in the region.

In addition, the City's transit service is the prominent service in North Santa Barbara County and recognizes the potential of transitioning to serve as the regional transit service in North Santa Barbara County to best serve north county residents.

The Breeze Bus

The Breeze Bus is a commuter service between Santa Maria, Vandenberg AFB, Lompoc, Los Alamos, Buellton, and Solvang that operates Monday through Friday. This objective of this transit service is to accommodate working commuters with three trips daily. Figure 11 presents the Breeze Bus Routes and Table 13 provides a description of The Breeze Bus Routes, including route number, route name, hours of operation, headways (in hours), and bus stop locations.

Figure 11: The Breeze Bus Routes

Table 13: The Breeze Bus Route Schedule

Route #	Route Name	Hours of Operation	Frequency	Bus Stop Locations
Breeze Route 100 Weekday	Santa Maria Transit Center/ Vandenberg/ Lompoc	5:42 AM - 6:13 PM (weekday)	Varies – Approx. 2 hours	Transit Center, Broadway/Stowell, County Government Center, McCoy/Broadway, McCoy/Skyway, Santa Maria Airport, Foster, Clark Park & Ride, VAFB Main Gate, Vandenberg Village, Denmat Lompoc, Mission Plaza Lompoc, College Park
Breeze Route 200 Weekday	Santa Maria Transit Center/Los Alamos/Buellton/ Solvang	5:35 AM - 7:13 PM (weekday)	Varies – Approx. 5 to 6 hours	Transit Center, College Park, Los Alamos Ferrini Park, Buellton Albertson's Center, Solvang Park, Buellton Freer/State Route 246
Source: Breeze Bus, 2020.				

Table 14 displays the Breeze Bus Route Fare Rates. The regular one-way fare is $2.00.

Table 14: The Breeze Bus Route Fare

Regular One Way	$2.00
Discount Fare for Seniors (> 60)	$1.00
Regular Monthly Pass	$75.00
Discount Monthly Pass for Seniors (> 60)	$37.50
Value Pass (Advance Purchase)	$20.00
Value Pass (Advance Purchase)	$10.00
Children <46" Tall	$0.00
Source: Breeze Bus, 2020.	

Guadalupe Flyer

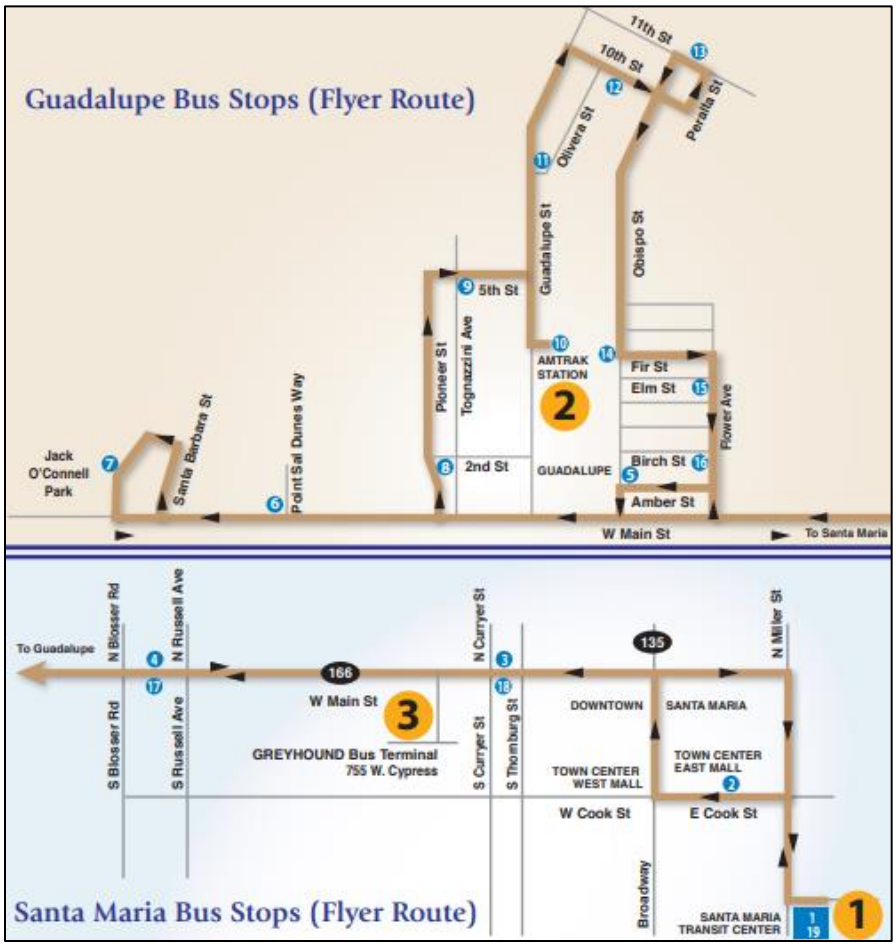
In 1998, the City of Guadalupe entered into an agreement with the City of Santa Maria to create an intercity service, operated by SMAT. The next year, the City ended its arrangement with SMAT and contracted with SMOOTH to operate this service, rebranding it as the Guadalupe Flyer. The Flyer is a single route, connecting destinations around Guadalupe with the Town Center Mall and Transit Center in Santa Maria, traveling approximately 12 miles from Guadalupe on SR 166. The description of Guadalupe Flyer Bus Routes, including route name, hours of operation, headways (in minutes), and bus stop locations is displayed in Table 15. Figure 12 shows a map of the Flyer service. In addition, the Guadalupe Flyer Fares are presented in Table 16.

Table 15: Guadalupe Flyer Route Schedule

Route Name	Hours of Operation	Frequency	Bus Stop Locations
Guadalupe Flyer	6:15 AM - 7:50 PM (weekdays); 8:45 AM – 6:35 PM (Sundays and Holidays)	75 minutes	SM Transit Center, Town Center Mall East, Main & Thornburg, Main & Russell, Amber & Obispo, Main Street & Point Sal Dunes, Jack O'Connell Park, Pioneer & 2nd, 5th & Tognazzini, Amtrak Station (on request), Guadalupe & Olivera, 10th & Senior Center, Peralta & 11th, Obispo & Fir, Flower & Elm, Flower & Birch, Main & Russell, Main & Thornburg

Source: Guadalupe Flyer, 2020.

Figure 12: Guadalupe Flyer Bus Stops



Source: Guadalupe Flyer, 2020.

Table 16: Guadalupe Flyer Fare

General Public	$1.50
Student	$1.00
Seniors (60)	$0.75
Disabled/Medicare Card/ADA Certified	$0.75
General Public Monthly Pass	$45.00
Student Monthly Pass	$25.00
Seniors (60) Monthly Pass	$25.00
Disabled/Medicare Card/ADA Certified Monthly Pass	$25.00
Punch Pass (Advance Purchase)	$10.00
Up to 3 Children (< 6) with Adult Fare	$0.00
Source: Guadalupe Flyer, 2020.	

Clean Air Express

The Clean Air Express commuter bus service is a weekday commuter bus program serving residents of Lompoc, Santa Maria, Buellton, Solvang, and adjacent unincorporated areas commuting to their jobs in Goleta and Santa Barbara. The Clean Air Express is managed by SBCAG and is fully funded by Measure A.

The Clean Air Express was created by the Santa Barbara Air Pollution Control District in 1991 as a way to improve regional air quality by reducing the number of commuters driving alone. Due to the low annual cost and the popularity of the program among residents of North Santa Barbara County, the Traffic Solutions division of SBCAG assumed management of the service in 2001. After assuming management of the Clean Air Express, Traffic Solutions expanded the service to include 13 daily round trips, purchased new buses, added the flexibility of a cash fare, and installed wireless internet access on all vehicles.

Table 17 provides a description of Clean Air Express Bus Routes, including route name, hours of departure, headways (in minutes), and bus stop locations.

Table 17: Clean Air Express Route Schedule

Route Name	Hours of Operation	Frequency	Bus Stop Locations
Santa Maria Service - Morning Service TO Goleta (Routes 201, 202, 205)	Departs 5:15 AM, 6:00 AM, 6:30 AM	30-45 minutes	Hollister/Coronado, Hollister/Pacific Oaks, Cortona/Castilian, Castilan/Los Carneros, Cremona Dr., Hollister/Aero Camino, Robin Hill/Lindmar, Hollister/Pine, Hollister/Kellogg, Hollister/Patterson, County Admin. Campus (Calle Real), State/La Cumbre, Pesetas Lane
Santa Maria Service - Afternoon Service FROM Goleta (Routes 201, 202, 205)	Departs 3:26 PM, 4:25 PM, 5:05 PM	30-60 minutes	State/La Cumbre, Calle Real/Pesetas Lane, County Admin. Campus (Calle Real), Hollister/Patterson, Hollister/Kellogg, Hollister/Nectarine, Robin Hill/Lindmar, Hollister/Aero Camino, Hollister/Cremona Dr., Castilian/Los Carneros, Cortona/Castilian, Hollister/Village Way, Hollister/Palo Alto
Santa Maria Service - Morning Service TO Santa Barbara (Routes 203, 204)	Departs 5:40 AM, 6:35 AM	60 minutes	County Admin. Campus (Calle Real), Mission/De La Vina (Cottage), Anacapa/Anapamu, Anacapa/Carrillo, Anacapa/Ortega, Gitierrez/Nopal
Santa Maria Service - Afternoon Service FROM Santa Barbara (Routes 203, 204)	Departs 4:35 PM, 5:08 PM	33 minutes	Gutierrez/Nopal, Santa Barbara/De La Guerra, Figueroa (Courthouse), Pueblo/Castillo (Cottage), County Admin. Campus (Calle Real)
Source: SBCAG, 2020.			

Clean Air Express fares are presented in Table 18. The 10 ride pass is $50.00.

Table 18: Clean Air Express Fare

10 Ride Pass	$50.00
Monthly Pass	$150.00
Cash Fare	$7.00
Source: SBCAG, 2020.	

San Luis Obispo Regional Transit Authority (SLORTA)

SLORTA offers local and regional bus service to the South County portion of San Luis Obispo County and northern Santa Barbara County, including Santa Maria. Specifically, SLORTA links the Five Cities area (Arroyo Grande, Grover Beach, Oceano, Pismo Beach and Shell Beach), as well as Nipomo and Avila Beach.

As presented in Figure 13, RTA Route 10 provides northbound and southbound trips between San Luis Obispo and Santa Maria, including stops in Pismo Beach, Arroyo Grande and Nipomo. In addition, Route 10 offers an express route (Orcutt Express) for two northbound routes in the early morning and two southbound routes in the late afternoon. Table 19 shows the schedule for Route 10 and Table 20 displays the fare.

Figure 13: SLORTA Route 10

Source: SLORTA, 2020.

Table 19: SLORTA – Route 10

Route Name	Hours of Operation	Frequency	Bus Stop Locations
Route 10 San Luis Obispo to Santa Maria (Southbound)	6:33 AM to 9:43 PM (M-F) 8:33 AM to 8:43 PM (Sat) 9:33 AM to 6:43 PM (Sun)	60 minutes 2-3 hours 4 hours	Government Center Osos & Palm, S. Higuera at Suburban, Broad at Aero SLO Airport (Orcutt Express only); Pismo Beach Premium Outlets, El Camino Real at Halcyon, Tefft at Carillo, Hancock College, Santa Maria Transit Center, Hagerman Softball Complex (Orcutt Express only)
Route 10 Santa Maria to San Luis Obispo (Northbound)	5:45 AM to 8:28 PM (M-F) 7:14 AM to 7:28 PM (Sat) 8:14 AM to 5:28 PM (Sun)	60 minutes 2-3 hours 4 hours	Santa Maria Transit Center, Hancock College, Tefft at Carillo, El Camino Real at Halcyon, Pismo Beach Premium Outlets, S. Higuera at Suburban, Government Center Osos & Palm, Cal Poly Library
Source: SLORTA, 2020.			

Table 20: SLORTA (SoCo Transit) Fares

Cash Fare (varies)	$1.75 - $3.25
Regional Daily Pass	$5.50
Source: SLORTA, 2020.	

The overall ridership and farebox for transit available in Santa Maria are presented in Table 21.

Table 21: Ridership and Farebox

	SMAT	The Breeze Bus	Guadalupe Flyer	Clean Air Express	SLORTA (SoCo Transit)
Service Area	29 square miles (Santa Maria)	Santa Maria, Vandenberg AFB, Lompoc, Los Alamos, Buellton, Solvang	Guadalupe, Santa Maria	Santa Maria, Lompoc, Buellton, Solvang	San Luis Obispo, Pismo Beach, Arroyo Grande, Nipomo, Santa Maria
Service Population	130,447	N/A	N/A	200,000	N/A
Vehicles in Fleet	26	6	3	20	17
Number of Bus Routes	8	2	8	13 (5 in Santa Maria)	11
Annual Revenue Miles	977,992	169,167	110,857	387,730	355,168
Annual Revenue Hours	65,629	5,613	6,830	9,130	11,139
Annual Passenger Miles	2,825,787	N/A	N/A	N/A	232,651
Total Operating Costs	$4,615,329	$488,467	$496,128	$1,797,500	$1,477,520
Annual Fare Revenue	$782,529	$130,603	$71,528	$1,304,767	$154,500
Farebox Recovery Ratio	22.6%	27%	14.4%	N/A	16%
Subsidy/Passenger	$5.02	N/A	N/A	N/A	$3.57
Boardings/Hour	10.84	N/A	N/A	N/A	N/A
Cost/Passenger	$6.48	N/A	$5.29	N/A	$4.27
Cost/Mile	$4.72	N/A	$4.56	N/A	N/A
Cost/Hour	$70.32	N/A	$73.61	N/A	N/A
Year/Source	2018/NTD	2016/NCTP	2018/NTD	2019/SRTP	2019/SRTP

Transit Mode Split

Table 22 presents the journey to work mode split for transit in Santa Barbara County. As shown in the Table, only about 2 percent of commuters in Santa Maria take transit to work, below the state's percentage (5 percent).

Table 22: Journey to Work Mode Split – Transit for Santa Barbara County

Area	Transit		Total
County of Santa Barbara	6,638	3.2%	207,428
County of Santa Barbara (Unincorporated)	1,921	3.0%	63,777
City of Buellton	13	0.5%	2,549
City of Carpinteria	146	2.1%	6,947
City of Goleta	447	2.8%	15,949
City of Guadalupe	188	6.1%	3,089
City of Lompoc	824	4.8%	17,162
City of Santa Barbara	2,258	4.6%	49,093
City of Santa Maria	826	1.8%	45,867
City of Solvang	15	0.5%	2,995
California	914,667	5.2%	17,589,758

Source: American Community Survey – 2017 5 Year Aggregate (Workers 16 and Over), 2017.

Major Findings

With the current Short Range Transit Plan Update, there are several recommendations out for public comment. All recommendations are included in Appendix B and some of the transit route changes are captured below:

- SMAT is to refine the Breeze schedule to better match capacity with demand. This could result in the elimination of one low-performing Breeze route 100 trip.
- Extend SMAT's Route 8 to provide direct access to Walmart, rather than requiring a transfer to Route 7.
- SMAT to either formalize the interlining of routes 3 and 4 or discontinue the practice altogether.
- Replace low-productivity fixed routes with smaller neighborhood shuttles.
- SMAT to consider substituting Lyft or Uber subsidized rides for evening bus service. Another potential alternative, called Microtransit, would offer a similar on-demand service operated by the City using Dial-A-Ride vehicles. The trial service area would be within Santa Maria, Orcutt, and Tanglewood.
- Expand school tripper capacity. This could include increasing peak-hour service on Route 4 and/or adding a second bus to the second afternoon school tripper run.
- Increase service frequency during morning and evening peak service hours on routes 2, 3, 4, and 5.
- Adjust SMAT service to incorporate the proposed Allan Hancock College transit hub.

Per the SMAT Short Range Transit Plan Update, annual ridership declined while cost/rider increased. Decreased ridership is a trend affecting transit operators throughout California and the nation.

Railway Facilities

As the population of the Santa Maria Valley grows and is projected to grow, the City of Santa Maria will continue to promote the use of alternative modes of transportation to relieve traffic congestion and improve air quality. Trains, freight, and light rail are among the most energy-efficient transportation modes ever developed. Their environmental impact is far less than that of trucks and buses, and they provide affordable transportation for goods movements and people without cars.

Existing Settings

Freight Rail

According to the US 101 Central Coast California Freight Strategy, within the Central Coast region, the vast majority of goods move by truck on the roads. In addition to highways, the US 101 Central Coast region is served by the Union Pacific Railroad (UP) as well as the Santa Maria Valley Railroad, providing additional modal alternatives to shippers.

Refer to Section *Goods Movement* of this report for key terms, existing conditions and freight types.

Commuter Rail

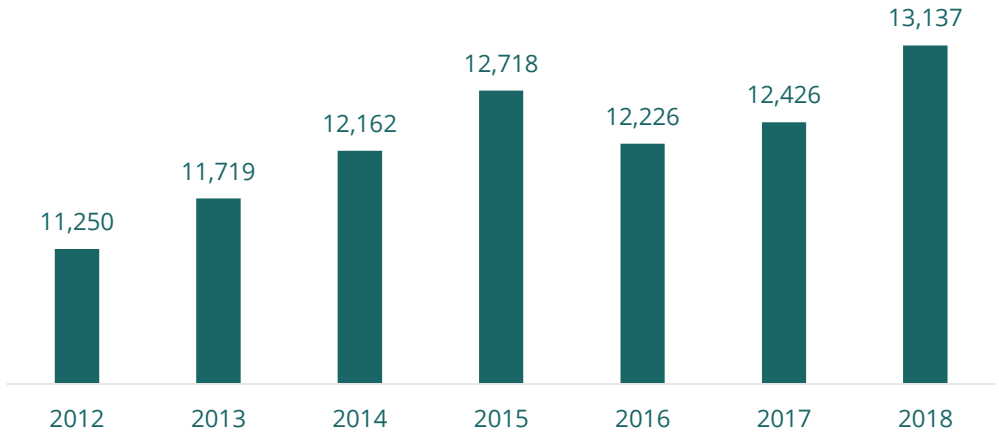
Santa Barbara County residents, visitors and workers have access to passenger train service through the National Railroad Passenger Corporation, Amtrak. Amtrak is a national rail operator with 21,000 route miles in 46 states, the District of Columbia and three Canadian provinces, Amtrak operates more than 300 trains each day — at speeds up to 150 mph — to more than 500 destinations. Amtrak is the operator of choice for state-supported corridor services in 17 states and for four commuter rail agencies. Amtrak provides commercial bus service along with passenger train service.

In California, Amtrak offers a myriad of round-trip train services. One of those services is the Pacific Surfliner, a passenger train service route hugging Southern California coastline. It is the second busiest intercity passenger rail corridor in the United States with 26 daily trains and an annual ridership of nearly 3 million. The station is open seven days a week for ticket sales and baggage service. Hours of operation are Monday through Sunday from 3:45 am to 1:15 am (next day).

Ridership

Amtrak does not operate a station stop in Santa Maria, although it does operate a Thruway Bus Service. Amtrak Thruway Bus Service offers guaranteed connections to Pacific Surfliner trains, extending travel possibilities which are made possible by Caltrans. The nearest Pacific Surfliner station is located in the City of Guadalupe, approximately ten miles west of the City of Santa Maria. According to the Rail Passengers Association, ridership for the Guadalupe Amtrak Pacific Surfliner station has seen an increase in ridership based on 2016 through 2018 ridership numbers. Figure 14 presents passenger ridership using the Amtrak service in the City of Guadalupe.

Figure 14: Passengers Using Amtrak Service in Guadalupe, CA (2012-2018)



Source: Amtrak, Service in Guadalupe, 2012-2018.

As depicted in Figure 14, ridership peaked in 2018 with approximately 13,137 passengers, Table 23 compares individual destination station stops ridership along the same Pacific Surfliner service. Of the 27 station service stops listed, only seven stations recorded a negative growth rate from 2016 to 2018 ridership years.

Table 23: Amtrak – Pacific Surfliner Route Passenger Ridership (2016-2018)

Station	2016	2017	2018	Growth Rate
Anaheim	243,861	247,550	256,629	25.80%
Burbank	55,677	58,492	58,107	2.16%
Camarillo	46,319	48,599	54,868	8.84%
Carpinteria	30,762	32,692	50,278	27.84%
Chatsworth	61,089	62,925	64,063	2.41%
Fullerton	265,895	264,819	257,822	-1.53%
Glendale	45,401	47,515	44,815	-0.65%
Goleta	75,932	77,911	110,780	20.79%
Grover Beach	18,986	18,878	19,758	2.01%
Guadalupe	12,226	12,426	13,137	3.66%
Irvine	354,201	332,678	365,394	1.57%
Lompoc - Surf	7,921	7,823	9,135	7.39%
Los Angeles	1,097,300	1,149,139	1,202,531	4.69%
Moorpark	17,202	18,068	18,299	3.14%
Oceanside	313,458	292,707	284,312	-4.76%
Oxnard	74,366	76,038	94,271	12.59%
San Clemente	15,221	14,874	14,592	-2.09%
San Diego	685,917	680,114	665,952	-1.47%
San Diego – Old Town	257,534	287,480	349,389	16.48%

Station	2016	2017	2018	Growth Rate
San Juan Capistrano	212,750	208,934	213,011	0.06%
San Luis Obispo	69,552	68,386	65,228	-3.16%
Santa Ana	148,053	148,934	151,090	1.02%
Santa Barbara	295,136	296,852	323,911	4.76%
Simi Valley	39,032	40,482	40,362	1.69%
Solana Beach	380,918	370,064	377,061	-0.51%
Van Nuys	67,863	70,946	69,991	1.56%
Ventura	65,092	67,385	93,553	19.89%
Source: Rail Passenger Association, 2020.				

Fares

Table 24 below identifies average trip (in miles), average fare and average yield, per mile for the Pacific Surfliner station stop in Guadalupe, according to the Rail Passengers Association.

Table 24: City of Guadalupe – Amtrak Station Average Trips, Fares and Yield per mile

	Coach/Business	First/Sleeper	Total
Passengers	13,137	-	13,137
Average Trip	175 miles	n/a	175 miles
Average Fare	$ 42.00	n/a	$ 42.00
Average Yield, per mile	24.2¢	n/a	24.2¢
Source: Rail Passenger Association, 2020.			

In addition, the Pacific Surfliner station stop in Guadalupe also handled 13,137 passengers to/from cities on connecting Thruway bus service.

Bikeway Facilities

The Santa Maria Active Transportation Plan (ATP) is a planning effort led by the City of Santa Maria to enhance walking, bicycling, and transit access throughout Santa Maria. Working with local, regional, and statewide partner agencies and organizations, the City of Santa Maria aims to develop a suite of project and program recommendations to make walking, bicycling, and transit integral parts of daily life for residents and visitors alike.

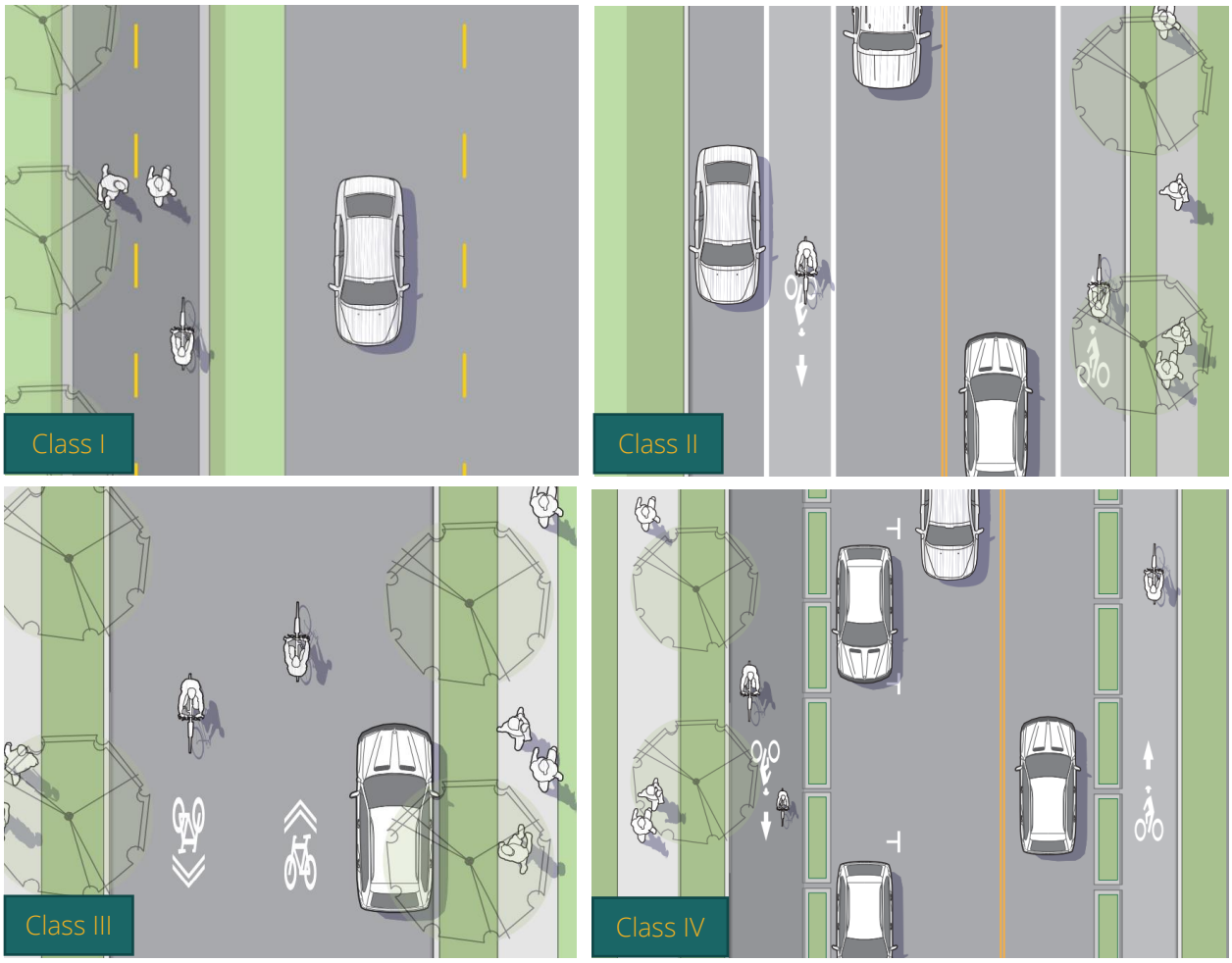
Existing and Planned Bikeways

Bicycle facilities are categorized based on the four classifications recognized by Caltrans, along with three subclassifications. These include:

- Class I Shared Use Paths: Dedicated paths for walking and bicycling completely separate from the roadway
    - Trails: Paths for walking and bicycling that may be unpaved or not meet standards for Class I paths
- Class II Bicycle Lanes: Striped lanes for bicyclists
    - Class II Buffered Bicycle Lanes: Bicycle lanes that include a striped buffer area either between the bicycle lane and the travel lane or between the bicycle lane and parked cars
- Class III Bicycle Routes: Signed routes for bicyclists on low-speed, low-volume streets where lanes are shared with drivers
    - Class III Bicycle Boulevards: Bicycle routes that are further enhanced with traffic calming features or other treatments to prioritize bicyclist comfort
- Class IV Separated Bikeways: On-street bicycle facilities with a physical barrier between the bicycle space and motor vehicle lanes, including bollards, curbs, or parking.

Figure 15 shows a visual representation of the four classifications of bicycle facilities.

Figure 15: Caltrans Bicycle Facilities



Source: A Guide to Bikeway Classification, Caltrans, 2017.

The City of Santa Maria is in the process of updating its Active Transportation Plan. The Draft document is currently out for public review and comments. The goal of this Plan is to "facilitate the design and implementation of a connected bicycle and pedestrian network to provide safe, affordable, and accessible transportation choices in the community. Through the development of this Plan, the City of Santa Maria is promoting a more sustainable and equitable community by improving safety, mobility, and access while reducing greenhouse gas emissions, improving air quality, and supporting public health for its residents." This Plan will update the 2009 Bikeway Master Plan. The General Plan will incorporate policy direction from the ATP and 2009 Bikeway Master Plan as applicable.

Table 25 shows bikeway class in Santa Maria with quantification of the existing length.

Table 25: Bikeway Classification

Bikeway Class	Existing Miles
Class I Shared Use Paths	4.7 mi
Trails	7.1 mi
Class II Bicycle Lanes	80.4 mi
Class II Buffered Bike Lanes	0.3 mi
Class III Bicycle Routes	4.7 mi
Class IV Separated Bikeways	-
Total	97.2 mi
Source: City of Santa Maria, 2020.	

Per the Draft Santa Maria ATP, August 2020, existing, proposed, and short-term bicycle facilities are shown the Figures 16, 17, and 18, respectively. The final plan recommendations will be captured in the General Plan Update.

Figure 16: Existing Bicycle Facilities

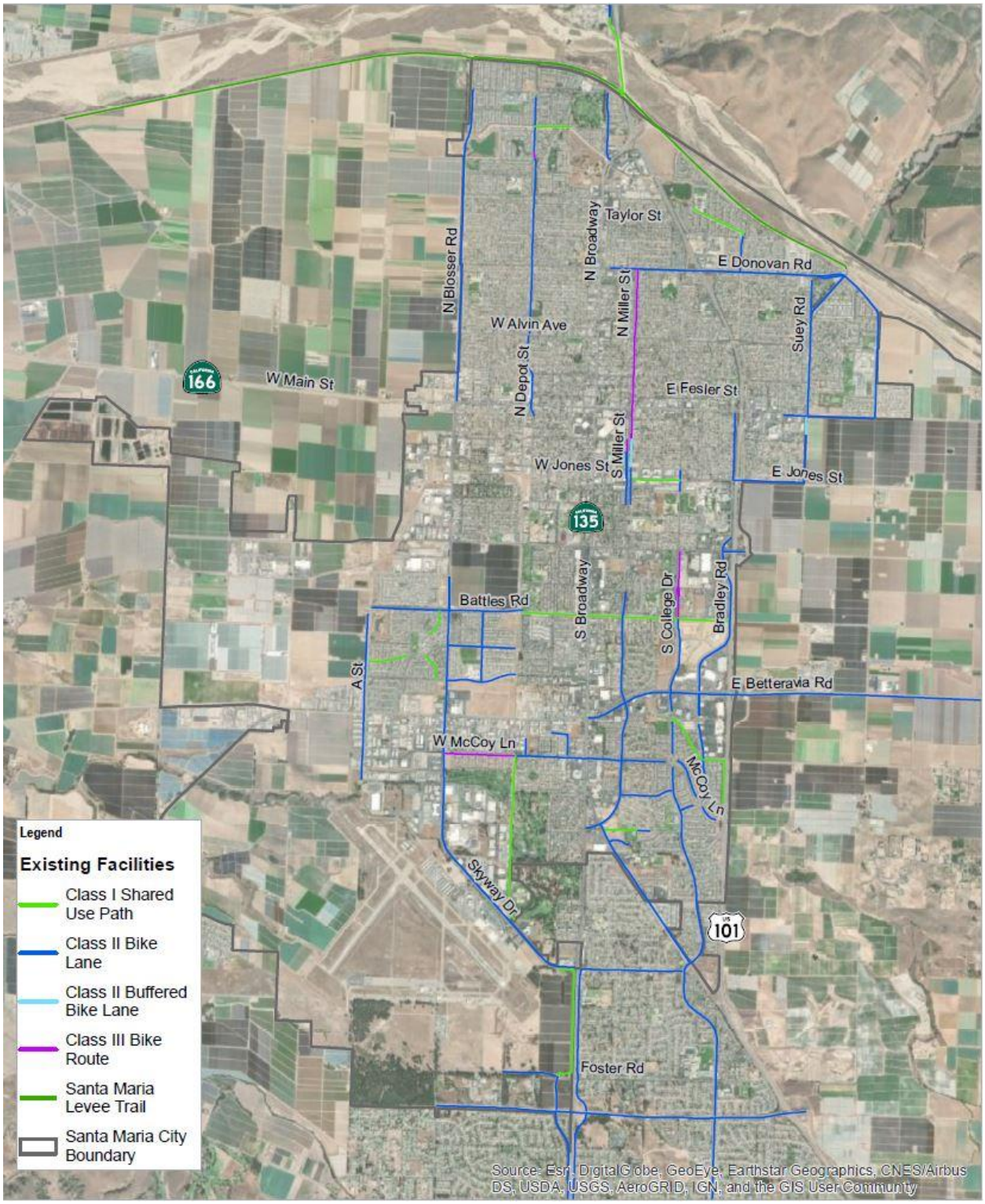


Figure 17: Short Term Bicycle Facilities

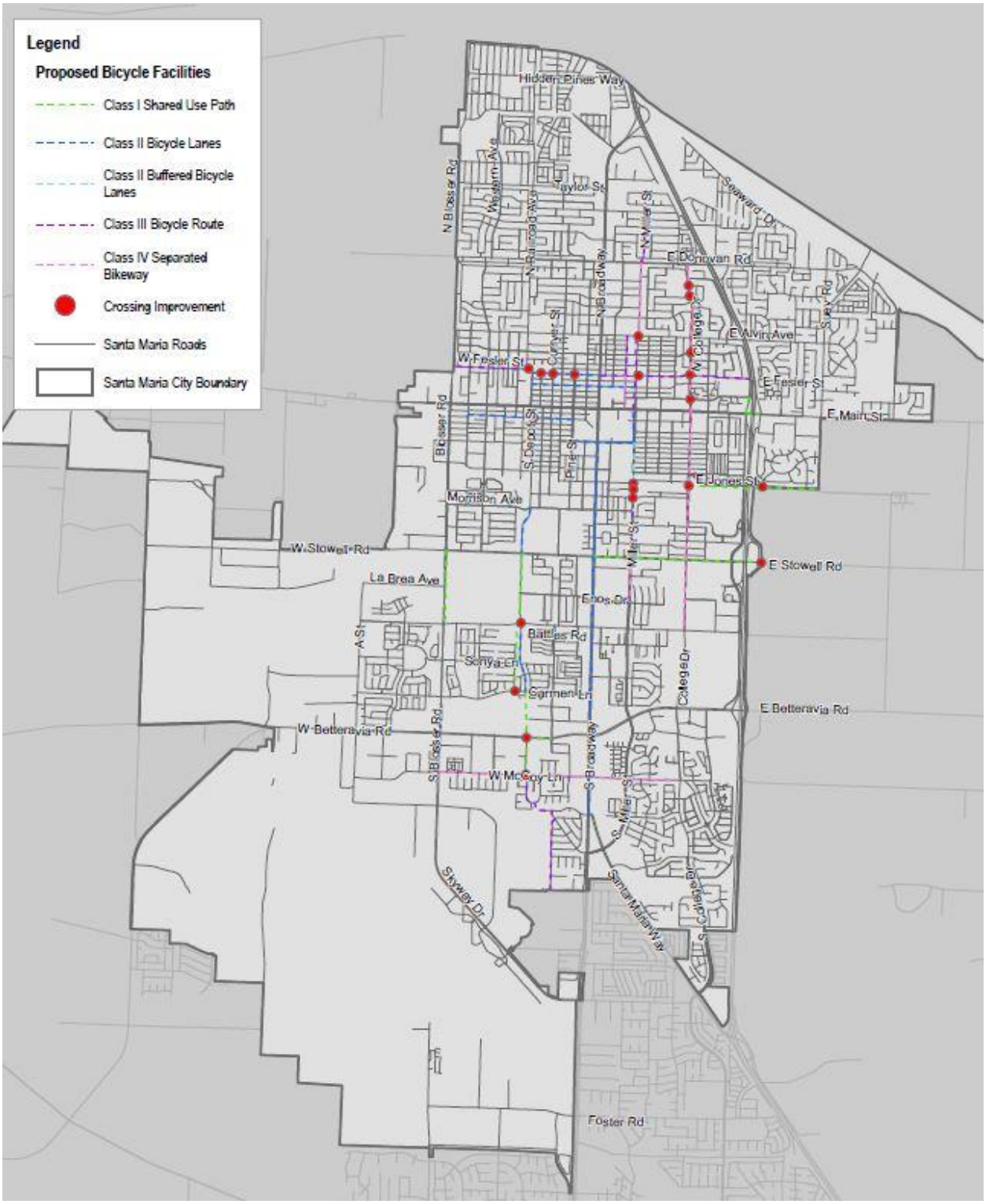
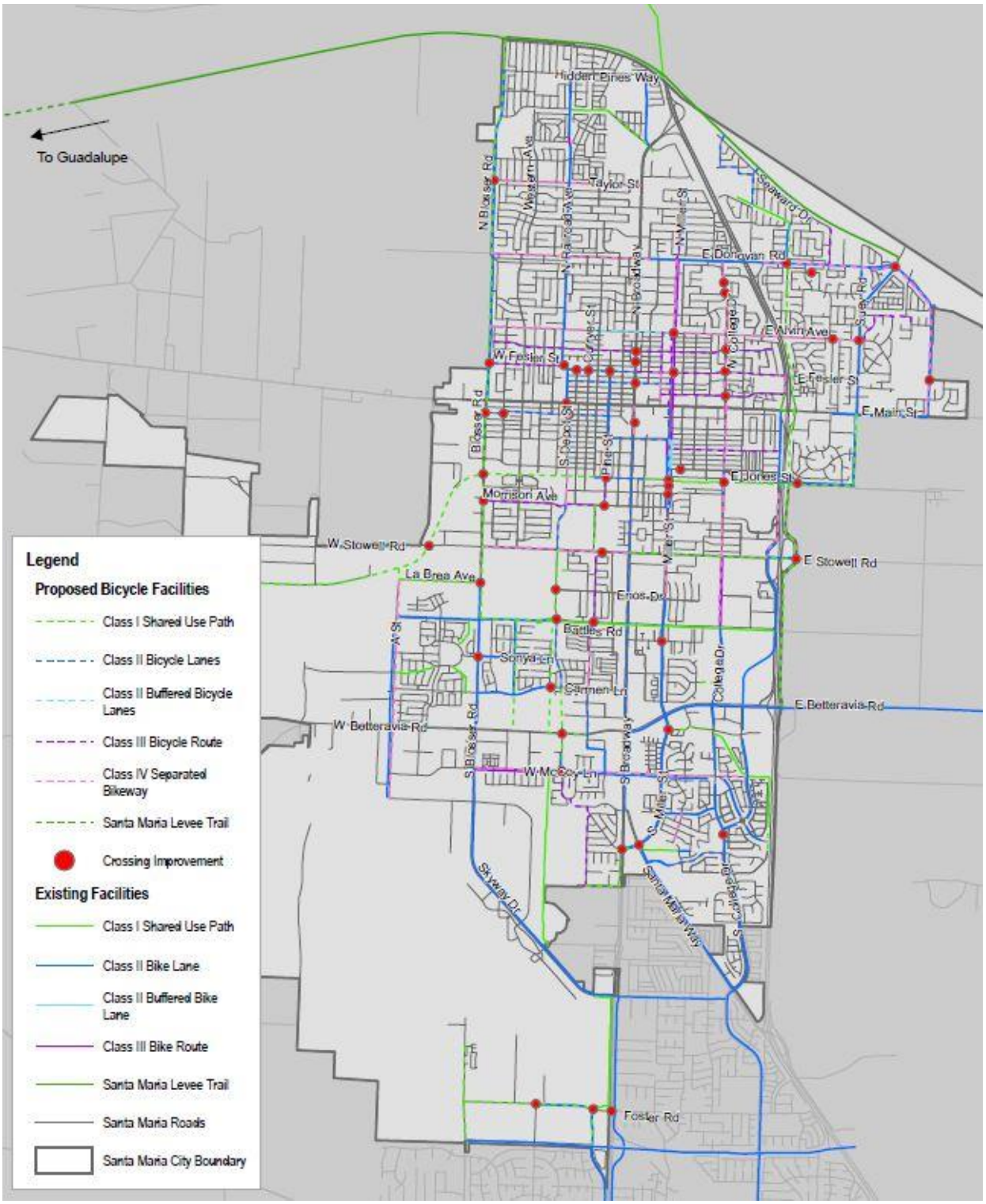


Figure 18: Recommended Bicycle Projects – Existing and Proposed



Bicycle-Transit Connections

The transit services of Santa Maria Area Transit, The Breeze Bus, Clean Air Express, Guadalupe Flyer, and RTA-Route 10 all have buses that are equipped with bike racks capable of accommodating bicycles. This service enables riders to access destinations that are difficult to reach solely by bicycle, while it also expands the potential service area range of bus stops. Bicycle parking is not provided at most stops along these transit services, with the exception of the Santa Maria Transit Center. There are no reported bike lockers available for public use along the stops or at the Santa Maria Transit Center, but there are six reported bike lockers located at the Santa Maria Public Library.

Bicycle Support Facilities

There are limited publicly-accessible rest areas, showers, or changing facilities for bicyclists within the city. The Santa Maria Bikeway Master Plan identifies bike parking and end-of-trip facilities among the recommended improvements. Including these types of bicycle support facilities at end-of-trip destinations, such as transit hubs and other major nodes can encourage greater share of trips by biking. Table 26 shows the inventory of bicycle racks and support facilities at City of Santa Maria offices and other facilities.

Bicycle Safety

The California Office of Traffic Safety ranks California cities on a variety of traffic safety metrics, including bicycle injuries and fatalities. The rankings for cities are based on their populations, in which Santa Maria is one the 58 reporting cities whose populations are ranked for populations between 100,001 and 250,000. In 2017, the most recent year available, the City of Santa Maria ranked 18th safest for bicyclists and 24th safest for bicyclists under 15 years old. In addition, the city has a youth bicycle education program to educate youth and families on bicycle helmet safety.

If the City of Santa Maria invests more in bicycle and pedestrian infrastructure, it is likely that more people will choose those modes for day-to-day activity, which will in turn increase the potential for vehicle and pedestrian/bicycle conflicts. Increased education and enforcement are important tools for bicycle and pedestrian safety. Additionally, per State law (AB1371, 2013) motorists are required to provide a three-foot buffer in order to safely pass a cyclist. Appendix C lists funding mechanisms to improve bicycle safety.

Bicycle Performance Standards

As part of the scenario evaluation criteria, the SBCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) encourages member jurisdictions to implement their adopted local bicycle plans and to incorporate bicycle facilities into local transportation projects. To continue to seek funding for bicycle projects from local, State, and federal sources and continue to seek funding to maintain existing bikeways, the recommendations established through the RTP/SCS must coordinate with those listed with the Santa Maria ATP.

Table 26: Bicycle Racks and Support Facilities

City Location	Bicycle Racks	Lockers	Showers
City Hall	1	0	Yes[1]
City Attorney's Office	1	0	Yes[2]
Fire Department Headquarters	0	0	Yes[2]
Fire Station No. 1	0	0	Yes[2]
Fire Station No. 2	0	0	Yes[2]
Fire Station No. 3	0	0	Yes[2]
Fire Station No. 4	0	0	Yes[2]
Police Department	0	0	Yes[2]
Santa Maria Public Works (Corp. Yard)	2	0	Yes[2]
Santa Maria Landfill/ Utilities Department	0	0	Yes[2]
Santa Maria Wastewater Treatment Plant	0	0	Yes[2]
Edwards Community Center	1	0	No
Santa Maria Public Library	1	6	Yes[1]
Community Development/Public Works Engineering	1	0	No
Paul Nelson Aquatic Center and Abel Maldonado Youth Center	2	0	Yes[3]
Veteran's Memorial Center	0	0	No
Minami Community Center	0	0	No
Hagerman Complex	0	0	No
Recreation and Parks Department	0	0	Yes[1]
Parks Yard	0	0	No
Elwin Mussell Senior Center	1	0	No
SMAT Transit Center	2	0	No

Notes:

1. Indicates access to the showers at Paul Nelson Pool/Maldonado Youth Center
2. Shower facilities in City offices, fire stations, and police stations available for employee use only.
3. Showers are Paul Nelson Aquatic Center and Abel Maldonado Youth Center available for customers only.

Source: City of Santa Maria, 2020.

Pedestrian Facilities

Introduction

As mentioned in the *Bikeway Facilities* section, the Santa Maria ATP is a planning effort led by the City of Santa Maria to enhance walking, bicycling, and transit access throughout Santa Maria. Working with local, regional, and statewide partner agencies and organizations, the City of Santa Maria aims to develop a suite of project and program recommendations to make walking, bicycling, and transit integral parts of daily life for residents and visitors alike.

The Santa Maria ATP states that most trips begin and end as walking trips even when a car, bicycle, bus, or train is involved. Like the City of Santa Maria's existing bikeway network, the city's pedestrian conditions vary widely. Some locations have a comprehensive sidewalk network with crossings and signage, while infrastructure is limited in other locations. Network and spot improvements will help improve pedestrian access, safety, and comfort. The proposed pedestrian facilities improvements per the Draft Santa Maria ATP Plan are presented in Figure 19. These include crossing improvements and other pedestrian facilities to include shared-use path and trails.

Pedestrian Safety

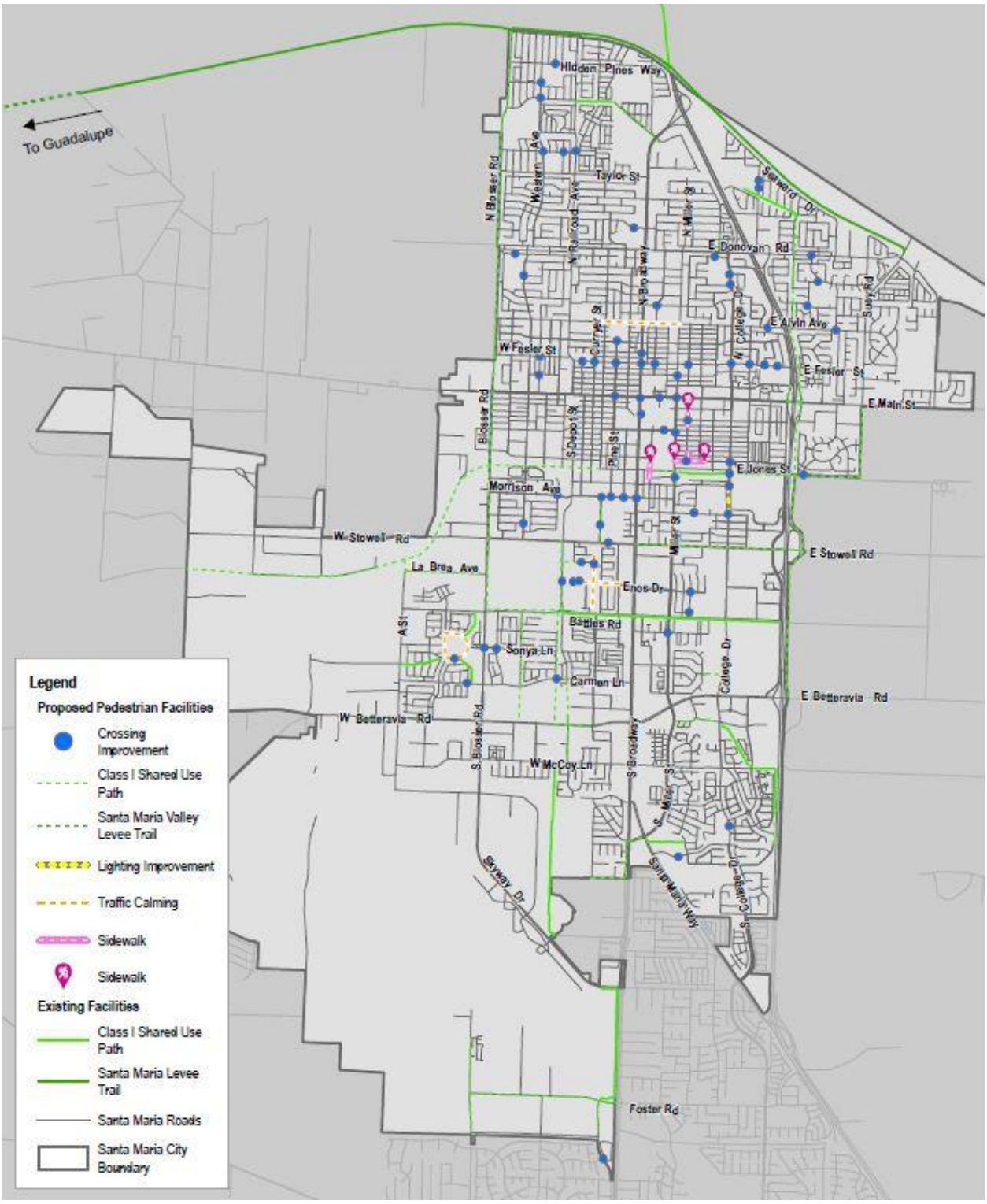
The California Office of Traffic Safety (OTS) ranks California cities on a variety of traffic safety metrics, including bicycle injuries and fatalities. The rankings for cities are based on their populations, in which Santa Maria is one the 58 reporting cities whose populations are ranked for populations between 100,001 and 250,000. In 2017, the most recent year available, the City of Santa Maria ranked 29th safest for pedestrians, 4th safest for pedestrians under 15 years old, 45th safest for pedestrians over 65 years old.

With the development of the ATP plan, it will be important to evaluate current and recommended pedestrian accommodations in improving connectivity and safety. Appendix C list potential funding mechanisms to improve pedestrian safety.

Pedestrian Improvements

As previously mentioned in the Bikeways Facilities section, as part of the scenario evaluation criteria, the SBCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) includes encouraging member jurisdictions to implement their adopted ATP into local transportation projects. In addition, identified pedestrian connections can be constructed with new developments.

Figure 19: Recommended Pedestrian Projects – Existing and Proposed



Parking

Parking requirements in the City of Santa Maria are defined in the City's Municipal Code and Zoning Ordinance. Per the City of Santa Maria Municipal Code, parking standards and regulations are captured in Title 7 - Traffic Regulations and parking requirements for developments are captured in Title - 12 Zoning. In October 2018, the City Council unanimously approved a residential parking ordinance that will allow developer to credit parking in the paved front setback and utilize tandem parking toward the required parking. This new ordinance will allow more flexibility for development on medium- and high-density infill lots with limited space available.

Downtown Parking

There is parallel parking in the Downtown core, with a large amount of parking provided by parking structures and parking lots for the Santa Maria's Town Center Mall. Per the Downtown Multimodal Streetscape Plan (DMSP), Town Center Mall, west of Broadway, offers infill opportunities with the underutilized surface parking lots. Per the Community Design Charrette for the DMSP, the prevalence of parking was identified as both an asset but also a detriment. This demonstrates a need to balance parking availability with a desire to activate Downtown Santa Maria with new land uses.

Goods Movement

Introduction

Goods movement in Santa Maria is a key component of the economic vitality and growth of the Santa Maria Valley and Santa Barbara regions. Santa Maria's multimodal system consists of a highway system, railroads, airport, and facilitates the movement of goods throughout the Santa Barbara region and state.

Freight Rail

Freight rail operations in Santa Maria link markets in the Central Valley, the Pacific Northwest, and Northern California with markets in Southern California, the Southwest, the Gulf Coast, and the Midwest. Currently, the only railroad dealing with local freight operations in the Planning Area of the Santa Maria General Plan Update is the Santa Maria Valley Railroad (SMVRR). The 14-mile of main line track extends from the interchange with the Union Pacific Railroad in Guadalupe to the west and to McClelland Street to the east. Freight trains operate along the SMVRR tracks up to six times daily, allowing for the shipment of raw materials and food for use in manufacturing. Goods shipped from the region using the SMVRR tracks are moved to their final regional destinations using short-haul trucks.

Truck Freight

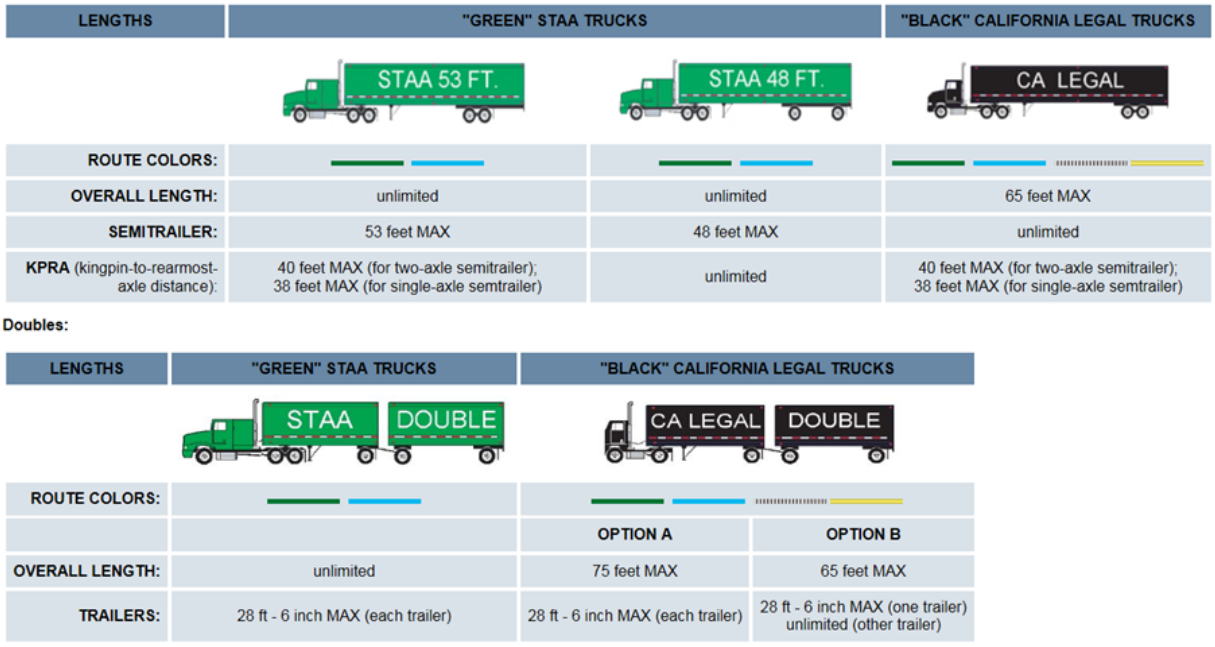
The designated truck network in the City of Santa Maria consists of State highways. The designated truck network for Santa Maria was previously shown in Figure 4 (National Highway System and Truck Network) and in Appendix D as the Truck Networks Map per Caltrans District 5. US 101 and SR 135 are STAA routes. These routes are traversable by STAA-sized vehicles (48-53 feet from king-pin to rear axle). SR 166 is classified as a California Legal-sized vehicle route (65 feet from king-pin to rear axle). See Figure 20 and Appendix D for the federal and State truck designations.

These STAA routes are significant to both the operations at the City of Santa Maria and the movement of goods throughout the County of Santa Barbara and the surrounding Santa Maria Valley. In 2015, the Fixing America's Surface Transportation (FAST) Act established the Primary Highway Freight System (PHFS), a subset of the national STAA network that designates highway routes considered critical to national freight transportation. Most of the truck designation applications involve County roads; therefore, the City of Santa Maria and the County of Santa Barbara must periodically coordinate with Caltrans to designate additional routes to the PHFS.

The Santa Barbara County Association of Governments (SBCAG) is the responsible agency for regional multimodal transportation planning and programming within Santa Barbara County, including goods movement. SBCAG actively assists its member agencies to plan and ultimately program federal/state/local transportation funds for transportation improvements. Given the prevalence of goods movement in the county, SBCAG was a participant in the Central Coast California Commercial Flows Study. This study identified and prioritized the top goods movement infrastructure improvement projects in the Central Coast to address goods movement issues and coordinate planning/programming objectives as they relate to goods movement.

Table 27 includes the truck travel on the State highways and Table 28 includes a breakdown of the truck travel along different segments of the highway system within the City of Santa Maria, showing the post-mile and truck AADT for each post-mile analyzed. The summarized list of truck volumes on the major State highways traversing Santa Maria are shown in Table 29. The truck volumes were found based on a straight average of the volumes and the number unincorporated road segments. The percentage of STAA sized trucks was weighted by the proportion of total vehicles carried on each segment. US 101, SR 135, and SR 166 carry the vast majority of STAA-sized truck traffic (i.e., 5+ axles) in terms of absolute volumes. US 101 carries the highest percentage of STAA-sized vehicles, relative to the overall traffic on the route, followed by SR 135 and SR 166.

Figure 20: Federal and California Truck Type Designation



Source: Caltrans, Quick Guide: Truck Lengths and Routes, https://dot.ca.gov/programs/traffic-operations/legal-truck-access/quick-guide.

Table 27: Truck Travel on State Highways in Santa Maria

Route	Post Mile	Description	AADT		Truck %	Truck AADT by axle			
			All Veh	Truck		2	3	4	5+
US 101	80.21	LAS FLORES BRIDGE	31800	4452	14.00	1,692	223	105	2,433
US 101	86.588	BETTERAVIA RD	63700	8918	14.00	3,210	713	210	4,784
US 101	86.588	BETTERAVIA RD	52600	7364	14.00	2,577	589	174	4,024
US 101	9.003	MONTECITO, SHEFFIELD DR	62400	3220	5.16	1,546	193	105	1,376
US 101	9.003	MONTECITO, SHEFFIELD DR	58700	3029	5.16	1,454	182	98	1,295
US 101	90.749	JCT. RTE. 135 SOUTH	64300	9002	14.00	3,241	720	212	4,829

Route	Post Mile	Description	AADT		Truck %	Truck AADT by axle			
			All Veh	Truck		2	3	4	5+
SR 135	M11.722	SOUTH JCT. RTE. 1	5300	1113	21.00	434	167	278	234
SR 135	15.772	SANTA MARIA, JCT. RTE. 166, MAIN ST	25300	1731	6.84	1,004	208	138	381
SR 135	15.772	SANTA MARIA, JCT. RTE. 166, MAIN ST	28500	1949	6.84	342	189	315	1,104
SR 135	17.806	SANTA MARIA, JCT. RTE. 101	23700	1621	6.84	924	195	130	373
SR 135	9.095	CABRILLO HWY, JUNCTION OLD ROUTE 1	1970	414	21.00	161	62	120	70
SR 135	R9.1	ORCUTT, NORTH JCT. RTE. 1	18100	3620	20.00	1,412	507	869	833
SR 166	0	GUADALUPE, JCT. RTE. 1	10300	1120	10.87	616	73	41	390
SR 166	6.87	SANTA MARIA, BLOSSER RD	13900	1668	12.00	717	234	133	584
SR 166	6.87	SANTA MARIA, BLOSSER RD	15600	1716	11.00	738	223	120	635
SR 166	64.3	PERKINS RD	3400	608	17.88	191	43	28	346
SR 166	7.87	SANTA MARIA, JCT. RTE. 135	24100	2620	10.87	943	262	105	1,310
SR 166	8.927	SANTA MARIA, JCT. RTE. 101	27200	2176	8.00	675	174	109	1,219
US 101	80.21	LAS FLORES BRIDGE	31800	4452	14.00	1,692	223	105	2,433
US 101	86.588	BETTERAVIA RD	63700	8918	14.00	3,210	713	210	4,784
US 101	86.588	BETTERAVIA RD	52600	7364	14.00	2,577	589	174	4,024
US 101	9.003	MONTECITO, SHEFFIELD DR	62400	3220	5.16	1,546	193	105	1,376
Source: Caltrans Annual Average Daily Truck Traffic on California State Highways, 2018									

Table 28: Breakdown of Truck Travel on Highways, City of Santa Maria (2018)

Facility	Avg. 5+ Axles (STAA-sized Trucks)	Avg. Trucks	Avg. Total Vehicles	Wt. Avg. % STAA-sized Trucks
US 101	3,124	5,998	55,584	5.62%
SR 135	499	1,742	17,145	2.91%
SR 166	747	1,652	15,750	4.75%

Table 29 shows the percentages of trucks captured with traffic counts for years from 2017-2019 at various locations along Broadway (SR 135), Main (SR 166), Blosser Road, Betteravia Road, and Stowell Road. Out of the locations listed, Stowell Road, east of Blosser has the highest truck percentage (10.5%).

Table 29: Truck Percentages in Santa Maria

Year of Count	Street	Location	% Trucks
2017	Broadway (SR 135)	N of Alvin	1.2%
2017	Broadway (SR 135)	N of Betteravia	0.7%
2017	Broadway (SR 135)	N of Cook	0.3%
2019	Broadway (SR 135)	N of Main (SR 166)	2.1%
2019	Broadway (SR 135)	N of Santa Maria Way	2.9%
2017	Broadway (SR 135)	S of Alvin	0.9%
2019	Broadway (SR 135)	S of Betteravia	1.6%
2017	Broadway (SR 135)	S of Cook	1.8%
2019	Broadway (SR 135)	S of Main (SR 166)	1.5%
2019	Broadway (SR 135)	S of Stowell	1.5%
2019	Main (SR 166)	E of Broadway	5.1%
2019	Main (SR 166)	W of Broadway (SR 135)	5.3%
2017	Blosser Road	N of Betteravia	1.9%
2017	Blosser Road	N of Main (SR 166)	2.6%
2017	Blosser Road	N of Stowell	3.0%
2017	Blosser Road	S of Betteravia	1.1%
2017	Blosser Road	S of Main (SR 166)	0.1%
2017	Blosser Road	S of Stowell	1.9%
2017	Betteravia Road	E of Blosser	5.6%
2017	Betteravia Road	E of Broadway (SR 135)	2.5%
2017	Betteravia Road	E of Miller	3.7%
2017	Betteravia Road	W of Blosser	3.6%
2017	Betteravia Road	W of Broadway (SR 135)	5.2%
2017	Betteravia Road	W of Miller	1.8%
2017	Stowell Road	E of Blosser	10.5%
2017	Stowell Road	E of Bradley	1.8%
2017	Stowell Road	E of Broadway (SR 135)	3.0%
2017	Stowell Road	E of College	2.6%
2017	Stowell Road	W of Blosser	4.6%
2017	Stowell Road	W of Bradley	1.5%
2017	Stowell Road	W of Broadway (SR 135)	2.9%
2017	Stowell Road	W of College	1.7%

Every five years (in years ending in "2" and "7"), the U.S. Census Bureau and the U.S. Bureau of Transportation Statistics (BTS) collaborate to conduct the Commodity Flow Survey (CFS) as part of the Economic Census. The CFS produces data on the movement of goods in the United States, including information on commodities shipped, their value, weight, and mode of transportation. It also includes origin and destination data for shipments of commodities from manufacturing, mining, wholesale, and selected retail and services establishments. For purposes of summarizing major urban centers, the CFS does not include the City of Santa Maria or Santa Barbara County as a major hub for goods movement, but for the purpose of the statistical analysis, the designated Los Angeles-Long Beach area in the CFS data is used to tabulate goods movement entering and exiting the City of Santa Maria. Table 30 and Table 31 display the origins and destination for freight shipments to and from the Los Angeles-Long

Beach area by mode. The majority of freight shipments that originate in the Los Angeles-Long Beach area have a destination within the same area; outside of the area, the majority of remaining freight shipments are arriving from areas of the state outside of CFS designated areas, and out of state. The truck mode accounts for the majority of freight shipments.

Table 30: Freight Shipments by Origin and Mode to the Los Angeles-Long Beach Area (2012)

Origin	Total shipments (1,000 tons)							
	Mode						Total	% by Origin
	Truck	Pipeline	Rail	Water	Air	Other multi-mode		
Fresno-Madera	1,054	—	—	—	—	8	1,062	0.3%
Los Angeles-Long Beach	222,870	43,757	2,270	649	193	6,090	275,829	73.4%
Sacramento	823	—	—	—	—	—	823	0.2%
Bay Area	6,411	—	655	—	—	104	7,170	1.9%
San Diego	2,078	—	—	—	10	—	2,088	0.6%
Remainder of California	12,948	—	722	—	12	—	13,682	3.6%
Outside California	34,314	322	23,372	2,038	333	14,560	74,939	19.9%
Total	280,598	44,079	27,019	2,687	548	20,762	375,693	100.0%
Mode %	74.70%	11.70%	7.20%	0.70%	0.10%	5.50%	100%	

Source: U.S. Census Bureau/Bureau of Transportation Statistics 2012 Commodity Flow Survey, 2015.

Table 31: Freight Shipments by Destination and Mode to the Los Angeles-Long Beach Area (2012)

Origin	Total shipments (1,000 tons)							% by Origin
	Mode						Total	
	Truck	Parcel	Rail	Truck-rail	Air	Other multi-mode		
Fresno-Madera	1,524	—	99	—	—	—	1,623	0.3%
Los Angeles-Long Beach	222,870	43,757	2,270	649	193	6,090	275,829	73.4%
Sacramento	2,015	—	—	—	—	—	2,015	0.2%
Bay Area	5,613	1,072	208	—	13	548	7,454	1.9%
San Diego	9,940	716	—	—	—	200	10,856	0.6%
Remainder of California	8,605	—	1,017	—	1	103	9,726	3.6%
Outside California	33,597	1,538	4,224	3	304	4,271	43,937	19.9%
Total	284,164	47,083	7,818	652	511	11,212	351,440	100.0%
Mode %	80.90%	13.40%	2.20%	0.20%	0.10%	3.20%	100%	

Source: U.S. Census Bureau/Bureau of Transportation Statistics, 2012 Commodity Flow Survey, February 2015.

Aviation Facilities and Service

Introduction

The City of Santa Maria is home to the 22nd busiest airport in California and is the second largest air hub in the County of Santa Barbara. As a passenger terminal, the Santa Maria Public/Captain G Allan Hancock Field (Santa Maria Public Airport) serves over 23,000 passengers per year, including visitors to the Santa Maria Valley and the Central Coast. The City of Santa Maria and the County of Santa Barbara are also served by other several public and private basic utility airports. Santa Maria Public Airport passenger air traffic is compared to the statewide California context in Table 32.

Table 32: California Airports with >100,000 Annual Enplanements Compared to Santa Maria Airport Activity (2018)

City	Airport	Annual Enplanements*	Driving Distance to Santa Maria (miles)
Los Angeles	Los Angeles International	42,624,050	159
Santa Ana	John Wayne Airport-Orange County	5,201,642	199
Burbank	Bob Hope	2,680,240	153
Ontario	Ontario International	2,498,993	198
Long Beach	Long Beach /Daugherty Field/	1,908,635	179
Fresno	Fresno Yosemite International	853,538	174
Santa Barbara	Santa Barbara Municipal	403,745	75
San Luis Obispo	San Luis County Regional	235,570	27
Monterey	Monterey Regional	186,806	169
Bakersfield	Meadows Field	105,104	127
Santa Maria	Santa Maria Public/Capt G Allan Hancock Field	23,008	0

Source: Federal Aviation Administration, 2018 Enplanements at All Commercial Service Airports, 2017.

Existing Setting

Publicly Owned Airports

Santa Maria Public Airport

The City of Santa Maria Public Airport is the only public-use airport within the Santa Maria Valley open for use by the public. The characteristics of the public-use airport are shown in Table 33.

The Santa Maria Public Airport (SMX) is the County of Santa Barbara's second largest airport, located in the southern reach of the City of Santa Maria and is owned and operated by the Santa Maria Public Airport District (SMPAD). The Santa Maria Public Airport provides unique economic development opportunities for the City of Santa Maria, including both aviation and non-aviation uses. The airport further serves the aviation needs of the City of Santa Maria Public, along with the nearby communities in both San Luis Obispo and Santa Barbara Counties.

The Santa Maria Public Airport is a hub for the City of Santa Maria's commercial and industrial sector, as a majority of the City's industrial land uses are located at or near the airport. As defined by the FAA, the Santa Maria Public Airport is a primary commercial service airport, which serves the aviation needs of the local community and the region by providing support to commercial, aerial firefighting, military, and private aircrafts. As of 2018, it is reported that the airport has 207 based aircraft and 38,389 annual aircraft operations (aircrafts assessing the runway) along with 23,008 commercial passenger enplanements, down from 47,741 passenger enplanements in 2010 and 77,738 in 2000. Enplanements are the number of passengers boarding an aircraft.

The airfield layout consists of dual runways, Runway 12-30 and Runway 2-20, measuring 8,004 feet in length and 150 feet in width and 5,199 feet in length and 75 feet in width, respectively. Runway 12-30 is the operational runway at Santa Maria Public Airport, equipped with high-intensity runway lights. Runway 12-30 is equipped with a medium-intensity approach light system with runway alignment indicator lights. A precision approach path indicator is located on the right side of Runway 12-30. Runway 2-20 is used for general aviation operations and has no lighting, visual, or navigational aids. A federal contract tower operates daily between the hours of 6:00 AM and 8:00 PM. There are currently five published instrument approaches to the airport, all serving Runway 12-30.

The Santa Maria Public Airport District encompasses 400 square miles, extending from Point Sal at the Pacific Ocean to 10 miles east of the dam at Twitchell Reservoir, and from the Santa Maria River to three miles south of Los Alamos.

Private-Use Facilities

Another category of private aviation facilities in the county are heliports. The City of Santa Maria's hospital, Marian Medical Center, has a heliport dedicated to the emergency transport of patients either to or from the hospital. Along with this heliport, several businesses in the county have private heliports located on their property.

Table 33: Airport and Heliports in Santa Maria

Airport and Heliports															
Airport Name	Owner	Location	Facilities							Services					
		Community	Based Aircraft[1]	# of Runways	Longest Runway (ft)	Surface[2]	Lighted	Approach Visibility[3]	Control Tower	Airline Service[4]	AvGas	Jet Fuel	Maintenance	Automobile Rentals	Food
Public Use–Publicly Owned															
Santa Maria Public/ Captain G Allan Hancock Field	City	Santa Maria	207	2	8,004	ASPH -G	Yes	—	✓	✓	✓	✓	✓	✓	✓

Heliport – Private – No Public Use														
Airport Name	Owner	Location	Facilities						Services					
		Community	Heliport Pads	Heliport Pad (ft x ft)	Surface[2]	Lighted	Approach Visibility[3]	Control Tower	Airline Service[4]	AvGas	Jet Fuel	Maintenance	Automobile Rentals	Food
Marian Medical Center	Private	Santa Maria	1	48 x 48	CONC	No	—	—	—	—	—	—	—	—
Platform Harvest[5]	Private	Santa Maria	1	65 x 65	MATS	No	—	—	—	—	—	—	—	—
Platform Hermosa[5]	Private	Santa Maria	1	60 x 60	STEEL	No	—	—	—	—	—	—	—	—
Platform Hidalgo[5]	Private	Santa Maria	1	66 x 66	MATS	No	—	—	—	—	—	—	—	—

Notes:

1. FAA 5010 Forms
2. ASPH = asphalt; CONC = concrete; GRVL = gravel; TREAT = treated dirt; TURF = turf; MATS = landing mats; STEEL = steel
3. Lowest visibility minimums for instrument approach procedures; distance in statute miles
4. Including air taxi
5. Freeport-McMoran Oil and Gas Off-Shore rigs

Major Findings

The City of Santa Maria has certain authority over the four heliports located within the unincorporated areas of the Santa Maria Valley. The authority to regulate development and use of these heliports is shared with the heliport owners and with the Federal Aviation Administration and State of California. The FAA regulates the manner in which aircraft operate. The City of Santa Maria is able to ensure that noise and safety impacts of airports are accounted for in the land uses around them. The City of Santa Maria can work with the airport owner, the State of California, and the Federal Aviation Administration to ensure General Plan land use compatibility in the environs of airports in its jurisdiction.

Transmission Facilities

Introduction

Transmission facilities are the means to move energy from where it is produced to where it is consumed. Transmission lines are often the most noticeable and disruptive part of energy development as their unavoidably distributed nature inevitably puts them near a variety of land uses. Care is needed to effectively balance the need to distribute energy with potential land use conflicts, particularly with regard to safety and aesthetics. These lines often follow established utility corridors with wide rights-of-way, sharing space with water and communications infrastructure. This section describes gas, electric, and telecommunications infrastructure in Santa Maria and the region.

Electrical Transmission Lines

Local. Santa Maria is located in the electrical service area of Pacific Gas & Electric (PG&E). There are three primary transmission lines located within the city. The two lines oriented in a north-south direction are located within the rights-of-way of Blosser Road and Railroad Avenue. The east-west oriented line runs within the right-of-way of Battles Road. All of the primary electrical transmission lines are 110-161 kV lines.

Currently, PG&E can support up to 45 MW of load to VAFB via the Divide-Vandenberg #1 OR #2 lines. PG&E currently has redundant 70KV lines from Divide to Vandenberg (Divide-Vandenberg #1 and Divide-Vandenberg #2). There are also redundant 115KV lines from Mesa (near Nipomo) to Divide (Mesa-Divide #1 and Mesa-Divide #2). Additionally, there are redundant 230KV lines from Morro Bay to Mesa and Diablo Canyon to Mesa (Morro Bay-Mesa and Diablo-Mesa). Currently, there are two redundant 70KV lines that feed VAFB substation. There are no other PG&E sources of power currently available with the exception of limited distribution voltage (12KV) feeders to certain locations near VAFB.

Regional. The city is connected to the broader regional power grid from the north through lines passing through San Luis Obispo County. The largest line in proximity to Santa Maria runs parallel to US 101 between San Luis Obispo and Santa Maria. It is a 230 kV line, which is larger than any lines located within Santa Maria. The line terminates on the north side of the Santa Maria River near the county line, and at which point it branches into three smaller lines (two of which serve Santa Maria). The other regional transmission line that serves Santa Maria also passes through San Luis Obispo County, arriving from the east directly over the mountains. It originates in the far south western corner of Kern County. Note that no transmission lines connect south-eastern Santa Barbara County (i.e., greater-Santa Barbara) with Santa Maria. This portion of the county is in the Southern California Edison service area.

Power Generation Facilities

Local. There are three power generation facilities located within the city. The Santa Maria Cogen facility is located on Blosser Road in the west-central portion of the city. The power plant is fueled by natural gas and was constructed in 1989. The 2052 Cossa solar installation, which began operations in 2013, is located on the roof of the Kohl's department store on South Broadway. The Santa Maria II LFG facility is fueled by landfill gas. It began operations in 2010 and is located at the Marian Regional Medical Center.

Regional. Two existing or proposed power generation facilities are located near Santa Maria but outside of the City limits. A small gas power plant is located near the town of Nipomo in San Luis Obispo County. South of Lompoc is the site of the proposed Strauss Wind Energy Project. If constructed, this facility would produce energy from 29 wind turbines on approximately 3,000 acres of land near Lompoc. Other power plants in the region are clustered near the City of San Luis Obispo and the foothills of the Sierra Madre mountains of Kern County.

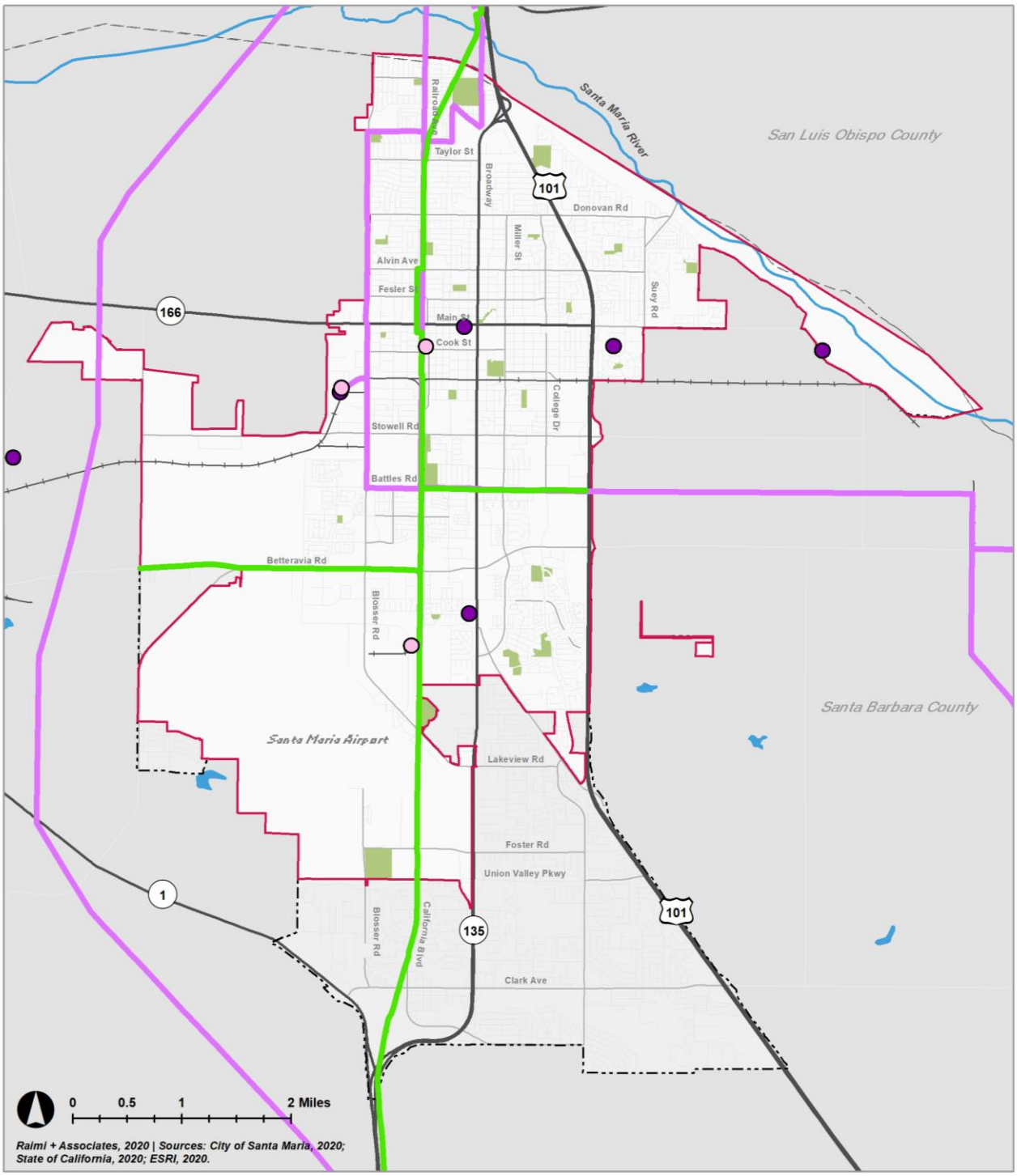
Natural Gas Pipelines

Local. A single natural gas line passes through Santa Maria in a north-south direction. The line is owned and operated by SoCalGas. The 8″ diameter distribution line runs primarily within the Railroad Avenue/Depot Street right-of-way. There are two spurs lines that originate from and are oriented perpendicular to the main line. The line that extends to the east has a diameter of 10″ and is located in the Battles Road right-of-way. The line terminates at US 101. The line that extends to the west has a diameter of 6″ and is located within the Betteravia Road. The line terminates at Black Road.

Regional. The majority of the natural gas distribution network of southern California surrounding Santa Barbara County is located in the southern extent of the central valley and within the urbanized portions of Ventura and Los Angeles Counties. A single circuit connects Santa Barbara and San Luis Obispo counties to the rest of the state. SoCalGas lines supply gas to Santa Maria customers both from the north (via the Central Valley) and the south (via coastal Ventura County), which offers a degree of redundancy.

Utilities for natural gas, electric, and power plants in the City of Santa Maria are presented in Figure 21.

Figure 21: Utilities for Electric, Natural Gas, and Power Plants in Santa Maria



Telecommunications

Telecommunication infrastructure in Santa Maria consists of phone and internet services. All portions of the city receive LTE (i.e., 4G) coverage by four or more providers. Cellular telephone service is provided by a number of companies such Verizon, AT&T, and T-Mobile, which maintain cell infrastructure throughout the county. Broadband internet is available in all parts of the city by at least one provider. Internet connectivity is provided both via Cable and Digital Subscriber Line (DSL) by companies such as Xfinity and Frontier. As in most places, telecommunication infrastructure (including transmission lines) is privately owned and managed. In comparison to electric and gas infrastructure, the public planning process plays a much smaller role in the development of telecommunications infrastructure. Regulatory oversight is provided primarily at the federal level by agencies such as the Federal Communications Commission (FCC). Local agencies such as Santa Maria retain a degree of land use control with regard to the siting of telecommunications infrastructure (e.g., cell towers) but only within the limits set by the federal government.

Major Findings

A redundant power supply is provided by PG&E through 70KV lines from Divide to Vandenberg (Divide-Vandenberg #1 and Divide-Vandenberg #2), 115KV lines from Mesa (near Nipomo) to Divide (Mesa-Divide #1 and Mesa-Divide #2)., and 230KV lines from Morro Bay to Mesa and Diablo Canyon to Mesa (Morro Bay-Mesa and Diablo-Mesa).

Transportation Demand / System Management

Introduction

Transportation Demand Management (TDM) programs are strategies designed to reduce the demand for the automobile as a mode of travel. By encouraging the use of alternative transportation modes, vehicle demand on the existing roadway system is reduced and system efficiency is improved. TDM strategies can help reduce or delay the need for capacity increasing projects on roadways.

Similar to TDM, Transportation System Management (TSM) strategies seek to optimize use of the existing transportation system. TSM aims at increasing system capacity without constructing new roads or requiring major widening of existing roads or intersections. TSM includes a suite of operational strategies for optimizing system performance through active management. TSM strategies counter the default reactive strategy of waiting until system deficiencies are evident and/or adding capacity.

Transportation Demand Management

Given that the daily commute to and from work is a major cause of traffic congestion and is the most well understood trip type in terms of origin and destinations, the commute trip is typically targeted for demand management strategies. Typical "supply-side" strategies include: providing safe and efficient alternatives to driving alone such as commuter-oriented transit services; providing Class I and Class II bike lane facilities connecting residential areas to major employment sites; and providing park-and-ride lots to facilitate carpooling/ridesharing. Typical "demand-side" strategies include: employer-based incentives for carpooling or using alternative forms of transportation to work and establishing rideshare programs (such as rideshare match lists) to help promote/facilitate ridesharing by interested individuals.

TDM strategies already in place in the City of Santa Maria include, but are not limited to the following:

- Measure A Specialized Transit for Elderly and Disabled Program, which provide reduced fares for the elderly, handicapped, and the transportation disadvantaged by funding operating expenses of transit service providers in North County (Santa Maria Area Transit – SMAT).
- Measure A Interregional Transit Program, which will allocate funding for planning, operations, capital and marketing and promotional expenditures related to the Clean Air Express commuter bus service which operates from Santa Maria and Lompoc to Goleta and Santa Barbara.
- Measure A Safe Routes to School and Bicycle & Pedestrian Programs
- The Clean Air Express offers two trips each day from Santa Maria and Lompoc, with convenient drop off and pickup locations.
- County employees are encouraged to use alternative forms of transportation rather than driving to and from work. Alternative forms of transportation include commuting by carpool, vanpool or bus, or by bicycle, walking or telecommuting. Regular employees that use an alternative commute mode at least 80 percent of their normally scheduled work days during a pay period are eligible for TMD incentive in that pay period, which is an additional accrual of 0.62 hours of vacation for full-time employees (prorated for part-time employees).

- Santa Barbara County's Measure A will provide more than 1 billion of estimated local sales tax revenues for transportation projects over its 30 year lifespan to road repair, congestion relief and transportation safety.

Transportation System Management

TSM includes operational strategies that yield optimal benefits from the existing system through active management. These strategies include traffic signal timing management, pavement management, intelligent transportation systems, and emerging technologies. Descriptions of these system management strategies are provided below.

Traffic Signal Timing Management

The effectiveness of any roadway corridor to accommodate and serve travel demand is typically most constrained at intersections. Hence, the type and effectiveness of the intersection controls is a critical factor to the overall performance of the corridor. Proper management of traffic signals requires continually examining the traffic signal coordination between State and local agency signals; regularly updating signal timing plans to respond to changing conditions; and as needed, installing and maintaining advanced signalization improvements such as loop detectors to semi-actuate or fully-actuate traffic signals.

Corridor or area-wide traffic signal retiming for better coordination or levels of service, the installation of adaptive traffic controls, the development and operation of traffic management centers, proactive management and prioritization of roadway resurfacing, or the installation of real-time traveler information. Where applicable, synchronization of a series of closely spaced signals along a major roadway can enhance "progression" or the smooth movement of a platoon of vehicles without the need to fully stop.

In addition, the City of Santa Maria has a traffic signal maintenance program that provides maintenance service to the City's traffic signal system.

The City of Santa Maria General Plan Circulation Element identifies the following objectives to address TSM strategies:

> Objective C.1.a.2 New Development Impacts on Road Network – Implementation Program, periodically review the functioning of the street system to identify problems and actively pursue implementation of improvements identified as needed in a timely manner.
>
> Objective C.1.b.1 Traffic Signal Spacing, which is a Plan spacing between traffic signals to optimize interconnection, signalize only warranted locations, and strive to implement signal timing that will result in efficient travel times and fuel consumption.
>
> Objective C.2.e Intersection and Interchange Improvements, install traffic signals at the intersections identified in the Circulation Plan.

Pavement Management System (PMS)

A Pavement Management System (PMS) offers decision-makers a systematic way to gauge pavement conditions and provides steps for using the information to identify and schedule the most cost-effective treatment. It aids the decision-making process by moving away from the traditional "worst first" approach of spending maintenance funds. The goal of a PMS is to maintain the overall network in a condition where preventive maintenance is the primary strategy. A PMS helps local agencies make the most efficient use of public funds, and after many years, can help reduce overall maintenance spending.

The City of Santa Maria has a PMS program that is funded by Measure A. This program identifies the required maintenance to include surface treatments, light rehabilitation, heavy rehabilitation, or reconstruction as recommended by the City's Pavement Management System with the oversight of staff. The City uses Metropolitan Transportation Commission's (MTC) StreetSaver® program for evaluation of the pavement throughout the city.

Per the 2019-2020 Pavement Management Report by Pavement Engineering Inc. (PEI), the City of Santa Maria currently maintains approximately 228.8 centerline miles of roads that represent 52,815,459 square feet of pavement. As calculated by StreetSaver®, the replacement value of the citywide pavement is approximately $860,241,000.

The Pavement Condition Index (PCI) is a numerical score assigned to pavement from 0 to 100 that indicates the health of the roadway and helps to determine the treatment category and urgency of treatment. Figure 22 demonstrates the pavement quality associated with select PCI scores. Per the 2019-2020 Pavement Management Report, the overall average PCI in Santa Maria is 69, and 58.91% of the city's pavement is in very good to good condition. The average PCI per functional classification are as follows:

- Arterial – Average PCI of 73
- Collector – Average PCI of 67
- Residential – Average PCI of 68

StreetSaver® Executive Dashboard provides a snapshot of current overall roadway network conditions. On December 10, 2020, the City provided the snapshot of the pavement management system shown in Figure 22. As shown in Figure 23, the current PCI is 68, with the remaining service life of 22.9 years from December 31, 2019.

More detailed information about pavement conditions in the city is included in Appendix E, including the Network Summary Report and Network Replacement Costs. The Network Summary Report indicates that selective pavement treatments will slow pavement deterioration but will not improve the overall PCI. To maintain the system at a PCI of 69, the City will need to spend an average of $7.1 million annually over the next 5 years. However, the current level of annual funding is approximately $4.0 million, which will result in a PCI loss of 3 points in 5 years to a PCI of 66.

Figure 22: Pavement Management System

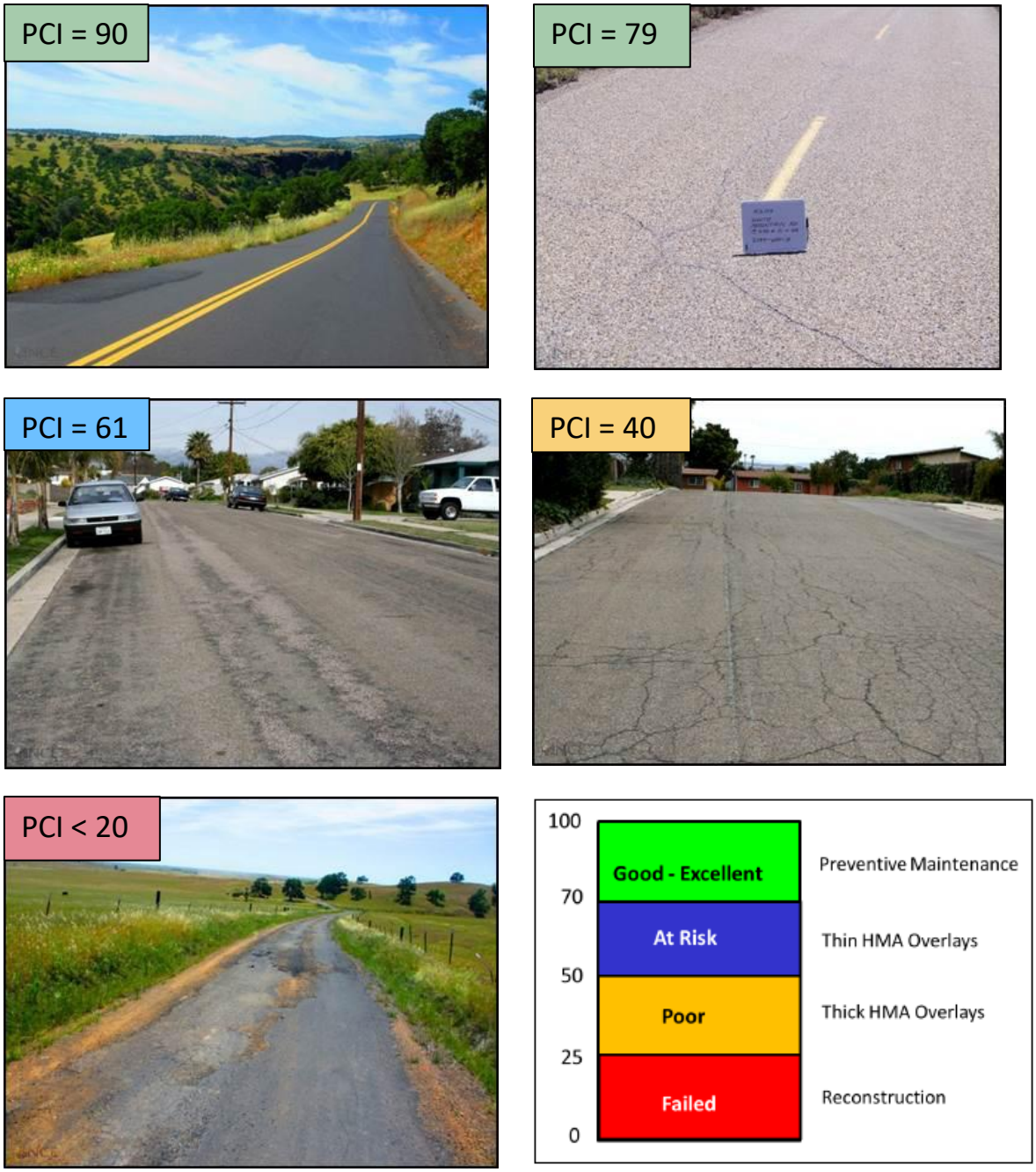


Figure 23: City of Santa Maria – StreetSaver® Executive Dashboard

* Disclaimer: For display purposes only. PCI breakpoint values of 70, 50, and 25. Historical PCI values are calculated as of 12/31/2019.

Source: StreetSaver® Executive Dashboard, City of Santa Maria, Received December 1, 2020.

Intelligent Transportation Systems (ITS)

Intelligent Transportation System (ITS) strategies can be used as a component of a TSM program to improve roadway efficiencies. They consist of automated and electronic technologies that are used to improve operations and traveler information on a transportation network. ITS technologies encompass data collection, surveillance, real-time traveler information, demand-responsive roadway operations, individual vehicular operations, and fulfilling emergency response needs. They can help address recurring and incident-related congestion, facilitate inter-agency communication, prioritize transit and emergency responder access, and provide valuable data for planning. Current ITS applications in the City of Santa Maria include but not limited to:

- Closed Circuit Television (CCTV) cameras at major intersections
- Changeable message signs
- Traffic Monitoring Stations (a location is planned in Santa Maria)
- Communications Infrastructure

Emerging Technologies

New technologies continue to change transportation behaviors.

Rideshare services have been disrupting the taxi business and other services, including limousines. The main private transportation network companies providing rideshare services are Uber, Waze, and Lyft. There are many ways to hail a ride with phone apps and websites (uphail.com, ride guru). Rates constantly adjust to user locations and availability of drivers and overall desired function for the service (single use, carpool, large group, accessible, etc.).

Autonomous ridesharing vehicles will significantly shift land use, traffic engineering, and transportation safety. For instance, gas stations and parking lots will not be as necessary given ridesharing and autonomous vehicle functions. These current land uses could be potential future development opportunities. In addition, there could be potential for geometric design changes of the roadways to include enhanced striping or exclusive lanes, reduced stopping sight and braking distance, and subsequent reduced vertical curve lengths. Similarly, the traffic engineering standards for headway, perception reaction time of a human, and overall traffic control devices will require adjustments to accommodate autonomous vehicles. The General Plan Update should be flexible enough to accommodate potential future changes in technology.

Programmed Transportation Improvements

This section describes the major funding sources and programmed transportation improvements for the City of Santa Maria.

Federal Funding

Federal transportation funding is provided through the Federal Funding Fixing America's Surface Transportation (FAST) Act (2015), which extended the provisions made by the Moving Ahead for Progress in the 21st Century Act (MAP-21) (2012). The FAST Act provides funding for surface transportation projects. Overall, FAST maintains existing programmatic structures and funding shares between highway and transit; however, it provides long-term funding certainty to states and local governments in implementing critical capital transportation projects by improving upon the apportionment process enacted by Map-21. Federal funding programs available for roadway infrastructure projects include:

- Congestion Mitigation and Air Quality (CMAQ);
- Highway Safety Improvement Program (HSIP); Highway Railroad Grade Crossing Program;
- National Highway Performance Program (NHPP);
- Regional Surface Transportation Program (RSTP); Transportation Alternatives Program (TAP); and
- BUILD Transportation Discretionary Grant Program, previously known as Transportation Investment Generating Economic Recovery Program (TIGER).

Federal funding programs available for transit improvements include:

- Federal Transit Administration (FTA) Section 5307 (Urbanized Area Formula Apportionments for Transit);
- Federal Transit Administration (FTA) Section 5309 (New Starts/Major Investments for Transit);
- Federal Transit Administration (FTA) Section 5310 (Elderly and Disabled Persons Transit); and
- Federal Transit Administration (FTA) Section 5311 (Non-Urbanized/Rural Transit Assistance).

State Funding

Measure A was approved on November 4, 2008 with over 79 percent votes support, a one-half of one percent (1/2 percent) sales tax for transportation projects and programs for the next 30 years. SBCAG administers Measure A and it is estimated to provide more than $1 billion of local investment in transportation projects through 2040. Some of north county projects include new freeway interchanges in Santa Maria and Orcutt.

Senate Bill 1, the Road Repair and Accountability Act of 2017, was signed into law on April 28, 2017. This legislative package invests $54 billion over the next decade to fix roads, freeways and bridges in communities across California and puts more dollars toward transit and safety. These funds will be split equally between State and local investments.

Regional transportation planning agencies, county transportation commissions and Caltrans are eligible to apply for program funds through the nomination of projects. All projects nominated must be identified in a currently adopted regional transportation plan and an existing comprehensive corridor plan. The Commission is required to score and select submitted applications based on the following criteria:

- Safety;
- Congestion;
- Accessibility;
- Economic development, job creation and retention;
- Air pollution and greenhouse gas emission reductions;
- Efficient land use;
- Level of matching funds; and
- The ability to complete the project in a timely manner.

SB 1 requires preference to be given to comprehensive corridor plans that demonstrate collaboration between Caltrans and local or regional partners, reflecting a comprehensive planning approach. No more than half the available funding each year can be awarded to projects nominated exclusively by Caltrans.

Eligible project elements within the corridor plans may include improvements to State highways, local streets and roads, rail facilities, public transit facilities, bicycle and pedestrian facilities, and restoration or preservation work that protects critical local habitat or open space. Program funds cannot be used to construct general purpose lanes on a state highway. Capacity increasing projects on the state highway system are restricted to high-occupancy vehicle lanes, managed lanes, and other non-general purpose lane improvements for safety and/or operational improvements for all modes of travel. Examples are auxiliary lanes, trucks climbing lanes, or dedicated bicycle lanes.

Santa Barbara County is also eligible for the following State transportation funding programs: Transportation Development Act (TDA); State Highway Operation and Protection Program (SHOPP); Active Transportation Plan (ATP); Prop 1B: The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006; and the State Transportation Improvement Program (STIP). The 2016 Regional Transportation Improvement Program (RTIP) which is administered by SBCAG oversees the estimates of revenues that will be available for the STIP over a five year period.

Project Priority

Table 34 presents a complete list of Federal Transportation Improvement Program (FTIP) projects for 2019 for the City of Santa Maria.

Table 34: FTIP Projects for 2019

Project ID	FTIP	Project Title	Project Description	Project Status
SM010	SMAT 4	Rehabilitation, repair, reconstruction	Operating assistance for SMAT	Adoption
SM025	SMAT 5	Bus Replacement and Expansion - SMAT	Transit bus procurement for fixe route and ADA services; purchase of one (1) 30-foot bus, three (3) 35-foot buses, eight (8) vans to operate in the Santa Maria area of Santa Barbara county, and two buses for the Clean Air Express service.	Adoption
SM30	SMAT 3	Nighttime and Saturday Transit Service	SMAT operating assistance for expanded fixed route and ADA evening and Saturday service. The project does not have any funding in the 2019 FTIP period and will be carried over for information purposes only.	Adoption
SM31	N/A	Capital Cost of Contracting - SMAT	This activity would be used to fund the cost of the overhaul work performed by the City's transit maintenance contractor (Santa Maria Diesel), which equates to $660,000 (NTD RY 2007)	Adoption
SM41	SMART-412	FTA 5311f - Intercity transit operations from Santa Maria to Santa Ynez Valley	Funding for operation of intercity transit service from Santa Maria Urbanized Area to Santa Ynez Valley. The project does not have any funding in the 2019 FTP period and will carried over for information purposes only.	Adoption
SM50	N/A	FTA 5339 - City of Guadalupe Bus Replacement	Replacement of 30 foot bus for City of Guadalupe with FTA 5339 Santa Maria Urbanized Area funding. The project does not have any funding in the 2019 FTIP period and will be carried over for information purposes only.	Adoption
SM51	N/A	FTA 5339 - Clean Air Express Bus Replacement	Replacement of 45 foot bus for Clean Air Express with FTA 5339 Santa Maria Urbanized Area funding. The project does not have any funding in the 2019 FTIP period and will be carried over for information purposes only.	Adoption
Source: SBACP Federal Transportation Improvement Program, 2019				

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Appendix A: Traffic Analysis

Figure 1: Roadway Functional Classification per Circulation Plan (Updated 2011)

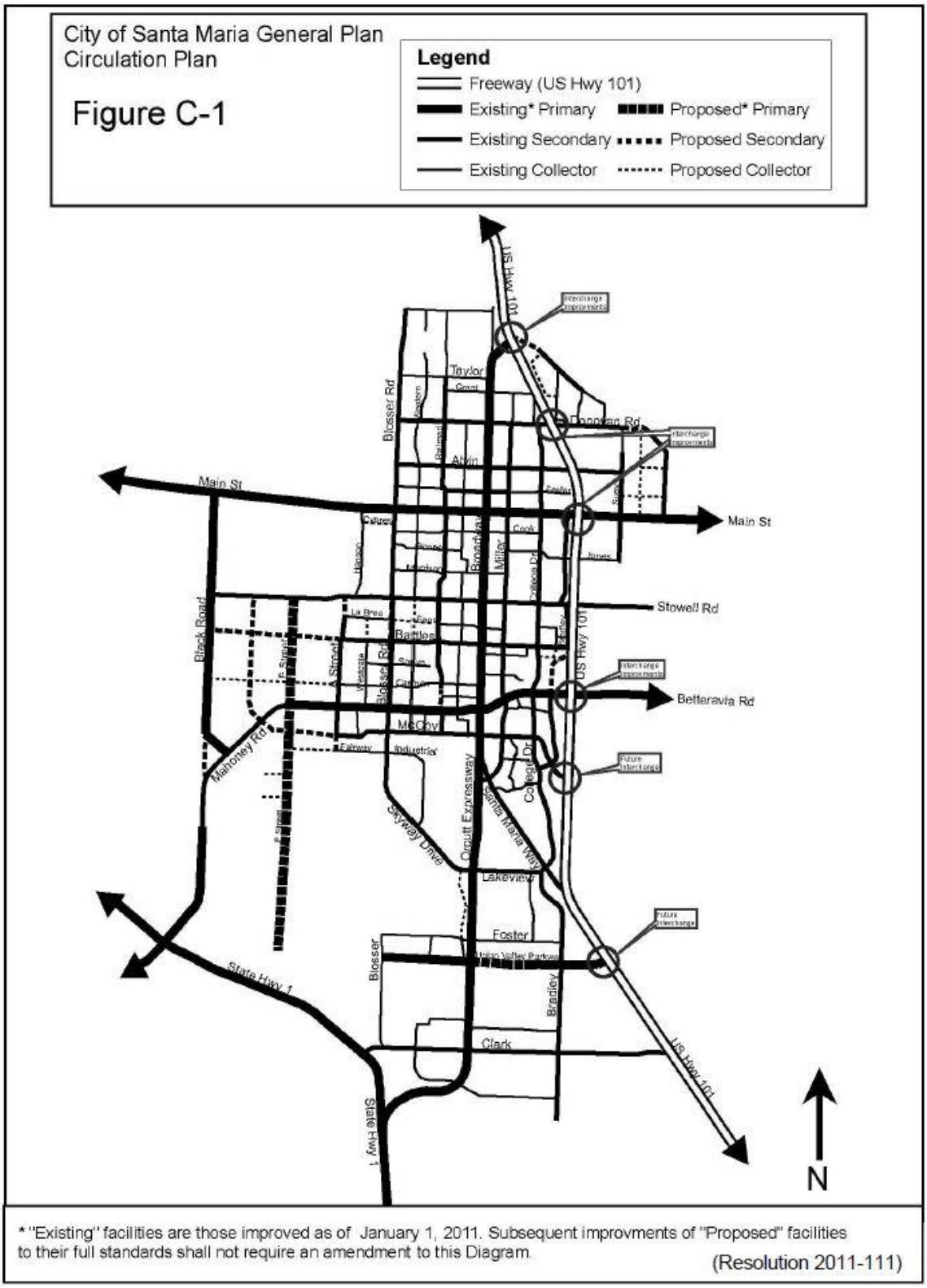


Table 1: City of Santa Maria Segment Analysis

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Highways:							
US 101	N-S	N. of Clark Ave	Freeway	4 (divided)	45,500	B	2017
US 101	N-S	S. of Clark Ave	Freeway	4 (divided)	35,794	B	2019
US 101	N-S	N. of Santa Maria Way Junction	Freeway	6 (divided)	57,000	B	2017
US 101	N-S	S. of Santa Maria Way Junction	Freeway	4 (divided)	59,000	C	2017
US 101	N-S	N. of Betteravia Rd	Freeway	6 (divided)	68,000	B	2017
US 101	N-S	S. of Betteravia Rd	Freeway	6 (divided)	57,000	B	2017
US 101	N-S	N. of Stowell Rd	Freeway	6 (divided)	74,000	B	2017
US 101	N-S	S. of Stowell Rd	Freeway	6 (divided)	68,000	B	2017
US 101	N-S	N. of SR 166 (Main St)	Freeway	6 (divided)	70,000	B	2017
US 101	N-S	S. of SR 166 (Main St)	Freeway	6 (divided)	74,000	B	2017
US 101	N-S	N. of SR 135 (Broadway)	Freeway	6 (divided)	82,081	C	2019
US 101	N-S	S. of SR 135 (Broadway)	Freeway	6 (divided)	67,000	B	2017
Orcutt Expressway (SR 135)	N-S	N. of Clark Ave	Arterial	4 (divided)	29,500	C	2017
Orcutt Expressway (SR 135)	N-S	S. of Clark Ave	Arterial	4 (divided)	20,100	A	2017
Orcutt Expressway (SR 135)	N-S	N. of Foster Rd	Arterial	4 (divided)	37,000	E	2017
Orcutt Expressway (SR 135)	N-S	S. of Foster Rd	Arterial	4 (divided)	24,600	B	2017
Orcutt Expressway (SR 135)	N-S	N. of Lakeview Rd	Arterial	4 (divided)	32,000	F	2017

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Orcutt Expressway (SR 135)	N-S	S. of Lakeview Rd	Arterial	4 (divided)	29,000	C	2017
Orcutt Expressway (SR 135)	N-S	N. of Miller St	Arterial	4 (divided)	43,000	E	2017
Orcutt Expressway (SR 135)	N-S	S. of Miller St	Arterial	4 (divided)	37,500	E	2017
Orcutt Expressway (SR 135)	N-S	N. of Santa Maria Way	Arterial	4 (divided)	41,000	E	2017
Orcutt Expressway (SR 135)	N-S	S. of Santa Maria Way	Arterial	4 (divided)	44,500	E	2017
Broadway (SR 135)	N-S	N. of Betteravia Rd	Primary Arterial	6 (divided)	47,000	C	2017
Broadway (SR 135)	N-S	S. of Betteravia Rd	Primary Arterial	6 (divided)	47,500	C	2017
Broadway (SR 135)	N-S	N. of Stowell Rd	Arterial	4 (divided)	40,500	E	2017
Broadway (SR 135)	N-S	S. of Stowell Rd	Arterial	4 (divided)	44,500	E	2017
Broadway (SR 135)	N-S	N. of Main St	Arterial	4 (divided)	28,500	C	2017
Broadway (SR 135)	N-S	S. of Main St	Arterial	4 (divided)	26,500	B	2017
Broadway (SR 135)	N-S	N. of Donovan Rd	Arterial	4 (divided)	27,000	B	2017
Broadway (SR 135)	N-S	S. of Donovan Rd	Arterial	4 (divided)	27,500	B	2017
Broadway (SR 135)	N-S	W. of US 101	Arterial	4	23,900	A	2017
Main St (SR 166)	E-W	W. of Blosser Rd	Arterial	2 (TWLTL)	14,200	A	2018
Main St (SR 166)	E-W	E. of Blosser Rd	Arterial	4 (TWLTL)	15,900	A	2018
Main St (SR 166)	E-W	E. of Suey Rd	Arterial	4 (TWLTL)	6,399	A	2015
Main St (SR 166)	E-W	W. of Suey Rd	Arterial	4 (TWLTL)	8,695	A	2018
Main St (SR 166)	E-W	US 101 SB-Off Ramp	Arterial	2	29,500	E	2018

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Main St (SR 166)	E-W	E. of Broadway (SR 135)	Arterial	4 (divided)	26,500	B	2018
Main St (SR 166)	E-W	W. of Broadway (SR 135)	Arterial	4 (divided)	18,800	A	2018
City Roadways:							
A St	N-S	S. of Betteravia Dr	Secondary Arterial	2 (TWLTL)	3,445	A	2015
A St	N-S	S. of Sonya Ln	Secondary Arterial	2	3,644	A	2019
Alvin Ave	E-W	W. of Railroad Ave	Secondary Arterial	4	8,501	A	2018
Alvin Ave	E-W	W. of College Dr	Secondary Arterial	4	7,698	A	2018
Alvin Ave	E-W	E. of Bradley Rd	Secondary Arterial	4	6,670	A	2018
Alvin Ave	E-W	W. of Suey Rd	Secondary Arterial	4	3,433	A	2018
Battles Rd	E-W	E. of Blosser Rd	Secondary Arterial	4	10,740	A	2018
Battles Rd	E-W	W. of Blosser Rd	Secondary Arterial	4	9,320	A	2018
Battles Rd	E-W	W. of Bradley Rd	Secondary Arterial	4	7,661	A	2018
Battles Rd	E-W	E. of Broadway (SR 135)	Secondary Arterial	4	13,217	A	2015
Battles Rd	E-W	W. of Broadway (SR 135)	Secondary Arterial	4	11,650	A	2019
Bay Ave	N-S	b/w Donovan Rd and Harding Ave	Local	2	3,489	A	2015
Betteravia Dr	E-S	E. of A St	Primary Arterial	4 (divided)	14,630	A	2018
Betteravia Dr	E-S	E. of Skyway Dr	Primary Arterial	4 (divided)	15,390	A	2018
Betteravia Dr	E-W	E. of Bradley Dr	Primary Arterial	6 (divided)	38,454	D	2018

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Betteravia Dr	E-W	W. of College Dr	Primary Arterial	6 (divided)	34,165	C	2018
Betteravia Dr	E-W	W. of Depot St	Primary Arterial	4 (TWLTL)	20,620	A	2018
Betteravia Dr	E-W	E. of Broadway (SR 135)	Primary Arterial	6 (divided)	30,341	C	2018
Blosser Rd	N-S	S. of Foster Rd	Secondary Arterial	2	2,211	A	2015
Blosser Rd	N-S	S. of Stowell Rd	Secondary Arterial	4 (TWLTL)	24,111	B	2018
Blosser Rd	N-S	b/w Boone St and Cook St	Secondary Arterial	4 (TWLTL)	23,521	A	2018
Blosser Rd	N-S	S. of Main St (SR 166)	Secondary Arterial	4	24,959	B	2015
Blosser Rd	N-S	S. of Alvin Ave	Secondary Arterial	4	14,132	A	2019
Blosser Rd	N-S	S. of Donovan Rd	Secondary Arterial	4	15,200	A	2018
Blosser Rd	N-S	N. of Taylor St	Secondary Arterial	4	5,118	A	2015
Blosser Rd	N-S	S. of Taylor St	Secondary Arterial	4	7,968	A	2018
Blosser Rd	N-S	N. of Canal St	Secondary Arterial	4	2,696	A	2018
Bradley Rd	N-S	S. of Cottage Ln	Secondary Arterial	4 (TWLTL)	1,000	A	2018
Bradley Rd	N-S	S. of Bello Rd	Secondary Arterial	4 (TWLTL)	4,957	A	2019
Bradley Rd	N-S	E. of College Dr	Secondary Arterial	4 (TWLTL)	3,946	A	2015
Bradley Rd	N-S	S. of Betteravia Dr	Secondary Arterial	4	22,732	A	2018
Bradley Rd	N-S	N. of Battles Rd	Secondary Arterial	4 (TWLTL)	16,414	A	2018
Bradley Rd	N-S	S. of Battles Rd	Secondary Arterial	4 (TWLTL)	10,753	A	2018
Bradley Rd	N-S	N. of Stowell Rd	Secondary Arterial	2	14,859	C	2018

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Bradley Rd	N-S	b/w SR 101 SB-On Ramp and Cypress St (one-way)	Secondary Arterial	2	3,748	A	2018
Bradley Rd	E-W	E. of College Dr	Secondary Arterial	2	3,946	A	2015
Bull Canyon Rd	N-S	N. of Panther Dr	Collector	2	258	A	2018
California Blvd	N-S	S. of Foster Rd	Local	2	1,457	A	2015
Camino Colegio	E-W	E. of Miller St	Local	2	1,274	A	2015
Camino Colegio	E-W	W. of Miller St	Local	2	1,399	A	2015
Canal St	E-W	E. of Blosser Rd	Collector	2	1,133	A	2019
Carlotti Dr	N-S	b/w Noble Wy and Paden St	Collector	2	5,482	A	2015
Carlotti Dr	N-S	b/w Stanford Dr and Murray Dr	Collector	2	3,698	A	2015
Carmen Ln	E-W	W. of Thornburg St	Collector	2	5,437	A	2015
Carmen Ln	E-W	W. of Broadway (SR 135)	Collector	2	7,578	A	2015
Centennial St	N-S	b/w Mt Whitney Wy and Panther Dr	Collector (proposed)	2	1,472	A	2015
Cesar E Chavez Dr	N-S	S. of Hidden Pines Wy	Collector	2	3,381	A	2013
College Dr	N-S	E. of Santa Maria Wy	Secondary Arterial	4 (divided)	9,726	A	2019
College Dr	N-S	N. of McCoy Ln (roundabout)	Secondary Arterial	4	11,235	A	2015
College Dr	N-S	S. of McCoy Ln (roundabout)	Secondary Arterial	4	8,230	A	2019
College Dr	N-S	S. of Sunrise Dr	Secondary Arterial	4 (divided)	10,955	A	2018

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
College Dr	N-S	N. of Betteravia Dr	Secondary Arterial	4 (divided)	9,294	A	2019
College Dr	N-S	S. of Betteravia Dr	Secondary Arterial	4 (divided)	10,832	A	2018
College Dr	N-S	N. of Battles Rd	Secondary Arterial	4 (divided)	10,753	A	2018
College Dr	N-S	N. of Stowell Rd	Secondary Arterial	4 (TWLTL)	12,306	A	2018
College Dr	N-S	N. of Boone St/Jones St	Secondary Arterial	2	9,609	A	2019
College Dr	N-S	S. of Boone St/Jones St	Secondary Arterial	2	9,922	A	2015
College Dr	N-S	N. of Main (SR 166)	Secondary Arterial	4 (TWLTL)	8,612	A	2019
College Dr	N-S	N. of Alvin Ave	Secondary Arterial	4	5,820	A	2015
College Dr	N-S	S. of Donovan Rd	Secondary Arterial	4	8,011	A	2018
Concepcion Ave	N-S	N. of Jones St	Collector	2	967	A	2018
Cook St	E-W	W. of Depot St	Collector	2	6,190	A	2018
Cook St	E-W	W. of Broadway (SR 135)	Collector	4 (divided)	8,870	A	2017
Cook St	E-W	E. of Broadway (SR 135)	Collector	4 (divided)	8,983	A	2018
Cook St	E-W	b/w Miller St and School St	Collector	2	3,149	A	2015
Cook St	E-W	b/w East Ave and College Dr	Collector	2	2,184	A	2015
Crossroad Ln	E-W	W. of Bradley Rd	Collector	2	4,799	A	2018
Cypress Wy	E-S	W. of Suey Rd	Collector	2	1,891	A	2015
Depot St	N-S	N. of Carmen Ln	Secondary Arterial	4	4,495	A	2015
Depot St	N-S	N. of Battles Rd	Secondary Arterial	4	10,447	A	2018

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Depot St	N-S	N. of Stowell Rd	Secondary Arterial	4	9,557	A	2018
Depot St	N-S	N. of Main (SR 166)	Secondary Arterial	2	8,940	A	2018
Depot St	N-S	S. of Cook St	Secondary Arterial	2	8,275	A	2018
Donovan Rd	E-W	W. of Railroad Ave	Secondary Arterial	4	11,572	A	2018
Donovan Rd	E-W	W. of Broadway (SR 135)	Secondary Arterial	4	17,388	A	2015
Donovan Rd	E-W	E. of Broadway (SR 135)	Secondary Arterial	4	16,577	A	2018
Donovan Rd	E-W	W. of College Dr	Secondary Arterial	4 (divided)	19,004	A	2019
Donovan Rd	E-W	E. of College Dr	Secondary Arterial	4 (divided)	23,898	A	2018
Donovan Rd	E-W	W. of Carlotti Dr	Secondary Arterial	4	23,031	A	2018
Donovan Rd	E-W	W. of Suey Rd	Secondary Arterial	4	7,521	A	2018
Enos Dr	E-W	E. of College Dr	Collector	2	2,842	A	2015
Fairway Dr	E-W	E. of A St	Collector	2	2,693	A	2015
Fairway Dr	E-W	E. of Skyway Dr	Collector	2	3,485	A	2015
Farrell Dr	N-S	N. of Jones St	Local	2	2,737	A	2018
Fesler St	E-W	E. of Broadway (SR 135)	Secondary Arterial	4	5,634	A	2018
Fesler St	E-W	W. of Broadway (SR 135)	Secondary Arterial	4	6,878	A	2015
Fesler St	E-W	b/w Benwiley Ave and Railroad Ave	Secondary Arterial	2	3,794	A	2018

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Foster Rd	E-W	W. of Orcutt Expressway (State Route 135)	Collector	2	4,181	A	2019
Foxenwood Ln	N-S	S. of Foster Rd	Collector	2	805	A	2015
Grant St	E-W	b/w Broadway (SR 135) and River Ranch Dr	Collector	2	5,227	A	2015
Hidden Pines Wy	E-W	W. of Preisker Ln	Collector	2	7,945	A	2015
Industrial Pkwy	N-S	E. of Skyway Dr	Collector	2 (TWLTL)	1,866	A	2019
La Brea Ave	E-W	W. of Blosser Rd	Collector	2	1,910	A	2015
Lynne Dr	N-S	b/w Lee Dr and Donovan Rd	Collector	2	5,662	A	2015
Jones St	E-W	E. of Farrell Dr	Collector	2	7,981	A	2018
Jones St	E-W	W. of Bradley Rd	Collector	2	4,399	A	2018
McClelland St	N-S	S. of Cook St	Collector	2	3,327	A	2015
McCoy Ln	E-W	E. of A St	Secondary Arterial	2	2,878	A	2019
McCoy Ln	E-W	E. of Skyway Dr	Secondary Arterial	4 (TWLTL)	11,843	A	2018
McCoy Ln	E-W	E. of Broadway (SR 135)	Secondary Arterial	4 (divided)	12,751	A	2018
McCoy Ln	E-W	W. of Broadway (SR 135)	Secondary Arterial	4 (divided)	14,960	A	2019
McCoy Ln	E-W	E. of College Dr (roundabout)	Secondary Arterial	4	5,328	A	2015
McCoy Ln	E-W	W. of College Dr (roundabout)	Secondary Arterial	4	6,372	A	2019
Miller St	N-S	N. of Battles Rd	Secondary Arterial	4 (divided)	14,539	A	2018

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Miller St	N-S	N. of Stowell Rd	Secondary Arterial	2	13,411	B	2018
Miller St	N-S	S. of Main (SR 166)	Secondary Arterial	4 (divided)	14,770	A	2017
Miller St	N-S	S. of Alvin Ave	Secondary Arterial	2	8,517	A	2015
Miller St	N-S	b/w Lee Dr and Donovan Rd	Secondary Arterial	2	4,151	A	2015
Miller St	N-S	S. of Donovan Rd	Secondary Arterial	4	5,836	A	2018
Miller St	E-W	E. of Santa Maria Way	Secondary Arterial	4 (divided)	11,120	A	2018
Miller	N-S	S. of Betteravia Dr	Secondary Arterial	4 (divided)	13,989	A	2018
Morrison Ave	E-W	W. of Broadway (SR 135)	Collector	2	5,135	A	2015
Morrison Ave	E-W	W. of Depot St	Collector	2	5,492	A	2018
Palisade Dr	N-S	S. of Main (SR 166)	Local	2	7,431	B	2018
Palisade Dr	N-S	N. of Alvin Ave	Local	2	2,978	A	2019
Panther Dr	N-S	S. of Suey Crossing Rd	Secondary Arterial	4	4,810	A	2015
Preisker Ln	N-S	N. of Broadway (SR 135)	Collector	2	10,873	B	2018
Professional Pkwy	N-S	N. of McCoy Ln	Collector	2	2,759	A	2015
Professional Pkwy	N-S	S. of McCoy Ln	Collector	2	2,837	A	2015
Railroad Ave	N-S	N. of Fesler Ave	Secondary Arterial	2 (TWLTL)	8,742	A	2019
Railroad Ave	N-S	b/w Donovan Rd and Harding Ave	Secondary Arterial	2	9,973	A	2018
Railroad Ave	N-S	N. of Taylor St	Secondary Arterial	2	6,158	A	2015
Railroad Ave	N-S	S. of Taylor St	Secondary Arterial	2	7,779	A	2015

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Russel Ave	N-S	b/w Donovan Rd and Lee Dr	Local	2	2,974	A	2018
Santa Maria Way	N-S	S. of Miller Way	Secondary Arterial	4 (divided)	10,470	A	2017
Santa Maria Way	N-S	S. of Dauphin St	Secondary Arterial	4 (divided)	10,412	A	2018
Shepard Dr	N-S	N. of Battles Rd	Collector	2	1,892	A	2015
Sierra Madre Ave	E-W	W. of Bradley Rd	Collector	2	1,347	A	2015
Skyway Dr	N-S	S. of Industrial Pkwy	Secondary Arterial	4 (divided)	15,736	A	2015
Skyway Dr	E-S	W. of Orcutt Expressway (State Route 135)	Secondary Arterial	4 (divided)	17,344	A	2018
Skyway Dr	N-S	N. of Fairway Dr	Secondary Arterial	4 (divided)	16,540	A	2019
Skyway Dr	N-S	S. of Fairway Dr	Secondary Arterial	4 (divided)	15,260	A	2019
Skyway Dr	N-S	N. of Betteravia Dr	Secondary Arterial	4 (divided)	20,010	A	2018
Skyway Dr	N-S	S. of Betteravia Dr	Secondary Arterial	4 (divided)	19,528	A	2018
Sonya Ln	E-W	E. of A St	Collector	2	351	A	2015
Southside Pkwy	E-S	E. of Centerpoint Pkwy	Collector	2	1,391	A	2015
Southside Pkwy	E-S	W. of Bradley Rd (roundabout)	Collector	2	4,935	A	2018
Stowell Rd	E-W	W. of Bradley Rd	Secondary Arterial	4 (TWLTL)	20,218	A	2018
Stowell Rd	E-W	W. of Depot St	Secondary Arterial	4 (TWLTL)	14,011	A	2018
Stowell Rd	E-W	W. of Blosser Rd	Secondary Arterial	4 (TWLTL)	9,502	A	2018
Stowell Rd	E-W	W. of Hanson Way	Secondary Arterial	2	8,017	A	2018

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Suey Rd	N-S	N. of Jones St	Secondary Arterial	2	5,299	A	2015
Suey Rd	N-S	N. of Main (SR 166)	Secondary Arterial	2	7,585	A	2018
Suey Rd	N-S	N. of Alvin Ave	Secondary Arterial	4	4,843	A	2019
Sunrise Dr	E-W	W. of College Dr	Collector	2	2,432	A	2015
Sunrise Dr	E-W	E. of Santa Maria Wy	Collector	2	2,903	A	2018
Taylor St	E-W	W. of Railroad Ave	Collector	2	5,734	A	2018
Taylor St	E-W	W. of Broadway (SR 135)	Collector	2	10,921	B	2015
Thornburg St	N-S	N. of Betteravia Dr	Collector	2	6,141	A	2018
Thornburg St	N-S	N. of Carmen Ln	Collector	2	3,710	A	2015
Thornburg St	E-W	S. of Battles Rd	Collector	2	3,582	A	2015
Union Valley Parkway	E-S	W. of Orcutt Expressway (State Route 135)	Primary Arterial	4 (divided)	5,988	A	2015
Union Valley Parkway	E-S	E. of Blosser Rd	Primary Arterial	2	1,621	A	2015
Western Ave	N-S	N. of Stowell Rd	Collector	2	8,329	A	2018
Western Ave	N-S	N. of Main (SR 166)	Collector	2	4,288	A	2013
Western Ave	N-S	S. of Main (SR 166)	Collector	2	4,384	A	2019
Westgate Rd	N-S	S. of Battles Rd	Collector	2	3,588	A	2019
Westgate Rd	N-S	N. of Carmen Ln	Collector	2	1,632	A	2015
Westgate Rd	N-S	S. of Carman Ln	Collector	2	1,015	A	2015

City of Santa Maria Segment Analysis							
Road	Direction	Location	Facility Type	Lanes	Count	LOS	Count Year
Source: Annual Traffic Count Summary Santa Maria – Urbanized Area -2018 (Figure) and City of Santa Maria General Plan Circulation Plan, Figure C-1.							

Legend (Tables 2-7)

	Reliable	Moderately Reliable	Unreliable
BTI [A] Range	BTI<0.25	0.25>=BTI<0.50	BTI>=0.50
Uncongested [B]	Predictable and efficient	Not always predictable, but usually efficient	Unpredictable, but not often congested
Congested [B]	Predictable and inefficient	Not always predictable, but usually inefficient	Unpredictable, and often congested

[A] BTI: A measure of reliability, measures percentage of travel time devoted to being on time above average travel time.

[B] Free flow speeds were estimated for each segment based on the 85th percentile speeds between 12 am – 3 am, rounded to the nearest 5 mph, from the NPMRDS data.

Table 2: Congestion Results for Mixed Vehicles (Passenger Cars and Trucks)

Roadway	Direction	TMC	Intersection Limit	AM Peak Period			PM Peak Period		
				Average of Observed Speed	Free Flow Speed[1]	Average to Free Flow Speed Ratio	Average of Observed Speed	Free Flow Speed[1]	Average to Free Flow Speed Ratio
US 101	SB	106+06605	BETTERAVIA RD/EXIT 169	67.24	62.33	108%	67.68	62.33	109%
		106+06606	STOWELL RD/EXIT 170	65.60	60.57	108%	65.11	60.57	107%
		106+06607	CA-166/MAIN ST/EXIT 171	64.31	59.88	107%	63.27	59.88	106%
		106+06608	DONOVAN RD/EXIT 172	64.80	61.16	106%	65.05	61.16	106%
		106+06609	CA-135/BROADWAY/EXIT 173	63.57	61.52	103%	66.30	61.52	108%
		106P06604	SANTA MARIA WAY/EXIT 167	66.69	62.76	106%	67.06	62.76	107%
		106P06605	BETTERAVIA RD/EXIT 169	67.50	62.33	108%	67.31	62.33	108%
		106P06606	STOWELL RD/EXIT 170	66.05	61.02	108%	65.74	61.02	108%
		106P06607	CA-166/MAIN ST/EXIT 171	64.92	61.41	106%	65.26	61.41	106%
		106P06608	DONOVAN RD/EXIT 172	65.01	61.52	106%	66.52	61.52	108%
		106P06609	CA-135/BROADWAY/EXIT 173	63.50	61.61	103%	66.96	61.61	109%
		106P06610	SANTA BARBARA/SAN LUIS OBISPO	60.66	60.40	100%	65.15	60.40	108%
	NB	106-06604	SANTA MARIA WAY/EXIT 167	65.34	60.17	109%	67.79	60.17	113%
		106-06605	BETTERAVIA RD/EXIT 169	64.47	60.78	106%	65.44	60.78	108%
		106-06606	STOWELL RD/EXIT 170	65.23	61.56	106%	65.21	61.56	106%
		106-06608	DONOVAN RD/EXIT 172	65.29	61.41	106%	65.13	61.41	106%
		106-06609	CA-135/BROADWAY/EXIT 173	63.78	60.57	105%	59.39	60.57	98%
		106N06604	SANTA MARIA WAY/EXIT 167	64.85	60.11	108%	66.97	60.11	111%
		106N06605	BETTERAVIA RD/EXIT 169	65.65	61.64	106%	67.60	61.64	110%
		106N06606	STOWELL RD/EXIT 170	66.25	62.30	106%	66.12	62.30	106%
		106N06607	CA-166/MAIN ST/EXIT 171	65.62	62.04	106%	66.26	62.04	107%
		106N06610	SANTA BARBARA/SAN LUIS OBISPO	64.40	60.90	106%	60.51	60.90	99%
SR 135 (Broadway)	NB	106+08749	SANTA MARIA WAY/ST ANDREWS WAY	35.85	49.03	73%	33.24	49.03	68%
		106+08752	CA-166/MAIN ST	23.28	30.92	75%	19.76	30.92	64%
		106+08753	CA-166/US-101	25.28	30.77	82%	21.00	30.77	68%
		106P08753	CA-166/US-101	37.77	39.84	95%	38.73	39.84	97%
	SB	106-08749	SANTA MARIA WAY/ST ANDREWS WAY	26.03	33.45	78%	22.93	33.45	69%
		106-08752	CA-166/MAIN ST	22.77	32.98	69%	18.30	32.98	55%
		106-08873	CLARK AVE	39.00	48.14	81%	37.33	48.14	78%
		106N08753	CA-166/US-101	40.14	45.42	88%	34.72	45.42	76%
SR 166 (Main St)	EB	106+08703	CA-135/BROADWAY	18.52	27.79	67%	15.53	27.79	56%
		106+08704	US-101 (SANTA MARIA)	18.90	27.86	68%	16.06	27.86	58%
		106+08853	BLOSSER RD	40.39	36.35	111%	31.45	36.35	87%
		106P08703	CA-135/BROADWAY	18.05	24.98	72%	16.81	24.98	67%
		106P08704	US-101 (SANTA MARIA)	27.26	42.41	64%	28.66	42.41	68%
	WB	106-08702	CABRILLO HWY/GUADALUPE ST	38.95	37.86	103%	38.87	37.86	103%
		106-08703	CA-135/BROADWAY	21.48	27.70	78%	16.63	27.70	60%
		106-08853	BLOSSER RD	21.09	30.07	70%	18.17	30.07	60%
		106N08703	CA-135/BROADWAY	19.85	24.97	79%	19.51	24.97	78%
Batterevia Rd	EB	106+50035	US-101/EL CAMINO REAL	18.53	27.55	67%	15.03	27.55	55%
		106P50034	CA-135/S BROADWAY	19.06	25.28	75%	13.58	25.28	54%
		106P50035	US-101/EL CAMINO REAL	20.20	28.10	72%	17.55	28.10	62%
	WB	106-50034	CA-135/S BROADWAY	18.86	28.44	66%	13.57	28.44	48%
		106N50034	CA-135/S BROADWAY	21.40	26.81	80%	17.46	26.81	65%
		106N50035	US-101/EL CAMINO REAL	13.13	18.55	71%	12.23	18.55	66%

Table 3: Congestion Results for Passenger Cars

Roadway	Direction	TMC	Intersection Limit	AM Peak Period			PM Peak Period		
				Average of Observed Speed	Free Flow Speed[1]	Average to Free Flow Speed Ratio	Average of Observed Speed	Free Flow Speed[1]	Average to Free Flow Speed Ratio
US 101	SB	106+06605	BETTERAVIA RD/EXIT 169	68.89	63.83	108%	68.85	62.33	110%
		106+06606	STOWELL RD/EXIT 170	67.17	62.52	107%	66.33	60.57	110%
		106+06607	CA-166/MAIN ST/EXIT 171	65.84	62.74	105%	64.35	59.88	107%
		106+06608	DONOVAN RD/EXIT 172	66.12	63.17	105%	66.08	61.16	108%
		106+06609	CA-135/BROADWAY/EXIT 173	64.60	63.32	102%	67.32	61.52	109%
		106P06604	SANTA MARIA WAY/EXIT 167	68.43	64.12	107%	68.17	62.76	109%
		106P06605	BETTERAVIA RD/EXIT 169	69.06	63.37	109%	68.28	62.33	110%
		106P06606	STOWELL RD/EXIT 170	67.42	63.19	107%	66.71	61.02	109%
		106P06607	CA-166/MAIN ST/EXIT 171	66.10	63.39	104%	66.16	61.41	108%
		106P06608	DONOVAN RD/EXIT 172	66.24	63.28	105%	67.63	61.52	110%
		106P06609	CA-135/BROADWAY/EXIT 173	64.62	63.38	102%	68.05	61.61	110%
		106P06610	SANTA BARBARA/SAN LUIS OBISPO	61.71	62.07	99%	66.24	60.40	110%
	NB	106-06604	SANTA MARIA WAY/EXIT 167	66.89	61.12	109%	68.96	61.12	113%
		106-06605	BETTERAVIA RD/EXIT 169	65.93	62.86	105%	66.49	62.86	106%
		106-06606	STOWELL RD/EXIT 170	66.59	63.36	105%	66.19	63.36	104%
		106-06608	DONOVAN RD/EXIT 172	66.46	62.62	106%	66.00	62.62	105%
		106-06609	CA-135/BROADWAY/EXIT 173	65.43	62.28	105%	60.85	62.28	98%
		106N06604	SANTA MARIA WAY/EXIT 167	66.35	60.87	109%	68.18	60.87	112%
		106N06605	BETTERAVIA RD/EXIT 169	66.97	63.01	106%	68.48	63.01	109%
		106N06606	STOWELL RD/EXIT 170	67.35	64.01	105%	67.10	64.01	105%
		106N06607	CA-166/MAIN ST/EXIT 171	66.78	63.38	105%	67.27	63.38	106%
		106N06610	SANTA BARBARA/SAN LUIS OBISPO	65.89	62.59	105%	61.74	62.59	99%
SR 135 (Broadway)	NB	106+08749	SANTA MARIA WAY/ST ANDREWS WAY	35.96	49.74	72%	33.38	49.74	67%
		106+08752	CA-166/MAIN ST	23.77	31.51	75%	19.82	31.51	63%
		106+08753	CA-166/US-101	25.73	31.89	81%	21.04	31.89	66%
		106P08753	CA-166/US-101	38.64	42.36	91%	39.58	42.36	93%
	SB	106-08749	SANTA MARIA WAY/ST ANDREWS WAY	26.46	34.49	77%	23.12	34.49	67%
		106-08752	CA-166/MAIN ST	23.20	32.90	71%	18.94	32.90	58%
		106-08873	CLARK AVE	39.40	48.57	81%	37.48	48.57	77%
		106N08753	CA-166/US-101	40.22	43.72	92%	34.65	43.72	79%
SR 166 (Main St)	EB	106+08703	CA-135/BROADWAY	18.71	28.42	66%	15.88	28.42	56%
		106+08704	US-101 (SANTA MARIA)	19.03	28.71	66%	16.27	28.71	57%
		106+08853	BLOSSER RD	41.59	39.43	105%	31.36	39.43	80%
		106P08703	CA-135/BROADWAY	18.52	26.71	69%	16.92	26.71	63%
		106P08704	US-101 (SANTA MARIA)	26.80	42.48	63%	28.70	42.48	68%
	WB	106-08702	CABRILLO HWY/GUADALUPE ST	39.52	38.93	102%	39.17	38.93	101%
		106-08703	CA-135/BROADWAY	21.63	27.33	79%	16.90	27.33	62%
		106-08853	BLOSSER RD	21.07	29.22	72%	18.31	29.22	63%
		106N08703	CA-135/BROADWAY	20.04	23.56	85%	19.74	23.56	84%
Batterevia Rd	EB	106+50035	US-101/EL CAMINO REAL	18.81	27.77	68%	15.34	27.77	55%
		106P50034	CA-135/S BROADWAY	19.33	25.82	75%	13.89	25.82	54%
		106P50035	US-101/EL CAMINO REAL	20.46	29.54	69%	18.10	29.54	61%
	WB	106-50034	CA-135/S BROADWAY	19.35	29.08	67%	13.71	29.08	47%
		106N50034	CA-135/S BROADWAY	22.09	27.16	81%	17.81	27.16	66%
		106N50035	US-101/EL CAMINO REAL	14.40	18.94	76%	12.75	18.94	67%

Table 4: Congestion Results for Heavy Vehicles (Trucks)

Roadway	Direction	TMC	Intersection Limit	AM Peak Period			PM Peak Period		
				Average of Observed Speed	Free Flow Speed[1]	Average to Free Flow Speed Ratio	Average of Observed Speed	Free Flow Speed[1]	Average to Free Flow Speed Ratio
US 101	SB	106+06605	BETTERAVIA RD/EXIT 169	60.19	59.99	100%	59.96	59.99	100%
		106+06606	STOWELL RD/EXIT 170	57.82	57.67	100%	56.66	57.67	98%
		106+06607	CA-166/MAIN ST/EXIT 171	57.57	56.44	102%	55.53	56.44	98%
		106+06608	DONOVAN RD/EXIT 172	58.92	58.43	101%	57.88	58.43	99%
		106+06609	CA-135/BROADWAY/EXIT 173	58.22	59.09	99%	58.71	59.09	99%
		106P06604	SANTA MARIA WAY/EXIT 167	60.77	60.90	100%	60.63	60.90	100%
		106P06605	BETTERAVIA RD/EXIT 169	59.64	60.28	99%	59.48	60.28	99%
		106P06606	STOWELL RD/EXIT 170	59.29	58.00	102%	58.25	58.00	100%
		106P06607	CA-166/MAIN ST/EXIT 171	59.05	58.59	101%	58.22	58.59	99%
		106P06608	DONOVAN RD/EXIT 172	59.41	59.27	100%	58.95	59.27	99%
		106P06609	CA-135/BROADWAY/EXIT 173	58.10	59.21	98%	59.05	59.21	100%
		106P06610	SANTA BARBARA/SAN LUIS OBISPO	55.99	57.97	97%	57.57	57.97	99%
	NB	106-06604	SANTA MARIA WAY/EXIT 167	58.95	58.20	101%	58.95	58.20	101%
		106-06605	BETTERAVIA RD/EXIT 169	57.12	56.85	100%	56.73	56.85	100%
		106-06606	STOWELL RD/EXIT 170	57.70	58.02	99%	57.89	58.02	100%
		106-06608	DONOVAN RD/EXIT 172	58.59	59.06	99%	58.88	59.06	100%
		106-06609	CA-135/BROADWAY/EXIT 173	56.54	57.70	98%	53.00	57.70	92%
		106N06604	SANTA MARIA WAY/EXIT 167	59.19	58.67	101%	59.22	58.67	101%
		106N06605	BETTERAVIA RD/EXIT 169	59.16	58.84	101%	59.06	58.84	100%
		106N06606	STOWELL RD/EXIT 170	59.03	58.79	100%	58.58	58.79	100%
		106N06607	CA-166/MAIN ST/EXIT 171	58.77	59.06	100%	58.97	59.06	100%
		106N06610	SANTA BARBARA/SAN LUIS OBISPO	57.17	58.16	98%	54.13	58.16	93%
SR 135 (Broadway)	NB	106+08749	SANTA MARIA WAY/ST ANDREWS WAY	35.15	46.34	76%	32.09	46.34	69%
		106+08752	CA-166/MAIN ST	20.22	29.10	69%	18.10	29.10	62%
		106+08753	CA-166/US-101	23.21	28.07	83%	21.65	28.07	77%
		106P08753	CA-166/US-101	32.17	34.82	92%	32.30	34.82	93%
	SB	106-08749	SANTA MARIA WAY/ST ANDREWS WAY	20.69	27.43	75%	18.86	27.43	69%
		106-08752	CA-166/MAIN ST	21.63	33.66	64%	16.30	33.66	48%
		106-08873	CLARK AVE	32.96	40.77	81%	35.91	40.77	88%
		106N08753	CA-166/US-101	42.48	47.59	89%	38.12	47.59	80%
SR 166 (Main St)	EB	106+08703	CA-135/BROADWAY	17.85	27.43	65%	14.61	27.43	53%
		106+08704	US-101 (SANTA MARIA)	17.95	27.23	66%	15.20	27.23	56%
		106+08853	BLOSSER RD	31.99	33.87	94%	28.94	33.87	85%
		106P08703	CA-135/BROADWAY	17.00	23.86	71%	16.94	23.86	71%
		106P08704	US-101 (SANTA MARIA)	34.43	42.86	80%	31.77	42.86	74%
	WB	106-08702	CABRILLO HWY/GUADALUPE ST	33.83	36.23	93%	36.30	36.23	100%
		106-08703	CA-135/BROADWAY	20.88	28.03	74%	15.77	28.03	56%
		106-08853	BLOSSER RD	21.42	30.53	70%	17.95	30.53	59%
		106N08703	CA-135/BROADWAY	19.83	25.59	78%	19.07	25.59	75%
Batterevia Rd	EB	106+50035	US-101/EL CAMINO REAL	16.37	26.22	62%	12.97	26.22	49%
		106P50034	CA-135/S BROADWAY	16.73	22.43	75%	13.00	22.43	58%
		106P50035	US-101/EL CAMINO REAL	18.64	24.63	76%	15.33	24.63	62%
	WB	106-50034	CA-135/S BROADWAY	16.96	26.73	63%	12.54	26.73	47%
		106N50034	CA-135/S BROADWAY	18.91	25.57	74%	16.45	25.57	64%
		106N50035	US-101/EL CAMINO REAL	10.03	18.35	55%	9.40	18.35	51%

Table 5: Reliability Results for Mixed Vehicles (Passenger Cars and Trucks)

Roadway	Direction	TMC	Intersection Limit	AM Peak Period			PM Peak Period		
				95th Percentile Travel Time (min)	Buffer Time (min)	BTI	95th Percentile Travel Time (min)	Buffer Time (min)	BTI
US 101	SB	106+06605	BETTERAVIA RD/EXIT 169	2.10	0.08	0.04	2.06	0.04	0.02
		106+06606	STOWELL RD/EXIT 170	0.88	0.05	0.06	0.89	0.06	0.07
		106+06607	CA-166/MAIN ST/EXIT 171	0.56	0.03	0.05	0.62	0.09	0.16
		106+06608	DONOVAN RD/EXIT 172	0.58	0.04	0.08	0.60	0.06	0.12
		106+06609	CA-135/BROADWAY/EXIT 173	1.24	0.17	0.16	1.11	0.04	0.04
		106P06604	SANTA MARIA WAY/EXIT 167	0.33	0.02	0.07	0.32	0.01	0.04
		106P06605	BETTERAVIA RD/EXIT 169	0.41	0.02	0.06	0.41	0.02	0.06
		106P06606	STOWELL RD/EXIT 170	0.20	0.01	0.07	0.20	0.01	0.07
		106P06607	CA-166/MAIN ST/EXIT 171	0.52	0.03	0.06	0.55	0.06	0.12
		106P06608	DONOVAN RD/EXIT 172	0.27	0.02	0.09	0.26	0.01	0.05
		106P06609	CA-135/BROADWAY/EXIT 173	0.35	0.10	0.40	0.26	0.01	0.04
		106P06610	SANTA BARBARA/SAN LUIS OBISPO	0.02	0.01	0.67	0.01	0.00	0.00
	NB	106-06604	SANTA MARIA WAY/EXIT 167	1.86	0.07	0.04	1.77	0.00	0.00
		106-06605	BETTERAVIA RD/EXIT 169	0.63	0.07	0.13	0.60	0.04	0.07
		106-06606	STOWELL RD/EXIT 170	0.83	0.05	0.07	0.83	0.05	0.07
		106-06608	DONOVAN RD/EXIT 172	0.67	0.05	0.07	0.66	0.04	0.06
		106-06609	CA-135/BROADWAY/EXIT 173	0.10	0.01	0.09	0.13	0.04	0.42
		106N06604	SANTA MARIA WAY/EXIT 167	0.49	0.03	0.06	0.46	0.00	0.00
		106N06605	BETTERAVIA RD/EXIT 169	0.42	0.03	0.09	0.41	0.02	0.06
		106N06606	STOWELL RD/EXIT 170	0.21	0.02	0.08	0.21	0.02	0.08
		106N06607	CA-166/MAIN ST/EXIT 171	0.46	0.02	0.05	0.45	0.01	0.03
		106N06610	SANTA BARBARA/SAN LUIS OBISPO	0.04	0.01	0.20	0.05	0.02	0.49
SR 135 (Broadway)	NB	106+08749	SANTA MARIA WAY/ST ANDREWS WAY	8.70	4.98	1.34	8.76	5.04	1.36
		106+08752	CA-166/MAIN ST	16.68	11.28	2.09	15.66	10.26	1.90
		106+08753	CA-166/US-101	10.18	6.54	1.80	11.19	7.55	2.08
		106P08753	CA-166/US-101	1.68	0.96	1.34	1.30	0.58	0.81
	SB	106-08749	SANTA MARIA WAY/ST ANDREWS WAY	13.31	8.33	1.67	15.13	10.15	2.04
		106-08752	CA-166/MAIN ST	11.19	7.80	2.30	11.73	8.34	2.46
		106-08873	CLARK AVE	7.58	3.72	0.97	8.08	4.22	1.10
		106N08753	CA-166/US-101	1.47	0.79	1.16	2.06	1.38	2.03
SR 166 (Main St)	EB	106+08703	CA-135/BROADWAY	6.71	4.54	2.09	8.63	6.46	2.97
		106+08704	US-101 (SANTA MARIA)	6.00	3.85	1.78	10.01	7.86	3.65
		106+08853	BLOSSER RD	24.07	12.81	1.14	35.08	23.82	2.12
		106P08703	CA-135/BROADWAY	0.09	0.06	2.48	0.13	0.10	4.03
		106P08704	US-101 (SANTA MARIA)	2.73	2.26	4.81	3.32	2.85	6.06
	WB	106-08702	CABRILLO HWY/GUADALUPE ST	27.37	16.56	1.53	22.73	11.92	1.10
		106-08703	CA-135/BROADWAY	5.00	2.83	1.31	6.67	4.50	2.08
		106-08853	BLOSSER RD	5.82	3.81	1.90	6.04	4.03	2.01
		106N08703	CA-135/BROADWAY	0.09	0.06	2.48	0.07	0.04	1.71
Batterevia Rd	EB	106+50035	US-101/EL CAMINO REAL	5.51	3.31	1.50	7.36	5.16	2.34
		106P50034	CA-135/S BROADWAY	0.08	0.05	2.03	0.12	0.09	3.46
		106P50035	US-101/EL CAMINO REAL	0.88	0.69	3.63	1.07	0.88	4.64
	WB	106-50034	CA-135/S BROADWAY	6.12	3.99	1.87	7.58	5.45	2.56
		106N50034	CA-135/S BROADWAY	0.09	0.07	2.67	0.11	0.09	3.48
		106N50035	US-101/EL CAMINO REAL	1.34	1.05	3.63	1.34	1.05	3.63

Table 6: Reliability Results for Passenger Vehicles

Roadway	Direction	TMC	Intersection Limit	AM Peak Period			PM Peak Period		
				95th Percentile Travel Time (min)	Buffer Time (min)	BTI	95th Percentile Travel Time (min)	Buffer Time (min)	BTI
US 101	SB	106+06605	BETTERAVIA RD/EXIT 169	2.06	0.09	0.05	2.03	0.01	0.01
		106+06606	STOWELL RD/EXIT 170	0.85	0.04	0.05	0.87	0.04	0.04
		106+06607	CA-166/MAIN ST/EXIT 171	0.55	0.04	0.08	0.61	0.08	0.15
		106+06608	DONOVAN RD/EXIT 172	0.57	0.05	0.10	0.60	0.06	0.12
		106+06609	CA-135/BROADWAY/EXIT 173	1.26	0.22	0.22	1.09	0.02	0.02
		106P06604	SANTA MARIA WAY/EXIT 167	0.32	0.02	0.06	0.31	0.00	0.01
		106P06605	BETTERAVIA RD/EXIT 169	0.40	0.02	0.05	0.40	0.01	0.04
		106P06606	STOWELL RD/EXIT 170	0.19	0.01	0.06	0.20	0.01	0.07
		106P06607	CA-166/MAIN ST/EXIT 171	0.52	0.05	0.10	0.55	0.06	0.12
		106P06608	DONOVAN RD/EXIT 172	0.26	0.02	0.08	0.25	0.00	0.01
		106P06609	CA-135/BROADWAY/EXIT 173	0.34	0.10	0.39	0.25	0.00	0.00
		106P06610	SANTA BARBARA/SAN LUIS OBISPO	0.02	0.01	0.71	0.01	0.00	0.00
	NB	106-06604	SANTA MARIA WAY/EXIT 167	1.82	0.05	0.03	1.73	0.00	0.00
		106-06605	BETTERAVIA RD/EXIT 169	0.60	0.06	0.11	0.58	0.04	0.07
		106-06606	STOWELL RD/EXIT 170	0.81	0.05	0.07	0.83	0.07	0.10
		106-06608	DONOVAN RD/EXIT 172	0.66	0.05	0.08	0.66	0.05	0.08
		106-06609	CA-135/BROADWAY/EXIT 173	0.10	0.01	0.12	0.13	0.04	0.46
		106N06604	SANTA MARIA WAY/EXIT 167	0.48	0.02	0.05	0.46	0.00	0.01
		106N06605	BETTERAVIA RD/EXIT 169	0.41	0.03	0.08	0.40	0.02	0.06
		106N06606	STOWELL RD/EXIT 170	0.20	0.01	0.06	0.20	0.01	0.06
		106N06607	CA-166/MAIN ST/EXIT 171	0.46	0.03	0.07	0.45	0.02	0.05
		106N06610	SANTA BARBARA/SAN LUIS OBISPO	0.04	0.01	0.23	0.05	0.02	0.54
SR 135 (Broadway)	NB	106+08749	SANTA MARIA WAY/ST ANDREWS WAY	8.71	5.05	1.38	8.75	5.08	1.39
		106+08752	CA-166/MAIN ST	16.36	11.07	2.09	15.98	10.69	2.02
		106+08753	CA-166/US-101	10.18	6.67	1.90	11.19	7.68	2.19
		106P08753	CA-166/US-101	1.72	1.04	1.55	1.36	0.68	1.01
	SB	106-08749	SANTA MARIA WAY/ST ANDREWS WAY	13.31	8.48	1.76	15.13	10.30	2.13
		106-08752	CA-166/MAIN ST	11.19	7.79	2.29	12.27	8.87	2.61
		106-08873	CLARK AVE	7.73	3.91	1.02	8.07	4.25	1.11
		106N08753	CA-166/US-101	1.47	0.76	1.08	1.93	1.22	1.74
SR 166 (Main St)	EB	106+08703	CA-135/BROADWAY	7.55	5.43	2.55	8.63	6.51	3.06
		106+08704	US-101 (SANTA MARIA)	6.01	3.91	1.87	10.01	7.92	3.79
		106+08853	BLOSSER RD	22.12	11.74	1.13	35.65	25.27	2.44
		106P08703	CA-135/BROADWAY	0.08	0.06	2.31	0.13	0.11	4.38
		106P08704	US-101 (SANTA MARIA)	2.49	2.02	4.30	3.32	2.85	6.07
	WB	106-08702	CABRILLO HWY/GUADALUPE ST	27.28	16.77	1.60	23.49	12.98	1.23
		106-08703	CA-135/BROADWAY	5.26	3.06	1.39	6.67	4.48	2.04
		106-08853	BLOSSER RD	6.38	4.31	2.09	6.04	3.97	1.92
		106N08703	CA-135/BROADWAY	0.09	0.06	2.29	0.07	0.04	1.56
Batterevia Rd	EB	106+50035	US-101/EL CAMINO REAL	5.51	3.33	1.52	7.58	5.40	2.47
		106P50034	CA-135/S BROADWAY	0.08	0.05	2.10	0.12	0.09	3.65
		106P50035	US-101/EL CAMINO REAL	0.89	0.71	3.93	1.07	0.89	4.92
	WB	106-50034	CA-135/S BROADWAY	6.12	4.04	1.94	7.58	5.50	2.64
		106N50034	CA-135/S BROADWAY	0.09	0.07	2.72	0.11	0.09	3.54
		106N50035	US-101/EL CAMINO REAL	1.34	1.06	3.72	1.34	1.06	3.72

Table 7: Reliability Results for Heavy Vehicles (Trucks)

Roadway	Direction	TMC	Intersection Limit	AM Peak Period			PM Peak Period		
				95th Percentile Travel Time (min)	Buffer Time (min)	BTI	95th Percentile Travel Time (min)	Buffer Time (min)	BTI
US 101	SB	106+06605	BETTERAVIA RD/EXIT 169	2.31	0.21	0.10	2.29	0.19	0.09
		106+06606	STOWELL RD/EXIT 170	1.06	0.18	0.21	1.12	0.25	0.28
		106+06607	CA-166/MAIN ST/EXIT 171	0.69	0.12	0.22	0.80	0.23	0.42
		106+06608	DONOVAN RD/EXIT 172	0.66	0.10	0.18	0.69	0.12	0.22
		106+06609	CA-135/BROADWAY/EXIT 173	1.37	0.26	0.23	1.26	0.15	0.13
		106P06604	SANTA MARIA WAY/EXIT 167	0.35	0.03	0.11	0.36	0.04	0.13
		106P06605	BETTERAVIA RD/EXIT 169	0.45	0.05	0.13	0.45	0.05	0.13
		106P06606	STOWELL RD/EXIT 170	0.22	0.02	0.12	0.23	0.03	0.17
		106P06607	CA-166/MAIN ST/EXIT 171	0.57	0.06	0.11	0.60	0.09	0.17
		106P06608	DONOVAN RD/EXIT 172	0.29	0.03	0.13	0.29	0.03	0.13
		106P06609	CA-135/BROADWAY/EXIT 173	0.36	0.10	0.38	0.29	0.03	0.11
		106P06610	SANTA BARBARA/SAN LUIS OBISPO	0.02	0.01	0.60	0.02	0.01	0.60
	NB	106-06604	SANTA MARIA WAY/EXIT 167	2.04	0.19	0.10	2.04	0.19	0.10
		106-06605	BETTERAVIA RD/EXIT 169	0.79	0.19	0.32	0.81	0.21	0.36
		106-06606	STOWELL RD/EXIT 170	0.96	0.13	0.16	0.98	0.15	0.19
		106-06608	DONOVAN RD/EXIT 172	0.74	0.09	0.14	0.74	0.09	0.14
		106-06609	CA-135/BROADWAY/EXIT 173	0.14	0.04	0.46	0.21	0.11	1.19
		106N06604	SANTA MARIA WAY/EXIT 167	0.53	0.06	0.12	0.53	0.06	0.12
		106N06605	BETTERAVIA RD/EXIT 169	0.46	0.05	0.14	0.47	0.06	0.16
		106N06606	STOWELL RD/EXIT 170	0.23	0.02	0.12	0.24	0.03	0.17
		106N06607	CA-166/MAIN ST/EXIT 171	0.51	0.05	0.11	0.51	0.05	0.11
		106N06610	SANTA BARBARA/SAN LUIS OBISPO	0.05	0.01	0.43	0.06	0.02	0.71
SR 135 (Broadway)	NB	106+08749	SANTA MARIA WAY/ST ANDREWS WAY	12.78	8.85	2.25	16.97	13.04	3.32
		106+08752	CA-166/MAIN ST	27.81	22.08	3.85	27.81	22.08	3.85
		106+08753	CA-166/US-101	10.09	6.11	1.53	9.31	5.32	1.33
		106P08753	CA-166/US-101	1.99	1.17	1.42	1.70	0.88	1.07
	SB	106-08749	SANTA MARIA WAY/ST ANDREWS WAY	22.00	15.93	2.62	27.75	21.68	3.57
		106-08752	CA-166/MAIN ST	8.61	5.28	1.59	13.99	10.66	3.21
		106-08873	CLARK AVE	12.37	7.82	1.72	16.45	11.90	2.61
		106N08753	CA-166/US-101	3.45	2.81	4.33	5.53	4.88	7.53
SR 166 (Main St)	EB	106+08703	CA-135/BROADWAY	7.55	5.35	2.43	7.56	5.35	2.43
		106+08704	US-101 (SANTA MARIA)	6.67	4.47	2.03	9.81	7.61	3.45
		106+08853	BLOSSER RD	45.47	33.39	2.76	49.44	37.36	3.09
		106P08703	CA-135/BROADWAY	0.11	0.08	3.07	0.11	0.08	3.07
		106P08704	US-101 (SANTA MARIA)	3.32	2.85	6.13	3.99	3.52	7.57
	WB	106-08702	CABRILLO HWY/GUADALUPE ST	68.20	56.90	5.04	32.92	21.63	1.91
		106-08703	CA-135/BROADWAY	5.36	3.22	1.50	7.50	5.36	2.50
		106-08853	BLOSSER RD	5.03	3.05	1.54	5.91	3.93	1.99
		106N08703	CA-135/BROADWAY	0.09	0.06	2.57	0.11	0.08	3.36
Batterevia Rd	EB	106+50035	US-101/EL CAMINO REAL	8.07	5.75	2.49	8.66	6.35	2.74
		106P50034	CA-135/S BROADWAY	0.11	0.08	2.70	0.13	0.10	3.37
		106P50035	US-101/EL CAMINO REAL	0.89	0.67	3.11	1.01	0.79	3.65
	WB	106-50034	CA-135/S BROADWAY	8.66	6.39	2.82	10.10	7.83	3.45
		106N50034	CA-135/S BROADWAY	0.09	0.06	2.50	0.11	0.09	3.43
		106N50035	US-101/EL CAMINO REAL	1.34	1.05	3.58	1.79	1.50	5.11

Appendix B: Transit Information

Santa Maria Transit Short Term Transit Plan Update

SMAT handout created September 2020 for the virtual open house had 21 recommendations. They are outlined below.

Recommendation 1

This calls for the City to provide additional oversight of its transit operations contractor in order to improve on-time performance of local SMAT routes. This should improve connections between routes as well as overall service reliability.

Recommendation 2

This would increase the City's transit administrative staffing by one position to provide support for service development and focus on operations contracts.

Recommendation 3

This recommends the City develop an 18 to 24-month marketing plan for transit. The City has already implemented this recommendation through a separate SMAT marketing contract.

Recommendation 4

This would expand Santa Maria Area Transit's social media presence. This has already resulted in the creation of a Facebook account for SMAT as well as regular content each month.

Recommendation 5

This calls for SMAT to refine the Breeze schedule to better match capacity with demand. This could result in the elimination of one low-performing Breeze route 100 trip, saving the City 27,000 dollars annually.

Recommendation 6

This would reconfigure route 8 to provide direct access to Walmart, rather than requiring a transfer to Route 7. It would extend Route 8's travel along Betteravia Road to South Bradley Road, then return to the route via Crossroad Lane. This change would initially be introduced as a 90-day demonstration project.

Recommendation 7

This calls for SMAT to either formalize the interlining of routes 3 and 4 or discontinue the practice altogether. Interlining is when a trip starts as one route, then changes to another route in the middle of a trip. SMAT Route 3 sometimes changes to Route 4 in the middle of the trip, and vice versa. This requires riders to change buses to continue their trip on their original route. Currently, the routes are not designed to be interlined, which results in confusion when it happens. While interlining could improve the on-time performance of both routes, it must be formalized and done consistently, with the interlining information made available to customers.

Recommendation 8

This would replace low-productivity fixed routes with smaller neighborhood shuttles. This would shorten travel times and improve reliability on fixed routes traveling along the City's main arterials. In addition, it would enable transit service to operate further into residential neighborhoods. However, it would also increase the need to transfer between buses to complete a trip.

Recommendation 9

This calls for SMAT to limit evening service on routes 5 and 6 to the Broadway corridor. This would double the number of trips on Route 5 during evening service hours. Service in the area around Orcutt would be provided by an alternative mode, such as a neighborhood shuttle or subsidized Lyft or Uber ride.

Recommendation 10

This would call for SMAT to consider substituting Lyft or Uber subsidized rides for evening bus service. Another potential alternative, called Microtransit, would offer a similar on-demand service operated by the City using Dial-A-Ride vehicles. The trial service area would be within Santa Maria, Orcutt, and Tanglewood.

Recommendation 11

This would expand school tripper capacity. This could include increasing peak-hour service on Route 4 and/or adding a second bus to the second afternoon school tripper run.

Recommendation 12

The City is advised to consider assuming operation of the City of Guadalupe's transit service, should the City of Guadalupe be interested in this option. The City of Guadalupe is currently preparing its own Short Range Transit Plan, which will affect this recommendation.

Recommendation 13

This recommends the City work with the San Luis Obispo Regional Transit Authority to adjust Santa Maria's contribution to its Route 10 service, which connects San Luis Obispo and Santa Maria. The City would like to ensure it is contributing a more equitable share of the cost of the service.

Recommendation 14

This would increase service frequency during morning and evening peak service hours on routes 2, 3, 4, and 5. Routes 2, 3, and 4 currently operate every 30 minutes, while route 5 operates every 90 minutes. This would increase the service frequency on routes 2, 3, and 4 to approximately 20 minutes and the frequency on route 5 to 45 minutes.

Recommendation 15

This would adjust SMAT service to incorporate the proposed Allan Hancock College transit hub. This would adjust some routes that already serve the college to travel on campus to directly serve the Allan Hancock transit hub.

Recommendation 16

This would update and expand the City's bus stop improvement plan. This includes an annual bus stop inventory update and development of an action plan for ongoing bus stop enhancements.

Recommendation 17

This calls for SMAT to develop a bus stop placement policy. This will help identify criteria for adding or removing stops as well as provide guidance for the installation of bus stop amenities such as benches and shelters.

Recommendation 18

This would call for SMAT to evaluate the cost-benefit of mobile fare payment options. Mobile fares would be an alternative to cash and passes and could help improve the on-time performance of the service. This recommendation is now a high priority in light of the COVID-19 pandemic, as it would allow no-contact fare payment.

Recommendations 19 and 20

These would secure funding for automatic vehicle location technology. This would enable real-time tracking on all SMAT vehicles. This technology would be used to provide customers with real-time information about when the next bus will arrive.

Recommendation 21

This calls for SMAT to define a path for its transition to a battery-electric fleet. In order to comply with California Air Resources Board legislation, 25 percent of the fleet must be zero-emission by 2026 and 100 percent by 2040.

Appendix C: Bicycle and Pedestrian Funding

Funding Mechanisms

Federal Funding

Fixing America's Surface Transportation Act (FAST Act). Replaced Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2015, provides long-term funding certainty for surface transportation projects, meaning state and local governments can move forward with critical transportation projects with the confidence that they will have a federal partner over the long term (at least five years).

The law makes changes and reforms to many federal transportation programs, including streamlining the approval processes for new transportation projects and providing new safety tools. It also allows local entities that are direct recipients of federal dollars to use a design publication that is different than one used by their State DOT.

Surface Transportation Block Grant (STBGP). The FAST Act expanded the existing Surface Transportation Program (STP) into the Surface Transportation Block Grant Program (STBGP) which places more decision-making power in the hands of state and local governments. The FAST Act simplifies the list of uses eligible for program funds and increases the ways that funds can be used for local roads and rural minor collectors. The Transportation Alternatives Program (TAP) is a set-aside program of this block grant. The new program requires 55 percent of program funds be distributed within each state on the basis of population, compared to 50 percent under STP. In California, STBGP is allocated through the Regional Surface Transportation Program (RSTP). The TAP program is allocated through the Active Transportation Program.

Bus and Bus Facilities Program: State of Good Repair. The Bus and Bus Facilities Program can be used for projects to provide access for bicycles to public transportation facilities, to provide shelters and parking facilities for bicycles in or around public transportation facilities, or to install equipment for transporting bicycles on public transportation vehicles.

FAST Act – Congestion Mitigation and Air Quality Improvement Program (CMAQ). The amount of CMAQ funds depends on the state's population share and on the degree of air pollution. Recent revisions were made to bring CMAQ in line with the FAST Act legislation. There is a broader emphasis on projects that are proven to reduce PM-2.5. Eligible projects include: "Constructing bicycle and pedestrian facilities (paths, bicycle racks, support facilities, etc.) that are not exclusively recreational and reduce vehicle trips; (and) non-construction outreach related to safe bicycle use." Studies that are part of the project development pipeline (e.g., preliminary engineering) are eligible for funding. "An assessment of the project's expected emission reduction benefits should be completed prior to project selection."

Highway Safety Improvement Program (HSIP). The FAST Act eliminates the ability of states to shift funds designated for infrastructure safety programs to behavioral or educational activities, ensuring resources remain in construction-related programs. It also designates several new safety improvements eligible for funding including vehicle-to-infrastructure communication and roadway improvements that provide separation between pedestrians and motor vehicles.

With regards to unpaved roads, the FAST Act allows states to "opt out" of collecting safety inventory data for unpaved/gravel roads if certain conditions are met, as long as the states continue to collect data related to serious crashes and fatalities. It also requires the U.S. DOT to review data and report to

Congress on best practices for roadway infrastructure improvements that enhance commercial motor vehicle safety.

HSIP is a data-driven funding program, and eligible projects must be identified through analysis of crash experience, crash potential, crash rate, or other similar metrics. Infrastructure and non-infrastructure projects are eligible for HSIP funds. Bicycle and pedestrian safety improvements, enforcement activities, traffic calming projects, and crossing treatments for active transportation users in school zones are examples of eligible projects. All HSIP projects must be consistent with the state's Strategic Highway Safety Plan. In California, HSIP is administered by Caltrans.

Partnership for Sustainable Communities. Founded in 2009, the Partnership for Sustainable Communities is a joint project of the Environmental Protection Agency (EPA), the U.S. Department of Housing and Urban Development (HUD), and the U.S. Department of Transportation (USDOT). The partnership aims to "improve access to affordable housing, provide more transportation options, and lower transportation costs while protecting the environment in communities nationwide." The Partnership is based on five Livability Principles, one of which explicitly addresses the need for bicycle and pedestrian infrastructure - "Provide more transportation choices: Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health." The Partnership is not a formal agency with a regular annual grant program. Nevertheless, it is an important effort that has already led to some new grant opportunities (including the TIGER grants).

Rivers, Trails, and Conservation Assistance Program. The Rivers, Trails and Conservation Assistance Program (RTCA) is the community assistance arm of the National Park Service. RTCA provides technical assistance to communities in order to preserve open space and develop trails. The assistance that RTCA provides is not for infrastructure, but rather building plans, engaging public participation, and identifying other sources of funding for conversation and outdoor recreation projects.

Land and Water Conservation Fund. The Land and Water Conservation Fund (LWCF) is a National Parks Service program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. The program is administered by the California Department of Parks and Recreation. Funds can be used for right-of-way acquisition and construction. Any projects located in future parks could benefit from planning and land acquisition funding through the LWCF. Trail corridor acquisition can be funded with LWCF grants as well.

Community Development Block Grants. The Community Development Block Grants (CDBG) program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal CDBG grantees may "use Community Development Block Grant funds for activities that include (but are not limited to): acquiring real property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers, and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grant funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs." Trails and greenway projects that enhance accessibility are the best fit for this funding source.

Transportation Investments Generating Economic Recovery (TIGER) Program. TIGER can be used for innovative, multimodal, and multi-jurisdictional transportation projects that promise significant

economic and environmental benefits to an entire metropolitan area, a region, or the nation. These include bicycle and pedestrian projects and the project minimum is $10 million.

State Funding

Active Transportation Program. With the consolidation of federal funding sources in MAP-21 and again under the FAST Act, the Legislature has consolidated a number of state-funded programs centered on active transportation into a single program. The resulting Active Transportation Program consolidates the federal programs, Bicycle Transportation Account, the Safe Routes to Schools Program, and the Recreational Trails Program. The program's authorizing legislation (signed into law by the Governor on September 26, 2013) also includes placeholder language to allow the program to receive funding from the newly established Cap-and-Trade Program in the future. The statewide competitive program has $240 million available through the 2020/2021 fiscal cycles. Under the Road Repair & Accountability Act (adopted April 2017), an additional $100 million will be allocated to the program annually for the next ten years.

The California Transportation Commission writes guidelines and allocates funds for the program, while the program will be administered by the Caltrans Division of Local Assistance.

State Transportation Improvement Program. STIP funds new construction projects that add capacity to the transportation network. STIP consists of two components, Caltrans' Interregional Transportation Improvement Program (ITIP) and regional transportation planning agencies' Regional Transportation Improvement Program (RTIP). STIP funding is a mix of state, federal, and local taxes and fees. Bicycle and pedestrian projects may be programmed under ITIP and RTIP.

Caltrans Sustainable Transportation Planning Grants. Caltrans Sustainable Transportation Planning Grants are intended to strengthen the economy, promote equity, and protect the environment. The results of these grants should improve mobility and lead to the programming and implementation of transportation improvement projects. Along with a strong focus on transportation, these projects should also emphasize safety, jobs, housing, sustainable communities, and public participation.

Petroleum Violation Escrow Account. In the late 1970s, a series of federal court decisions against selected United States oil companies ordered refunds to the states for price overcharges on crude oil and refined petroleum products during a period of price control regulations. To qualify for Petroleum Violation Escrow Account (PVEA) funding, a project must save or reduce energy and provide a direct public benefit within a reasonable time frame. In California, Caltrans Division of Local Assistance administers funds for transportation-related PVEA projects. PVEA funds do not require a match and can be used as match for additional federal funds.

Office of Traffic Safety (OTS) Grants. The Office of Traffic Safety (OTS) distributes grants statewide to establish new traffic safety programs or fund ongoing safety programs. OTS grants are supported by federal funding under the National Highway Safety Act and FAST Act. Grants are used to establish new traffic safety programs, expand ongoing programs or address deficiencies in current programs. Bicycle safety is included in the list of traffic safety priority areas.

Eligible grantees are governmental agencies, state colleges, state universities, local town and county government agencies, school districts, fire departments, and public emergency services providers. Grant

funding cannot replace existing program expenditures, nor can traffic safety funds be used for program maintenance, research, rehabilitation, or construction.

Grants are awarded on a competitive basis, and priority is given to agencies with the greatest need. Evaluation criteria to assess need include potential traffic safety impact, collision statistics and rankings, seriousness of problems, and performance on previous OTS grants. The California application deadline is January of each year. There is no maximum cap to the amount requested; however, all items in the proposal must be justified to meet the objectives of the proposal.

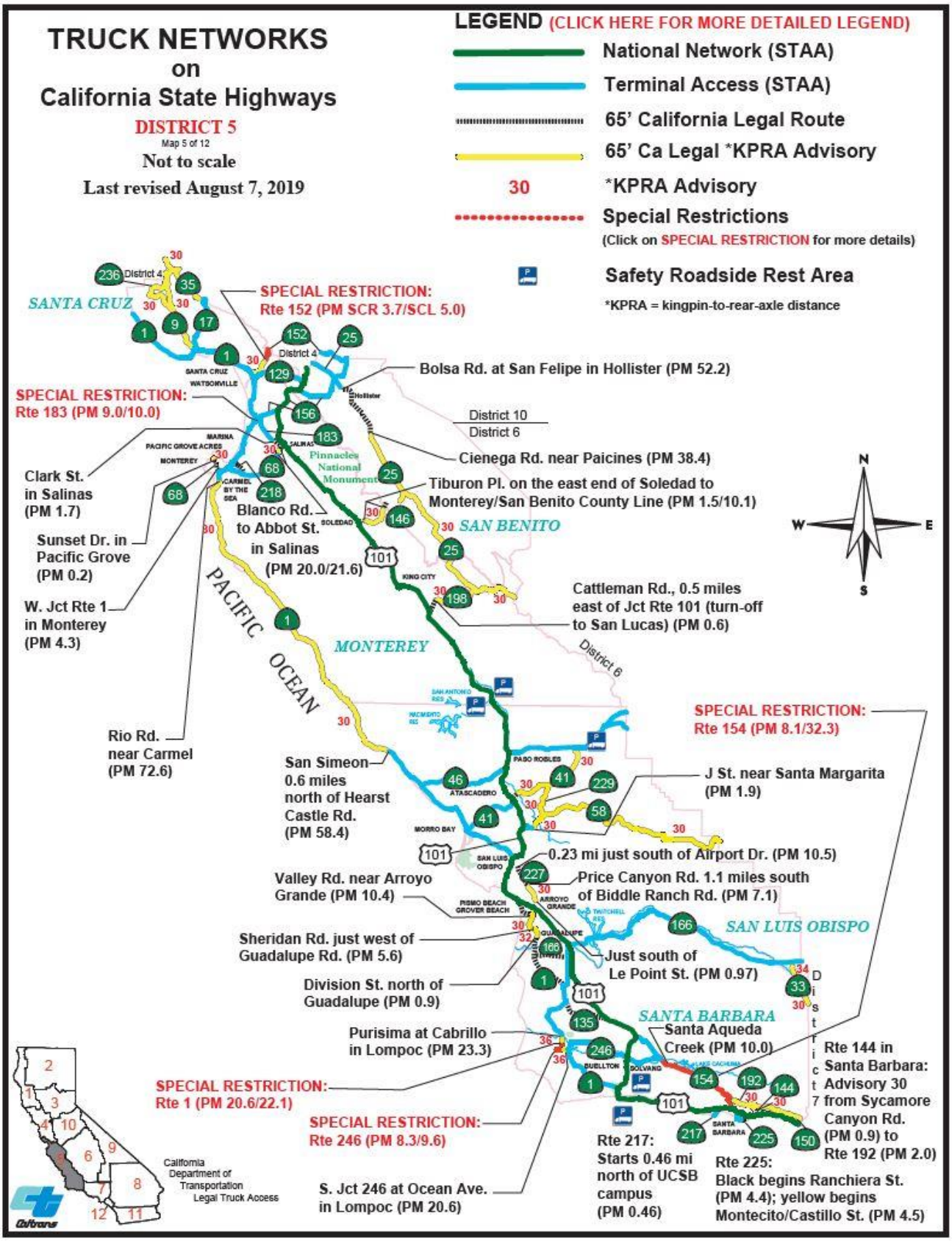
State Highway Operations and Protection Program (SHOPP). The SHOPP program includes projects designed to maintain the safety and operational integrity of the state highway system. Most of the projects are for pavement rehabilitation, bridge rehabilitation, and traffic safety improvements. Other projects may include such things as operational improvements (e.g. traffic signalization) and roadside rest areas. It does not include projects to add through lanes to increase capacity. SHOPP projects are selected at the discretion of Caltrans.

Local Funding

Developer Impact Fees. As a condition for development approval, municipalities can require developers to provide certain infrastructure improvements, which can include bicycle and pedestrian projects. These projects have commonly provided Class II facilities for portions of on-street, previously planned routes and public spaces. They can also be used to provide bicycle parking or shower and locker facilities. The type of facility that should be required to be built by developers should reflect the greatest need for the particular project and its local area. Legal challenges to these types of fees have resulted in the requirement to illustrate a clear nexus between the particular project and the mandated improvement and cost.

New Construction. Future road widening and construction projects are one means of providing bicycle and pedestrian facilities. To ensure that roadway construction projects provide pedestrian and bicycle infrastructure where needed, it is important that the review process includes input pertaining to consistency with the proposed system. In addition, California's 2008 Complete Streets Act and Caltrans' Deputy Directive 64 require that the needs of all roadway users be considered during "all phases of state highway projects, from planning to construction to maintenance and repair."

Appendix D: Goods and Movement


TRUCK NETWORKS
on
California State Highways
DISTRICT 5
Map 5 of 12
Not to scale
Last revised August 7, 2019
LEGEND (CLICK HERE FOR MORE DETAILED LEGEND)
National Network (STAA)
Terminal Access (STAA)
65' California Legal Route
65' Ca Legal *KPRA Advisory
30 *KPRA Advisory
Special Restrictions
(Click on SPECIAL RESTRICTION for more details)
Safety Roadside Rest Area
*KPRA = kingpin-to-rear-axle distance
SPECIAL RESTRICTION: Rte 152 (PM SCR 3.7/SCL 5.0)
Bolsa Rd. at San Felipe in Hollister (PM 52.2)
SPECIAL RESTRICTION: Rte 183 (PM 9.0/10.0)
District 10
District 6
Clark St. in Salinas (PM 1.7)
Cienega Rd. near Paicines (PM 38.4)
Tiburon Pl. on the east end of Soledad to Monterey/San Benito County Line (PM 1.5/10.1)
Sunset Dr. in Pacific Grove (PM 0.2)
Blanco Rd. to Abbot St. in Salinas (PM 20.0/21.6)
W. Jct Rte 1 in Monterey (PM 4.3)
Cattleman Rd., 0.5 miles east of Jct Rte 101 (turn-off to San Lucas) (PM 0.6)
Rio Rd. near Carmel (PM 72.6)
SPECIAL RESTRICTION: Rte 154 (PM 8.1/32.3)
San Simeon 0.6 miles north of Hearst Castle Rd. (PM 58.4)
J St. near Santa Margarita (PM 1.9)
0.23 mi just south of Airport Dr. (PM 10.5)
Valley Rd. near Arroyo Grande (PM 10.4)
Price Canyon Rd. 1.1 miles south of Biddle Ranch Rd. (PM 7.1)
Sheridan Rd. just west of Guadalupe Rd. (PM 5.6)
Just south of Le Point St. (PM 0.97)
Division St. north of Guadalupe (PM 0.9)
Purisima at Cabrillo in Lompoc (PM 23.3)
Santa Aqueda Creek (PM 10.0)
SPECIAL RESTRICTION: Rte 1 (PM 20.6/22.1)
SPECIAL RESTRICTION: Rte 246 (PM 8.3/9.6)
Rte 144 in Santa Barbara: Advisory 30 from Sycamore Canyon Rd. (PM 0.9) to Rte 192 (PM 2.0)
Rte 217: Starts 0.46 mi north of UCSB campus (PM 0.46)
Rte 225: Black begins Ranchiera St. (PM 4.4); yellow begins Montecito/Castillo St. (PM 4.5)
S. Jct 246 at Ocean Ave. in Lompoc (PM 20.6)
SANTA CRUZ
SAN BENITO
MONTEREY
SAN LUIS OBISPO
SANTA BARBARA
PACIFIC OCEAN
District 4
District 6
District 7
Pinnacles National Monument
California Department of Transportation Legal Truck Access
Caltrans

Appendix E: Pavement Conditions

City of Santa Maria

2019 Pavement Management System Update Final Report May, 2020

Pavement Engineering Inc.
You can ride on our reputation

Section I

Executive Summary

EXECUTIVE SUMMARY

The City of Santa Maria currently maintains approximately 228.8 centerline miles of roads representing 52,815,459 square feet of pavement with a replacement value of approximately $860,241,000 as calculated by StreetSaver®.

Pavement Engineering Inc. (PEI) updated all of the residentials and collectors in the Southeast Quadrant as well as all the Arterials north of Main St, using the Metropolitan Transportation Commission's (MTC) StreetSaver® program. The purpose of a Pavement Management System is to track inventory, store work history and furnish budget estimates to optimize funding for improving the city's pavement system.

INTRODUCTION

A Pavement Management System has several distinctive uses:

- As a budgeting tool, a Pavement Management System uses treatment costs that are based on recently bid projects, by the participating agency, so that budgets reflect historical costs for the area.
- As an inventory tool, a Pavement Management System provides a quick and easy reference for pavement areas and use.
- As a pavement condition record, a Pavement Management System provides age, load-related, non-load related and climate-related pavement condition and deterioration information. The Pavement Management System uses pavement deterioration curves, based on nationwide research, which allow the program to predict a pavement's future condition.

A Pavement Management System is not capable of providing detailed engineering designs for a street. The Pavement Management System instead helps the user identify candidate streets for potential repair and maintenance. Project level pavement analysis and engineering is an essential feature of future pavement maintenance and rehabilitation projects. Additional investigation, or project level analysis, can optimize the City's pavement management dollars. Project level engineering examines the pavements in significantly more detail than the visual evaluation required for the Pavement Management System Update and optimizes designs for all of the peculiar constraints of a set of project streets.

WORK PERFORMED

Pavement Distress Survey and Database Update

For this update, PEI performed inspections on approximately 55.9 centerline miles of road. Field inspections were completed in June 2019.

PEI measured the following distress types as part of our review: alligator cracking (fatigue), block cracking, distortions, longitudinal & transverse cracking, patching & utility cut patching, rutting / depressions, weathering, and raveling. All the collected data was entered into the City's StreetSaver® database.

As part of our field review, all the streets were measured to confirm lengths and widths. Lengths were measured using a vehicle-mounted electronic measuring device and widths were measured using a hand-held measuring wheel. Measurement discrepancies were tabulated and reviewed with the City to determine if corrections were needed.

PEI performed a quality control (QC) check on our work. PEI's QC check consists of performing a field review of any street segment where the PCI showed a decrease of 4 or more points, or an increase of 1 PCI without a documented M&R treatment, when compared to the last inspection for the same road segment without any recorded maintenance or rehabilitation in the StreetSaver® database. Each segment in the QC process was visually reviewed to determine if the StreetSaver® calculated PCI was representative of the observed overall pavement condition for that road segment. Variations found were re-inspected and the street's PCI was recalculated.

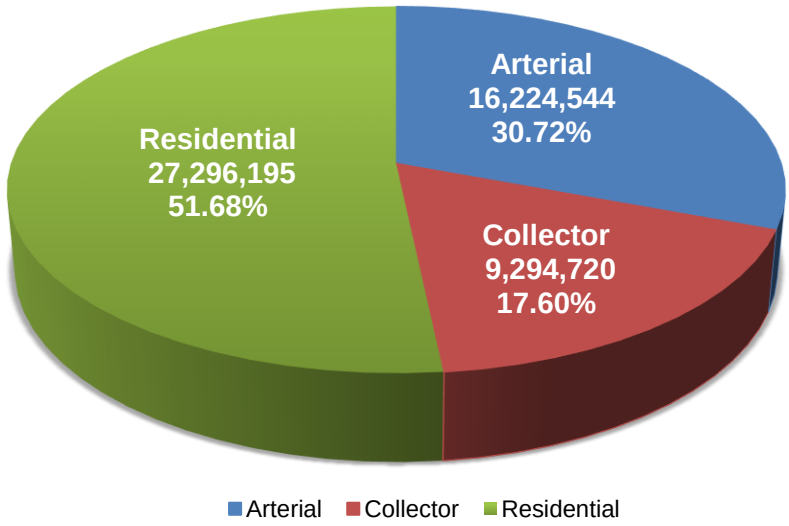
FINDINGS

The updated Pavement Management System showed that the City's overall average PCI is **69**.

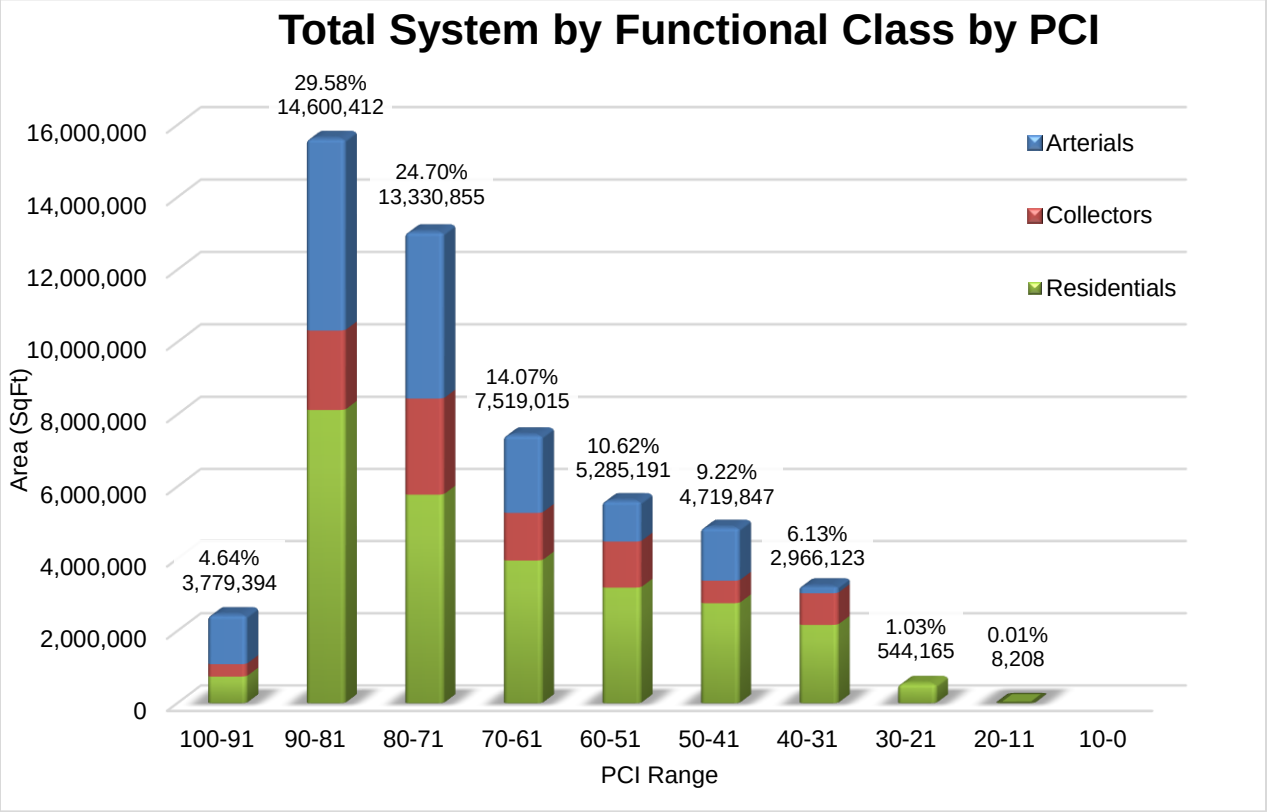
The breakdown by functional classification is as follows:

Functional Classification	Centerline Miles	Lane Miles	Pavement Area (sq. ft.)	Percent of System	Average PCI
Arterial	53.1	176.7	16,224,544	30.72%	73
Collector	41.6	87.8	9,294,720	17.60%	67
Residential	134.1	267.8	27,296,195	51.68%	68
Totals	228.8	532.3	52,815,459	100%	69

The pie graph below shows the percentage of each functional classification, by area.



The bar graph below shows the City's street system broken down into 10-point PCI ranges.



The breakdown by Condition Category and corresponding PCI range is shown below:

Condition Category Breakdown			
Condition	**PCI Range**	**Square Feet**	**% Of Total**
Very Good	100-86	7,347,043	13.91%
Good	85-71	23,768,669	45.00%
Fair	70-61	7,430,479	14.07%
At Risk	60-51	5,607,530	10.62%
Poor	50-26	8,419,521	15.94%
Very Poor	25-0	242,217	0.46%

The analysis shows that ***58.91%*** of the City's pavement are in ***Very Good*** to **Good** condition. Details of each street segment are provided in the ***Reference Reports.***

BUDGET ANALYSIS

StreetSaver® uses a decision tree to model the decision-making process that agencies follow to select a maintenance or rehabilitation strategy. The decision tree contains "branches" for each functional classification, surface type and condition category. Jurisdictions can outline their maintenance and rehabilitation strategy by choosing a treatment for each branch.

The listed treatments in the decision tree are generalized to provide a range of treatments. Typical treatments within each generalized treatment range are listed below. The exact treatment would need to be determined during the design phase of the project.

Treatment Category	Typical Treatment
Light Maintenance	• Slurry Seal or Micro-Surface • Fog Seal or Scrub Seal
Heavy Maintenance	• Chip Seal, Cape Seal • Slurry Seal or Micro-Surface with Digouts • Thin Maintenance Overlay (TMO)
Light Rehab.	• Overlay (2" and under) or Thin Mill and Fill
Heavy Rehab.	• Overlay (greater than 2") or Thick Mill and Fill • Cold-In-Place Recycling • Full Depth Reclamation • Pulverize and Resurfacing
Reconstruct	• Full Section Reconstruction

StreetSaver® assigns a treatment action and estimated cost to each street segment based on the pavement's current PCI.

Decision Tree Unit Prices

As a minimum, recent bid tabulations should be used to determine the appropriate unit costs. Further, the unit costs include other costs such as design, construction management, contingencies or other related construction costs (ADA ramps, curb & gutters, striping etc.) to form a more comprehensive unit cost for the selected treatments.

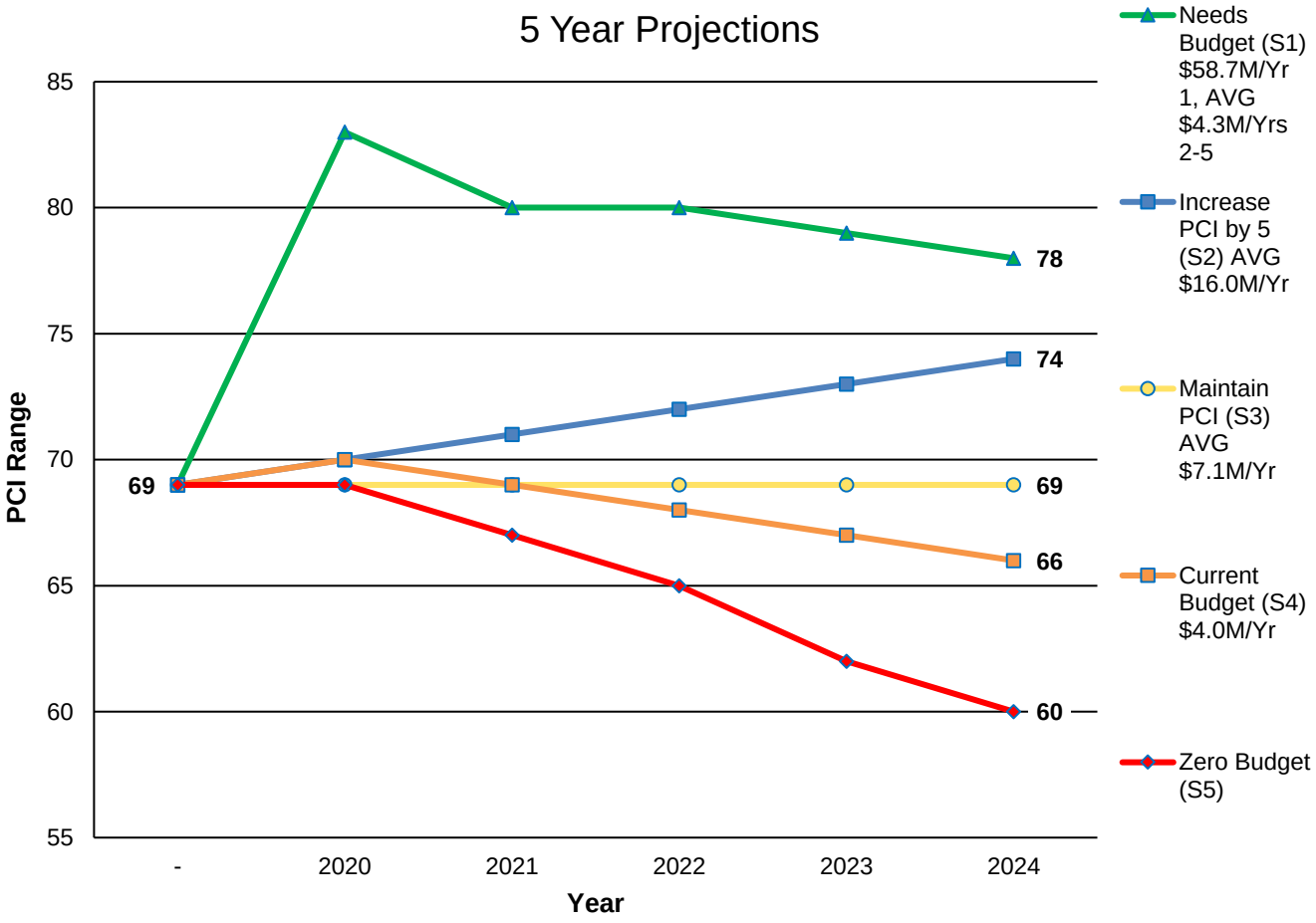
For the City of Santa Maria, the unit costs on the following table were used:

Treatment	Arterial	Collector	Residential
Cost/ Sq Yd			
Crack Seal **($$/LF)**	$1.88	$1.63	$1.63
Light Maintenance	$3.13	$2.94	$2.75
Heavy Maintenance	$5.40	$4.73	$4.39
Light Rehab	$29.70	$28.35	$27.00
Heavy Rehab	$94.77	$82.93	$70.82
Reconstruct	$170.59	$149.83	$131.22

For this update, PEI analyzed several scenarios, which are summarized below:

Budget Scenario Projections

PEI generated Five (5) scenario projections which are represented graphically below:



A summary of the 5-year scenarios are as follows:

Scenario 1: Unconstrained Budget/ Funds Needed to obtain Optimum PCI ($58.7M for Year 1, $4.3M/Yr. Avg. for Years 2-5.)

Scenario 2: Amount of funding to increase PCI by 5 (Avg. $16.0M/Yr.)

Scenario 3: Amount of funding to maintain PCI of 69 (Avg. $7.1M/Yr.)

Scenario 4: Impact of the current funding amount ($4.0M/Yr.) the current PCI would decline from 69 to 66, a 3 point overall drop.

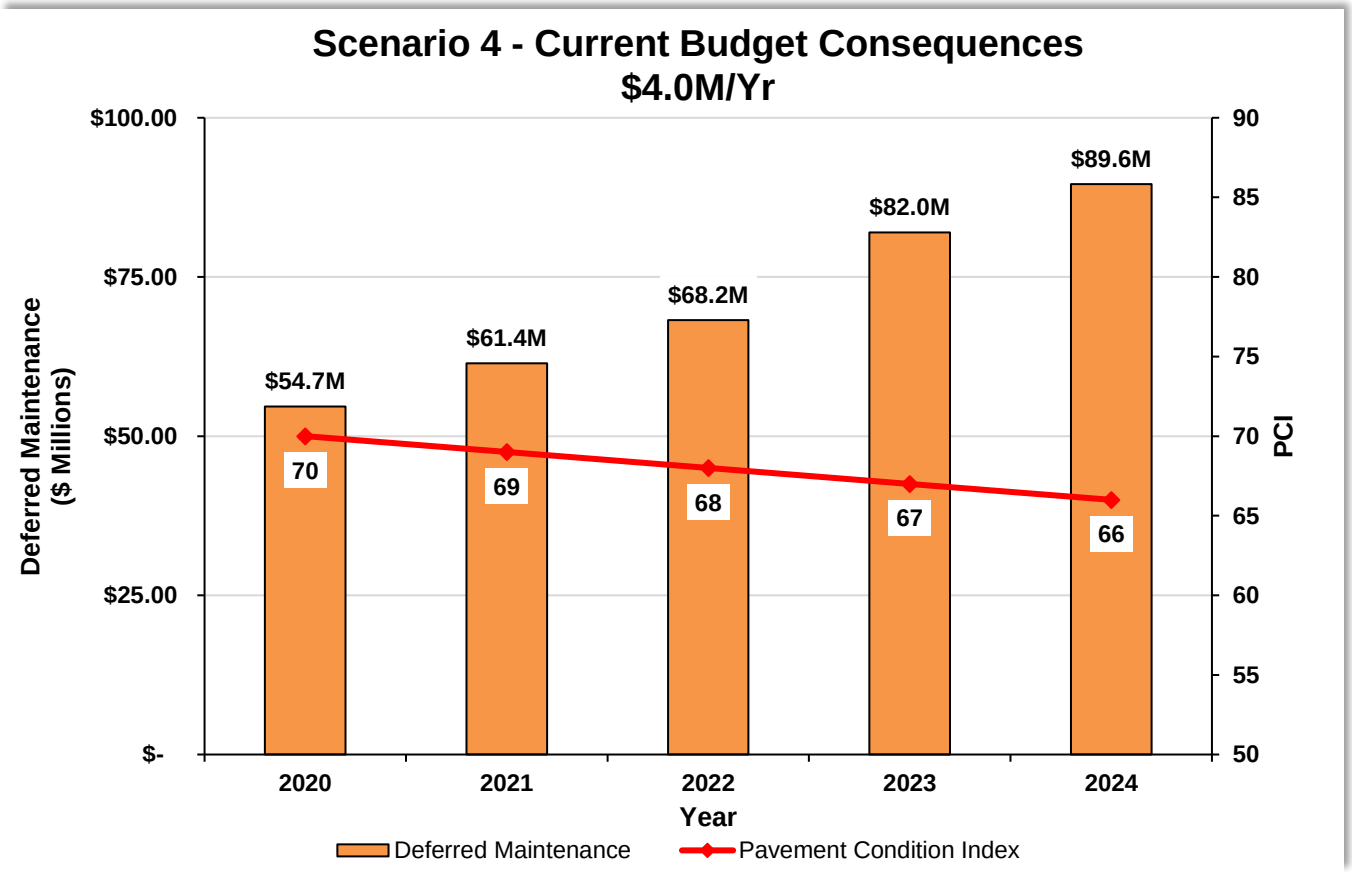
Scenario 5: Represents the impact to the PCI if Zero dollars are spent

The full report for the various budget scenarios can be found in ***Appendix B***.

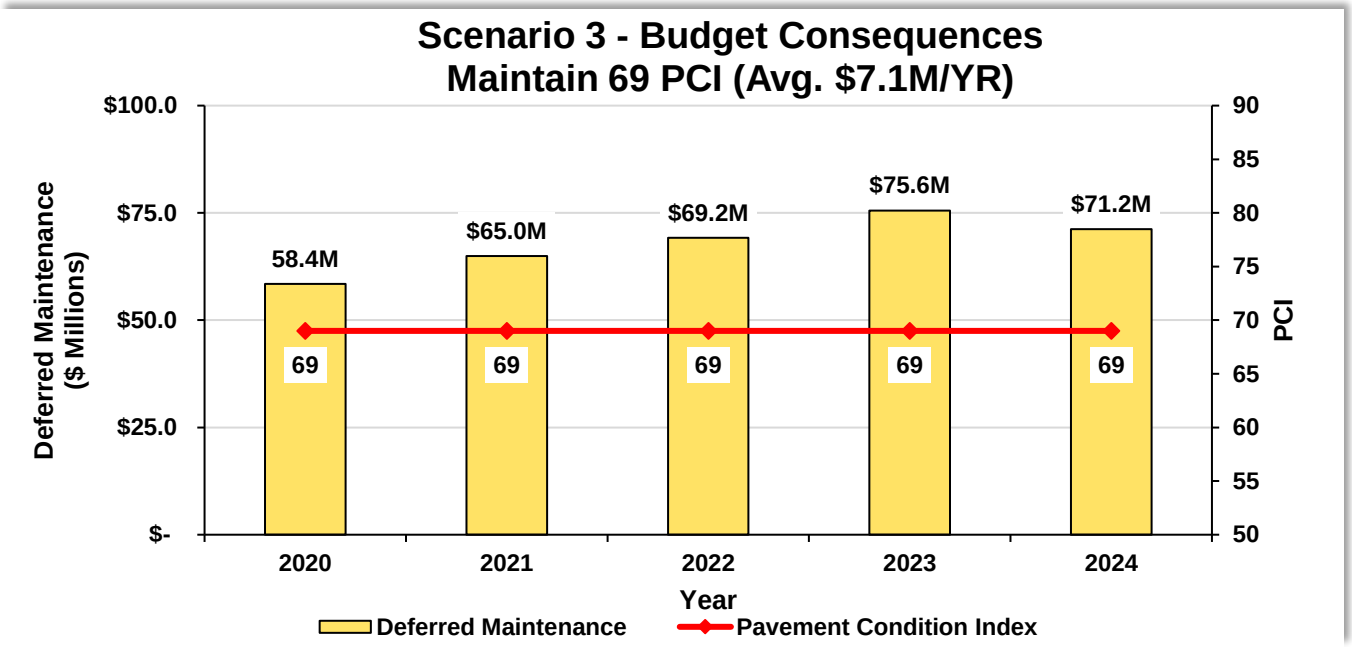
Budget Consequences

The following graphs illustrate the consequences to the City's overall weighted PCI and Deferred Maintenance Amount, based on the scenarios above:

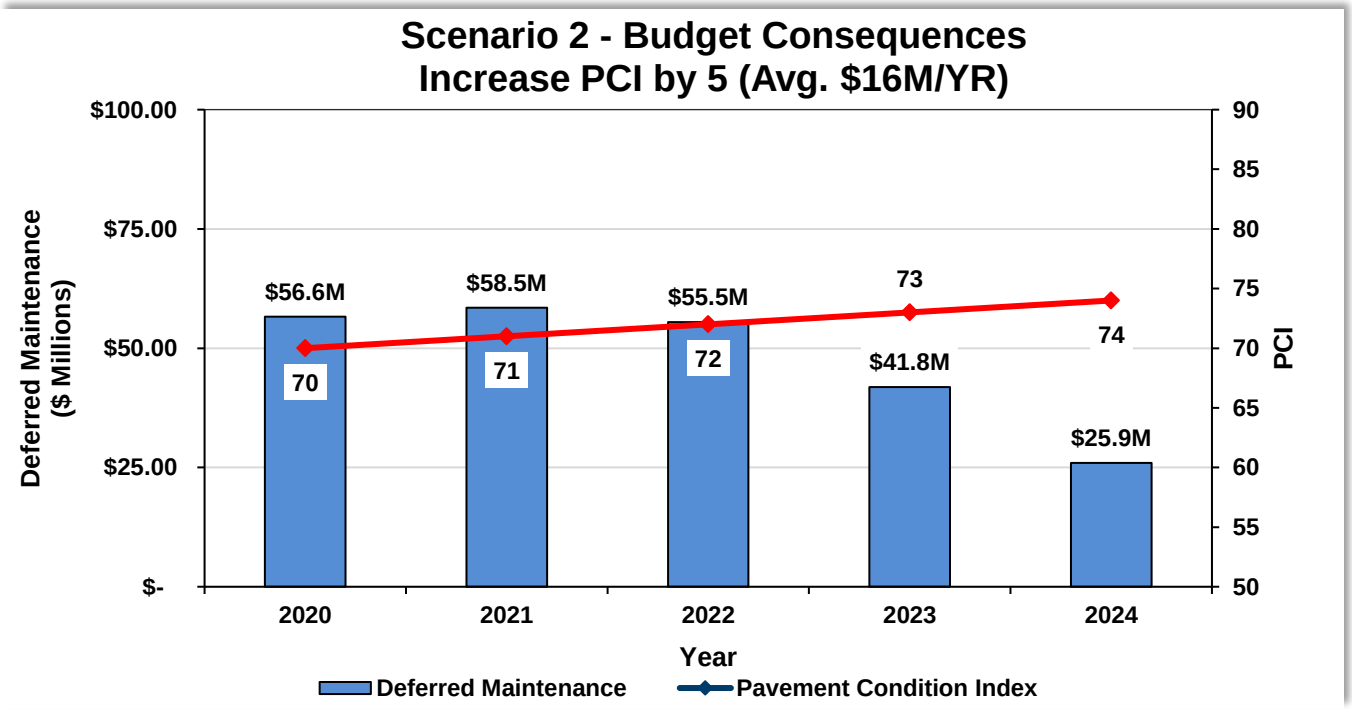
At the current funding level of $4.0M/Yr., the PCI of the entire system will deteriorate from 69 to 66, a 3 PCI point drop over the next 5 years. In addition, the backlog of deferred maintenance grows from $54.7 million to $89.6 million, an increase of 64%.



To maintain the current PCI of 69, it is projected that an average funding level of $7.1M/YR is necessary. At this funding level the backlog of deferred maintenance grows from $58.4 million to $71.2 million, an increase of 22%.



To increase the PCI 5 points from 69 to 74, it is projected that an average funding level of $16.0M/YR is necessary. At this funding level the backlog of deferred maintenance shrinks from $56.6 million to $25.9 million, a decrease of 54%.



CONCLUSIONS AND RECOMMENDATIONS

This Executive Summary provides a review of the 2019 Pavement Management System Update performed by PEI. PEI inspected all residentials and collectors in the Southeast Quadrant and all arterials north of Main St. The average overall PCI for the City is 69. 58.91% of the City's pavement is in Very Good to Good condition.

To maintain the system at its current overall PCI of 69, the City will need to spend an average of $7.1 million annually over the next 5 years. Maintaining the current funding level of approximately $4.0 Million annually will result in a PCI loss of 3 points in 5 years to a PCI of 66.

A review of the City's street system, by functional classification, shows that the Arterial streets have the highest average PCI of 73, the Collector streets have an average PCI of 67, and the Residential streets have an average PCI of 68. As a general rule, agencies typically try to keep their arterials in the best condition because they carry the bulk of the traffic and loading, followed by collectors, then the residential/ local streets.

Moving forward, PEI recommends the City carefully evaluate the overall annual budget to determine the amount it wants to commit to pavement maintenance and rehabilitation projects. We recommend the City set priorities for each functional classification and perhaps certain streets within each classification.

This Pavement Management System will assist the City in its efforts to monitor treatments and track their effectiveness and help the City in setting future priorities and treatment policies. To ensure the city is evaluating accurate data, PEI recommends that the city continue the evaluation rotation which includes reviewing 1/4 of the residential and collector street segments each year, along with the annual review of the arterial streets. As the City maintains and updates its Pavement Management System, the program will become a valuable tool in its efforts to maximize performance and minimize the spending for pavements.

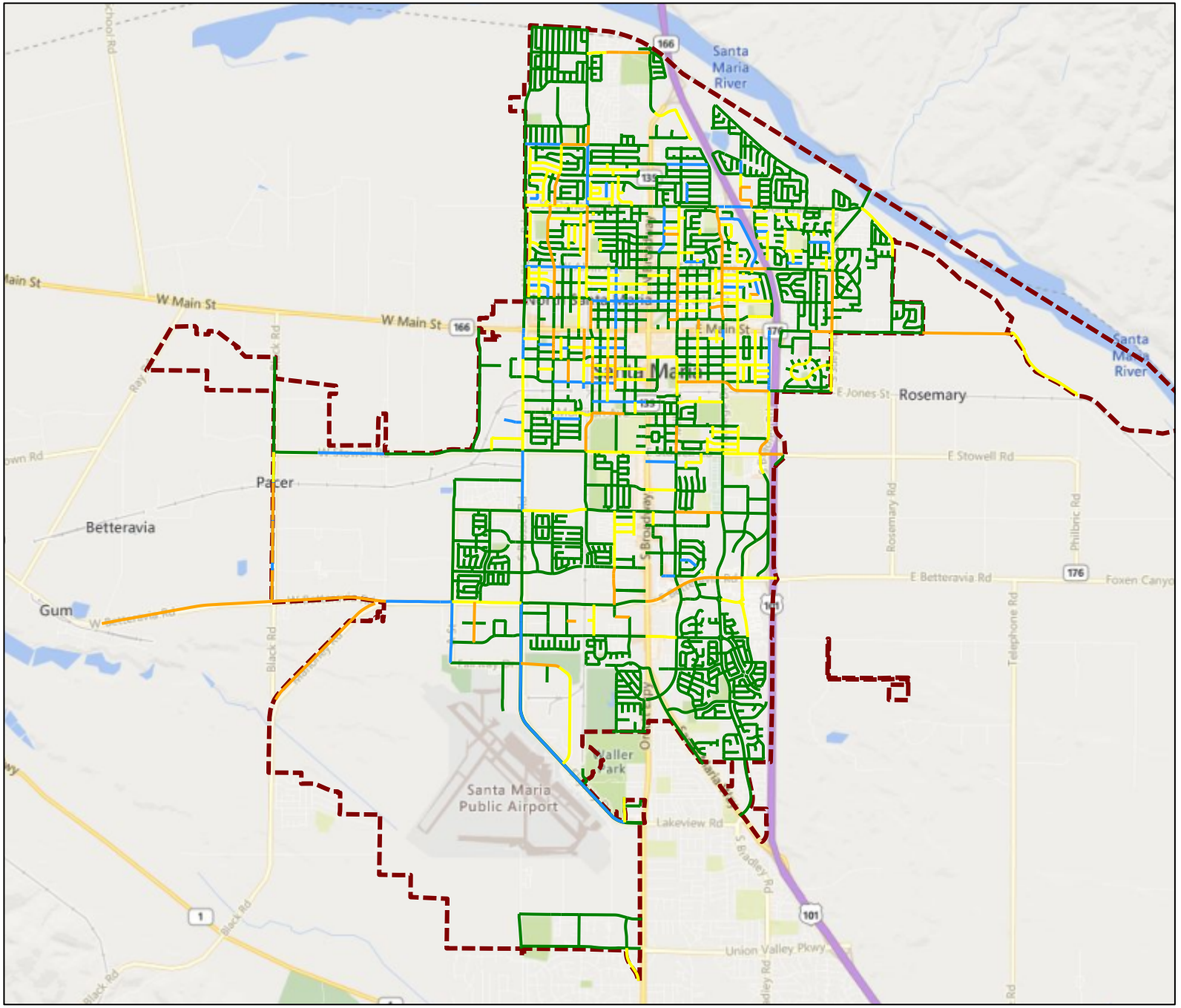
CITY OF SANTA MARIA

Current PCI Condition

Printed: 12/1/2020

Feature Legend

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor



CITY OF SANTA MARIA

Network Replacement Cost

Printed: 12/01/2020

Functional Class	Surface Type	Lane Miles	Unit Cost/ Square Foot	Pavement Area/ Square Feet	Cost To Replace (in thousands)
Arterial	AC	127.6	$18.95	11,641,916	$220,666
	AC/AC	49.1	$18.95	4,582,628	$86,861
Collector	AC	73.1	$16.65	7,739,472	$128,844
	AC/AC	14.7	$16.65	1,555,248	$25,891
Proposed; Private; Non-County	AC	9.1	$0.00	841,790	$0
Residential/Local	AC	237.9	$14.58	24,107,367	$351,485
	AC/AC	29.9	$14.58	3,188,828	$46,493
	Grand Total:	541.5		53,657,249	$860,241

CITY OF SANTA MARIA

Scenarios - Network Condition Summary

Interest: 0% **Inflation: 0%** Printed: 12/1/2020

Scenario: 2021 chip seal residential

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2020	$0	$0	**2022**	$0	$0	**2024**	$0	$0
2021	$903,556	$0	**2023**	$0	$0			

Projected Network Average PCI by Year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2020	70	70	0	0
2021	68	69	14.61	29.22
2022	66	67	0	0
2023	64	65	0	0
2024	61	62	0	0

Percent Network Area by Functional Class and Condition Category

Condition in base year 2020, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	19.6%	12.2%	43.2%	0.0%	74.9%
II / III	7.5%	3.6%	8.5%	0.0%	19.5%
IV	3.7%	1.8%	0.0%	0.0%	5.5%
Total	**30.7%**	**17.6%**	**51.7%**	**0.0%**	**100.0%**

Condition in year 2020 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	19.6%	12.2%	43.2%	0.0%	74.9%
II / III	7.5%	3.6%	8.5%	0.0%	19.5%
IV	3.7%	1.8%	0.0%	0.0%	5.5%
Total	**30.7%**	**17.6%**	**51.7%**	**0.0%**	**100.0%**

Condition in year 2024 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	11.2%	9.4%	42.4%	0.0%	63.0%
II / III	13.1%	3.9%	8.0%	0.0%	25.0%
IV	5.6%	2.7%	1.3%	0.0%	9.6%
V	0.8%	1.6%	0.0%	0.0%	2.4%
Total	**30.7%**	**17.6%**	**51.7%**	**0.0%**	**100.0%**