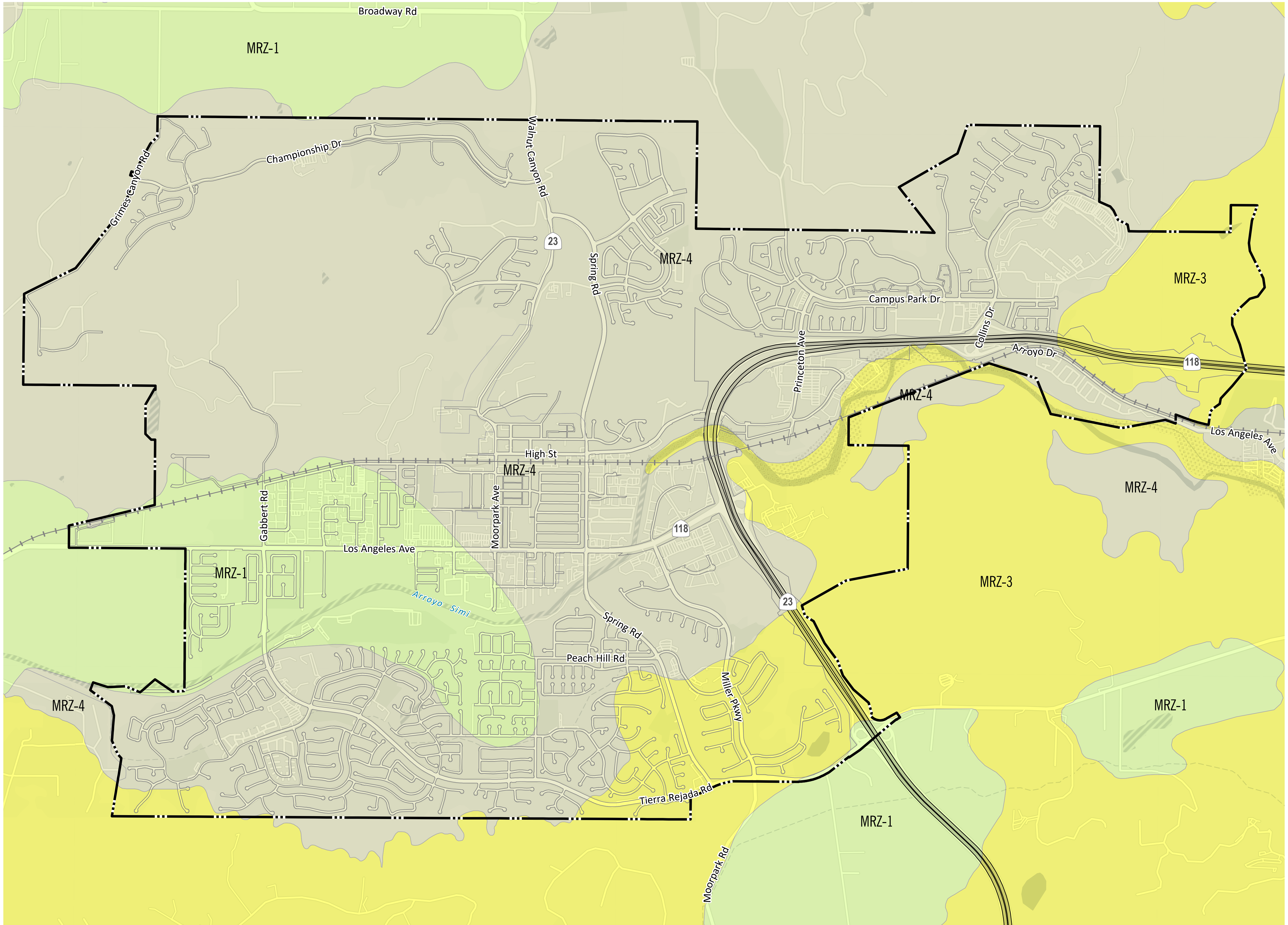

Figure C-5

Areas of Mineral Resource Significance

City Boundary

Railroad

MRZ Zones

MRZ-1, Areas where available geologic information indicates that little likelihood exists for the presence of significant Portland cement concrete aggregate resources.

MRZ-2, Areas where geologic information indicates the presence of significant Portland cement concrete aggregate resources.

MRZ-3, Areas containing known or inferred Portland cement concrete aggregate resource of undetermined mineral resource significance

MRZ-4, Areas where available information is inadequate for assignment to any other MRZ

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: CGS, SR-145 1981

Date: 11/10/2022

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Moorpark contains three locally significant resources, nine Points of Historic Interest, and one built environment resource listed in the California Register of Historical Resources (CRHR). No resources within the city of Moorpark have been listed on the National Register of Historic Places (NRHP). Locally significant resources, Points of Historic Interest, and additional historic-period resources are listed below. In addition, there are numerous archaeological sites representing the pre-contact (prehistoric Native American) and historic-period occupation and history of the city that are withheld from public disclosure due to confidentiality.

Locally significant resources include:

- Taylor House
- 1890 circa Moorpark First Southern Baptist Church at 702 Walnut Street and
- 1900s High Street Pepper Trees located on High Street planted by Poindexter.
- The Moorpark First Southern Baptist Church at 702 Walnut Street and High Street Pepper Trees are also listed as Historical Landmarks of Ventura County by the Ventura County Genealogical Society.

The Moorpark Historical Society lists nine Points of Interest within Moorpark:

- Original Southern Pacific Depot site
- Theater on High Street
- William's Service Station
- Moorpark Mercantile Location
- Tanner's Corner
- Whitaker Block
- Moorpark Women's Fortnightly Clubhouse
- Munger/Cornett Home
- Wesley Chapel

Cultural resources come in a variety of forms, and range from historic, existing architecture to deeply buried archaeological and tribal cultural resources. Shown in **Figure C-6**, Archaeological Sensitivity, the eastern half of the city has a high sensitivity for the physical remains of past human activities that are prehistoric or historic. **Figure C-7**, Built Environment Sensitivity, shows that central, southeast, and northeast Moorpark have a high sensitivity to architectural history.

Paleontological resources comprise any fossilized remain, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth. The term does not include archaeological or cultural resources. As shown in **Figure C-8**, Paleontological Resources, the northern, northeast, and southeast areas of the city have a high sensitivity for such resources.

The Moorpark Historical Society is a local nonprofit, formed in 1979, that is dedicated to preserving Moorpark's history and enlightening future generations about the city's rich heritage. The Historical Society's main focus is to keep the history of Moorpark alive via walking tours, meetings, high school scholarships, and partnerships with Moorpark schools. The Historical Society continues to archive historical photos, ephemera, and memorabilia.

HISTORIC, CULTURAL, ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES

GOAL COS 3

MOORPARK'S UNIQUE HISTORICAL, CULTURAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES ARE PRESERVED AND PROTECTED.

COS 3.1

Historic resources inventory: Maintain and periodically update an inventory of recognized historic buildings, structures, districts, and landscapes of local, regional or national significance and those that might be eligible for recognition.

COS 3.2

Historic resource protection and use: Ensure the protection, rehabilitation, and reuse of historic buildings, structures, districts, and landscapes of local, regional or national significance.

COS 3.3

Downtown historic resources: Protect Moorpark's traditional downtown area so that physical changes that occur within it enhance its historic character.

COS 3.4

Historic resources awareness: Promote community awareness of the benefits of historic preservation and provide resources such as how-to guides and funding that supports community actions to preserve historic resources.

COS 3.5

Paleontological and archaeological resources: Require new development to protect and preserve paleontological and archaeological resources from destruction, and avoid and minimize impacts to such resources in accordance with the requirements of CEQA.

COS 3.6

Open space resource protection: Explore acquisition of new open space areas, including privately owned parcels located adjacent to or within recognized historical, cultural, archaeological, and paleontological resources.

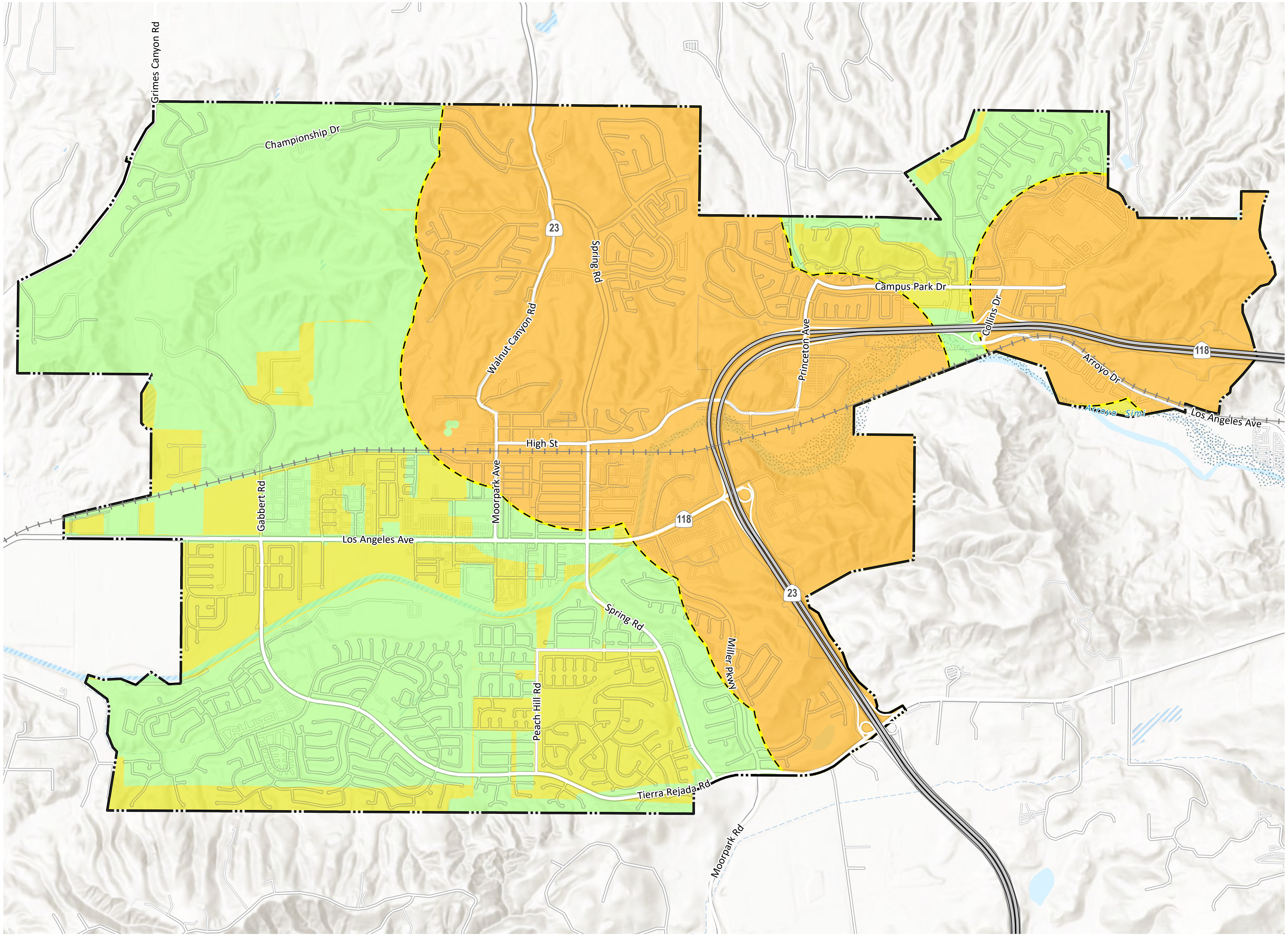
7.2.4 Energy Use

Most of the energy used in Moorpark's buildings is in the form of electricity and natural gas used for lighting, air conditioning, space and water heating, cooking, clothes washing and drying, and many other purposes. Southern California Edison and the Clean Power Alliance are the city's electricity suppliers and the Southern California Gas Company supplies Moorpark with natural gas.

New buildings must meet the energy efficiency standards set by the State in the California Energy Code. This code regulates how new structures must be built so as to use less energy and to prioritize low-carbon and carbon-free energy sources. The California Energy Code is updated every three years with more stringent requirements. The current version of the standards went into effect January 1, 2020, while the next update is scheduled to go into effect January 1, 2023. Local governments also have the option of adopting standards that exceed the state minimums.

Figure C-6

Archaeological Sensitivity



City Boundary
Railroad
High Sensitivity Archaeological Site Buffer

Archaeological Sensitivity

High
Assumed High
Low

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: PlaceWorks, 2022; ECorp, 2022 Date: 11/11/2022

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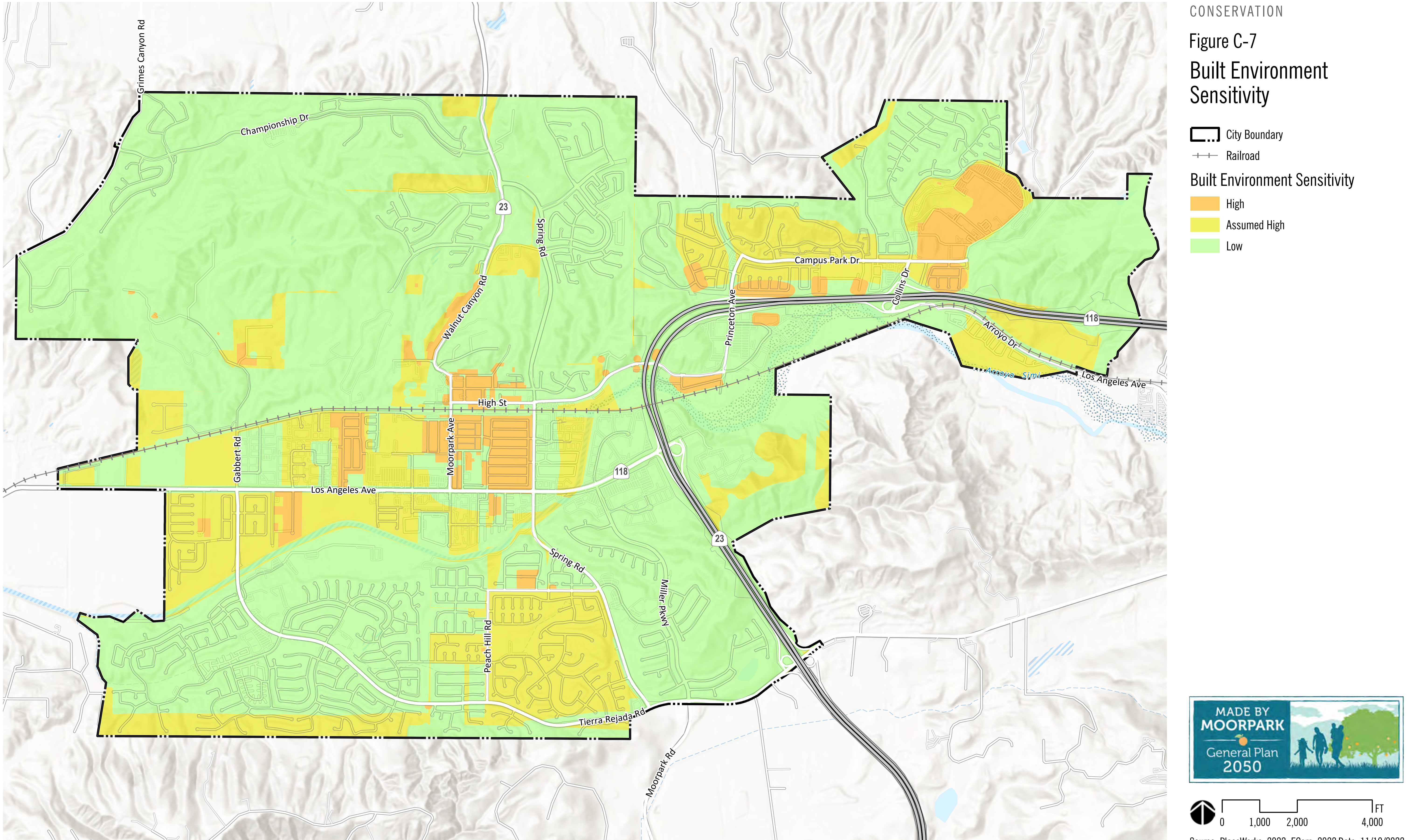
CONSERVATION

Figure C-7

Built Environment Sensitivity



Source: PlaceWorks, 2022; ECorp, 2022 Date: 11/10/2022

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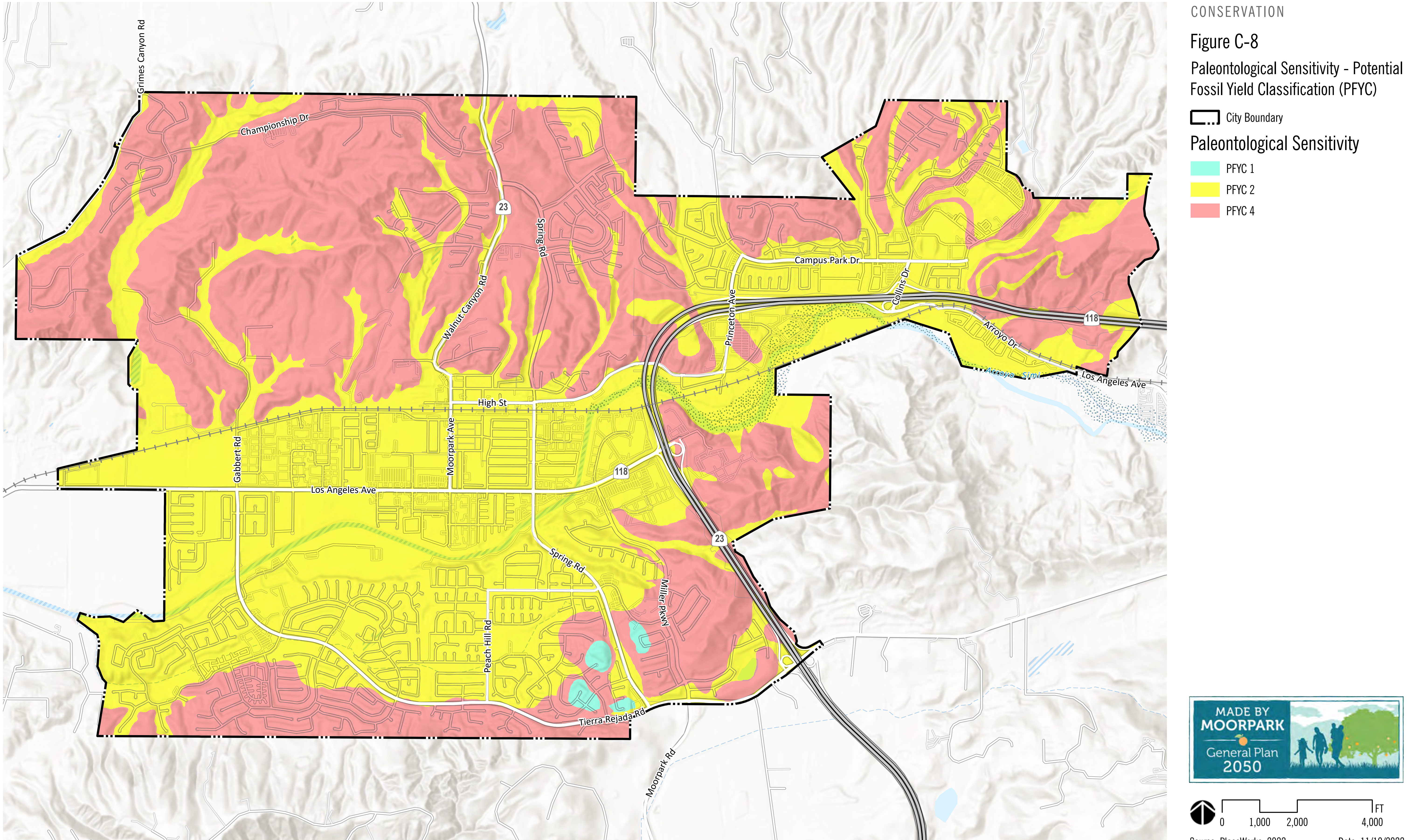
Figure C-8

Paleontological Sensitivity - Potential Fossil Yield Classification (PFYC)



MADE BY MOORPARK General Plan 2050

Source: PlaceWorks, 2022

Date: 11/10/2022

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Older buildings are often less energy-efficient than new ones, but owners of older buildings can take steps to improve this. Retrofit activities such as replacing older appliances with more efficient models, improving wall and ceiling insulation, and upgrading doors and windows can all help to reduce the energy use of an older building. There are also many options for low-cost or free energy efficiency actions, which can include replacing old light bulbs with more efficient ones, ensuring that electrical devices are turned off when not in use, and reducing the use of air conditioning and heating.

As of 2020, approximately 31% of Southern California Edison's electricity came from renewable sources such as solar and wind. Community members can increase the amount of energy they use from renewable sources by installing solar panels on their roof or elsewhere on their property to supply their home or business. Battery systems can help make sure that solar panel owners are getting the greatest benefit from their renewable energy systems and can also allow building to continue to receive power even during a power outage. People unwilling or unable to install these systems can increase their renewable energy use by enrolling in programs from Southern California Edison that supply at least 50% or 100% of their electricity from renewable sources.

ENERGY USE

GOAL COS 4
THE COMMUNITY USES LESS ENERGY, HAS A RESILIENT AND RENEWABLE ENERGY SUPPLY, AND MAKES EXTENSIVE USE OF GREEN BUILDING PRACTICES.

COS 4.1
New building energy efficiency: Encourage new buildings to exceed state energy efficiency requirements where cost-effective and equitable, including through the use of improved insulation, all-electric heating and cooling systems, and high-efficiency appliances.

COS 4.2
Passive energy conservation: Require that buildings in large scale commercial, mixed-use, and planned development projects include, to the extent feasible, passive energy-conservation strategies including, but not limited to, location and orientation.

COS 4.3
Energy efficiency improvements: Work with property owners to conduct energy efficiency retrofits and other improvements to existing buildings, particularly rental units and buildings constructed before 1980. Emphasize ways to improve the energy efficiency of existing buildings that are equitable and cost-effective

COS 4.4
Low-cost energy efficiency: Enact widespread energy efficiency and conservation practices that are accessible and feasible for most or all of the community, including low-cost and free actions and those with accelerated payback periods.

COS 4.5
Carbon-free transition: Transition to low-carbon and carbon-free energy sources for homes and nonresidential buildings.

COS 4.6

On-site renewable energy: Increase the installation of on-site renewable energy systems in all new and existing developments with the capacity to support these systems, enforcing the renewable energy requirements of the California Building Standards Code and encouraging buildings not covered by state requirements to install renewable energy systems.

Drought tolerant landscaping along Moorpark roads

COS 4.7

Energy storage systems: Encourage new and existing developments to install energy storage systems, particularly for developments in Very High Fire Hazard Severity Zones and for developments providing essential community services.

COS 4.8

Energy use at city facilities: Retrofit city facilities to improve energy efficiency, decrease natural gas use, and install renewable energy and energy storage systems.

COS 4.9

Green building practices: Provide information about, and encourage, incorporating additional green building practices into new development and major retrofits, including active and passive energy-conservation strategies, low-carbon, sustainable building materials, and reuse of building materials.

COS 4.10

Regional energy collaboration: Collaborate with the Ventura County Regional Energy Alliance, the Clean Power Alliance, and other regional energy groups to promote educational campaigns and financial incentives for energy efficiency and conservation, renewable energy, and energy storage.

7.2.5 Water Use

Responsible water usage has become an ongoing concern across Ventura County. Since the year 2000, California has undergone multiple cycles of drought, lasting one to five years each. Recurring cycles of drought are expected to become more frequent and intense in light of climate change. Maintaining a reliable and secure water supply has therefore become a critical issue for cities, including Moorpark.

Moorpark receives its water from the Ventura County Waterworks District 1, which sources 80% of its water from the Sierra Nevada and 20% from the local groundwater wells. New buildings and landscapes in Moorpark must meet state and local standards for efficiency, while existing buildings can reduce water use by installing water-efficient landscaping and upgrading fixtures. Incorporating permeable paving and green areas into hardscapes and landscapes and using drought tolerant plants (see below) helps keep groundwater levels healthy, while reducing runoff and its water quality impacts.

The frequency of drought also underscores the need for responsibly managing the aquifer. The city supports efforts to assess and incorporate best available technology to improve groundwater recharge potential, clean runoff, increase infiltration, and otherwise improve the long term sustainability of aquifers that supply water for the Moorpark community.

WATER USE

GOAL COS 5

COMMUNITY MEMBERS PRACTICE WATER CONSERVATION AND WATER REUSE. MOORPARK'S WATER SUPPLY IS HIGHLY RESILIENT.

COS 5.1

Drought-tolerant landscaping: Provide education and grant programs to encourage replacement of lawns and other water-intensive landscaping with drought-tolerant landscaping, especially landscaping incorporating native species and xeriscaping.

COS 5.2

Water reuse: Encourage property owners to install rainwater catchment and greywater systems in new developments or major retrofits.

COS 5.3

Green infrastructure: Install permeable paving, bioswales, and other green infrastructure components in new and significantly renovated hardscape projects.

COS 5.4

Low-cost water efficiency: Continue to work with water providers to educate community members about low-cost water efficiency improvements in homes and businesses.

COS 5.5

Net zero water use: Encourage developers to design new structures and property landscapes to achieve net zero water use, to the extent feasible.

7.2.6 Waste

As of 2020, the average resident in Moorpark generates almost 5 pounds of refuse daily, or over 1,800 pounds each year, not including waste that goes into recycling or yard waste bins. Reducing the amount of trash produced by the community not only helps preserve landfill space and conserve resources, but decreases Moorpark's greenhouse gas emissions and reduces energy and water use.

Since the original passage of AB939 in 1989, the city is proud to meet the state requirements to divert a minimum of 50% of solid waste generated in Moorpark from landfill disposal. The city's success is the result of promoting waste reduction and encouraging recycling, composting, and proper disposal of household hazardous wastes. However, increasing state mandates now target other important aspects of the city's waste generation portfolio. The state is gradually moving to a zero waste approach in the foreseeable future.

In response to these increasing mandates, communities across California, including Moorpark, are expanding recycling efforts into composting, green waste, and food waste. Community members can also increase their use of reusable materials and products rather than disposable ones and to encourage reuse of materials that might otherwise go to a landfill, which further helps to reduce waste generation and keep trash out of local landfills.

Moorpark's waste management program is codified in the municipal code. The following goal and policies address waste management. Policies regarding household hazardous waste are included in the General Plan Safety Element.

WASTE

GOAL COS 6

WASTE GENERATION IS DECREASED, THERE ARE EXTENSIVE RECYCLING AND COMPOSTING OPTIONS IN THE COMMUNITY, AND MOORPARK HAS AMPLE OPPORTUNITIES FOR MATERIAL REUSE.

COS 6.1

Waste sorting education: Improve education efforts on waste sorting for community members.

COS 6.2

Recycling and composting access: Expand access to recycling and composting services for homes and businesses.

COS 6.3

Single-use plastics: Explore options to decrease the use of single-use plastics and encourage the use of reusable materials.

COS 6.4

Food waste: Discourage food waste and remove barriers to donate food and compost.

7.2.7 Sustainable Agriculture and Land Use

Unincorporated areas surrounding Moorpark is one of the richest agricultural areas in the state. Indeed, the County of Ventura and its many jurisdictions adopted the SOAR initiative to limit urban sprawl in unincorporated land designated for agricultural, open space, or rural land uses. SOAR also established city-urban restriction boundaries (CURB) around the perimeter of each city, including the city of Moorpark. Expansion of CURB beyond a city's boundary requires approval by a majority of voters in the respective city. Moorpark voters extended SOAR by Measure E to continue until 2050, which will also preserve the Tierra Rejada Greenbelt.

While Moorpark has limited traditional agricultural operations within the community, the city can work with local agricultural operations to make sure they remain viable while also helping them to transition to sustainable practices. Community members can play a role by growing their own food and supporting the creation of community gardens.

Sustainable land use practices can also include a robust urban forest program. Tree planting and removal of invasive species helps maintain and support native species and ecosystems that provide numerous benefits, including pollination services. Agriculture and open space also create an opportunity for farmers, ranchers, and other land operators to use their natural and working lands for carbon sequestration activities, reducing GHG emissions while enhancing soil health.

SUSTAINABLE AGRICULTURE AND LAND USE

GOAL COS 7

MOORPARK PRACTICES SUSTAINABLE AND LOW-CARBON AGRICULTURE AND LAND USE ACTIVITIES.

COS 7.1

Tree plantings: Protect and expand the urban forest through new tree plantings and effective and timely care of existing trees, emphasizing consistent tree canopies along corridors in areas such as along Moorpark Avenue and Los Angeles Avenue and within the Downtown area.

COS 7.2
Invasive and prohibited plants: Consider removal and replacement of invasive and prohibited plants located on public lands, as identified in the city's Landscape Design Standards and Guidelines.

COS 7.3
Carbon sequestration for working lands: Increase opportunities to sequester carbon on agricultural land and open space.

COS 7.4
Pesticide reduction: Work with agricultural operations and property owners in and around the city to reduce pesticide use and other potentially harmful agents on agricultural land and private landscaping to the extent viable alternatives are available and economically feasible.

COS 7.5
Edible gardens: Support and promote opportunities to grow local food in residential yards, schools, community-gardens, and common areas in multi-family housing.

COS 7.6
Sustainable agriculture: In coordination with agricultural organizations, improve soil conservation, reduce fertilizer use, and promote other sustainable agricultural practices that help to improve yield, maintain agricultural viability, and support adaptation to changing climate conditions.

COS 7.7
Food access: Support the accessibility and availability of healthy food through farmers markets, urban agriculture, community gardens, grocery stores, and other venues.

7.2.8 GHG Reduction and Education

Several activities in Moorpark produce greenhouse gas (GHG) emissions, which are gases that build up in the atmosphere, increasing temperatures and changing global climate systems. These changes can make some natural hazards, such as floods, droughts, and wildfires occur more frequency and with greater intensity. Activities that produce GHGs include the use of on-road vehicles such as cars and trucks, electricity and natural gas use in local buildings, and throwing materials in landfills. California is working toward a goal of carbon neutrality by 2045, and Moorpark can do its part by reducing its GHG emissions. New technologies, regulations, and changes in individual and business practices can help support greater GHG emission reductions. Education and other environmental programs also help to engage community members and contribute to GHG emission reductions and other sustainable practices.

GHG EMISSION REDUCTIONS AND EDUCATION

GOAL COS 8
MOORPARK SUPPORTS GREENHOUSE GAS EMISSION REDUCTION AND COMPREHENSIVE SUSTAINABILITY PRACTICES THROUGHOUT THE COMMUNITY.

COS 8.1
Greenhouse gas reduction: Reduce community-wide and city operations greenhouse gas (GHG) emissions from vehicles, residential, and nonresidential energy use, waste generation, water and wastewater collection and treatment, off-road uses, and

other GHG emission sources to meet or exceed the State's goal to achieve carbon neutrality by 2045.

COS 8.2

Climate action plan: Work collaboratively with regional agencies, neighboring cities, community-based organizations, businesses, and other partners, as appropriate, to develop and implement a Climate Action Plan to address statewide GHG reduction and elimination goals, including those of Assembly Bill 1279, Executive Order B-55-18, Senate Bill 32, and Executive Order S-03-05.

COS 8.3

Environmental education: Develop and implement a public information program on environmentally responsible and sustainable practices that can: (1) educate community residents as to the nature of these issues, opportunities for public input and dates and times of public participation meetings, hearings, workshops, etc., and (2) respond to current local issues and problems associated with environmental responsibility and sustainability.

COS 8.4

Expanded environmental programs: Explore and promote opportunities for additional environmentally responsible and sustainable programs and practices for community residents and visitors, businesses, and city operations.

8

Safety

MADE BY
MOORPARK
General Plan
2050

8.1 INTRODUCTION

The Safety Element is a state-required General Plan element that identifies potential natural and human-caused hazards that could affect the city of Moorpark's residents, businesses, visitors, environment, and services. The framework established by the Safety Element anticipates these hazards and prepares the community to reduce exposure to these risks. Some degree of risk is inevitable due to the climate, topography, vegetation, and water courses running through the city, and the potential for many disasters cannot be completely eliminated and/or predicted. However, the goal of the Safety Element is to reduce, to the greatest extent, the risk of injury, death, property loss, and other hardships associated with these hazards.

This Element conveys the city's goals and policies to minimize hazards in and around Moorpark. It identifies the natural and human-caused hazards that affect existing and future development, describes how climate change will likely affect these hazards, and sets a range of policies for improved safety and welfare. The Safety Element also seeks to minimize physical harm to the buildings and infrastructure that support the local economic systems, community services, and ecosystems in and around Moorpark

The Implementation section contains a set of actions to implement the goals and policies of the Safety Element. Cooperation and coordination between the city and surrounding emergency response agencies, such as Ventura County, Simi Valley, and Thousand Oaks, is a key component of this element.

The Safety Element serves the following functions:

- Develops a framework by which safety and resilience considerations are introduced into the land use planning process.
- Facilitates the identification and mitigation of hazards for new development, thus strengthening existing codes, project review, and permitting processes.
- Presents policies and implementation programs directed at identifying and reducing hazards in existing development.
- Strengthens hazard preparedness planning and post-disaster reconstruction policies.
- Identifies how hazards are likely to increase in frequency and intensity due to climate change, see Appendix A Climate Change Vulnerability Assessment, and provides policies to increase community resilience.

The Safety Element is divided into nine sub-sections addressing required or supplementary topics identified in California Government Code Section 65302(g). Each sub-section includes a Background section which provides an overview of the hazards, and a Goals and Policies section which provides goals and policies to reduce the effects of the hazards. These nine sub-sections include the following:

1. Emergency Management
2. Geologic and Seismic Hazards
3. Flooding Hazards
4. Fire Hazards
5. Severe Weather
6. Human Health Hazards
7. Hazardous Materials

8. Police Services
9. Fire Services

8.1.1 Regulatory Framework

The Safety Element addresses the required safety topics in accordance with State requirements, which are primarily defined in California Government Code Section 65302(g). State law requires that the Safety Element address the following:

- Protect the community from risks associated with a variety of hazards, including seismic activity, landslides, flooding, and wildfire.
- Map and assess the risk associated with flood hazards, develop policies to minimize the flood risk to new development and essential public facilities, and establish effective working relationships among agencies with flood protection responsibilities.
- Map and assess the risk associated with wildfire hazards, develop policies to reduce the wildfire risk to new land uses and essential facilities, ensure there is adequate road and water infrastructure to respond to fire emergencies, and establish cooperative relationships between fire protection agencies.
- Assess the risks associated with climate change on local assets, populations, and resources. Note existing and planned development in at-risk areas and identify agencies responsible for providing public health and safety and environmental protection. Develop goals, policies, objectives, and feasible implementation measures to reduce the risks associated with climate change hazards, including locating new public facilities outside of at-risk areas, providing adequate infrastructure in at-risk areas, and supporting natural infrastructure for climate adaptation.
- Identify residential developments in any hazard area that do not have at least two emergency evacuation routes.
- Identify new information relating to flood and fire hazards and climate adaptation and resiliency strategies applicable to the city or county that was not available during the previous revision of the safety element, during each revision of the housing element or local hazard mitigation plan, but not less than once every 8 years.

8.1.2 Relationship with Other Documents

The Safety Element does not exist in a vacuum but is instead one of several plans that address public health, safety, and related topics. The Safety Element must be consistent with these other plans to minimize conflicts between documents and ensure the city has a unified strategy to address safety and hazard issues. The Safety Element incorporates information, technical analyses, and policies from other documents, where appropriate, to help support this consistency.

Ventura County Multi-Jurisdictional Hazard Mitigation Plan

Ventura County's Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) is a plan to identify and profile hazard conditions, analyze risk to people and facilities, and develop mitigation actions to reduce or eliminate hazard risks in the county. The MJHMP contains a Moorpark Annex, which describes the hazards and mitigation actions specific to the city of Moorpark, in accordance with the federal Disaster Mitigation Act of 2000 and the Federal Emergency Management Agency's (FEMA's) Local Hazard Mitigation Plan (LHMP) guidance. The mitigation actions in the MJHMP include both short-term and long-term strategies, and involve planning, policy changes, programs, projects, and other activities. The LHMP and Safety Element address similar issues, but the Safety Element provides a higher-level framework and set of policies, while the LHMP focuses on more specific mitigation, often short-term, actions. The MJHMP, most recently adopted by FEMA in July 2022, focuses on mitigation-related actions, while the Safety Element also includes policies related to emergency response and recovery activities. The current MJHMP is incorporated into this Safety Element by reference, as permitted by California Government Code Section 65302.6.

City of Moorpark Emergency Operations Plan

The city is prepared to maintain its core level of service during emergency situations, such as fire, earthquake, flood, or other hazardous events through implementation of the Emergency Operations Plan (EOP). The EOP provides procedures for potential large-scale disasters that can generate unique situations requiring unusual emergency responses and may require the activation of the city's Emergency Operations Center. The EOP addresses readiness, mobilization, and contingency planning to allow for uninterrupted delivery of essential functions during disasters. The EOP aims to save lives, prevent property damage, protect, and assist the public with emergencies, and facilitate recovery after a disaster.

8.1.3 Climate Change Vulnerability

Climate change is expected to affect future occurrences of natural hazards in and around Moorpark. Many of these hazards will likely become more frequent and intense in coming years and decades. In some cases, these trends have already begun, such as increases in the frequency and intensity of severe weather, extreme heat, drought, and wildfires. According to California's Fourth Climate Change Assessment[1], Moorpark can expect to experience various changes to climate change hazards.

- Wildfires can be sparked by lightning, malfunctioning equipment, vehicle crashes, and many other causes. Warmer temperatures, an increase in drought conditions, and extreme wind events are likely to create more fuel for fires in natural areas, leading to a greater chance that a spark will grow into a dangerous blaze and move from wildland areas into more urbanized areas of Moorpark. Climate change is also expected to extend the fire season throughout much (or even all) of the year, creating an overlap with Santa Ana wind events. Because wildfires burn the trees and other vegetation that help stabilize a hillside and absorb water, more

[1] Bedsworth, Louise, Dan Cayan, Guido Franco, Leah Fisher, Sonya Ziaja. (California Governor's Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission). 2018. Statewide Summary Report. California's Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-013.

areas burned by fire may also lead to an increase in landslides and debris flows during or after heavy precipitation events.

- Both droughts and floods are expected to become more frequent as precipitation is expected to occur in fewer, more intense storms due to climate change. Although Moorpark is likely to experience only a slight increase in overall annual precipitation levels from climate change, the region is expected to see an increase in the number of extreme precipitation events, as well as droughts that last longer and are more intense. As a result, floods are expected to occur more often in Moorpark, and climate change may expand the parts of the city that are considered flood prone. The increase in frequency and severity of droughts will likely strain both habitats and water supplies in the city.
- Warmer temperatures are projected to cause an increase in extreme heat events. The number of extreme heat days is expected to rise in Moorpark, in addition to an increase in the average daily high temperatures. Extreme heat poses a significant human health risk, especially to children, outdoor workers, immigrant communities, and persons experiencing homelessness. Energy delivery infrastructure and services may be damaged by very high temperatures, constraining their ability to meet community needs.
- Severe weather events, such as high winds, thunderstorms, hail, and heavy rainfall, may become more frequent and intense due to climate change. Climate change is expected to cause an increase in intense rainfall, which can cause flooding. In Moorpark, most severe weather is linked to hot, dry, high winds, known as the Santa Ana winds. These wind events tend to be most frequent during October to April and can have average speeds of 40 miles per hour. Severe weather can cause secondary hazards, such as Public Safety Power Shutoffs, which can harm those who rely on electricity-dependent medical devices. The types of dangers posed by severe weather vary widely and include injuries or deaths, damage to buildings and structures, and roads blocked by debris or fallen trees.
- Climate change can increase the rates of infection for various diseases because many of the animals that carry diseases are more active during warmer weather. There are a number of diseases that are linked to climate change and can be harmful to the health of Moorpark community members, such as hantavirus pulmonary syndrome, Lyme disease, and West Nile virus. Many of these diseases are carried by animals, such as mice and rats, ticks, and mosquitos, which are usually seen as pests even if they do not cause infections. Warmer temperatures earlier in the spring and later in the winter can cause these animals to be active for longer periods, increasing the time that these diseases can be transmitted.
- According to the 2020 County of Ventura Crop Report, agriculture and livestock production had a value of $2 billion in 2020, strawberries, lemons, and nursery stock being the largest-grossing crops. Agricultural pests and diseases can affect crop plants, orchards, and nurseries surrounding Moorpark. The severity of this hazard is measured in terms of pests and

disease incidents, which are likely to increase as higher temperatures allow insects to reproduce more rapidly and increase the activity window for pests and diseases. Pests and diseases can slow the growth of plants, inflict damage, or lead to fatalities.

Under California Government Code Section 65302(g)(4), the Safety Element is required to include a vulnerability assessment that looks at how people, buildings, infrastructure, and other key community assets may be affected by climate change. The city conducted a Climate Vulnerability Assessment in Winter 2022 to analyze Moorpark's susceptibility to climate change hazards. The city's Climate Vulnerability Assessment, prepared in accordance with the most recent available guidance in the California Adaptation Planning Guide, assesses how eight different climate-related hazards (agricultural and ecosystem pests and diseases, drought, extreme heat and warm nights, flooding, human health hazards, landslides, severe weather, and wildfire and smoke) may affect 61 different population groups and community assets. Each population or asset received a score ranging from low vulnerability to high vulnerability for each relevant climate change hazard. The Climate Vulnerability Assessment indicates Moorpark populations and assets are most vulnerable to wildfire and flooding. The Climate Vulnerability Assessment Report provides an overview of the methods, summary of the climate change hazards, populations and assets included in the assessment, and the full list of results, which can be found in Appendix A. The results of the Climate Vulnerability Assessment are integrated into the hazard and other safety sections.

8.2 EMERGENCY MANAGEMENT

Emergency preparedness activities in the city are conducted through the Emergency Management Division of the Finance Department. The Emergency Management Division also coordinates with the Ventura County Office of Emergency Services and Public Health Department to prepare for and respond to acute events like heat emergencies or extreme heat days and power outages during critical fire weather. This division is responsible for the operation of the city's Emergency Operations Center, which provides coordination of the city's emergency planning, training, response, and recovery efforts for emergencies such as fires, floods, earthquakes, acts of terrorism, public safety power shutoff events, extreme weather events, and pandemics. When the Emergency Operations Center is activated, the Ventura County Fire Department and Sheriff's Office, who provide fire and police services, have primary and support roles in the management and operations divisions.

The Emergency Management Division also provides the public with access to a Community Emergency Response Team (CERT) training program. CERT is a six-week training course aimed at teaching residents how to help their families and neighbors during a disaster.

The city of Moorpark uses the Ventura County Alert Notification System (VC Alert), an Everbridge mass notification system, to notify the community and distribute emergency information and instructions before, during, and after a disaster. VC Alert provides community members with emergency notifications through telephone calls, text messages, and email notifications. This system provides alerts in 12 languages—Danish, English (US and UK), German, Italian, Japanese, Norwegian, Portuguese, Russian, Spanish (Europe and Latin America), and Swedish.[2]

Other emergency alert systems include the Emergency Alert Systems (EAS) and the Emergency Digital Information System (EDIS). The EAS is a national public warning system commonly used by state and local authorities to deliver important emergency information, such as weather and AMBER alerts, to affected communities. EAS participants include radio and television broadcasters, cable systems, satellite radio and television providers, and wireline video providers. FEMA, the Federal Communications System, and the National Oceanic and Atmospheric Administration's (NOAA's) National Weather Service work collaboratively to maintain the EAS and Wireless Emergency Alerts, which are the two main components of the national public warning system and enable authorities at all levels of government to send urgent emergency information to the public. The EDIS is a wireless emergency and disaster information service operated by the State of California Governor's Office of Emergency Services and is an enhancement to the EAS. These systems are available in multiple languages.

8.2.1 Mutual Aid Agreements

The California Master Mutual-Aid Agreement has been adopted by the Standardized Emergency Management System and is designed to ensure that adequate resources, facilities, and other support are provided to jurisdictions whenever their own resources are insufficient to cope with the needs of a given emergency. The city of Moorpark participates in the California Master Mutual-Aid Agreement. The State Office of Emergency Services Southern Administrative Region (Mutual Aid Region I) serves the mutual-aid region that encompasses Ventura County. Automatic aid pacts with Ventura County and incorporated cities within the county provide additional emergency management and response services in Moorpark during and after a disaster.

8.2.2 Evacuation

With advanced warning, evacuation can be effective in reducing injury and loss of life during a catastrophic event. **Figure SE-1**, *Evacuation Routes,* shows the evacuation routes throughout the city. Primary emergency access and evacuation routes include SR-23, SR-118, Tierra Rejada Road, Spring Road, Peach Hill Road, Walnut Canyon Road, Championship Drive, Princeton Avenue, Campus Park Drive, Collins Drive, Arroyo Drive, Grimes Canyon Road, and Poindexter Avenue. All evacuation routes in Moorpark face a potential disruption from a flood, earthquake, or wildfire event, which may block roadways, damage the roadway surface, or collapse bridges.

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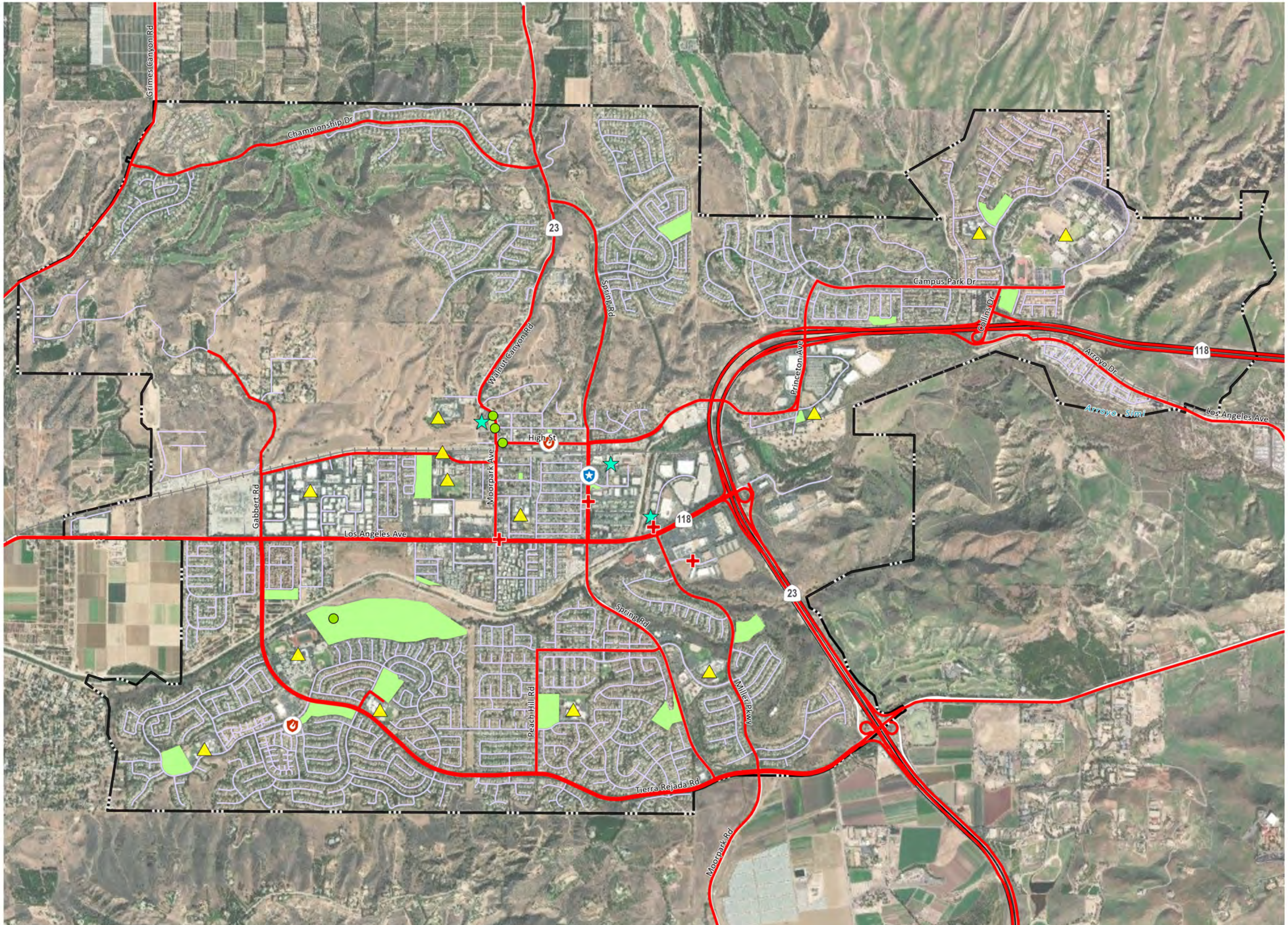
[2] Ventura County. 2020. VC Alert Frequently Asked Questions. https://s29710.pcdn.co/wp-content/uploads/2019/04/VC-ALERT-FAQ-FINAL-2019.pdf accessed May 20, 2020.

SAFETY

Figure SE-1

Evacuation Routes



City Boundary
Evacuation Routes
Police Services Center
Fire Station
Community Facility
Government Facility
Medical
School/College Campuses
Parks

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: City of Moorpark, 2022; PlaceWorks, 2022

Date: 4/21/2023

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In the event of widespread disruption to local evacuation routes, remaining evacuation routes may become congested, slowing down evacuation of the community or specific neighborhoods. This issue may be compounded since evacuation routes for Moorpark may also serve as evacuation routes for surrounding communities in Ventura County, and so potential disruptions may have regional effects.

An analysis of the city's roadway network and parcels conducted as part of the General Plan Update, as shown in **Figure SE-2**, *Evacuation Constrained Residential parcels,* shows that there are several evacuation-constrained residential parcels spread throughout the city, with the majority located north of Poindexter Avenue and Princeton Avenue, or south of Arroyo Simi. Many of the evacuation-constrained parcels in these areas could be subject to damage from wildfires, and if outside of a wildfire-prone area, could be subject to flooding. All evacuation-constrained parcels are located in at least one hazard-prone area and may have only one emergency evacuation route. The lack of multiple emergency access points limits roadway access for these properties, which may create difficulties if there is a need to evacuate.

EMERGENCY MANAGEMENT

GOAL SE 1

AN EMERGENCY MANAGEMENT FRAMEWORK THAT EFFECTIVELY PREPARES AND RESPONDS TO NATURAL AND HUMAN-CAUSED EMERGENCIES.

SE 1.1

Multi-jurisdictional cooperation: Continue the development of local preparedness plans, multi- jurisdictional cooperation and training, and communication for emergency situations.

SE 1.2

Emergency preparedness education: Educate residents and businesses regarding appropriate actions to safeguard life and property during and immediately after emergencies.

SE 1.3

Emergency coordination: Coordinate with Ventura County, neighboring cities, and non-governmental partners to provide regular training and outreach to effectively prepare for and respond to hazards and natural disasters.

SE 1.4

Emergency alerts: Work with Ventura County Office of Emergency Services to provide alerts about potential, developing, and ongoing emergency situations through extensive early-warning and notification systems that convey information to all residents, in multiple languages and formats to ensure it is widely accessible, including persons with access and functional needs.

SE 1.5

Hazard Mitigation Plan: Incorporate the most recent version of the Ventura County Hazard Mitigation Plan, Moorpark Annex, most recently certified by FEMA in 2022, into this Safety Element by reference, as permitted by California Government Code Section 65302.6.

SE 1.6

Community Emergency Response Team: Expand the capabilities of the Community Emergency Response Team to provide more community members with the tools to respond to disasters.

SE 1.7

Redundant communication: Create redundances in the communication infrastructure to ensure communication services are available during emergencies.

SE 1.8

Renewable back-up energy: Provide renewable back-up power supplies, such as solar, wind, and battery power, for critical facilities, including cooling centers and resilience hubs.

SE 1.9

Multi-Hazard Evacuation Plan: Identify evacuation routes and develop a multi-hazard evacuation plan, in coordination with surrounding jurisdictions, to ensure evacuation routes remain open and functional during emergencies. Reassess the effectiveness of the evacuation routes with the update of the Ventura County Multi-Jurisdictional Hazard Mitigation Plan.

SE 1.10

Ingress and egress: Require new development to have at least two ingress and egress routes that account for existing and proposed traffic evacuation volumes at buildout.

SE 1.11

Secondary ingress and egress: Explore secondary means of ingress and egress in areas with existing evacuation constraints, as shown in **Figure SE-2**, *Evacuation Constrained Residential Parcels,* for subdivisions or developments of 10 units or more.

SE 1.12

Evacuation assistance program: Develop an evacuation assistance program, in coordination with Moorpark city bus, paratransit, and dial-a-ride agencies to help those with limited mobility or lack of access to a vehicle evacuate safely.

SE 1.13

Resilience hubs: Establish a network of equitably located resilience hubs throughout Moorpark and ensure that resilience hubs are situated outside of areas at risk from hazard impacts to the extent possible, offer refuge from extreme heat and poor air quality due to regional wildfire smoke, and are equipped with renewable energy generation and backup power supplies: Such facilities should be in easily accessible locations and be available to all community members.

SE 1.14

Resilient critical and lifeline facility siting: Locate new critical[3] and lifeline[4] facilities outside of flood and dam inundation zones, very high fire hazard severity zones, and landslide susceptibility areas, when feasible. If not feasible, appropriately site, design, and construct new critical facilities to be resilient to flooding, fires, and landslides.

SE 1.15

Hazard mapping: Update hazard mapping with each update to the Safety Element, or earlier, if new information becomes available, to ensure the city relies on best available hazard mapping to inform decisions.

SE 1.16

Agency coordination: Coordinate with Ventura County Fire Department, Ventura County Sheriff's Office, and City Manager's Office to ensure effective preparation, response, and recovery services are available throughout the community before, during, and after seismic and wildfire events.

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[3] Critical facilities are buildings and infrastructure whose continued functioning is necessary to maintain public health and safety following a disaster, and facilities where damage or failure could pose hazards to life and property well beyond their immediate vicinity.

[4] Lifeline facilities are infrastructure that provides essential community services, such as electricity, natural gas, internet, communications, and water and wastewater infrastructure.

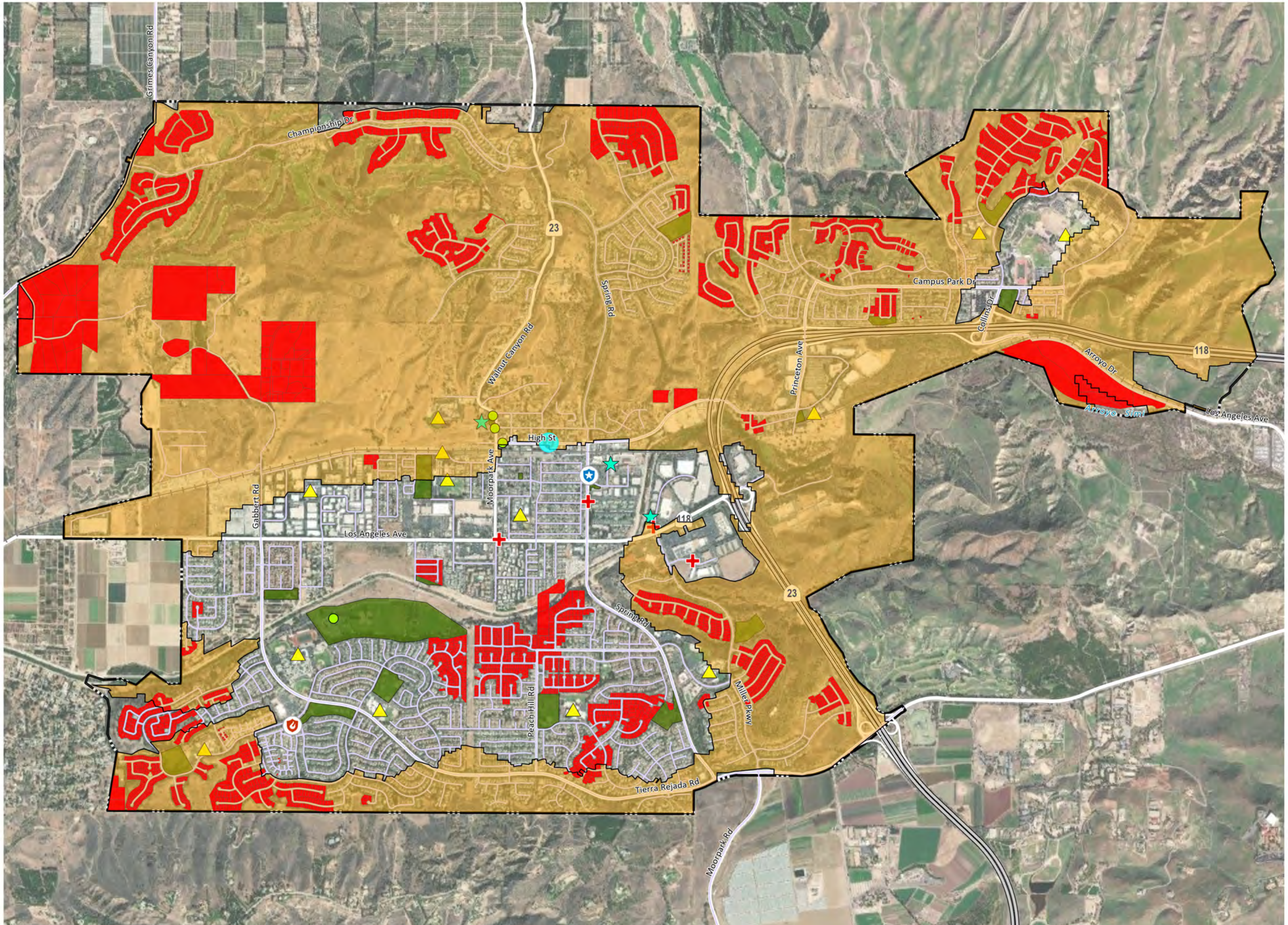

Figure SE-2

Evacuation Constrained Residential Parcels

City Boundary
Very High Fire Hazard Severity Zone (LRA)
Residential Parcels with Evacuation Constraints

Critical Facilities

Police Services Center
Fire Station
Community Facility
Government Facility
Med cal
School/College Campuses
Parks

MADE BY MOORPARK
General Plan 2050

0 1,000 2,000 4,000 FT

Source: City of Moorpark, 2022; PlaceWorks, 2022; ESRI, 2022

Date: 4/26/2023

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SE 1.17
Accessible hazard preparedness education and outreach: Promote hazard preparedness with education and outreach available in multiple languages and formats appropriate for people with access and functional needs.

SE 1.18
Ready Ventura County Program: Coordinate with the Ventura County Sheriff's Office of Emergency Services to update and coordinate the Ready Ventura County Program as relevant to the city of Moorpark.

SE 1.19
Livestock and large animal evacuation: Work with Ventura County Animal Services and Ventura County Office of Emergency Services to ensure that owners of livestock and large animals are prepared for and have the ability to evacuate during an emergency.

SE 1.20

Disaster Response Training: Coordinate with Ventura County Fire Department and Ventura County Sheriff's Office of Emergency Services to conduct training for all employees to ensure basic understanding of Disaster Service Worker responsibilities, the State Emergency Management System, National Incident Management System, and the Incident Command System.

8.3 GEOLOGIC AND SEISMIC HAZARDS

Seismic and geologic hazards are risks caused by the movement of different parts of the Earth's crust, or surface. Seismic hazards include earthquakes and hazardous events caused by them. Geologic hazards are other hazards involving land movements that are not linked to seismic activity and are capable of inflicting harm to people and/or property.

8.3.1 Seismic Hazards

Seismic activity occurs along boundaries in the Earth's crust, called faults, most commonly in the form of earthquakes. Earthquakes can trigger ground shaking, surface rupture (cracks in the ground surface), liquefaction (causing loose soil to lose its integrity), landslides, and subsidence (sinking of the ground surface) in Moorpark.

Earthquakes

Earthquake risk is very high in Moorpark, due to the presence of several active faults in the region. Major fault zones in the region include the San Andreas Fault, Simi-Santa Rosa Fault, Oak Ridge Fault, San Cayetano Fault, and the Santa Susana Fault. These faults are all capable of producing earthquakes of magnitude 6.7 or greater. A major earthquake along any of these five faults could result in substantial casualties and damage resulting from collapsed buildings, damaged roads and bridges, fires, flooding, and other threats to life and property. The location of the epicenter, as well as the time of day and season of the year, would have a profound effect on the number of deaths, injuries, and property damage.

Most of the loss of life and injuries from earthquakes are due to damage and collapse of buildings and structures. Building codes for new construction have generally been made more stringent following damaging earthquakes. However, in Moorpark, structures built prior to the enactment of these improved building codes have generally not been upgraded to current standards and are vulnerable to earthquakes. Comprehensive hazard mitigation programs that include the identification and mapping of hazards, prudent planning and enforcement of building codes, and expedient retrofitting and rehabilitation of weak structures can significantly reduce the scope of an earthquake disaster.

Earthquake shaking at a particular site is a function of both distance to the fault and site geology. Moorpark has a high potential for ground failure including liquefaction and settlement due to the close proximity of faults and Arroyo Simi. The city could suffer ground shaking strong enough to cause severe structural damage. As shown in **Figure SE-3**, *Earthquake Zones and Faults,* the Simi-Santa Susana Fault Zone crosses the southeastern corner of the city, which is also designated as an Alquist-Priolo Fault Zone. The Oak Ridge Fault, located three miles north of the city, is the fault that caused the 1994 Northridge Earthquake, which caused minor landslides and ridgetop shattering in the hills above Moorpark. Since 1994, three earthquakes have occurred with a 5.0 M_w or greater near Moorpark, including a 5.4 M_w earthquake in 2008 with an epicenter in Chino Hills, a 5.1 M_w earthquake with an epicenter in Brea Springs, and a 5.3 M_w earthquake with an epicenter on Santa Cruz Island.

Earthquakes are likely to continue to occur on an occasional basis and are likely to be small. Most are expected to cause no substantive damage and may not even be felt by most people. Major earthquakes are rare, but a likely possibility in the region. According to the United States Geologic Survey, there is a 25% chance of a 6.7 M_w or greater earthquake occurring from the San Andreas Fault by 2044. Overall, scientists estimate that there is a 60% chance of a 6.7 M_w or greater earthquake occurring in the greater Los Angeles region, including Moorpark, by 2044.

If serious shaking does occur, newer construction is in general more earthquake resistant than older construction because of improved building codes. Manufactured housing is very susceptible to damage because the foundation systems are rarely braced for earthquake motions.

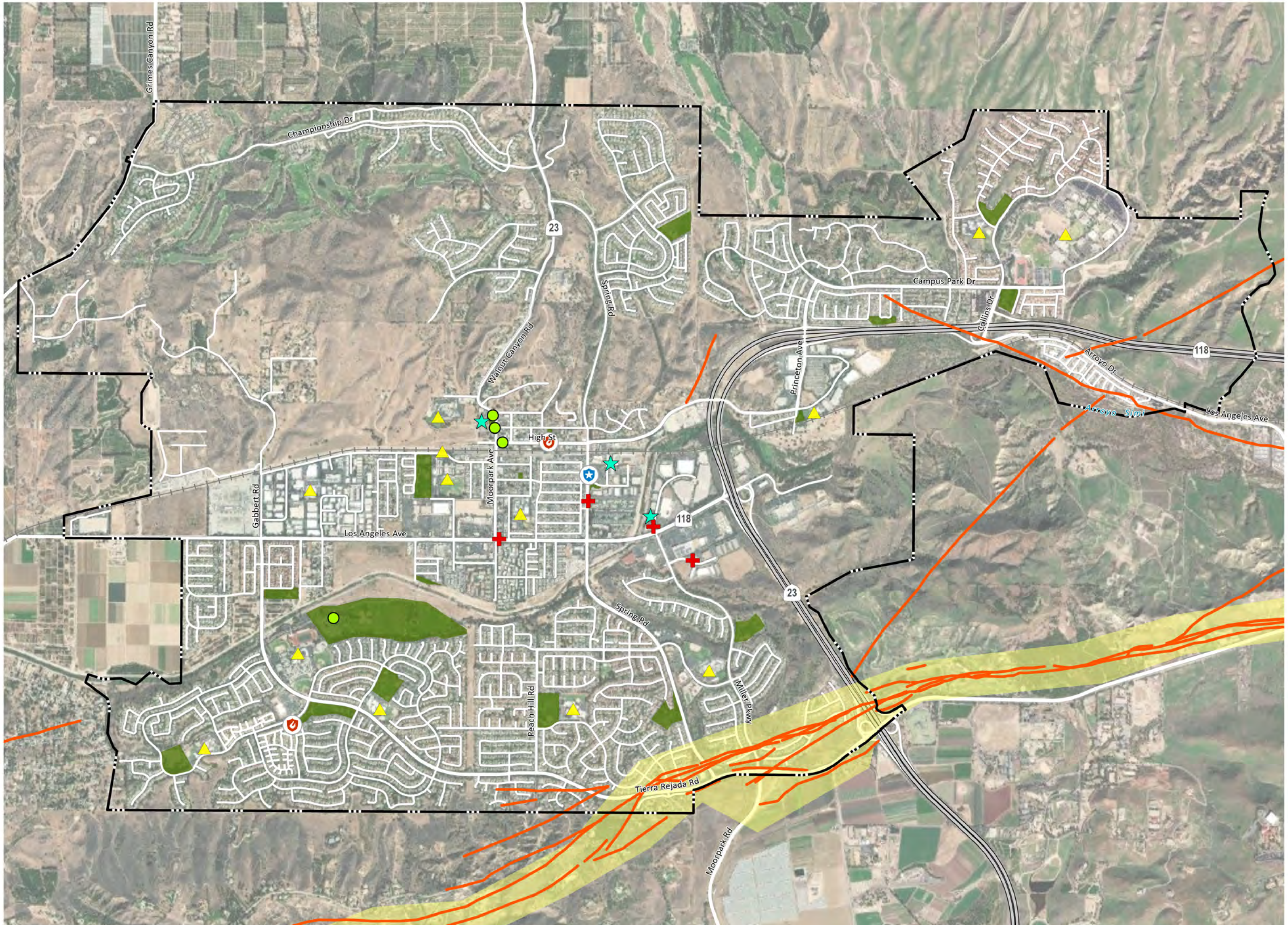
There is no evidence of a link between climate change and seismic activity, so climate change is not expected to change the frequency or intensity of hazards associated with earthquakes.

Liquefaction

Liquefaction occurs when loose sand and silt that are saturated with water behave like a liquid when shaken by an earthquake. Earthquake waves cause water pressures to increase in the sediment and the sand grains to lose contact with each other. The soil can lose its ability to support structures and flow down even very gentle slopes. Many of these phenomena are accompanied by settlement of the ground surface, usually in uneven patterns that damage buildings, roads, and pipelines. In some cases of liquefaction, structures built on the soil may collapse completely. Liquefied soils may also damage or destroy underground utility lines. This can cause floods if water lines are broken or create a risk of fire if there is damage to natural gas lines. Liquefied soils may also flow more easily down slopes, increasing the risk for landslides and mudslides.

SAFETY

Figure SE-3
Earthquake Zones and Faults



City Boundary
Earthquake Faults
Alquist-Priolo Earthquake Fault Zone

Critical Facility
Police Services Center
Fire Station
Community Facility
Government Facility
Medical
School/College Campuses
Parks

MADE BY MOORPARK
General Plan 2050

0 1,000 2,000 4,000 FT

Source: PlaceWorks, 2022
Date: 2/24/2023

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Geologic units that generally are susceptible to liquefaction include late Quaternary alluvial and fluvial sedimentary deposits and artificial fill. As shown in **Figure SE-4**, *Seismic Hazard Zones,* in Moorpark, the city is in an area prone to liquefaction. Previous geotechnical reports conducted in areas of the city within the liquefaction zone concluded that there is high potential of liquefaction and recommended mitigation measures to reduce the impacts.

Approximately 48.6% of the city's population live in areas prone to liquefaction.

In most cases, proper design and construction of subgrade soils and building foundations provides a mechanism to mitigate the risk of seismic hazards to an acceptable level in conformance with the California Building Code. The representation of areas having a liquefaction potential is only intended as notification to seek further site-specific information and analysis of this potential hazard as part of future site development.

8.3.2 Geologic Hazards

Landslides

A landslide is the downslope movement of soil and/or rock. Landslides can range in speed from very rapid to an imperceptible creep. Landslides can be caused by ground shaking from an earthquake or water from rainfall, septic systems, landscaping, or other origins that infiltrates slopes of unstable material. Boulder-strewn hillsides can also pose a boulder-rolling hazard from ground shaking, blasting, or a gradual loosening of their contact with the surface.

The likelihood of a landslide depends on an area's geologic formations, topography, ground shaking potential, and human influences. Improper or excessive grading can increase the probability of a landslide. Land alterations such as excavation, placement of fill, removal of vegetative cover, and introduction of water from drainage, irrigation, or septic systems may further contribute to slope instability and increase the likelihood of a landslide. Undercutting support at the base of a slope or adding too much weight to the slope can also produce a landslide.

As shown in **Figure SE-4**, *Seismic Hazard Zones,* in Moorpark, the northwestern part of the city and areas to the northeast of the city are in areas prone to earthquake-induced landslides. According to the California Geological Survey (CGS), most development areas in Moorpark are in areas not classified for landslide susceptibility, while the northern and southern edges of the city have areas that are considered most susceptible or generally susceptible to landslides.[5]

Historically, rain-induced landslides have occurred in the Santa Susanna mountains to the north of Moorpark, most recently after heavy rain events in the winter of 2003 and 2017. Climate change is likely to change precipitation patterns, increasing the frequency and intensity of heavy precipitation events, which can increase the risk of slope failures. These types of landslides or debris flows are most common on steep slopes made up of loose or fractured

[5] California Department of Conservation Division of Mines and Geology. 1995. Landslide Hazards in the Moorpark and Santa Paula Quadrangles, Ventura County, California, Landslide Hazards Identification Map No. 26. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_95-07/.

material. Landslides and mudslides can move fast enough to damage or destroy homes or other structures in their path, block roadways, and injure or kill people caught in them.

Subsidence

Land subsidence is the gradual, local settling or shrinking of the earth's surface, with little or no horizontal motion. Subsidence normally results from hydrocompaction (when soils collapse due to saturation); peat oxidation; or gas, oil, or water extraction. Subsidence is not the result of landslide or ground failure. There is potential for subsidence in the alluvial deposits in the case of rapid groundwater extraction. **Figure SE-5**, *Subsidence Zones,* shows the areas of potential subsidence due to groundwater pumping. Extended periods of drought may cause a heavier reliance on groundwater to meet water demands, which could increase subsidence. Measures including increased use of reclaimed water, stormwater, and imported water, and protection of groundwater quality would mitigate this hazard.

Expansive Soils

Soil permeability is the property of the soil to transmit water and air. The more permeable the soil, the greater the seepage, resulting in higher rates of infiltration. Pore size and number of pores closely relate to soil texture and structure and also influence permeability. Soils that transmit water faster (such as sandy soils) and have higher permeability have less shrink-swell potential because they retain less water. Conversely, soils that transmit water at a slower rate (such as soils with high clay content) have lower permeability and therefore higher shrink-swell potential and the potential for significant expansion.

As identified in the Seismic Hazard Zone Report, Moorpark is underlain by alluvial sediments deposited in lowland basins, canyons, and stream valleys. These sediments are generally characterized with fine sand and silt derived mainly from the Pliocene-Pleistocene Saugus Formation.[6] These units are generally low in expansion potential, but they may contain layers of finer-grained soil such as clay and silty clays that are typically moderate to high in expansive potential.

When structures are located on expansive soils, foundations have the tendency to rise during the wet season and fall during the dry season. This movement can create new stresses on various sections of the foundation and connected utilities and can lead to structural failure and damage to infrastructure. Swelling soils can typically cause cracked foundations, floors, and basement walls. Damage to the upper floors of a building can also occur when motion in the structure is significant. While damage from expansive soils has occurred in the past, complying with the California Building Code and conducting site-specific geotechnical investigations minimizes the risk of damage to buildings and infrastructure from expansive soils.

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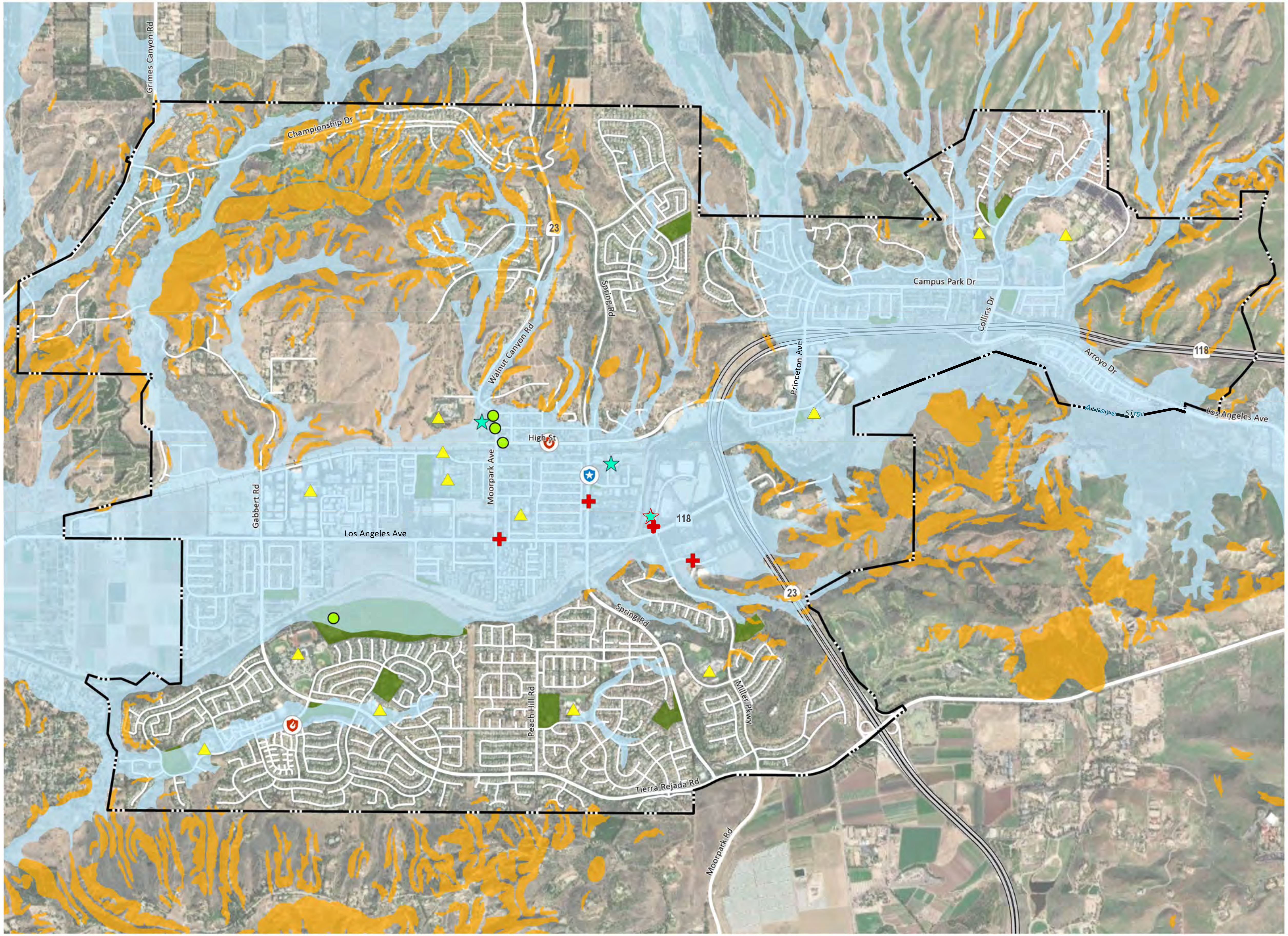
[6] California Department of Conservation Division of Mines and Geology. 2000. Seismic Hazard Zone Report For The Moorpark 7.5-Minute Quadrangle, Ventura County, California. https://gmw.conservation.ca.gov/SHP/EZRIM/Reports/SHZR/SHZR_041_Moorpark.pdf.

Figure SE-4
Seismic Hazard Zones



City Boundary
Earthquake-Induced Landslide Zones
Liquefaction Zones

Critical Facility
Police Services Center
Fire Station
Community Facility
Government Facility
Medical
School/College Campuses
Parks

MADE BY MOORPARK
General Plan 2050

0 1,000 2,000 4,000 FT

Source: PlaceWorks, 2022
Date: 2/24/2023

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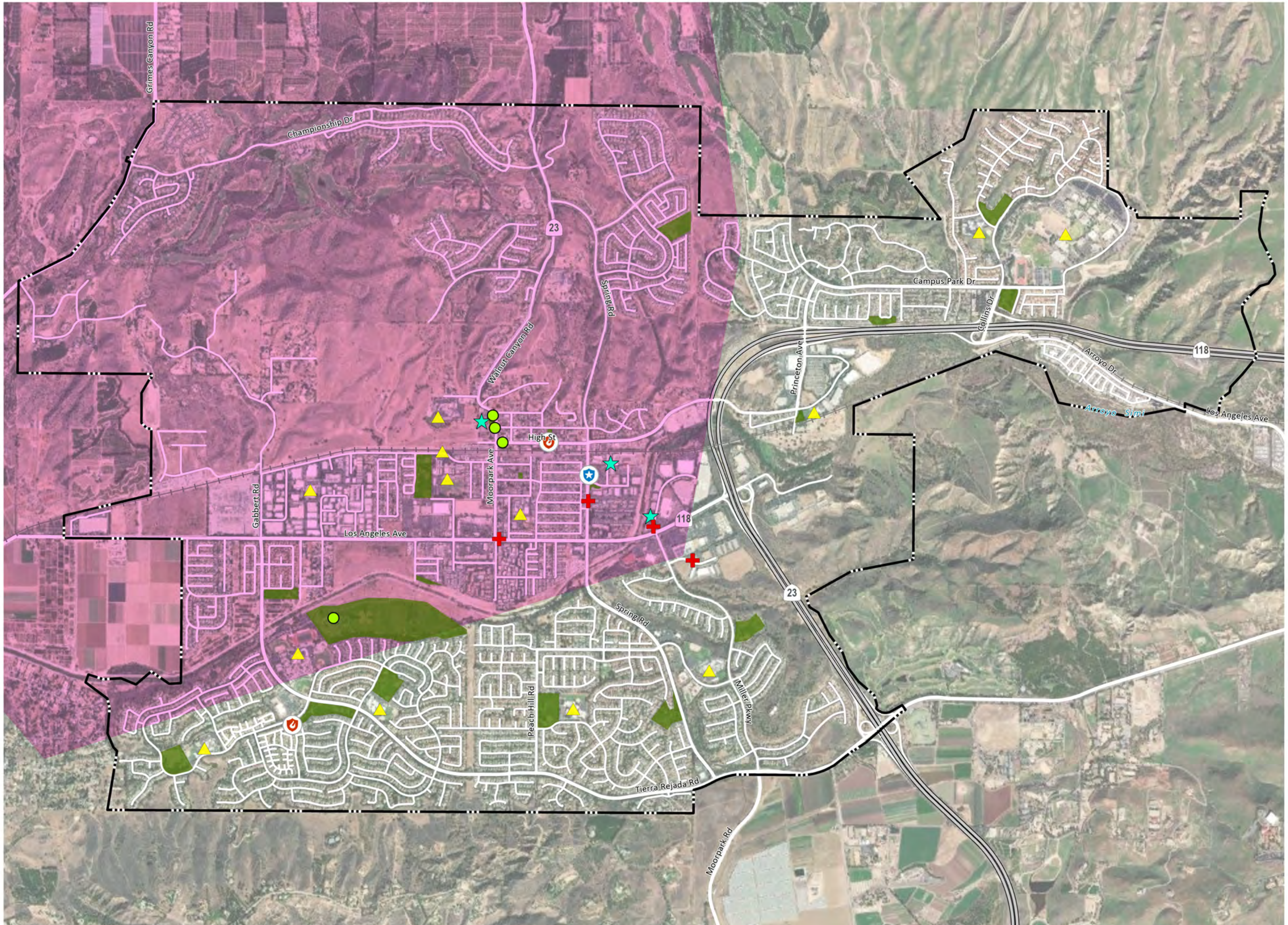
Figure SE-5
Subsidence Hazard Zones



City Boundary
Subsidence Hazard Area
Critical Facility
Police Services Center
Fire Station
Community Facility
Government Facility
Medical
School/College Campuses
Parks

MADE BY MOORPARK
General Plan 2050

0 1,000 2,000 4,000 FT

Source: PlaceWorks, 2022
Date: 2/24/2023

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GEOLOGIC AND SEISMIC HAZARDS

GOAL SE 2

A COMMUNITY PROTECTED FROM SEISMIC AND GEOLOGIC HAZARDS, AVOIDING LOSS OF LIFE AND MINIMIZING DAMAGE TO STRUCTURES, SYSTEMS, AND SERVICES.

SE 2.1

California Building Standards Code: Continue to implement California Building Code seismic safety standards for construction of new buildings.

SE 2.2

Geologic studies: Require the preparation of detailed geologic studies for new development within seismic and geologic hazard zones.

SE 2.3

Unreinforced masonry buildings: Require existing unreinforced masonry buildings to be seismically retrofitted, based on an engineering evaluation, if deemed unsafe by a building official.

SE 2.4

Earthquake preparedness: Participate in local, county, and State-sponsored earthquake preparedness programs.

SE 2.5

New development: Require new development to comply with current state, regional, and local requirements for seismic and geologic safety.

SE 2.6

Slope stability analysis: Require that slope stability analyses be conducted for new development in hillside areas and compliance with Section 17.38, Hillside Management of the Moorpark Municipal Code.

SE 2.7

Subsidence risk reduction coordination: Coordinate with Ventura County Resource Management Agency to participate in regional measures that reduce risk of subsidence in the city of Moorpark and surrounding areas.

SE 2.8

Critical and lifeline facility operations: Assess critical and lifeline facilities for seismic safety and earthquake performance to ensure they remain operational after a seismic event.

8.4 FLOOD HAZARDS

8.4.1 Flooding

Flooding is the rising and overflowing of a body of water onto normally dry land. Floods are among the costliest natural disasters in terms of human hardship and economic loss nationwide, causing substantial damage to structures, landscapes, and utilities, as well as life-safety issues. Flooding can be extremely dangerous, and even six inches of moving water can knock a person over given a strong current. Other hazards created by flooding include ground saturation that leads to slope instability; standing water that can damage buildings and increase human health hazards; as well as erosion, sedimentation, and degradation of water quality.

Floodwaters can damage buildings, carry large debris, and wash away soil that can weaken structures built on top, leading to collapse of building foundations. Flood can both pose a drowning hazard and cause mold and mildew to grow in buildings, creating poor indoor air quality. Flash floods are especially dangerous because they can happen suddenly and prevent effective evacuations.

Floods are usually caused by large amounts of precipitation, either from a period of very intense precipitation or a long period of steady precipitation. Historically, Moorpark has been at risk of flooding primarily during the winter and spring months when atmospheric river systems swell with heavy rainfall. Recent major flooding events in Moorpark have included winter storms in January 2005, flash flooding in January 2008, and winter storms in February 2017.

Prolonged, heavy rainfall causes high peak flows of moderate duration and a large volume of runoff, filling Arroyo Simi with water. When the ground is saturated by previous rainfall, flooding can be more severe. In impervious areas, such as areas covered in asphalt or cement, stormwater cannot absorb into the ground and flows faster over the surface. This can cause more extensive flooding in low lying areas. Flooding susceptibility in Moorpark is primarily associated with areas adjacent to Arroyo Simi and in the canyons on the hillsides in northern Moorpark.

Arroyo Simi runs through the center of Moorpark, which is bordered to the north and south by a levee system managed by the Ventura County Public Works Agency. This levee system includes Ventura County Levee 10, Ventura County Levee 19, and AS-4, which combined protect 781 people, 336 buildings, and $245.9 million in property value.[7] During heavy rainfall, these levees protect people and structures from floodwater along Arroyo Simi. However, more intense storms are likely to occur due to climate change, which can cause overtopping of the levee system and flooding of the areas behind the levees.

Areas at an elevated risk of flooding are generally divided into 100- and 500-year flood zones. A 100-year flood zone has a 1% chance of experiencing a major flood in any given year and a 500-year flood zone has a 0.2% chance of flooding in any given year. **Figure SE-6**, *Flood Zones*, shows the 100- and 500-year flood zones in and around Moorpark. Flood hazard zones are primarily located along Arroyo Creek, with a 500-year flood hazard zone going north to Poindexter Avenue, and 100-year flood zones along the canyon areas of the hillsides in northern Moorpark.

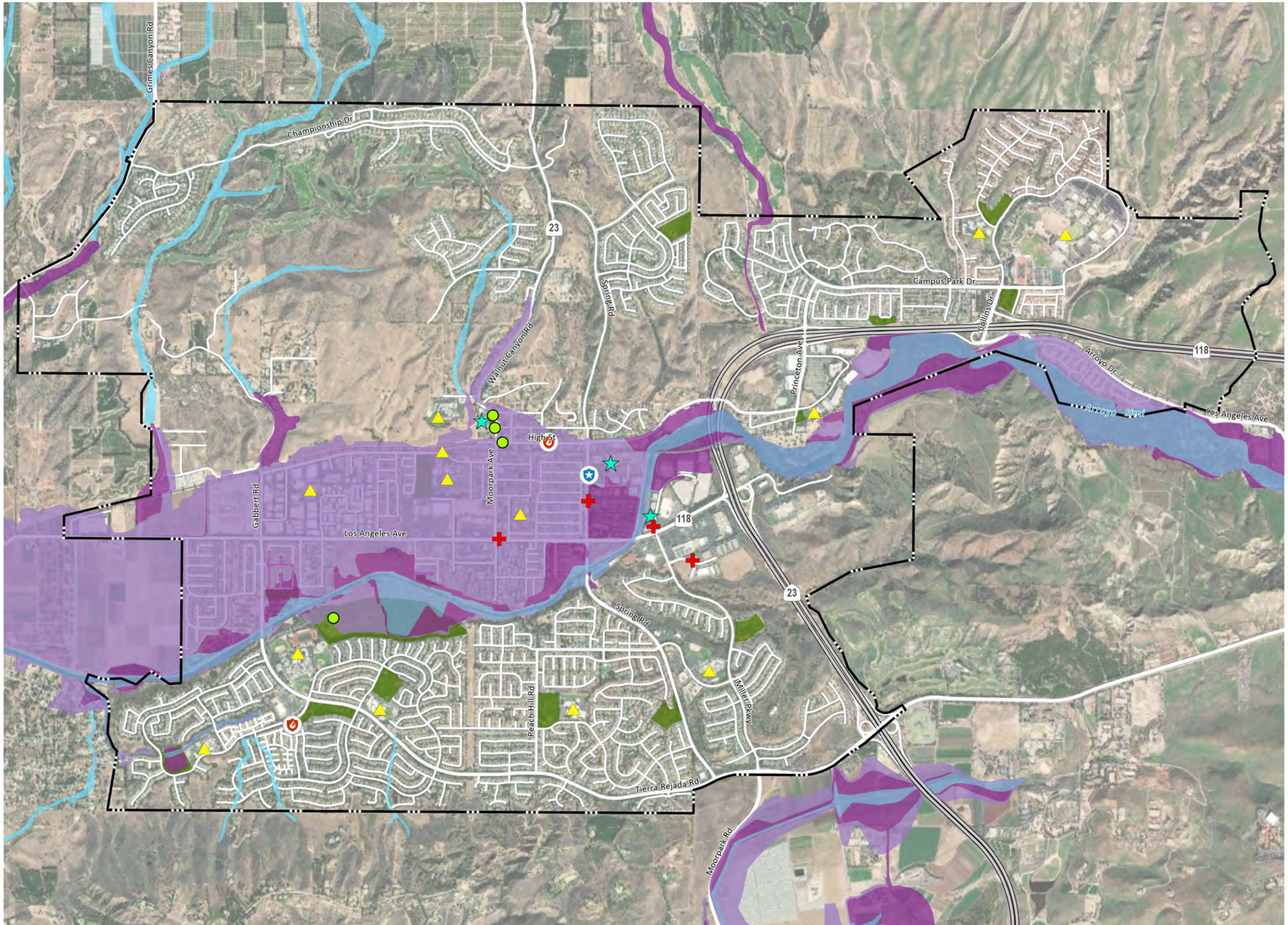
Agencies responsible for flood control in Moorpark include:

- **Federal Emergency Management Agency (FEMA):** FEMA manages the National Flood Insurance Program (NFIP), providing insurance to the public in communities that participate in the program. FEMA is the main federal government agency contact during natural disasters and publishes the Flood Insurance Rate Maps (FIRM), which identify the extent of flood potential in flood-prone communities based on a 100-year flood (or base flood) event.
- **Federal Insurance Administration (FIA):** The FIA is the primary agency that delineates potential flood hazard areas and floodways through the FIRMs and the Flood Boundary and Floodway Map. Flood insurance is required of all homeowners who have federally subsidized loans.
- **Department of Water Resources (DWR):** DWR is responsible for managing and protecting California's water. DWR works with other agencies to benefit the state's people, and to protect, restore, and enhance the natural and human environments. DWR also works to prevent and respond to floods, droughts, and catastrophic events that would threaten public safety, water resources and management systems, the environment, and property.

[7] Source: FEMA and United State Army Corp of Engineers. N.d. "National Levee Database." https://levees.sec.usace.army.mil/#/.

SAFETY

Figure SE-6
Flood Zones



City Boundary

Flood Zones

- 100 year Flood Zone
- 500 year Flood Zone
- Regulatory Floodway
- DWR Awareness 100 Year Flood Zone

Critical Facility

- Police Services Center
- Fire Station
- Community Facility
- Government Facility
- Medical
- School/College Campuses
- Parks

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: PlaceWorks, 2022; FEMA, 2021; DWR, 2021

Date: 2/24/2023

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- **Ventura County Public Works Agency:** Ventura County Public Works Agency manages the Calleguas Creek watershed, in which Moorpark is located and Arroyo Simi flows through. Ventura County Public Works Agency operates and updates the levee system along Arroyo Simi

Due to the frequency of flooding in the past, flooding will likely occur in the future. Climate change is likely to increase the frequency and severity of flooding, as precipitation is expected to fall in fewer, more intense storms. This can affect what the community understands as a "normal" flood and expand the parts of the city that are considered flood prone. For example, what is currently considered a 100-year flood, or a flood that has a 1-percent chance of occurring in given year, may in future years have a 2 or 5% chance of occurring in a given year.

Increases in damaging flood events will cause greater property damage, public health and safety concerns, displacement, and loss of life. Displacement of residents can include both temporary and long-term displacement, increase in home and renters' insurance rates, or restriction of insurance coverage in vulnerable areas.

8.4.2 Dam Inundation

A dam failure is an uncontrolled release of water from a reservoir through a dam because of structural failures in the dam, usually associated with intense rainfall or prolonged flooding. Dam failures can range from minor to catastrophic and can potentially harm human life and property downstream from the failure. Although dam failures are very rare, they are not unprecedented.

Dam failures can occur from overtopping when a reservoir fills too high; foundation defects due to slope instability or settling in the foundation of the dam; piping and seepage failures due to erosion; and conduit or valve failures. Dams can also fail as a secondary effect of an earthquake or flooding event. The primary danger associated with dam failure is the high-velocity flooding downstream of the dam and limited warning times for evacuation. In a dam failure scenario, the greatest threat to life and property typically occurs in those areas immediately below the dam since flood depths generally decrease as the flood wave moves downstream.

There is no record of dams failing in Ventura County.

As shown in **Figure SE-7**, *Dam Inundation Areas,* Sinaloa Lake and Bard Reservoir have dam inundation areas that pass-through Moorpark. The dam inundation areas flow along Arroyo Simi with the Bard Reservoir inundation area extending north to Poindexter Road and south to Mountain Meadows Elementary School. Both of these dams are of earthen embankment material and have a satisfactory condition assessment as of 2020.[8]

All of the dams in Ventura County have Emergency Action Plans, which are reviewed and approved by the California Department of Water Resources, Division of Safety of Dams. The Division of Safety of Dams also inspects each dam annually to ensure it is safe,

8 Ventura County. 2022. Ventura County Multi-Jurisdictional Hazard Mitigation Plan. https://s29710.pcdn.co/wp-content/uploads/2022/06/2022-06_VenturaHMP_Vol1_Final.pdf.

performing as intended, and is not developing issues.

Although unlikely, dam failure does pose a risk to Moorpark due to the extensive damage that could occur. Dams are designed to withstand a probably maximum precipitation, but climate change may cause more frequent and severe precipitation events, which could overwhelm the dam structure, increasing the risk of dam inundation in Moorpark.

FLOOD HAZARDS

GOAL SE 3

MINIMIZE RISK OF LOSS OF LIFE, INJURY, DAMAGE TO PROPERTY, AND ECONOMIC OR SOCIAL DISLOCATIONS RESULTING FROM FLOOD HAZARDS.

SE 3.1

National Flood Insurance Program: Continue to participate in the Federal Emergency Management Agency's National Flood Insurance Program to ensure building owners in Moorpark can obtain flood insurance.

SE 3.2

Low impact development: Minimize impervious areas by requiring development to include low impact development and green infrastructure that increase pervious surfaces to absorb impacts from stormwater and flooding.

SE 3.3

Floodway management: Consider floodway management design that includes areas where stream courses are left natural or as developed open space.

SE 3.4

Flood control infrastructure: Coordinate with Ventura County Public Works Agency to improve and maintain flood control structures, detention basins, channel reconstruction, and diversion systems within Moorpark and the greater Calleguas Creek watershed, using natural infrastructure where feasible.

SE 3.5

Critical and lifeline facilities: Maintain the structural and operational integrity of critical and lifeline facilities during and after flooding events.

SE 3.6

Floodplain management requirements: Require new development in the 100-year and 500-year flood hazard zones to comply with provision Moorpark Municipal Code Section 15.24, Floodplain Management.

SE 3.7

Review of new flood control facilities: Coordinate with the Ventura County Public Works Agency to review new development for flood control and flood hazard reduction from new development.

SE 3.8

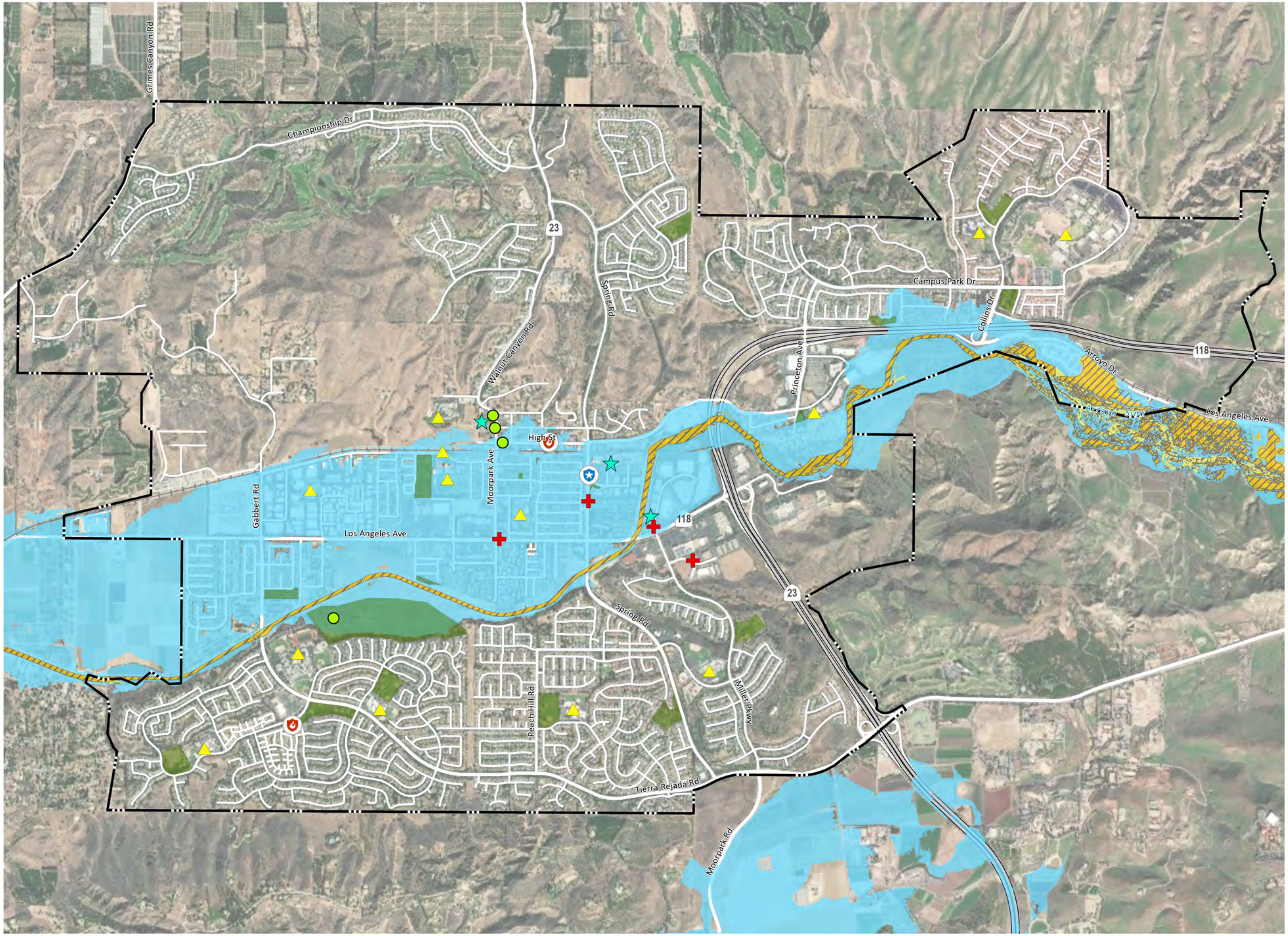
Flood safety plans: Require new development within a designated flood hazard zone to submit flood safety plan for approval by the Floodplain Administrator.

SE 3.9

Green infrastructure: Promote the use of green infrastructure to convey stormwater and reduce flooding.

SAFETY

Figure SE-7
Dam Inundation Areas



City Boundary

Dam Inundation Area

- Sycamore Canyon
- Las Llajas
- Sinaloa Lake
- Wood Ranch

Critical Facility

- Police Services Center
- Fire Station
- Community Facility
- Government Facility
- Medical
- School/College Campuses
- Parks

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: PlaceWorks, 2022; DWR, 2021 Date: 2/24/2023

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8.5 FIRE HAZARDS

The combination of complex terrain, Mediterranean climate, and productive natural plant communities next to developed areas has created conditions for extensive wildfires in Moorpark. Fire conditions arise from a combination of factors and changing conditions have created an extended fire season that lasts for most or all of the year. Fire hazards in Moorpark include the following:

- Wildfires. Fires occurring in undeveloped or natural lands.
- Wildland-urban interface fires. Fires occurring where natural lands coexist with the built environment.
- Urban fires. Fires occurring only in the built environment.

Fire protection services, provided by the Ventura County Fire Department, are discussed in more detail in section 9.10, Fire Services.

8.5.1 Wildfires

A wildfire is an uncontrolled fire on undeveloped land that requires fire suppression. In Moorpark, grassland and woodland habitats provide highly flammable fuel that is conducive to wildfires. These ecosystems are typically capable of regeneration after a fire, making periodic wildfires a natural part of the ecology of these areas. However, frequent wildfires that burn at high temperatures can prevent regeneration. A Mediterranean climate with hot, dry summers and cool, wet winters, creates fuels that dry out during the summer and fall months, exacerbating wildfire hazards.

Wildfires can be sparked a variety of ways, but most commonly are either human-caused by debris burning, arson, and equipment use, or naturally by lightning. Once started, wildfires can spread via embers, direct flame contact, and radiant heat.

In Moorpark, wildfire season historically peaks in the fall, after long dry summers and dry, gusty downslope Santa Ana winds. Santa Ana winds come from the desert in the east, through the mountain canyons carrying extremely dry air at high velocities. These hot, dry winds can quickly desiccate vegetation and other combustible materials and can push a fire down or up a slope at very high speeds. Santa Ana winds typically occur from October to April, and during these events it is far more difficult to control a wildfire.

Wildfire is of most concern in the areas of the city with natural vegetation, such as undeveloped areas and larger lots with expansive un-irrigated vegetation. Much of these areas are covered in grasslands or brush, which are easily ignited, especially in the summer months. Grass and brush fires can be easier to control if they can be reached by fire equipment. If grass and brush fires can be reached by fire equipment, they are relatively easy to control. However, fast and hot burning wildfires can destroy vegetation cover, leading to flooding and debris flows when precipitation does return.

Areas adjacent to the city that are susceptible to wildfires are also of concern as these conditions could exacerbate vulnerabilities within the city. These areas include unincorporated Ventura County, Happy Camp Canyon Regional Park, Santa Rosa Valley, Simi Valley, and even Los Angeles County.

Wildfires can also create a secondary hazard of wildfire smoke, which degrades air quality and leads to respiratory illnesses. Wildfire smoke consists of a mix of gases and fine particulate matter from burning vegetation and materials, the most concerning of which is fine particulate matter ($PM_{2.5}$). $PM_{2.5}$ from wildfire smoke can seep deep into lung tissue and affect the heart and circulatory system. Although wildfire smoke presents a health risk to everyone, sensitive groups may experience more severe acute and chronic symptoms from exposure to wildfire smoke, such as children, older adults, people with chronic respiratory or cardiovascular disease, or persons experiencing homelessness.

As shown in **Figure SE-8**, *Historic Fires Within or Near Moorpark,* several fires have burned within or near Moorpark since the 1940s. The largest of these fires, the 2003 Simi Fire, burned approximately 107,560 acres, including areas in eastern Moorpark along SR-23. The second largest fire, the 1970 Clampett Fire, burned over 115,000 acres, including the open space area east of SR-24 and south of SR-118.

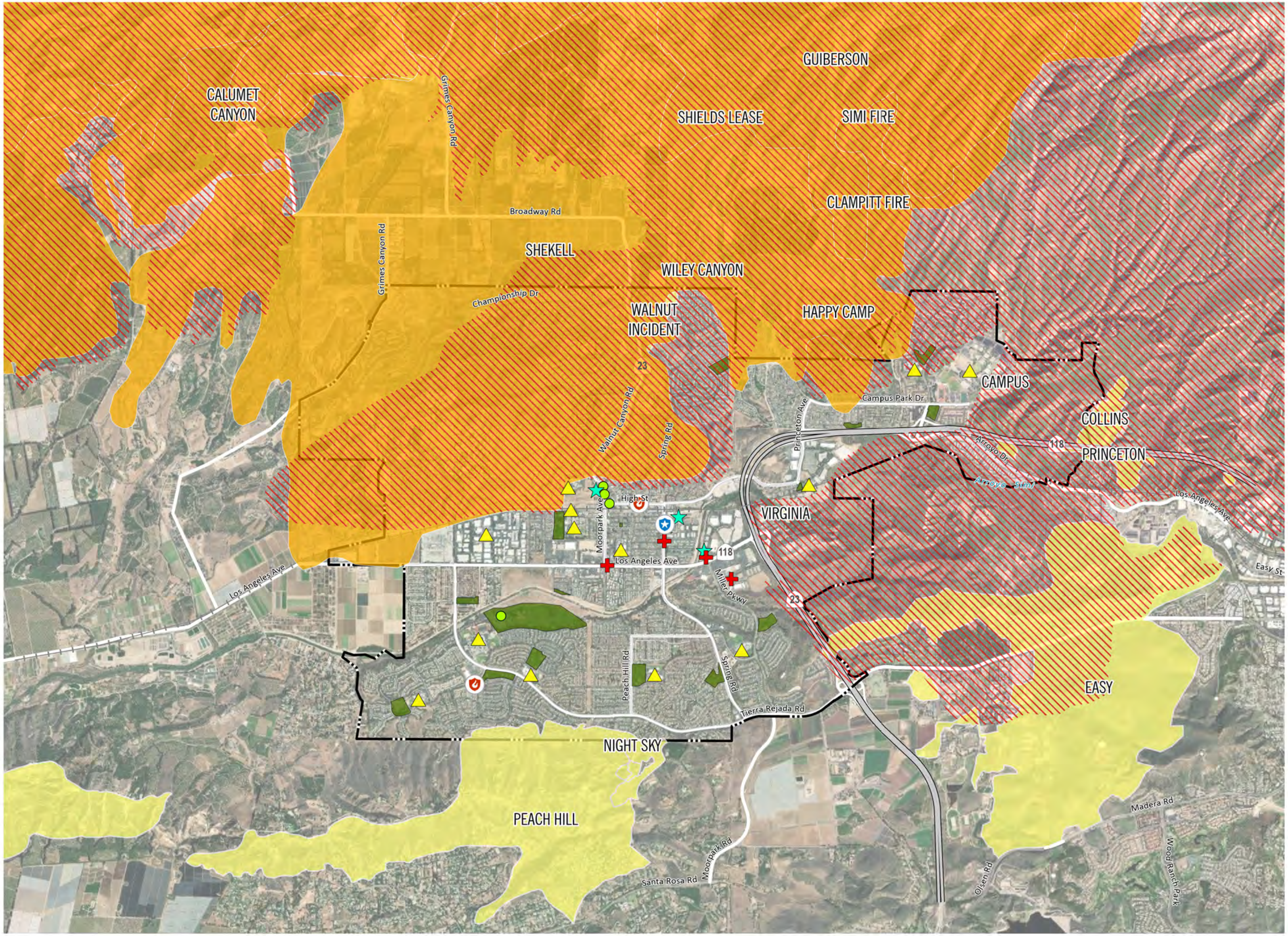
Wildfire will continue to be a high-risk hazard for personal safety and property damage in Moorpark and smoke impacts from local and regional wildfires are likely to continue to be problematic. Climate change will likely exacerbate these risks, as warmer temperatures worsen drought conditions, drying out vegetation and creating more fuel for wildfires. Increased winds may result in more erratic fire behavior, making fires harder to contain. Warmer temperatures are also expected to occur during more of the year, extending the wildfire season, which is likely to begin earlier in the year and extend later than it has historically. Wildfires occurring later or earlier in the year are more likely to occur during Santa Ana wind events, which can cause wildfires to move more quickly and increase the likelihood of burning in the developed areas.

8.5.2 Wildland-Urban Interface Fires

The wildland-urban interface (WUI) is an area where buildings and infrastructure (e.g., cell towers, community facilities, homes) mix with areas of flammable wildland vegetation. The WUI is composed of the interface, intermix, and influence communities. The distinction between these is based on the characteristics and distribution of houses and wildland vegetation across the landscape. Intermix WUI refers to areas where housing and wildland vegetation intermingle, while interface WUI refers to areas where housing is in the vicinity of a large area of dense wildland vegetation. The Influence WUI refers to an area of wildfire-susceptible vegetation up to 1.5 miles from the WUI. Hundreds of homes now border major grassland and brush areas in California. Human-caused fires are the leading cause of wildland fires, and with thousands of people living near and visiting wildland areas, the probability of human-caused fires is growing.

As shown in **Figure SE-9**, *Wildland Urban Interface,* Moorpark has lands within the interface, intermix, and influence WUI zones. The interface zones are located in neighborhoods along Championship Drive, Poindexter and Princeton Avenues, Tierra Rejada Road, and near Moorpark college. The intermix zones are primarily located along SR-23 and in the hillsides in northern Moorpark. Influence zones are located in the hillsides and natural areas surrounding development in Moorpark.

Figure SE-8
Historic Fires within or near Moorpark by Acres Burned



City Boundary

Historic Fire Perimeter

Acres

< 10,000 Acres

10,000 - 20,000 Acres

20,000 + Acres

Critical Facilities

Police Services Center

Fire Station

Community Facility

Government Facility

Medical

School/College Campuses

Parks

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: CalFire, 2020; PlaceWorks, 2022 Date: 2/24/2023

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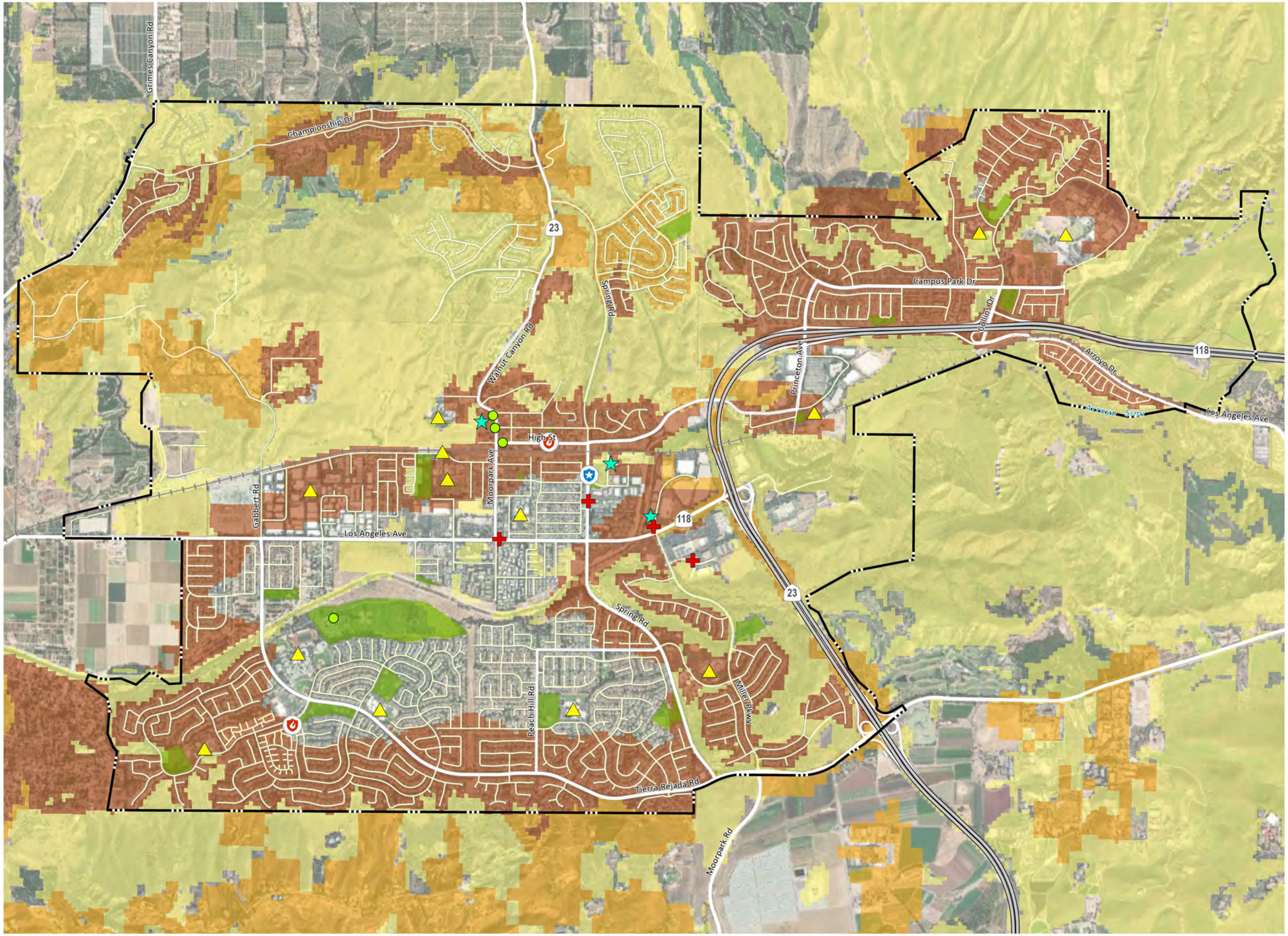
SAFETY

Figure SE-9
Wildland Urban Interface



CalFire Wildland/Urban Interface

- Influence Zone: Wildfire-susceptible vegetation within 1.5 miles from the interface or intermix zones.
- Intermix Zone: Housing development or improved parcels interspersed in an area dominated by wildland vegetation subject to wildfire.
- Interface Zone: Dense housing next to vegetation, but not dominated by wildland vegetation, that can burn in a wildfire.

City Boundary

Critical Facilities

- Police Services Center
- Fire Station
- Community Facility
- Government Facility
- Medical
- School/College Campuses
- Parks

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: CalFire, 2020; PlaceWorks, 2022 Date: 2/24/2023

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In the WUI, efforts to prevent ignitions and limit wildfire loss hinge on hardening structures and creating defensible space through a multi-faceted approach, which includes engineering, enforcement, education, emergency response, and economic incentive. However, even with these strategies, fires in the WUI are likely to increase in the future due to development being located near wildland vegetation areas. Climate change could increase the potential of a WUI fire occurring due to drier fuels and faster moving fires.

8.5.3 Urban Fires

Moorpark is also at risk from urban fires. These fires occur in built-up environments, destroying buildings and other human-made structures. Urban fires are often due to faulty wiring, mechanical equipment, or combustible construction materials in structures. The absence of fire alarms and fire sprinkler systems often exacerbate the damage associated with a structural fire. Urban fires are largely from human accidents, although deliberate fires (arson) may be a cause of some events. To minimize fire damage and loss, the city's Building Code, Ventura County Fire Code, and Ventura County Fire Apparatus Access Code, based on the California Building Standards Code, sets standards for building and construction. It requires the provision of adequate water supply for firefighting, defensible space, fire-retardant construction, and minimum street widths, among other things.

According to the Ventura County Fire Department, approximately 657 urban fires burned in the city between June 2007 and June 2020. Out of those 657 urban fires, 160 have been structural fires, with the most urban fires occurring in 2009 over the past 13 years.[9] The likelihood of urban fires occurring in the city is low since these fires are usually the result of human accidents or mechanical issues in buildings.

8.5.4 Fire Hazard Severity Zones

CAL FIRE establishes Fire Hazard Severity Zones (FHSZs) based on vegetation type, topography, wind pattern, and several other factors. FHSZs are designated as moderate, high, or very high severity. As shown in **Figure SE-10**, *Fire Hazard Severity Zone Areas,* northern and eastern Moorpark, as well as areas adjacent to Tierra Rejada Road are located in Very High FHSZs. These areas include eight school campuses, three community facilities, city hall, and Ventura County Fire Station 42. Some of these high-risk areas are also difficult to access due to single access roadways or winding roads bordering undeveloped hillsides. While large-scale wildfires do not occur every year, wildfire incidents driven by extreme weather are more likely to burn in Very High FHSZs than in other areas of the city.

FIRE HAZARDS

GOAL SE 4

MINIMIZED INJURY, LOSS OF LIFE, AND DAMAGE TO PROPERTY FROM WILDFIRE AND STRUCTURAL FIRES.

SE 4.1

Fire hazard reduction: Continue to work with the Ventura County Fire Department and the Ventura Regional Fire Safe Council to

9 Ventura County Fire Department. June 2020. Moorpark Fire Incidents from the Ventura County Fire Department NFIRS.

implement fire hazard reduction policies and projects, to the extent they are relevant to Moorpark, in the Ventura County Multi-Jurisdictional Hazard Mitigation Plan, the Ventura County Community Wildfire Protection Plan, the General Plan, and the Capital Improvement Program.

SE 4.2

California Building Standards Code: Coordinate with Ventura County Fire Department to continue to adopt and enforce the most recent version of the California Building Code and Fire Code, as well as California Fire Safe Regulations for new and existing development.

SE 4.3

Sufficient water supplies for firefighting: Work with Ventura County Fire Department to ensure that existing and future development in the city has sufficient water supplies, including adequate flow rates and back-up power supplies for fire-fighting purposes.

SE 4.4

Fire protection plans: New development within Very High Fire Hazard Severity Zones or the Wildland Urban Interface must prepare a fire protection plan for review and approval by the Ventura County Fire Department prior to issuance of building permit.

SE 4.5

Ventura County Strategic Fire Plan: The current version of the Ventura County Fire Department Strategic Fire Plan is hereby incorporated into this Safety Element, by reference, to ensure existing non-conforming development reduces fire hazards by implementing Fire Safe Regulations for roads and vegetation.

SE 4.6

Vegetation management funding: Coordinate with the Ventura County Fire Department and Ventura Regional Fire Safe Council to obtain funding for and conduct vegetation and fuel modification or management.

SE 4.7

Egress and ingress: Require new development within a Very High Fire Hazard Severity Zone to have at least two egress and ingress options, visible street signs that identify evacuation routes, visible street addresses, and adequate water supply for structural suppression in accordance with the California Fire Safe Regulations.

SE 4.8

Traffic Control Plans: Require development projects in the Very High Fire Hazard Severity Zone or WUI to prepare a Traffic Control Plan to ensure that construction equipment or activities do not block roadways during the construction period.

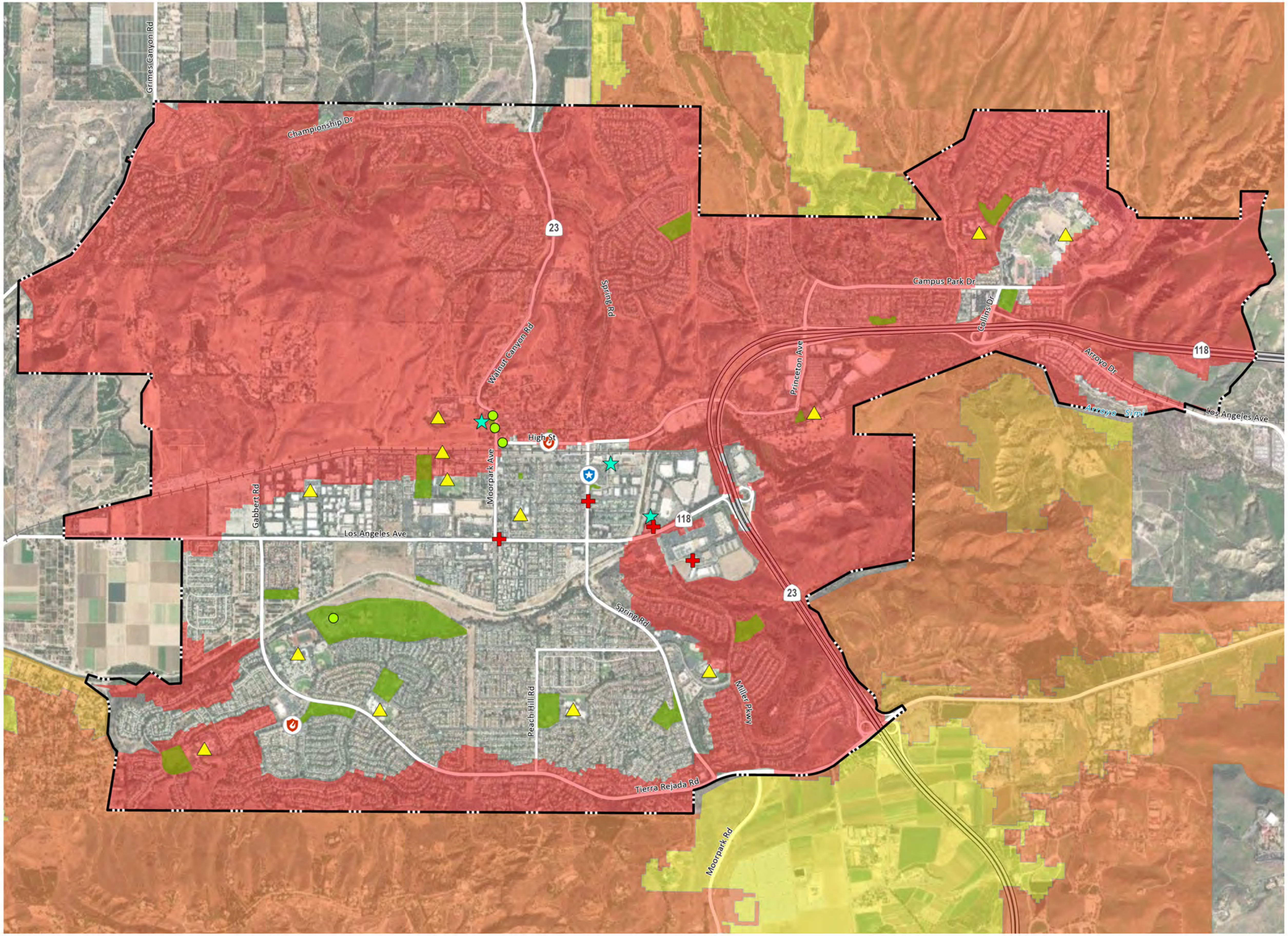
SE 4.9

Redevelopment: Require re-development in the Very High Fire Hazard Severity Zone to comply with current California Building Code, Ventura County Fire Code, and California Fire Safe Regulations.

SE 4.10

Re-Evaluate Development: Re-evaluate development in Fire Hazard Severity Zones after a large wildfire to ensure safety and maintain consistency with all current state and local requirements regarding redevelopment after wildfires.

Figure SE-10
Fire Hazard Severity Zones



City Boundary
Very High Fire Hazard Severity Zone (LRA)
Very High Fire Hazard Severity Zone (SRA)
High Fire Hazard Severity Zone (SRA)
Moderate Fire Hazard Severity Zone (SRA)

Critical Facilities
Police Services Center
Fire Station
Community Facility
Government Facility
Medical
School/College Campuses
Parks

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: CalFire, 2020; PlaceWorks, 2022 Date: 2/27/2023

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8.6 SEVERE WEATHER

Severe weather can include extreme heat and warm nights, hail, lightning, and high winds, which are usually caused by intense storm systems, although types of high winds can occur without a storm. The most common severe weather events in Moorpark include extreme heat and high winds. While thunderstorms and hail occasionally occur in Moorpark, these meteorological phenomena are less likely to occur within the city.

8.6.1 Extreme Heat and Warm Nights

While there is no universal definition of extreme heat, California guidance documents define extreme heat as temperatures that are hotter than 98% of the historical high temperatures for the area, as measured between April and October of 1961 to 1990. Days that reach this level are called extreme heat days. In Moorpark, an extreme heat day occurs when temperatures reach above 94.9 degrees Fahrenheit citywide. Although this threshold is lower than other areas of California, residents in Moorpark are not accustomed to high temperatures due to the influence of the coast. The number of extreme heat days in Moorpark is projected to increase from a historic annual average of 3 extreme heat days per year to an average of 20 extreme heat days per year by midcentury and an average of 37 extreme heat days per year by end of century.

Extreme heat can also occur in the form of warmer nights when temperatures do not cool enough overnight to provide relief from the heat. In Moorpark, a warm night occurs when the temperature remains above 62.6 degrees Fahrenheit citywide. The number of warm nights in Moorpark is projected to increase from a historic annual average of 4 warm nights per year to an average of 37 warm nights per year by midcentury and an average of 79 warm nights per year by the end of the century. During warm night events, residents are less likely to find relief from high temperatures if unable to access air conditioning.

Prolonged extreme heat and warm nights can cause heat-related illnesses, such as heat cramps, heat exhaustion, and heat stroke, in addition to exacerbating respiratory and cardiovascular conditions. Homes in Moorpark may lack air conditioning, and as a result people living in these homes may be more susceptible to harm from extreme heat events. If homes have air conditioning, residents may find increased use cost prohibitive, especially for older or less efficient systems. Indirectly, extreme heat puts more stress on power lines, which could cause them to run less efficiently. The heat also causes more demand for electricity (usually to run air conditioning units), and in combination with the stress on the power lines, may lead to power outages.

8.6.2 Severe Storms

Severe storms can include high winds, hail, and lightning, which are usually caused by intense storm systems, although high winds can occur without a storm. While the connection between climate change and severe storms is not as well established as other hazards, new evidence suggests that these forms of severe storms may occur more often than in the past due to climate change.

High Winds

The most common form of high winds in Moorpark are the Santa Ana winds. These winds typically occur from October to April as hot, dry winds from the desert that flow over the Sierra Nevada and Santa Ana mountains towards the ocean. Gaps in mountains, such as Moorpark, form wind tunnels that increase the velocity of these winds. Santa Ana winds can have sustained wind speeds of 40 miles per hour and gusts of over 80 miles per hour. These winds peak in a 12- to 24-hour period but can also last for a few days. The winds are strong enough to cause trees to fall down, wildfires to spread uncontrollably, and debris to damage buildings or block transportation infrastructure. Since 2002, Ventura County has experienced 14 high wind events. Although climate change does not yet have a direct link to high winds, extreme heat, drought, and wildfires are more likely to coincide with high wind events, creating more dangerous conditions.

Public Safety Power Shutoffs

Severe storms have caused electricity utilities throughout California, including Southern California Edison, to occasionally turn-off the electricity to powerlines that run through areas with an elevated fire risk. De-energizing the powerlines is intended to reduce the risk of the lines arcing and sparking a wildfire. These activities, called Public Safety Power Shutoff (PSPS) events, result in loss of electricity to customers in areas served by affected powerlines. PSPS events typically occur between October to April, when the Santa Ana winds are at their strongest, creating ideal wildfire conditions. The PSPS events could be limited to a specific neighborhood or affect broad swaths of Ventura County depending on the severity of the wind event and the safety of the electricity infrastructure.

Since 2019, Southern California Edison has conducted PSPS events several times in Moorpark. In January 2021, a PSPS event lasted two days, turning off electricity to 8,362 customers in Moorpark for almost 40 consecutive hours. This outage included most of the areas along Los Angeles Avenue, where many of the businesses and employers are located. In November 2021, Southern California Edison conducted a PSPS event starting on November 24 that lasted for two days. Over 78,500 customers in six counties were without power during this time.

PSPS events can impact emergency management activities, including evacuation notifications. PSPS events can also create vulnerabilities for community members that lack backup power supplies and depend on electricity for medical equipment, to keep food and medications refrigerated, and heating or cooling homes and buildings. Additionally, community members may be faced with economic hardships and be unable to access important services, such as grocery stores, gas stations, and banks/ATMs. Traffic lights and other traffic-control systems may not work, which can complicate any evacuation needs and may hinder emergency response. Although critical public health and safety facilities often have backup generators, the loss of power may also disable other key infrastructure systems.

Moorpark is working with Southern California Edison to underground powerlines and protect electricity infrastructure from high winds. However, PSPS events are likely to occur in the future during Santa Ana or other high wind events.

SEVERE WEATHER

GOAL SE 5

A RESILIENT COMMUNITY ABLE TO ADAPT TO SEVERE WEATHER EVENTS.

SE 5.1

Extreme heat: Elevate extreme heat as an important hazard of concern in Moorpark to adequately prepare and respond to extreme temperatures.

SE 5.2

Retrofits and weatherization: Increase the resiliency of city-owned structures to severe weather events and support homeowners and business owners to increase the resilience of their buildings and properties, through retrofits, weatherization, and other improvements.

SE 5.3

Public transit: Coordinate with Moorpark City Transit to identify alternative routes and stops if normal route infrastructure is damaged or closed due to severe weather.

SE 5.4

Undergrounding electric utilities: Continue to collaborate with Southern California Edison to underground electrical transmission infrastructure throughout the city, prioritizing high voltage transmission lines and areas within Very High Fire Hazard Severity Zones.

SE 5.5

Drought-tolerant shade cover: Promote and expand the use of drought-tolerant green infrastructure, including street trees and landscaped areas, as part of cooling strategies in public and private spaces.

SE 5.6

Water conservation: Prepare for more frequent and severe drought events by working with regional water providers to implement water conservation measures and ensure sustainable water supplies.

SE 5.7

Sustainable and resilient facilities: Encourage new developments and existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience. Support financing efforts to increase the communities funding of these features.

SE 5.8

Nature-based solutions: Where feasible, encourage the use of existing natural features and ecosystem processes, or the restoration of, when considering alternatives for the conservation, preservation, or sustainable management of open space. This may include, but is not limited to, aquatic or terrestrial vegetated open space, systems and practices that use or mimic natural processes, and other engineered systems, to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

SE 5.9

Backup energy supplies: Collaborate with Southern California Edison and organizations such as the Independent Living Resource Center to ensure that those who depend on electricity supply for medical devices and refrigerating medication have backup energy supplies during extreme heat and extreme wind events.

8.7 HUMAN HEALTH HAZARDS

Human health hazards are bacteria, viruses, parasites, and other organisms that can cause diseases and illness in people. Some of these diseases may only cause mild inconvenience, but others are potentially life threatening. These diseases can be and often are carried by animals such as mice and rats, ticks, and mosquitos. Human health hazards can also include poor air quality, which can affect respiratory systems of those exposed for prolonged periods or have existing chronic illnesses.

Populations most vulnerable to human health hazards are those who spend a disproportionate amount of time outdoors, those with fragile immune systems or existing illnesses, and those who may live in sub-standard housing or not have access to health insurance and medical care. Emergency medical response services can also be affected by human health hazards, as they may not be able to provide adequate services if there is an influx of health-related emergencies.

Isolated incidents of West Nile Virus, Valley Fever, Lyme Disease, and other vector-borne diseases have been reported in Ventura County almost every year. Other illnesses, such as influenza and COVID-19 occur frequently in the county. These events can strain healthcare services for community members.

Warmer temperatures and changes in precipitation patterns that lead to high levels of rainfall due to climate change can increase populations of disease-carrying animals. This increases the risk of vector-borne diseases occurring and rates of infection.

HUMAN HEALTH HAZARDS

GOAL SE 6

A COMMUNITY PREPARED FOR HUMAN HEALTH HAZARD EVENTS.

SE 6.1

Reducing the spread: Reduce the spread of human health hazards, including pests, diseases, and viruses.

SE 6.2

Identifying health hazards: Work with the Ventura County Department of Public Health and healthcare providers to identify health hazards of concern, including pests, diseases, and viruses, in Moorpark.

SE 6.3

Planning for future health hazards: Work with Ventura County Public Health to plan for future pandemic events, including securing necessary public health supplies, preparing effective messaging for preventative actions and treatments, and identifying and evaluating potential public health measures.

SE 6.4

Outdoor workers resources: Look for opportunities to ensure that workers in outdoor industries have the training and resources to be adequately protected from environmental hazards, including extreme heat, poor air quality, pests, and diseases.

SE 6.5

Medical supply chain: Collaborate with the Ventura County Department of Public Health and healthcare providers to minimize medical supply chain disruptions for facilities in Moorpark.

8.8 HAZARDOUS MATERIALS

Hazardous materials are materials that pose a significant risk to public safety or human or environmental health. These include toxic chemicals, flammable or corrosive materials, petroleum products, and unstable or dangerously reactive materials. They can be released through human error, malfunctioning or broken equipment, or as an indirect consequence of other emergencies (e.g., if an earthquake damages a hazardous material storage tank). Hazardous materials can also be released accidentally during transportation, as a consequence of vehicle accidents. In areas with oil extraction, malfunctioning piping can cause methane to leak into soil and groundwater layers, which is a highly flammable gas that can also cause ailments such as headaches, vomiting, and rashes.

The release or spill of large amounts of hazardous materials could result in fire, explosion, toxic cloud, or direct contamination of water, soil, and air. Health problems may be immediate, such as corrosive effects on skin and lungs, or gradual, such as the development of cancer from a carcinogen. Damage to property could range from immediate destruction by explosion to permanent contamination by a persistent hazardous material.

8.8.1 Hazardous Materials Sites

While there are no Superfund sites in or near Moorpark, there are Department of Toxic Substances and Control (DTSC) and State Water Resources Control Board sites. A search of the EnviroStor database on August 26, 2022, yielded four hazardous materials sites. Two of these sites were listed as Tiered Permit Sites, which are authorized hazardous waste sites permitted to match their degree of risk, under another agency's jurisdiction. The remaining two were either inactive (withdrawn)or required no further action. A search on the GeoTracker database on August 26, 2022, yielded 64 hazardous materials sites. Of these 4 sites, there are currently 13 WDR (waste discharge requirement) sites, four of which are active; 36 "Completed-Case Closed" sites, 30 of which are leaking UST (underground storage tanks) cleanup sites; and 10 permitted UST sites.

Several businesses also handle or dispose of hazardous materials, which are recorded in the Resources Conservation and Recovery Action databases called Envirofacts and Enviromapper. A search on Envirofacts and Enviromapper on May 26, 2020, yielded 97 hazardous materials–related sites, which were primarily recorded from the Resource Conservation and Recovery Act Information database as a hazardous waste handler. This may include, but is not limited to, sites that serve as hazardous waste transporters, conditionally exempt small quantity generators, small quantity generators, and large quantity generators.

Moorpark also has oil and gas mining operations in the hills surrounding the city. According to the California Department of Conservation, Geologic Energy Management Division[10], three oil fields (Moorpark West, Moorpark ABD, and Oak Park) are located on the northern border of Moorpark to the east,

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10 California Department of Conservation, Geologic Energy Management Division, N.d. "Well Finder", https://maps.conservation.ca.gov/doggr/wellfinder/#/.

north, and west, respectively. The oil fields contain the following oil and gas wells:

- Moorpark West: one active oil and gas well, two plugged wells, and one plugged dry hole.
- Moorpark ABD: one plugged oil and gas well and six plugged dry holes.
- Oak Park: five active oil and gas wells, one active injector, ten idle wells, two idle injectors, six plugged wells, and two plugged dry holes.

Oil and gas operations must obtain permits from the California Department of Conservation, Geologic Energy Management Division and the Ventura County Resource Management Agency prior to conducting drilling or other activities.

8.8.2 Transport of Hazardous Materials

Most hazardous materials in the city are transported on truck routes along major roadways and railways, such as SR-23, SR-118, and the Union Pacific railroad, which pass through Moorpark. The most vulnerable areas along these routes are considered the intersections, on-/off-ramps, and interchanges. Several small-scale hazardous materials releases have occurred along these roadways and the railway.

Hazardous materials and waste within Moorpark are managed by the Certified Unified Program Agency (CUPA), a local administrative agency within the Ventura County Environmental Health Department. The CUPA consolidates, coordinates, and makes consistent the regulatory activities of several hazardous materials and hazardous waste programs, including the Hazardous Materials Business Plan program, hazardous waste and tiered permitting, underground and above ground storage tanks, the California Environmental Reporting System, and the California Accidental Release Program. Additionally, the city of Moorpark has contracted with household hazardous waste drop-off facilities in the nearby cities of Camarillo and Simi Valley for Moorpark residents to use.

If a hazardous material spill poses an imminent public health threat, the city will support local regulating agencies in notifying the public. The transport of hazardous materials/wastes and explosives through the city is regulated by the California Department of Transportation (Caltrans). SR-23 and SR-118 are open to vehicles carrying hazardous materials/wastes. Transporters of hazardous wastes are required to be certified by the United States Department of Transportation (DOT) and manifests are required to track the hazardous waste during transport. The danger of hazardous materials/waste spills during transport does exist and will potentially increase as transportation of these materials increase on SR-23 and SR-118. The Ventura County Fire Department is responsible for hazardous materials accidents at all locations within the city.

8.8.3 Likelihood of Future Occurrence

Due to the number of hazardous materials sites in Moorpark, mechanical failures or natural hazards could pose future risk of hazardous material releases. Seismic shaking can disturb soils and active or plugged oil wells, causing hazardous materials to move further into the water and soil. Future risk of methane release from soils is possible due to presence of active and idle oil wells in Moorpark.

Climate change may indirectly increase the risk of hazardous materials release. For example, flooding, wildfires, and landslide events could cause the transport of hazardous materials to become more dangerous and increase the potential of an accident. These events could become more frequent and intense in the future due to climate change.

HAZARDOUS MATERIALS

GOAL SE 7

PROTECT RESIDENTS AND BUSINESS EMPLOYEES FROM POTENTIAL HAZARDS ASSOCIATED WITH THE USE, STORAGE, MANUFACTURE, AND TRANSPORTATION OF HAZARDOUS MATERIALS IN AND THROUGH THE CITY.

SE 7.1

Hazardous materials education: Work with the Ventura County Public Works Agency to continue educating the community regarding the proper storage, handling, use, and disposal of hazardous household materials.

SE 7.2

Hazardous materials business plans: Require business owners to incorporate into their business plans submitted to the Ventura County Environmental Health Department those measures necessary to minimize hazardous materials accidents due to intense ground shaking potential and flooding. Ensure that the plans are updated as necessary.

SE 7.3

Hazardous waste: Coordinate with the Ventura Environmental Health Department to manage hazardous waste, including household hazardous waste.

SE 7.4

Hazardous materials spills: Coordinate with state and regional agencies to respond to hazardous materials spills.

SE 7.5

Prohibiting hazardous materials facilities: Prohibit new hazardous materials facilities adjacent to schools or residential areas.

SE 7.6

Enforcing regulations: Enforce regulations for the safe operations of sites that use toxic and hazardous materials, including hardening hazardous waste storage facilities against natural hazards.

8.9 POLICE SERVICES

The city of Moorpark contracts with the Ventura County Sheriff's Office (VCSO) for all police protection services, including administration, patrol, and investigation services. VSCO provides also provides four community services to the city of Moorpark, including Citizen Academy, Parent Project, Ride Along Program, and School Resource Officers. VCSO's Moorpark Police Service Center located in the city provides police protection services for Moorpark and unincorporated areas of Ventura County. The Police Service Center also coordinates all police volunteers and volunteer programs, including the Moorpark Volunteers in Policing (VIP) Program. VIP consists of citizens who are trained to perform routine police functions such as parking enforcement, vacation house checks, special event security, crime report writing, traffic control, station tours, and administrative work.

In 2020, the Moorpark Police Service Center employs 36.75 full time sworn and nonsworn officers, and professional staff. Based on current staffing levels the city provides one sworn officer for every 1,094 residents. VCSO's response time target for Priority One calls—that is, life-threatening emergencies in progress—is under 7 minutes. VCSO does not have an established response time goal for Priority Two calls. In 2019 and 2020, the average time for Priority One calls was 5 to 6.5 minutes, and the average time for Priority Two calls was approximately 11.5 minutes.

POLICE SERVICES

GOAL SE 8

ADEQUATE AND EFFECTIVE LAW ENFORCEMENT SERVICES THAT PROTECT THE LONG-TERM SAFETY OF MOORPARK RESIDENTS, BUSINESSES, AND VISITORS.

SE 8.1

Response times: Work with the Ventura County Sheriff's Office to achieve and maintain appropriate response times for all call priority levels to provide responsive police services for the safety of residents and visitors.

SE 8.2

Staffing: Coordinate with the Ventura County Sheriff's Office to maintain optimum staffing levels for both sworn officers and civilian support staff to provide quality police services to Moorpark.

SE 8.3

Community relations: Work with the Ventura County Sheriff's Office to maintain a dialogue with the community to improve relationships and continually explore innovative means to communicate with the public on police services.

SE 8.4

Public Safety Services: Ensure that all neighborhoods, business districts, and other locations in the city receive an equitable and effective level of public safety services and feel safe from natural hazards, crime, vehicle hazards, and discrimination.

8.10 FIRE SERVICES

The Ventura County Fire Department (VCFD) provides fire protection in Moorpark as a contract county for CAL FIRE. The VCFD provides a variety of public safety services, including fire protection, medical aid, rescue, hazardous materials response, and educational safety programs to children, adults, and seniors. Other services include fire code adoption, enforcement, and regulation, development plan reviews, home and business inspections, fire code permits, film permits, and a fire hazard reduction program. There are two VCFD fire stations within Moorpark—Station 40 at 4185 Cedar Spring Street and Station 42 at 295 East High Street. Both fire stations are staffed with one captain and two fire fighters. VCFD also maintains mutual aid agreements with cities and other jurisdictions to provide emergency fire protection services.

In 2019, VCFD responded to 48,188 calls for services, 2,278 of which were in the city of Moorpark. Response times depend on the type of incident, location, weather conditions, existing or potential emergencies, resources available, and the information VCFD is provided with. VCFD response time goals and response statistics are based on population density throughout its service area, which includes unincorporated county areas and cities. VCFD has a goal of 8.5 minutes for calls in the suburban area and 12 minutes for calls in rural areas, to be achieved 90% of the time. In 2017 and 2018, 92% of suburban calls for services were responded to within 8.5 minutes, and 90% of rural calls for service were responded to within 12 minutes.

FIRE SERVICES

GOAL SE 9

FIRE SERVICES THAT EFFECTIVELY RESPOND TO URBAN AND WILDFIRE EMERGENCIES.

SE 9.1

Fire safety services: Work with the Ventura County Fire Department to provide fire prevention, protection, and emergency preparedness services that adequately protect residents, employees, visitors, and structures from fire and fire-related emergencies.

SE 9.2

Staffing and equipment: Coordinate with Ventura County Fire Department to ensure adequate staffing and equipment for fire protection services throughout the city to quickly respond to emergencies.

SE 9.3

Fair share extension: Work with Ventura County Fire Department to develop a program for new development to fund a fair share extension of fire services to maintain service standards, including personnel and capital improvements costs.

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9 Noise

9.1 INTRODUCTION

Noise levels within Moorpark can affect the quality of life for those who live and work in the community. It can exist as short-term nuisances such as the pounding of a jackhammer or buzz of a leaf blower. Generally, these noise sources can be controlled through city noise regulations, such as a noise ordinance. However, other noises, such as freeway noise and other mobile sources, may be permanent fixtures in the community. The information in this chapter identifies noise sources, noise sensitive land uses, and noise compatibility standards. The goals and policies in this section of the General Plan are designed to include noise control in the planning process to maintain compatible land uses with acceptable environmental noise levels to protect Moorpark residents from excessive noise.

The purpose of the Noise Element is to ensure and maintain the community's desired quality-of-life and character through noise compatibility. This element identifies and assesses the community's existing noise environment and provides guidance to proactively reduce noise and land use compatibility problems considerate of future noise contours. The element addresses key noise issues that include general community noise concerns, land use and noise compatibility, and stationary and mobile noise sources. The goals and policies included in this element provide the framework to achieve and maintain acceptable noise levels associated with various land uses and activities to support the existing regulations mitigating noise.

The noise element examines noise sources within Moorpark to identify and evaluate the potential for noise conflicts. Existing and future noise environments and the compatibility of land uses are considered in the element, as well as sensitive receptors and generators of stationary noise.

9.2 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. This section describes the regulatory framework related to noise and vibration in Moorpark.

9.2.1 State Requirement for Noise Elements

California Government Code 65302(f) requires municipalities to prepare and adopt "a Noise Element that shall identify and appraise noise problems in the community. The noise element shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

a. Highways and freeways.
b. Primary arterials and major local streets.
c. Passenger and freight online railroad operations and ground rapid transit systems.
d. Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

e. Local industrial plants, including, but not limited to, railroad classification yards.

f. Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards."

The noise element of the general plan provides a basis for comprehensive local programs to control and abate environmental noise and to protect residents from excessive exposure. The fundamental goals of the noise element are:

- To provide sufficient information concerning community noise so that noise may be effectively considered in the land use planning process.
- To develop strategies for abating excessive noise exposure through effective mitigating measures in combination with zoning, as appropriate, to avoid incompatible land uses.
- To protect those existing regions of the planning area whose noise environments are deemed acceptable and also those locations throughout the community deemed "noise sensitive."
- To utilize the definition of the community noise environment in the form of CNEL or Ldn noise contours as provided in the noise element for local compliance with the State Noise Insulation Standards. These standards require specified levels of outdoor to indoor noise reduction for new multifamily residential constructions in areas where the outdoor noise exposure exceeds CNEL (or Ldn) 60 dB."

9.2.2 State of California Noise Standards

The Governor's Office of Planning and Research (OPR) State of California General Plan Guidelines, Appendix D, defines model standards for noise exposure and land use compatibility and mitigation measures to reduce potential impacts.

State of California Building Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code (CBC). These noise standards are applied to new construction in California for the purpose of ensuring that the level of exterior noise transmitted to and received within the interior living spaces of buildings is compatible with their comfortable use.

9.2.3 Moorpark Noise Standards

The city's Municipal Code provides for general and specific restrictions and regulation of noise within Moorpark. These standards are primarily found in Municipal Code Chapter 17.53 which regulate stationary/operational, construction, and motor vehicle noise, as well as exterior and interior noise limits and enforcement.

9.3 COMMUNITY NOISE EXPOSURE

As with most communities, transportation related noises such as vehicle and train traffic contribute to the primary mobile source noise in Moorpark. Typical noise environment consists of steady ambient sound that includes distant and indistinguishable noise sources. Added to this background noise is the sound from individual local sources.

Several quantitative indicators are commonly used to gauge the likelihood that environmental noise would have an adverse effect on a community. These indicators consider that the most disruptive aspects of noise are strongly associated with the average acoustical energy content of the sound over the time it occurs and/or with the time of day when the sound occurs. The indicators used in this element are defined as follows:

L_{eq}, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this indicator is not affected by whether the noise occurs during the day or at the night.

dBA, A-Weighted Sound Level, is sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network, which de-emphasizes very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.

CNEL, the Community Noise Equivalent Level, is a 24-hour average Leq with a 10 dBA “weight” added to noise during the hours of 10:00 PM to 7:00 AM, and a 5 dBA “weight” added during the hours of 7:00 PM to 10:00 PM to account for increased noise sensitivity in the evening and nighttime.

In general, there are three distinct noise sources in the community: the SR-118 Freeway, major and minor arterial roads, the Union Pacific Railroad line that provide Metrolink and Amtrak passenger service as well freight rail service, and stationary sources such as heating, ventilation, and air conditioning units on residential and commercial buildings, and entertaining and/or performance venues.

The noise contours represent the maximum possible traffic noise levels and do not account for building placement, traffic speeds, or the attenuating effects of walls, structures, and terrain features that might intervene between the roads and any location of interest. As such, noise levels may vary depending on said sound impedance. A 60 dB CNEL contour is used by the State as the standard level for minimum noise exposure that noise considerations should be included when making land use policy decisions affecting existing and proposed noise-sensitive developments.

9.4 NOISE AND LAND USE COMPATIBLY

Table 9-1 (Land Use Compatibility for Community Noise Sources) presents criteria used to assess the compatibility of existing and proposed land uses within the noise environment.

Table 9-1
Land Use Compatibility for Community Noise Sources

Categories	Land Use Categories	Energy Average CNEL						
		<	55	<60	<65	<70	<75	<80>
Residential	Low Density/Single Family, Duplex, Mobile Homes	A	A	B	B	C	D	D
	Multifamily	A	A	A/B	B	C	D	D
Commercial Regional, District	Hotel, Motel, Transient Lodging	A	A	A/B	B	C	C	D
Commercial, Retail	Commercial Retail, Bank, Restaurant, Movie Theater	A	A	A	A	B	B	C
Commercial, Industrial, Institutional	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	A/B	B	C/D	D
Commercial Recreation, Institutional Civic Center	Amphitheater, Concert Hall, Auditorium, Meeting Hall	B	B	B	B/C	C	C/D	D
Open Space	Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat	A	A	A	B	B	D	D
Industrial, Utilities	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	A/B	B	B
Institutional General	Hospital, Church, Library, Schools, Nursing Homes	A	A	A	B	C	D	D
Open Space	Parks	A	A	A	B	C	D	D
Commercial Recreation	Children's Amusement Park, Miniature Golf Course, Go-cart track, Equestrian Center, Sports Club	A	A	A	A	B	C	C
Agriculture	Agriculture	A	A	A	A	B	C	C

Source: Moorpark General Plan Nosie Element.
Zone A – Clearly Compatible: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any buildings involved are of normal convention construction without any special noise insulation requirement.
Zone B – Normally Compatible: New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning will normally suffice.
Zone C – Normally Incompatible: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.
Zone D – Clearly Incompatible: New construction or development should generally not be undertaken.

Moorpark has several land uses susceptible to adverse impacts due to existing and potential future noise levels based on the State's standards for compatibility. Certain land uses, such as residences, schools, and hospitals, are particularly sensitive to noise and vibration. Sensitive receptors in the city include residences, senior housing, schools, places of worship, and recreational areas. These uses are regarded as sensitive because they are where citizens most frequently engage in activities that are likely to be disturbed by noise, such as reading, studying, sleeping, resting, or engaging in quiet or passive recreation. Commercial and industrial uses are not particularly sensitive to noise or vibration.

Within Moorpark, residential uses are the primary noise sensitive use existing within areas adjacent to the mobile sources of noise such as the SR-118 freeway, major arterials, and rail line.

Siting new development of any of these sensitive receptors in the vicinity of substantial traffic or noise-intensive industrial uses should be mitigated through adherence to state building code requirements, installation sound insulation, additional setbacks, and landscaping buffering.

9.5 EXISTING CONDITIONS

Much of the existing noise within Moorpark is attributable to mobile sources which include existing vehicular traffic as well as rail traffic. This section discusses the various existing noise environment within the city. Noise contours for the major noise sources in Moorpark were developed for both existing conditions and future conditions. Existing noise contours were determined from 2022 traffic data as shown in **Figure N-1,** *Existing Noise Contours*. The contours shown on the maps illustrate contours within the 60, 65, and 70 dBA noise levels.

Uses within the existing noise contour are primarily residential uses that are adjacent to mobile noise sources. Other uses such as schools, parks, community facilities located on arterial streets or adjacent to the rail line either are within fully or partially within the 60dB noise contour.

9.5.1 Existing Traffic Noise

Vehicular traffic represents the most prominent source of noise in the city. Existing traffic noise conditions were modeled using the Federal Highway Administration's (FHWA) traffic noise prediction model where average daily traffic volumes, vehicle mix (such as cars, medium and heavy duty trucks), speeds, time of day split (day, evening, night), and number of lanes data are considered.

As illustrated in **Figure N-1**, noise-sensitive land uses (primarily residential) experience noise levels of 70 dBA CNEL along State Route 118, Princeton Road, Tierra Rejada Road, Los Angeles Avenue, Walnut Canyon, and Spring Street. Sensitive uses are exposed to noise levels above 65 dBA CNEL along Grimes Canyon Road, Moorpark Avenue, and Collins Drive.

9.5.2 Railroad Noise

Railroad operations in the city is a source of noise along the Union Pacific rail line that serves both Amtrak and daily Metrolink commuter serves. Day-night average noise levels from the railroad vary depending on the number of trains per day, the timing and duration of train pass-by events, and whether trains must sound their warning whistles near at-grade crossings. Noise levels commonly range from 65 to 75 dBA CNEL at land uses adjacent to the railroad right-of-way. When trains approach a passenger station or at-grade crossing, they are required to sound their warning whistle within 1⁄4 mile. Train warning whistles typically generate maximum noise levels of 105 to 110 dBA at 100 feet.

Moorpark currently has one track owned and operated by Southern California Regional Rail Authority (SCRRA-Metrolink). The SCRRA line services the Ventura County Metrolink, the Amtrak Pacific Surfliner, and the Amtrak Coast Starlight. Up to two freight train travel the line per day. **Figure N-2** shows the calculated 65 dBA CNEL contours from existing railroad noise.

9.5.3 Stationary Noise

Stationary sources of noises may occur from many types of land use. Residential uses would generate noise from landscaping, maintenance activities, and air conditioning systems. Commercial uses would generate noise from heating, ventilation, and air conditioning (HVAC) systems; loading docks; and other sources. Industrial uses may generate noise from HVAC systems, loading docks, and possibly machinery. Noise generated by residential or commercial uses is generally short and intermittent. Industrial uses may generate noise on a more continual basis. Nightclubs, outdoor dining areas, gas stations, car washes, fire stations, drive-throughs, swimming pool pumps, school playgrounds, athletic and music events, and public parks are other common stationary noise sources.

9.6 FUTURE CONDITIONS

Future noise conditions for roadways are presented for the 2050 period derived from projected traffic levels attributable to development permitted by the Land Use Plan and are shown in **Figure N-3**, *Future Noise Contours*.

While the general contour regions are relatively similar to those of existing mobile source locations, the future contours do reflect anticipated traffic increase of the existing SR-118 freeway and arterial streets. As such, the contours have increased respective of those traffic projections.

In addition to traffic noise increases along existing roadways, new future roadways segments are also considered such as North Hills Parkway (east of Gabbert Road), High Street (west of Moorpark Avenue), Gabbert Road (south of North Hills Parkway), and Meridian Hills Road (west of Walnut Canyon Road).

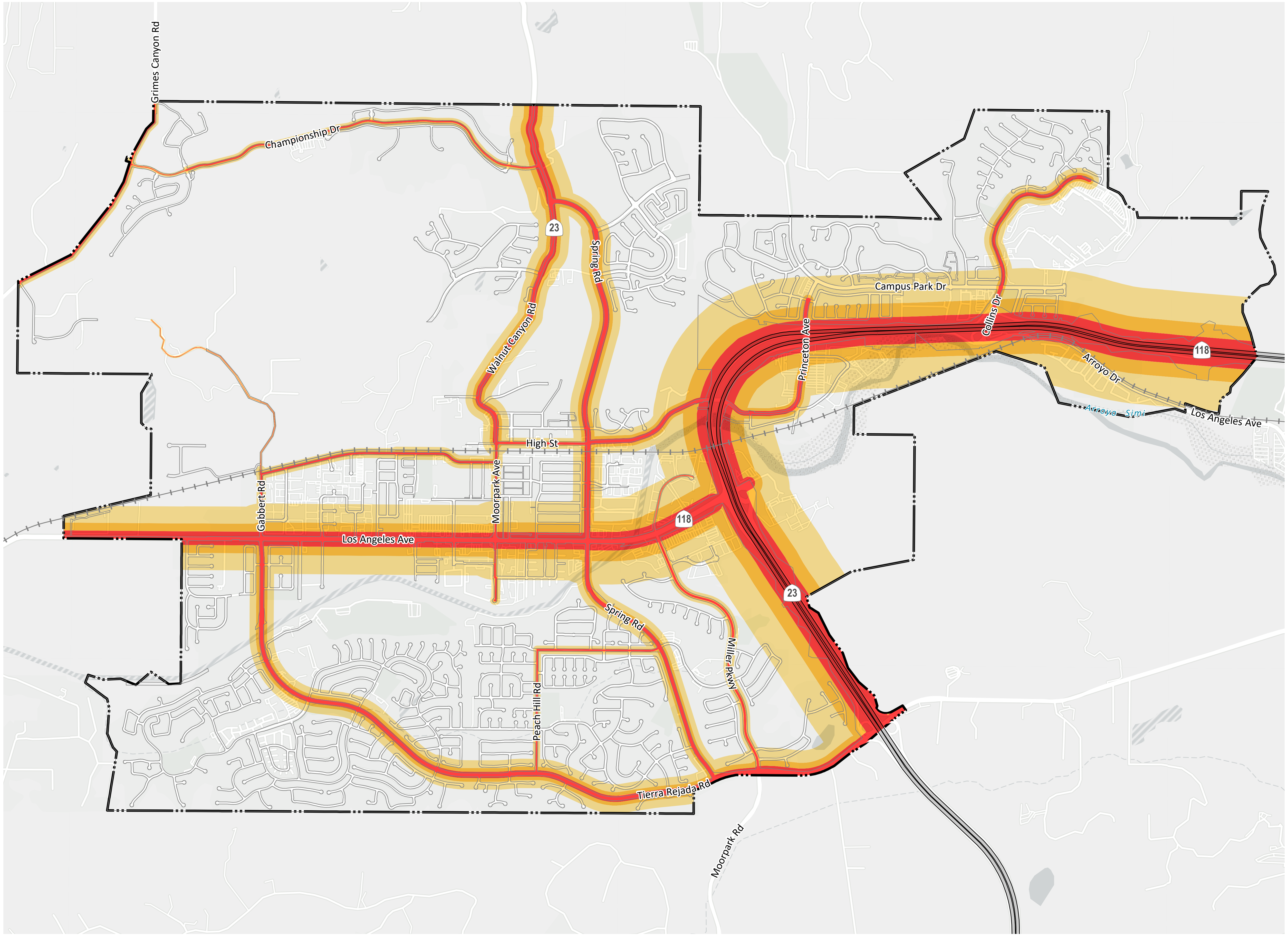
Uses within the future noise contour remain primarily residential uses that are adjacent to mobile noise sources (such as SR-118 and arterials streets). Other uses such as schools, parks, community facilities also located along mobile noise sources arterial streets will also continue to remain within or partially within the 60dB noise contour.

Future increase in stationary noise may be associated with construction noise as Moorpark continues to build out as allowed by the Land Use Plan. Construction noise levels are highly variable and depend on the specific locations, site plans, and construction details of individual projects, but localized and would occur intermittently for varying periods of time.

NOISE

Figure N-1

Existing Traffic Noise Contours



City Boundary
Railroad

Traffic Noise Contours

Existing Noise Contour 70 dBA
Existing Noise Contour 65 dBA
Existing Noise Contour 60 dBA

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0 1,000 2,000 4,000 FT

Source: PlaceWorks, Iteris 2022 Date: 11/9/2022

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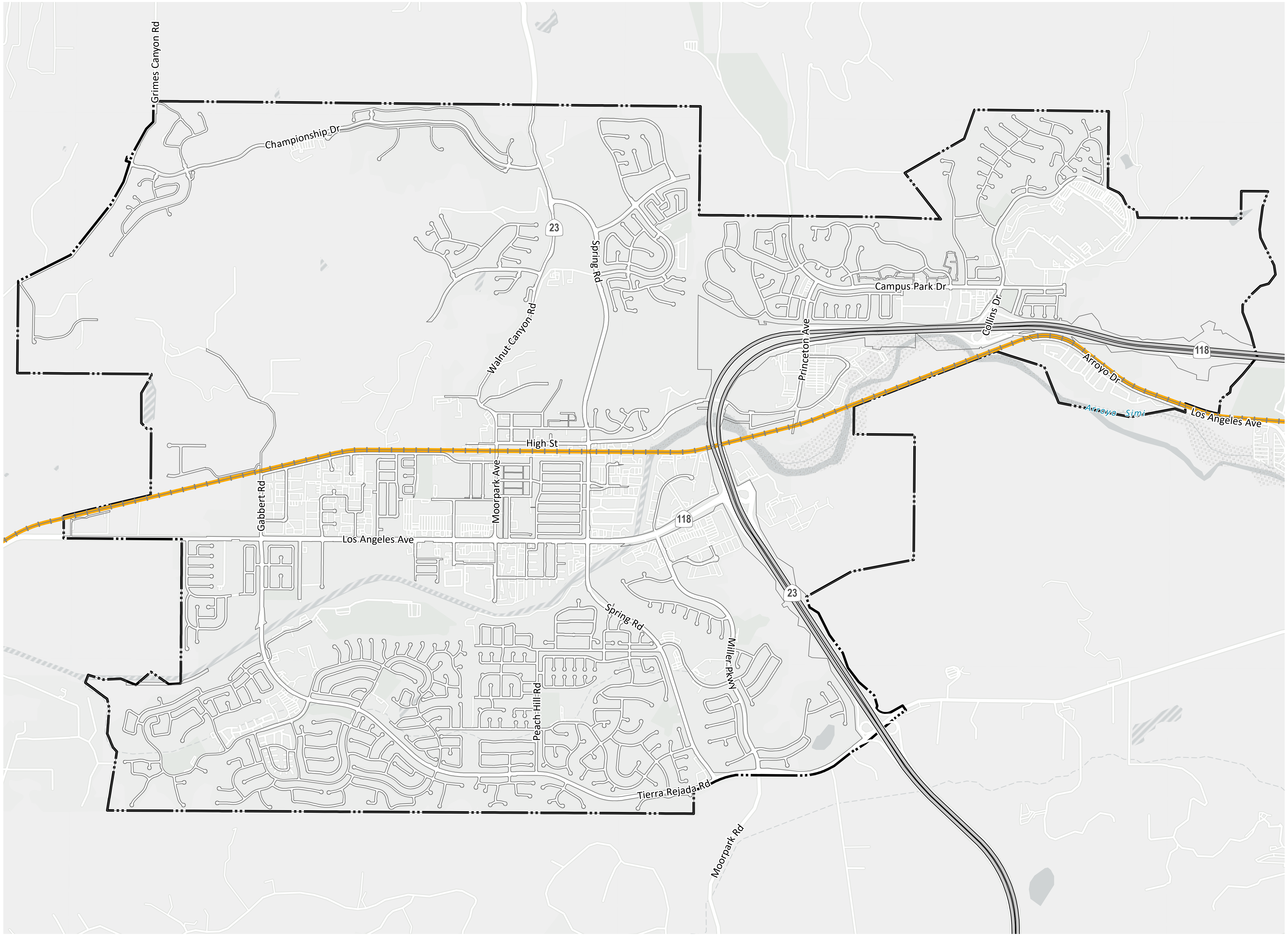
NOISE

Figure N-2

Existing Rail Noise Contours



City Boundary

Railroad

Rail Noise Contour 65 dBA

MADE BY MOORPARK General Plan 2050

0 1,000 2,000 4,000 FT

Source: PlaceWorks, 2022

Date: 11/9/2022

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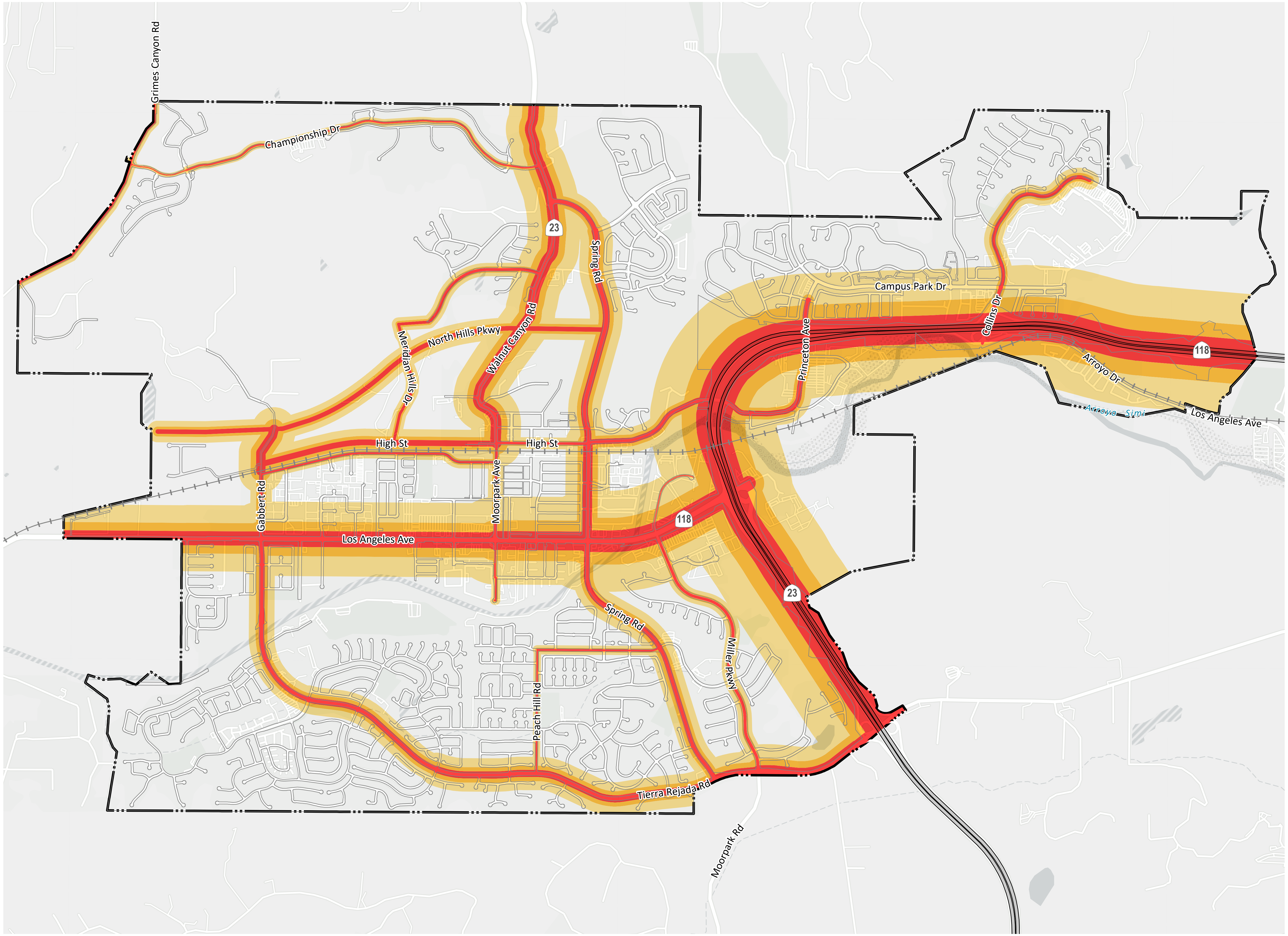
NOISE

Figure N-3

Future Traffic Noise Contours



City Boundary
Railroad
Traffic Noise Contours
Future Noise Contour 70 dBA
Future Noise Contour 65 dBA
Future Noise Contour 60 dBA

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0 1,000 2,000 4,000 FT

Source: PlaceWorks, Iteris 2022 Date: 11/9/2022

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9.7 GOALS AND POLICIES

Guided by the *Vision Statement*, the following goals and policies provide for strategic noise mitigations that safeguard against excessive and annoying noise impacts what help maintain and enhance quality of life in Moorpark.

These are organized in three sections: goals and policies that address general noise within the community, land use compatibility, and those specific stationary and mobile sources of noise.

GENERAL NOISE

GOAL N 1

THE HEALTH, SAFETY, AND GENERAL WELFARE OF THE PUBLIC ARE PROTECTED FROM ADVERSE NOISE IMPACTS.

N 1.1

Attenuation measures: Provide attenuation measures to reduce noise impacts from non-transportation sources through the city's Noise Ordinance, which is intended to protect people from noise generated on adjacent properties.

N 1.2

Limit nuisance noise: Limit the impact of nuisance noise sources.

N 1.3

Sound design: Encourage functional and attractive building and site layout designs to mitigate excessive noise levels.

N 1.4

Construction noise: Encourage enforcement of noise restrictions on hours of construction activity at noise sensitive receptors, particularly in residential areas.

LAND USE COMPATIBILITY

GOAL N 2

EXISTING AND FUTURE LAND USES ARE COMPATIBLE WITH CURRENT AND PROJECTED LOCAL AND REGIONAL NOISE CONDITIONS.

N 2.1

Planning for land use compatibility: Incorporate noise considerations into land use planning decisions to prevent or minimize future noise and land-use incompatibilities per the Land Use Compatibility Table (Table 8-1). The analysis of traffic and other noise sources shall consider future conditions at General Plan build out.

N 2.2

Locating noise sensitive uses: Limit or restrict new noise sensitive land uses in proximity to existing conforming noise generating uses and planned industrial areas.

N 2.3

Truck delivery areas: Encourage truck delivery areas to be located away from residential properties and require associated noise impacts to be mitigated per the city's Noise Ordinance.

N 2.4

Protecting noise sensitive uses: Protect noise sensitive land uses (such as libraries, schools, hospitals, residences, and other care facilities) from excessive, unsafe, or otherwise disruptive noise levels from adjacent land uses.

N 2.5

Design of roadway projects: Encourage the employment of noise attenuation measures in the design of roadway improvement projects consistent with existing and future funding.

N 2.6

Noise transfer: Mixed-use developments shall be designed to prevent the transfer of noise and vibration from non-residential uses by demonstrating adequate isolation of noise from the residential portion of the development.

STATIONARY AND MOBILE NOISE SOURCES

GOAL N 3

NOISE IMPACTS FROM NON-TRANSPORTATION-RELATED SOURCES, MOTOR VEHICLE TRAFFIC, AND RAILROAD OPERATIONS ON SENSITIVE RECEPTORS ARE MINIMIZED.

N 3.1

Transportation sources: Identify sound attenuation measures that can be applicable to transportation related noise impacts.

N 3.2

Stationary sources: Require stationary noise sources to limit noise to levels that do not interfere with adjacent uses.

N 3.3

New projects: Require new projects to contribute to the mitigation of off-site traffic noise impacts to the extent that these impacts are generated by the proposed project.

N 3.4

Local and regional collaboration: Collaborate with local and regional transit agencies and other jurisdictions to minimize regional rail and traffic noise and other sources of noise in the city.

N 3.5

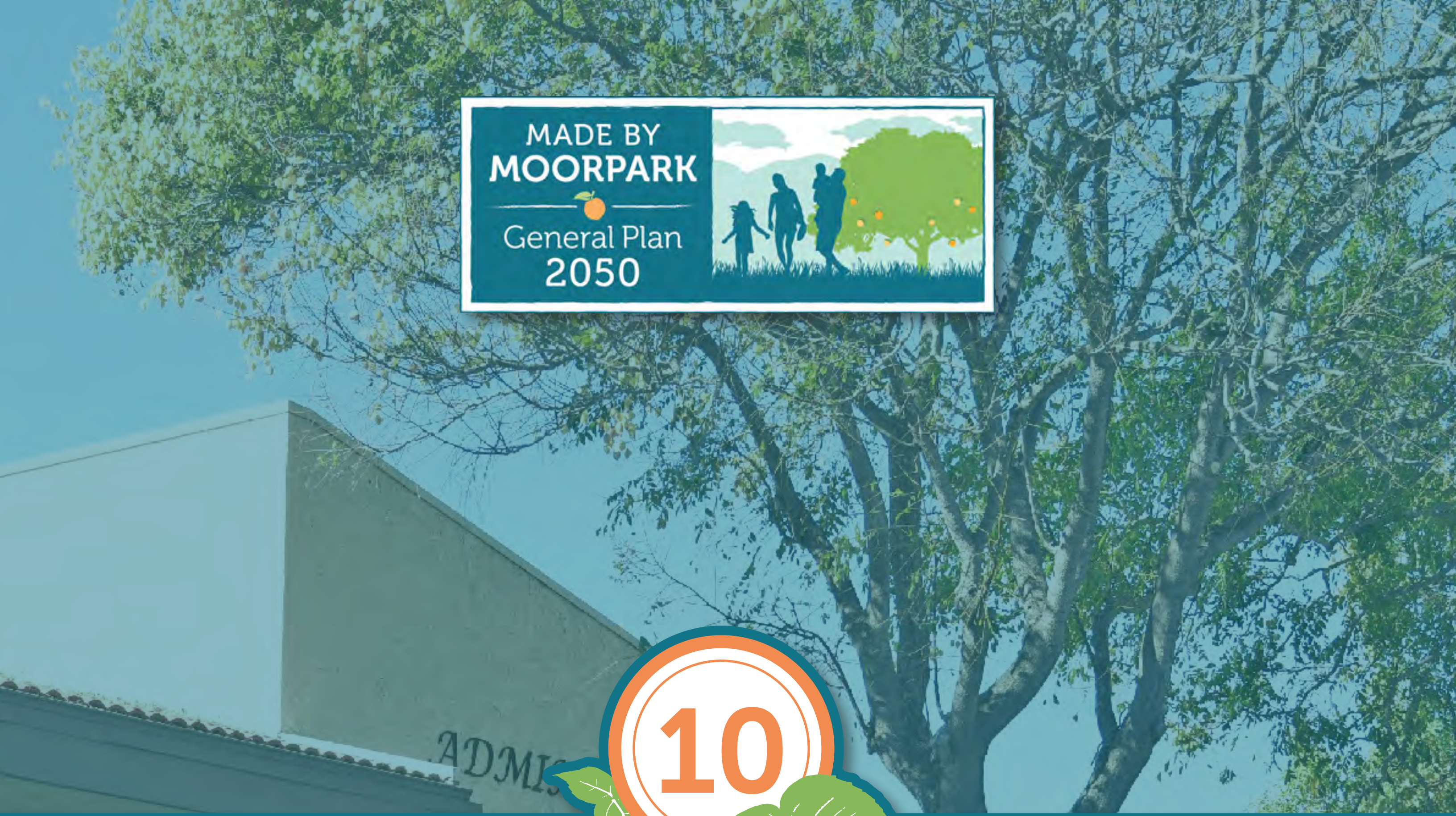
State Motor Vehicle Standards: Encourage the enforcement of state motor vehicle noise standards for cars, trucks, and motorcycles through coordination with the California Highway Patrol and Moorpark Police Department.

N 3.6

Protection from mobile sources: Require that residential and other noise-sensitive land uses adjacent to the 118 and 23 highways, major arterials, and railroad tracks be designed to incorporate elements reducing noise exposure from these sources, including such elements as walls, berms, and landscape features.

N 3.7

Interior and exterior standards: Continue to enforce current interior and exterior noise standards to ensure that sensitive noise receptors are not exposed to excessive noise levels from stationary noise sources. Stationary noise sources consist of, but are not limited to, machinery, heavy equipment, fans, and air conditioning equipment.



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General Plan 2050

10

Implementation

10.1 INTRODUCTION

This section serves as a working checklist of implementation programs for city staff and local decision makers to ensure that the General Plan vision is realized. An implementation program is an action, procedure, program, or technique that carries out goals and policies. Implementation measures are comprehensive in nature, encompassing amendments of existing and preparation of new plans, ordinances, and development of design standards; administration of city procedures and development review and approval processes; and interagency coordination.

The following tables describe the relevant actions and programs to implement the Plan's goals and policies and identifies the corresponding policies, responsible city departments, and the time frame for application. The latter are expressed in four general time periods: short refers to immediately following to within two years of the General Plan's adoption, medium refers to three to five years, long to five years and longer, and ongoing to those actions that continue or are periodically implemented through the life of the General Plan.

The described programs and actions are intended to inform and guide the development of the city's annual budget. During that time, city staff will review and prioritize the level of expenditure necessary to carry out the prescribed action and program. Completion of a recommended implementation program will depend on a number of factors such as citizen priorities, finances, and staff availability.

To enable Moorpark's General Plan to serve its purpose effectively, the list of programs and actions need to be reviewed, maintained, and implemented in a systematic and consistent manner. At a minimum, the programs and timeframes described in this chapter should be comprehensively reviewed and updated at least once every five (5) years to reflect available fiscal resources, community needs, and priorities. Revisions to these shall not constitute an amendment of the General Plan, provided that they are consistent with the Vision Statement and carry out its goals and policies. As such, future revisions to this Implementation Plan will not necessitate environmental review to conform to California Environmental Quality Act (CEQA) requirements, as each item described in this Plan will require subsequent action and evaluation.

The table below provides guidance for reading and understanding the components of the implementation table.

Table 10-1
How to Read Implementation Actions

Implementation Program describes, in general terms, the nature of the implementation action. Specifics of the action item will be developed as part of the budget process.
Relevant Policies list the General Plan policies for each Element that are implemented by this action.
Responsible Party specifies the city department with the primary responsibility for implementing the action, and in some cases may include an external agency or organization that has a secondary role with leadership provided by the city.
Timing indicates whether the action is an effort that should happen on an ongoing basis, or as a short-, medium-, or long-range priority.

Implementation actions for the Housing Element are included in the Housing Element document, which is provided under separate cover and updated accordingly to state legislative requirements.

Implementation Programs	Relevant Policies	Responsibility	Timing
LAND USE			
LU-I1 Growth Management Facilitate development consistent with the Land Use Element to promote a balanced city growth pattern and land use compatibility, maintain the city's suburban/rural character, revitalize the downtown area, preserve important natural features and biological and cultural resources, is sustainable and resilient, and require that overall intensity and density of land use decreases away from the valley floor.	LU-1.1, 1.2, 1.3, 1.5, 3.1-3.8, 4.1-4.8, 10.1-10.5, 13.1-13.3, 12.1, 13.1, 15.2, 16.1, 16.4, 17.1	Community Development Department	Ongoing
LU-I2 Sphere of Influence Analyses Participate in Ventura County Local Agency Formation Commission's five-year municipal service and SOI study. In advance, conduct a study to evaluate the appropriateness of an expanded City Urban Restriction Boundary to allow for proper planning for any potential changes to the physical boundary and service area of the city.	LU-2.1, 2.2	Community Development Department, City Manager's Office	Short
LU-I3 Development Review and Entitlement Review proposed development projects and applications for conformance with the General Plan Land Use and Circulation Plans, goals and policies specified for each Plan Element, and applicable regulatory codes and requirements including the Zoning Ordinance. Proposed projects hall be reviewed regarding conformance with permitted uses, development standards, and objective design guidelines and standards. In addition to the General Plan, they will be reviewed for conformance with	LU-1.1, 1.2, 5.1, 5.4, 6.1, 7.1, 7.2, 8.2, 8.7, 9.2, 11.3, 11.4, 12.2. 12.5, 13.5, 13.6, 13.8, 16.8, 16.9	Community Development Department, Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
the Subdivision Ordinance, Hillside Management, Noise Ordinance, Grading, Solar Energy System. Development applicants will be required to submit pertinent studies and analyses to enable review for compliance.			
LU-I4 California Environmental Quality Act and Greenhouse Gas Reduction and Climate Change Analyses Review and update the Procedures of the city of Moorpark to Implement the California Environmental Quality Act (CEQA) as applicable new legislation is enacted and establish procedures and standards for the preparation of greenhouse gas (GHG) reduction and climate change resilience plans for major development projects.	LU-7.1, 8.1, 8.2, 8.3	Community Development Department	Ongoing in response to legislation and Short Term for GHG and Climate review procedures
LU-I5 Development Fact Sheets Create and promote a series of one-page facts sheets regarding permitting, zoning, building, and development requirements and questions and educational materials promoting property maintenance and improvement and approaches for sustainable, healthy, and resilient development (e.g., solar, landscape, irrigation, etc.) and post on the city's website.	LU-8.1, 8.2, 8.4, 9.1, 9.6, 16.9	Community Development Department	Medium
LU-I6 Development Monitoring and Tracking Maintain data files documenting the number of housing units and non-residential building square feet for developer applications and approvals. The former shall include information required for compliance with state Housing Element Law. Periodically, surveys shall be conducted to assess the economic performance of existing businesses including tenant vacancies. The database shall include vacant and underutilized properties to enable the city to monitor its growth and change, plan for infrastructure improvements and public services, and serve as a resource in identifying potential development sites.	LU-1.5, 3.1-3.3, 3.5	Community Development Department	Ongoing
LU-I7 Annual Planning Report Prepare and submit an Annual Planning Report to the State Department of Housing and Community Development (HCD) and Office of Planning and Research (OPR) reporting on progress in meeting targets for housing production. As required, reports may also be necessary to document the city's efforts in achieving statewide and regional targets for reduction of greenhouse gas emissions.	LU-3.1	Community Development Department, City Council, Parks, Recreation, & Community Services	Ongoing
LU-I8 General Plan Review and Updates Review the Land Use Element every five years to assess its performance in meeting the Plan's visions and goals and addressing current and emergent trends and issues and modify as necessary to improve its effectiveness. The Land Use Plan shall be reviewed and updated as necessary for each Housing Element cycle to provide sufficient capacity	LU-3.1, 3.2, 3.3	Community Development Department, City Council	Medium

Implementation Programs	Relevant Policies	Responsibility	Timing
to meet Regional Housing Needs Assessment (RHNA) targets, projected population growth and, and meet economic development objectives and adjust to changing markets.			
LU-I9 Zoning Ordinance Implementation Require conformance of proposed development projects with the procedures, permitted uses, and development standards specified by the Municipal Code, Title 17 Zoning. Periodically, review and amend as necessary to ensure compliance with applicable state and federal regulations and relevance to state-of-the art practices and amendments/updates of the GP Land Use Plan and revise as needed to reflect General Plan and Housing Element.	LU-5.5, 6.1, 6.2, 6.3, 6.6, 6.7, 7.2-7.4, 8.5, 9.1, 9.3, 9.6, 9.8, 10.1-10.5, 11.1, 11.4, 12.3, 12.4, 13.1, 13.2, 13.4, 13.6, 13.7, 14.1, 14.2, 15.1, 15.4, 15.6, 15.7, 15.8, 16.1-16.3, 16.5, 16.6, 18.2, 18.2	Community Development Department	Ongoing
LU-I10 Codes and Ordinances Implement and periodically review and update Municipal Codes and Ordinances to ensure compliance the state and federal regulations and best practices including, but not limited to, adoption of state-of-the-art technologies, age-friendly, barrier-free development, sustainable development and infrastructure, reduction and resilience to the impacts of climate change, and other features that promote the health and safety of buildings.	LU-1.1, 4.9, 7.3, 8.5, 8.6, 8.8, 8.9, 9.1 9.3, 9.6, 18.1	Community Development Department, , Public Works Department, City Clerk	Ongoing
LU-I11 Plan Updates Coordinate with appropriate agencies on continuing reviews and updates of plans and funding for parks and recreation, library, cultural arts, utility and public facility, streets and highways, and other applicable plans and programs for consistency with the goals and policies of the General Plan.	LU-1.4, 3.8, 3.9, 9.7, 9.18	Community Development Department, Public Works Department, Department of Parks, Recreation, & Community Services	Ongoing
LU-I12 Capital Improvement Program Review, update and expand the city's Capital Improvement Program in order to schedule and identify funding sources implementing projects providing services for existing and future residents and businesses including maintenance of existing and acquisition, construction rehabilitation and replacement of public buildings and facilities and infrastructure.	LU-1.5, 9.5, 11.3, 17.1	Public Works Department, Parks, Recreation, & Community Services Department	Ongoing
LU-I13 Development Fees Periodically, review and update development fees to assure that costs for services and improvements are adequately funded consistent with City Council policy, consistent with requirements for the nexus of fees with development impacts.	LU-1.4, 17.1	City Council, City Manager's Office, Community Development Department, Finance Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
LU-I14 Infill Incentives Develop a program of incentives for development that enables residents to live in proximity to commerce and services and transit stations thereby minimizing the need to travel by automobile and enhances the economic viability of obsolete/underperforming properties. Strategies such as expedited project and environmental review, fee reductions, parking reductions, are examples of possible incentives.	LU-1.6, 3.4, 3.7, 4.2	Community Development Department	Short
LU-I15 Economic Development Program Develop and implement a business attraction and retention program, as defined by the Economic Development Element. As a complement, support activities and collaborative partnerships that can assist in education and job training skills that generate wealth and economic security for residents.	LU-3.6, 10.3, 10.8, 13.4, 15.1, 15.2, 16.4	Community Development Department, City Manager's Office	Short
LU-I16 Work with Property Owners Work with property owners experiencing business closures to encourage and establish incentives for the adaptive re-use, re-positioning, and/or redevelopment of properties.	LU-13.3, 13.4	Community Development Department	Ongoing
LU-I17 Multi-Family Residential and Mixed-Use Objective Design Standards Develop and implement objective design standards for multi-family residential and mixed-use development projects to ensure character, quality, and reflection of the unique identity of Moorpark.	LU-5.1, 12.2, 12.5, 12.6, 13.6, 13.8, 15.3, 15.5, 15.6, 15.7, 15.8	Community Development Department	Short
LU-I18 Design Plan for Public Spaces and Districts Prepare a citywide design plan that includes design concept plans for special treatment areas within the community (such as entries, key districts such as High Street and the Civic Center) and identifies overall community concepts for landscape architecture, architecture, signage, streetscape improvements and tree canopy, walkways and connections, identifiable entryways, and community gateway areas.	LU-5.2, 5.3, 5.8, 8.6, 9.2, 9.4, 11.3	Community Development Department, Public Works Department, Department of Parks, Recreation, and Community Services	Medium
LU-I19 Historic Resources Inventory Collaborate with the County of Ventura Cultural Heritage Board and Moorpark Historical Society to identify and maintain records of historic buildings and properties.	LU-5.6	Community Development Department	Ongoing
LU-I20 Arts in Public Places Continue to implement the Art in Public Places program requiring certain development projects to either provide artwork on site (as a part of the project construction), or to pay an in-lieu fee which is then used by the city to develop, maintain, and support public art throughout the community.	LU-5.7, 9.7	Community Development Department, Parks, Recreation, & Community Services Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
LU-I21 Code Enforcement Continue to maintain an active program to enforce the Municipal Code and other nuisance abatement programs that aim to keep the city's neighborhoods attractive, safe, and free from public nuisances.	LU-6.4, 6.5, 11.2, 11.5, 14.3, 16.7	Community Development Department	Ongoing
LU-I22 Property Improvement Loans and Grants Pursue and administer funding for loans and grants for the maintenance and enhancement of private commercial, industrial, and residential properties and buildings.	LU-6.4, 6.5, 11.2	Community Development Department, City Manager's Office	Ongoing
LU-I23 Community Clean-Up and Improvement Programs Sponsor and support local volunteer community organizations in the conduct of neighborhood and district programs targeting the clean-up and improvement of properties containing debris and trash and deteriorating building facades and structural elements.	LU-6.4, 6.5, 11.2	Community Development Department, Parks, Recreation, & Community Services Department, Solid Waste and Recycling Division	Ongoing
LU-I24 Downtown Vitalization and Improvement Update the Downtown Specific Plan to reflect the General Plan's goals and policies promoting its revitalization as the center of community identity and activity while retaining its small town character and existing historical elements.	LU-19.1-19.9	Community Development Department	Short Term
LU-I25 Acquisition of Public Lands Utilize land acquisition methods in order to acquire land designated for public use and for public purposes such as urban redevelopment. Support similar methods utilized by other public agencies providing services and facilities that serve the city and its sphere of influence.	LU-3.9, 9.5	Community Development Department, Public Works Department, Finance Department, Parks, Recreation, & Community Services Department,	Ongoing
LU-I26 Conservation of Open Space Lands Utilize conservation, open space, and scenic easements as a means of conserving open space in accordance with the Land Use Plan and to further implement the goals and policies of the Land Use Element.	LU-7.4, 7.5	Parks, Recreation, & Community Services Department,	Ongoing
LU-I27 Community Programs and Services Maintain, administer, and support community programs and services contributing to the quality of life and health of Moorpark's residents, including seniors, children and youth health, family relationships, and safety preparedness and resilience, food security and assistance, and other local needs as defined by the General Plan.	LU-9.6-9.10, 9.15-9.18, 17.5	Department of Parks, Recreation, and Community Services, Emergency Management Division	Ongoing
LU-I28 Intergovernmental Coordination Continue to collaborate and work in partnership with external governmental agencies responsible for providing services and/or responsible for improvements and	LU-10.7, 17.2, 17.3, 17.4, 17.6, 17.7, 17.8	City Manager's Office, Community Development	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
programs that may impact or benefit Moorpark's residents among which are the County of Ventura, Moorpark Unified School District, utility providers, transportation agencies, and adjoining cities.		Department, Public Works Department	
LU-I29 Civic Engagement Continue to provide opportunities for the engagement and active involvement of Moorpark's residents in governance, planning, budgeting process, and decision-making, which may include live broadcasting of public meetings and opportunities for residents to participate in meetings remotely via conferencing technology.	LU-10.6	All City Departments	Ongoing
LU-I30 Health and Welfare Regulations Continue to implement provisions of the Municipal Code that address smoking/tobacco/vaping in public places and private residences, responsible advertising, and issuance of permits; address measures to regulate alcohol through advertising, permit issuance, and social host regulations; and encourage the siting of facilities and programs for aversion and treatment.	LU-9.9, 9.19	Community Development Department, Department of Parks, Recreation and Community Services	Ongoing
LU-I31 Health Serving Uses Periodically update zoning code provisions as needed to allow for residential care facilities, elder care, childcare, and needed health care facilities to ensure an adequate level of services for Moorpark residents. Proactively attract, through economic development programs, relocation and expansion of health serving uses as needed to accommodate local needs. Support nonprofit and for-profit organizations providing health services through collaboration and partnerships, educational programs, and information sharing, which may include a resource guide for residents.	LU-9.11-9.14	Community Development Department	Ongoing
CIRCULATION			
CI-I1 Transportation Analysis Guidelines Create city Transportation Analysis Guidelines for Land Use and Transportation Projects consistent with the General Plan Policies including guidance for complete streets, CEQA, and transportation system standards.	CI-1.1, 1.2, 1.6 2.1 - 2.5, 2.9, 2.11, 3.1-3.6	Public Works Department	Short
CI-I2 Local Road Safety Plan Complete a Local Roadway Safety Plan, which includes equity considerations, to allow the city to be eligible for State Highway Safety Improvement Program Grant Funds	CI-1.3, 1.4, 1.10	Public Works Department	Short
CI-I3 Capital Improvements Implement Metrolink Parking North Lot Expansion, Princeton Avenue Improvement Project, Los Angeles Avenue improvements, and other capital improvement projects as defined by the Public Works Department. In addition, continue to prioritize ADA improvements to transportation infrastructure.	CI-1.5, 1.10	Public Works Department	Short

Implementation Programs	Relevant Policies	Responsibility	Timing
CI-I4 Agency Coordination Provide Staff-Level Coordination with Ventura County, Ventura County Transportation Commission, California Highway Patrol and Caltrans to achieve consistency between regional and local transportation improvements and the General Plan and accomplish the city's future transportation goals. Coordinate with SCAG to update the SCS/RTP to reflect the North Hills Parkway project as an arterial roadway without the direct connection to the SR-118 Freeway.	CI-1.7 – 1.9	Public Works Department, VCTC, CHP, Caltrans	Ongoing
CI-I5 Emerging Technologies Create a white paper, memorandum, or study addressing the application of emerging transportation technologies in the city for presentation to the City Council	CI-2.7, 2.10	Public Works Department	Medium
CI-I6 Transit Plan Develop a strategic Transit Plan for the city, which includes equity considerations, to provide affordable and accessible transit options for Moorpark residents.	CI-4.1 – 4.5, 1.10	Public Works Department, VCTC	Medium
CI-I7 Evacuation Routes Develop and implement a network of signed evacuation routes.	CI-3.7	Public Safety	Medium
CI-I8 Active Transportation Plan Develop an Active Transportation Plan to identify and prioritize funding for bicycle and pedestrian improvements, including equity and accessibility considerations for all users.	CI-5.1 – 5.9, 1.10	Community Development Department, Public Works Department	Medium
CI-I9 Transportation Demand Management Implement Transportation Demand Management (Chapter 17.48 of the Municipal Code).	CI-6.1 – 6.4	Community Development Department, Public Works Department	Ongoing
CI-I10 Parking/Neighborhood Traffic Management Develop Parking Master Plan/ Neighborhood Traffic Management Program.	CI-7.1 – 7.3	Public Works Department	Medium
CI-I11 Traffic Mitigation Fee Program Maintain Transportation System Management and citywide Traffic Mitigation Fund Fee Programs and coordinate with Ventura County for the Traffic Impact Mitigation Fee.	CI-2.8	City Manager's Office, Public Works Department	Ongoing
CI-I12 Street System Monitoring Monitor the traffic operations conditions of existing and proposed street systems on a periodic basis to identify current and potential problem areas and to develop solutions.	CI-2.1	Community Development Department, Public Works Department	Ongoing
CI-I13 Traffic Signal Synchronization A program of traffic signal interconnection shall be implemented on Principal and Minor Arterials to improve traffic progression and the monitoring and maintenance of the city's traffic signals.	CI-2.6	Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
CI-I14 Study SR-23 Bypass or Alternative Use Evaluate whether a bypass of SR-23 from the vicinity of the future North Hills Parkway east of Spring Road north to Broadway Road should be pursued by the city or whether an alternative use or uses would be appropriate for lands previously dedicated to that use.	CI-1.4	Public Works Department	Medium
CI-I15 Update Storm Drain Master Plan Update the storm drain master plan every 10-years to track necessary Capital Improvement Plan (CIP) projects for future implementation. Coordinate between master plan efforts and annual CIP budgets to ensure necessary projects are being prioritized and constructed.	CI-8.1	Public Works Department	Long
CI-I16 Participate in Enhanced Watershed Management Plans Participate in Enhanced Watershed Management Plans (EWMP) working groups as they become established to identify stormwater projects that will protect downstream receiving and offer multi-benefit solutions.	CI-8.1, 8.6	Public Works Department	Medium
CI-I17 Ensure Operation and Maintenance Documents Comply with Requirements Review operation and maintenance (O&M) requirements per the current Regional Municipal Separate Storm Sewer System (MS4) Permit (Order No. R4-2021-0105), and subsequent MS4 Permit revisions, to ensure O&M requirements are adhered to regarding minimum inspection and maintenance requirements.	CI-8.2	Public Works Department	Short
CI-I18 Develop Stormwater Management Database Inventory all stormwater assets in a singular stormwater management database and software system to track pollutant removal effectiveness, stormwater inspections, and other required compliance activities as part of the MS4 permit.	CI-8.2, 9.1	Public Works Department	Medium
CI-I19 Develop Cost Share Mechanisms with Ventura County Public Works Department Coordinate with the Ventura County Public Works Department (VCPWD) to develop fair cost share mechanisms. Review agreements and policies in place on an annual basis.	CI-8.3	Public Works Department, Ventura County Public Works Department	Short
CI-I20 Develop Green Street Best Management Practice (BMP) Standard Plans Develop standard plans for green streets BMPs for public improvement projects as well as private development projects that impact the city rights-of-way for streamlined review and approval and consistent parkways throughout the city.	CI-8.4	Public Works Department	Short
CI-I21 Incentivize Private Harvest and Reuse Review current requirements for implementation of private project harvest and reuse systems within MS4 Permit to identify how the city can incentivize these systems during the project review process.	CI-8.5	Public Works Department	Medium

Implementation Programs	Relevant Policies	Responsibility	Timing
CI-I22 Adopt State Greywater Standards Adopt new statewide standards for on-site greywater and stormwater systems or develop city standards to allow for the permitting of these systems by following the Building and Safety Division, Building Code, and other applicable regulatory agencies and associated guidance documents.	CI-8.5, 11.3, 11.4	Public Works Department, Community Development Department	Medium
CI-I23 Evaluate in Lieu Fees for Private Best Management Practices Evaluate in lieu fees to offset the need for individual private project BMP implementation and support regional BMPs that maximize stormwater and watershed benefits as well as provide city ability to maintain and/or construct new regional BMPs.	CI-8.6	Public Works Department	Medium
CI-I24 Utilize Technology for Monitoring Efficiency Implement new technologies and methodologies, such as BMP sensors for maintenance tracking or machine learning and artificial intelligence for pollutant and trash tracking, for complying with various stormwater requirements consistent with smart city applications.	CI-9.1	Public Works Department	Short
CI-I25 Expand Recycled Water Infrastructure Coordinate with the Ventura County Waterworks District No. 1 (District) to promote the expansion of the Moorpark Water Reclamation Facility recycled water infrastructure to allow for broader reach of the available distribution lines (purple pipe) and service throughout the city.	CI-10.1	Public Works Department, Community Development Department, City Manager's Office	Long
CI-I26 Develop Cost Sharing Mechanisms for Recycled Water Systems Work with the District to provide developers with options for cost sharing mechanisms to allow for recycled water distribution lines to be in the vicinity of development projects.	CI-10.1	Public Works Department, Community Development Department	Medium
CI-I27 Track District Sewer Capital Improvement Plan Projects Actively track District CIP projects related to sewer infrastructure and establish ongoing coordination to identify opportunities for sewer infrastructure improvements when new developments come online within the city.	CI-10.2	Public Works Department	Ongoing
CI-I28 Track District Water Capital Improvement Plan Projects Actively track the District water master plan updates and District CIP projects within the city's jurisdiction and establish ongoing coordination to identify opportunities for water infrastructure improvements when new developments come online within the city.	CI-11.1	Public Works Department, Community Development Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
CI-I29 Monitor Regional Water Supply Regularly review and evaluate future iterations of the District's Urban Water Management Plan and other regional water supply assessments in order to maintain an understanding of available supply sources. Actively track and share development projects throughout the city with the District as they come online.	CI-11.2	Public Works Department, Parks, Recreation and Community Services Department	Ongoing
CI-I30 Incentivize Greywater Systems Evaluate and develop incentives for new developments to implement on-site greywater systems when recycled water infrastructure is unavailable.	CI-11.3	Public Works Department, Community Development Department	Medium
CI-I31 Waste Management Monitoring Program The city shall coordinate with and monitor operations of the city's franchised waste haulers to ensure the provision of an adequate and orderly system of operation, services, and programs for the collection, recycling, or disposal of all solid waste, organic waste, and hazardous waste for new and existing development in the city.	CI-12.1 – 12.4, 12.6, 12.7	Solid Waste Division, Public Works Department, Finance Department	Ongoing
CI-I32 City Services and Operations The city will periodically review and update the city's Solid Waste Management Plan and solid waste reduction program in accordance with the California Integrated Waste Management Act of 1989 (AB 939) and other applicable State laws, including but not limited to, AB341, AB 1826, AB 1594 and SB 1383.	CI-12.2	Solid Waste Division	Ongoing
CI-I33 Municipal Procedures and Operations Moorpark's municipal procedures and operations will be reviewed and revised, as necessary, for consistency with the 2050 General Plan's policies and will, at a minimum, address: 1. Reviewing and amending as necessary existing guidelines for municipal contracts to give preference to contractors employing the highest levels of sustainable practices in their business operations and product manufacturing. 2. Reviewing and revising as necessary the city procurement policy to include recycled products and provide a price differential to specific products with recycled content.	CI-12.3, 12.8	All City Departments	Ongoing
CI-I34 Community Services and Operations The city will continue to administer programs promoting and facilitating the disposal and recycling of waste by residences, commercial businesses, industries, and municipal uses through the provision of informational and material resources and collection events	CI-12.3 – 12.7, 12.9	Solid Waste Division	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
CI-I35 Public Information The city will continue to provide educational media informing the community regarding the importance and methods for waste disposal and recycling. A diversity of formats and media may be used including publications, posters, videos, PowerPoint presentations, and posting on the city's website.	CI-12.9	Solid Waste Division	Ongoing
CI-I36 Development Review Process The city shall utilize the Development Review Process to ensure that adequate natural gas, electricity, and other utilities and infrastructure are provided for new development and redevelopment projects and that they are appropriately designed to address city standards and federal and state discharge requirements.	CI-13.1	Community Development Department, Public Works Department	Ongoing
CI-I37 Interagency Coordination and Partnership Moorpark will continue to work with external public, quasi-public and private utility and service providers (e.g., Southern California Edison and Southern California Gas Companies and telecommunications companies) in supporting periodic updates of their plans and programs to ensure that adequate facilities and improvements are provided to meet community needs. As comprehensive master and facility plans are prepared and improvements proposed, Moorpark shall review these and submit comments regarding potential impacts and mitigation measures to ensure that their facilities and improvements meet community needs, provide equitable access, and are located and designed to complement community character. The city will encourage that utility companies implement practices and improvements that employ sustainable best practices, increase safety and reliability, limit service disruptions and their disproportionate impacts and embrace state-of-the-art technologies. The city shall promote and support the undergrounding of utilities and require that facility and property improvements be designed for physical and visual compatibility with their contextual setting.	CI-13.2 – 13.6, 13.8, 13.9, 14.1, 14.2	Community Development Department, Public Works Department, City Manager's Office	Ongoing
CI-I38 Energy Conservation The city shall support and promote local energy utility programs that result in energy efficiency and the generation of renewable energy and shall work with utility providers to report on the enrollment and performance of such programs as part of the annual General Plan Review. The city shall enroll all applicable municipal facilities in Clean Power Alliance Programs that promote onsite energy generation and/or storage to help reduce peak energy demands and offset energy costs.	CI-13.5, 13.7	Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
CI-I39 Telecommunications Technologies and Facilities The city shall periodically review and modify its Building Code and development standards to facilitate the inclusion of state-of-the-art telecommunication technologies and regulate the location, height, appearance, and placement of telecommunication facilities to the extent permitted by law.	CI-14.2, 14.3	Community Development Department	Ongoing
CI-I40 Broadband Network Implement recommendations of the 2020 Broadband Strategic Plan for ensuring abundant broadband connectivity for municipal operations, fully capitalizing on city assets and planned projects for private companies to provide network services (such as public wi-fi), maximizing economic vitality, and minimizing costs and disruptions for the community.	CI-14.1, 14.2	Public Works Department, City Manager's Office	Medium
ECONOMIC DEVELOPMENT			
ED-I1 Economic Development Strategic Action Plan Adopt, periodically update, and implement an economic development strategic action plan with objectives for the time frame of the plan and with strategies and action plans, which may complement or supplant these implementation measures; include in the action plan a retail/dining/entertainment/commercial recreation recruitment strategy and a target industries strategy.	ED-2.1, 1.1, 1.3, 1.4, 1.6, 1.7, 2.3, 2.4, 3.1, 3.2, 4.3, 5.4	Economic Development Division	Short
ED-I2 Economic Development Training Ensure that key staff have the opportunity for economic development training through the California Association for Local Economic Development or similar organizations; provide in-house economic development training for other city staff and for elected and appointed officials.	ED-2.2	City Manager's Office, Economic Development Division	Ongoing
ED-I3 Capital Investments When preparing and adopting the Capital Improvement Program as part of the annual budget, incorporate a consideration of the potential economic development benefits of capital investments, especially infrastructure and capital improvements that facilitate redevelopment, infill development, and new development that is consistent with the Land Use Plan.	ED-4.3, 1.3, 1.5, 2.2, 3.1, 4.2, 5.2	Finance Department, Economic Development Division, Public Works	Ongoing
ED-I4 Downtown Revitalization Plan Collaborate with downtown businesses and the Chamber of Commerce to create and implement a Downtown Revitalization Plan; invest in infrastructure improvements needed to facilitate implementation of the downtown revitalization plan; establish and fund programs and public services needed to facilitate implementation of the downtown revitalization plan.	ED-5.1, 1.7, 2.4, 3.2, 4.2, 4.3	Community Development	Short
ED-I5 Funding and Financing Policy Guide Review, revise and prepare as necessary, policy documents that outline when and how the city supports the establishment of assessment districts, community facilities	ED-4.1, 4.2, 3.1, 3.2, 4.3, 5.2	Economic Development Division, Finance	Short

Implementation Programs	Relevant Policies	Responsibility	Timing
districts, enhanced infrastructure financing districts, and similar programs to support development that is consistent with the Land Use Plan, and identify other appropriate funding sources.		Department, City Manager's Office	
ED-I6 Events Strategy Collaborate with stakeholders and the general public to establish an events strategy and an annual plan to promote special events.	ED-1.7, 2.4, 5.3	Economic Development Division, Parks, Recreation, and Community Services	Ongoing
ED-I7 Business Visitation Establish and undertake a program to regularly meet with existing businesses to maintain an understanding of local market conditions, the potential for existing businesses to expand or contract, and to identify opportunities to connect local businesses with regional economic development service providers.	ED-1.1, 1.5, 2.3, 3.1	Economic Development Division	Ongoing
ED-I8 Broker Outreach Maintain regular communications with commercial and industrial real estate brokers active in Moorpark in order to maintain an understanding of the potential availability or property and facilities and an understanding of the image among businesses of Moorpark as a place to conduct business.	ED-1.3, 2.3, 3.1, 2.4	Economic Development Division	Ongoing
ED-I9 Entrepreneurship Outreach Collaborate with the Ventura County Economic Development Corporation Small Business Development Center and other economic development service providers to offer periodic local informational workshops for residents who might be interested in starting a new business.	ED-1.2, 2.3, 2.4	Economic Development Division	Ongoing
ED-I10 Entrepreneurship Training Collaborate with Ventura County Economic Development Collaborative Small Business Development Center and other economic development service providers to improve access of local residents and businesses to business training classes and services.	ED-1.1, 1.2, 1.4, 2.3, 3.2	Economic Development Division	Ongoing
ED-I11 Marketing and Communications Strategy Develop, periodically update, and implement a marketing and communications strategy to promote Moorpark as a lucrative location to operate a business; include attendance/sponsorships at industry conferences for target sectors of the economy.	ED-2.4, 1.1, 1.3, 2.2, 2.3, 3.1, 3.2, 5.3, 5.4, 5.5	Economic Development Division, City Manager's Office	Ongoing
ED-I12 Gap Financing Program Explore the feasibility of establishing or participating in local or regional gap-financing programs to support small businesses seeking financing.	ED-1.1, 1.2, 4.2	Economic Development Division	Medium

Implementation Programs	Relevant Policies	Responsibility	Timing
ED-I13 Experience-Oriented Improvements Design Guide Develop an experience-oriented improvements design guide to assist with engaging commercial property owners to invest in experience-oriented improvements; evaluate whether zoning requirements should be amended to facilitate desired experience-oriented design improvements; seek grant funding to establish a revolving loan fund to finance experience-oriented improvements at commercial centers.	ED-3.2, 4.2	Community Development	Short
ED-I14 Intergovernmental Coordination Continue to collaborate and work in partnership with external governmental agencies responsible for providing services and/or responsible for improvements and programs that may impact or benefit Moorpark's residents among which are Moorpark College, education service providers and Metrolink.	ED-1.8, 1.9	Economic Development Division	Ongoing
OPEN SPACE, PARKS, AND RECREATION			
OSPR-I1 Parks and Recreation Master Plan Periodically review and update the city's Parks and Recreation Master Plan (PRMP) to enable attainment of the standard of 5 acres per 1,000 residents, which may include the development of new parklands and/or expansion of existing, equitable distribution and access for all residents, incorporation of recreational facilities for all age levels, and design to meet objectives for sustainable and hazards-free landscapes and landforms. The update should include consideration of new categories of parklands appropriate for inclusion within higher density residential and mixed-use development projects and corresponding funding programs to provide for ongoing maintenance in perpetuity.	OSPR-1.1, 1.4, 1.7, 1.8, 1.9, 1.10, 1.15	Department of Parks, Recreation and Community Services, Finance Department	Medium
OSPR-I2 Trails Master Plan Develop an updated plan and funding mechanism for the maintenance of existing and development of new trails throughout Moorpark and connecting with adjoining communities, including a multi-purpose trail along the Arroyo Simi, that may include clusters of active and passive parklands and nature observation and interpretive centers along their length. The plan should define linkages among major scenic viewsheds, open space and recreation resources and downtown activity centers. It should consider possible linkages to county flood control areas, State Fish and Wildlife-regulated property as well as utility easements and agricultural farmlands.	OSPR-3.1, 3.2, 3.3, 3.5	Department of Parks, Recreation and Community Services, Public Works Department, Finance Department	Medium
OSPR-I3 Park and Trail Development Plans Prepare master and improvement plans for new and expanded parks and elements of the trail network that are reflective of their contextual setting, prescribe uses and improvements that satisfy the greatest number of	OSPR-1.6, 1.7, 1.9-1.12, 1.14, 3.2, 3.6	Department of Parks, Recreation and Community Services, Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
community needs and demands, and are accessible to all populations. The plans should define the location and design of buildings, facilities, and recreation equipment; infrastructure improvements; landscaping utilizing drought-tolerant and fire-retardant native species; parking and access; and associated elements. As appropriate, parks that are no longer meeting the recreational needs of their surrounding service population shall be redesigned.			
OSPR-I4 Parkland Acquisition and Development Implement programs for the financing and/or development of new parklands that may include requirements for developer land dedications within planned residential communities, multi-family apartment and condominium projects, and/or industrial parks and city acquisition and development of vacant properties.	OSPR-1.4, 1.9	City Manager's Office, Department of Parks, Recreation and Community Services, Finance Department	Ongoing
OSPR-I5 Trail Improvements and Funding Implement those portions of the trails plan located within Moorpark using development review and capital budgeting procedures. Funding will be sought from both public and private sources. Encourage the county and neighboring jurisdictions to implement portions of the trail system that fall within their jurisdictions.	OSPR-1.2, 3.2, 3.4	Department of Parks, Recreation and Community Services, Public Works Department, Finance Department	Ongoing
OSPR-I6 Development Review and Entitlement Continue to regulate development for compliance with the policies and standards established by the Open Space, Parks and Recreation Element including the dedication of land and contribution of impact or in-lieu fees for new parklands, trails, and other open spaces, design of landscape and structures,	OSPR-1.1, 1.13, 3.7, 3.8, 4.2-4.4, 5.2	Community Development Department, Public Works Department, Department of Parks, Recreation and Community Services,	Ongoing
OSPR-I7 Development Impact Fees Periodically, review and update development fees to assure that costs for parkland development and maintenance are sufficient to cover costs, to the extent permitted by state laws and nexus requirements.	OSPR-1.2, 1.3	City Manager's Office, Finance Department	Ongoing
OSPR-I8 Commercial Recreation Develop standards and procedures for review of privately-developed commercial recreation facilities such as golf courses, water parks, sports halls and arenas, and similar facilities. Ensure that opportunities for these uses are provided in the Zoning Ordinance.	OSPR-1.13	Community Development Department	Medium
OSPR-I9 Conservation of Open Space Lands Utilize conservation, open space, and scenic easements as a means of conserving open space in accordance to further implement the goals and policies of the Open Space and Parks and Recreation Element.	OSPR-1.9	Community Development Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
OSPR-I10 Sources for Funding of Park and Trail Improvements and Maintenance Pursue grants as new sources of park funding from Santa Monica Mountains Conservancy, County, state, and federal agencies for the development and/or upgrading of existing parks and trails.	OSPR-1.2	Department of Parks, Recreation and Community Services, Finance Department	Ongoing
OSPR-I11 Intergovernmental Coordination Continue to collaborate and work in partnership with the Moorpark Unified School District and Moorpark College to enable access and shared use of campus grounds and facilities for recreational use by Moorpark's residents, contingent on agreements for security and liability. Also, consult with Southern California Edison Company regarding the possible use of utility corridors for hiking trails and/or active or passive recreational uses.	OSPR-1.5, 2.3, 4.1, 4.5	City Manager's Office, Department of Parks, Recreation and Community Services	Ongoing
OSPR-I12 Recreational and Cultural Programs Continue to fund and administer programs providing recreational and cultural arts activities for Moorpark's residents, for all age levels and abilities (including youth and seniors), and affordable to residents of all income levels. Periodically, survey residents regarding program needs and priorities.	OSPR-2.1, 2.2	Department of Parks, Recreation and Community Services	Ongoing
OSPR-I13 Partnerships with Community Organizations Maintain a directory and support, as appropriate, recreational programs conducted by non-governmental entities such as the Boys and Girls Club, YMCA, Moorpark Little League, Moorpark Soccer Club, and other youth and adult sports leagues. Seek opportunities for additional beneficial partnerships that expand recreational opportunities for Moorpark residents...	OSPR-2.4	Department of Parks, Recreation and Community Services	Ongoing
OSPR-I14 Zoning Ordinance Implementation Require conformance of proposed development projects with the procedures, permitted uses, and development standards specified by the Municipal Code, Title 17 Zoning. Periodically, review and amend as necessary to ensure compliance with applicable state and federal regulations and relevance to state-of-the art practices and amendments/updates of the General Plan.	OSPR-5.1, 5.3	Community Development Department	Ongoing
OSPR-I15 Codes and Ordinances Implement and periodically review and update Municipal Codes and Ordinances to ensure compliance the state and federal regulations and best practices for maintaining health and safety in areas susceptible to flood, seismic risk, geologic instability, and wildfire.	OSPR-6.1	Community Development Department	Ongoing
CONSERVATION			
COS-I1 Air Quality Review Review proposed development projects and applications for conformance with all applicable standards for criteria air pollutants, including requiring relevant studies and analyses to demonstrate compliance. Monitor local	COS-1.2, 1.3, 1.4, 1.8	Community Development Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
sources of air quality concerns and work with sources to meet local air quality standards with respect to non-criteria pollutants and odors.			
COS-I2 Low Emission Purchasing Revise the city's procurement rules to requiring the purchasing of zero emission vehicles and equipment for all new and replacement purchases, or if zero emission is not available or feasible, the vehicle or equipment with the lowest emissions that is feasible.	COS-1.5	Finance Department, Purchasing Division	Short
COS-I3 Drainage Improvements Regularly assess the need for improvements to the city's drainage system and integrate necessary improvements into the Capital Improvement Program, emphasizing green infrastructure and restoration of natural channels.	COS-1.11, 1.12, 1.13, 1.14	Public Works Department, Parks Recreation and Community Services	Ongoing
COS-I4 Energy Efficiency Rebates Conduct online and in-person education efforts, including at the permit counter and during developing review meetings, about the availability of rebates, financing mechanisms, and other incentives to increase the feasibility of energy efficient and low-carbon building designs and improvements.	COS-4.1-4.6, 4.9	Community Development Department	Short
COS-I5 City Facility Improvements Include water efficiency, energy efficiency and low-carbon retrofits to existing city facilities in the Moorpark Capital Improvement Program, including installation of renewable energy and energy storage systems, particularly at critical facilities.	COS-4.8	City Manager's Office, Parks Recreation and Community Services	Medium
COS-I6 Cost-Effective Energy Standards Review cost-effectiveness studies for increasing the energy efficiency and low-carbon standards in Moorpark's Building Code, and adopt heightened standards as cost effective and feasible.	COS-4.1, 4.2, 4.4, 4.6, 4.7	Community Development Department	Short
COS-I7 Water-Efficient Municipal Codes Explore potential amendments to the Moorpark Municipal Code to enable and promote rainwater harvesting, dual plumbing, water reuse, and other water-efficient techniques.	COS-5.1, 5.2, 5.3, 5.5	Community Development Department, Public Works Department	Short
COS-I8 Expanded Recycling and Composting Review and revise franchise agreements with Waste Management to ensure all nonresidential and eligible residential customers receive curbside recycling service, including organic recycling.	COS-6.2	Solid Waste Division	Medium
COS-I9 Single-Use Plastics Analyze potential options to decrease the use of single-use plastics, considering the environmental benefits, economic effects, and satisfaction of alternatives. Emphasize the use of reusable materials rather than single-use compostable items.	COS-6.3	Community Development Department	Medium

Implementation Programs	Relevant Policies	Responsibility	Timing
COS-I10 Sequestration Study Partner with other Ventura County communities to conduct a study of the potential for carbon sequestration on local and regional open space and agriculture lands. Ensure that any such study is consistent with applicable State goals and guidelines for carbon sequestration, and that any program resulting from this study includes robust monitoring and reporting requirements.	COS-7.3	Community Development Department, City Manager's Office	Medium
COS-I11 Community Gardens Establish a program to identify appropriate sites for community gardens in Moorpark, including the use of vacant and under-utilized lots as temporary gardens. Explore partnerships with community groups and opportunities to secure funding to establish and maintain community gardens on these sites.	COS-7.5	Community Development Department	Medium
COS-I12 Greenhouse Gas (GHG) Emissions Reduction In coordination with regional agencies and community partners, prepare and implement a Climate Action Plan or equivalent approach to identify current and future sources and quantifies of local GHG emissions and strategies to reduce Moorpark's GHG emissions to levels consistent with State reduction goals, including providing opportunities to reduce emissions from all relevant sources and activities	COS-8.1, 8.2	Community Development Department	Short
COS-I13: Drinking Water Quality Coordinate with the County of Ventura WaterWorks District 1 to ensure safe and healthful drinking water; annually review County drinking water quality reports for compliance with state and federal water quality standards. Cooperate with District to implement local projects that protect drinking water supply.	COS-1.15	Community Development Department, Parks Recreation and Community Services	Ongoing
COS-I14: Wildlife Crossing Evaluate opportunities for partnerships that improve the safety of wildlife crossings in wildlife corridors for both humans and wildlife.	COS-1.18	Public Works Department	Medium
COS-I15: Wildlife Corridors Evaluate and designate as appropriate a Wildlife Corridor within the City of Moorpark, in consideration of the Santa Monica-Sierra Madre Connection (Figure C-4), and in collaboration with Ventura County to ensure it considers the methodology and analysis contained within the County's General Plan.	COS-1.18	Public Works Department	Medium
COS-I16: Intergovernmental Coordination Continue to collaborate and work in partnership with external governmental agencies responsible for providing services and/or responsible for improvements and programs that may impact or benefit Moorpark's residents among which are the Ventura County, Southern California Association of Governments, California Air Resources	COS-1.1, 1.9, 4.10, 5.4, 7.4, 7.6, 8.2	City Manager's Office, Community Development Department, Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
Board, Ventura County Regional Energy Alliance, Clean Power Alliance, and water providers.			
COS-I17: City Operations Reduce greenhouse gas emissions from city operations by reducing idling and trips by city staff and city vehicles, routing city staff and city vehicles for efficiency, and increasing the use of public transportation, carpooling, and electric vehicles and low or no carbon modes of transportation by city staff.	COS-1.6	All City Departments	Ongoing
COS-I18: Public Outreach and Education Provide outreach and education programs about air quality, water quality, historic preservation, waste sorting and environmentally responsible and sustainable practices to Moorpark residents and businesses.	COS-1.7, 1.10, 3.4, 6.1, 6.4, 8.3	City Manager's Office – Public Information Officer	Medium
COS-I19 Growth Management Facilitate development consistent with the Land Use Element to preserve important natural features and biological and cultural resources.	COS-1.16	Community Development Department	Ongoing
COS-I20 Development Review and Entitlement Review proposed development projects and applications for conformance with the General Plan Land Use and Circulation Plans, goals and policies specified for each Plan Element, and applicable regulatory codes and requirements including the Zoning Ordinance. Proposed projects hall be reviewed regarding conformance with permitted uses, development standards, and objective design guidelines and standards. In addition to the General Plan, they will be reviewed for conformance with the Subdivision Ordinance, Hillside Management, Noise Ordinance, Grading, Solar Energy System. Development applicants will be required to submit pertinent studies and analyses to enable review for compliance.	COS-1.16, 1.19, 3.2	Community Development Department, Public Works Department	Ongoing
COS-I21 Zoning Ordinance Implementation Require conformance of proposed development projects with the procedures, permitted uses, and development standards specified by the Municipal Code, Title 17 Zoning. Periodically, review and amend as necessary to ensure compliance with applicable state and federal regulations and relevance to state-of-the art practices and amendments/updates of General Plan.	COS-1.16, 1.17, 2.1, 3.2, 3.3, 3.5	Community Development Department	Ongoing
COS-I22 Codes and Ordinances Implement and periodically review and update Municipal Codes and Ordinances to ensure compliance the state and federal regulations and best practices including, but not limited to, sustainable development and infrastructure, energy efficiency, renewable energy, electric vehicle charging infrastructure, reduction of greenhouse gas emissions, increasing resilience to the impacts of climate change, and supporting the health of local wildlife populations.	COS-1.17	Community Development Department, Public Works Department, City Clerk	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
COS-I23 Acquisition of Open Space Lands Pursue the acquisition of private lands as a means of conserving open space to further implement the goals and policies of the Conservation Element.	COS-1.20, 3.6	Community Development Department	Ongoing
COS-I24 Historic Resources Inventory Collaborate with the County of Ventura Cultural Heritage Board and Moorpark Historical Society to identify and maintain records of historic buildings and properties.	COS-3.1	Community Development Department	Ongoing
COS-I25 Downtown Vitalization and Improvement Update the Downtown Specific Plan to reflect the General Plan's goals and policies promoting its revitalization as the center of community identity and activity while retaining its small town character and existing historical elements.	COS-3.3	Community Development Department	Short
COS-I26 Waste Management Monitoring Program The city shall coordinate with and monitor operations of the city's franchised waste haulers to ensure the provision of an adequate and orderly system of operation, services, and programs for the collection, recycling, or disposal of all solid waste, organic waste, and hazardous waste for new and existing development in the city.	COS-6.4	Solid Waste Division, Public Works Department, Finance Department	Ongoing
COS-I27 City Services and Operations The city will periodically review and update the city's Solid Waste Management Plan and solid waste reduction program in accordance with the California Integrated Waste Management Act of 1989 (AB 939) and other applicable State laws, including but not limited to, AB341, AB 1826, AB 1594, and SB 1383.	COS-6.4	Solid Waste Division	Ongoing
COS-I28 Capital Improvement Program Review, update and expand the city's Capital Improvement Program in order to schedule and identify funding sources implementing projects providing services for existing and future residents and businesses including maintenance of existing and acquisition, construction rehabilitation and replacement of public buildings and facilities and infrastructure.	COS-7.1, 7.2	Public Works Department, Parks, Recreation, & Community Services Department	Ongoing
COS-I29 Design Plan for Public Spaces and Districts Prepare a citywide design plan that includes design concept plans for special treatment areas within the community (such as entries, key districts such as High Street and the Civic Center) and identifies overall community concepts for landscape architecture, architecture, signage, streetscape improvements and tree canopy, walkways and connections, identifiable entryways, and community gateway areas.	COS-7.1	Community Development Department, Public Works Department, Department of Parks, Recreation, and Community Services	Medium
COS-I30 Community Programs and Services Maintain, administer, and support community programs and services contributing to the quality of life and health of Moorpark's residents.	COS-7.7, 8.4	Department of Parks, Recreation, and Community Services, Public Works Department,	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
		Community Development Department	
COS-I31: Default Tier Review Periodically review City's default tier for Clean Power Alliance and consider modifications as appropriate.	COS-4.5, 4.10	City Manager's Office	Ongoing
SAFETY			
SE-I1: Evacuation Assistance Program Develop an evacuation assistance program, in coordination with Moorpark city bus, paratransit, and dial-a-ride agencies, to help those with limited mobility or lack access to a vehicle to effectively evacuate.	SE-1.1, 1.3, 1.12	Emergency Management Division, Police Department, Moorpark city Transit	Short
SE-I2: Evacuation Exercises Conduct community-scale wildfire and flooding evacuation exercises in coordination with the Ventura County Fire Department to build local capacity and knowledge to effectively evacuate during a disaster.	SE-1.1, 1.2, 1.3, 1.16	Emergency Management Division, Police Department	Short
SE-I3: Evacuation Access Coordinate vegetation management and maintain flood control structures along roadways to ensure evacuation access during hazardous events.	SE-1.16, 4.1	Community Development Department, Ventura County Fire Department, Ventura County Public Works Agency	Ongoing
SE-I4: Renewable Backup Power Supply Coordinate with emergency management services to establish backup power, preferably from renewable energy sources, and water resources at emergency shelters, resilience hubs, and cooling centers in case of power outages.	SE-1.3, 1.8, 1.13, 1.16, 5.8, 5.10	Community Development Department, Parks, Recreation, & Community Services Department	Medium
SE-I5: Evacuation Plan Develop an evacuation plan for all hazards and reassess the effectiveness of the evacuation routes with the update of the Ventura County Multi-Jurisdictional Hazard Mitigation Plan.	SE-1.9, 1.11, 1.17, 1.19	Emergency Management Division, Police Department, Ventura County Fire Department	Medium
SE-I6: Ingress and Egress Update the Moorpark Municipal Code to require new development and subdivisions in identified Very High Fire Hazard Severity Zones to have at least two ingress and egress routes at least 1,200 ft apart, accounting for existing and proposed traffic evacuation volumes at buildout.	SE-1.10, 4.7	Community Development Department, Emergency Management Division,	Short

Implementation Programs	Relevant Policies	Responsibility	Timing
SE-I7: Response Team Training Program Funding Obtain funding to support a year-round Community Emergency Response Team (CERT) and/or Disaster Assistance Response Team (DART) training program to provide residents with the tools to effectively respond when a disaster occurs.	SE-1.2, 1.3, 1.6, 1.16, 1.17, 1.20	Emergency Management Division, Police Department, Ventura County Fire Department	Ongoing
SE-I8: Emergency Services Program Continue the city's Emergency Services Program that focuses on public education and emergency preparation.	SE-1.2, 1.7, 1.17, 1.18, 1.20, 5.4	Emergency Management Division, Police Department, Ventura County Fire Department	Ongoing
SE-I9: Educational Programs Identify sustainable funding mechanisms to establish and maintain an educational program for community residents that teaches the importance of emergency preparedness and informs participants of the local conditions affecting emergency preparedness planning, safety awareness and resilience in Moorpark.	SE-1.2, 1.17	Emergency Management Division, Police Department, Ventura County Fire Department	Short
SE-I10: Identification of Resilience Hubs Identify existing facilities to serve as resilience hubs and cooling centers that open during emergencies or specific temperature triggers for residents to go to seek refuge from extreme heat days or emergency shelter.	SE-1.13, 1.14	Community Development Department, Emergency Management Division	Short
SE-I11: Hazard Mitigation Plan Coordinate with Ventura County Sheriff Emergency Services to update the Moorpark Annex of the Ventura County Multi-Jurisdictional Hazard Mitigation Plan, no less than every 5 years.	SE-1.5, 2.8, 5.4	Emergency Management Division	Ongoing
SE-I12: Earthquake Preparedness Information Provide earthquake preparedness information at city-sponsored events.	SE-2.4	Community Development Department. Emergency Management Division	Short
SE-I13: State Seismic Requirements Implement the most recent state seismic requirements for structural design of new development and redevelopment.	SE-2.1, 2.5	Community Development Department	Ongoing
SE-I14: Geologic Investigations Require development proposals within an Alquist-Priolo Fault Zone to include a geologic investigation, including fault trenching. After the geologic investigation, appropriate structural setbacks may be recommended.	SE-2.2, 2.5	Community Development Department	Ongoing
SE-I15: Soil and Geologic Survey During review of development proposals, require surveys of soil and geologic hazard conditions by state-licensed Engineering Geologists and Civil Engineers where appropriate.	SE-2.2, 2.5, 2.6	Community Development Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
SE-I16: Hillside Management Ordinance Review and update the Hillside Management Ordinance (Chapter 138) to reduce hazards from slope instability and failure.	SE-2.6	Community Development Department	Short
SE-I17: High Groundwater Levels Coordinate with Ventura County Public Works Agency and the Fox Canyon Groundwater Management Agency to continue monitoring groundwater levels in all potential liquefaction areas of the city in accordance with the La Posas Valley Groundwater Sustainability Plan.	SE-2.7	Engineering Department, Public Works Department	Ongoing
SE-I18: Subsidence Risk Reduction Coordinate with Ventura County Public Works Agency to undertake a comprehensive program to reduce use of local groundwater resources and to recharge basins to guard against future subsidence in accordance with the Las Posas Groundwater Adjudication.	SE-2.7	Community Development Department	Ongoing
SE-I19: Moorpark Municipal Code Update the Moorpark Municipal Code as needed in response to new geologic and seismic hazard information and standards developed at the State level.	SE-1.5, 2.1, 2.3	Community Development Department	Ongoing
SE-I20: Updating Local Safety and Hazard Plans Update local ordinances and regulations after each update to the Local Hazard Mitigation Plan and/or Safety Element to incorporate relevant geologic and seismic hazard information.	SE-1.15, 2.1, 2.5	Community Development Department	Ongoing
SE-I21: Flood Warning System Develop and adopt a flood warning system for all properties within the 100- and 500-year flood zones and dam inundation areas.	SE-1.4, 1.7	Emergency Management Division	Medium
SE-I22: Development Review for Flooding Partner with Ventura County Public Works Agency to review proposed development projects to determine potential increased runoff and alterations to natural stream courses. Impose conditions on new development as appropriate, including catch basins, green stormwater infrastructure, culverts, and detention basins, among others.	SE-3.2, 3.3, 3.8, 3.9	Public Works Department, Community Development Department	Ongoing
SE-I23: Flood Control Structures Partner with the Ventura County Public Works Agency to continue to improve flood control structures throughout the city, including identification of funding sources to provide funds to retrofit flood control structures at risk of structural failure.	SE-3.4, 3.7	Public Works Department, Community Development	Ongoing
SE-I24: Updating City Municipal Code for Flood Requirements Update the city's Municipal Code, if necessary, to remain consistent with state and federal standards for floodplains and urban development in areas subject to flooding as identified in the General Plan Safety Element.	SE-3.1, 3.6	City Engineer, Community Development Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
SE-I25: Flood Assessment of At-Risk Buildings Prepare an assessment of at-risk city-owned buildings to determine their level ability to withstand the impacts of flooding and conduct structural retrofits where needed as funding becomes available.	SE-3.5	Public Works Department	Short
SE-I26: National Flood Insurance Program (NFIP) Outreach Develop a public outreach program that informs property owners located in the dam inundation, levee failure, and flood hazard areas about voluntary flood insurance.	SE-3.1, 3.6	Public Works Department, Community Development Department	Short
SE-I27: Vegetation Management Program Work with Ventura County Fire Department to enforce codes and ordinances regarding vegetation management to reduce fire risk and allow consideration of natural methods for vegetation management such as goat grazing. Work with Ventura County Fire Department to obtain funding to develop and maintain a vegetation management program that provides vegetation management services on private property, especially to elderly, persons with disabilities, or low-income property owners who lack the resources to remove flammable vegetation from around their homes.	SE-4.1, 4.6	Ventura County Fire Department, Community Development Department	Short
SE-I28: Fire Risk Reduction Assessment Partner with the Ventura County Fire Department and Ventura Regional Fire Safe Council to develop a fire risk reduction assessment to evaluate new development in Very High Fire Hazard Severity Zones or the Wildland Urban Interface. The fire risk reduction assessment should identify existing fire hazards on properties, describe proposed projects, and establish design guidelines to reduce fire risks to new developments.	SE- 4.1	Ventura County Fire Department, Community Development Department	Medium
SE-I29: Fire Protection Education and Outreach Partner with Ventura County Fire Department and Ventura Regional Fire Safe Council to develop an education program that informs property owners about what they can do to reduce the risk of fire on their property. Strategies should be aligned and consistent with California Fire Safe Regulations and the Ready. Set. Go. Program.	SE-1.2, 1.18, 4.1, 4.5	Ventura County Fire Department, Community Development Department	Short
SE-I30: Fire-flow Requirements Update fire-flow requirements to reflect the most recent Uniform Fire Code standards.	SE-4.2, 4.3	Public Works Department, Ventura County Fire Department,	Short
SE-I31: Ready Ventura County Collaborate with the Ventura County Fire Department to support the update of information for the Ready Ventura County program relevant to Moorpark.	SE-1.18, 4.1	Community Development Department, Ventura County Fire Department	Medium

Implementation Programs	Relevant Policies	Responsibility	Timing
SE-I32: Roadway Vegetation Management Work with the Ventura County Fire Department to maintain existing fuel breaks, vegetation clearance, and emergency access routes for effective fire suppression on public and private roads.	SE-4.1, 4.5, 4.6	Ventura County Fire Department	Short
SE-I33: Wildfire Education and Readiness Prioritize a public education and readiness program for wildfires in collaboration with the Ventura County Fire Department and the Ventura Regional Fire Safe Council to provide community members with information on how to prepare their residence, businesses, and families in the event of a wildfire and associated evacuation. Education programs should include information from the California Insurance Commissioner's Office "Safer from Wildfires in 1, 2, 3", which provides guidance for protecting structures, protecting the immediate surroundings, and working together as a community.	SE-4.1, 4.5	Community Development Department, Ventura County Fire Department	Short
SE-I34: Fire Safety Plans Update the Moorpark Municipal Code to require new development within Very High Fire Hazard Severity Zones or the Wildland Urban Interface to prepare a fire safety plan for review and approval by the Ventura County Fire Department prior to issuance of building permit.	SE- 4.4	Community Development Department, Ventura County Fire Department	Short
SE-I35: Adequate Water Supplies Coordinate with Ventura County Fire Department and Ventura County Public Works Agency to ensure that developed areas of the city have sufficient water supplies for fire-fighting purposes.	SE-4.3	Ventura County Fire Department	Ongoing
SE-I36: Extreme Heat Response Plan Develop an extreme heat response plan that includes establishment of community cooling centers and temperature triggers for when they will open, weatherization of city buildings, and cooling strategies for persons engaged in outdoor work and persons experiencing homelessness. The plan should be consistent with the California Extreme Heat Action Plan.	SE-5.1	Community Development Department, Emergency Management Division, Parks, Recreation, & Community Services Department	Short
SE-I37: Undergrounding Substations Collaborate with Southern California Edison to evaluate the potential to underground substations within the city.	SE-5.4	Public Works Department	Long
SE-I38: Multi-Benefit Resilience Features When feasible, implement cost-effective and multi-benefits resilience features on roadways, bicycle, and pedestrian infrastructure.	SE-5.5, 5.7, 5.8	Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
SE-I39: Cooling Features at Transit Stops Coordinate with Moorpark City Transit, Metrolink, and Amtrak to increase shading and heat-mitigating materials on pedestrian walkways within transit centers and, transit stops, and the Moorpark Train Station.	SE-5.1, 5.2, 5.5, 5.8	Public Works Department Parks, Recreation, & Community Services Department	Ongoing
SE-I40: Backup Renewable Energy Supplies Establish backup power, preferably from renewable energy sources, and water resources at emergency shelters, resilience hubs, and cooling centers in case of power outages.	SE-5.2	Emergency Management Division, Parks, Recreation, & Community Services Department, Community Development Department	Short
SE-I41: Tree Planting Program Continue the Tree Planting Program to increase the urban tree canopy and reduce the heat island effect.	SE-5.1, 5.5, 5.8	Parks, Recreation, & Community Services Department, Community Development Department	Ongoing
SE-I42: Weatherization and Structural Retrofits Expand participation of programs and services that provide funding resources to low-income households and businesses to conduct weatherization and structural retrofits to protect community members from severe weather and poor air quality due to regional wildfires.	SE-5.7	Community Development Department	Short
SE-I43: Vaccinations for Vector-Borne Diseases Work with the Ventura County Department of Public Health and healthcare providers to promote free or reduced-cost vaccinations for vector-borne diseases that are widely available for Moorpark residents.	SE-6.1	City Manager's Office – Public Information Officer	Short
SE-I44: Human Health Hazards Outreach and Education Work with the Ventura County Department of Public Health and healthcare providers to provide outreach and education programs about human health hazards to Moorpark residents.	SE-6.1, 6.3, 6.4	City Manager's Office – Public Information Officer	Short
SE-I45: Vector Control Program Coordinate with the Ventura County Resource Management Agency, Vector Control Program to minimize mosquitoes, ticks, rodents, and other vectors that may carry or spread human health hazards.	SE-6.1, 6.2	Public Works Department, Community Development Department	Ongoing
SE-I46: Hazardous Materials Business Plans Business plans submitted to the Ventura County Environmental Health Division for businesses that handle hazardous materials in the city of Moorpark will include	SE-7.2	Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
engineering techniques to reduce the potential of hazardous materials tank spills from hazards.			
SE-I47: Multi-Hazard Functional Plan The city will maintain a Multi-Hazard Functional Plan that meets the Superfund Amendments and Reauthorization Act (SARA) of 198 This emergency plan includes the location of local facilities and transportation routes where hazardous materials are present and an immediate response for accidents involving hazardous materials.	SE-7.4	Emergency Management Division	Ongoing
SE-I48: Ventura County Stormwater Program Continue participation in the Ventura County Stormwater Program (local enforcer of the National Pollutant Discharge Elimination System).	SE-7.4, 7.6	Public Works Department	Ongoing
SE-I49: Household Hazardous Waste Element Maintain and update the city's Household Hazardous Waste Element in accordance with the California Integrated Solid Waste Management Act of 198 Continue public education about household hazardous waste disposal and the use of the existing drop-off facilities.	SE-7.1, 7.3	Solid Waste Division	Ongoing
SE-I50: Level of Police Service Coordinate with Ventura County Sheriff's Office to periodically evaluate population growth, development characteristics, level of service, and incidence of crime within the city to ensure that an adequate level of police service is maintained.	SE-8.1, 8.2, 8.4	City Manager's Office	Short
SE-I51: Public Safety Outreach and Education Develop an education and outreach program on police and community services in coordination with the Ventura County Sheriff's Office.	SE-8.3	Ventura County Sheriff's Department	Ongoing
SE-I52: Level of Fire Service Coordinate with Ventura County Fire Department to periodically evaluate population growth, development characteristics, and level of service standards to ensure that an adequate level of fire service is maintained.	SE-9.1, 9.2	Ventura County Fire Protection District	Ongoing
SE-I53: Fair Share Extension Update the development impact fees to ensure that new development funds a fair share extension of fire services to maintain service standards throughout the city.	SE- 9.3	Emergency Management Division, Community Development Department	Short
SE-I54 Intergovernmental Coordination Continue to collaborate and work in partnership with external governmental agencies responsible for providing services and/or responsible for improvements and programs that may impact or benefit Moorpark's residents among which are Ventura County and regional water providers.	SE-5.3, 5.4, 6.5	City Manager's Office, Community Development Department, Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
SE-I55 Codes and Ordinances Implement and periodically review and update Municipal Codes and Ordinances to ensure compliance the state and federal regulations and best practices including, but not limited to, features that promote the health and safety of buildings.	SE-7.5	Community Development Department, Public Works Department, City Clerk	Ongoing
SE-I56 Traffic Control Plans for Fire Hazard Areas Project applicants for development in a Very High Fire Hazard Severity Zone or WUI areas shall prepare a Traffic Control Plan to ensure that construction equipment or activities do not block roadways during the construction period. The Traffic Control Plan shall be submitted to the Ventura County Fire Department and Sheriff's Office for review and approval prior to issuance of building permits.	SE-4.8	Community Development Department	Ongoing
SE-I57 Redevelopment Update the Moorpark Municipal Code to require redevelopment in the Very High Fire Hazard Severity Zone to comply with current California Building Code, Ventura County Fire Code, and California Fire Safe Regulations.	SE-4.9	Community Development Department	Short
SE-I58 Re-Evaluate Development Develop a program to re-evaluate development in Fire Hazard Severity Zones after large wildfires to ensure safety and maintain consistency with all current state and local requirements regarding redevelopment after wildfires.	SE-4.10	Community Development Department, Ventura County Fire Department	Ongoing
NOISE			
N-I1 Sound Attenuation Measures The city shall require the use of appropriate sound attenuation measures such as: walls, berms, setbacks, and construction techniques, in the design of new residential or other noise sensitive land uses adjacent to existing or planned transportation corridors.	N-1.3, 3.1, 3.6	Community Development Department	Ongoing
N-I2 Residential Uses Adjacent to Railroad Residential uses adjacent to active rail lines shall be required to conduct an acoustical study to achieve acceptable interior noise levels of 45 dBA CNEL (with windows and doors closed). Measures to achieve acceptable interior noise levels include, but are not limited to, installing appropriate STC (sound transmission class) rating for windows and doors and erecting exterior noise barriers.	N-3.1, 3.4	Community Development Department, Ventura County Transportation District, Metrolink	Ongoing
N-I3 Interagency Coordination and Partnership The city shall coordinate with the appropriate agencies to enforce State Motor Vehicle noise standards for all privately owned, city owned, and city operated automobiles, trucks, and motorcycles within Moorpark; ensure continued application of noise enforcement efforts; and coordinate roadway design and improvements.	N-2.5, 3.1, 3.4, 3.5	Community Development Department, Caltrans, Public Works Department, Ventura County Sheriff's Department,	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
N-I4 Moorpark Municipal Code – Mitigating Noise Impacts The city shall review and update the Zoning Code to establish requirements for new development proposals, as follows: proposed development projects shall be conditioned to include noise attenuation measures for all development where the noise levels are greater than "normally acceptable" per Table 1 of the Noise Element; require that mixed-use and multi-family residential developments mitigate noise impacts between adjacent uses; require development requirements for new mixed-use developments to locate noise sources away from residential portions of the development; require the use of walls and berms for residential projects adjacent to the 118 and 23 highways, major arterials, and railroads; The city may require as a condition of project approval, that noise measurement data be provided to the city after construction, demonstrating compliance with the Noise Ordinance and Table 1 of the Noise Element.	N-1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.6, 3.2, 3.3, 3.6	Community Development Department, Caltrans, Public Works Department	Ongoing
N-I5 Moorpark Municipal Code – Construction Noise The city shall review and update Title 17 Chapter 17.53 Section 17.53.070 (F) (Tables 1, 2, and 2A) to establish clear and congruent short-term and long-term daytime and nighttime construction noise limits, exemptions, and prohibitions for new development proposals. The Municipal Code should actively enforce established restricted construction hours.	N-1.1, 1.2, 1.4, 2.4, 2.6, 3.2, 3.7	Community Development Department	Ongoing
N-I6 Environmental Review The city shall ensure that all development proposals are reviewed per the requirements of California Environmental Quality Act (CEQA) to ensure that all new development provides adequate sound insulation or other protection from existing and anticipated noise sources including off-site traffic; incorporate ambient noise level considerations into land use decisions involving noise sensitive uses; and require the preparation of noise studies for new development projects that may result in potentially significant noise impacts.	N-1.1, 1.3, 2.1, 3.3	Community Development Department, Public Works Department	Ongoing
N-I7 Land Use Compatibility The city shall use Table 1 as a guide to integrate noise considerations into land use planning to prevent new noise/land use conflicts. When issuing development permits for noise-sensitive use in areas of existing conforming noise generating uses which may potentially be impacted by the existing or proposed noise generating uses, require mitigation measures as appropriate per the city's Noise Ordinance.	N-2.1, 2.2, 2.3, 2.4	Community Development Department, Public Works Department	Ongoing

Implementation Programs	Relevant Policies	Responsibility	Timing
N-I8 Loading Docks The city shall limit delivery hours for existing commercial or industrial businesses with loading areas or docks fronting, siding, bordering, or gaining access on driveways adjacent to noise sensitive uses. New commercial or industrial developments with loading docks shall be required to design buildings with loading docks away from residential properties or other noise sensitive uses. Exemption from this restriction should be based on compliance with the nighttime noise limits established by the Noise Ordinance. Grocery stores are a major concern for late night delivery noise. The city shall consider limiting delivery hours as a condition of approval for such projects when noise sensitive uses are within 100 feet of loading areas, unless the noise level is within the limitations identified by the Noise Ordinance.	N-2.3	Community Development Department, Public Works Department	Ongoing

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MADE BY MOORPARK

General Plan 2050

A

Appendix

APPENDIX A: POLICIES ADDRESSING ENVIRONMENTAL JUSTICE TOPICS

Moorpark does not include any disadvantaged community census tracts as identified by CalEPA via CalEnviroScreen 4.0, nor any Disadvantaged Unincorporated Communities (DUCs) inside or near its boundaries, and thus is not required to produce a separate Environmental Justice Element or DUC analysis per Senate Bill 1000. However, Gov. Code § 65302(h)(1) requires that environmental justice goals, policies, and objectives integrated in other elements shall address the following:

a. Identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include, but are not limited to, the reduction of pollution exposure, including the improvement of air quality, and the promotion of public facilities, food access, safe and sanitary homes, and physical activity.

b. Identify objectives and policies to promote civic engagement in the public decision-making process.

c. Identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities.

The table below identifies policies in each element of the Moorpark General Plan 2050 addressing the Environmental Justice topics identified in the Government Code referenced above. (Note: There are additional policies that address environmental justice in the 2021-2029 Housing Element.)

Statutory Citation	Topic	Relevant Policies
Gov. Code § 65302(h)(1)(A)	Identify objectives and policies to reduce **exposure to pollution including improving air quality** in disadvantaged communities	LU 4.1 Sustainable urban form. LU 8.3 Design for climate change. CI 2.2 Environmental impact threshold. CI 2.4 VMT reduction. CI 6.3 Ventura County Air Pollution Control District. CI 13.7 Energy conservation. COS 1.1 Air quality coordination. COS 1.4 Low-emission transportation. COS 1.5 Low-emission fleet. COS 1.7 Air quality education. COS 1.8 Local air quality concerns. COS 4.5 Carbon-free transition. COS 4.6 On-site renewable energy. COS 4.9 Green building practices. COS 7.3 Carbon sequestration for working lands COS 7.4 Pesticide reduction. COS 8.1 Greenhouse gas reduction.
Gov. Code § 65302 (h)(1)(A)	Identify objectives and policies to **promote public facilities** in disadvantaged communities	LU 1.4 Public services to support growth. LU 3.8 Public services and facilities. LU 4.5 Community-serving uses. LU 6.6 Gathering places for residents. LU 9.11 Childcare provision. LU 9.12 Elder and assisted care. LU 9.17 Family resources LU 9.18 Library and lifelong learning.

Statutory Citation	Topic	Relevant Policies
		LU 10.1 Access to services and amenities. LU 17.1 Services supporting Moorpark's residents. LU 17.8 Equitable access to infrastructure. CI 4.3 Transit facilities. CI 4.4 Enhance access. SE 8.4 Public safety services. SE 9.1 Fire safety services.
Gov. Code § 65302(h)(1)(A)	Identify objectives and policies to **promote food access** in disadvantaged communities	LU 9.6 Urban agriculture. LU 9.8 Healthy food options. LU 9.16 Food security. LU 13.1 Commercial uses and diversity. COS 7.5 Edible gardens. COS 7.7 Food access.
Gov. Code § 65302(h)(1)(A)	Identify objectives and policies to **promote safe and sanitary homes** in disadvantaged communities	LU 1.3 Housing to meet resident needs. LU 3.1 Housing for all residents. LU 3.2 Housing types. LU 3.3 Broader mix of housing types. LU 3.5 Mixed-use development. LU 4.4 Multi-family housing. LU 6.4 Property maintenance. LU 10.2 Access to housing. LU 11.2 Neighborhood maintenance and upgrades LU 12.5 Multi-family housing quality. LU 15.1 Integrated housing and commercial development.
Gov. Code § 65302(h)(1)(A)	Identify objectives and policies to **promote physical activity** in disadvantaged communities	LU 3.9 Parks, recreation, and open space. LU 7.5 Arroyo Simi corridor recreation. LU 9.2 Active pedestrian environment. LU 9.5 Parks contributing to healthy lives. LU 11.3 Pedestrian-oriented neighborhoods. LU 12.4 Recreation and open space. LU 12.6 Inclusion of public spaces. LU 15.4 Inclusion of recreation and amenities LU 15.5 Active mixed-use districts. LU 16.8 Design for bicycle access. LU 19.7Pedestrian-oriented development. CI 1.1 Multimodal transportation. CI 5.1 New bicycle and pedestrian facilities. CI 5.2 Improvements to bikeway network. OSPR 1.1 Park standard. OSPR 1.4 Park demand. OSPR 1.6 Expanded access to parks. OSPR 1.7 Recreational activities. OSPR 1.13 Private facilities. OSPR 1.14 New development. OSPR 1.15 Park equity. OSPR 2.4 Recreation partnerships. OSPR 2.5 Youth and teens. OSPR 2.6 Moorpark adults and seniors. OSPR 3.1 Trail planning. OSPR 3.2 Network of trails. OSPR 3.3 Regional connection.

Statutory Citation	Topic	Relevant Policies
Gov. Code § 65302(h)(1)(A)	Identify objectives and policies to **reduce any unique or compounded health risks** in disadvantaged communities not otherwise addressed above.	LU 6.3 Design for safety. LU 7.3 Protect uses from hazards. LU 8.9 Design to avoid hazards. LU 9.1 Healthy buildings and places. LU 9.9 Responsible alcohol use. LU 9.10 Drug aversion. LU 9.13 Health services LU 9.14 Access to quality health care. LU 9.15 Mental health literacy. LU 9.19 Smoking and vaping. LU 10.4 Overconcentration of impact uses. LU 11.4 Safe neighborhoods. LU 16.6 Design for compatibility. CI 3.7 Evacuation routes. CI 5.6 Sidewalk and landscape buffers. CI 5.7 Pedestrian safety. CI 5.8 Buffers and protected lanes. CI 12.8 Disposable, toxic, or non-renewable products. COS 1.9 Clean water supply. COS 1.11 Water quality protection. SE 1.2 Emergency preparedness education. SE 1.9 Multi-hazard evacuation plan. SE 1.13 Resilience hubs. SE 1.17 Accessible hazard preparedness education and outreach. SE 3.9 Green infrastructure. SE 5.1 Extreme heat. SE 6.1 Reducing the spread (human health hazards) SE 6.4 Outdoor workers resources. SE 7.3 Hazardous waste. SE 7.5 Prohibiting hazardous materials facilities. N 2.1 Planning for land use compatibility (noise). N 2.2 Locating noise-sensitive uses. N 2.4 Protecting noise-sensitive uses.
Gov. Code § 65302(h)(1)(B)	Identify objectives and policies to **promote civic engagement in the public decision-making process** in disadvantaged communities	LU 10.6 Community participation.
Gov. Code § 65302(h)(1)(C)	Identify objectives and policies that **prioritize improvements and programs** that address the needs of disadvantaged communities	LU 9.3 Age-friendly living. LU 9.4 Active transportation. LU 10.8 Economic security. LU 16.1 Diverse industries and jobs. CI 1.10 Transportation equity. ED 1.4 Local workforce. ED 1.5 Workforce housing. ED 1.8 Education and workforce development.

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MOORPARK 2050

VULNERABILITY ASSESSMENT REPORT

March 2022

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1 INTRODUCTION

The City of Moorpark (City) prepared this Vulnerability Assessment Report in conformance with State of California requirements to assess climate change vulnerability and address climate change adaptation and resilience as part of the General Plan Update. The goal of this requirement is to enable the community to prepare for, respond to, withstand, and recover from disruptions created or caused by climate change. The vulnerability assessment acts as a foundation for the preparation of adaptation and resilience policies for inclusion in the General Plan by identifying a set of priority vulnerabilities in the City of Moorpark. This report presents the regulatory framework and method for preparing a vulnerability assessment, the climate change hazards affecting Moorpark's populations and assets included in the assessment, a summary of the vulnerability assessment results, and implications for the General Plan Update.

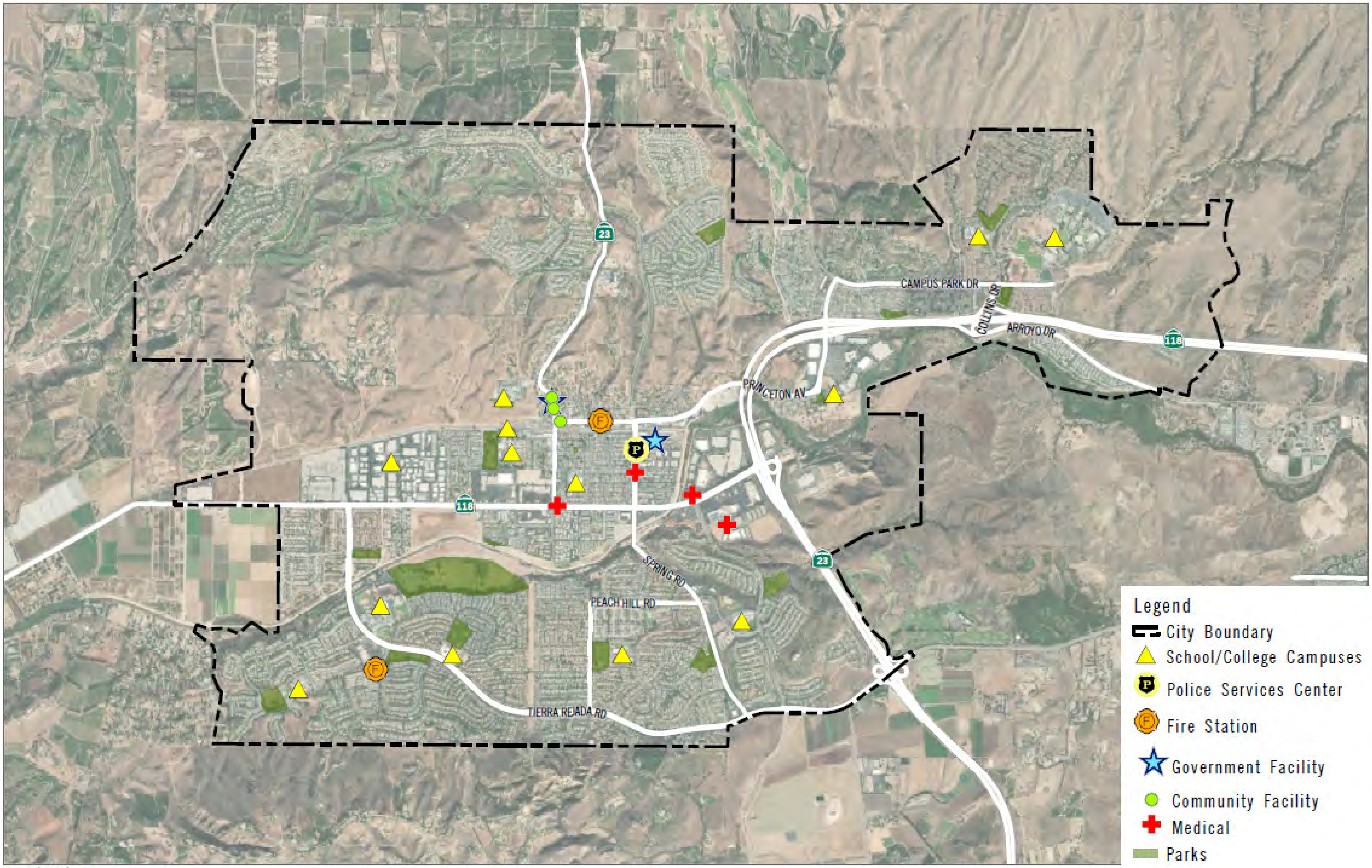
1.1 COMMUNITY PROFILE

The City of Moorpark is in the southeastern portion of Ventura County, adjacent to the Santa Susanna Mountains to the north and west, Alamos Canyon and Simi Valley to the east, and Las Posas Hills and Tierra Rejada Valley to the south. Moorpark is about two miles west of the City of Simi Valley and two miles north of the City of Thousand Oaks. According to the General Plan Update's Existing Conditions Report, Moorpark is home to approximately 36,278 residents and 10,484 households.[1]

The City of Moorpark covers approximately 12.5 square miles, as shown in **Figure 1**, which was originally home to the Chumash and Micqanaqa'n tribal nations.[2] Approximately 56 percent of the city is developed, and land uses within the urban development of the city consist of primarily residential, with other major land uses, including right-of-ways for the Union Pacific Railroad and roadways, education land uses for elementary through college facilities, commercial and industrial uses. The remaining 44 percent includes open space, recreation, agriculture, and vacant lands as well as water.

Moorpark has a Mediterranean climate, with rain in the winters and hot, dry summers, and the Santa Ana winds occurring from October to April. State agencies divide California into several climate zones, and Moorpark is part of Climate Zone 9. This climate zone covers the inland valleys of Southern California that have a coastal influence, with inland winds bringing hot and dry air and marine air bringing cool and moist air. [3] On average, annual high temperatures in Moorpark range from 64 degrees Fahrenheit (°F) in December to 84°F in August. Low temperatures range from 48°F in February to 61°F in July and August.[4] The city receives an average of approximately 15 inches of precipitation annually.[5] Most precipitation falls during the winter months with rare occurrences of summer storms. The Mediterranean climate makes Moorpark a prime location for agricultural production.

Figure 1. Community Overview



Source: PlaceWorks 2022

Moorpark's primary transportation access is from State Route (SR-) 23 and SR-118. SR-23 connects the City of Moorpark to Thousand Oaks and Highway 101 to the south, and Filmore and SR-126 to the north. SR-118 runs east to west, connecting Moorpark to Simi Valley and the City of Los Angeles to the east and the Santa Clara River Valley to the west. Other major roadways include Los Angeles Avenue, Tierra Rejada Road, Spring Road, Miller Parkway, High Street, and Campus Park Drive. Moorpark City Bus provides local bus transit options, and Amtrak and Metrolink provide regional rail transit services

1.2 REGULATORY FRAMEWORK

In 2015, the State adopted Senate Bill (SB) 379, amending Section 65302(g) of the California Government Code to require the Safety Element of the General Plan to include more information about wildfire hazards, flooding risks, and other short-term and long-term threats posed by climate change. SB 379 requires local governments to conduct vulnerability assessments as part of their long-range planning efforts and to prepare policies that will protect against harm caused by climate change.

Other important updates to Section 65302(g) of the California Government Code related to Safety Elements, climate change, and resiliency as addressed in the City's General Plan Update include SB 1241, SB 1035, Assembly Bill (AB) 2140, SB 99, and AB 747/1409.

- SB 1241 added Section 65302(g)(3) to the California Government Code, requiring jurisdictions in a state responsibility area or very high fire hazard severity zone to provide background; historical context; and goals, policies, and implementation measures to address wildfire risks in a community.
- SB 1035, which established Section 65302(g)(6) of the California Government Code, builds on previous legislation and requires local governments to review and update as needed their Safety Element during an update to their Housing Element or Local Hazard Mitigation Plan (LHMP) (or no less than every eight years). Any revisions should include updated information related to flood hazards, fire hazards, and climate adaptation and resilience.
- AB 2140 added Sections 8685.9 and 65302.6 of the California Government Code, enabling cities and counties to adopt an LHMP into its Safety Element.
- SB 99 established Section 65302(g)(5) of the California Government Code and requires jurisdictions to review and update the Safety Element to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes.
- AB 747 added Section 65302.15 to the California Government Code (amended by AB 1409), requiring local governments to identify the capacity, safety, and viability of evacuation routes and locations in the Safety Element or LHMP upon the next update of its LHMP.

This Vulnerability Assessment, along with the update to the Safety Element, will help the City of Moorpark meet the state's requirements, in addition to increasing consistency with and integration of the General Plan and the Ventura County Multi-Jurisdictional Hazard Mitigation Plan, which serves as the LHMP for Moorpark.

The State of California prepared a guidance document, the *California Adaptation Planning Guide* (APG), to assist communities in addressing climate adaptation and resilience, and complying with Section 65302(g) of the California Government Code, in addition to the Governor's Office of Planning and Research *General Plan Guidelines*. This guide presents a step-by-step process for gathering the best available climate change science, completing a climate change Vulnerability Assessment, creating adaptation strategies, and integrating those strategies into general plans and other policy documents. The City's Vulnerability Assessment is consistent with the guidance and recommended methods provided in the APG.

2 CLIMATE CHANGE IN MOORPARK

2.1 WHAT IS CLIMATE CHANGE?

Climate change is a long-term change in the average meteorological conditions in an area. Currently, the global climate is changing due to an increase in greenhouse gas (GHG) emissions that trap heat near the Earth's surface. While some levels of these gases are necessary to maintain a comfortable temperature on Earth, an increased concentration of these gases due to human activity traps additional heat, changing Earth's climate system in several ways. This can create intensified or new hazardous conditions that can increase the risk of damage to critical infrastructure, injury to sensitive populations, and disruption of essential services. To have a better understanding of how a changing climate may harm Moorpark, and which aspects of the community – including people, buildings, and infrastructure, services, and economic drivers – are most vulnerable to its effects, City staff prepared a Vulnerability Assessment as part of preparation of the Safety Element. This report presents a summary of the Vulnerability Assessment methods and results.

2.2 CLIMATE CHANGE MODELING CONSIDERATIONS

The Intergovernmental Panel on Climate Change (IPCC), an organization that represents the global scientific consensus about climate change, identified four climate scenarios in the Fifth Assessment Report, also called Representative Concentration Pathways (RCPs), that can be used to project future conditions.[1] RCPs are labeled with different numbers (e.g., RCP 2.6, RCP 6) that refer to the increase in the amount of energy that reaches each square meter of Earth's surface under that scenario. The four RCPs are:

- **RCP 2.6:** Global GHG emissions peak around 2020 and then decline quickly.

[1] The IPCC recently released "The Physical Science Basis" of the Sixth Assessment Report that updates global climate change projections for the near-term, mid-term, and long-term based on GHG emission trends from the past decade. It moves away from using RCPs, instead using five different scenarios called "shared socioeconomic pathways," which consider socioeconomic trends underlying each scenario. This Vulnerability Assessment does not use these updated projections because at time of writing they are not available at a local scale. However, the IPCC report does reaffirm the use of projections comparable to RCP 8.5 as the suggested emission scenario to use for Cal-Adapt data.

- **RCP 4.5:** Global GHG emissions peak around 2040 and then decline.
- **RCP 6:** Global emissions continue to rise until the middle of the century.
- **RCP 8.5:** Global emissions continue to increase at least until the end of the century.

Projections of climate hazards from Cal-Adapt and other sources rely on climate models, which are computer simulations that forecast future climate conditions under these different RCP scenarios. It is critical for the City to account for all reasonably plausible future conditions, including the most severe of plausible conditions, which will help ensure greater resiliency from climate change. Therefore, the projections in the vulnerability assessment use the RCP 8.5 scenario, following State of California guidance and to be consistent with the IPCC Sixth Assessment Report. No model can project future conditions perfectly, but current models are heavily reviewed by climate scientists and can accurately reproduce observed climate conditions.

The vulnerability assessment also relies on the understanding that “weather” and “climate” are two different things. “Weather” describes the conditions at a particular time and place, and “climate” describes the long-term average of conditions. Because there are large variations in the weather, it is difficult to accurately project weather conditions more than a few days in advance. However, because climate is a long-term average, it can be projected out for years or decades with a high degree of accuracy. It is important to remember that, because climate is an average, it does not say whether an event will or will not occur, only how likely it is. For example, extreme heat is likely to become more frequent in Moorpark, but a year with few heat waves does not mean that this projection is wrong, because the projection only says that extreme heat days are expected to occur, on average, more often than in the past.

2.3 CLIMATE CHANGE IN CALIFORNIA

The most accurate data for California-specific projections is available for the RCP 4.5 and RCP 8.5 scenarios. These scenarios help generate climate models, which are meant to simulate conditions across the globe. The model divides Earth’s surface into cells using a grid, and then forecasts the conditions in each square of the grid. The size of these squares makes them suitable for projecting global conditions, but they are too big to accurately model the difference in climate across smaller areas.[6] Per state guidance, these models have been “downscaled” to much finer grids, which means that they have grids that are less than four miles on each side to show projections on a county or city level. The California Fourth Climate Change Assessments and Cal-Adapt provide a foundation of climate change science and downscaling for the state. The State of California has also developed a comprehensive set of reports and tools that local jurisdictions can use to assess climate change hazards and how to prepare for these hazards. The State-provided reports and tools that were used in the Vulnerability Assessment include:

- Cal-Adapt.org
- California 4th Climate Change Assessment (statewide and regional reports) (2018)
- California Adaptation Clearinghouse
- California Adaptation Planning Guide (2020)

- California Climate Adaptation Strategy (2021)
- California Building Resilience Against Climate Effects (2018)
- California's Wildfire and Forest Resilience Action Plan (2021)
- Defining Vulnerable Community in the Context of Climate Adaptation (2018)
- Department of Transportation Climate Change Vulnerability Assessments (2019)
- Planning and Investing for a Resilient California (2018)
- Draft California 2030 Natural and Working Lands Climate Change Implementation Plan (2019)
- Draft California Extreme Heat Action Plan (2022)

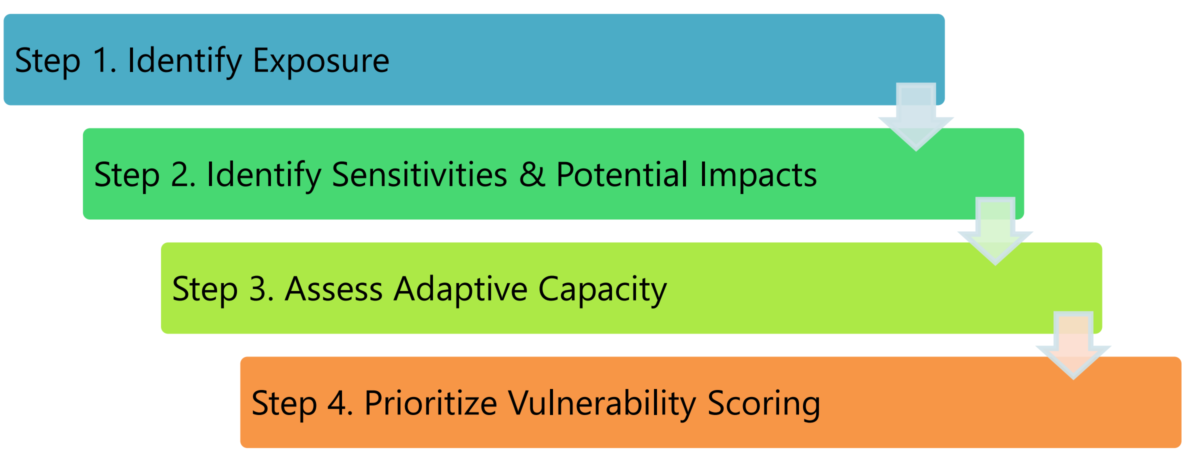
3 MOORPARK VULNERABILITY ASSESSMENT

In Moorpark, climate change is expected to intensify many existing hazards, such as wildfire and drought, or create new hazards, such as agriculture and ecosystems pests and diseases, which are listed below. The Vulnerability Assessment evaluates how hazards are expected to occur, including frequency and severity, and how this will affect community populations and assets.

3.1 VULNERABILITY ASSESSMENT METHOD

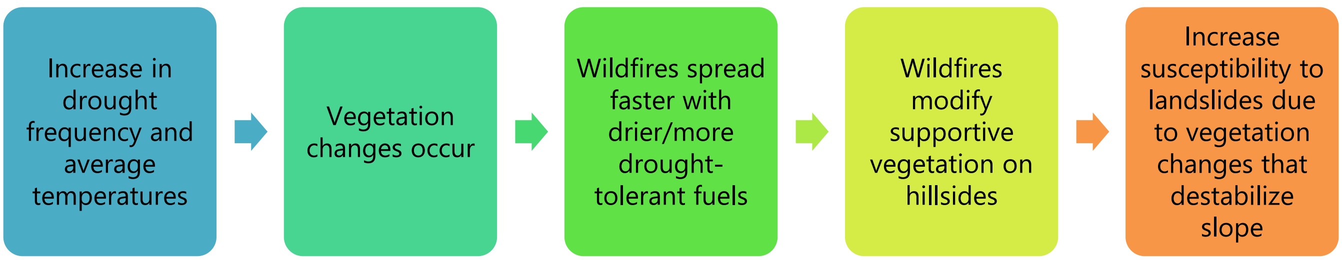
The Vulnerability Assessment primarily follows the recommended process in the *California Adaptation Planning Guide*, published in 2020 by the California Governor's Office of Emergency Services. This includes a four-step process: (1) characterizing the City's exposure to current and projected climate hazards; (2) identifying potential sensitivities and potential impacts to City populations and assets; (3) evaluating the current ability of the populations and assets to cope with climate impacts, also referred to as its adaptive capacity; and (4) identifying priority vulnerabilities based on systematic scoring. **Figure 2** presents these steps.

Figure 2. California Adaptation Planning Guide Recommended Model



Step 1. Identify Exposure. The goal of this step is to characterize the community's exposure to current and projected climate change hazards. The climate change hazards included in the Vulnerability Assessment are **agriculture and ecosystem pests and diseases, drought, extreme heat and warm nights, flooding, human health hazards, landslides, severe weather, and wildfire and smoke**. These hazards are discussed in more detail later in this report. Some of the hazards are compounding climate change effects where one climate change hazard leads to another more severe disaster, also known as "cascading effects." **Figure 3** provides an example of these cascading effects.

Figure 3. Example of Cascading Effects



The climate change hazard data was derived from up-to-date information, including the state Cal-Adapt database, the *California Adaptation Planning Guide*, the *California Fourth Climate Change Assessment,* the *Existing Conditions Report for the General Plan Update,* and the *Ventura County Multi-Jurisdictional Hazard Mitigation Plan.*

As discussed previously, projections of climate change hazards rely on multiple scenarios that reflect different levels of GHG emissions and concentrations over time. The Cal-Adapt database, which provides California-specific climate change hazard projections, uses RCP 4.5 for a low emissions scenario and RCP 8.5 for a high emissions scenario. The Governor's Office of Planning and Research *Planning and Investing for a Resilient California* document and the *California Adaptation Planning Guide* recommend using RCP 8.5 for analyses considering impacts through 2050 and 2100, as there are minimal differences between emission scenarios for the first half of the century and for late-century projections and this is a more conservative and risk-adverse approach. City staff used the RCP 8.5 scenario as input for global climate models on the Cal-Adapt database and other resources.

Step 2. Identify Sensitivities and Potential Impacts. This step involved evaluating potential future climate change impacts to community populations and assets. City staff first identified a comprehensive list of populations and assets to understand how susceptible different people, places, ecosystem services, and services within the community are affected by climate change hazards. This list includes 20 populations, 13 infrastructure types, 9 building types, 5 economic drivers, 6 ecosystems and natural resources, and 8 key services, as shown in **Table 1** and listed in more detail in **Appendix A**. The evaluation of these populations and assets allowed City staff to prioritize vulnerabilities across several sectors to build resiliency for the most susceptible people and assets in the city. Some assets, such as agricultural lands, are in neighboring areas but serve residents of Moorpark as employment centers, and therefore were included in the assessment. Following confirmation of this list, City staff developed an applicability matrix, which looked at which hazards are likely to affect which populations and assets. For example, human health hazards are likely to impact most populations, but it would not physically affect buildings.

Table 1. List of Populations and Assets

CATEGORY	POPULATIONS OR ASSETS		
Populations	Children	Outdoor workers	Persons without access to lifelines
	Cost-burdened households	Overcrowded households	Pollution-burdened populations
	Households in poverty	Persons experiencing homelessness	Renters
	Immigrant communities	Persons living in mobile homes	Seniors (65+)
	Linguistically isolated persons	Persons living on single access roads	Seniors living alone
	Low-income households	Persons with chronic illness and/or disabilities	Unemployed persons
	Low-resourced people of color	Persons without a high school degree	
Infrastructure	Bicycling and pedestrian trails	Hazardous materials sites	Solid waste facilities
	Bridges	Major roads and highways	Transit facilities
	Communication facilities	Natural gas pipelines	Water and wastewater infrastructure
	Electrical transmission infrastructure	Parks and open space	
	Flood control infrastructure	Railway	
Buildings	Community centers	Government buildings	Medical and care facilities
	Commercial businesses, shopping, and entertainment centers	Homes and residential structures	Public safety buildings

CATEGORY	POPULATIONS OR ASSETS		
	Cooling centers	Libraries	Schools
Economic Drivers	Agriculture	Major employers	Retail centers
	Education services	Outdoor recreation	
Ecosystems and Natural Resources	Grassland	Mixed Scrub	Open Water
	Chaparral	Oak Woodland	Riparian areas
Key Services	Communication services	Government administration & community services	Solid waste removal
	Emergency medical response	Public safety response	Water and wastewater treatment, delivery, and collection
	Energy delivery	Public transit access	

After the applicability review, City staff evaluated potential impacts to the applicable populations and community assets. To identify how severe the impacts of each relevant hazard are on the populations and community assets, City staff considered several different questions that helped ensure the assessment broadly covered a range of potential harm. Based on the results of the impact assessment, the City ranked each population and asset as experiencing low, medium, or high impacts for each relevant hazard. Impact is considered a negative quality, and therefore, a higher impact score means that there is a higher potential for harm to a population or asset. A lower impact score means that there is a lower potential for harm to a population or asset.

Step 3. Assess Adaptive Capacity. Adaptive capacity is the ability of populations and community assets to prepare for, respond to, and recover from the impacts of climate change. City staff evaluated each population and asset for adaptive capacity by considering a series of questions. Based on the results of the adaptive capacity assessment, the City ranked the adaptive capacity of each population or asset as low, medium, or high for each relevant hazard. Adaptive capacity is

Direct Impacts vs. Indirect Impacts

Direct impacts are those that immediately affect buildings and infrastructure, health or populations, or immediate operations of economic drivers or community services, and they can lead to secondary *indirect impacts* on the broader system or community, including populations or asset types in a different category. For example, severe storms can *directly* damage electrical transmission lines causing power outages, which can *indirectly* impact persons with chronic illnesses and/or disabilities who depend on the electricity for life-support systems.

considered a positive attribute, so a higher adaptive capacity score will mean that a population or asset may be more adaptable to the hazard. A lower adaptive capacity score means that a population or asset may have a harder time adjusting to the changing conditions.

Step 4. Prioritize Vulnerability Scoring. The City used the impact and adaptive capacity scores for each population and asset for each relevant hazard to determine the vulnerability score. The vulnerability score reflects how susceptible a population or asset is to harm from a particular hazard. Vulnerability is assessed on a scale of low, medium, and high. Low vulnerability does not mean that the population or asset will be unaffected by climate change, but that the effects are likely to be less substantial. The matrix in **Table 2** shows how impact and adaptive capacity scores combine and translate into a vulnerability score. For example, extreme heat would create a high impact on energy delivery services as mechanical failures, heat damage, and high demand for electricity from cooling equipment can disrupt this service. Adaptive capacity is low because many community members need to use more electricity on extreme heat days to keep cool and retrofitting electrical equipment can be expensive. Therefore, energy delivery services have a high vulnerability to extreme heat.

Table 2. Vulnerability Scoring Matrix

	Low Impact	**Medium Impact**	**High Impact**
Low Adaptive Capacity	Medium	High	High
Medium Adaptive Capacity	Low	Medium	High
High Adaptive Capacity	Low	Low	Medium

3.2 CLIMATE CHANGE HAZARDS AND KEY VULNERABILITIES

The Vulnerability Assessment assigns vulnerability scores to 362 different pairing of hazards and populations or assets (61 populations and assets for each of the relevant 8 hazards). This section summarizes the climate change hazards at the local level and discusses the significant vulnerabilities created by those hazards. The following list describes the key vulnerabilities in Moorpark:

- Households in poverty, immigrant communities, low-resourced people of color, and outdoor workers are the most vulnerable to climate change hazards, with nearly all populations being highly vulnerable to at least one hazard.
- Electrical transmission infrastructure, railways, and homes are the most vulnerable buildings and infrastructure, especially to flooding and wildfire.
- Agriculture is highly vulnerable to nearly all climate change hazards.
- Open water is the most vulnerable ecosystem and natural resource.
- Public transit access, energy delivery, and water and wastewater treatment are the most vulnerable key services.

For a complete list of vulnerability scores, see **Appendix B.**

AGRICULTURAL AND ECOSYSTEM PESTS AND DISEASES

According to the *2020 County of Ventura Crop Report*, agriculture and livestock had total gross production of nearly $2 billion in 2020, with strawberries, lemons, and nursery stock being the largest-grossing crops.[7] Agricultural pests and diseases can affect crop plants, orchards, and nurseries throughout and surrounding the City of Moorpark. This hazard is measured by the number of pests and disease incidents, which are likely to increase as higher temperatures allow insects to reproduce more rapidly.

These pests and diseases, such as the Glassy Winged Sharpshooter, Asian Citrus Psyllid, Huanglongbing, and Invasive Shot Hole Borer, as well as weeds and pest plants such as Scotch Thistle, Spotted Knapweed, Skeletonweed, and Dalmatian Toadflax, can slow the growth of plants and damage them so that their products are less appealing and harder to sell, or even kill them.[8] Though there are treatment options for many agricultural pests and diseases, some have no cure. Many pests and organisms that carry diseases are most active during warmer months, so the threat of infection or infestation is higher during that time of year. Projection trends show temperatures getting warmer earlier in the year and remaining warmer until later in the year due to increases in air temperature, which creates a wider activity window for pests and diseases.

Agriculture and ecosystem pests and diseases can severely harm the agriculture industry surrounding the City of Moorpark. Row crops can be affected by fungal pathogens and invasive disease vectors as temperatures continue to rise, affecting the quality and viability of crops.[9] Pesticides and herbicides can help crops resist these pests and diseases and new crop varietals may be pest-resistant; however, quickly evolving pests may make it difficult to some plant species to survive and changing crop varietals can be expensive for farm owners.

Due to the severe vulnerability of the agriculture economic driver to agriculture pests and diseases, outdoor workers and immigrant communities are also highly vulnerable, as many people from these populations work in agriculture. Persons working in these industries may be indirectly affected by agriculture and ecosystem pests and diseases that damage crops, nurseries, and orchards. Damage to agriculture can reduce work opportunities, create economic hardships for some workers, and cause employees to be let go from their jobs when farms experience economic hardships.[10] Individuals working in these industries may have few options if the industry suffers damage.

The ecosystem at highest risk of harm from agriculture pests and diseases is oak woodlands, which can be harmed by sudden oak death and other diseases. Due to the large extent of oak woodlands, management of pests and diseases may be difficult and expensive. Although sudden oak death has not made its way to Ventura County, it has been recorded in Monterey County and there also may be little that can be done to prevent the spread of sudden oak death in oak woodlands when it arrives.

DROUGHT

A drought occurs when conditions are drier than normal for an extended period, making less water available for people and ecosystems. Droughts are a regular occurrence in California; however, scientists expect that climate change will lead to more frequent and more intense droughts statewide. Overall, precipitation levels are expected to increase slightly, with more years of extreme precipitation events and droughts that last longer and are more intense.

The Ventura County Waterworks No.1 supplies water to the City of Moorpark, which imports 71 percent of its water from the State Water Project through the Calleguas Municipal Water District via the Metropolitan Water District of Southern California, 20 percent of its water from local groundwater basins, and 9 percent of its water through the Moorpark Water Reclamation Facility. The Moorpark Water Reclamation Facility provides recycled water to the Moorpark County Club Estate's golf course. The State Water Project includes a series of dams and reservoirs along the Sacramento and San Joaquin Valleys and the foothills of the Sierra Nevada Mountains that rely on water supplies from yearly snowpack.

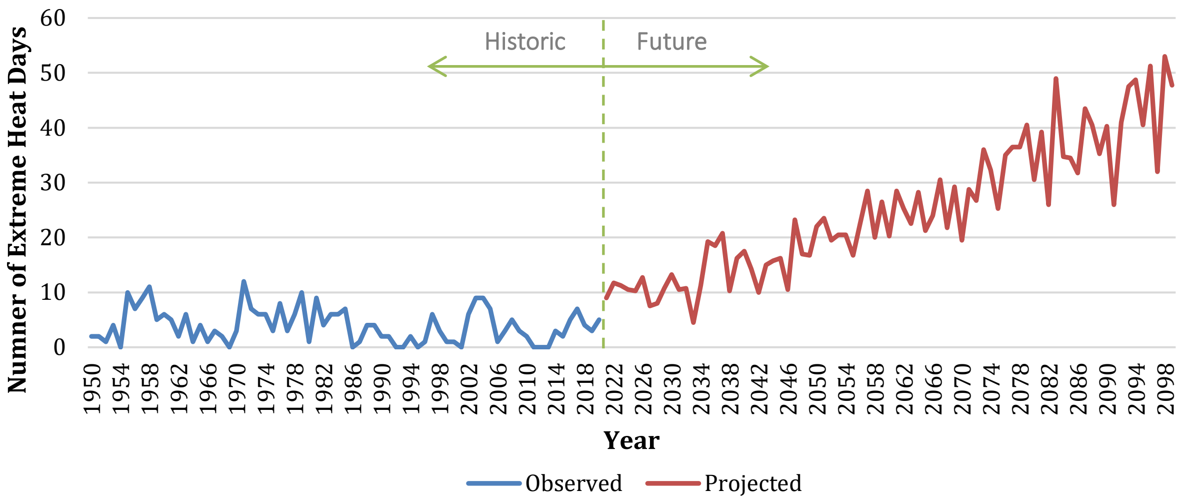
Snowpack levels in the Sierra Nevada dropped by 25 percent during the 2011 to 2016 drought, and average springtime snowpack is expected to drop 64 percent by 2100.[11] In the 2021 water-year (October 1, 2020, to September 30, 2021), the snowpack in the Northern Sierra was 70 percent of the average, but the rain was less than 50 percent of the annual average, making it the third driest water year on record.[12] During drought conditions, particularly multi-year droughts, water stored in the State Water Project's primary reservoirs often decrease due to lack of rainfall and reduction in snowpack due to higher temperatures. This may cause water shortages that can create economic instability for low-income and low-resourced community members. Price hikes and other mandatory water conservation measures could also increase economic instability of low-income and low-resourced residents. A reduction in State Water Project supplies would cause a heavier reliance on the Las Posas Groundwater Basin, which may cause overdraft conditions. Overdraft in the groundwater basin could lower both the quantity and quality available to the city. The implementation of the Fox Canyon Groundwater Sustainability Plan may decrease overdraft conditions and bring the groundwater basin into sustainable conditions by 2040. However, agricultural operations may see lower crop yields if they rely on surface water supplies from Ventura County Waterworks No.1, harming the local agriculture economy and the outdoor workers that rely on this industry.

At the local level, the open water habitat and chaparral, which depend on water from rainfall and groundwater, are most vulnerable. In an early-century drought (2023 to 2042), the City could experience a drop in average precipitation from an average of 14.3 inches per year to an average of 11 inches per year.[13] In a late-century drought (2051 to 2070), precipitation could also drop to an average of 11 inches per year.[14] This could lower water quality and raise water temperatures, causing lower dissolved oxygen levels and algae growth that can harm a variety of fish species.[15] In chaparral ecosystems, drought can weaken plant and tree species, causing habitat dieback or conversion to grassland or other vegetation types that may be more suited to less rainfall.[16] Drought conditions can also dry out vegetation and increase wildfire conditions, which could put a strain on firefighting equipment and personnel.

EXTREME HEAT AND WARM NIGHTS

Extreme heat occurs when temperatures rise significantly above normal levels. In Moorpark, an extreme heat day occurs when temperatures reach above 94.9°F. As shown in **Figure 4**, the number of extreme heat days in Moorpark is projected to increase from 3 days historically, to an average of 20 extreme heat days per year by mid-century, and an average of 37 extreme heat days per year by the end of the century.[17]

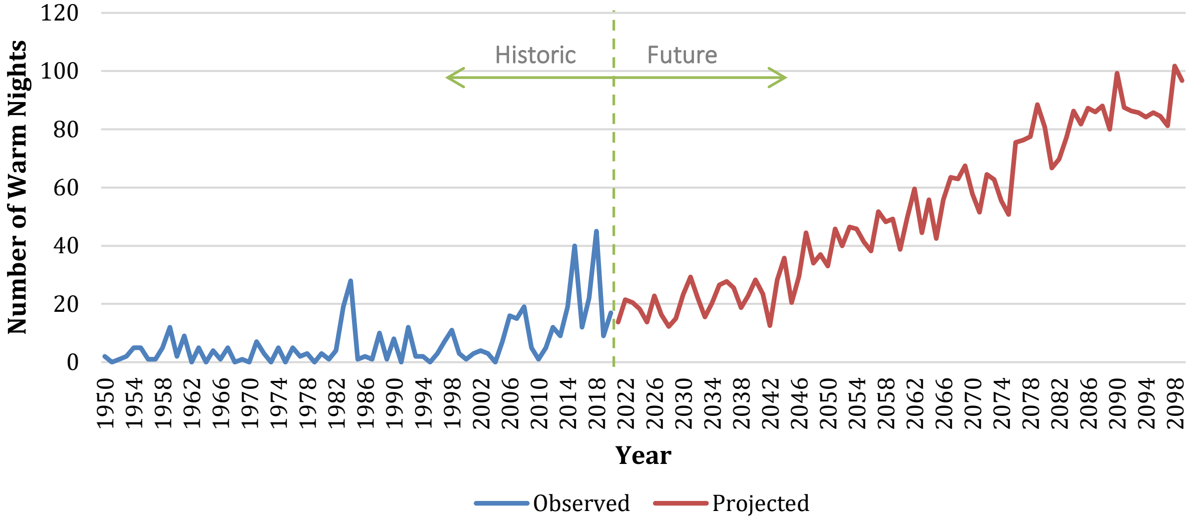
Figure 4. Projected Extreme Heat Days in Moorpark



Sources: Cal-Adapt, 2022; National Weather Service, 2022.

Extreme heat can also occur in the form of warmer nights, as temperatures do not cool down overnight and provide relief from the heat. In Moorpark, a warm night occurs when the temperature stays above 62.6°F. As shown in **Figure 5**, the number of warm nights in Moorpark is projected to increase from an average of 4 historically, to an average of 37 warm nights per year by mid-century, and an average of 79 warm nights per year by the end of the century.

Figure 5. Projected Warm Nights in Moorpark



Sources: Cal-Adapt, 2022; National Weather Service, 2022.

Extreme heat can cause heat-related illnesses, such as heat cramps, heat exhaustion, and heat stroke, in addition to worsening respiratory and cardiovascular conditions. There is one cooling center in the city, the Moorpark Active Adult Center; however, residents may not be able to cool homes or keep medications cooled if extreme heat events cause public safety power shutoff (PSPS) events or rolling blackouts.

The most vulnerable populations are those that spend a disproportionately high amount of time outside, such as children, outdoor workers, immigrant communities, and persons experiencing homelessness. Additionally, persons with chronic illnesses, populations with existing pollution burdens, and senior citizens are severely vulnerable to extreme heat due to potential existing health conditions. Persons with financial instability, low-resourced, or living in mobile homes are also highly vulnerable due to a lack of financial resources to prepare for or respond to extreme heat conditions; however, these persons may be able to travel to the City's cooling centers. Some homes in Moorpark may lack air conditioning, and as a result, people living in these homes may be more susceptible to harm from extreme heat events.

Energy delivery services and associated infrastructure are highly vulnerable to extreme heat, as high temperatures can stress and overload the grid, causing power outages and damage to the transmission lines. The agriculture economy is also highly vulnerable to extreme heat, as higher temperatures may alter the variety of crops that can be grown in areas surrounding Moorpark. Yields of vegetable and row crops are expected to decrease and water demand is expected to rise due to extreme heat conditions.[18] Additional vulnerabilities include outdoor recreation, as people may be deterred from recreating outdoors in high temperatures; open water habitats, which can experience decreases in water quality as temperatures increase; chaparral habitat, which can experience species composition shifts with higher average temperatures; and public transit access, as extreme heat reduces ridership of the Moorpark City Bus system since it may be more difficult to wait outside for the bus.

FLOODING

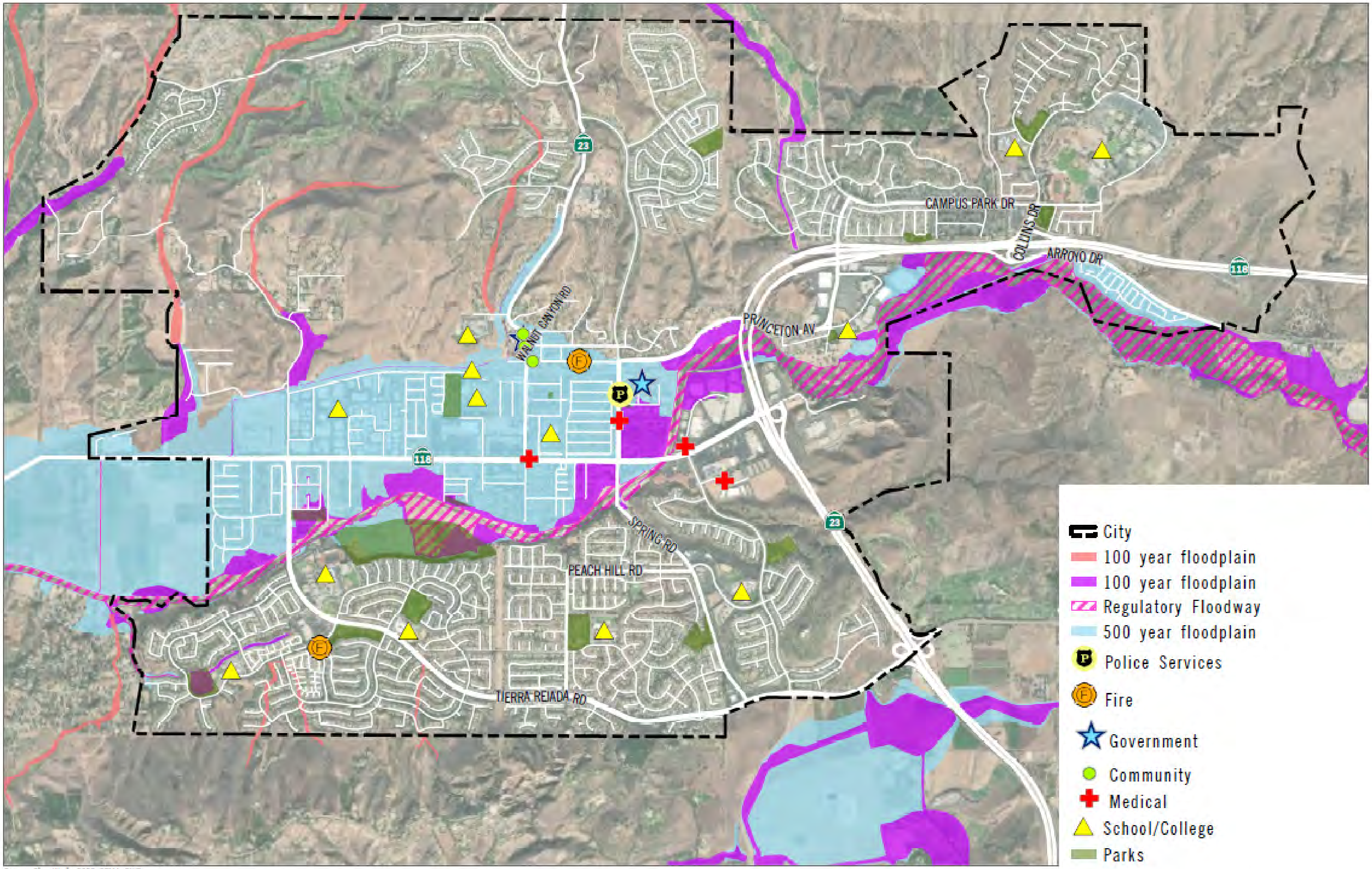
Inland flooding can cause significant harm to buildings, people, and infrastructure. Floodwater can be deep enough to drown people and may move fast enough to carry people or heavy objects (such as cars) away. Flooding can be caused by heavy rainfall, long periods of moderate rainfall, or clogged drains during periods of rainfall. In rare instances, a break in a dam holding back water in a reservoir, such as Bard Reservoir and Sinaloa Lake, can cause devastated flooding. Storm drainage systems throughout the city collect stormwater runoff and convey water to prevent flooding, although these systems are typically designed based on winter storms recorded in the past and may not be designed to accommodate more intense storms. The largest flood risk in Moorpark is from overtopping or breaching of the levees along Arroyo Simi during a major flood or dam inundation event.

Floods are expected to occur more frequently as a result of climate change, affecting what the community understands as a "normal" flood. For example, what is currently considered a 100-year flood, or a flood that has a 1-percent chance of occurring annually, may occur every 20 or 50 years. **Figure 6** shows that the flood hazard areas are primarily along Arroyo Simi and Arryo Las Posas, as well as low-lying areas scattered throughout the city.

Arroyo Simi Levee System
Arroyo Simi runs through the center of Moorpark, which is bordered to the north and south by a levee system managed by the Ventura County Public Works Agency. This levee system includes Ventura County Levee 10, Ventura County Levee 19, and AS-4, which combined protect 781 people, 336 buildings, and $245.9 million in property value. During heavy rainfall, these levees protect people and structures from floodwater along Arroyo Simi. However, more intense storms are likely to occur due to climate change, which can cause overtopping of the levee system and flooding of the areas behind the levees.
Source: FEMA and United State Army Corp of Engineers. N.d. "National Levee Database." https://levees.sec.usace.army.mil/#/.

Several populations and assets face particularly high risks from flooding events. Persons experiencing homelessness, persons living in mobile homes, households in poverty, immigrant communities, and low-resourced people of color are severely vulnerable to flooding, as they may live in or near flood hazard areas, lack financial resources to protect their homes, or be ineligible for grant funding to recover from flood damage to their homes. Persons with limited mobility and those without access to lifelines (persons without access to a car, transit, or communication systems) may have difficulty evacuating prior to a flooding event, and therefore are also highly vulnerable. Outdoor workers may be unable to travel to work during flooding events or farms and worksites may be inundated by floodwaters, reducing employment opportunities. Flooding may also inundate areas with higher soil or groundwater pollution burdens, causing toxic chemicals and contaminants to spread into the water and soil.[19]

Figure 6. Flood Hazard Zones



Source: PlaceWorks 2022, FEMA, DWR

Transportation infrastructure, including major roads, highways, bridges, railways, and transit facilities, which are essential for public transit access, major employers, retail centers, public safety response, and other services, can be inundated, blocked, and damaged by floodwaters along the Arroyo Simi. Heavy rainfall and subsequent flooding can disrupt water and wastewater services, causing the water and wastewater treatment plants to not function properly. This can cause effluent to flow into the surrounding water and soil, as well as reduce recycled water supplies for irrigation. Flooding can also carry large volumes of sediment into open water ecosystems that may contain mercury, nutrients, and pesticides from upstream areas, disrupting the water chemistry and harming plants and wildlife. Additional flooding vulnerabilities include flood-control infrastructure, which may fail if floodwaters exceed the capacity of the infrastructure; homes and residential structures, which can be damage, destroyed, or have mold and mildew growth from standing water after flooding; and commercial business buildings, which could become unusable if damaged by flooding.

HUMAN HEALTH HAZARDS

Human health hazards are bacteria, viruses, parasites, and other organisms that can cause diseases and illness in people. Some of these diseases may only cause mild inconvenience, but others are potentially life threatening. These diseases can be and often are carried by animals such as mice and rats, ticks, and mosquitos. Warmer temperatures and high levels of precipitation can lead to increased populations of disease-carrying animals, creating a greater risk of disease and increased rates of infection. Other human health hazards can include poor air quality, which can affect respiratory systems of those exposed for prolonged periods.

Populations most vulnerable to human health hazards are those who spend a disproportionate amount of time outdoors (such as outdoor workers or persons experiencing homelessness), those with fragile immune systems or existing illnesses (which may include persons with chronic illnesses, seniors, and pollution-burdened populations), and those who may live in sub-standard housing or not have access to health insurance and medical care (households in poverty, low-resourced people of color, immigrant communities, and overcrowded households). These persons may be living in conditions that increase their chances of catching vector-borne illnesses or lack the ability to fight off infections that may occur. Many populations may also not have access to air purification systems that can filter out harmful pathogens.[20]

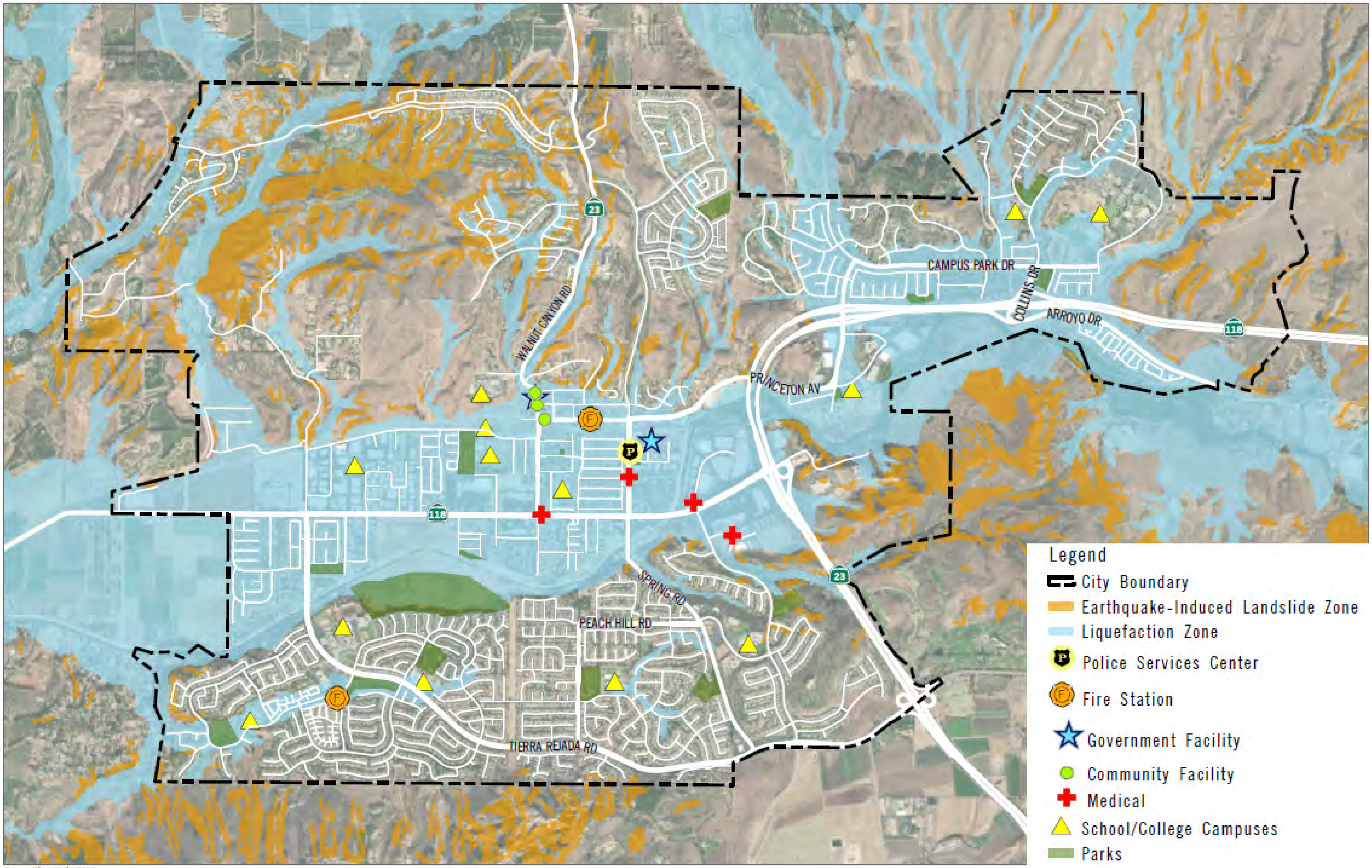
The agricultural industry relies heavily on outdoor workers, who could be exposed to vector-borne illnesses due to the amount of time spent outside. A reduction in workers could harm the agriculture economic driver surrounding Moorpark. Emergency medical response services are also highly vulnerable to human health hazards, as they may not be able to provide adequate services if there is an influx of health-related emergencies.

LANDSLIDES

Landslides occur when a hillside becomes unstable, causing soil and rocks to slide downslope, usually due to earthquakes or intense precipitation. Landslides can include rock falls, deep failures of slopes, and shallow debris flows.[21] Landslides are most common on steep slopes and hillsides made up of loose soil or other material where excavation and grading, drainage alterations, or changes in vegetation have occurred.[22] Hillsides commonly absorb water, which increases instability of the slope and may increase the risk of slope failure. Steep slopes made up of loose or fractured material are more likely to slide. In some cases, the hillsides can become so saturated that slope failures can result in a mudslide and debris flows (a mixture of soil and water moving downslope). As shown in **Figure 7**, slopes in the northern part of the city are in high landslide susceptibility areas. These are areas that are considered prone to earthquake-caused landslides, although these same areas are susceptible to landslides from precipitation and other causes.

Landslides and mudslides can move fast enough to damage or destroy homes or other structures in their path, block roadways, and injure or kill people caught in them. The most vulnerable populations are those that may be unable to evacuate due to limited mobility, lack of access to a vehicle or communication, or low-resourced populations that may prevent awareness and response to emergency notifications. Those living on single-access roadways in the hilly northern portion of the city or those living in less-resilient housing, such as mobile homes or households in poverty, may lose access to their homes if roadways or the structures are damaged or destroyed by a landslide. Infrastructure, such as electrical transmission lines and water or wastewater infrastructure, can break or malfunction if the soil supporting them fails. This can lead to disruptions in energy delivery and water or wastewater services. Major transportation infrastructure, such as roadways, bridges, and the railway can be blocked or damaged by landslides preventing public transit access locally and regionally.

Figure 7. Landslide Susceptibility Areas



Source: PlaceWorks 2022

SEVERE WEATHER

Severe weather can include high winds, hail, and lightning, which are usually caused by intense storm systems, although types of high winds and sandstorms can occur without a storm. The connection between climate change and severe weather is not as well established as other hazards, but new evidence suggests that these forms of severe weather may occur more often than in the past.[23] Severe winds, such as the Santa Ana winds, tend to be most frequent during October to April and can have average speeds of 40 miles per hour. These winds can destroy buildings, knock over trees, damage power lines and electrical equipment, and fan small sparks into large wildfires in the region. Severe weather can also include heavy rainfall, which can cause flash floods and ponding in areas not protected by a levee in the city. While less common in Moorpark, hail and lightning can damage the buildings and infrastructure supporting economic sectors and key services within the city.

The most vulnerable to severe weather are those who may be directly exposed to the hazard, such as outdoor workers and persons experiencing homelessness; those who may live in less structurally resilient buildings, such as households in poverty, immigrant communities, persons living in mobile homes, and low-resourced people of color; and those who may have difficulty preparing or responding to severe weather due to mobility or language barriers. These populations include persons with chronic illnesses and/or disabilities, persons without access to transportation or communication, and seniors living alone. Persons living on single-access roads are also highly vulnerable to severe weather, as high winds and severe storms can isolate these persons from the rest of the community if roadways are blocked or if the power shuts off.

Buildings and infrastructure, such as bridges, communication facilities, flood-control structures, and residential structures are highly vulnerable to severe weather, and they can be damaged by high winds, heavy rainfall, and debris carried by severe storms. The energy delivery system and communication system are especially vulnerable to windstorms, which can damage transmission lines or cause PSPS events, affecting the services this infrastructure provides the city. PSPS events can disrupt economic activities at retail centers, harm persons who rely on electricity for life-sustaining medical equipment, and cause hardships for low-income and low-resourced persons who may lose refrigeration of food or employment while the power is shut off. Heavy rainfall and severe winds that damage or block transportation networks can also disrupt public transit services, which can be delayed or suspended for days or weeks depending on the severity of the damage.

Agricultural lands can be decimated by high winds that flatten crops or heavy rainfall that damage crops and inundates the land in the surrounding unincorporated Ventura County areas. Extreme winds and heavy rainfall can also harm ecosystems by causing large volumes of sediment to flow into open water ecosystems, trees to fall in riparian woodlands, and sudden oak death to spread more quickly through oak woodland forests. Extreme heat and drought conditions may weaken agricultural crops and natural ecosystems and prevent them from recovering from severe storm events.

WILDFIRE AND SMOKE

Wildfires are a regular feature of the landscape in much of California. They can be sparked by lightning, malfunctioning equipment, vehicle crashes, or many other causes. Warmer temperatures, an increase in drought conditions, and extreme wind events, are likely to create more fuel for fires in natural and rural areas, leading to a greater chance that a spark will grow into a potentially dangerous blaze. Climate change is also expected to extend the fire season throughout much (or even all) of the year. **Figure 8** shows the fire hazard severity zones in and surrounding the City of Moorpark, which include very high fire hazard severity zones in the local responsibility area (areas where fire protection services are provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract), and moderate, high, and very high fire hazard severity zones in the surrounding state responsibility area (areas where CAL FIRE is responsible for fire prevention and suppression). Very high fire hazard severity zones are north of Poindexter Avenue and Princeton Avenue, east of Spring Road, and southwest of Tierra Rejada Road. Because wildfires burn the trees and other vegetation that help stabilize a hillside and absorb water, more areas burned by fire may also lead to an increase in landslides in existing landslide-prone areas.

The city is also within the wildland-urban interface, which increases the risk of wildfires spreading through the community. As shown in **Figure 9,** the wildland-urban interface in Moorpark includes areas north of Poindexter Avenue, Princeton Avenue, and SR-118, as well as areas south of Tierra Rejada Road. The wildland-urban interface is a zone of transition between natural vegetation and developed lands where wildfires can move from burning just vegetation to also damaging buildings and infrastructure. The proximity to fire-prone areas also increases the potential for smoke from wildfires to increase air pollution levels, creating a significant health risk in the region.

Nearly all populations within Moorpark have a high or medium vulnerability to wildfire and smoke conditions. Those with existing health issues or limited mobility are particularly vulnerable due to the inability to quickly evacuate during a wildfire and additional illnesses that can occur due to smoke conditions. Planned PSPS events to prevent wildfires have already impacted persons who depend on electricity for air conditioning or their medically necessary equipment.

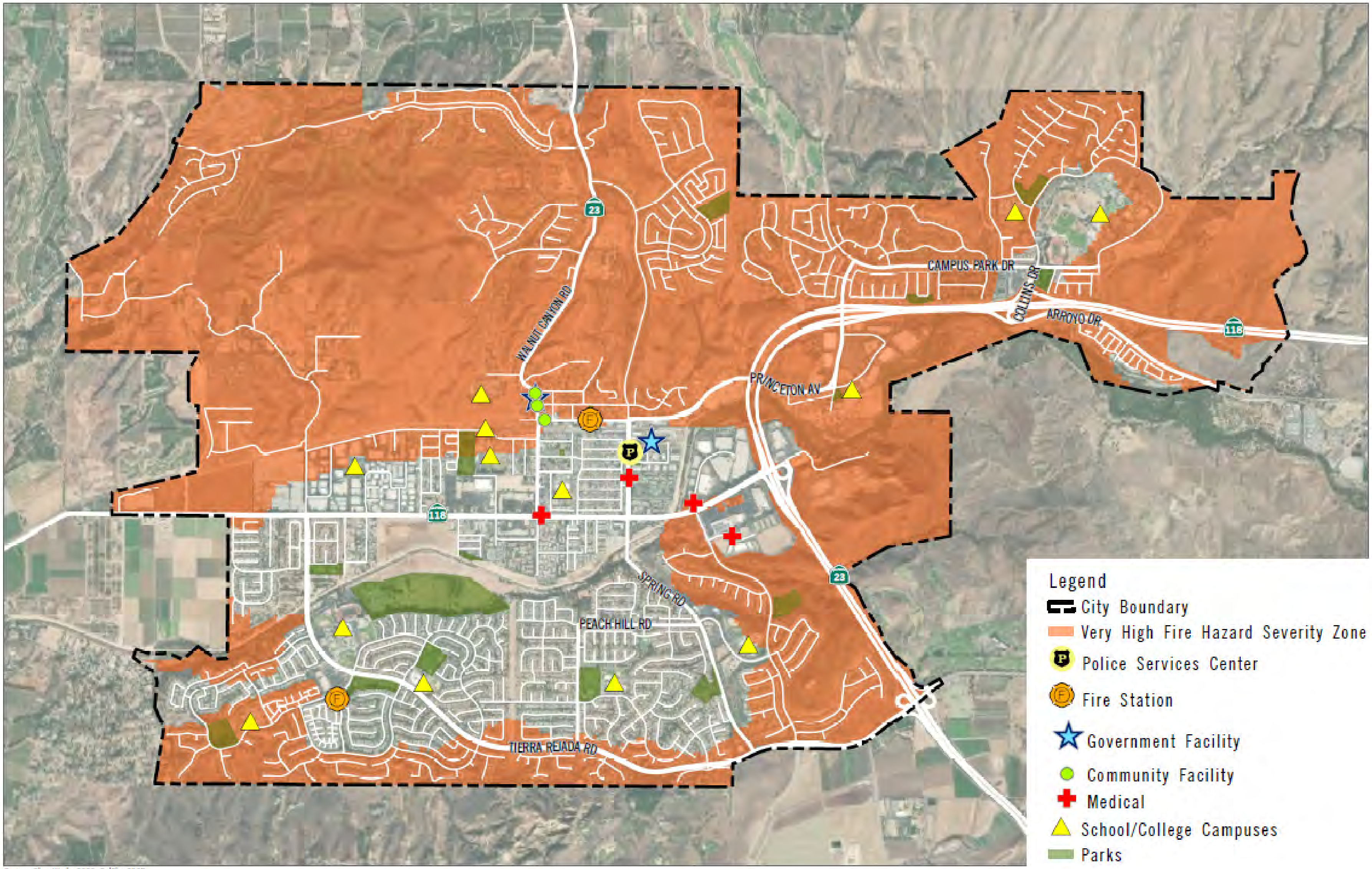
Major roads and highways, including those that serve as evacuation routes, can be blocked by wildfire flames or debris, making it difficult for residents to evacuate and emergency personnel to reach certain areas of the city. The railway that provides services for Amtrak and Metrolink can be damaged or blocked by wildfires, disrupting public transit access. The entire energy delivery system, including electric transmission lines, can be damaged by wildfires. Smoke conditions can also prevent residents from accessing public transit, due to unhealthy air quality, and ash from wildfires can degrade water supplies.

As shown in **Figure 8** and **Figure 9**, several building types are in very high fire hazard severity zones and the wildland-urban interface areas. These buildings include existing public facilities, such as the Moorpark City Hall, Moorpark Community Center, High Street Arts Center, Moorpark Active Adult Center, and Moorpark Library. Damage to these facilities from wildfires can disrupt several government administration and community services provided by the city and its staff. Homes are especially vulnerable because they can be damaged or destroyed by wildfires, reducing the availability of housing in the city. Indoor air quality can be reduced if smoke flows into homes and residential structures, potentially damaging the structure and internal contents. Several schools, including Moorpark College, Arroyo West Elementary, Walnut Canyon Elementary, Campus Canyon Elementary, Ivy Tech Charter, Mesa Verde Middle, and Chaparral Middle, are within wildfire-prone areas and can be damaged or destroyed by a wildfire.

Several agricultural areas surrounding the city are within fire-prone areas. Smoke and ash from nearby wildfires can damage crops, farms, and agricultural fields, as well as the nutrients in the soil.[24] Smoke can also prevent visitors from traveling to the city to participate in outdoor recreation activities, including recreation at nearby regional parks. Although the economy can likely recover from these events, repetitive wildfire and smoke events may make recovery difficult in both the agriculture and recreation sectors.

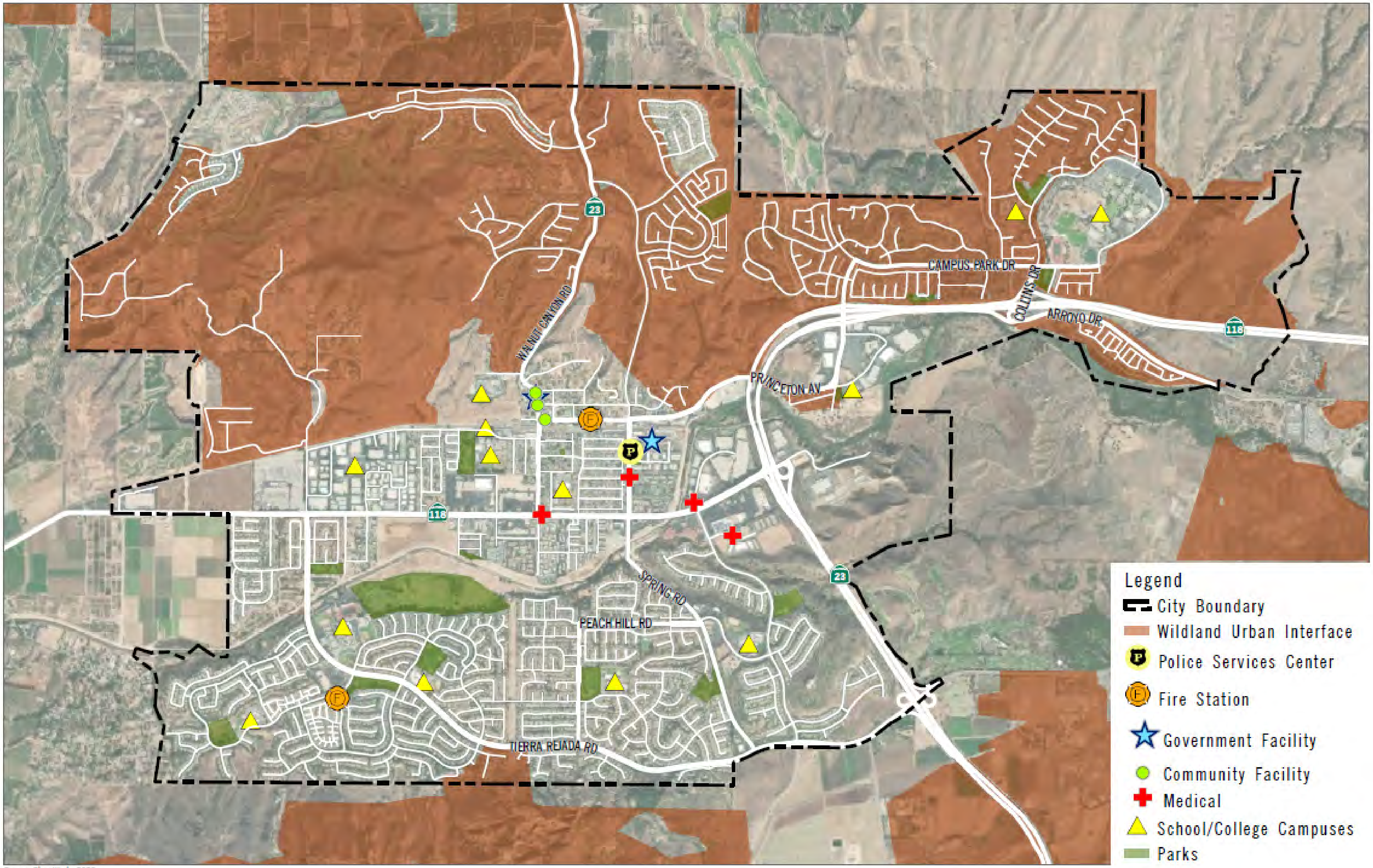
Chaparral habitat, although somewhat adapted to wildfires, can be substantially harmed by more frequent and severe fires that do not let the ecosystems recover.[25] Open water can be degraded by fire retardants and sediment that may be difficult for the ecosystem to filter out.

Figure 8. Fire Hazard Severity Zones



Source: PlaceWorks 2022, CalFire 2007

Figure 9. Wildland-Urban Interface Areas



Source: PlaceWorks 2022

4 GENERAL PLAN IMPLICATIONS

4.1 EQUITY AND UNCERTAINTY

When addressing vulnerability and adaptation through general plan policies and the associated implementation plan, the *Adaptation Planning Guide* and *General Plan Guidelines* recommend consideration of equity and uncertainty.

Equity means that all people are justly and fairly included in society, and that everyone is able to participate, prosper, and achieve their full potential. Equitable climate adaptation planning involves identifying persons who are most vulnerable to climate change hazards, and ensuring that the planning process, distribution of resources, and efforts to address systematic wrongs are all conducted in an equitable manner. This Vulnerability Assessment identifies 20 vulnerable populations and assesses climate change impacts and the ability of these populations to prepare for, respond to, and recover from climate change hazards. Based on the results, nearly all of the populations are highly vulnerable to multiple hazards.

Uncertainty is the second component to consider when determining how hazardous conditions may affect Moorpark. Climate change is driven by the concentration of GHGs in the atmosphere, which is affected by how our communities use resources and how we regulate those uses through local, state, federal, and international GHG-reduction goals, regulations, plans, and programs. As more action is taken to reduce GHG emissions, the less severe the effects of climate change are expected to be. Climate change models consider the concentrations of atmospheric GHG emissions and the changes in these levels over time to project future extent or intensity of hazardous events.

Even with the extensive modeling, potential impacts are projections of more likely future conditions and are not certain. Similarly, there is also substantial uncertainty about the future state of technology, socioeconomic conditions, and other factors. According to recent studies, the best approach to uncertainty is to minimize inaction by the development of “no regrets” strategies that are beneficial without the presence of climate change and where the costs are low compared to the benefits. The State and the City have ample evidence to support science-based policy and decision making.

4.2 OPPORTUNITIES

Moorpark currently experiences a wide range of climate change hazards that are projected to increase in frequency and intensity in the future. The General Plan should incorporate GHG-reduction strategies to reduce the amount of carbon dioxide in the atmosphere and adaptation strategies to increase the resilience of residents and businesses in Moorpark to existing and anticipated climate hazards. The general plan should integrate adaptation measures into the update process that will help the community prepare for, respond to, and recover from climate change hazards.

- **Safety.** Due to the recent update of the California Government Code Section 653029(g) with the approval of SB 379, Safety Elements are required to address climate adaptation and resilience strategies. The Safety Element's goals, policies, and implementation actions can provide resilience strategies that support both reduced impacts and improved adaptive capacity of the community to climate change-related hazards, along with policies on required hazards, such as flooding, fire, and geologic hazards. Policies within this element can ensure that health and safety concerns of the community are met, even with an increase in frequency and intensity of climate change hazards. Examples of specific policies or implementation actions could include:
  - » Create an extreme heat response plan that includes establishment of community cooling centers and temperature triggers for when they will open, weatherization of City buildings, and cooling strategies for persons engaged in outdoor work and persons experiencing homelessness.
  - » Expand participation of programs and services that provide funding resources for households with financial hardships and businesses to conduct retrofits.
  - » Coordinate with the Ventura County Fire Department and the Ventura Regional Fire Safe Council to obtain funding and conduct vegetation management initiatives on private property.
  - » Provide alerts about potential, developing, and ongoing emergency situations through extensive early-warning and notification systems that convey information to all residents, in multiple languages and formats to ensure it is widely accessible.
  - » Develop an evacuation assistance program, in coordination with Moorpark City Bus, paratransit, and dial-a-ride agencies, to help those with limited mobility or lack access to a vehicle to effectively evacuate.
  - » Require new development within a designated floodplain or fire hazard severity zone to submit fire and/or flood safety plan for approval by the Fire Department and Floodplain Administrator.
  - » Ensure evacuation routes remain open and functional during emergencies.
- **Mobility and Circulation.** The Mobility and Circulation Element already includes policies for the existing roadways, public transit, bicycle, and pedestrian networks in the city. These facilities are assessed in the Vulnerability Assessment and therefore resilience strategies for these transportation systems would be appropriate to add to the Circulation Element. Policies and implementation measures may include the following:
  - » Coordinate with City and regional transit providers to identify alternative routes and stops if normal infrastructure is damaged or closed as a result of extreme events.
  - » Harden or raise roadways to ensure evacuation access during hazardous events.
  - » Design roadways, bicycle, and pedestrian infrastructure to incorporate cost-effective and multi-benefit resilience features.

- **Infrastructure and Community Services.** The Infrastructure and Community Services Element provides background and policies for utilities and public facilities. These facilities and services are essential for community members' quality of life, as well as city operations and are included in the Vulnerability Assessment. Resilience strategies in the Infrastructure and Community Services Element could include efforts to continue undergrounding electricity lines citywide, create redundances in the communication infrastructure, and provide sustainable back-up power supplies for public and government facilities. Policies and implementation measures can also look at the promotion of water conservation measures, low-impact development, and green infrastructure that can help convey stormwater and reduce impacts from drought and flooding.

  The Infrastructure and Community Services Element also contains policies for public facilities throughout the City, which can serve as refuge spaces during emergencies. The Urban Sustainability Network's *Resilience Hub White Paper* and Resilience Hubs website (http://resilience-hub.org/) provide a key resilience strategy for public facilities: the integration of physical and virtual resilience hubs. These can serve as centralized locations for resources about climate change, opportunities to reduce emissions, and techniques to increase resilience, showcases for sustainability, energy efficiency, and low carbon building, and to help residents obtain essential resources and information during and after a disaster. Examples of specific implementation actions could include:

  - » Identify existing facilities to serve as resilience hubs and cooling centers that open during emergencies or specific temperature triggers for residents to go to seek refuge from extreme heat days or emergency shelter.
  - » Coordinate with emergency management services to establish backup power, preferably from renewable energy sources, and water resources at emergency shelters, resilience hubs, and cooling centers in case of power outages.

- **Open Space.** The Open Space Element provides background and policies for open space, parks, and recreation in Moorpark. Resilience strategies for open space include managing open space to provide both recreation and wildfire management measures through vegetation management and brush clearing. The parks and recreation section of this element can promote public health and safety through ensuring recreation opportunities and a variety of parks are available to residents and visitors of all abilities. Park and open space areas can help reduce air pollution, decrease ambient air temperatures, provide shade during hot days, and act as buffers to slow and absorb stormwater, among other benefits. Indoor recreation facilities can provide opportunities for recreation when outdoor air quality or temperatures are unhealthy. This section can include policies and actions that increase the urban tree canopy to reduce the heat island effect and clean the air, as well as protect residents and visitors from hazardous conditions.

- **Conservation.** The Conservation Element includes information on the ecosystems and natural resources within the city, including the ecosystems evaluated in the Vulnerability Assessment. California Government Code Section 65302(g)(4) requires natural infrastructure to be used in adaptation projects where feasible, which can be integrated into this element. Policies and implementation measures can include conducting riparian restoration projects to protect against flooding and managing oak woodland and chaparral habitats to protect against damaging wildfires. This element can also address ecosystem vulnerabilities ensuring these ecosystems maintain their ecosystem services, such as cleaning the air and water, providing shade cover, and providing recreation opportunities.
- **Environmental Justice and Public Health.** Environmental Justice and Public Health policies can address reducing groundwater pollution, increasing public facilities and food access, and promoting safe homes and physical activity to directly address the needs of disadvantaged communities. Environmental justice policies and implementation actions can increase resiliency of vulnerable populations by reducing the non-climate stressors that cause low-resourced and pollution burdened populations to not effectively respond to and recover from hazards. Policies addressing environmental justice will also ensure that these populations have opportunities to participate in the public decision-making process. Specific adaptation measures can include providing affordable healthy foods in schools and other public spaces; assisting in the repair, rehabilitation, and improvement of residential structures; and demolishing and replacing structures that are dilapidated and beyond repair.

4.3 RESILIENCE IN OTHER PLANNING MECHANISMS

Resilience should not be limited to the General Plan. Adaptation and resilience rely on a cross-department, multi-disciplinary approach to successful implementation. The City should consider how adaptation and resilience can also be incorporated into other City plans, codes, projects, and implementation programs. Addressing climate change hazard events in the General Plan can support other essential safety documents, such as the *Ventura County Multi-Jurisdictional Hazard Mitigation Plan*. Emergency preparedness efforts to respond to climate change hazards can include a City-sponsored Community Emergency Response Team (CERT) training. Development standards, such as residential building codes for buildings in flood zones and development of adequate evacuation routes, can be integrated into the Moorpark Municipal Code. Policies that focus on emergency response to hazards can be included in an evacuation plan or an emergency operations plan. Policies related to drought and flooding may be integrated into the Ventura County Waterworks District No.1 Urban Water Management Plan and the Ventura Countywide Stormwater Quality Management Program. Furthermore, programs such as the Moorpark Municipal Code and Capital Improvement Program can help implement the resilience policies developed in the General Plan through specific projects, development codes, and budgeting.

5 CONCLUSION

The Vulnerability Assessment identifies which hazards are expected to harm sensitive populations and assets, and which assets are most vulnerable to various hazards that are projected to intensify with climate change. A comprehensive set of results is in **Appendix B**. Understanding how climate change will affect the community and identifying the vulnerable populations and assets will enable Moorpark to implement effective GHG-reduction measures and climate adaptation strategies to create a safer, sustainable, and healthier community.

As the climate continues to change and GHG emissions rise, climate change hazards will continue to harm populations, infrastructure and buildings, economic drivers, and key community services in Moorpark. The General Plan Update will integrate adaptation strategies into goals, policies, and implementation measures that will help increase resiliency and reduce vulnerability throughout the city.

APPENDIX A:
LIST OF POPULATIONS AND ASSETS

LIST OF ITEMS TO INCLUDE IN MOORPARK VULNERABILITY ASSESSMENT

PlaceWorks proposed the following populations and other assets for inclusion in the Vulnerability Assessment. Each list includes a description and source of data needed to support the Vulnerability Assessment.

POPULATIONS

PlaceWorks collected population data from the U.S. Census, California Healthy Places Index, Ventura County Homeless Point-in-Time Count, and the General Plan Existing Conditions Report. These 20 populations include:

- Children (under 10).
- Cost-burdened households: Households paying 30 percent or more of their income towards housing expenses.[26]
- Households in poverty: Households with an income below the poverty line, which is $26,500 for a household of four.[27]
- Immigrant communities.
- Linguistically isolated persons: Especially Spanish, Arabic, Tagalog, and Chinese.[28]
- Low-income households: The State identifies $90,350 as the low-income threshold for a household of four people in Ventura County in 2021.[29]
- Low-resourced people of color: Persons identifying as a member of a racial and/or ethnic group and facing limited access to resources, such as financial, social, healthcare, or educational assistance.[30,31]
- Outdoor workers: Workers in agriculture, landscaping, construction, outdoor recreation, etc.
- Overcrowded households: Housing units that have more than 1.0 person per room (excluding bathrooms and kitchens).
- Persons experiencing homelessness: The 2020 Point-in-Time count reported zero unsheltered or sheltered persons experiencing homelessness in Moorpark. In 2019, there were two persons experiencing homelessness in the city.[32]
- Persons living in mobile homes: Villa Del Arroyo Mobile Homes Park.

- Persons living on single-access roads: Gabbert Road, Walnut Canyon Road, or Spring Road in northern Moorpark.
- Persons with chronic illness and/or disabilities.
- Persons without a high school degree.
- Persons without access to lifelines: Persons without reliable access to a car, transit, or communication systems.
- Pollution-burdened populations: Populations or neighborhoods burdened with pollution from pesticide use, children's lead risk from housing, and impaired waters.[33]
- Renters.
- Seniors (65+).
- Seniors living alone.
- Unemployed persons.

INFRASTRUCTURE

PlaceWorks gathered details on infrastructure from state and local geographic information system (GIS) data and the General Plan Existing Conditions Report. These 13 assets include:

- Bicycling and pedestrian trails.[34]
- Bridges: Tierra Rejada Road, Arroyo Simi, and four State highway bridges.
- Communication facilities: Cell towers, radio sites, etc.
- Electrical transmission infrastructure
  - Transmission lines: Southern California Edison (SCE).
  - Substations: SCE Moorpark Substation.
- Flood-control infrastructure: Levee along Arroyo Simi.
- Hazardous materials sites: Morrison Property (Happy Camp Canyon); Teledyne-Laars, Inc. (6000 Condor Drive); Viking Electronics, Inc. (5455 Endeavor Court); and Calleguas MWD Well Field 2.[35]
- Major roads and highways
  - State: State Route (SR-) 23 and SR-118.
  - Local: Los Angeles Avenue, Tierra Rejada Road, Spring Road, Miller Parkway, High Street, and Campus Park Drive.
- Natural gas pipelines: Southern California Gas Company.
- Parks and open space: 18 City parks and facilities.
- Railway: Union Pacific Railway, Metrolink, and Amtrak.
- Solid waste facilities: Caltrans-Moorpark Maintenance Station.
- Transit facilities: Moorpark Metrolink/Amtrak Station and Moorpark City Transit.

- Water and wastewater infrastructure: Ventura County Waterworks No.1 and Moorpark Water Reclamation Facility.

BUILDINGS

PlaceWorks collected buildings data from Google Maps, the Moorpark Parks Department, the City of Moorpark land use GIS layer, and the California School Database. The nine assets include:

- Community centers: Moorpark Community Center, High Street Arts Center, and Arroyo Vista Recreation Center.
- Commercial businesses, shopping, and entertainment centers: Mission Bell Plaza, Tierra Rejada Road/Mountain Trail Street, Los Angeles Avenue/Spring Street, Moorpark Marketplace, and Campus Plaza.
- Cooling centers: Moorpark Active Adult Center.
- Government buildings: Moorpark City Hall, Moorpark Public Services Facility, planned City Hall (323 Science Drive).
- Homes and residential structures.
- Libraries: Moorpark library.
- Medical and care facilities: Adventist Health urgent care, Adult and Pediatric Urgent Care, Ruben Castro Human Services Center, and Moorpark Comprehensive Medical Group urgent care.
- Public safety buildings: Police Services Center, Ventura County Fire Stations #40 and #42.
- Schools: Moorpark College, Arroyo West Active Learning Academy, Flory Academy of Sciences and Technology, Mountain Meadows 21st Century Learning Academy, Peach Hill Academy, Walnut Canyon School, Campus Canyon College Preparatory Academy, Chaparral Middle School, Mesa Verde Middle School, Moorpark High School, Community High School, and High School at Moorpark College.

ECONOMIC DRIVERS

PlaceWorks determined important economic assets based on the 2020 Comprehensive Annual Financial Report, land uses surrounding the City of Moorpark, and General Plan Existing Conditions Report. These five assets include:

- Agriculture.
- Education services: Moorpark College and Moorpark Unified School District.
- Major employers: Pennymac, AeroVironment, Pentair Water Pool & Spa, Benchmark Electronics Manufacturing Solutions, Ensign-Bickford Aerospace and Defense Company, Target Stores, Abbyson Living, and Test Equity LLC.
- Outdoor recreation.
- Retail centers.

ECOSYSTEMS AND NATURAL RESOURCES

PlaceWorks determined the ecosystems and natural resources based on the General Plan Existing Conditions Report. The six resource types include:

- Grassland: 167 acres.
- Chaparral: 12 acres.
- Mixed Scrub: 1,812 acres.
- Oak Woodland: 139 acres.
- Open Water: 7 acres.
- Riparian areas: 240 acres.

KEY SERVICES

These assets are based on typical services provided in cities throughout California, which are supported by the infrastructure and buildings listed previously. Key community services include the operation and functions needed to provide and maintain services. The Vulnerability Assessment assesses the infrastructure and people needed to support them separately. The eight key services include:

- Communications services: AT&T, Spectrum, and other internet providers.
- Emergency medical response: Ventura County Fire Department and American Medical Response.
- Energy delivery: SCE, SoCalGas, and Clean Power Alliance.
- Government administration and community services.
- Public safety response: Moorpark Police Department and Ventura County Fire Department.
- Public transit access: Moorpark City Transit, Amtrak, and Metrolink.
- Solid waste removal: Waste Management.
- Water and wastewater treatment, delivery, and collection: Ventura County Waterworks No.1 and Moorpark Water Reclamation Facility.

APPENDIX B: VULNERABILITY ASSESSMENT RESULTS MATRIX

The Vulnerability Assessment evaluates the impact and adaptive capacity of 61 populations and assets for each of the relevant 8 hazards. Vulnerability scores were assigned high, medium, or low (as shown in Table 2) to reflect how susceptible the population or asset is to the harm posed by the hazard. The City assessed 362 different pairings for vulnerability, 138 of which scored as highly vulnerable. The following matrix provides the scores for each population and asset to each relevant hazard.

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Populations and Assets	Climate Hazards							
	Agriculture Pests and Diseases	Drought	Extreme Heat	Flooding	Human Health Hazards	Landslides	Severe Weather	Wildfire & Smoke
Populations								
Children	-	-	High	Medium	Medium	Medium	Medium	High
Cost-burdened households	-	Low	Medium	High	Medium	Medium	Low	Medium
Households in poverty	-	High	High	High	High	High	High	High
Immigrant communities	High	Medium	High	High	High	High	High	High
Linguistically isolated persons	-	-	Medium	Medium	Medium	Medium	Medium	Medium
Low-income households	-	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Low-resourced people of color	Medium	High	High	High	High	High	High	High
Outdoor workers	High	High	High	High	High	Medium	High	High
Overcrowded households	-	-	Medium	High	High	Low	Low	Medium
Persons experiencing homelessness	-	-	High	High	High	-	High	High
Persons living in mobile homes	-	-	High	High	Medium	High	High	High
Persons living on single-access roads	Low	-	Low	Low	Low	High	High	High
Persons with chronic illness and/or disabilities	-	-	High	Medium	High	High	High	High
Persons without a high school degree	-	-	Low	Medium	Low	Medium	Medium	Medium
Persons without access to lifelines	-	-	Medium	High	Medium	High	High	High
Pollution-burdened populations	-	Medium	High	High	High	Medium	Medium	High
Renters	-	-	Low	Medium	Low	Low	Low	Medium
Seniors (65+)	-	-	High	High	High	High	Medium	High
Seniors living alone	-	-	High	High	High	High	High	High
Unemployed persons	-	Medium	Medium	Medium	Medium	Medium	Medium	High
Infrastructure								
Bicycling and pedestrian trails	Low	Low	-	Low	-	Medium	Low	Medium
Bridges	-	-	-	High	-	High	High	Low
Communication facilities	-	-	Low	Low	-	Low	High	Low

Populations and Assets	Climate Hazards							
	Agriculture Pests and Diseases	Drought	Extreme Heat	Flooding	Human Health Hazards	Landslides	Severe Weather	Wildfire & Smoke
Electrical transmission infrastructure	Low	-	High	Medium	-	High	High	High
Flood-control infrastructure	-	-	-	High	-	-	High	Medium
Hazardous materials sites	-	-	-	Medium	-	Low	Medium	Medium
Major roads and highways	Low	-	Medium	High	-	High	Medium	High
Natural gas pipelines	-	-	-	-	-	Medium	-	Low
Parks and open space	Medium	Medium	Medium	Low	-	Low	Medium	Medium
Railway	Low	-	High	High	-	High	Medium	High
Solid waste facilities	-	-	-	Medium	-	-	Low	-
Transit facilities	-	-	-	High	-	Low	Medium	Medium
Water and wastewater infrastructure	-	Low	-	Medium	-	Medium	Medium	Medium
Buildings								
Community centers	-	-	Low	Medium	-	Low	Low	High
Commercial businesses, shopping, and entertainment centers	-	-	Low	High	-	-	Medium	Low
Cooling centers	-	-	Low	Medium	-	Low	Low	High
Government buildings	-	-	Low	High	-	Low	Low	Medium
Homes and residential structures	-	-	Medium	High	-	High	High	High
Libraries	-	-	Low	Low	-	Low	Low	High
Medical and care facilities	-	-	Medium	Medium	-	-	Medium	Low
Public safety buildings	-	-	Low	Low	-	-	Low	Medium
Schools	-	-	Medium	Medium	-	Medium	Medium	High
Economic Drivers								
Agriculture	High	High	High	High	High	Medium	High	High
Education services	-	-	Medium	Medium	Medium	Medium	Low	Medium
Major employers	-	-	Medium	High	Medium	Low	Low	Medium
Outdoor recreation	Medium	Low	High	Low	Low	Medium	Medium	High

Populations and Assets	Climate Hazards							
	Agriculture Pests and Diseases	**Drought**	**Extreme Heat**	**Flooding**	**Human Health Hazards**	**Landslides**	**Severe Weather**	**Wildfire & Smoke**
Retail centers	-	-	Low	High	Medium	Low	Medium	Low
Ecosystems and Natural Resources								
Grassland	Low	Medium	Low	Low	-	Low	Low	Medium
Chaparral	Medium	High	High	Low	-	Low	Medium	High
Mixed Scrub	Medium	Low	Medium	Low	-	Low	Medium	Medium
Oak Woodland	High	Low	Medium	Medium	-	Low	High	Medium
Open Water	Medium	High	High	High	-	High	High	High
Riparian areas	Medium	Medium	Medium	Medium	-	Medium	High	Medium
Key Services								
Communications services	Low	-	Low	Low	-	Medium	High	Medium
Emergency medical response	Low	-	Medium	Medium	High	Medium	Medium	Medium
Energy delivery	Medium	Medium	High	Low	-	High	High	High
Government administration & community services	-	-	Low	Low	Low	Low	Low	High
Public safety response	Low	-	Medium	High	Low	Medium	Medium	Medium
Public transit access	Low	-	High	High	Medium	High	High	High
Solid waste removal	Low	-	Low	Medium	Low	Medium	Medium	Medium
Water and wastewater treatment, delivery, and collection	-	High	Medium	High	-	High	Medium	High

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City of Moorpark
2050 General Plan Update
Traffic Impact Analysis

Draft Report

December 2, 2022

Submitted to:

CITY OF MOORPARK

J# 10904 | Prepared by **Iteris, Inc.**

Innovating Through Informatics™

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FIGURES

1.0 INTRODUCTION

This traffic impact analysis has been prepared for the proposed 2050 General Plan Update (GPU) for the City of Moorpark. This report provides key traffic information regarding existing and future traffic volumes, determination of Levels of Service (LOS), and an analysis of project effects at study intersections. The findings of this report will be used to inform future Capital Improvement Projects, such as roadway and intersection improvements and traffic signalization coordination.

1.1 Project Description

The City of Moorpark was known for its agriculture and historical character. However, due to regional growth, low land costs, and the City's close proximity to the Los Angeles area, the City has become more urbanized. One of the goals of the City's current general plan is to balance the City's growth pattern while maintaining the suburban rural community character of the City.

It is anticipated that by the horizon year of the General Plan, new development will be focused in areas exhibiting characteristics that make them economically suitable for change and intensification. Additionally, some growth is anticipated in areas with pending and approved projects, residential neighborhoods where accessory dwelling units (ADUs) may be constructed, several rural areas with capacity for additional housing, and a small number of other underdeveloped parcels where intensified development can be expected.

Table 1 summarizes the General Plan Update's proposed net changes in land use, based on the location of opportunity sites. Opportunity sites were developed in conjunction with the General Plan Advisory Committee (GPAC) and are shown in **Figure 1**.

Table 1: Proposed General Plan Update Net Land Use Changes

Land Use Type	Existing (2022)	Proposed Land Use Plan (2050)	Net Change
Residential			
Residential Units	11,537 units	17,025 units	+5,488 units
Population	36,445 residents	53,781 residents	+17,336 residents
Non-Residential			
Square Footage	8,783,171 sq ft	13,567,083 sq ft	+4,783,912 sq ft
Employment	12,915 jobs	20,249 jobs	+7,334 jobs

As shown, the GPU's anticipated change in dwelling units and non-residential square footage over the 2050 estimated buildout is:

- Addition of 5,488 residential units and 17,336 residents; and
- Addition of 4,783,912 square feet of non-residential uses and 7,334 jobs.

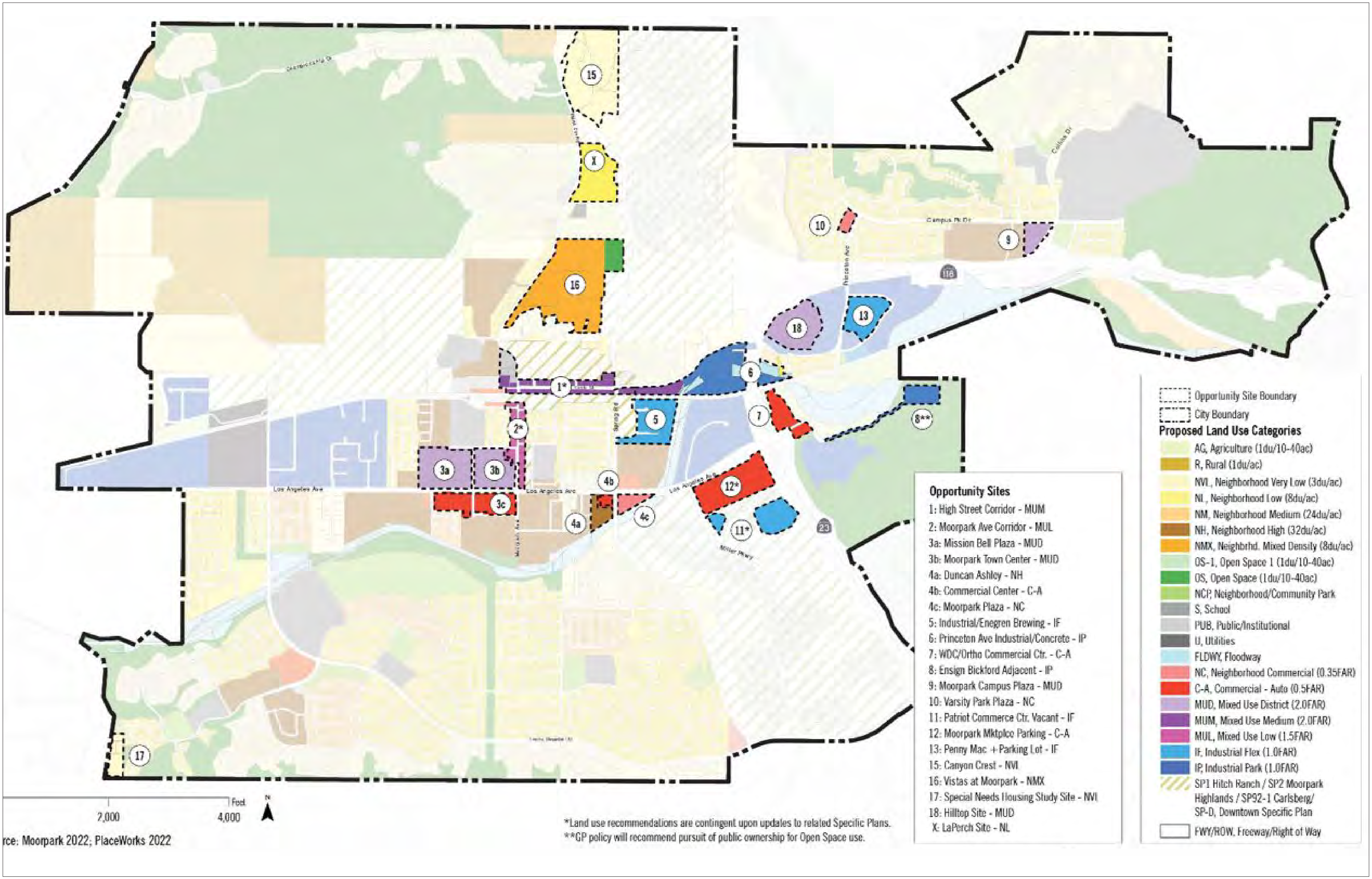

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Figure 1
Opportunity Sites

1.2 Study Area

The study area for analysis of the proposed project's effects on circulation includes 27 intersections within the City or the City's Sphere of Influence (SOI). The study intersections are illustrated in **Figure 2** and are as follows:

1. Grimes Canyon Road/Los Angeles Avenue (SOI);
2. Grimes Canyon Road/Championship Drive;
3. Gabbert Road/Poindexter Avenue;
4. Tierra Rejada Road-Gabbert Road/Los Angeles Avenue;
5. Mountain Trail Street/Tierra Rejada Road;
6. Mountain Meadow Drive/Tierra Rejada Road;
7. Walnut Creek Road/Tierra Rejada Road;
8. Walnut Canyon Road/Championship Drive;
9. Walnut Canyon Road/Spring Road;
10. Walnut Canyon Road/Meridian Hills Drive;
11. Moorpark Avenue/High Street;
12. Moorpark Avenue/Poindexter Avenue-1st Street;
13. Moorpark Avenue/Los Angeles Avenue;
14. Peach Hill Road/Tierra Rejada Road;
15. Spring Road/High Street-Princeton Avenue;
16. Spring Road/Los Angeles Avenue;
17. Spring Road/Peach Hill Road;
18. Spring Road/Tierra Rejada Road;
19. Science Drive-Miller Parkway/Los Angeles Avenue;
20. Miller Parkway-Moorpark Road/Tierra Rejada Road;
21. Moorpark Road/Santa Rosa Road (SOI);
22. Collins Drive/SR-118 Westbound Ramps;
23. Collins Drive/SR-118 Eastbound Ramps;
24. SR-23 Southbound Ramps/Los Angeles Avenue;
25. SR-23 Northbound Ramps/Los Angeles Avenue;
26. SR-23 Southbound Ramps/Tierra Rejada Road; and
27. SR-23 Northbound Ramps/Tierra Rejada Road.

These intersection locations were developed in conjunction with City staff.

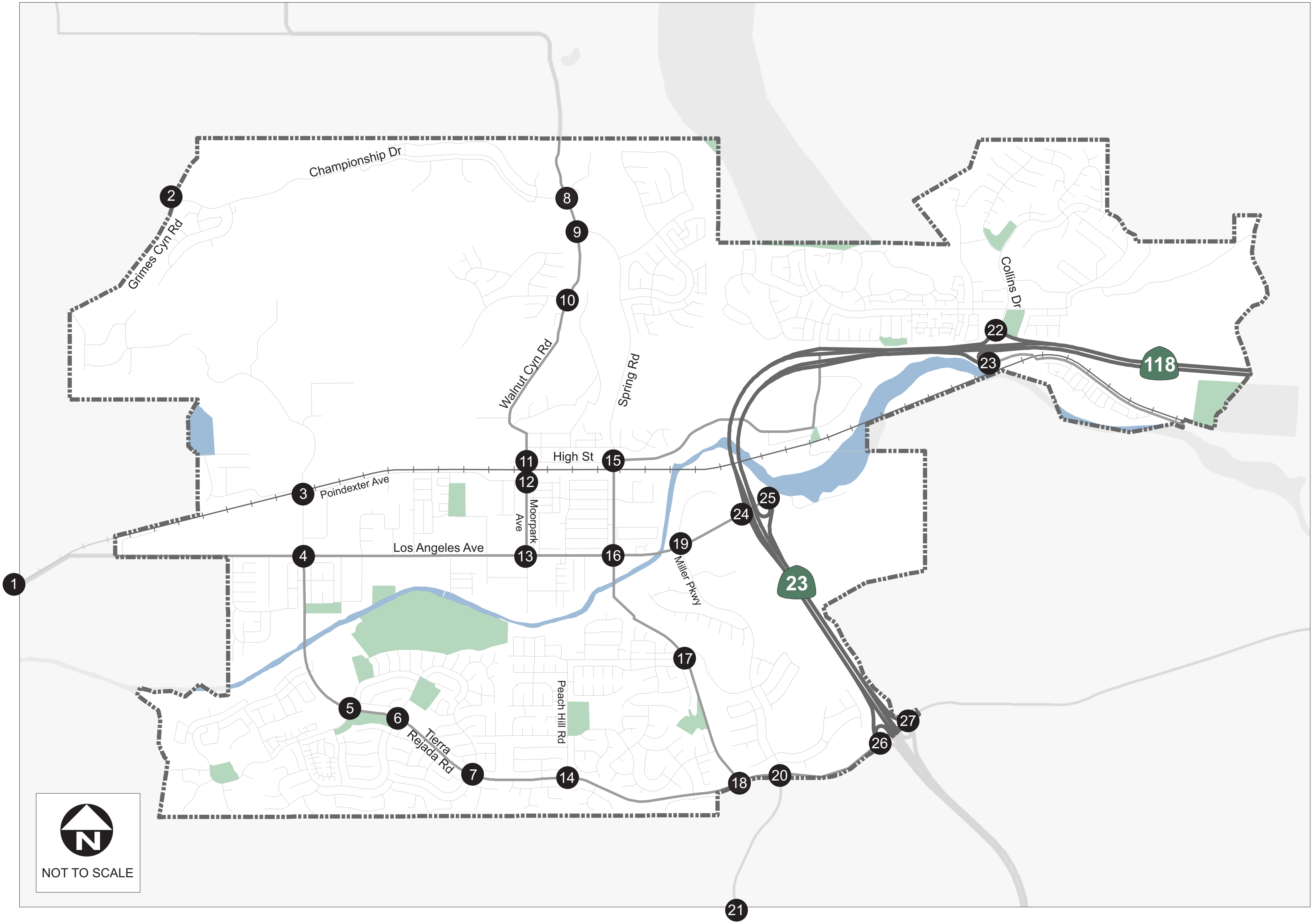

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Figure 2
Study Area Intersections

1.3 Study Periods

Traffic operations were evaluated for each of the following scenarios during the weekday a.m. (7:00 – 9:00) and p.m. (4:00 – 6:00) peak hours:

- Existing Conditions;
- Future Year 2050 With General Plan Update Conditions.

2.0 ENVIRONMENTAL SETTING

This section presents an overview of the existing roadway and transit system within the study area, and the methodology used to determine existing traffic volumes.

2.1 Roadway Configurations

The City of Moorpark's roadway network is defined by a classification system that uses a hierarchy of facility types based on differences in size, function, and capacity. As discussed later in the report, the General Plan Update's Circulation Element shall modify these classifications from the current classifications.

The existing roadway network relies primarily on two freeways, California State Route 23 (SR-23) and California State Route 118 (SR-118), to facilitate regional connections south through Thousand Oaks and east through Simi Valley, respectively. Other surface roadway connections to neighboring communities include:

- Los Angeles Avenue (coterminous with SR-118), providing access west to Somis and onward to Saticoy and Ventura, as well as southwest to Camarillo via Somis Road (coterminous with SR-34).
- Grimes Canyon Road, providing access north to Fillmore.
- Walnut Canyon Road (coterminous with SR-23) providing access north to Fillmore via Broadway and merging with Grimes Canyon Road.
- Moorpark Road, providing access south to Thousand Oaks and southwest to Camarillo via Santa Rosa Road.
- Tierra Rejada Road, providing access east to Simi Valley.
- Arroyo Drive/Los Angeles Avenue, providing access east to Simi Valley.

The surface roadway network of Moorpark is a mostly suburban network, with local streets and collectors feeding higher-speed, higher-capacity arterials. However, the roadway network's characteristics vary in different parts of the city, largely resulting from when they were developed. In the older, central part of the city, the network reflects a loose grid pattern, with an interior network of local streets flanked by collectors and arterials. Roads in this part of the city exhibit straighter segments and a greater number of local connections when compared to other parts of the city. In newer neighborhoods south of the Arroyo Simi and in the northern and eastern outskirts of the city, the roadway network follows a more contemporary suburban pattern of local streets defined by cul-de-sacs feeding local collectors that are linked by one or two high-speed, high-capacity arterials. These streets are more curvilinear in nature and offer relatively few connections between neighborhoods.

2.2 Existing Public Transit

Public transportation options in the City are varied and include rail, local fixed-route bus, county inter-city express bus, paratransit, and dial-a-ride services. Bus services are financed using a quarter-cent sales tax authorized by the Transportation Development Act in 1989, as well as with developer fees. General fund revenue has historically not been used for public transit in significant amounts.

The City's Moorpark train station along High Street within the Downtown area is served by both Metrolink's Ventura County Line and Amtrak's Pacific Surfliner rail lines. The station has 270 free parking spaces, charging stations and bicycle parking.

Moorpark Transit is a fixed-route bus service that operates during weekdays between 6:15 a.m. and 6:00 p.m. Two routes are provided, and are similar in the destinations served. Both routes run along the major roadways in the City, including Los Angeles Avenue, Tierra Rejada Road, Moorpark Avenue, Spring Road, etc. The routes serve destinations including City Hall, the Metrolink/Amtrak station, Moorpark College, shopping centers along Los Angeles Avenue, as well schools and parks.

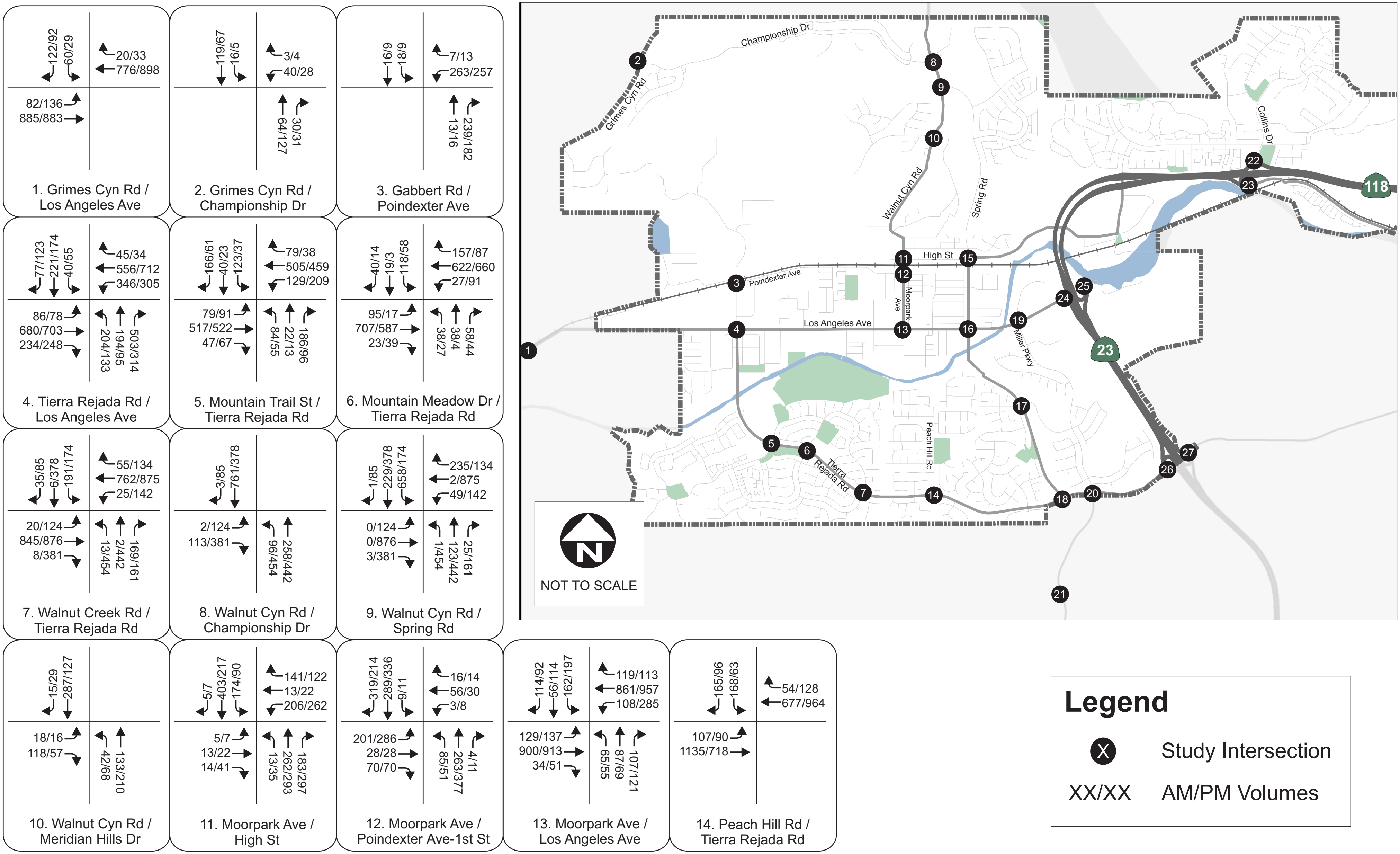
Countywide inter-city express bus service is provided by Ventura County Transportation Commission (VCTC) Transit's East County and East-West Connector Services. East County lines utilize SR-23 and SR-118 to provide service south to Thousand Oaks and east to Simi Valley, while the East-West Connector utilizes SR-118 to provide service east to Simi Valley and west to Somis, with further service provided to Camarillo, Oxnard, and Ventura via SR-34 and US-101. For both lines, stops in the City include Moorpark Station, the industrial district along Princeton Avenue, and Moorpark College. Both routes also intersect with other VCTC bus routes, linking all of Ventura County as well as the San Fernando Valley.

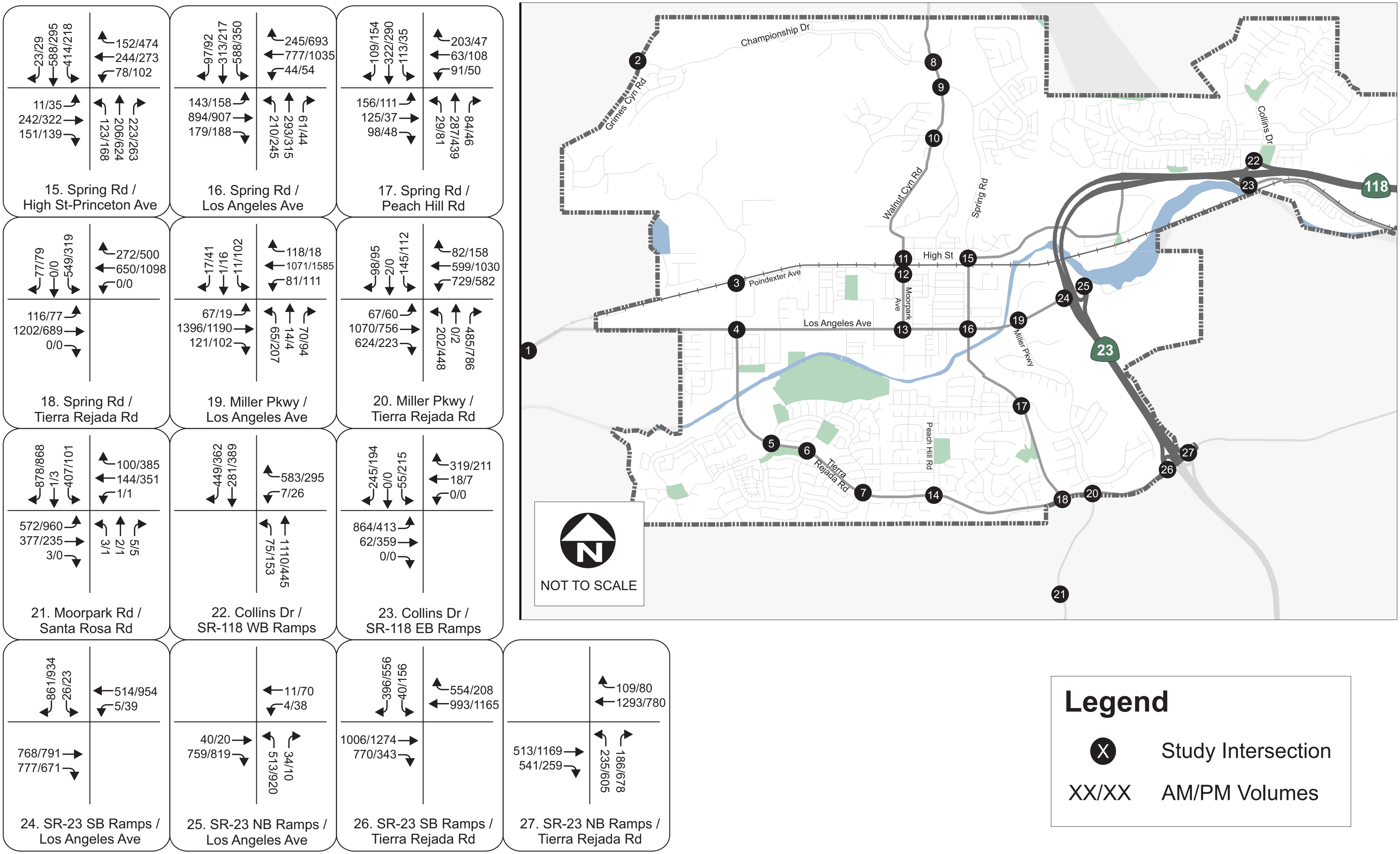
Local Americans with Disabilities Act (ADA) compliant Paratransit is available to persons with disabilities who are certified by the City and VCTC in the form of a dial-a-ride system. Travel within the city is available from 6:00 a.m. to 6:00 p.m. on weekdays. Inter-city paratransit to other Ventura County cities and connections to Gold Coast Transit and LA Access are available during the same timeframe on weekdays and from 8:00 a.m. to 6:00 p.m. on weekends.

Additional Dial-A-Ride services in the City are available for seniors aged 65 and over, with nearly identical service to paratransit, except without a connection to LA Access. Hours of operation are the same as other paratransit services.

2.3 Existing Traffic Volumes

Traffic counts at the intersections were collected in Spring 2019 while local schools were in session, avoiding any holiday-related shifts in traffic patterns. The counts were provided to the project by the City. All intersection counts were conducted during the a.m. peak period (7:00 – 10:00) and p.m. peak period (4:30 – 7:30), during two days. The average volumes of the two days were used in the traffic analysis. Detailed traffic count data is included in **Appendix A**. **Figures 3a** and **3b** show the existing peak hour intersection volumes.


122/92
60/29
20/33
776/898
82/136
885/883
1. Grimes Cyn Rd / Los Angeles Ave
119/67
16/5
3/4
40/28
64/127
30/31
2. Grimes Cyn Rd / Championship Dr
16/9
18/9
7/13
263/257
13/16
239/182
3. Gabbert Rd / Poindexter Ave
77/123
221/174
40/55
45/34
556/712
346/305
86/78
680/703
234/248
204/133
194/95
503/314
4. Tierra Rejada Rd / Los Angeles Ave
166/61
40/23
123/37
79/38
505/459
129/209
79/91
517/522
47/67
84/55
22/13
186/96
5. Mountain Trail St / Tierra Rejada Rd
40/14
19/3
118/58
157/87
622/660
27/91
95/17
707/587
23/39
38/27
38/4
58/44
6. Mountain Meadow Dr / Tierra Rejada Rd
35/85
6/378
191/174
55/134
762/875
25/142
20/124
845/876
8/381
13/454
2/442
169/161
7. Walnut Creek Rd / Tierra Rejada Rd
3/85
761/378
2/124
113/381
96/454
258/442
8. Walnut Cyn Rd / Championship Dr
1/85
229/378
658/174
235/134
2/875
49/142
0/124
0/876
3/381
1/454
123/442
25/161
9. Walnut Cyn Rd / Spring Rd
15/29
287/127
18/16
118/57
42/68
133/210
10. Walnut Cyn Rd / Meridian Hills Dr
5/7
403/217
174/90
141/122
13/22
206/262
5/7
13/22
14/41
13/35
262/293
183/297
11. Moorpark Ave / High St
319/214
289/336
9/11
16/14
56/30
3/8
201/286
28/28
70/70
85/51
263/377
4/11
12. Moorpark Ave / Poindexter Ave-1st St
114/92
56/114
162/197
119/113
861/957
108/285
129/137
900/913
34/51
65/55
87/69
107/121
13. Moorpark Ave / Los Angeles Ave
165/96
168/63
54/128
677/964
107/90
1135/718
14. Peach Hill Rd / Tierra Rejada Rd
Championship Dr
Grimes Cyn Rd
Walnut Cyn Rd
Spring Rd
Collins Dr
High St
Poindexter Ave
Moorpark Ave
Los Angeles Ave
Miller Pkwy
Peach Hill Rd
Tierra Rejada Rd
118
23
N
NOT TO SCALE
Legend
X Study Intersection
XX/XX AM/PM Volumes



iteris

City of Moorpark
General Plan Update
Transportation Analysis

Figure 3b
Existing Intersection Volumes

3.0 TRAFFIC OPERATIONS ANALYSIS METHODOLOGY

The quality of traffic operations is characterized using the concept of level of service (LOS). Level of service is defined by a range of grades from A (best) to F (worst). At intersections, LOS "A" represents relatively free operating conditions with little or no delay. LOS "F" is characterized by extremely unstable flow conditions and severe congestion with volumes at or near the intersection's design capacity. This results in long queues backing up from all approaches to intersections.

Traffic operations analysis was conducted utilizing the Highway Capacity Manual methodology. HCM methodology defines LOS by the average vehicle delay experienced by all vehicles traveling through the intersection. **Table 2** presents a brief description of each level of service letter grade, as well as the range of HCM average intersection delay associated with each grade for signalized intersections.

Table 2: Intersection Level of Service Definitions

Level Of Service	Description	Signalized Intersection Delay (seconds per vehicle)	Unsignalized Intersection Delay (seconds per vehicle)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	< 10	< 10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	>10 and < 20	>10 and < 15
C	Good operation. Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	>20 and < 35	>15 and < 25
D	Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues.	>35 and < 55	>25 and < 35
E	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	>55 and < 80	>35 and < 50
F	Forced flow. Represents jammed conditions. Backups form locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	> 80	> 50

Source: Highway Capacity Manual

Policy 2.1 in the General Plan Update states that the City aims to maintain Level of Service "D" as the standard for system performance for traffic volumes on the circulation system. High Street between Moorpark Avenue and Spring Road is exempt from this standard. For roadways and interchanges already operating at a lower level of performance than level of service "D", the standard shall be to maintain or improve the current level of service.

4.0 EXISTING CONDITIONS

A level of service analysis was conducted to evaluate existing intersection operations during the a.m. and p.m. peak hours at study intersections. As mentioned, traffic counts used in this analysis were collected in Spring 2019 (before the COVID-19 pandemic). **Table 3** summarizes the existing LOS at the study intersections. LOS calculation sheets are provided in **Appendix B**.

Table 3: Existing Intersection Peak Hour LOS

Intersection		Control Type	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
1	Grimes Cyn Rd/Los Angeles Ave (SOI)	Signalized	8.1	A	6.8	A
2	Grimes Cyn Rd/Championship Dr	Signalized	4.5	A	4.3	A
3	Gabbert Rd/Poindexter Ave	Stop-controlled	12.8	B	11.4	B
4	Tierra Rejada Rd-Gabbert Rd/Los Angeles Ave	Signalized	39.6	D	28.5	C
5	Mountain Trail St/Tierra Rejada Rd	Signalized	16.0	B	12.8	B
6	Mountain Meadow Dr/Tierra Rejada Rd	Signalized	13.3	B	9.8	A
7	Walnut Creek Rd/Tierra Rejada Rd	Signalized	15.7	B	10.8	B
8	Walnut Cyn Rd/Championship Dr	Stop-controlled	18.7	C	11.6	B
9	Walnut Cyn Rd/Spring Rd	Signalized	25.0	C	**79.3**	**E**
10	Walnut Cyn Rd/Meridian Hills Dr	Stop-controlled	11.3	B	10.0	B
11	Moorpark Ave/High St	Signalized	36.5	D	**75.5**	**E***
12	Moorpark Ave/Poindexter Ave-1st St	Signalized	22.8	C	18.6	B
13	Moorpark Ave/Los Angeles Ave	Signalized	45.2	D	**66.4**	**E**
14	Peach Hill Rd/Tierra Rejada Rd	Signalized	9.6	A	9.1	A
15	Spring Rd/High St-Princeton Ave	Signalized	35.3	D	32.3	C
16	Spring Rd/Los Angeles Ave	Signalized	46.3	D	51.2	D
17	Spring Rd/Peach Hill Rd	Signalized	14.3	B	11.9	B
18	Spring Rd/Tierra Rejada Rd	Signalized	19.0	B	15.9	B
19	Science Dr-Miller Pkwy/Los Angeles Ave	Signalized	32.3	C	40.4	D
20	Miller Pkwy-Moorpark Rd/Tierra Rejada Rd	Signalized	29.9	C	29.5	C
21	Moorpark Rd/Santa Rosa Rd (SOI)	Signalized	**91.0**	**F**	**147.3**	**F**
22	Collins Dr/SR-118 WB Ramps	Signalized	11.3	B	6.9	A

23	Collins Dr/SR-118 EB Ramps	Signalized	17.8	B	18.1	B
24	SR-23 SB Ramps/Los Angeles Ave	Signalized	3.5	A	4.4	A
25	SR-23 NB Ramps/Los Angeles Ave	Signalized	1.7	A	3.4	A
26	SR-23 SB Ramps/Tierra Rejada Rd	Signalized	8.0	A	18.4	B
27	SR-23 NB Ramps/Tierra Rejada Rd	Signalized	8.7	A	30.3	C

Notes: s = seconds, LOS = Level of Service.
* LOS E is considered acceptable at this location

As shown in **Table 3**, the majority of the study intersections are currently operating at LOS D or better, with a few locations operating at LOS E during the p.m. peak hour.

5.0 FUTURE YEAR 2050 WITH GENERAL PLAN UPDATE

This section presents the analysis of traffic operations with the proposed General Plan Update in future year 2050 conditions.

Future year traffic volumes were developed using the Ventura County Transportation Model (VCTM), a computerized travel demand model maintained by the Ventura County Transportation Commission. This land-use based model, which is a subarea model of the Southern California Association of Government's (SCAG) travel demand model, is consistent with the 2016 SCAG RTP/SCS travel-demand model assumptions and inputs. The model consists of a 2016 base year scenario and 2040 future year scenario. The VCTM consists of a detailed traffic analysis zone (TAZ) structure in the City of Moorpark, including 19 TAZ's within the City.

The GPU buildout land use plan developed by the project team, as approved by the City, was included within the appropriate Transportation Analysis Zones (TAZ's) in the model. In addition to buildout land use, the GPU includes circulation network modifications. These modifications include the following:

The following roadway network and bicycle network modifications are included as part of the General Plan Update:

- Roadway Network
  - New North Hills Parkway facility
  - Extension of Meridian Hills Drive
  - Extension of Casey Road
  - Extension of High Street
  - Extension of Gabbert Road
- Bicycle Network
  - Class I bike path along the Arroyo Simi
  - Class II bike lanes along High Street
  - Class II bike lanes along Gabbert Road
  - Class II bike lanes along Princeton Avenue
  - Class II bike lanes along Arroyo Drive

- Class III shared bike lanes along Meridian Hills Drive
- Class III shared bike lanes along Casey Road

Figure 4 shows the buildout roadway network with functional classifications. These new functional classifications are included in the General Plan Update's Circulation Element, representing modifications from those described in the currently adopted General Plan.

Iteris utilized the VCTM to generate link-level peak hour volumes (for existing and future scenarios), which were then "post-processed" to derive future year turning movement volumes, using existing turning movements as a pivot point. Peak hour intersection volumes are provided in **Appendix C**.

For the purposes of the analysis, the VCTM 2040 scenario is used to represent the General Plan buildout year of 2050. This is a conservative approach, as a review of SCAG 2016 RTP/SCS and 2020 RTP/SCS shows a reduction in population and employment forecasts in Ventura County in SCAG's buildout year 2045 versus 2040. In addition, for this analysis, the base year 2016 model scenario inputs were interpolated, outside of the City of Moorpark, to represent existing year 2022, for consistency within the EIR.

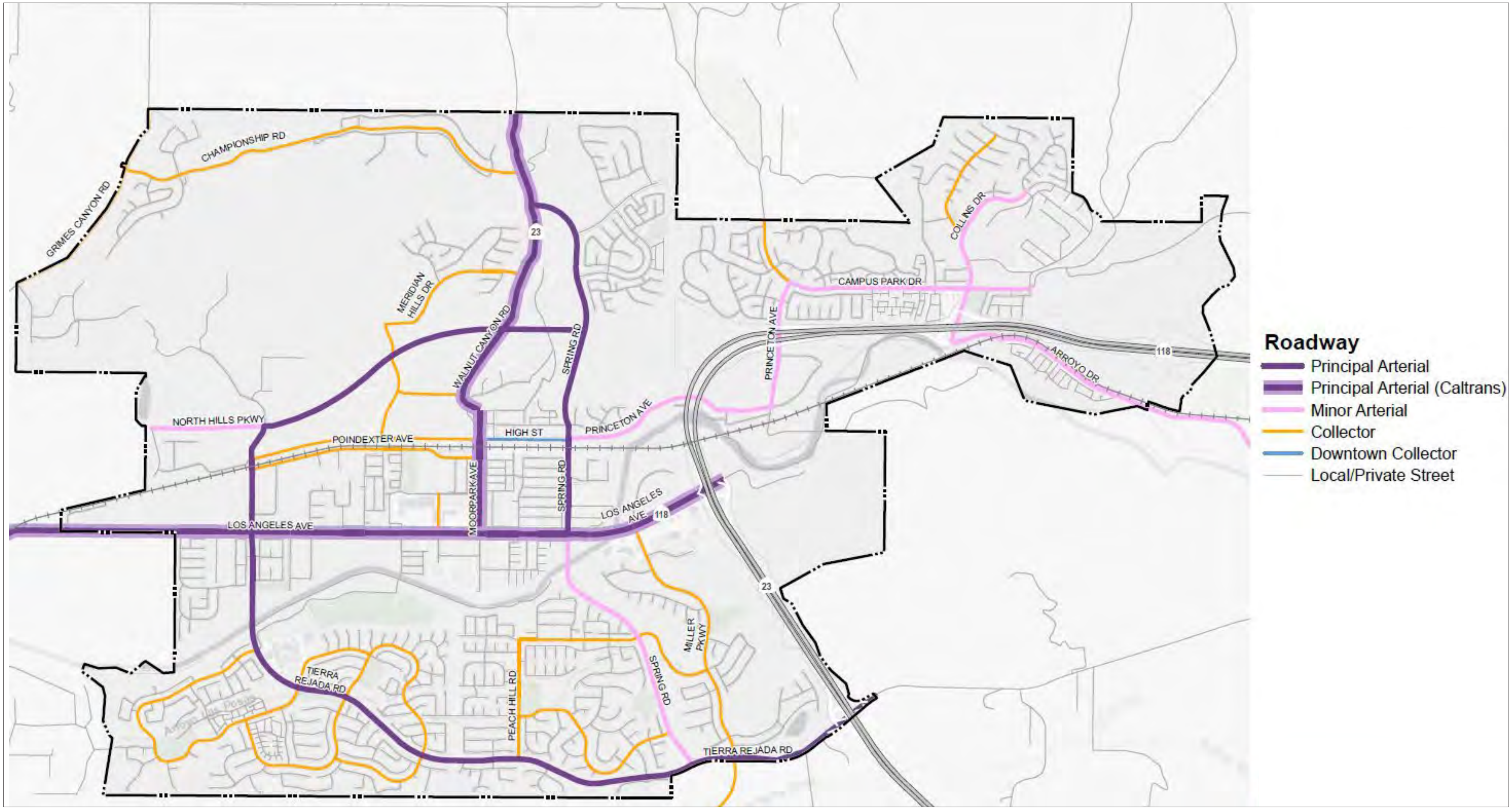


Figure 4
Buildout Roadway Network

5.1 Intersection LOS

Table 4 summarizes the future year 2050 with project LOS at the study intersections. LOS calculation sheets are included in **Appendix B**.

Table 4: Future Year 2050 With GPU Project Intersection Peak Hour LOS

	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
1	Grimes Cyn Rd/Los Angeles Ave (SOI)	Signalized	15.2	B	17.3	B
2	Grimes Cyn Rd/Championship Dr	Signalized	5.7	A	6.1	A
3	Gabbert Rd/Poindexter Ave	Stop-controlled	14.2	B	11.0	B
4	Tierra Rejada Rd-Gabbert Rd/Los Angeles Ave	Signalized	**57.7**	**E**	29.7	C
5	Mountain Trail St/Tierra Rejada Rd	Signalized	19.0	B	13.1	B
6	Mountain Meadow Dr/Tierra Rejada Rd	Signalized	14.7	B	9.8	A
7	Walnut Creek Rd/Tierra Rejada Rd	Signalized	25.6	C	11.8	B
8	Walnut Cyn Rd/Championship Dr	Stop-controlled	21.0	C	13.8	B
9	Walnut Cyn Rd/Spring Rd	Signalized	29.9	C	**117.5**	**F**
10	Walnut Cyn Rd/Meridian Hills Dr	Stop-controlled	33.7	D	14.1	B
11	Moorpark Ave/High St	Signalized	21.8	C	**57.0**	**E***
12	Moorpark Ave/Poindexter Ave-1st St	Signalized	45.3	D	19.1	B
13	Moorpark Ave/Los Angeles Ave	Signalized	54.8	D	**91.9**	**F**
14	Peach Hill Rd/Tierra Rejada Rd	Signalized	10.3	B	12.0	B
15	Spring Rd/High St-Princeton Ave	Signalized	**59.3**	**E***	34.0	C
16	Spring Rd/Los Angeles Ave	Signalized	**89.2**	**F**	**94.5**	**F**
17	Spring Rd/Peach Hill Rd	Signalized	23.7	C	20.9	C
18	Spring Rd/Tierra Rejada Rd	Signalized	23.4	C	37.7	D
19	Science Dr-Miller Pkwy/Los Angeles Ave	Signalized	40.7	D	52.6	D
20	Miller Pkwy-Moorpark Rd/Tierra Rejada Rd	Signalized	53.2	D	41.1	D
21	Moorpark Rd/Santa Rosa Rd (SOI)	Signalized	**122.3**	**F**	**171.1**	**F**
22	Collins Dr/SR-118 WB Ramps	Signalized	11.5	B	6.9	A
23	Collins Dr/SR-118 EB Ramps	Signalized	18.3	B	18.9	B
24	SR-23 SB Ramps/Los Angeles Ave	Signalized	3.9	A	5.7	A
25	SR-23 NB Ramps/Los Angeles Ave	Signalized	2.0	A	4.1	A
26	SR-23 SB Ramps/Tierra Rejada Rd	Signalized	8.5	A	45.2	D
27	SR-23 NB Ramps/Tierra Rejada Rd	Signalized	13.3	B	39.4	D

Notes:
s = seconds, LOS = Level of Service.
* LOS E is considered acceptable at this location

As shown in **Table 4**, as a result of land use buildout, a few intersections are forecast to operate at LOS E or F in a particular peak hour, primarily along Los Angeles Avenue. The purpose of this analysis is to identify locations where additional traffic volumes could potentially result in deficient operations. However, these deficiencies are not tied to or caused by any one particular development, rather the buildout of the General Plan. As new developments throughout the City build out over the life of the General Plan, those individual developments will be required to perform detailed traffic analyses of transportation facilities within their immediate area (per City guidelines and/or General Plan Goals/Policies). Those detailed analyses will be used by City staff to potentially address strategies to improve traffic operations where needed.

In addition, as part of the General Plan Update, Circulation Element Policy 2.11 (Road Widening) states that no public widening of local roadways beyond their current width shall be considered without environmental review, public consultation, and City Council approval. Thus, any potential traffic operations improvements, at locations shown to be operating deficiently, will need to consider this policy.

6.0 CONCLUSIONS

The proposed General Plan Update project consists of land use and circulation network modifications with the goal of balancing the City's growth pattern while maintaining the suburban rural community character of the City. This report provides key traffic information regarding existing and future traffic operations at several intersections throughout the City, as a result of the proposed project. The results of the analysis are described as follows:

- The majority of the study intersections are currently operating at LOS D or better, which is considered to be acceptable operations, with a few locations operating at LOS E during the p.m. peak hour. The results are based on peak hour traffic counts collected in 2019 (prior to the Covid-19 pandemic).
- In conjunction with the City and the GPC, the GPU's anticipated change in dwelling units and non-residential square footage over the 2050 estimated buildout, used in this analysis, is:
    - Addition of 5,488 residential units and 17,336 residents; and
    - Addition of 4,783,912 square feet of non-residential uses and 7,334 jobs
- As a result of land use buildout, a few additional intersections are forecast to operate at LOS E or F in a particular peak hour, primarily along Los Angeles Avenue. The findings of this report will be used to inform future Capital Improvement Projects, such as roadway and intersection improvements and traffic signalization coordination, to address locations shown to be operating deficiently.

City of Moorpark
2050 General Plan Update
Traffic Impact Analysis
Technical Appendix

Submitted to:

CITY OF MOORPARK

J# 10904 | Prepared by **Iteris, Inc.**

Innovating Through Informatics™

APPENDIX A – EXISTING TRAFFIC COUNT DATA

National Data & Surveying Services

Intersection Turning Movement Count

Location: Grimes Canyon Rd & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-010
Date: 4/17/2019

Total

NS/EW Streets:	Grimes Canyon Rd				Grimes Canyon Rd				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	7	0	32	0	16	158	0	0	0	188	13	0	414
7:15 AM	0	0	0	0	9	0	25	0	22	209	0	0	0	228	2	0	495
7:30 AM	0	0	0	0	14	0	42	0	24	203	0	0	0	205	0	0	488
7:45 AM	0	0	0	0	19	0	34	0	11	245	0	0	0	184	10	0	503
8:00 AM	0	0	0	0	11	0	28	0	14	220	0	0	0	197	5	0	475
8:15 AM	0	0	0	0	15	0	28	0	15	219	0	0	0	170	8	0	455
8:30 AM	0	0	0	0	15	0	24	0	11	196	0	0	0	183	6	0	435
8:45 AM	0	0	0	0	11	0	17	0	14	161	0	0	0	177	8	0	388
9:00 AM	0	0	0	0	4	0	16	0	13	144	0	0	0	170	12	0	359
9:15 AM	0	0	0	0	7	0	15	0	15	110	0	0	0	172	6	0	325
9:30 AM	0	0	0	0	7	0	17	0	5	78	0	0	0	153	7	0	267
9:45 AM	0	0	0	0	8	0	12	0	14	103	0	0	0	90	4	0	231
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	127	0	290	0	174	2046	0	0	0	2117	81	0	4835
APPROACH %'s :					30.46%	0.00%	69.54%	0.00%	7.84%	92.16%	0.00%	0.00%	0.00%	96.31%	3.69%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	53	0	129	0	71	877	0	0	0	814	17	0	1961
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.697	0.000	0.768	0.000	0.740	0.895	0.000	0.000	0.000	0.893	0.425	0.000	0.975
					0.813				0.926				0.903				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	10	0	25	0	22	220	0	0	0	230	15	0	522
4:45 PM	0	0	0	0	9	0	34	0	27	193	0	0	0	234	14	0	511
5:00 PM	0	0	0	0	8	0	22	0	42	164	0	0	0	210	3	0	449
5:15 PM	0	0	0	0	8	0	22	0	43	245	0	0	0	210	4	0	532
5:30 PM	0	0	0	0	6	0	26	0	25	217	0	0	0	171	6	0	451
5:45 PM	0	0	0	0	6	0	11	0	22	169	0	0	0	181	11	0	400
6:00 PM	0	0	0	0	8	0	12	0	14	243	0	0	0	173	7	0	457
6:15 PM	0	0	0	0	9	0	17	0	24	237	0	0	0	165	6	0	458
6:30 PM	0	0	0	0	4	0	4	0	15	131	0	0	0	137	9	0	300
6:45 PM	0	0	0	0	6	0	10	0	15	115	0	0	0	118	11	0	275
7:00 PM	0	0	0	0	3	0	7	0	12	89	0	0	0	115	3	0	229
7:15 PM	0	0	0	0	5	0	7	0	15	79	0	0	0	74	3	0	183
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	82	0	197	0	276	2102	0	0	0	2018	92	0	4767
APPROACH %'s :					29.39%	0.00%	70.61%	0.00%	11.61%	88.39%	0.00%	0.00%	0.00%	95.64%	4.36%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	35	0	103	0	134	822	0	0	0	884	36	0	2014
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.875	0.000	0.757	0.000	0.779	0.839	0.000	0.000	0.000	0.944	0.600	0.000	0.946
					0.802				0.830				0.927				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Grimes Canyon Rd & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-010
Date: 4/18/2019

Total

NS/EW Streets:	Grimes Canyon Rd				Grimes Canyon Rd				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	10	0	28	0	11	150	0	0	0	170	10	0	379
7:15 AM	0	0	0	0	14	0	33	0	30	215	0	0	0	174	2	0	468
7:30 AM	0	0	0	0	16	0	31	0	19	265	0	0	0	186	4	0	521
7:45 AM	0	0	0	0	26	0	29	0	24	226	0	0	0	198	7	0	510
8:00 AM	0	0	0	0	11	0	21	0	19	186	0	0	0	179	9	0	425
8:15 AM	0	0	0	0	14	0	28	0	16	196	0	0	0	199	7	0	460
8:30 AM	0	0	0	0	10	0	21	0	14	182	0	0	0	164	6	0	397
8:45 AM	0	0	0	0	7	0	23	0	14	163	0	0	0	148	5	0	360
9:00 AM	0	0	0	0	6	0	19	0	12	157	0	0	0	125	12	0	331
9:15 AM	0	0	0	0	2	0	13	0	20	130	0	0	0	119	9	0	293
9:30 AM	0	0	0	0	6	0	17	0	12	133	0	0	0	138	3	0	309
9:45 AM	0	0	0	0	7	0	15	0	12	143	0	0	0	127	11	0	315
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	129	0	278	0	203	2146	0	0	0	1927	85	0	4768
APPROACH %'s :					31.70%	0.00%	68.30%	0.00%	8.64%	91.36%	0.00%	0.00%	0.00%	95.78%	4.22%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	67	0	114	0	92	892	0	0	0	737	22	0	1924
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.644	0.000	0.864	0.000	0.767	0.842	0.000	0.000	0.000	0.931	0.611	0.000	0.923
					0.823				0.866				0.926				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	9	0	35	0	30	225	0	0	0	230	7	0	536
4:45 PM	0	0	0	0	6	0	23	0	35	225	0	0	0	224	9	0	522
5:00 PM	0	0	0	0	4	0	23	0	28	208	0	0	0	214	1	0	478
5:15 PM	0	0	0	0	9	0	16	0	46	244	0	0	0	227	11	0	553
5:30 PM	0	0	0	0	4	0	19	0	29	267	0	0	0	247	8	0	574
5:45 PM	0	0	0	0	8	0	13	0	22	236	0	0	0	180	7	0	466
6:00 PM	0	0	0	0	9	0	11	0	11	167	0	0	0	179	6	0	383
6:15 PM	0	0	0	0	6	0	11	0	27	157	0	0	0	179	6	0	386
6:30 PM	0	0	0	0	1	0	10	0	19	154	0	0	0	136	6	0	326
6:45 PM	0	0	0	0	2	0	5	0	8	112	0	0	0	124	5	0	256
7:00 PM	0	0	0	0	7	0	12	0	13	114	0	0	0	115	4	0	265
7:15 PM	0	0	0	0	3	0	3	0	12	103	0	0	0	109	6	0	236
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	68	0	181	0	280	2212	0	0	0	2164	76	0	4981
APPROACH %'s :					27.31%	0.00%	72.69%	0.00%	11.24%	88.76%	0.00%	0.00%	0.00%	96.61%	3.39%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	23	0	81	0	138	944	0	0	0	912	29	0	2127
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.639	0.000	0.880	0.000	0.750	0.884	0.000	0.000	0.000	0.923	0.659	0.000	0.926
					0.897				0.914				0.923				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Grimes Canyon Rd & Championship Dr
City: Moorpark
Control: 1-Way Stop (WB)

Project ID: 19-05109-029
Date: 4/3/2019

Total

NS/EW Streets:	Grimes Canyon Rd				Grimes Canyon Rd				Championship Dr				Championship Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	1	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	24	9	0	1	26	0	0	0	0	0	0	6	0	0	2	68
7:15 AM	0	14	10	0	7	24	0	0	0	0	0	0	6	0	1	0	62
7:30 AM	0	17	3	0	5	37	0	0	0	0	0	0	10	0	1	1	74
7:45 AM	0	13	10	0	3	29	0	0	0	0	0	0	11	0	1	0	67
8:00 AM	0	10	4	0	0	35	0	0	0	0	0	0	5	0	0	1	55
8:15 AM	0	16	9	0	1	24	0	0	0	0	0	0	11	0	0	1	62
8:30 AM	0	17	4	0	0	29	0	0	0	0	0	0	11	0	3	0	64
8:45 AM	0	10	4	0	2	9	0	0	0	0	0	0	12	0	0	1	38
9:00 AM	0	10	10	0	3	13	0	0	0	0	0	0	4	0	1	1	42
9:15 AM	0	6	3	0	0	12	0	0	0	0	0	0	8	0	1	0	30
9:30 AM	0	14	2	0	0	11	0	0	0	0	0	0	6	0	0	0	33
9:45 AM	0	9	0	0	3	15	0	0	0	0	0	0	5	0	0	0	32
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	160	68	0	25	264	0	0	0	0	0	0	95	0	8	7	627
APPROACH %'s :	0.00%	70.18%	29.82%	0.00%	8.65%	91.35%	0.00%	0.00%					86.36%	0.00%	7.27%	6.36%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	68	32	0	16	116	0	0	0	0	0	0	33	0	3	3	271
PEAK HR FACTOR :	0.000	0.708	0.800	0.000	0.571	0.784	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.375	0.916
	0.758				0.786								0.813				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	1	0	1	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	31	7	0	2	30	0	0	0	0	0	0	8	0	1	0	79
4:45 PM	0	31	6	0	1	14	0	0	0	0	0	0	5	0	2	0	59
5:00 PM	0	35	6	0	0	12	0	0	0	0	0	0	5	0	0	0	58
5:15 PM	0	34	11	0	0	15	0	0	0	0	0	0	8	0	1	0	69
5:30 PM	0	27	10	0	2	14	0	0	0	0	0	0	14	0	1	0	68
5:45 PM	0	22	11	0	3	15	0	0	0	0	0	0	7	0	3	0	61
6:00 PM	0	24	5	0	2	10	0	0	0	0	0	0	6	0	1	0	48
6:15 PM	0	18	5	0	1	11	0	0	0	0	0	0	3	0	1	0	39
6:30 PM	0	17	4	0	0	13	0	0	0	0	0	0	2	0	0	0	36
6:45 PM	0	3	3	0	0	16	0	0	0	0	0	0	5	0	1	0	28
7:00 PM	0	10	6	0	0	4	0	0	0	0	0	0	1	0	0	0	21
7:15 PM	0	5	7	0	0	6	0	0	0	0	0	0	4	0	0	0	22
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	257	81	0	11	160	0	0	0	0	0	0	68	0	11	0	588
APPROACH %'s :	0.00%	76.04%	23.96%	0.00%	6.43%	93.57%	0.00%	0.00%					86.08%	0.00%	13.92%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	131	30	0	3	71	0	0	0	0	0	0	26	0	4	0	265
PEAK HR FACTOR :	0.000	0.936	0.682	0.000	0.375	0.592	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.000	0.500	0.000	0.839
	0.894				0.578								0.833				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Grimes Canyon Rd & Championship Dr
City: Moorpark
Control: 1-Way Stop (WB)

Project ID: 19-05109-029
Date: 4/4/2019

Total

NS/EW Streets:	Grimes Canyon Rd				Grimes Canyon Rd				Championship Dr				Championship Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	1	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	18	5	0	0	28	0	0	0	0	0	0	10	0	0	0	61
7:15 AM	0	17	10	0	5	27	0	0	0	0	0	0	10	0	2	0	71
7:30 AM	0	10	5	0	4	34	0	0	0	0	0	0	7	0	0	0	60
7:45 AM	0	14	7	0	6	33	0	0	0	0	0	0	16	0	1	0	77
8:00 AM	0	13	7	0	0	25	0	0	0	0	0	0	5	0	1	0	51
8:15 AM	0	9	6	0	3	31	0	0	0	0	0	0	11	0	1	0	61
8:30 AM	0	10	9	0	0	15	0	0	0	0	0	0	9	0	2	0	45
8:45 AM	0	11	7	0	0	14	0	0	0	0	0	0	6	0	1	0	39
9:00 AM	0	9	5	0	1	10	0	0	0	0	0	0	7	0	2	0	34
9:15 AM	0	2	1	0	3	10	0	0	0	0	0	0	8	0	4	0	28
9:30 AM	0	14	1	0	1	12	0	0	0	0	0	0	9	0	1	0	38
9:45 AM	0	12	6	0	2	11	0	0	0	0	0	0	5	0	0	0	36
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	139	69	0	25	250	0	0	0	0	0	0	103	0	15	0	601
APPROACH %'s :	0.00%	66.83%	33.17%	0.00%	9.09%	90.91%	0.00%	0.00%					87.29%	0.00%	12.71%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	59	27	0	15	122	0	0	0	0	0	0	43	0	3	0	269
PEAK HR FACTOR :	0.000	0.819	0.675	0.000	0.625	0.897	0.000	0.000	0.000	0.000	0.000	0.000	0.672	0.000	0.375	0.000	0.873
	0.796				0.878								0.676				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	1	0	1	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	33	14	0	2	21	0	0	0	0	0	0	9	0	1	0	80
4:45 PM	0	28	4	0	0	11	0	0	0	0	0	0	7	0	1	0	51
5:00 PM	0	28	9	0	3	22	0	0	0	0	0	0	9	0	0	0	71
5:15 PM	0	34	4	0	2	9	0	0	0	0	0	0	5	0	2	0	56
5:30 PM	0	30	10	0	0	15	0	0	0	0	0	0	10	0	2	0	67
5:45 PM	0	26	6	0	0	10	0	0	0	0	0	0	5	0	0	0	47
6:00 PM	0	24	12	0	0	11	0	0	0	0	0	0	2	0	0	0	49
6:15 PM	0	17	6	0	0	7	0	0	0	0	0	0	9	0	0	0	39
6:30 PM	0	13	1	0	1	7	0	0	0	0	0	0	4	0	0	0	26
6:45 PM	0	12	6	0	4	6	0	0	0	0	0	0	2	0	0	0	30
7:00 PM	0	11	1	0	0	7	0	0	0	0	0	0	1	0	0	0	20
7:15 PM	0	9	1	0	0	9	0	0	0	0	0	0	4	0	0	0	23
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	265	74	0	12	135	0	0	0	0	0	0	67	0	6	0	559
APPROACH %'s :	0.00%	78.17%	21.83%	0.00%	8.16%	91.84%	0.00%	0.00%					91.78%	0.00%	8.22%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	123	31	0	7	63	0	0	0	0	0	0	30	0	4	0	258
PEAK HR FACTOR :	0.000	0.904	0.554	0.000	0.583	0.716	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.000	0.500	0.000	0.806
	0.819				0.700								0.850				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Gabbert Rd & Poindexter Ave
City: Moorpark
Control: 3-Way Stop (NB/SB/WB)

Project ID: 19-05109-007
Date: 4/3/2019

Total

NS/EW Streets:	Gabbert Rd				Gabbert Rd				Poindexter Ave				Poindexter Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	30	0	4	1	0	0	0	0	0	0	41	0	0	0	77
7:15 AM	0	3	38	0	2	5	0	0	0	0	0	0	28	0	0	0	76
7:30 AM	0	8	45	0	1	2	0	0	0	0	0	0	42	0	0	0	98
7:45 AM	0	4	59	0	6	5	0	0	0	0	0	0	46	0	1	1	122
8:00 AM	0	1	49	2	6	2	0	0	0	0	0	0	47	0	2	0	109
8:15 AM	0	5	57	0	6	6	0	0	0	0	0	0	65	0	2	0	141
8:30 AM	0	2	67	0	3	4	0	0	0	0	0	0	78	0	1	0	155
8:45 AM	0	4	48	0	3	1	0	0	0	0	0	0	76	0	4	0	136
9:00 AM	0	4	41	0	1	2	0	0	0	0	0	0	20	0	1	0	69
9:15 AM	0	4	20	0	2	2	0	0	0	0	0	0	20	0	2	0	50
9:30 AM	0	2	19	0	2	4	0	0	0	0	0	0	24	0	4	0	55
9:45 AM	0	3	15	0	2	7	0	0	0	0	0	0	15	0	0	0	42
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	41	488	2	38	41	0	0	0	0	0	0	502	0	17	1	1130
APPROACH %'s :	0.00%	7.72%	91.90%	0.38%	48.10%	51.90%	0.00%	0.00%					96.54%	0.00%	3.27%	0.19%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	12	221	2	18	13	0	0	0	0	0	0	266	0	9	0	541
PEAK HR FACTOR :	0.000	0.600	0.825	0.250	0.750	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.853	0.000	0.563	0.000	0.873
	0.851				0.646								0.859				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	1	0	0	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	3	47	0	3	3	0	0	0	0	0	0	75	0	1	0	132
4:45 PM	0	6	51	0	2	3	0	0	0	0	0	0	47	0	2	0	111
5:00 PM	0	3	47	0	4	2	0	0	0	0	0	0	84	0	1	0	141
5:15 PM	0	3	23	0	0	3	0	0	0	0	0	0	54	0	4	0	87
5:30 PM	0	6	51	0	0	6	0	0	0	0	0	0	49	0	3	0	115
5:45 PM	0	2	35	0	1	2	0	0	0	0	0	0	45	0	4	0	89
6:00 PM	0	2	28	0	1	1	0	0	0	0	0	0	34	0	0	0	66
6:15 PM	0	7	30	0	0	6	0	0	0	0	0	0	21	0	3	0	67
6:30 PM	0	5	29	0	6	5	0	0	0	0	0	0	37	0	1	0	83
6:45 PM	0	7	24	0	3	3	0	0	0	0	0	0	30	0	0	0	67
7:00 PM	0	5	22	0	3	2	0	0	0	0	0	0	32	0	1	0	65
7:15 PM	0	4	20	0	2	3	0	0	0	0	0	0	30	0	1	0	60
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	53	407	0	25	39	0	0	0	0	0	0	538	0	21	0	1083
APPROACH %'s :	0.00%	11.52%	88.48%	0.00%	39.06%	60.94%	0.00%	0.00%					96.24%	0.00%	3.76%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	15	168	0	9	11	0	0	0	0	0	0	260	0	8	0	471
PEAK HR FACTOR :	0.000	0.625	0.824	0.000	0.563	0.917	0.000	0.000	0.000	0.000	0.000	0.000	0.774	0.000	0.500	0.000	0.835
	0.803				0.833								0.788				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Gabbert Rd & Poindexter Ave
City: Moorpark
Control: 3-Way Stop (NB/SB/WB)

Project ID: 19-05109-007
Date: 4/4/2019

Total

NS/EW Streets:	Gabbert Rd				Gabbert Rd				Poindexter Ave				Poindexter Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	45	0	0	1	0	0	0	0	0	0	40	0	1	0	87
7:15 AM	0	3	28	0	5	3	0	0	0	0	0	0	44	0	2	0	85
7:30 AM	0	4	37	0	5	7	0	0	0	0	0	0	67	0	1	0	121
7:45 AM	0	7	85	0	6	5	0	0	0	0	0	0	89	0	1	0	193
8:00 AM	0	2	83	0	4	3	0	0	0	0	0	0	53	0	0	1	146
8:15 AM	0	1	51	0	3	3	0	0	0	0	0	0	49	0	2	0	109
8:30 AM	0	3	61	0	4	5	0	0	0	0	0	0	35	0	2	0	110
8:45 AM	0	4	41	0	1	3	0	0	0	0	0	0	34	0	2	0	85
9:00 AM	0	1	23	0	2	1	0	0	0	0	0	0	16	0	0	0	43
9:15 AM	0	4	21	1	4	2	0	0	0	0	0	0	20	0	1	1	54
9:30 AM	0	1	15	1	0	4	0	0	0	0	0	0	17	0	1	0	39
9:45 AM	0	2	13	0	1	2	0	0	0	0	0	0	15	0	0	0	33
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	32	503	2	35	39	0	0	0	0	0	0	479	0	13	2	1105
APPROACH %'s :	0.00%	5.96%	93.67%	0.37%	47.30%	52.70%	0.00%	0.00%					96.96%	0.00%	2.63%	0.40%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	14	256	0	18	18	0	0	0	0	0	0	258	0	4	1	569
PEAK HR FACTOR :	0.000	0.500	0.753	0.000	0.750	0.643	0.000	0.000	0.000	0.000	0.000	0.000	0.725	0.000	0.500	0.250	0.737
	0.734				0.750								0.731				

	Gabbert Rd				Gabbert Rd				Poindexter Ave				Poindexter Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	6	59	0	3	1	0	0	0	0	0	0	54	0	3	1	127
4:45 PM	0	7	55	0	3	2	0	0	0	0	0	0	52	0	1	0	120
5:00 PM	0	3	41	0	0	1	0	0	0	0	0	0	92	0	6	0	143
5:15 PM	0	1	41	0	2	3	0	0	0	0	0	0	55	0	7	0	109
5:30 PM	0	6	32	0	3	3	0	0	0	0	0	0	42	0	2	0	88
5:45 PM	0	4	32	0	3	5	0	0	0	0	0	0	46	0	2	0	92
6:00 PM	0	2	20	0	0	5	0	0	0	0	0	0	48	0	3	0	78
6:15 PM	0	3	26	0	1	1	0	0	0	0	0	0	32	0	3	0	66
6:30 PM	0	4	20	0	1	2	0	0	0	0	0	0	40	0	1	0	68
6:45 PM	0	3	26	0	1	3	0	0	0	0	0	0	26	0	2	0	61
7:00 PM	0	1	17	0	1	1	0	0	0	0	0	0	39	0	1	0	60
7:15 PM	0	3	21	0	1	3	0	0	0	0	0	0	26	0	2	0	56
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	43	390	0	19	30	0	0	0	0	0	0	552	0	33	1	1068
APPROACH %'s :	0.00%	9.93%	90.07%	0.00%	38.78%	61.22%	0.00%	0.00%					94.20%	0.00%	5.63%	0.17%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	17	196	0	8	7	0	0	0	0	0	0	253	0	17	1	499
PEAK HR FACTOR :	0.000	0.607	0.831	0.000	0.667	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.688	0.000	0.607	0.250	0.872
	0.819				0.750								0.691				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Tierra Rejada Rd & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-011
Date: 4/17/2019

Total

NS/EW Streets:	Tierra Rejada Rd				Tierra Rejada Rd				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	2	1	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	51	21	60	0	12	24	26	0	12	134	34	0	35	149	10	0	568
7:15 AM	43	19	33	0	14	13	23	0	21	183	36	0	32	150	14	0	581
7:30 AM	40	31	56	0	11	18	25	0	22	166	40	0	36	166	12	0	623
7:45 AM	52	47	89	0	13	38	15	0	27	152	58	0	62	136	12	0	701
8:00 AM	58	33	85	0	9	38	12	0	19	184	63	0	68	136	9	0	714
8:15 AM	38	49	108	0	10	57	17	0	18	168	53	0	73	126	11	0	728
8:30 AM	44	57	122	0	8	52	23	0	21	160	64	0	82	151	5	0	789
8:45 AM	38	41	130	0	8	70	10	0	13	119	47	0	113	125	17	0	731
9:00 AM	48	34	98	0	6	12	15	0	11	140	23	0	35	165	18	0	605
9:15 AM	39	15	49	1	8	8	13	0	12	100	30	0	34	134	13	0	456
9:30 AM	20	9	45	0	4	13	10	0	7	82	20	0	26	122	10	0	368
9:45 AM	27	11	44	0	8	12	11	0	11	75	38	0	41	83	6	0	367
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	498	367	919	1	111	355	200	0	194	1663	506	0	637	1643	137	0	7231
APPROACH %'s :	27.90%	20.56%	51.48%	0.06%	16.67%	53.30%	30.03%	0.00%	8.21%	70.38%	21.41%	0.00%	26.35%	67.98%	5.67%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	178	180	445	0	35	217	62	0	71	631	227	0	336	538	42	0	2962
PEAK HR FACTOR :	0.767	0.789	0.856	0.000	0.875	0.775	0.674	0.000	0.845	0.857	0.887	0.000	0.743	0.891	0.618	0.000	0.939
	0.900				0.892				0.873				0.898				

	Tierra Rejada Rd				Tierra Rejada Rd				Los Angeles Ave				Los Angeles Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	2	1	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	35	33	72	0	36	50	45	0	26	180	76	0	72	190	14	0	829
4:45 PM	30	21	85	0	14	47	24	0	10	178	51	0	74	150	11	0	695
5:00 PM	32	27	74	0	6	48	38	0	12	145	51	0	72	198	9	0	712
5:15 PM	39	16	50	0	9	35	21	0	18	183	69	0	71	143	4	0	658
5:30 PM	34	15	55	0	5	27	16	0	25	151	50	0	69	153	10	0	610
5:45 PM	25	19	64	0	3	40	26	0	13	141	58	0	69	152	4	0	614
6:00 PM	27	17	69	0	6	18	17	0	30	191	45	0	62	163	8	0	653
6:15 PM	25	11	65	0	3	19	11	0	13	171	61	0	67	127	5	0	578
6:30 PM	33	17	56	0	5	17	17	0	10	101	41	0	58	123	2	0	480
6:45 PM	18	15	49	0	6	15	15	0	9	107	30	0	62	100	1	0	427
7:00 PM	24	15	81	0	4	22	9	0	4	85	20	0	56	106	1	0	427
7:15 PM	10	10	51	0	5	10	14	0	5	78	17	0	55	110	3	0	368
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	332	216	771	0	102	348	253	0	175	1711	569	0	787	1715	72	0	7051
APPROACH %'s :	25.17%	16.38%	58.45%	0.00%	14.51%	49.50%	35.99%	0.00%	7.13%	69.69%	23.18%	0.00%	30.57%	66.63%	2.80%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	136	97	281	0	65	180	128	0	66	686	247	0	289	681	38	0	2894
PEAK HR FACTOR :	0.872	0.735	0.826	0.000	0.451	0.900	0.711	0.000	0.635	0.937	0.813	0.000	0.976	0.860	0.679	0.000	0.873
	0.918				0.712				0.886				0.903				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Tierra Rejada Rd & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-011
Date: 4/18/2019

Total

NS/EW Streets:	Tierra Rejada Rd				Tierra Rejada Rd				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	2	1	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	49	33	45	0	18	22	16	0	8	114	23	0	27	131	8	0	494
7:15 AM	29	12	39	0	17	21	19	0	21	193	40	0	39	125	19	0	574
7:30 AM	60	42	88	0	13	68	26	0	23	183	62	0	86	138	10	0	799
7:45 AM	65	70	188	0	12	82	18	0	36	193	65	0	124	149	19	0	1021
8:00 AM	59	58	150	0	14	38	14	0	20	153	56	0	92	143	9	0	806
8:15 AM	46	38	135	0	6	37	33	0	22	199	57	0	54	144	9	0	780
8:30 AM	38	51	101	0	2	22	14	0	21	132	35	0	49	145	13	0	623
8:45 AM	33	42	70	0	8	15	20	0	18	119	37	0	56	98	14	0	530
9:00 AM	28	31	78	0	3	19	8	0	13	142	29	0	32	112	19	0	514
9:15 AM	28	17	49	0	7	11	14	0	13	131	14	0	27	92	4	0	407
9:30 AM	30	19	54	0	8	10	14	0	5	121	18	0	35	110	10	0	434
9:45 AM	21	17	47	0	7	10	9	0	10	138	25	0	41	107	9	0	441
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	486	430	1044	0	115	355	205	0	210	1818	461	0	662	1494	143	0	7423
APPROACH %'s :	24.80%	21.94%	53.27%	0.00%	17.04%	52.59%	30.37%	0.00%	8.44%	73.04%	18.52%	0.00%	28.80%	64.98%	6.22%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	230	208	561	0	45	225	91	0	101	728	240	0	356	574	47	0	3406
PEAK HR FACTOR :	0.885	0.743	0.746	0.000	0.804	0.686	0.689	0.000	0.701	0.915	0.923	0.000	0.718	0.963	0.618	0.000	0.834
	0.773				0.806				0.909				0.836				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	2	1	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	58	28	54	0	23	30	29	0	18	167	65	0	88	143	23	0	726
4:45 PM	21	18	94	0	13	35	24	0	30	208	61	0	78	182	7	0	771
5:00 PM	36	24	94	0	17	64	34	0	21	154	52	0	88	185	4	0	773
5:15 PM	39	26	94	0	9	37	38	0	13	168	61	0	77	187	10	0	759
5:30 PM	33	24	64	0	5	32	21	0	25	190	74	0	78	189	9	0	744
5:45 PM	34	21	67	0	6	36	29	0	14	158	62	0	80	154	8	0	669
6:00 PM	32	16	71	0	2	27	25	0	14	129	48	0	98	153	9	0	624
6:15 PM	31	16	63	0	7	18	14	0	6	135	34	0	70	144	2	0	540
6:30 PM	24	15	56	0	2	25	17	0	6	119	20	0	73	124	5	0	486
6:45 PM	22	21	45	0	1	14	13	0	6	110	22	0	52	106	6	0	418
7:00 PM	26	17	74	0	6	21	16	0	12	106	23	0	80	105	3	0	489
7:15 PM	22	15	74	0	3	18	9	0	10	69	24	0	77	99	4	0	424
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	378	241	850	0	94	357	269	0	175	1713	546	0	939	1771	90	0	7423
APPROACH %'s :	25.73%	16.41%	57.86%	0.00%	13.06%	49.58%	37.36%	0.00%	7.19%	70.38%	22.43%	0.00%	33.54%	63.25%	3.21%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	129	92	346	0	44	168	117	0	89	720	248	0	321	743	30	0	3047
PEAK HR FACTOR :	0.827	0.885	0.920	0.000	0.647	0.656	0.770	0.000	0.742	0.865	0.838	0.000	0.912	0.983	0.750	0.000	0.985
	0.892				0.715				0.884				0.987				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mountain Trail St & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-019
Date: 4/3/2019

Total

NS/EW Streets:	Mountain Trail St				Mountain Trail St				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	5	45	0	21	6	31	0	28	81	6	0	13	43	29	0	318
7:15 AM	15	6	48	0	4	3	8	0	7	76	6	0	17	47	8	1	246
7:30 AM	10	2	41	0	3	5	14	0	8	82	4	0	29	80	5	0	283
7:45 AM	23	8	53	0	9	8	24	0	11	130	6	0	37	99	19	0	427
8:00 AM	20	5	53	0	11	10	40	0	15	129	15	0	35	105	24	0	462
8:15 AM	27	7	54	0	13	8	40	0	11	111	11	0	47	127	22	0	478
8:30 AM	22	7	35	0	29	8	38	0	29	115	15	0	34	121	18	0	471
8:45 AM	16	5	32	0	49	11	45	0	31	131	10	1	22	153	25	0	531
9:00 AM	18	2	19	0	23	7	34	0	8	90	10	0	17	81	6	0	315
9:15 AM	14	1	24	0	3	3	7	0	10	53	2	0	22	62	2	0	203
9:30 AM	12	0	34	0	2	3	12	0	6	76	2	0	21	40	1	1	210
9:45 AM	9	3	24	0	3	3	9	0	7	76	10	0	21	52	2	0	219
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	196	51	462	0	170	75	302	0	171	1150	97	1	315	1010	161	2	4163
APPROACH %'s :	27.64%	7.19%	65.16%	0.00%	31.08%	13.71%	55.21%	0.00%	12.05%	81.04%	6.84%	0.07%	21.17%	67.88%	10.82%	0.13%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	85	24	174	0	102	37	163	0	86	486	51	1	138	506	89	0	1942
PEAK HR FACTOR :	0.787	0.857	0.806	0.000	0.520	0.841	0.906	0.000	0.694	0.927	0.850	0.250	0.734	0.827	0.890	0.000	0.914
	0.804				0.719				0.902				0.916				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	6	2	20	0	8	6	11	0	17	144	14	0	42	115	6	1	392
4:45 PM	17	3	16	0	11	6	20	0	23	101	14	0	41	129	11	0	392
5:00 PM	14	3	30	0	11	5	18	0	23	147	18	0	53	116	7	0	445
5:15 PM	13	2	26	0	9	5	14	0	14	111	20	0	54	89	6	0	363
5:30 PM	17	3	22	0	10	7	11	0	23	108	15	2	45	98	6	0	367
5:45 PM	13	3	21	0	29	16	18	0	21	89	15	0	65	106	12	0	408
6:00 PM	10	4	25	1	9	4	13	0	25	86	18	0	57	96	11	0	359
6:15 PM	11	5	20	0	10	8	13	0	19	85	19	1	55	86	10	0	342
6:30 PM	16	6	22	0	38	12	18	0	31	82	19	0	43	80	14	0	381
6:45 PM	14	2	25	0	33	8	37	0	21	88	13	0	39	58	15	0	353
7:00 PM	7	4	19	0	13	6	15	0	19	69	18	1	44	43	6	0	264
7:15 PM	10	2	13	0	3	4	6	0	9	72	14	0	36	68	2	0	239
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	148	39	259	1	184	87	194	0	245	1182	197	4	574	1084	106	1	4305
APPROACH %'s :	33.11%	8.72%	57.94%	0.22%	39.57%	18.71%	41.72%	0.00%	15.05%	72.60%	12.10%	0.25%	32.52%	61.42%	6.01%	0.06%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	50	10	92	0	39	22	63	0	77	503	66	0	190	449	30	1	1592
PEAK HR FACTOR :	0.735	0.833	0.767	0.000	0.886	0.917	0.788	0.000	0.837	0.855	0.825	0.000	0.880	0.870	0.682	0.250	0.894
	0.809				0.838				0.859				0.925				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mountain Trail St & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-019
Date: 4/4/2019

Total

NS/EW Streets:	Mountain Trail St				Mountain Trail St				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	14	6	36	0	12	4	35	0	29	61	8	0	7	65	45	1	323
7:15 AM	13	0	49	0	7	1	13	0	15	98	6	0	17	92	15	0	326
7:30 AM	15	0	43	0	26	5	17	0	16	96	10	0	26	111	25	0	390
7:45 AM	27	9	43	0	85	17	73	0	30	184	13	1	25	200	35	0	742
8:00 AM	21	5	57	0	20	10	46	0	16	180	7	0	33	93	7	0	495
8:15 AM	19	6	55	0	12	11	32	0	8	87	13	0	35	100	2	0	380
8:30 AM	27	0	47	0	0	5	15	0	3	88	9	0	13	80	1	0	288
8:45 AM	18	4	28	1	2	3	19	0	12	87	10	0	26	83	4	1	298
9:00 AM	9	0	29	0	2	1	14	0	10	85	11	1	19	55	2	1	239
9:15 AM	12	1	24	0	0	5	10	0	3	66	3	0	16	38	1	0	179
9:30 AM	17	0	25	1	2	3	7	0	8	62	8	0	21	51	1	0	206
9:45 AM	7	1	16	0	2	1	5	0	4	72	8	0	26	39	1	0	182
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	199	32	452	2	170	66	286	0	154	1166	106	2	264	1007	139	3	4048
APPROACH %'s :	29.05%	4.67%	65.99%	0.29%	32.57%	12.64%	54.79%	0.00%	10.78%	81.65%	7.42%	0.14%	18.68%	71.27%	9.84%	0.21%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	82	20	198	0	143	43	168	0	70	547	43	1	119	504	69	0	2007
PEAK HR FACTOR :	0.759	0.556	0.868	0.000	0.421	0.632	0.575	0.000	0.583	0.743	0.827	0.250	0.850	0.630	0.493	0.000	0.676
	0.904				0.506				0.725				0.665				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	12	3	22	0	9	6	11	0	18	172	18	1	68	121	5	0	466
4:45 PM	25	7	17	0	10	4	13	0	25	122	17	2	60	112	16	1	431
5:00 PM	7	2	22	0	6	7	17	0	32	132	15	1	50	111	15	0	417
5:15 PM	15	4	39	0	10	7	17	0	25	114	17	0	48	124	9	0	429
5:30 PM	19	9	19	0	11	1	15	0	37	109	18	2	69	91	18	0	418
5:45 PM	6	6	35	0	13	11	12	0	37	111	15	1	53	115	16	1	432
6:00 PM	9	5	26	0	3	7	10	0	25	99	17	0	65	92	9	0	367
6:15 PM	5	4	15	0	5	4	15	0	26	77	18	0	43	114	7	0	333
6:30 PM	9	3	16	0	11	5	11	0	12	99	11	0	47	95	8	1	328
6:45 PM	12	4	15	0	6	3	24	0	15	70	16	0	46	62	6	0	279
7:00 PM	11	3	11	0	14	4	18	0	17	71	17	0	27	71	6	0	270
7:15 PM	10	0	12	0	5	4	9	0	15	44	12	1	41	64	10	0	227
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	140	50	249	0	103	63	172	0	284	1220	191	8	617	1172	125	3	4397
APPROACH %'s :	31.89%	11.39%	56.72%	0.00%	30.47%	18.64%	50.89%	0.00%	16.68%	71.64%	11.22%	0.47%	32.19%	61.14%	6.52%	0.16%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	59	16	100	0	35	24	58	0	100	540	67	4	226	468	45	1	1743
PEAK HR FACTOR :	0.590	0.571	0.641	0.000	0.875	0.857	0.853	0.000	0.781	0.785	0.931	0.500	0.831	0.944	0.703	0.250	0.935
	0.754				0.860				0.850				0.954				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mountain Meadow Dr & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-020
Date: 4/3/2019

Total

NS/EW Streets:	Mountain Meadow Dr				Mountain Meadow Dr				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	0	19	0	19	0	2	0	0	142	3	0	3	76	6	0	275
7:15 AM	5	0	26	0	10	3	5	0	2	127	4	0	3	68	10	0	263
7:30 AM	10	7	23	0	21	3	1	0	11	114	1	0	4	101	25	0	321
7:45 AM	8	16	16	0	27	10	15	0	45	141	5	0	9	137	47	0	476
8:00 AM	6	14	17	0	37	5	13	0	45	140	4	0	6	147	46	0	480
8:15 AM	12	3	18	0	32	9	17	0	11	171	6	0	5	166	19	1	470
8:30 AM	11	2	15	0	27	3	3	0	7	166	6	1	3	152	28	0	424
8:45 AM	9	7	7	0	18	0	7	0	9	189	8	0	11	176	47	0	488
9:00 AM	4	0	16	0	17	1	2	0	3	122	3	0	6	99	8	0	281
9:15 AM	4	1	11	0	9	1	1	0	2	71	4	1	3	85	8	0	201
9:30 AM	2	0	16	0	9	0	4	0	4	101	7	1	9	54	9	0	216
9:45 AM	6	0	14	0	10	2	3	0	1	105	1	0	6	67	10	0	225
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	82	50	198	0	236	37	73	0	140	1589	52	3	68	1328	263	1	4120
APPROACH %'s :	24.85%	15.15%	60.00%	0.00%	68.21%	10.69%	21.10%	0.00%	7.85%	89.07%	2.91%	0.17%	4.10%	80.00%	15.84%	0.06%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	38	26	57	0	114	17	40	0	72	666	24	1	25	641	140	1	1862
PEAK HR FACTOR :	0.792	0.464	0.792	0.000	0.770	0.472	0.588	0.000	0.400	0.881	0.750	0.250	0.568	0.911	0.745	0.250	0.954
	0.818				0.737				0.926				0.862				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	9	1	9	0	10	1	0	0	4	160	9	0	13	150	22	0	388
4:45 PM	12	1	9	0	15	4	6	0	4	118	6	0	11	165	12	0	363
5:00 PM	7	1	11	0	21	0	6	0	5	169	12	0	25	158	20	0	435
5:15 PM	5	0	16	0	12	0	4	0	4	132	12	0	19	144	18	0	366
5:30 PM	4	0	19	0	13	0	1	0	4	119	9	0	23	147	17	0	356
5:45 PM	7	0	9	0	12	1	2	0	6	131	9	0	18	173	31	1	400
6:00 PM	8	3	9	0	11	0	1	0	0	101	10	0	20	153	22	0	338
6:15 PM	9	0	10	0	6	1	4	0	2	109	7	0	21	145	14	0	328
6:30 PM	6	0	14	0	5	1	3	0	1	134	10	0	18	129	14	0	335
6:45 PM	3	0	7	0	7	1	2	0	2	122	15	0	20	98	24	1	302
7:00 PM	5	0	10	0	8	0	4	0	3	92	5	0	15	91	10	0	243
7:15 PM	3	1	9	0	9	0	4	0	5	78	10	1	12	90	16	0	238
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	78	7	132	0	129	9	37	0	40	1465	114	1	215	1643	220	2	4092
APPROACH %'s :	35.94%	3.23%	60.83%	0.00%	73.71%	5.14%	21.14%	0.00%	2.47%	90.43%	7.04%	0.06%	10.34%	78.99%	10.58%	0.10%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	23	1	55	0	58	1	13	0	19	551	42	0	85	622	86	1	1557
PEAK HR FACTOR :	0.821	0.250	0.724	0.000	0.690	0.250	0.542	0.000	0.792	0.815	0.875	0.000	0.850	0.899	0.694	0.250	0.895
	0.859				0.667				0.823				0.890				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mountain Meadow Dr & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-020
Date: 4/4/2019

Total

NS/EW Streets:	Mountain Meadow Dr				Mountain Meadow Dr				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	1	22	0	23	0	4	0	0	109	1	0	4	117	5	0	289
7:15 AM	6	0	27	0	11	1	2	0	4	146	3	0	3	120	7	0	330
7:30 AM	4	5	21	0	18	1	3	0	14	159	2	0	3	166	50	0	446
7:45 AM	16	30	13	0	34	10	15	0	48	248	10	0	9	219	76	0	728
8:00 AM	6	13	8	0	32	3	8	0	49	202	6	0	7	110	33	0	477
8:15 AM	12	1	16	0	37	6	14	0	5	139	3	0	9	107	15	0	364
8:30 AM	13	2	16	0	28	3	4	0	3	124	4	0	10	76	6	0	289
8:45 AM	9	0	10	0	12	0	3	0	5	105	5	0	10	104	11	0	274
9:00 AM	6	0	11	0	22	0	4	0	8	113	2	0	1	55	4	0	226
9:15 AM	3	0	10	0	14	0	2	0	4	82	3	0	6	55	6	1	186
9:30 AM	7	1	11	0	17	3	5	0	2	79	6	0	4	62	10	0	207
9:45 AM	2	1	8	0	12	1	3	0	6	74	2	0	3	61	13	0	186
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	87	54	173	0	260	28	67	0	148	1580	47	0	69	1252	236	1	4002
APPROACH %'s :	27.71%	17.20%	55.10%	0.00%	73.24%	7.89%	18.87%	0.00%	8.34%	89.01%	2.65%	0.00%	4.43%	80.36%	15.15%	0.06%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	38	49	58	0	121	20	40	0	116	748	21	0	28	602	174	0	2015
PEAK HR FACTOR :	0.594	0.408	0.690	0.000	0.818	0.500	0.667	0.000	0.592	0.754	0.525	0.000	0.778	0.687	0.572	0.000	0.692
	0.614				0.767				0.723				0.661				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	8	1	10	0	14	0	3	0	3	196	9	0	24	181	17	1	467
4:45 PM	7	1	4	0	14	2	4	0	3	134	6	0	21	178	29	0	403
5:00 PM	8	3	13	0	17	2	4	1	4	148	9	0	25	170	19	0	423
5:15 PM	7	2	6	0	11	0	4	0	4	144	12	0	24	168	22	1	405
5:30 PM	8	7	8	0	8	0	9	0	11	131	4	0	16	156	25	0	383
5:45 PM	5	1	10	0	11	2	3	0	9	142	6	0	28	177	21	0	415
6:00 PM	3	2	10	0	12	2	0	0	3	121	5	1	17	161	30	0	367
6:15 PM	5	1	12	0	14	2	4	0	2	77	7	0	15	147	14	0	300
6:30 PM	5	1	11	0	22	5	8	0	1	116	12	0	17	139	17	1	355
6:45 PM	1	0	6	0	17	4	2	0	2	77	13	0	21	115	17	1	276
7:00 PM	4	3	8	0	11	6	7	0	1	89	7	1	9	84	14	0	244
7:15 PM	10	1	3	0	8	4	6	0	0	57	8	0	12	93	12	0	214
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	71	23	101	0	159	29	54	1	43	1432	98	2	229	1769	237	4	4252
APPROACH %'s :	36.41%	11.79%	51.79%	0.00%	65.43%	11.93%	22.22%	0.41%	2.73%	90.92%	6.22%	0.13%	10.23%	79.01%	10.59%	0.18%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	30	7	33	0	56	4	15	1	14	622	36	0	94	697	87	2	1698
PEAK HR FACTOR :	0.938	0.583	0.635	0.000	0.824	0.500	0.938	0.250	0.875	0.793	0.750	0.000	0.940	0.963	0.750	0.500	0.909
	0.729				0.792				0.808				0.965				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Walnut Creek Rd & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-021
Date: 4/3/2019

Total

NS/EW Streets:	Walnut Creek Rd				Walnut Creek Rd				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	1	38	0	49	0	8	0	2	173	1	0	3	72	4	0	354
7:15 AM	2	0	45	0	44	0	7	0	6	160	1	0	1	72	4	0	342
7:30 AM	1	0	47	0	45	0	8	0	3	146	1	0	4	126	13	0	394
7:45 AM	1	0	47	0	53	3	7	0	4	184	3	1	7	180	15	0	505
8:00 AM	3	0	57	0	58	3	4	0	4	175	0	0	10	181	14	0	509
8:15 AM	6	0	32	0	49	1	11	0	5	220	5	0	7	184	12	0	532
8:30 AM	0	2	44	0	28	1	11	0	5	204	0	0	5	175	9	0	484
8:45 AM	6	0	27	0	35	1	12	0	9	199	4	1	6	220	17	1	538
9:00 AM	2	1	36	0	23	0	10	0	4	153	6	0	5	96	7	0	343
9:15 AM	1	0	28	0	25	2	5	0	1	96	1	0	8	80	12	0	259
9:30 AM	3	0	18	0	23	0	2	0	2	120	1	1	7	65	6	0	248
9:45 AM	1	2	23	0	20	0	5	0	4	117	1	0	4	83	11	0	271
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	29	6	442	0	452	11	90	0	49	1947	24	3	67	1534	124	1	4779
APPROACH %'s :	6.08%	1.26%	92.66%	0.00%	81.74%	1.99%	16.27%	0.00%	2.42%	96.24%	1.19%	0.15%	3.88%	88.88%	7.18%	0.06%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	15	2	160	0	170	6	38	0	23	798	9	1	28	760	52	1	2063
PEAK HR FACTOR :	0.625	0.250	0.702	0.000	0.733	0.500	0.792	0.000	0.639	0.907	0.450	0.250	0.700	0.864	0.765	0.250	0.959
	0.738				0.823				0.903				0.862				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	2	0	21	0	18	0	7	0	10	169	2	0	30	163	38	0	460
4:45 PM	1	0	14	0	18	0	5	0	6	126	1	0	24	192	34	0	421
5:00 PM	0	0	18	0	27	0	4	0	10	187	2	0	30	199	32	0	509
5:15 PM	2	0	17	0	17	0	5	0	5	153	1	0	37	172	24	0	433
5:30 PM	0	1	21	0	17	0	9	0	9	146	4	0	15	181	40	1	444
5:45 PM	1	0	12	0	17	0	10	0	8	134	4	0	28	214	28	0	456
6:00 PM	2	0	12	0	13	0	6	0	4	129	0	0	30	187	45	0	428
6:15 PM	2	0	11	0	19	0	3	0	5	112	2	0	34	174	30	0	392
6:30 PM	1	0	10	0	23	0	4	0	7	138	0	0	33	150	50	0	416
6:45 PM	1	0	17	0	17	1	4	0	5	139	4	0	26	147	23	0	384
7:00 PM	0	1	11	0	21	0	3	0	9	95	3	0	22	109	29	0	303
7:15 PM	1	1	7	0	12	1	1	0	9	81	5	0	16	118	24	0	276
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	13	3	171	0	219	2	61	0	87	1609	28	0	325	2006	397	1	4922
APPROACH %'s :	6.95%	1.60%	91.44%	0.00%	77.66%	0.71%	21.63%	0.00%	5.05%	93.33%	1.62%	0.00%	11.91%	73.51%	14.55%	0.04%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	3	1	68	0	78	0	28	0	32	620	11	0	110	766	124	1	1842
PEAK HR FACTOR :	0.375	0.250	0.810	0.000	0.722	0.000	0.700	0.000	0.800	0.829	0.688	0.000	0.743	0.895	0.775	0.250	0.905
	0.818				0.855				0.833				0.927				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Walnut Creek Rd & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-021
Date: 4/4/2019

Total

NS/EW Streets:	Walnut Creek Rd				Walnut Creek Rd				Tierra Rejada Rd				Tierra Rejada Rd				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	1	0	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	0	47	0	35	1	7	0	2	144	2	0	5	116	6	0	368
7:15 AM	4	0	52	0	53	0	6	0	4	184	3	0	5	125	8	0	444
7:30 AM	2	1	44	0	57	0	5	0	1	169	0	0	4	202	8	0	493
7:45 AM	3	0	28	0	41	1	13	0	9	297	3	0	6	303	18	1	723
8:00 AM	2	0	53	0	61	5	7	0	1	242	1	0	5	133	23	0	533
8:15 AM	2	1	42	0	46	0	4	0	6	190	4	0	4	129	8	0	436
8:30 AM	2	0	36	0	34	3	12	0	4	169	2	0	5	79	14	0	360
8:45 AM	3	0	31	0	29	0	10	0	9	120	2	1	12	111	15	0	343
9:00 AM	1	1	25	0	31	2	3	0	8	126	5	0	7	60	13	0	282
9:15 AM	0	0	27	0	31	1	3	0	5	104	1	0	3	62	7	0	244
9:30 AM	0	1	33	0	28	1	2	0	8	102	0	0	9	75	20	0	279
9:45 AM	0	0	28	0	24	2	5	0	6	89	1	1	11	70	10	0	247
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	22	4	446	0	470	16	77	0	63	1936	24	2	76	1465	150	1	4752
APPROACH %'s :	4.66%	0.85%	94.49%	0.00%	83.48%	2.84%	13.68%	0.00%	3.11%	95.60%	1.19%	0.10%	4.49%	86.58%	8.87%	0.06%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	11	1	177	0	212	6	31	0	15	892	7	0	20	763	57	1	2193
PEAK HR FACTOR :	0.688	0.250	0.835	0.000	0.869	0.300	0.596	0.000	0.417	0.751	0.583	0.000	0.833	0.630	0.620	0.250	0.758
	0.844				0.853				0.739				0.641				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	1	0	0	1	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	1	15	0	23	0	6	0	10	198	6	0	21	206	27	0	513
4:45 PM	1	0	17	0	16	1	8	0	5	152	5	0	25	224	32	0	486
5:00 PM	2	0	20	0	26	2	4	0	9	170	0	0	22	209	38	0	502
5:15 PM	2	1	25	0	23	0	3	0	8	149	2	0	30	202	34	0	479
5:30 PM	1	0	15	0	30	1	10	0	4	134	6	1	27	194	46	0	469
5:45 PM	2	0	16	0	19	0	12	0	10	150	3	0	25	200	42	0	479
6:00 PM	2	1	22	0	18	0	4	0	12	138	0	0	37	215	43	0	492
6:15 PM	1	2	19	0	17	0	3	0	8	93	4	0	31	166	43	0	387
6:30 PM	0	0	13	0	21	0	7	0	9	137	3	0	30	167	33	1	421
6:45 PM	3	0	16	0	25	0	8	0	6	91	3	0	36	138	30	0	356
7:00 PM	0	0	13	0	14	1	4	0	3	95	3	0	25	108	23	0	289
7:15 PM	1	0	7	0	10	0	3	0	1	73	3	0	24	121	26	0	269
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	15	5	198	0	242	5	72	0	85	1580	38	1	333	2150	417	1	5142
APPROACH %'s :	6.88%	2.29%	90.83%	0.00%	75.86%	1.57%	22.57%	0.00%	4.99%	92.72%	2.23%	0.06%	11.48%	74.11%	14.37%	0.03%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	5	2	77	0	88	3	21	0	32	669	13	0	98	841	131	0	1980
PEAK HR FACTOR :	0.625	0.500	0.770	0.000	0.846	0.375	0.656	0.000	0.800	0.845	0.542	0.000	0.817	0.939	0.862	0.000	0.965
	0.750				0.875				0.834				0.952				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Walnut Canyon Rd & Championship Dr
City: Moorpark
Control: 1-Way Stop (EB)

Project ID: 19-05109-002
Date: 4/3/2019

Total

NS/EW Streets:	Walnut Canyon Rd				Walnut Canyon Rd				Championship Dr				Championship Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	38	57	0	0	0	153	0	0	0	0	27	0	0	0	0	0	275
7:15 AM	32	69	0	0	0	177	1	0	1	0	28	0	0	0	0	0	308
7:30 AM	28	67	0	1	0	201	0	0	0	0	25	0	0	0	0	0	322
7:45 AM	30	52	0	0	0	203	1	0	0	0	30	0	0	0	0	0	316
8:00 AM	26	56	0	0	0	189	1	0	0	0	26	0	0	0	0	0	298
8:15 AM	27	62	0	0	0	152	0	0	0	0	34	0	0	0	0	0	275
8:30 AM	30	56	0	0	0	144	1	0	0	0	40	1	0	0	0	0	272
8:45 AM	29	58	0	0	0	107	0	0	0	0	42	1	0	0	0	0	237
9:00 AM	26	44	0	0	0	65	1	0	0	0	31	0	0	0	0	0	167
9:15 AM	17	53	0	0	0	110	1	0	1	0	31	0	0	0	0	0	213
9:30 AM	24	55	0	0	0	58	0	0	0	0	31	0	0	0	0	0	168
9:45 AM	20	44	0	0	0	74	2	0	0	0	29	0	0	0	0	0	169
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	327	673	0	1	0	1633	8	0	2	0	374	2	0	0	0	0	3020
APPROACH %'s :	32.67%	67.23%	0.00%	0.10%	0.00%	99.51%	0.49%	0.00%	0.53%	0.00%	98.94%	0.53%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	116	244	0	1	0	770	3	0	1	0	109	0	0	0	0	0	1244
PEAK HR FACTOR :	0.906	0.884	0.000	0.250	0.000	0.948	0.750	0.000	0.250	0.000	0.908	0.000	0.000	0.000	0.000	0.000	0.966
	0.894				0.947				0.917								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	34	217	0	0	0	85	0	0	2	0	23	0	0	0	0	0	361
4:45 PM	22	212	0	0	0	82	0	0	1	0	28	0	0	0	0	0	345
5:00 PM	33	224	0	0	0	67	0	0	0	0	28	0	0	0	0	0	352
5:15 PM	31	224	0	0	0	74	0	0	0	0	27	0	0	0	0	0	356
5:30 PM	40	202	0	1	0	75	0	0	1	0	34	0	0	0	0	0	353
5:45 PM	25	197	0	0	0	60	0	0	1	0	32	0	0	0	0	0	315
6:00 PM	13	123	0	0	0	55	0	0	0	0	19	0	0	0	0	0	210
6:15 PM	18	121	0	0	0	57	0	0	0	0	24	0	0	0	0	0	220
6:30 PM	21	102	0	0	0	65	1	0	0	0	22	0	0	0	0	0	211
6:45 PM	30	83	0	0	0	37	0	0	0	0	15	0	0	0	0	0	165
7:00 PM	28	80	0	0	0	32	0	0	0	0	14	0	0	0	0	0	154
7:15 PM	25	75	0	0	0	30	1	0	0	0	12	0	0	0	0	0	143
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	320	1860	0	1	0	719	2	0	5	0	278	0	0	0	0	0	3185
APPROACH %'s :	14.67%	85.28%	0.00%	0.05%	0.00%	99.72%	0.28%	0.00%	1.77%	0.00%	98.23%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	120	877	0	0	0	308	0	0	3	0	106	0	0	0	0	0	1414
PEAK HR FACTOR :	0.882	0.979	0.000	0.000	0.000	0.906	0.000	0.000	0.375	0.000	0.946	0.000	0.000	0.000	0.000	0.000	0.979
	0.970				0.906				0.940								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Walnut Canyon Rd & Championship Dr
City: Moorpark
Control: 1-Way Stop (EB)

Project ID: 19-05109-002
Date: 4/4/2019

Total

NS/EW Streets:	Walnut Canyon Rd				Walnut Canyon Rd				Championship Dr				Championship Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	27	77	0	0	0	152	1	0	0	0	34	0	0	0	0	0	291
7:15 AM	17	79	0	0	0	171	2	0	1	0	26	0	0	0	0	0	296
7:30 AM	14	64	0	0	0	208	0	0	1	0	37	0	0	0	0	0	324
7:45 AM	19	72	0	0	0	187	0	0	0	0	24	0	0	0	0	0	302
8:00 AM	25	56	0	0	0	186	0	0	0	0	29	0	0	0	0	0	296
8:15 AM	30	56	0	0	0	167	1	0	0	0	30	0	0	0	0	0	284
8:30 AM	28	69	0	0	0	150	0	0	0	0	33	0	0	0	0	0	280
8:45 AM	17	66	0	0	0	103	0	0	0	0	23	0	0	0	0	0	209
9:00 AM	24	56	0	0	0	73	0	0	0	0	19	0	0	0	0	0	172
9:15 AM	19	50	0	0	0	86	0	0	1	0	18	0	0	0	0	0	174
9:30 AM	21	68	0	0	0	63	1	0	0	0	28	0	0	0	0	0	181
9:45 AM	27	49	0	0	0	72	2	0	0	0	21	0	0	0	0	0	171
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	268	762	0	0	0	1618	7	0	3	0	322	0	0	0	0	0	2980
APPROACH %'s :	26.02%	73.98%	0.00%	0.00%	0.00%	99.57%	0.43%	0.00%	0.92%	0.00%	99.08%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	75	271	0	0	0	752	2	0	2	0	116	0	0	0	0	0	1218
PEAK HR FACTOR :	0.750	0.858	0.000	0.000	0.000	0.904	0.250	0.000	0.500	0.000	0.784	0.000	0.000	0.000	0.000	0.000	0.940
	0.901				0.906				0.776								

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	34	211	0	0	0	92	1	0	1	0	24	0	0	0	0	0	363
4:45 PM	23	218	0	0	0	86	1	0	1	0	24	0	0	0	0	0	353
5:00 PM	32	245	0	0	0	73	0	0	0	0	32	0	0	0	0	0	382
5:15 PM	30	239	0	1	0	64	1	0	0	0	22	0	0	0	0	0	357
5:30 PM	30	191	0	0	0	81	1	0	1	0	27	0	0	0	0	0	331
5:45 PM	36	176	0	0	0	47	0	0	0	0	19	0	0	0	0	0	278
6:00 PM	13	131	0	0	0	80	0	0	0	0	19	0	0	0	0	0	243
6:15 PM	28	124	0	0	0	59	1	0	1	0	21	0	0	0	0	0	234
6:30 PM	14	109	0	0	0	55	1	0	0	0	15	0	0	0	0	0	194
6:45 PM	16	83	0	0	0	55	1	0	0	0	13	0	0	0	0	0	168
7:00 PM	12	112	0	0	0	56	1	0	0	0	14	0	0	0	0	0	195
7:15 PM	16	79	0	0	0	56	1	0	0	0	10	0	0	0	0	0	162
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	284	1918	0	1	0	804	9	0	4	0	240	0	0	0	0	0	3260
APPROACH %'s :	12.89%	87.06%	0.00%	0.05%	0.00%	98.89%	1.11%	0.00%	1.64%	0.00%	98.36%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	119	913	0	1	0	315	3	0	2	0	102	0	0	0	0	0	1455
PEAK HR FACTOR :	0.875	0.932	0.000	0.250	0.000	0.856	0.750	0.000	0.500	0.000	0.797	0.000	0.000	0.000	0.000	0.000	0.952
	0.932				0.855				0.813								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Walnut Canyon Rd & Spring Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-003
Date: 4/17/2019

Total

NS/EW Streets:	Walnut Canyon Rd				Walnut Canyon Rd				Spring Rd				Spring Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	25	2	0	145	35	1	0	0	0	1	0	3	0	69	0	281
7:15 AM	0	23	5	0	166	43	0	0	0	1	1	0	5	0	81	0	325
7:30 AM	1	33	2	0	178	50	0	0	0	0	1	0	7	0	71	0	343
7:45 AM	0	30	4	0	184	52	0	0	0	0	1	0	10	0	61	0	342
8:00 AM	0	36	9	0	149	71	1	0	0	0	1	0	19	0	48	0	334
8:15 AM	0	45	8	0	145	53	1	0	0	0	0	0	25	1	48	0	326
8:30 AM	0	38	8	0	137	50	0	0	0	0	0	0	8	0	56	0	297
8:45 AM	0	33	4	0	118	37	0	0	0	0	1	0	7	0	55	1	256
9:00 AM	0	30	6	0	81	15	0	0	0	0	0	0	5	0	53	0	190
9:15 AM	1	25	3	0	110	30	0	0	0	0	1	0	5	0	49	0	224
9:30 AM	0	32	3	0	68	23	0	0	0	1	0	0	5	0	50	0	182
9:45 AM	0	22	5	0	69	32	0	0	0	0	0	0	1	0	41	0	170
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	372	59	0	1550	491	3	0	0	2	7	0	100	1	682	1	3270
APPROACH %'s :	0.46%	85.91%	13.63%	0.00%	75.83%	24.02%	0.15%	0.00%	0.00%	22.22%	77.78%	0.00%	12.76%	0.13%	86.99%	0.13%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	1	144	23	0	656	226	2	0	0	0	3	0	61	1	228	0	1345
PEAK HR FACTOR :	0.250	0.800	0.639	0.000	0.891	0.796	0.500	0.000	0.000	0.000	0.750	0.000	0.610	0.250	0.803	0.000	0.980
	0.792				0.936				0.750				0.929				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	60	12	0	75	37	1	0	0	0	0	0	12	1	183	0	381
4:45 PM	0	49	3	0	68	39	1	0	0	0	2	0	7	1	189	0	359
5:00 PM	0	38	7	0	51	39	0	0	0	0	1	0	13	1	220	0	370
5:15 PM	1	46	8	0	83	27	0	0	0	0	0	0	17	0	220	0	402
5:30 PM	1	51	10	0	78	34	0	0	0	0	0	0	16	0	186	0	376
5:45 PM	1	39	6	0	62	16	0	0	1	0	0	0	9	0	166	0	300
6:00 PM	0	39	14	0	55	32	0	0	0	1	1	0	8	0	171	0	321
6:15 PM	0	22	9	0	39	20	0	0	0	0	1	0	9	0	135	1	236
6:30 PM	0	16	6	0	57	15	0	0	0	0	0	0	7	0	97	0	198
6:45 PM	0	25	3	0	48	14	1	0	0	1	0	0	14	1	68	0	175
7:00 PM	0	20	8	0	38	17	0	0	0	1	0	0	6	0	75	0	165
7:15 PM	0	25	13	0	38	12	0	0	0	0	0	0	6	1	79	0	174
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	430	99	0	692	302	3	0	1	3	5	0	124	5	1789	1	3457
APPROACH %'s :	0.56%	80.83%	18.61%	0.00%	69.41%	30.29%	0.30%	0.00%	11.11%	33.33%	55.56%	0.00%	6.46%	0.26%	93.23%	0.05%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	1	193	30	0	277	142	2	0	0	0	3	0	49	3	812	0	1512
PEAK HR FACTOR :	0.250	0.804	0.625	0.000	0.834	0.910	0.500	0.000	0.000	0.000	0.375	0.000	0.721	0.750	0.923	0.000	0.940
	0.778				0.931				0.375				0.911				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Walnut Canyon Rd & Spring Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-003
Date: 4/18/2019

Total

NS/EW Streets:	Walnut Canyon Rd				Walnut Canyon Rd				Spring Rd				Spring Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	31	3	0	144	38	0	0	0	0	0	0	5	0	56	0	277
7:15 AM	0	18	6	0	164	50	0	0	0	0	1	0	4	1	69	0	313
7:30 AM	0	25	3	0	164	48	0	0	0	0	1	0	4	0	56	0	301
7:45 AM	0	28	6	0	163	60	0	0	0	0	0	0	5	1	48	1	312
8:00 AM	1	31	12	0	168	73	0	0	0	0	0	0	22	1	69	0	377
8:15 AM	0	29	14	0	136	50	0	0	0	0	1	0	21	0	56	0	307
8:30 AM	2	28	8	0	119	53	0	0	0	0	1	0	12	0	71	0	294
8:45 AM	0	29	8	0	77	43	0	0	0	0	0	0	6	0	56	0	219
9:00 AM	0	20	5	0	84	35	0	0	0	0	0	0	7	0	44	0	195
9:15 AM	0	40	3	0	59	28	0	0	0	0	0	0	2	0	41	0	173
9:30 AM	0	16	5	0	73	25	0	0	0	0	0	0	4	1	35	0	159
9:45 AM	0	36	10	0	51	28	0	0	0	0	0	0	11	1	52	0	189
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	331	83	0	1402	531	0	0	0	0	4	0	103	5	653	1	3116
APPROACH %'s :	0.72%	79.38%	19.90%	0.00%	72.53%	27.47%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	13.52%	0.66%	85.70%	0.13%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	1	102	27	0	659	231	0	0	0	0	2	0	35	3	242	1	1303
PEAK HR FACTOR :	0.250	0.823	0.563	0.000	0.981	0.791	0.000	0.000	0.000	0.000	0.500	0.000	0.398	0.750	0.877	0.250	0.864
	0.739				0.923				0.500				0.764				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	0	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	51	12	0	67	27	0	0	0	0	0	0	7	1	176	0	341
4:45 PM	0	50	7	0	66	28	0	0	0	0	0	0	9	0	174	0	334
5:00 PM	0	56	10	0	77	38	0	0	0	0	0	0	10	1	204	0	396
5:15 PM	1	55	12	0	83	24	0	0	0	1	0	0	14	0	201	0	391
5:30 PM	0	60	14	0	68	17	0	0	0	1	0	0	9	0	180	0	349
5:45 PM	1	33	7	0	71	38	0	0	0	0	1	0	8	1	165	0	325
6:00 PM	1	22	10	0	58	20	0	0	2	1	0	0	12	0	144	0	270
6:15 PM	0	25	7	0	54	27	0	0	0	0	0	0	11	1	116	0	241
6:30 PM	5	22	4	0	43	17	0	0	1	0	0	0	12	1	134	0	239
6:45 PM	0	13	5	0	43	21	0	0	0	1	1	0	9	1	67	0	161
7:00 PM	0	19	11	0	35	27	0	0	0	0	0	0	9	0	71	1	173
7:15 PM	0	13	9	0	35	14	0	0	0	0	0	0	6	0	68	0	145
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	419	108	0	700	298	0	0	3	4	2	0	116	6	1700	1	3365
APPROACH %'s :	1.50%	78.32%	20.19%	0.00%	70.14%	29.86%	0.00%	0.00%	33.33%	44.44%	22.22%	0.00%	6.36%	0.33%	93.25%	0.05%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	1	221	43	0	294	107	0	0	0	2	0	0	42	1	759	0	1470
PEAK HR FACTOR :	0.250	0.921	0.768	0.000	0.886	0.704	0.000	0.000	0.000	0.500	0.000	0.000	0.750	0.250	0.930	0.000	0.928
	0.895				0.872				0.500				0.933				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Walnut Canyon Rd & Meridian Hills Dr
City: Moorpark
Control: 1-Way Stop (EB)

Project ID: 19-05109-030
Date: 4/3/2019

Total

NS/EW Streets:	Walnut Canyon Rd				Walnut Canyon Rd				Meridian Hills Dr				Meridian Hills Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	25	0	0	0	40	1	0	1	0	30	0	0	0	0	0	100
7:15 AM	4	23	0	0	0	43	4	0	6	0	29	0	0	0	0	0	109
7:30 AM	10	24	0	0	0	55	3	0	4	0	39	0	0	0	0	0	135
7:45 AM	6	21	0	0	0	60	3	0	3	0	29	0	0	0	0	0	122
8:00 AM	8	41	0	0	0	84	4	0	4	0	31	0	0	0	0	0	172
8:15 AM	12	41	0	0	0	78	3	0	4	0	28	0	0	0	0	0	166
8:30 AM	13	29	0	0	0	54	5	0	7	0	29	1	0	0	0	0	138
8:45 AM	13	36	0	0	0	42	2	0	1	0	21	2	0	0	0	0	117
9:00 AM	15	24	0	0	0	17	3	0	4	0	17	0	0	0	0	0	80
9:15 AM	10	19	0	0	0	32	5	0	4	0	16	0	0	0	0	0	86
9:30 AM	9	34	0	0	0	23	4	0	1	0	10	1	0	0	0	0	82
9:45 AM	6	25	0	0	0	31	1	0	2	0	13	0	0	0	0	0	78
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	109	342	0	0	0	559	38	0	41	0	292	4	0	0	0	0	1385
APPROACH %'s :	24.17%	75.83%	0.00%	0.00%	0.00%	93.63%	6.37%	0.00%	12.17%	0.00%	86.65%	1.19%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	39	132	0	0	0	276	15	0	18	0	117	1	0	0	0	0	598
PEAK HR FACTOR :	0.750	0.805	0.000	0.000	0.000	0.821	0.750	0.000	0.643	0.000	0.944	0.250	0.000	0.000	0.000	0.000	0.869
	0.807				0.827				0.919								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	18	57	0	0	0	33	6	0	8	0	16	0	0	0	0	0	138
4:45 PM	18	44	0	0	0	31	6	0	3	0	15	0	0	0	0	0	117
5:00 PM	19	61	0	0	0	27	5	0	2	0	11	0	0	0	0	0	125
5:15 PM	20	48	0	0	0	25	7	0	3	0	12	0	0	0	0	0	115
5:30 PM	22	42	0	0	0	35	4	0	4	0	8	1	0	0	0	0	116
5:45 PM	18	43	0	0	0	29	4	0	2	0	11	0	0	0	0	0	107
6:00 PM	17	24	0	0	0	28	10	0	3	0	17	1	0	0	0	0	100
6:15 PM	17	19	0	0	0	19	11	0	2	0	9	0	0	0	0	0	77
6:30 PM	18	30	0	0	0	22	5	0	2	0	9	0	0	0	0	0	86
6:45 PM	26	23	0	0	0	20	12	0	2	0	14	0	0	0	0	0	97
7:00 PM	13	30	0	0	0	27	5	0	1	0	10	0	0	0	0	0	86
7:15 PM	25	25	0	0	0	18	6	0	6	0	4	0	0	0	0	0	84
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	231	446	0	0	0	314	81	0	38	0	136	2	0	0	0	0	1248
APPROACH %'s :	34.12%	65.88%	0.00%	0.00%	0.00%	79.49%	20.51%	0.00%	21.59%	0.00%	77.27%	1.14%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	75	210	0	0	0	116	24	0	16	0	54	0	0	0	0	0	495
PEAK HR FACTOR :	0.938	0.861	0.000	0.000	0.000	0.879	0.857	0.000	0.500	0.000	0.844	0.000	0.000	0.000	0.000	0.000	0.897
	0.891				0.897				0.729								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Walnut Canyon Rd & Meridian Hills Dr
City: Moorpark
Control: 1-Way Stop (EB)

Project ID: 19-05109-030
Date: 4/4/2019

Total

NS/EW Streets:	Walnut Canyon Rd				Walnut Canyon Rd				Meridian Hills Dr				Meridian Hills Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	34	0	0	0	39	3	0	3	0	28	0	0	0	0	0	119
7:15 AM	5	19	0	0	0	37	1	0	4	0	39	0	0	0	0	0	105
7:30 AM	8	19	0	0	0	87	4	0	8	0	31	0	0	0	0	0	157
7:45 AM	12	39	0	0	0	67	4	0	4	0	29	0	0	0	0	0	155
8:00 AM	11	42	0	0	0	79	2	0	4	0	28	0	0	0	0	0	166
8:15 AM	13	33	0	0	0	64	4	0	1	0	30	0	0	0	0	0	145
8:30 AM	7	47	0	0	0	41	4	0	2	0	27	1	0	0	0	0	129
8:45 AM	10	37	0	0	0	39	8	0	2	0	15	0	0	0	0	0	111
9:00 AM	7	32	0	0	0	27	5	0	0	0	9	0	0	0	0	0	80
9:15 AM	6	24	0	0	0	32	3	0	4	0	17	0	0	0	0	0	86
9:30 AM	9	33	0	0	0	19	6	0	5	0	14	0	0	0	0	0	86
9:45 AM	6	26	0	0	0	28	5	0	2	0	14	0	0	0	0	0	81
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	106	385	0	0	0	559	49	0	39	0	281	1	0	0	0	0	1420
APPROACH %'s :	21.59%	78.41%	0.00%	0.00%	0.00%	91.94%	8.06%	0.00%	12.15%	0.00%	87.54%	0.31%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	44	133	0	0	0	297	14	0	17	0	118	0	0	0	0	0	623
PEAK HR FACTOR :	0.846	0.792	0.000	0.000	0.000	0.853	0.875	0.000	0.531	0.000	0.952	0.000	0.000	0.000	0.000	0.000	0.938
	0.835				0.854				0.865								

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	13	47	0	0	0	43	9	0	5	0	17	0	0	0	0	0	134
4:45 PM	15	41	0	0	0	36	7	0	3	0	18	0	0	0	0	0	120
5:00 PM	19	67	0	0	0	34	8	0	7	0	10	0	0	0	0	0	145
5:15 PM	14	54	0	0	0	25	9	0	1	0	14	0	0	0	0	0	117
5:30 PM	22	35	0	0	0	33	4	0	2	0	9	0	0	0	0	0	105
5:45 PM	27	50	0	0	0	23	7	0	4	0	3	0	0	0	0	0	114
6:00 PM	25	24	0	0	0	31	7	0	1	0	14	0	0	0	0	0	102
6:15 PM	15	30	0	0	0	19	5	0	5	0	13	0	0	0	0	0	87
6:30 PM	22	27	0	0	0	25	9	0	5	0	6	0	0	0	0	0	94
6:45 PM	12	20	0	0	0	28	7	0	2	0	14	0	0	0	0	0	83
7:00 PM	15	21	0	0	0	9	6	0	2	0	12	0	0	0	0	0	65
7:15 PM	16	31	0	0	0	11	5	0	2	0	9	0	0	0	0	0	74
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	215	447	0	0	0	317	83	0	39	0	139	0	0	0	0	0	1240
APPROACH %'s :	32.48%	67.52%	0.00%	0.00%	0.00%	79.25%	20.75%	0.00%	21.91%	0.00%	78.09%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	61	209	0	0	0	138	33	0	16	0	59	0	0	0	0	0	516
PEAK HR FACTOR :	0.803	0.780	0.000	0.000	0.000	0.802	0.917	0.000	0.571	0.000	0.819	0.000	0.000	0.000	0.000	0.000	0.890
	0.785				0.822				0.852								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Ave & High St
City: Moorpark
Control: Signalized

Project ID: 19-05109-005
Date: 4/17/2019

Total

NS/EW Streets:	Moorpark Ave				Moorpark Ave				High St				High St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	1	1	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	35	26	0	24	55	0	0	0	3	2	0	29	2	13	0	191
7:15 AM	6	28	23	0	36	56	0	0	2	1	1	0	29	5	4	0	191
7:30 AM	5	40	32	0	38	86	1	0	0	0	1	0	40	2	8	0	253
7:45 AM	3	59	52	0	34	84	0	0	0	6	2	0	53	7	50	0	350
8:00 AM	4	88	49	0	57	124	2	0	0	3	4	0	40	1	43	0	415
8:15 AM	7	58	30	0	53	99	1	0	2	2	2	0	45	3	43	0	345
8:30 AM	3	39	46	0	31	101	2	0	4	5	7	0	54	6	12	0	310
8:45 AM	9	57	59	0	22	76	5	0	0	7	7	0	48	6	14	0	310
9:00 AM	6	33	46	0	14	36	2	0	2	4	8	0	28	4	13	0	196
9:15 AM	2	29	34	0	15	36	1	0	2	3	7	0	13	8	17	0	167
9:30 AM	6	36	31	0	12	36	5	0	4	11	9	0	28	5	11	0	194
9:45 AM	6	36	32	0	11	38	6	0	2	5	5	0	27	9	9	0	186
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	59	538	460	0	347	827	25	0	18	50	55	0	434	58	237	0	3108
APPROACH %'s :	5.58%	50.90%	43.52%	0.00%	28.94%	68.97%	2.09%	0.00%	14.63%	40.65%	44.72%	0.00%	59.53%	7.96%	32.51%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	17	244	177	0	175	408	5	0	6	16	15	0	192	17	148	0	1420
PEAK HR FACTOR :	0.607	0.693	0.851	0.000	0.768	0.823	0.625	0.000	0.375	0.667	0.536	0.000	0.889	0.607	0.740	0.000	0.855
	0.777				0.803				0.578				0.811				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0.5	0.5	1	0	1	1	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	5	53	65	0	21	46	5	0	3	4	5	0	59	4	23	0	293
4:45 PM	4	58	69	0	22	48	2	0	2	3	8	0	65	6	25	0	312
5:00 PM	5	67	73	0	27	49	0	0	2	5	7	0	68	3	27	0	333
5:15 PM	4	70	73	0	23	67	1	0	0	4	5	0	60	3	28	0	338
5:30 PM	7	92	62	0	17	52	1	0	0	6	6	0	65	6	31	0	345
5:45 PM	6	65	63	1	23	59	1	0	0	3	8	0	56	4	47	0	336
6:00 PM	2	61	71	0	21	48	0	0	0	2	8	0	55	2	20	0	290
6:15 PM	1	56	54	1	20	43	4	0	0	1	4	0	37	3	21	0	245
6:30 PM	1	50	60	2	21	35	0	0	0	3	3	0	44	5	23	0	247
6:45 PM	0	39	50	0	7	53	1	0	0	5	5	0	39	1	16	1	217
7:00 PM	1	40	52	0	18	42	2	0	1	1	3	0	45	1	8	0	214
7:15 PM	1	35	36	0	18	34	0	0	0	3	2	0	39	0	24	0	192
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	37	686	728	4	238	576	17	0	8	40	64	0	632	38	293	1	3362
APPROACH %'s :	2.54%	47.15%	50.03%	0.27%	28.64%	69.31%	2.05%	0.00%	7.14%	35.71%	57.14%	0.00%	65.56%	3.94%	30.39%	0.10%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	22	294	271	1	90	227	3	0	2	18	26	0	249	16	133	0	1352
PEAK HR FACTOR :	0.786	0.799	0.928	0.250	0.833	0.847	0.750	0.000	0.250	0.750	0.813	0.000	0.915	0.667	0.707	0.000	0.980
	0.913				0.879				0.821				0.930				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Ave & High St
City: Moorpark
Control: Signalized

Project ID: 19-05109-005
Date: 4/18/2019

Total

NS/EW Streets:	Moorpark Ave				Moorpark Ave				High St				High St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	1	1	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	31	22	0	19	47	1	0	0	0	1	0	26	3	6	0	157
7:15 AM	3	28	33	0	25	74	1	0	0	1	0	0	35	4	10	0	214
7:30 AM	2	38	31	0	33	77	0	0	0	1	2	0	38	1	12	0	235
7:45 AM	1	58	57	0	38	70	0	0	2	3	4	0	65	4	30	0	332
8:00 AM	1	85	41	0	48	128	2	0	1	0	3	0	55	0	52	0	416
8:15 AM	3	83	38	0	54	107	2	0	1	3	2	0	61	3	41	0	398
8:30 AM	3	53	53	0	33	93	1	0	0	4	3	0	39	1	11	0	294
8:45 AM	6	53	59	0	21	57	2	0	0	1	3	0	42	5	12	0	261
9:00 AM	9	47	35	0	24	39	2	0	1	3	7	0	45	2	10	0	224
9:15 AM	9	30	34	0	14	38	1	0	1	6	6	0	38	7	7	0	191
9:30 AM	2	26	38	0	10	41	2	0	1	11	8	0	22	8	8	0	177
9:45 AM	6	28	28	0	12	40	2	0	1	10	8	0	45	5	10	0	195
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	46	560	469	0	331	811	16	0	8	43	47	0	511	43	209	0	3094
APPROACH %'s :	4.28%	52.09%	43.63%	0.00%	28.58%	70.03%	1.38%	0.00%	8.16%	43.88%	47.96%	0.00%	66.97%	5.64%	27.39%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	8	279	189	0	173	398	5	0	4	10	12	0	220	8	134	0	1440
PEAK HR FACTOR :	0.667	0.821	0.829	0.000	0.801	0.777	0.625	0.000	0.500	0.625	0.750	0.000	0.846	0.500	0.644	0.000	0.865
	0.937				0.809				0.722				0.846				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	1	1	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	16	62	83	0	19	37	5	0	3	6	16	0	63	8	18	0	336
4:45 PM	15	72	93	0	16	53	2	0	4	4	17	0	68	9	36	0	389
5:00 PM	7	76	61	0	26	54	3	0	4	7	15	0	60	6	17	0	336
5:15 PM	8	82	85	0	28	62	1	0	1	9	8	0	83	5	40	0	412
5:30 PM	2	67	67	0	14	43	1	0	1	3	6	0	62	4	32	0	302
5:45 PM	4	70	83	0	14	64	1	0	0	5	5	0	50	5	25	0	326
6:00 PM	4	45	63	0	15	52	0	0	0	4	3	0	51	3	29	0	269
6:15 PM	2	40	62	0	11	35	1	0	0	1	4	0	61	2	14	0	233
6:30 PM	3	47	52	0	7	25	0	0	0	5	7	0	58	3	18	0	225
6:45 PM	0	42	38	0	16	46	0	0	0	2	4	0	47	1	17	0	213
7:00 PM	2	36	43	0	8	44	0	0	0	2	1	0	40	0	21	0	197
7:15 PM	2	43	50	0	5	38	0	0	0	3	5	0	45	2	11	0	204
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	65	682	780	0	179	553	14	0	13	51	91	0	688	48	278	0	3442
APPROACH %'s :	4.26%	44.66%	51.08%	0.00%	23.99%	74.13%	1.88%	0.00%	8.39%	32.90%	58.71%	0.00%	67.85%	4.73%	27.42%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	46	292	322	0	89	206	11	0	12	26	56	0	274	28	111	0	1473
PEAK HR FACTOR :	0.719	0.890	0.866	0.000	0.795	0.831	0.550	0.000	0.750	0.722	0.824	0.000	0.825	0.778	0.694	0.000	0.894
	0.917				0.841				0.904				0.807				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Ave & Poindexter Ave/1st St
City: Moorpark
Control: Signalized

Project ID: 19-05109-008
Date: 4/3/2019

Total

NS/EW Streets:	Moorpark Ave				Moorpark Ave				Poindexter Ave/1st St				Poindexter Ave/1st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	8	38	0	0	0	40	45	0	34	3	4	0	0	1	0	0	173
7:15 AM	7	37	1	0	0	51	39	0	21	3	8	0	1	10	1	0	179
7:30 AM	15	36	2	0	0	62	60	0	43	5	9	0	1	11	2	0	246
7:45 AM	14	75	1	0	3	68	75	0	48	1	14	0	2	15	3	0	319
8:00 AM	12	84	2	0	2	75	85	0	43	8	13	0	0	15	6	0	345
8:15 AM	32	56	0	0	3	82	63	0	41	6	18	0	0	10	4	0	315
8:30 AM	29	46	1	0	1	66	86	0	33	7	23	0	1	17	0	0	310
8:45 AM	15	71	0	0	1	54	83	0	55	8	29	0	2	11	1	0	330
9:00 AM	5	51	1	0	1	41	30	0	25	6	8	0	2	2	2	0	174
9:15 AM	10	50	0	0	0	33	21	0	19	3	10	0	1	2	1	0	150
9:30 AM	5	50	1	0	0	48	29	0	21	2	9	0	1	3	1	0	170
9:45 AM	11	49	5	0	1	42	25	0	20	3	3	0	1	3	0	0	163
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	163	643	14	0	12	662	641	0	403	55	148	0	12	100	21	0	2874
APPROACH %'s :	19.88%	78.41%	1.71%	0.00%	0.91%	50.34%	48.75%	0.00%	66.50%	9.08%	24.42%	0.00%	9.02%	75.19%	15.79%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	88	257	3	0	7	277	317	0	172	29	83	0	3	53	11	0	1300
PEAK HR FACTOR :	0.688	0.765	0.375	0.000	0.583	0.845	0.922	0.000	0.782	0.906	0.716	0.000	0.375	0.779	0.458	0.000	0.942
	0.888				0.927				0.772				0.798				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	20	94	2	0	6	85	55	0	82	7	14	0	1	6	7	0	379
4:45 PM	11	92	1	0	3	90	53	0	67	10	18	0	2	11	4	0	362
5:00 PM	11	93	1	0	4	86	58	0	62	7	25	0	2	6	4	0	359
5:15 PM	9	96	7	0	5	99	67	0	73	10	20	0	4	8	4	0	402
5:30 PM	10	90	0	0	2	70	44	0	50	6	15	0	3	2	3	0	295
5:45 PM	15	83	2	0	4	75	42	0	50	4	10	0	0	7	2	0	294
6:00 PM	10	73	3	0	2	60	41	0	33	5	9	0	3	0	4	0	243
6:15 PM	16	83	1	0	3	61	43	0	29	2	8	0	1	4	2	0	253
6:30 PM	11	57	1	0	4	57	39	0	31	3	10	0	1	3	1	0	218
6:45 PM	9	60	2	0	0	41	32	0	29	5	12	0	1	1	3	0	195
7:00 PM	7	57	0	0	3	50	41	0	24	3	13	0	2	4	3	0	207
7:15 PM	8	52	1	0	3	43	31	0	34	1	20	0	1	2	1	0	197
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	137	930	21	0	39	817	546	0	564	63	174	0	21	54	38	0	3404
APPROACH %'s :	12.59%	85.48%	1.93%	0.00%	2.78%	58.27%	38.94%	0.00%	70.41%	7.87%	21.72%	0.00%	18.58%	47.79%	33.63%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	51	375	11	0	18	360	233	0	284	34	77	0	9	31	19	0	1502
PEAK HR FACTOR :	0.638	0.977	0.393	0.000	0.750	0.909	0.869	0.000	0.866	0.850	0.770	0.000	0.563	0.705	0.679	0.000	0.934
	0.942				0.893				0.959				0.868				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Ave & Poindexter Ave/1st St
City: Moorpark
Control: Signalized

Project ID: 19-05109-008
Date: 4/18/2019

Total

NS/EW Streets:	Moorpark Ave				Moorpark Ave				Poindexter Ave/1st St				Poindexter Ave/1st St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	36	0	0	1	47	30	0	34	4	7	0	0	2	1	0	172
7:15 AM	10	30	0	0	0	45	53	0	31	0	9	0	0	9	0	0	187
7:30 AM	21	46	2	0	0	58	84	0	38	3	3	0	0	10	1	0	266
7:45 AM	19	49	0	0	2	61	111	0	66	5	8	0	1	19	3	0	344
8:00 AM	13	86	1	0	2	91	70	0	52	8	9	0	2	10	10	0	354
8:15 AM	26	75	0	0	3	89	87	0	72	5	15	0	0	15	4	0	391
8:30 AM	23	58	3	0	4	60	53	0	40	9	24	0	0	15	3	0	292
8:45 AM	17	59	0	0	2	45	60	0	51	8	24	0	3	7	5	0	281
9:00 AM	9	49	0	0	0	47	25	0	23	2	9	0	0	3	2	0	169
9:15 AM	5	55	2	0	3	46	25	0	16	2	8	0	3	2	0	1	168
9:30 AM	4	62	0	0	3	66	25	0	23	1	4	0	0	0	1	0	189
9:45 AM	7	58	4	0	1	51	36	0	11	1	6	0	0	3	2	0	180
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	164	663	12	0	21	706	659	0	457	48	126	0	9	95	32	1	2993
APPROACH %'s :	19.55%	79.02%	1.43%	0.00%	1.52%	50.94%	47.55%	0.00%	72.42%	7.61%	19.97%	0.00%	6.57%	69.34%	23.36%	0.73%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	81	268	4	0	11	301	321	0	230	27	56	0	3	59	20	0	1381
PEAK HR FACTOR :	0.779	0.779	0.333	0.000	0.688	0.827	0.723	0.000	0.799	0.750	0.583	0.000	0.375	0.776	0.500	0.000	0.883
	0.874				0.884				0.851				0.891				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	1	0	0	1	1	0	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	14	97	3	0	2	76	34	0	87	6	14	0	1	6	3	0	343
4:45 PM	16	93	0	0	2	71	39	0	65	2	19	0	1	5	2	0	315
5:00 PM	15	101	5	0	0	84	59	0	76	9	18	0	3	7	3	0	380
5:15 PM	6	87	2	0	0	81	63	0	59	5	11	0	2	10	0	0	326
5:30 PM	18	92	3	0	0	65	59	0	64	9	17	0	0	7	5	0	339
5:45 PM	10	74	3	0	0	67	66	0	46	5	16	0	1	5	1	0	294
6:00 PM	10	64	3	0	0	62	41	0	57	6	14	0	3	4	3	0	267
6:15 PM	17	75	1	0	2	50	31	0	34	3	6	0	1	2	4	0	226
6:30 PM	14	75	3	0	2	56	35	0	34	4	16	0	1	6	1	0	247
6:45 PM	8	68	3	0	4	60	24	0	23	3	12	0	2	3	1	0	211
7:00 PM	10	46	2	0	2	52	34	0	25	1	10	0	1	2	1	0	186
7:15 PM	11	59	3	0	1	59	37	0	23	3	7	0	0	4	0	0	207
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	149	931	31	0	15	783	522	0	593	56	160	0	16	61	24	0	3341
APPROACH %'s :	13.41%	83.80%	2.79%	0.00%	1.14%	59.32%	39.55%	0.00%	73.30%	6.92%	19.78%	0.00%	15.84%	60.40%	23.76%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	51	378	10	0	4	312	195	0	287	22	62	0	7	28	8	0	1364
PEAK HR FACTOR :	0.797	0.936	0.500	0.000	0.500	0.929	0.774	0.000	0.825	0.611	0.816	0.000	0.583	0.700	0.667	0.000	0.897
	0.907				0.887				0.867				0.827				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Ave & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-012
Date: 4/17/2019

Total

NS/EW Streets:	Moorpark Ave				Moorpark Ave				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	1.3	0.3	1.3	0	1	3	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	9	27	0	26	5	9	0	15	201	3	0	11	181	24	0	523
7:15 AM	11	15	27	0	32	7	15	0	16	170	4	0	14	189	14	0	514
7:30 AM	16	9	42	0	33	10	24	0	18	189	3	0	18	224	21	0	607
7:45 AM	20	17	42	0	48	10	25	0	32	217	2	0	19	227	27	0	686
8:00 AM	13	31	32	0	39	13	31	0	38	221	5	0	22	210	41	0	696
8:15 AM	17	18	27	0	39	18	33	0	27	211	3	0	31	227	27	0	678
8:30 AM	24	21	27	0	43	11	21	0	28	193	11	0	31	210	22	0	642
8:45 AM	12	17	25	0	39	25	37	0	23	207	8	0	32	244	26	0	695
9:00 AM	19	9	25	0	38	12	13	0	16	170	11	0	34	232	23	0	602
9:15 AM	8	3	24	0	26	11	7	0	18	171	6	0	20	201	22	0	517
9:30 AM	5	3	25	0	40	5	10	0	12	132	3	0	26	166	20	0	447
9:45 AM	2	5	25	0	41	11	17	0	20	124	3	0	35	175	29	0	487
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	159	157	348	0	444	138	242	0	263	2206	62	0	293	2486	296	0	7094
APPROACH %'s :	23.95%	23.64%	52.41%	0.00%	53.88%	16.75%	29.37%	0.00%	10.39%	87.16%	2.45%	0.00%	9.53%	80.85%	9.63%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	66	87	111	0	160	67	122	0	116	832	27	0	116	891	116	0	2711
PEAK HR FACTOR :	0.688	0.702	0.867	0.000	0.930	0.670	0.824	0.000	0.763	0.941	0.614	0.000	0.906	0.913	0.707	0.000	0.974
	0.868				0.864				0.923				0.930				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1.5	0.5	1	0	1.3	0.3	1.3	0	1	3	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	10	16	20	0	45	29	19	0	48	248	16	0	57	219	27	0	754
4:45 PM	21	13	25	0	57	27	29	0	35	216	6	0	69	225	19	0	742
5:00 PM	17	14	29	0	55	26	25	0	24	245	9	0	65	236	34	0	779
5:15 PM	8	11	31	0	46	38	27	0	43	229	18	0	77	207	30	0	765
5:30 PM	18	19	31	0	56	31	18	0	36	210	7	0	68	264	25	0	783
5:45 PM	20	10	18	0	42	20	19	0	22	208	13	0	91	258	28	0	749
6:00 PM	11	16	33	0	45	27	11	0	29	208	10	0	73	209	25	0	697
6:15 PM	13	12	36	0	48	27	10	0	19	212	13	0	83	218	21	0	712
6:30 PM	12	9	19	0	39	21	19	0	18	162	9	0	69	196	21	0	594
6:45 PM	10	11	26	0	44	34	12	0	21	160	7	0	58	162	28	0	573
7:00 PM	18	8	17	0	32	19	11	0	16	145	5	0	58	169	22	0	520
7:15 PM	6	9	20	0	40	14	17	0	15	143	7	0	57	173	7	0	508
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	164	148	305	0	549	313	217	0	326	2386	120	0	825	2536	287	0	8176
APPROACH %'s :	26.58%	23.99%	49.43%	0.00%	50.88%	29.01%	20.11%	0.00%	11.51%	84.25%	4.24%	0.00%	22.62%	69.52%	7.87%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	63	54	109	0	199	115	89	0	125	892	47	0	301	965	117	0	3076
PEAK HR FACTOR :	0.788	0.711	0.879	0.000	0.888	0.757	0.824	0.000	0.727	0.910	0.653	0.000	0.827	0.914	0.860	0.000	0.982
	0.831				0.908				0.917				0.917				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Ave & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-012
Date: 4/18/2019

Total

NS/EW Streets:	Moorpark Ave				Moorpark Ave				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	1.3	0.3	1.3	0	1	3	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	16	13	36	0	40	5	13	0	9	152	5	0	20	153	26	0	488
7:15 AM	19	7	31	0	26	16	20	0	11	200	1	0	16	190	18	0	555
7:30 AM	27	16	35	0	23	11	23	0	16	205	5	0	12	202	22	0	597
7:45 AM	26	22	26	0	35	4	31	0	36	285	14	0	15	244	20	0	758
8:00 AM	18	21	32	0	39	11	33	0	50	250	11	0	22	203	31	0	721
8:15 AM	11	21	26	0	53	19	24	0	31	247	8	0	34	161	41	0	676
8:30 AM	9	22	19	0	37	10	17	0	24	186	8	0	28	222	29	0	611
8:45 AM	11	21	11	0	45	20	22	0	28	162	4	0	41	155	27	0	547
9:00 AM	11	11	10	0	36	8	16	0	20	187	4	0	34	194	23	0	554
9:15 AM	10	2	26	0	38	7	16	0	11	152	3	0	27	163	26	0	481
9:30 AM	13	13	18	0	36	11	25	0	18	189	3	0	35	155	27	0	543
9:45 AM	5	4	36	0	38	8	20	0	10	169	2	0	28	162	40	0	522
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	176	173	306	0	446	130	260	0	264	2384	68	0	312	2204	330	0	7053
APPROACH %'s :	26.87%	26.41%	46.72%	0.00%	53.35%	15.55%	31.10%	0.00%	9.72%	87.78%	2.50%	0.00%	10.96%	77.44%	11.60%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	64	86	103	0	164	44	105	0	141	968	41	0	99	830	121	0	2766
PEAK HR FACTOR :	0.615	0.977	0.805	0.000	0.774	0.579	0.795	0.000	0.705	0.849	0.732	0.000	0.728	0.850	0.738	0.000	0.912
	0.855				0.815				0.858				0.941				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	1.3	0.3	1.3	0	1	3	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	17	22	36	0	42	21	23	0	46	237	14	0	46	230	19	0	753
4:45 PM	10	14	29	0	55	27	22	0	34	231	11	0	64	249	30	0	776
5:00 PM	10	26	25	0	54	36	35	0	40	246	14	0	65	223	25	0	799
5:15 PM	13	14	49	0	43	22	23	0	46	233	10	0	65	242	30	0	790
5:30 PM	13	29	29	0	43	27	14	0	28	224	20	0	75	235	24	0	761
5:45 PM	8	25	39	0	41	27	21	0	23	204	14	0	71	232	19	0	724
6:00 PM	20	11	22	0	51	25	21	0	30	196	6	0	76	222	28	0	708
6:15 PM	11	20	26	0	37	17	29	0	23	217	6	0	77	215	27	0	705
6:30 PM	7	24	29	1	40	14	20	0	23	227	5	0	66	212	16	0	684
6:45 PM	11	14	37	0	36	21	18	0	28	184	9	0	64	174	18	0	614
7:00 PM	6	19	29	0	39	21	20	0	24	167	5	0	59	168	28	0	585
7:15 PM	11	15	16	0	24	20	18	0	20	160	11	0	61	180	18	0	554
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	137	233	366	1	505	278	264	0	365	2526	125	0	789	2582	282	0	8453
APPROACH %'s :	18.59%	31.61%	49.66%	0.14%	48.23%	26.55%	25.21%	0.00%	12.10%	83.75%	4.14%	0.00%	21.60%	70.68%	7.72%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	46	83	132	0	195	112	94	0	148	934	55	0	269	949	109	0	3126
PEAK HR FACTOR :	0.885	0.716	0.673	0.000	0.886	0.778	0.671	0.000	0.804	0.949	0.688	0.000	0.897	0.953	0.908	0.000	0.978
	0.859				0.802				0.948				0.967				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Peach Hill Rd & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-022
Date: 4/3/2019

Total

NS/EW Streets:	Peach Hill Rd				Peach Hill Rd				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	1	0	0	1	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	37	0	19	0	10	247	0	0	0	61	8	0	382
7:15 AM	0	0	0	0	49	0	10	0	7	252	0	0	0	70	6	0	394
7:30 AM	0	0	0	0	43	0	24	0	5	242	0	0	0	115	6	0	435
7:45 AM	0	0	0	0	30	0	48	0	15	276	0	1	0	147	16	0	533
8:00 AM	0	0	0	0	47	0	45	0	29	250	0	0	0	156	17	0	544
8:15 AM	0	0	0	0	52	0	33	0	22	292	0	0	0	172	14	0	585
8:30 AM	0	0	0	0	34	0	37	0	20	263	0	0	0	145	14	0	513
8:45 AM	0	0	0	0	31	0	49	0	18	256	0	0	0	203	13	0	570
9:00 AM	0	0	0	0	22	0	20	0	14	208	0	0	0	87	9	0	360
9:15 AM	0	0	0	0	21	0	11	0	9	150	0	0	0	90	12	0	293
9:30 AM	0	0	0	0	24	0	10	0	9	158	0	0	0	70	15	0	286
9:45 AM	0	0	0	0	11	0	13	0	5	160	0	0	0	94	7	0	290
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	401	0	319	0	163	2754	0	1	0	1410	137	0	5185
APPROACH %'s :					55.69%	0.00%	44.31%	0.00%	5.59%	94.38%	0.00%	0.03%	0.00%	91.14%	8.86%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	164	0	164	0	89	1061	0	0	0	676	58	0	2212
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.788	0.000	0.837	0.000	0.767	0.908	0.000	0.000	0.000	0.833	0.853	0.000	0.945
					0.891				0.916				0.850				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	1	0	0	1	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	19	0	21	0	28	176	0	0	0	222	32	0	498
4:45 PM	0	0	0	0	21	0	28	0	16	154	0	1	0	220	30	0	470
5:00 PM	0	0	0	0	11	0	23	0	27	198	0	0	0	236	33	0	528
5:15 PM	0	0	0	0	17	0	19	0	29	165	0	0	0	219	32	0	481
5:30 PM	0	0	0	0	18	0	25	0	20	177	0	2	0	219	35	0	496
5:45 PM	0	0	0	0	10	0	22	0	22	145	0	0	0	258	29	0	486
6:00 PM	0	0	0	0	19	0	10	0	23	130	0	1	0	272	34	0	489
6:15 PM	0	0	0	0	9	0	15	0	14	139	0	0	0	228	31	0	436
6:30 PM	0	0	0	0	15	0	20	0	15	146	0	1	0	222	33	0	452
6:45 PM	0	0	0	0	17	0	21	0	23	157	0	1	0	180	29	0	428
7:00 PM	0	0	0	0	7	0	10	0	13	103	0	0	0	154	24	0	311
7:15 PM	0	0	0	0	7	0	11	0	21	85	0	0	0	151	18	0	293
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	170	0	225	0	251	1775	0	6	0	2581	360	0	5368
APPROACH %'s :					43.04%	0.00%	56.96%	0.00%	12.35%	87.35%	0.00%	0.30%	0.00%	87.76%	12.24%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	56	0	89	0	98	685	0	2	0	932	129	0	1991
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.778	0.000	0.890	0.000	0.845	0.865	0.000	0.250	0.000	0.903	0.921	0.000	0.943
					0.843				0.872				0.924				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Peach Hill Rd & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-022
Date: 4/4/2019

Total

NS/EW Streets:	Peach Hill Rd				Peach Hill Rd				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	1	0	0	1	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	37	0	30	0	13	224	0	1	0	101	6	0	412
7:15 AM	0	0	0	0	50	0	31	0	8	276	0	0	0	89	7	0	461
7:30 AM	0	0	0	0	40	0	44	0	10	283	0	0	0	173	6	0	556
7:45 AM	0	0	0	0	44	0	61	0	45	306	0	0	0	256	9	0	721
8:00 AM	0	0	0	0	41	0	32	0	45	328	0	0	0	133	15	0	594
8:15 AM	0	0	0	0	46	0	28	0	25	292	0	0	0	115	20	0	526
8:30 AM	0	0	0	0	39	0	19	0	10	233	0	0	0	85	11	0	397
8:45 AM	0	0	0	0	16	0	21	0	13	185	0	0	0	117	6	0	358
9:00 AM	0	0	0	0	18	0	15	0	12	162	0	0	0	76	9	0	292
9:15 AM	0	0	0	0	21	0	10	0	7	169	0	0	0	62	9	0	278
9:30 AM	0	0	0	0	14	0	19	0	3	167	0	0	0	90	6	0	299
9:45 AM	0	0	0	0	20	0	9	0	6	149	0	0	0	85	10	0	279
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	386	0	319	0	197	2774	0	1	0	1382	114	0	5173
APPROACH %'s :					54.75%	0.00%	45.25%	0.00%	6.63%	93.34%	0.00%	0.03%	0.00%	92.38%	7.62%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	171	0	165	0	125	1209	0	0	0	677	50	0	2397
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.929	0.000	0.676	0.000	0.694	0.921	0.000	0.000	0.000	0.661	0.625	0.000	0.831
					0.800				0.894				0.686				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	1	1	0	0	1	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	21	0	20	0	18	196	0	0	0	241	32	0	528
4:45 PM	0	0	0	0	15	0	31	0	25	172	0	0	0	251	34	0	528
5:00 PM	0	0	0	0	19	0	30	0	20	186	0	0	0	252	26	0	533
5:15 PM	0	0	0	0	15	0	21	0	16	196	0	0	0	251	35	0	534
5:30 PM	0	0	0	0	16	0	17	0	26	162	0	1	0	254	24	0	500
5:45 PM	0	0	0	0	16	0	38	0	16	160	0	0	0	253	36	0	519
6:00 PM	0	0	0	0	18	0	17	0	34	147	0	0	0	289	39	0	544
6:15 PM	0	0	0	0	8	0	13	0	13	110	0	0	0	234	31	0	409
6:30 PM	0	0	0	0	12	0	29	0	21	158	0	0	0	206	20	0	446
6:45 PM	0	0	0	0	15	0	19	0	16	114	0	0	0	195	16	0	375
7:00 PM	0	0	0	0	12	0	9	0	17	100	0	0	0	154	17	0	309
7:15 PM	0	0	0	0	11	0	17	0	17	82	0	0	0	151	20	0	298
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	178	0	261	0	239	1783	0	1	0	2731	330	0	5523
APPROACH %'s :					40.55%	0.00%	59.45%	0.00%	11.81%	88.14%	0.00%	0.05%	0.00%	89.22%	10.78%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	70	0	102	0	79	750	0	0	0	995	127	0	2123
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.833	0.000	0.823	0.000	0.790	0.957	0.000	0.000	0.000	0.987	0.907	0.000	0.994
					0.878				0.968				0.981				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring Rd & High St
City: Moorpark
Control: Signalized

Project ID: 19-05109-006
Date: 4/3/2019

Total

NS/EW Streets:	Spring Rd				Spring Rd				High St				High St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	1.5	0.5	0	1	1	1	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	17	44	47	0	96	125	8	0	2	26	28	0	13	29	33	0	468
7:15 AM	6	46	48	0	90	155	2	0	3	42	20	0	16	34	46	0	508
7:30 AM	13	45	45	0	111	165	3	0	0	41	22	0	12	41	43	0	541
7:45 AM	32	47	57	0	122	148	8	0	3	67	24	0	22	64	44	0	638
8:00 AM	38	44	57	0	96	126	4	0	3	63	49	0	14	74	44	0	612
8:15 AM	36	49	61	0	107	169	5	0	3	64	45	0	15	65	42	0	661
8:30 AM	24	65	52	0	84	137	7	0	2	45	39	0	31	50	37	0	573
8:45 AM	20	53	58	0	77	125	8	0	4	52	23	0	20	44	43	0	527
9:00 AM	17	50	35	0	53	89	6	0	6	49	20	0	13	31	37	0	406
9:15 AM	17	41	34	0	56	62	6	0	4	26	18	0	20	18	35	0	337
9:30 AM	18	37	32	0	58	78	12	0	7	34	15	0	12	29	35	0	367
9:45 AM	16	37	30	0	68	64	1	0	0	33	16	0	16	34	38	0	353
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	254	558	556	0	1018	1443	70	0	37	542	319	0	204	513	477	0	5991
APPROACH %'s :	18.57%	40.79%	40.64%	0.00%	40.22%	57.01%	2.77%	0.00%	4.12%	60.36%	35.52%	0.00%	17.09%	42.96%	39.95%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	130	205	227	0	409	580	24	0	11	239	157	0	82	253	167	0	2484
PEAK HR FACTOR :	0.855	0.788	0.930	0.000	0.838	0.858	0.750	0.000	0.917	0.892	0.801	0.000	0.661	0.855	0.949	0.000	0.939
	0.962				0.901				0.885				0.951				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	1.5	0.5	0	1	1	1	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	45	147	65	0	52	69	5	0	5	87	33	0	22	57	124	0	711
4:45 PM	46	159	45	0	52	70	4	0	4	63	30	0	25	53	92	0	643
5:00 PM	37	165	79	0	56	69	5	0	9	67	52	0	20	67	119	0	745
5:15 PM	29	149	76	0	70	64	9	0	12	93	21	0	31	98	141	0	793
5:30 PM	36	150	46	0	54	66	8	0	7	62	19	0	13	63	118	0	642
5:45 PM	30	166	44	0	54	75	3	0	17	47	49	0	22	60	121	0	688
6:00 PM	25	109	46	0	36	55	11	0	11	48	24	0	21	48	102	0	536
6:15 PM	31	117	34	0	32	71	8	0	13	50	29	0	22	44	98	0	549
6:30 PM	23	98	32	0	54	39	6	0	17	49	31	0	22	32	65	0	468
6:45 PM	23	89	40	0	39	67	6	0	6	39	16	0	15	45	85	0	470
7:00 PM	26	85	38	0	38	70	5	0	7	35	18	0	16	48	88	0	474
7:15 PM	25	82	35	0	40	65	7	0	5	34	20	0	14	42	80	0	449
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	376	1516	580	0	577	780	77	0	113	674	342	0	243	657	1233	0	7168
APPROACH %'s :	15.21%	61.33%	23.46%	0.00%	40.24%	54.39%	5.37%	0.00%	10.01%	59.70%	30.29%	0.00%	11.39%	30.80%	57.81%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	157	620	265	0	230	272	23	0	30	310	136	0	98	275	476	0	2892
PEAK HR FACTOR :	0.853	0.939	0.839	0.000	0.821	0.971	0.639	0.000	0.625	0.833	0.654	0.000	0.790	0.702	0.844	0.000	0.912
	0.927				0.918				0.930				0.786				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring Rd & High St
City: Moorpark
Control: Signalized

Project ID: 19-05109-006
Date: 4/4/2019

Total

NS/EW Streets:	Spring Rd				Spring Rd				High St				High St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	1.5	0.5	0	1	1	1	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	18	46	32	0	80	116	7	0	4	25	20	0	15	31	44	0	438
7:15 AM	8	38	29	0	105	149	4	0	1	36	22	0	15	42	46	0	495
7:30 AM	19	54	50	0	110	190	5	0	3	47	19	0	14	41	35	0	587
7:45 AM	31	47	54	0	123	158	9	0	2	48	34	0	21	66	24	0	617
8:00 AM	40	47	69	0	103	123	3	0	2	84	43	0	19	66	34	0	633
8:15 AM	26	58	46	0	83	124	5	0	4	65	49	0	19	61	44	1	585
8:30 AM	28	52	56	0	90	149	2	0	4	44	42	0	21	39	55	0	582
8:45 AM	24	57	59	0	86	123	9	0	5	49	32	0	21	35	30	0	530
9:00 AM	25	48	42	0	42	77	4	0	1	36	16	0	20	34	26	0	371
9:15 AM	28	49	25	0	42	53	6	0	9	28	14	0	17	29	17	0	317
9:30 AM	26	48	44	0	65	68	2	0	3	28	15	0	17	39	38	0	393
9:45 AM	24	40	35	0	63	68	5	0	2	36	18	0	20	28	25	0	364
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	297	584	541	0	992	1398	61	0	40	526	324	0	219	511	418	1	5912
APPROACH %'s :	20.89%	41.07%	38.05%	0.00%	40.47%	57.04%	2.49%	0.00%	4.49%	59.10%	36.40%	0.00%	19.06%	44.47%	36.38%	0.09%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	116	206	219	0	419	595	22	0	11	244	145	0	73	234	137	1	2422
PEAK HR FACTOR :	0.725	0.888	0.793	0.000	0.852	0.783	0.611	0.000	0.688	0.726	0.740	0.000	0.869	0.886	0.778	0.250	0.957
	0.867				0.849				0.775				0.890				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	1.5	0.5	0	1	1	1	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	45	168	68	0	46	74	7	0	7	78	32	0	29	60	96	0	710
4:45 PM	36	151	64	0	44	84	11	0	13	84	30	0	27	75	112	0	731
5:00 PM	62	150	60	0	54	78	11	0	10	88	53	0	31	71	131	0	799
5:15 PM	36	159	68	0	61	81	6	0	9	84	27	0	18	64	133	0	746
5:30 PM	35	138	55	0	58	74	7	0	6	70	25	0	21	64	132	0	685
5:45 PM	38	126	56	0	36	79	3	0	12	63	42	0	37	85	111	0	688
6:00 PM	34	108	46	0	41	71	6	0	13	42	15	0	23	65	81	0	545
6:15 PM	27	118	37	0	44	66	7	0	7	46	26	0	14	40	96	0	528
6:30 PM	22	104	51	0	46	55	5	0	13	47	38	0	24	48	72	0	525
6:45 PM	33	88	41	0	41	48	5	0	11	42	12	0	21	35	72	0	449
7:00 PM	21	99	51	0	38	49	8	0	15	41	38	0	23	50	65	0	498
7:15 PM	31	89	40	0	41	49	6	0	12	42	10	0	22	34	61	0	437
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	420	1498	637	0	550	808	82	0	128	727	348	0	290	691	1162	0	7341
APPROACH %'s :	16.44%	58.63%	24.93%	0.00%	38.19%	56.11%	5.69%	0.00%	10.64%	60.43%	28.93%	0.00%	13.53%	32.24%	54.22%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	179	628	260	0	205	317	35	0	39	334	142	0	105	270	472	0	2986
PEAK HR FACTOR :	0.722	0.935	0.956	0.000	0.840	0.943	0.795	0.000	0.750	0.949	0.670	0.000	0.847	0.900	0.887	0.000	0.934
	0.949				0.941				0.853				0.909				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring Rd & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-013
Date: 4/17/2019

Total

NS/EW Streets:	Spring Rd				Spring Rd				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1.5	0.5	0	2	1	1	0	2	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	18	31	15	0	140	47	17	0	28	206	29	0	5	157	51	1	745
7:15 AM	32	38	15	0	167	38	13	0	24	205	34	0	11	174	44	2	797
7:30 AM	37	45	15	0	173	73	20	0	31	217	40	0	8	177	49	1	886
7:45 AM	33	68	12	0	158	71	24	0	32	245	60	0	6	217	74	3	1003
8:00 AM	49	83	18	0	145	94	15	0	38	238	38	0	8	210	76	1	1013
8:15 AM	64	89	22	0	152	87	24	0	32	214	35	0	16	214	57	1	1007
8:30 AM	65	60	18	0	156	79	30	0	23	235	64	0	9	194	54	2	989
8:45 AM	66	74	21	0	138	68	17	0	41	223	43	0	10	199	53	0	953
9:00 AM	25	51	8	0	107	38	25	0	29	203	32	0	11	206	44	1	780
9:15 AM	19	35	13	0	79	30	21	0	29	182	19	0	14	190	52	4	687
9:30 AM	29	43	11	0	102	35	11	0	23	178	25	0	9	151	38	2	657
9:45 AM	25	51	17	0	88	29	15	0	18	148	35	0	15	192	43	3	679
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	462	668	185	0	1605	689	232	0	348	2494	454	0	122	2281	635	21	10196
APPROACH %'s :	35.13%	50.80%	14.07%	0.00%	63.54%	27.28%	9.18%	0.00%	10.56%	75.67%	13.77%	0.00%	3.99%	74.57%	20.76%	0.69%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	211	300	70	0	611	331	93	0	125	932	197	0	39	835	261	7	4012
PEAK HR FACTOR :	0.812	0.843	0.795	0.000	0.967	0.880	0.775	0.000	0.822	0.951	0.770	0.000	0.609	0.962	0.859	0.583	0.990
	0.830				0.976				0.930				0.952				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1.5	0.5	0	2	1	1	0	2	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	64	82	20	0	90	50	13	0	47	199	25	0	24	259	157	0	1030
4:45 PM	64	76	7	0	92	59	22	0	33	243	45	0	15	248	147	1	1052
5:00 PM	83	86	4	0	82	55	20	0	44	240	47	0	7	247	201	0	1116
5:15 PM	61	82	13	0	82	55	23	0	44	216	59	0	12	255	217	0	1119
5:30 PM	69	97	16	0	81	62	27	0	42	208	57	0	22	268	166	0	1115
5:45 PM	71	69	9	0	89	55	28	0	41	190	32	0	24	245	175	1	1029
6:00 PM	58	75	18	0	67	45	27	0	36	241	45	0	10	257	149	3	1031
6:15 PM	38	47	12	0	90	34	24	0	43	215	33	0	17	240	136	0	929
6:30 PM	64	65	8	0	93	52	20	0	26	184	40	0	26	212	106	0	896
6:45 PM	31	41	13	0	61	32	21	0	26	161	48	0	16	223	110	0	783
7:00 PM	34	42	13	0	70	38	24	0	22	152	38	0	16	179	106	0	734
7:15 PM	32	45	9	0	48	36	22	0	37	149	22	0	11	192	79	0	682
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	669	807	142	0	945	573	271	0	441	2398	491	0	200	2825	1749	5	11516
APPROACH %'s :	41.35%	49.88%	8.78%	0.00%	52.82%	32.03%	15.15%	0.00%	13.24%	72.01%	14.74%	0.00%	4.18%	59.11%	36.60%	0.10%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	277	341	40	0	337	231	92	0	163	907	208	0	56	1018	731	1	4402
PEAK HR FACTOR :	0.834	0.879	0.625	0.000	0.916	0.931	0.852	0.000	0.926	0.933	0.881	0.000	0.636	0.950	0.842	0.250	0.983
	0.904				0.954				0.965				0.933				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring Rd & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-013
Date: 4/18/2019

Total

NS/EW Streets:	Spring Rd				Spring Rd				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1.5	0.5	0	2	1	1	0	2	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	19	31	9	0	100	37	17	0	13	219	20	0	12	157	45	1	680
7:15 AM	18	39	12	0	152	55	23	0	27	195	18	0	10	158	29	0	736
7:30 AM	24	46	6	0	149	62	26	0	32	226	39	0	9	148	36	4	807
7:45 AM	43	67	9	0	142	72	34	0	47	231	35	0	5	212	59	1	957
8:00 AM	27	82	7	0	122	78	28	0	50	214	31	0	9	151	44	4	847
8:15 AM	76	59	19	0	138	78	21	0	34	208	59	0	10	172	69	4	947
8:30 AM	63	78	16	0	162	67	18	0	30	202	35	0	8	184	56	1	920
8:45 AM	59	60	27	0	125	45	14	0	28	196	30	0	9	151	42	1	787
9:00 AM	26	56	12	0	109	43	21	0	40	246	20	0	7	196	60	1	837
9:15 AM	29	52	12	0	95	38	25	0	28	208	26	0	5	170	41	3	732
9:30 AM	31	37	14	0	83	35	29	0	27	237	22	0	10	150	27	1	703
9:45 AM	26	41	14	0	77	34	13	0	21	227	25	0	8	173	51	4	714
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	441	648	157	0	1454	644	269	0	377	2609	360	0	102	2022	559	25	9667
APPROACH %'s :	35.39%	52.01%	12.60%	0.00%	61.43%	27.21%	11.36%	0.00%	11.27%	77.97%	10.76%	0.00%	3.77%	74.67%	20.64%	0.92%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	209	286	51	0	564	295	101	0	161	855	160	0	32	719	228	10	3671
PEAK HR FACTOR :	0.688	0.872	0.671	0.000	0.870	0.946	0.743	0.000	0.805	0.925	0.678	0.000	0.800	0.848	0.826	0.625	0.959
	0.869				0.968				0.939				0.893				

	Spring Rd				Spring Rd				Los Angeles Ave				Los Angeles Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1.5	0.5	0	2	1	1	0	2	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	61	72	18	0	98	39	23	0	34	217	30	0	15	243	160	1	1011
4:45 PM	59	75	8	0	99	60	31	0	30	230	43	0	13	277	167	0	1092
5:00 PM	55	73	18	0	95	62	24	0	29	227	35	0	9	263	159	1	1050
5:15 PM	43	75	7	0	82	41	11	0	45	216	42	0	7	281	165	1	1016
5:30 PM	55	65	15	0	87	39	25	0	48	234	47	0	16	230	164	3	1028
5:45 PM	58	81	9	0	92	56	24	0	37	198	48	0	18	248	169	1	1039
6:00 PM	68	57	13	0	81	47	22	0	43	216	37	0	23	229	122	0	958
6:15 PM	58	59	15	0	85	40	19	0	25	179	40	0	14	256	118	3	911
6:30 PM	44	52	11	0	84	48	34	0	37	204	41	0	16	210	85	2	868
6:45 PM	44	44	7	0	67	42	27	0	32	204	45	0	15	232	109	1	869
7:00 PM	46	32	9	0	78	44	19	0	38	165	37	0	6	170	81	4	729
7:15 PM	28	54	18	0	54	37	25	0	16	170	34	0	9	189	85	1	720
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	619	739	148	0	1002	555	284	0	414	2460	479	0	161	2828	1584	18	11291
APPROACH %'s :	41.10%	49.07%	9.83%	0.00%	54.43%	30.15%	15.43%	0.00%	12.35%	73.37%	14.29%	0.00%	3.51%	61.60%	34.50%	0.39%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	212	288	48	0	363	202	91	0	152	907	167	0	45	1051	655	5	4186
PEAK HR FACTOR :	0.898	0.960	0.667	0.000	0.917	0.815	0.734	0.000	0.792	0.969	0.888	0.000	0.703	0.935	0.981	0.417	0.958
	0.938				0.863				0.932				0.961				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring Rd & Peach Hill Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-017
Date: 4/3/2019

Total

NS/EW Streets:	Spring Rd				Spring Rd				Peach Hill Rd				Peach Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	4	35	3	0	2	68	5	0	30	5	28	0	4	0	5	0	189
7:15 AM	4	33	6	0	3	67	14	0	45	7	21	0	5	3	3	0	211
7:30 AM	1	52	6	0	13	97	8	0	31	9	43	0	8	1	8	0	277
7:45 AM	10	56	15	0	13	106	19	0	39	18	27	0	10	13	20	0	346
8:00 AM	5	78	18	0	17	70	45	0	46	24	33	0	14	12	24	0	386
8:15 AM	6	86	19	0	24	95	33	0	47	45	12	0	16	13	38	0	434
8:30 AM	10	71	25	0	39	95	24	0	27	33	33	0	32	20	58	0	467
8:45 AM	7	52	30	0	30	79	11	0	27	26	18	0	46	26	81	0	433
9:00 AM	7	53	7	0	10	41	20	1	27	10	16	0	5	7	11	0	215
9:15 AM	9	38	3	0	5	34	18	0	22	6	15	0	1	3	15	0	169
9:30 AM	5	40	17	0	8	35	19	0	35	10	19	0	2	2	8	0	200
9:45 AM	7	59	13	0	14	41	20	0	26	7	15	0	3	11	7	0	223
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	75	653	162	0	178	828	236	1	402	200	280	0	146	111	278	0	3550
APPROACH %'s :	8.43%	73.37%	18.20%	0.00%	14.32%	66.61%	18.99%	0.08%	45.58%	22.68%	31.75%	0.00%	27.29%	20.75%	51.96%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	28	287	92	0	110	339	113	0	147	128	96	0	108	71	201	0	1720
PEAK HR FACTOR :	0.700	0.834	0.767	0.000	0.705	0.892	0.628	0.000	0.782	0.711	0.727	0.000	0.587	0.683	0.620	0.000	0.921
	0.917				0.889				0.892				0.621				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	13	88	6	0	6	68	28	0	32	8	5	0	11	29	10	0	304
4:45 PM	24	97	8	0	11	82	33	0	24	5	12	0	2	20	8	0	326
5:00 PM	19	93	11	0	8	71	39	0	31	10	16	0	15	24	11	0	348
5:15 PM	19	98	14	0	7	75	37	1	37	13	9	0	5	20	14	0	349
5:30 PM	23	97	14	0	10	51	44	1	36	5	10	0	15	30	18	0	354
5:45 PM	25	109	8	0	9	72	36	0	18	12	15	0	16	21	8	0	349
6:00 PM	20	103	7	0	4	63	30	2	33	2	10	0	5	14	11	0	304
6:15 PM	24	93	9	0	5	60	34	0	15	10	12	0	3	19	5	0	289
6:30 PM	24	62	6	0	2	66	45	1	23	5	8	0	3	12	5	0	262
6:45 PM	21	74	13	0	7	39	39	0	24	7	9	0	5	14	5	0	257
7:00 PM	15	55	14	0	8	36	45	1	21	4	5	0	5	10	3	0	222
7:15 PM	13	46	4	0	5	48	39	0	20	9	10	0	3	11	7	0	215
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	240	1015	114	0	82	731	449	6	314	90	121	0	88	224	105	0	3579
APPROACH %'s :	17.53%	74.14%	8.33%	0.00%	6.47%	57.65%	35.41%	0.47%	59.81%	17.14%	23.05%	0.00%	21.10%	53.72%	25.18%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	86	397	47	0	34	269	156	2	122	40	50	0	51	95	51	0	1400
PEAK HR FACTOR :	0.860	0.911	0.839	0.000	0.850	0.897	0.886	0.500	0.824	0.769	0.781	0.000	0.797	0.792	0.708	0.000	0.989
	0.933				0.960				0.898				0.782				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring Rd & Peach Hill Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-017
Date: 4/4/2019

Total

NS/EW Streets:	Spring Rd				Spring Rd				Peach Hill Rd				Peach Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	22	0	0	0	28	4	0	26	4	32	0	3	2	4	0	128
7:15 AM	6	38	5	0	2	65	10	0	33	6	19	0	7	1	4	0	196
7:30 AM	2	44	5	0	11	104	17	0	34	11	31	0	12	3	10	0	284
7:45 AM	4	82	14	0	16	106	22	0	42	12	26	0	22	9	13	0	368
8:00 AM	7	66	17	0	14	73	41	0	61	37	30	0	11	12	25	0	394
8:15 AM	9	86	19	0	14	82	32	0	53	28	28	0	13	16	36	0	416
8:30 AM	7	76	17	0	46	83	15	0	29	32	25	0	24	15	67	0	436
8:45 AM	6	58	22	0	41	66	17	0	21	24	16	0	25	12	76	0	384
9:00 AM	1	46	4	0	3	42	17	0	25	3	22	0	8	6	8	0	185
9:15 AM	5	58	6	0	8	41	14	1	20	5	20	0	3	6	7	0	194
9:30 AM	6	44	9	0	6	54	20	1	30	9	13	0	2	6	6	0	206
9:45 AM	8	43	2	0	3	47	18	0	23	8	13	0	4	3	3	0	175
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	64	663	120	0	164	791	227	2	397	179	275	0	134	91	259	0	3366
APPROACH %'s :	7.56%	78.28%	14.17%	0.00%	13.85%	66.81%	19.17%	0.17%	46.65%	21.03%	32.31%	0.00%	27.69%	18.80%	53.51%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	29	286	75	0	115	304	105	0	164	121	99	0	73	55	204	0	1630
PEAK HR FACTOR :	0.806	0.831	0.852	0.000	0.625	0.916	0.640	0.000	0.672	0.818	0.825	0.000	0.730	0.859	0.671	0.000	0.935
	0.855				0.910				0.750				0.735				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	16	128	9	0	10	68	36	0	27	7	13	0	10	22	12	0	358
4:45 PM	20	102	15	0	6	87	42	0	21	4	9	0	15	37	10	0	368
5:00 PM	21	137	10	0	14	78	34	0	19	14	12	0	14	28	10	0	391
5:15 PM	19	113	10	0	4	78	39	0	33	8	12	0	9	33	11	0	369
5:30 PM	23	104	8	0	6	68	36	0	31	10	9	0	7	18	11	0	331
5:45 PM	25	101	12	0	10	62	43	0	34	10	9	0	11	24	6	0	347
6:00 PM	27	101	12	0	2	60	46	0	20	13	7	0	8	18	14	0	328
6:15 PM	15	71	13	0	8	55	31	0	25	5	15	0	5	27	7	0	277
6:30 PM	18	66	12	0	12	60	61	0	38	9	7	0	7	14	10	0	314
6:45 PM	18	65	17	0	18	36	37	0	28	12	9	0	10	17	12	0	279
7:00 PM	12	63	11	0	22	38	38	0	22	13	7	0	8	17	19	0	270
7:15 PM	13	36	5	0	10	33	40	0	16	4	3	0	8	14	17	0	199
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	227	1087	134	0	122	723	483	0	314	109	112	0	112	269	139	0	3831
APPROACH %'s :	15.68%	75.07%	9.25%	0.00%	9.19%	54.44%	36.37%	0.00%	58.69%	20.37%	20.93%	0.00%	21.54%	51.73%	26.73%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	76	480	44	0	34	311	151	0	100	33	46	0	48	120	43	0	1486
PEAK HR FACTOR :	0.905	0.876	0.733	0.000	0.607	0.894	0.899	0.000	0.758	0.589	0.885	0.000	0.800	0.811	0.896	0.000	0.950
	0.893				0.919				0.844				0.851				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring Rd & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-023
Date: 4/3/2019

Total

NS/EW Streets:	Spring Rd				Spring Rd				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	2	0	1	0	1	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	118	0	2	0	12	246	0	0	0	55	34	0	467
7:15 AM	0	0	0	0	108	0	2	0	12	285	0	0	0	91	36	0	534
7:30 AM	0	0	0	0	153	0	13	0	13	277	0	0	0	123	55	0	634
7:45 AM	0	0	0	0	135	0	14	0	25	291	0	0	0	150	70	0	685
8:00 AM	0	0	0	0	115	0	14	0	27	293	0	0	0	167	69	0	685
8:15 AM	0	0	0	0	124	0	19	0	37	289	0	0	0	156	71	0	696
8:30 AM	0	0	0	0	154	0	34	0	33	283	0	0	0	159	59	0	722
8:45 AM	0	0	0	0	121	0	31	0	31	243	0	0	0	144	55	0	625
9:00 AM	0	0	0	0	82	0	9	0	12	232	0	0	0	93	42	0	470
9:15 AM	0	0	0	0	49	0	10	0	9	161	0	1	0	93	42	0	365
9:30 AM	0	0	0	0	81	0	3	0	11	184	0	1	0	84	56	0	420
9:45 AM	0	0	0	0	57	0	2	0	18	154	0	0	0	113	61	0	405
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1297	0	153	0	240	2938	0	2	0	1428	650	0	6708
APPROACH %'s :					89.45%	0.00%	10.55%	0.00%	7.55%	92.39%	0.00%	0.06%	0.00%	68.72%	31.28%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	528	0	81	0	122	1156	0	0	0	632	269	0	2788
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.857	0.000	0.596	0.000	0.824	0.986	0.000	0.000	0.000	0.946	0.947	0.000	0.965
					0.810				0.980				0.954				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	2	0	1	0	1	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	82	0	16	0	4	185	0	1	0	249	119	0	656
4:45 PM	0	0	0	0	90	0	15	0	11	160	0	0	0	245	124	0	645
5:00 PM	0	0	0	0	91	0	11	0	17	184	0	0	0	272	111	0	686
5:15 PM	0	0	0	0	64	0	16	0	24	156	0	0	0	256	110	0	626
5:30 PM	0	0	0	0	85	0	24	0	16	166	0	1	0	264	120	0	676
5:45 PM	0	0	0	0	79	0	17	0	15	133	0	0	0	298	133	0	675
6:00 PM	0	0	0	0	64	0	13	0	13	131	0	0	0	318	118	0	657
6:15 PM	0	0	0	0	63	0	18	0	15	127	0	0	0	244	96	0	563
6:30 PM	0	0	0	0	61	0	19	0	14	146	0	0	0	240	80	0	560
6:45 PM	0	0	0	0	50	0	14	0	29	137	0	0	0	198	93	0	521
7:00 PM	0	0	0	0	39	0	12	0	16	110	0	0	0	179	62	0	418
7:15 PM	0	0	0	0	35	0	22	0	7	78	0	0	0	160	54	0	356
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	803	0	197	0	181	1713	0	2	0	2923	1220	0	7039
APPROACH %'s :					80.30%	0.00%	19.70%	0.00%	9.55%	90.35%	0.00%	0.11%	0.00%	70.55%	29.45%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	319	0	68	0	72	639	0	1	0	1090	474	0	2663
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.876	0.000	0.708	0.000	0.750	0.868	0.000	0.250	0.000	0.914	0.891	0.000	0.970
					0.888				0.886				0.907				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring Rd & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-023
Date: 4/4/2019

Total

NS/EW Streets: Spring Rd (Northbound) | Spring Rd (Southbound) | Tierra Rejada Rd (Eastbound) | Tierra Rejada Rd (Westbound)

AM

AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	2	0	1	0	1	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	111	0	3	0	11	263	0	0	0	99	33	0	520
7:15 AM	0	0	0	0	135	0	6	0	14	307	0	0	0	105	26	0	593
7:30 AM	0	0	0	0	167	0	26	0	19	311	0	0	0	219	58	0	800
7:45 AM	0	0	0	0	142	0	24	0	26	312	0	0	0	171	62	0	737
8:00 AM	0	0	0	0	121	0	13	0	33	335	0	0	0	154	76	0	732
8:15 AM	0	0	0	0	139	0	10	0	31	289	0	0	0	123	78	0	670
8:30 AM	0	0	0	0	139	0	16	0	23	245	0	0	0	76	54	0	553
8:45 AM	0	0	0	0	91	0	13	0	22	178	0	0	0	105	45	0	454
9:00 AM	0	0	0	0	92	0	5	0	15	172	0	0	0	69	42	0	395
9:15 AM	0	0	0	0	74	0	3	0	20	171	0	1	0	84	42	0	395
9:30 AM	0	0	0	0	82	0	5	0	14	163	0	0	0	81	47	0	392
9:45 AM	0	0	0	0	72	0	7	0	4	160	0	1	0	100	49	0	393
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1365	0	131	0	232	2906	0	2	0	1386	612	0	6634
APPROACH %'s :					91.24%	0.00%	8.76%	0.00%	7.39%	92.55%	0.00%	0.06%	0.00%	69.37%	30.63%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	569	0	73	0	109	1247	0	0	0	667	274	0	2939
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.852	0.000	0.702	0.000	0.826	0.931	0.000	0.000	0.000	0.761	0.878	0.000	0.918
					0.832				0.921				0.849				

PM

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	2	0	1	0	1	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	86	0	21	0	21	214	0	0	0	263	138	0	743
4:45 PM	0	0	0	0	86	0	19	0	19	150	0	0	0	284	122	0	680
5:00 PM	0	0	0	0	80	0	31	0	15	194	0	0	0	285	135	0	740
5:15 PM	0	0	0	0	67	0	18	0	26	181	0	0	0	274	130	0	696
5:30 PM	0	0	0	0	79	0	20	0	22	151	0	0	0	273	117	0	662
5:45 PM	0	0	0	0	68	0	25	0	24	147	0	1	0	318	122	0	705
6:00 PM	0	0	0	0	69	0	16	0	9	151	0	0	0	298	102	0	645
6:15 PM	0	0	0	0	45	0	15	0	24	105	0	1	0	245	89	0	524
6:30 PM	0	0	0	0	68	0	16	0	16	134	0	0	0	233	77	0	544
6:45 PM	0	0	0	0	32	0	15	0	17	102	0	0	0	196	89	0	451
7:00 PM	0	0	0	0	48	0	14	0	18	98	0	0	0	143	56	0	377
7:15 PM	0	0	0	0	31	0	13	0	5	77	0	1	0	193	69	0	389
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	759	0	223	0	216	1704	0	3	0	3005	1246	0	7156
APPROACH %'s :					77.29%	0.00%	22.71%	0.00%	11.23%	88.61%	0.00%	0.16%	0.00%	70.69%	29.31%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	319	0	89	0	81	739	0	0	0	1106	525	0	2859
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.927	0.000	0.718	0.000	0.779	0.863	0.000	0.000	0.000	0.970	0.951	0.000	0.962
					0.919				0.872				0.971				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Miller Pkwy/Science Dr & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-014
Date: 4/17/2019

Total

NS/EW Streets:	Miller Pkwy/Science Dr				Miller Pkwy/Science Dr				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1	1	0	0.3	0.3	0.3	0	1	3	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	6	1	12	0	3	1	0	0	4	364	8	0	8	252	30	0	689
7:15 AM	11	2	15	0	2	0	2	0	7	386	13	0	0	230	23	0	691
7:30 AM	12	1	20	0	3	0	4	0	15	397	8	0	11	250	35	0	756
7:45 AM	16	4	17	0	5	0	3	0	18	409	21	0	20	327	53	0	893
8:00 AM	12	3	14	0	4	0	6	0	21	339	27	2	17	254	24	1	724
8:15 AM	23	5	29	0	3	0	3	0	18	357	29	1	27	287	21	0	803
8:30 AM	19	5	21	0	0	1	6	0	17	345	58	1	28	253	23	1	778
8:45 AM	27	6	25	1	6	1	1	0	6	343	41	0	34	270	20	0	781
9:00 AM	21	6	16	0	4	0	2	0	9	295	17	2	13	225	14	2	626
9:15 AM	27	3	10	0	5	1	3	0	3	266	18	0	16	251	12	0	615
9:30 AM	29	1	18	1	8	0	3	0	4	283	20	1	12	201	10	0	591
9:45 AM	26	0	19	0	5	1	6	0	7	237	22	2	28	237	9	0	599
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	229	37	216	2	48	5	39	0	129	4021	282	9	214	3037	274	4	8546
APPROACH %'s :	47.31%	7.64%	44.63%	0.41%	52.17%	5.43%	42.39%	0.00%	2.90%	90.54%	6.35%	0.20%	6.06%	86.06%	7.76%	0.11%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	70	17	81	0	12	1	18	0	74	1450	135	4	92	1121	121	2	3198
PEAK HR FACTOR :	0.761	0.850	0.698	0.000	0.600	0.250	0.750	0.000	0.881	0.886	0.582	0.500	0.821	0.857	0.571	0.500	0.895
	0.737				0.775				0.928				0.835				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1	1	0	0.3	0.3	0.3	0	1	3	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	30	1	16	1	52	2	23	0	5	272	36	3	26	372	7	0	846
4:45 PM	62	0	18	0	25	3	13	0	1	287	34	1	31	384	5	0	864
5:00 PM	52	0	42	0	24	3	9	0	4	296	14	2	28	401	5	0	880
5:15 PM	46	2	18	0	27	7	12	0	4	275	21	1	34	393	4	1	845
5:30 PM	49	1	27	0	19	2	8	0	2	287	25	1	26	404	4	0	855
5:45 PM	42	0	19	0	13	2	2	0	1	271	26	4	30	415	6	0	831
6:00 PM	43	0	24	0	14	3	7	0	1	300	26	1	22	358	6	0	805
6:15 PM	46	2	18	0	9	0	9	0	8	285	18	1	15	356	3	0	770
6:30 PM	44	0	10	0	6	2	7	0	2	300	21	0	16	319	1	0	728
6:45 PM	36	0	12	0	6	2	7	0	3	249	21	2	22	303	3	0	666
7:00 PM	40	0	20	0	6	4	7	0	5	225	20	2	13	255	1	0	598
7:15 PM	28	1	12	0	4	0	1	0	3	195	16	0	11	272	5	1	549
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	518	7	236	1	205	30	105	0	39	3242	278	18	274	4232	50	2	9237
APPROACH %'s :	67.98%	0.92%	30.97%	0.13%	60.29%	8.82%	30.88%	0.00%	1.09%	90.63%	7.77%	0.50%	6.01%	92.85%	1.10%	0.04%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	209	3	105	0	95	15	42	0	11	1145	94	5	119	1582	18	1	3444
PEAK HR FACTOR :	0.843	0.375	0.625	0.000	0.880	0.536	0.808	0.000	0.688	0.967	0.691	0.625	0.875	0.979	0.900	0.250	0.978
	0.843				0.826				0.971				0.991				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Miller Pkwy/Science Dr & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-014
Date: 4/18/2019

Total

NS/EW Streets:	Miller Pkwy/Science Dr				Miller Pkwy/Science Dr				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1	1	0	0.3	0.3	0.3	0	1	3	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	16	1	12	0	3	1	0	0	10	316	1	0	7	203	20	0	590
7:15 AM	8	0	21	1	1	0	1	0	8	350	9	0	5	231	23	0	658
7:30 AM	10	0	20	0	1	0	3	0	10	341	5	0	14	223	33	0	660
7:45 AM	12	3	18	0	2	0	3	0	15	352	14	0	9	281	38	0	747
8:00 AM	19	3	13	0	4	0	2	0	14	336	18	0	8	216	37	0	670
8:15 AM	12	3	11	0	3	0	7	0	16	309	30	1	23	282	25	0	722
8:30 AM	16	1	16	0	1	1	3	0	9	345	45	0	28	242	14	0	721
8:45 AM	29	6	22	0	2	0	1	0	7	275	30	2	35	224	14	0	647
9:00 AM	20	2	11	0	1	1	7	0	8	337	14	2	11	220	10	0	644
9:15 AM	26	0	17	0	2	0	3	0	6	268	14	0	17	186	12	0	551
9:30 AM	16	1	15	0	1	0	8	0	4	327	10	0	9	203	6	0	600
9:45 AM	23	1	13	0	4	0	3	0	8	278	23	0	14	222	7	0	596
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	207	21	189	1	25	3	41	0	115	3834	213	5	180	2733	239	0	7806
APPROACH %'s :	49.52%	5.02%	45.22%	0.24%	36.23%	4.35%	59.42%	0.00%	2.76%	92.01%	5.11%	0.12%	5.71%	86.71%	7.58%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	59	10	58	0	10	1	15	0	54	1342	107	1	68	1021	114	0	2860
PEAK HR FACTOR :	0.776	0.833	0.806	0.000	0.625	0.250	0.536	0.000	0.844	0.953	0.594	0.250	0.607	0.905	0.750	0.000	0.957
	0.907				0.650				0.942				0.911				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1	1	0	0.3	0.3	0.3	0	1	3	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	48	1	26	1	41	4	17	0	5	295	22	2	24	397	7	0	890
4:45 PM	70	2	23	0	26	3	7	0	3	336	28	1	28	366	3	0	896
5:00 PM	45	0	22	1	24	4	14	0	2	309	27	1	24	400	5	0	878
5:15 PM	38	1	12	1	17	6	2	0	3	295	32	5	25	424	2	0	863
5:30 PM	52	1	17	2	15	3	4	0	3	312	32	0	27	407	2	0	877
5:45 PM	47	2	23	1	11	2	10	0	2	318	21	3	25	380	5	0	850
6:00 PM	41	0	15	0	10	2	7	0	1	272	25	3	19	366	5	0	766
6:15 PM	44	0	22	0	12	4	10	0	2	269	27	1	9	355	9	0	764
6:30 PM	44	0	10	0	7	2	7	0	2	290	17	0	17	317	1	0	714
6:45 PM	36	0	11	0	6	1	5	0	3	251	18	2	20	302	3	0	658
7:00 PM	40	0	15	2	7	1	4	0	5	229	16	0	15	285	1	0	620
7:15 PM	31	2	12	0	1	1	4	0	4	212	16	2	16	300	1	0	602
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	536	9	208	8	177	33	91	0	35	3388	281	20	249	4299	44	0	9378
APPROACH %'s :	70.43%	1.18%	27.33%	1.05%	58.80%	10.96%	30.23%	0.00%	0.94%	90.98%	7.55%	0.54%	5.42%	93.62%	0.96%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	201	4	83	3	108	17	40	0	13	1235	109	9	101	1587	17	0	3527
PEAK HR FACTOR :	0.718	0.500	0.798	0.750	0.659	0.708	0.588	0.000	0.650	0.919	0.852	0.450	0.902	0.936	0.607	0.000	0.984
	0.766				0.665				0.928				0.945				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Rd/Miller Pkwy & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-024
Date: 4/3/2019

Total

NS/EW Streets:	Moorpark Rd/Miller Pkwy				Moorpark Rd/Miller Pkwy				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	2	0	1	0	1	0	1	2	1	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	20	0	89	0	26	0	6	0	7	265	100	0	159	70	6	0	748
7:15 AM	26	0	119	0	34	0	8	0	2	256	122	0	154	84	16	0	821
7:30 AM	41	0	115	0	34	0	11	0	2	273	193	0	198	113	13	0	993
7:45 AM	59	0	122	0	28	0	18	0	8	227	166	0	202	145	22	0	997
8:00 AM	49	0	98	0	31	1	32	0	14	268	111	0	160	166	34	0	964
8:15 AM	54	0	133	0	50	0	23	0	23	266	138	0	177	144	29	0	1037
8:30 AM	32	0	120	0	36	0	28	0	23	262	142	0	153	147	26	0	969
8:45 AM	55	0	124	0	35	0	20	0	33	227	115	0	156	137	35	0	937
9:00 AM	46	0	104	0	24	0	6	0	25	194	81	0	131	87	15	0	713
9:15 AM	42	0	131	0	14	0	12	0	11	174	41	0	93	86	22	0	626
9:30 AM	36	0	95	0	18	0	5	0	6	178	56	0	79	94	31	0	598
9:45 AM	52	1	105	0	23	0	13	0	3	151	74	0	87	105	27	0	641
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	512	1	1355	0	353	1	182	0	157	2741	1339	0	1749	1378	276	0	10044
APPROACH %'s :	27.41%	0.05%	72.54%	0.00%	65.86%	0.19%	33.96%	0.00%	3.71%	64.69%	31.60%	0.00%	51.40%	40.49%	8.11%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	203	0	468	0	143	1	84	0	47	1034	608	0	737	568	98	0	3991
PEAK HR FACTOR :	0.860	0.000	0.880	0.000	0.715	0.250	0.656	0.000	0.511	0.947	0.788	0.000	0.912	0.855	0.721	0.000	0.962
	0.897				0.781				0.902				0.951				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	2	0	1	0	1	0	1	2	1	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	105	0	196	0	34	0	20	0	21	203	37	0	171	245	40	0	1072
4:45 PM	100	1	199	0	18	0	24	0	17	180	59	0	138	243	39	0	1018
5:00 PM	106	0	208	0	30	0	24	0	12	186	59	0	126	254	30	0	1035
5:15 PM	102	0	217	0	27	0	20	0	8	177	48	0	172	247	32	0	1050
5:30 PM	110	0	220	0	25	0	14	0	15	170	59	0	128	246	25	0	1012
5:45 PM	141	0	185	0	19	0	21	0	16	155	51	0	90	287	45	0	1010
6:00 PM	102	0	163	0	17	0	21	0	12	134	36	0	91	298	53	0	927
6:15 PM	94	0	167	0	19	0	20	0	16	128	53	0	103	214	36	0	850
6:30 PM	72	0	121	0	18	0	21	0	22	147	39	0	73	245	28	0	786
6:45 PM	73	0	78	0	19	0	22	0	23	109	53	0	69	187	36	0	669
7:00 PM	57	0	71	0	19	0	19	0	10	110	34	0	68	182	26	0	596
7:15 PM	59	0	59	0	10	0	12	0	13	78	28	0	72	138	29	0	498
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1121	1	1884	0	255	0	238	0	185	1777	556	0	1301	2786	419	0	10523
APPROACH %'s :	37.29%	0.03%	62.67%	0.00%	51.72%	0.00%	48.28%	0.00%	7.35%	70.57%	22.08%	0.00%	28.87%	61.83%	9.30%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	413	1	820	0	109	0	88	0	58	746	203	0	607	989	141	0	4175
PEAK HR FACTOR :	0.974	0.250	0.945	0.000	0.801	0.000	0.917	0.000	0.690	0.919	0.860	0.000	0.882	0.973	0.881	0.000	0.974
	0.967				0.912				0.965				0.952				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Rd/Miller Pkwy & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-024
Date: 4/4/2019

Total

NS/EW Streets:	Moorpark Rd/Miller Pkwy				Moorpark Rd/Miller Pkwy				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	2	0	1	0	1	0	1	2	1	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	20	0	102	0	31	0	11	0	6	263	92	0	151	100	11	0	787
7:15 AM	25	0	108	0	39	0	11	0	5	277	123	0	173	99	8	0	868
7:30 AM	47	0	113	0	38	0	36	0	6	269	204	0	193	161	10	0	1077
7:45 AM	39	0	121	0	18	1	38	0	15	276	175	0	188	190	11	0	1072
8:00 AM	53	0	109	0	44	1	19	0	45	289	119	0	169	140	27	0	1015
8:15 AM	62	0	158	0	46	0	18	0	21	272	141	0	170	139	18	0	1045
8:30 AM	26	0	122	0	26	0	3	0	17	263	123	0	153	92	28	0	853
8:45 AM	49	0	151	0	31	0	8	0	13	196	83	0	163	94	17	0	805
9:00 AM	35	0	116	0	14	0	8	0	4	190	52	0	108	79	16	0	622
9:15 AM	31	0	115	0	18	0	7	0	6	181	81	0	84	77	14	0	614
9:30 AM	49	1	132	0	23	0	6	0	6	167	62	0	78	82	18	0	624
9:45 AM	35	1	108	0	17	0	11	0	11	161	71	0	78	106	16	0	615
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	471	2	1455	0	345	2	176	0	155	2804	1326	0	1708	1359	194	0	9997
APPROACH %'s :	24.43%	0.10%	75.47%	0.00%	65.97%	0.38%	33.65%	0.00%	3.62%	65.44%	30.95%	0.00%	52.38%	41.67%	5.95%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	201	0	501	0	146	2	111	0	87	1106	639	0	720	630	66	0	4209
PEAK HR FACTOR :	0.810	0.000	0.793	0.000	0.793	0.500	0.730	0.000	0.483	0.957	0.783	0.000	0.933	0.829	0.611	0.000	0.977
	0.798				0.875				0.956				0.910				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	2	0	1	0	1	0	1	2	1	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	127	0	181	0	27	0	21	0	11	218	59	0	165	277	40	0	1126
4:45 PM	133	1	179	0	25	0	28	0	10	172	72	0	120	237	54	0	1031
5:00 PM	124	0	183	0	31	0	29	0	18	185	63	0	134	258	45	0	1070
5:15 PM	99	1	208	0	32	0	23	0	22	190	49	0	138	299	35	0	1096
5:30 PM	110	0	190	0	26	0	22	0	14	183	32	0	125	260	45	0	1007
5:45 PM	122	0	186	0	21	0	30	0	20	141	59	0	86	282	43	0	990
6:00 PM	132	0	158	0	22	0	20	0	12	138	55	0	114	260	42	0	953
6:15 PM	86	0	142	0	21	0	22	0	11	108	44	0	103	228	43	0	808
6:30 PM	73	0	106	0	25	0	15	0	10	149	49	0	86	226	26	0	765
6:45 PM	69	1	91	0	19	0	17	0	19	89	34	0	84	196	16	0	635
7:00 PM	48	0	50	0	12	0	17	0	10	104	25	0	70	148	28	0	512
7:15 PM	51	0	64	0	7	0	18	0	15	75	27	0	53	181	32	0	523
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1174	3	1738	0	268	0	262	0	172	1752	568	0	1278	2852	449	0	10516
APPROACH %'s :	40.27%	0.10%	59.62%	0.00%	50.57%	0.00%	49.43%	0.00%	6.90%	70.30%	22.79%	0.00%	27.91%	62.28%	9.81%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	483	2	751	0	115	0	101	0	61	765	243	0	557	1071	174	0	4323
PEAK HR FACTOR :	0.908	0.500	0.903	0.000	0.898	0.000	0.871	0.000	0.693	0.877	0.844	0.000	0.844	0.895	0.806	0.000	0.960
	0.987				0.900				0.928				0.935				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Rd/Marvella Ct & Santa Rosa Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-027
Date: 4/24/2019

Total

NS/EW Streets:	Moorpark Rd/Marvella Ct				Moorpark Rd/Marvella Ct				Santa Rosa Rd				Santa Rosa Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0.5	0.5	1	0	2	1	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	50	1	198	0	95	55	0	0	0	37	8	0	444
7:15 AM	0	1	2	0	74	0	220	0	138	95	2	0	1	22	15	0	570
7:30 AM	0	1	2	0	114	0	215	0	152	120	4	0	0	35	21	0	664
7:45 AM	2	0	2	0	133	0	231	0	149	116	0	0	0	40	27	0	700
8:00 AM	1	1	1	0	99	1	235	0	135	96	0	0	1	48	24	0	642
8:15 AM	1	0	0	0	118	0	230	0	155	81	1	0	1	32	24	0	643
8:30 AM	0	0	2	0	116	0	173	0	153	86	0	0	0	35	18	0	583
8:45 AM	0	1	1	0	101	0	171	0	167	69	0	0	0	37	23	0	570
9:00 AM	2	0	1	0	68	1	151	0	122	78	0	0	0	37	19	0	479
9:15 AM	0	0	0	0	25	0	119	0	136	53	0	0	1	30	25	0	389
9:30 AM	0	2	0	0	24	1	106	0	120	51	0	0	0	27	25	0	356
9:45 AM	0	0	2	0	29	0	139	0	140	42	1	0	0	36	29	0	418
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	6	13	0	951	4	2188	0	1662	942	8	0	4	416	258	0	6458
APPROACH %'s :	24.00%	24.00%	52.00%	0.00%	30.26%	0.13%	69.62%	0.00%	63.63%	36.06%	0.31%	0.00%	0.59%	61.36%	38.05%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	4	2	5	0	464	1	911	0	591	413	5	0	2	155	96	0	2649
PEAK HR FACTOR :	0.500	0.500	0.625	0.000	0.872	0.250	0.969	0.000	0.953	0.860	0.313	0.000	0.500	0.807	0.889	0.000	0.946
	0.688				0.945				0.914				0.866				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0.5	0.5	1	0	2	1	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	1	0	22	0	171	0	180	53	3	0	0	71	92	0	593
4:45 PM	0	2	2	0	27	2	229	0	224	53	0	0	0	70	114	0	723
5:00 PM	0	0	1	0	30	0	217	0	230	64	0	0	0	88	91	0	721
5:15 PM	0	0	1	0	37	1	194	0	256	64	0	0	0	85	78	0	716
5:30 PM	0	0	0	0	19	0	204	0	226	52	0	0	0	62	99	0	662
5:45 PM	0	0	1	0	24	1	134	0	181	54	0	0	1	53	50	0	499
6:00 PM	1	2	1	0	12	0	151	0	141	55	0	0	1	81	83	0	528
6:15 PM	0	0	1	0	29	1	131	0	172	75	0	0	0	49	85	0	543
6:30 PM	0	0	0	0	32	1	96	0	124	50	0	0	0	69	42	0	414
6:45 PM	0	0	0	0	16	0	86	0	87	34	0	0	1	38	48	0	310
7:00 PM	0	0	0	0	21	0	88	0	82	19	1	0	3	58	34	0	306
7:15 PM	0	2	0	0	21	0	56	0	55	23	0	0	2	26	27	0	212
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	6	8	0	290	6	1757	0	1958	596	4	0	8	750	843	0	6227
APPROACH %'s :	6.67%	40.00%	53.33%	0.00%	14.13%	0.29%	85.58%	0.00%	76.54%	23.30%	0.16%	0.00%	0.50%	46.85%	52.65%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	2	4	0	113	3	844	0	936	233	0	0	0	305	382	0	2822
PEAK HR FACTOR :	0.000	0.250	0.500	0.000	0.764	0.375	0.921	0.000	0.914	0.910	0.000	0.000	0.000	0.866	0.838	0.000	0.976
	0.375				0.930				0.913				0.933				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Moorpark Rd/Marvella Ct & Santa Rosa Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-027
Date: 4/25/2019

Total

NS/EW Streets:	Moorpark Rd/Marvella Ct				Moorpark Rd/Marvella Ct				Santa Rosa Rd				Santa Rosa Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0.5	0.5	1	0	2	1	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	45	0	190	0	140	50	0	0	0	22	11	0	458
7:15 AM	0	0	1	0	57	0	209	0	145	59	0	0	0	15	13	0	499
7:30 AM	1	0	2	0	122	0	250	0	148	119	0	0	0	31	40	0	713
7:45 AM	0	1	1	0	66	0	184	0	143	98	0	0	0	29	25	0	547
8:00 AM	0	1	1	0	80	0	204	0	137	58	0	0	0	26	16	0	523
8:15 AM	1	0	0	0	82	0	206	0	125	66	0	0	0	47	23	0	550
8:30 AM	0	0	1	0	91	0	206	0	196	104	0	0	0	35	16	0	649
8:45 AM	0	0	0	0	82	0	190	0	137	126	0	0	0	26	13	0	574
9:00 AM	0	0	3	0	42	0	123	0	117	61	0	0	0	45	30	0	421
9:15 AM	1	0	1	0	21	0	123	0	110	51	0	0	0	32	22	0	361
9:30 AM	0	0	1	0	41	2	102	0	129	51	0	0	0	28	32	0	386
9:45 AM	0	0	2	0	21	0	86	0	136	58	2	0	0	34	42	0	381
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	2	13	0	750	2	2073	0	1663	901	2	0	0	370	283	0	6062
APPROACH %'s :	16.67%	11.11%	72.22%	0.00%	26.55%	0.07%	73.38%	0.00%	64.81%	35.11%	0.08%	0.00%	0.00%	56.66%	43.34%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	2	2	4	0	350	0	844	0	553	341	0	0	0	133	104	0	2333
PEAK HR FACTOR :	0.500	0.500	0.500	0.000	0.717	0.000	0.844	0.000	0.934	0.716	0.000	0.000	0.000	0.707	0.650	0.000	0.818
	0.667				0.802				0.837				0.835				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0.5	0.5	1	0	2	1	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	1	0	0	51	0	140	0	193	56	0	0	0	94	154	0	689
4:45 PM	1	0	0	0	29	1	221	0	254	60	0	0	0	94	120	0	780
5:00 PM	0	0	0	0	16	0	243	0	229	49	0	0	0	108	84	0	729
5:15 PM	0	0	4	0	25	0	205	0	246	60	0	0	1	89	88	0	718
5:30 PM	1	0	1	0	19	2	222	0	255	67	0	0	0	105	95	0	767
5:45 PM	0	0	2	0	31	2	183	0	208	41	1	0	2	90	77	0	637
6:00 PM	0	0	1	0	22	0	154	0	169	44	0	0	1	83	78	0	552
6:15 PM	1	1	1	0	27	1	100	0	141	36	1	0	1	82	50	0	442
6:30 PM	1	0	3	0	34	0	109	0	113	36	1	0	2	91	63	0	453
6:45 PM	0	0	1	0	17	1	74	0	118	25	1	0	0	69	40	0	346
7:00 PM	0	0	0	0	18	0	103	0	86	22	0	0	1	40	37	0	307
7:15 PM	0	0	3	0	21	0	90	0	80	29	1	0	4	33	41	0	302
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	2	16	0	310	7	1844	0	2092	525	5	0	12	978	927	0	6722
APPROACH %'s :	18.18%	9.09%	72.73%	0.00%	14.35%	0.32%	85.33%	0.00%	79.79%	20.02%	0.19%	0.00%	0.63%	51.02%	48.36%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	2	0	5	0	89	3	891	0	984	236	0	0	1	396	387	0	2994
PEAK HR FACTOR :	0.500	0.000	0.313	0.000	0.767	0.375	0.917	0.000	0.965	0.881	0.000	0.000	0.250	0.917	0.806	0.000	0.960
	0.438				0.949				0.947				0.916				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Dr & 118 WB Ramps
City: Moorpark
Control: Signalized

Project ID: 19-05109-031
Date: 4/24/2019

Total

NS/EW Streets: Collins Dr (Northbound) | Collins Dr (Southbound) | 118 WB Ramps (Eastbound) | 118 WB Ramps (Westbound)

AM

AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	0.3	0.3	1.3	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	20	87	0	0	0	49	47	0	0	0	0	0	0	0	23	0	226
7:15 AM	18	128	0	0	0	55	99	0	0	0	0	0	3	0	72	0	375
7:30 AM	24	133	0	0	0	49	69	0	0	0	0	0	1	0	66	0	342
7:45 AM	16	267	0	0	0	64	100	0	0	0	0	0	1	0	150	0	598
8:00 AM	15	278	0	0	0	78	159	0	0	0	0	0	2	0	129	0	661
8:15 AM	22	347	0	0	0	70	119	0	0	0	0	0	2	0	156	0	716
8:30 AM	24	176	0	0	0	68	105	0	0	0	0	0	2	1	102	0	478
8:45 AM	21	140	0	0	0	56	70	0	0	0	0	0	3	1	100	0	391
9:00 AM	14	143	0	0	0	58	55	0	0	0	0	0	0	1	66	0	337
9:15 AM	12	166	0	0	0	51	53	0	0	0	0	0	3	0	90	0	375
9:30 AM	14	304	0	0	0	56	71	0	0	0	0	0	1	0	173	0	619
9:45 AM	10	376	0	0	0	161	166	0	0	0	0	0	2	0	231	0	946
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	210	2545	0	0	0	815	1113	0	0	0	0	0	20	3	1358	0	6064
APPROACH %'s :	7.62%	92.38%	0.00%	0.00%	0.00%	42.27%	57.73%	0.00%					1.45%	0.22%	98.33%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	77	1068	0	0	0	280	483	0	0	0	0	0	7	1	537	0	2453
PEAK HR FACTOR :	0.802	0.769	0.000	0.000	0.000	0.897	0.759	0.000	0.000	0.000	0.000	0.000	0.875	0.250	0.861	0.000	0.856
	0.776				0.805								0.862				

PM

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	0.3	0.3	1.3	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	29	123	0	0	0	99	113	0	0	0	0	0	4	0	58	0	426
4:45 PM	47	98	0	0	0	90	115	0	0	0	0	0	8	0	84	0	442
5:00 PM	22	142	0	0	0	115	84	0	0	0	0	0	4	0	74	0	441
5:15 PM	46	123	0	0	0	95	82	0	0	0	0	0	14	0	92	0	452
5:30 PM	27	123	0	0	0	100	78	0	0	0	0	0	3	0	74	0	405
5:45 PM	16	141	0	0	0	88	78	0	0	0	0	0	6	2	92	0	423
6:00 PM	21	112	0	0	0	84	108	0	0	0	0	0	4	0	88	0	417
6:15 PM	14	95	0	0	0	102	100	0	0	0	0	0	3	0	69	0	383
6:30 PM	18	101	0	0	0	77	112	0	0	0	0	0	2	0	70	0	380
6:45 PM	20	117	0	0	0	80	120	0	0	0	0	0	7	0	75	0	419
7:00 PM	11	76	0	0	0	82	94	0	0	0	0	0	7	1	83	0	354
7:15 PM	5	67	0	0	0	45	54	0	0	0	0	0	6	0	53	0	230
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	276	1318	0	0	0	1057	1138	0	0	0	0	0	68	3	912	0	4772
APPROACH %'s :	17.31%	82.69%	0.00%	0.00%	0.00%	48.15%	51.85%	0.00%					6.92%	0.31%	92.78%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	144	486	0	0	0	399	394	0	0	0	0	0	30	0	308	0	1761
PEAK HR FACTOR :	0.766	0.856	0.000	0.000	0.000	0.867	0.857	0.000	0.000	0.000	0.000	0.000	0.536	0.000	0.837	0.000	0.974
	0.932				0.935								0.797				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Dr & 118 WB Ramps
City: Moorpark
Control: Signalized

Project ID: 19-05109-031
Date: 4/25/2019

Total

NS/EW Streets:	Collins Dr				Collins Dr				118 WB Ramps				118 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	0.3	0.3	1.3	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	17	32	0	0	0	59	58	0	0	0	0	0	1	1	40	0	208
7:15 AM	24	85	0	0	0	46	77	0	0	0	0	0	0	0	98	0	330
7:30 AM	22	140	0	0	0	62	98	0	0	0	0	0	3	0	98	0	423
7:45 AM	17	319	0	0	0	58	90	0	0	0	0	0	3	0	170	0	657
8:00 AM	19	315	0	0	0	97	105	0	0	0	0	0	0	0	155	0	691
8:15 AM	25	345	0	0	0	55	100	0	0	0	0	0	0	0	178	0	703
8:30 AM	11	173	0	0	0	72	120	0	0	0	0	0	3	0	125	0	504
8:45 AM	18	105	0	0	0	31	71	0	0	0	0	0	3	0	140	0	368
9:00 AM	11	119	0	0	0	57	52	0	0	0	0	0	1	1	90	0	331
9:15 AM	16	139	0	0	0	36	56	0	0	0	0	0	3	0	111	0	361
9:30 AM	13	325	0	0	0	95	39	0	0	0	0	0	2	0	214	0	688
9:45 AM	15	380	0	0	0	135	105	0	0	0	0	0	3	0	225	0	863
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	208	2477	0	0	0	803	971	0	0	0	0	0	22	2	1644	0	6127
APPROACH %'s :	7.75%	92.25%	0.00%	0.00%	0.00%	45.26%	54.74%	0.00%					1.32%	0.12%	98.56%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	72	1152	0	0	0	282	415	0	0	0	0	0	6	0	628	0	2555
PEAK HR FACTOR :	0.720	0.835	0.000	0.000	0.000	0.727	0.865	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.882	0.000	0.909
	0.827				0.863								0.890				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	2	0	0	0	2	0	0	0	0	0	0	0.3	0.3	1.3	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	46	95	0	0	0	76	50	0	0	0	0	0	7	0	77	0	351
4:45 PM	40	99	0	0	0	108	116	0	0	0	0	0	3	0	60	0	426
5:00 PM	51	100	0	0	0	119	101	0	0	0	0	0	7	0	71	0	449
5:15 PM	24	110	0	0	0	75	62	0	0	0	0	0	5	0	74	0	350
5:30 PM	22	117	0	0	0	60	53	0	0	0	0	0	4	1	77	0	334
5:45 PM	16	123	0	0	0	89	82	0	0	0	0	0	4	0	70	0	384
6:00 PM	18	66	0	0	0	91	84	0	0	0	0	0	2	0	46	0	307
6:15 PM	23	101	0	0	0	100	95	0	0	0	0	0	6	0	54	0	379
6:30 PM	20	78	0	0	0	88	73	0	0	0	0	0	1	0	73	0	333
6:45 PM	18	106	0	0	0	66	61	0	0	0	0	0	7	0	74	0	332
7:00 PM	10	111	0	0	0	93	64	0	0	0	0	0	6	1	82	0	367
7:15 PM	4	58	0	0	0	72	36	0	0	0	0	0	6	0	52	0	228
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	292	1164	0	0	0	1037	877	0	0	0	0	0	58	2	810	0	4240
APPROACH %'s :	20.05%	79.95%	0.00%	0.00%	0.00%	54.18%	45.82%	0.00%					6.67%	0.23%	93.10%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	161	404	0	0	0	378	329	0	0	0	0	0	22	0	282	0	1576
PEAK HR FACTOR :	0.789	0.918	0.000	0.000	0.000	0.794	0.709	0.000	0.000	0.000	0.000	0.000	0.786	0.000	0.916	0.000	0.878
	0.935				0.789								0.905				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Dr & 118 EB Ramps
City: Moorpark
Control: Signalized

Project ID: 19-05109-032
Date: 4/24/2019

Total

NS/EW Streets:	Collins Dr				Collins Dr				118 EB Ramps				118 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1.5	0.5	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	3	0	46	0	69	13	0	0	0	6	38	0	175
7:15 AM	0	0	0	0	4	0	54	0	107	16	0	0	0	3	38	0	222
7:30 AM	0	0	0	0	6	0	44	0	115	13	0	0	0	4	43	0	225
7:45 AM	0	0	0	0	8	0	57	0	210	23	0	0	0	6	73	0	377
8:00 AM	0	0	0	0	15	0	70	0	224	17	0	0	0	2	70	0	398
8:15 AM	0	0	0	0	12	0	55	0	277	14	0	0	0	8	91	0	457
8:30 AM	0	0	0	0	13	0	57	0	148	17	0	0	0	4	52	0	291
8:45 AM	0	0	0	0	16	0	43	0	121	15	0	0	0	3	39	0	237
9:00 AM	0	0	0	0	6	0	52	0	119	9	0	0	0	3	39	0	228
9:15 AM	0	0	0	0	9	0	46	0	141	12	0	0	0	3	33	0	244
9:30 AM	0	0	0	0	9	0	47	0	290	10	0	0	0	4	36	0	396
9:45 AM	0	0	0	0	31	0	128	0	340	8	0	0	0	1	42	0	550
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	132	0	699	0	2161	167	0	0	0	47	594	0	3800
APPROACH %'s :					15.88%	0.00%	84.12%	0.00%	92.83%	7.17%	0.00%	0.00%	0.00%	7.33%	92.67%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	48	0	239	0	859	71	0	0	0	20	286	0	1523
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.800	0.000	0.854	0.000	0.775	0.772	0.000	0.000	0.000	0.625	0.786	0.000	0.833
					0.844				0.799				0.773				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	1	0	1	0	1.5	0.5	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	50	0	58	0	101	99	0	0	0	1	67	0	376
4:45 PM	0	0	0	0	41	0	46	0	94	82	0	0	0	5	37	0	305
5:00 PM	0	0	0	0	78	0	57	0	112	109	0	0	0	1	63	0	420
5:15 PM	0	0	0	0	48	0	48	0	114	81	0	0	0	1	44	0	336
5:30 PM	0	0	0	0	67	0	54	0	114	66	0	0	0	0	42	0	343
5:45 PM	0	0	0	0	32	0	46	0	122	62	0	0	0	0	45	0	307
6:00 PM	0	0	0	0	52	0	53	0	86	36	0	0	0	0	34	0	261
6:15 PM	0	0	0	0	32	0	58	0	78	31	0	0	0	3	34	0	236
6:30 PM	0	0	0	0	23	0	61	0	89	10	0	0	0	3	40	0	226
6:45 PM	0	0	0	0	14	0	90	0	109	19	0	0	0	2	33	0	267
7:00 PM	0	0	0	0	22	0	56	0	59	6	0	0	0	0	21	0	164
7:15 PM	0	0	0	0	7	0	39	0	47	22	0	0	0	0	17	0	132
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	466	0	666	0	1125	623	0	0	0	16	477	0	3373
APPROACH %'s :					41.17%	0.00%	58.83%	0.00%	64.36%	35.64%	0.00%	0.00%	0.00%	3.25%	96.75%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	217	0	209	0	421	371	0	0	0	8	211	0	1437
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.696	0.000	0.901	0.000	0.923	0.851	0.000	0.000	0.000	0.400	0.787	0.000	0.855
					0.789				0.896				0.805				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Collins Dr & 118 EB Ramps
City: Moorpark
Control: Signalized

Project ID: 19-05109-032
Date: 4/25/2019

Total

NS/EW Streets:	Collins Dr				Collins Dr				118 EB Ramps				118 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1.5	0.5	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	1	0	23	0	29	7	0	0	0	3	14	0	77
7:15 AM	0	0	0	0	3	0	45	0	70	15	0	0	0	4	42	0	179
7:30 AM	0	0	0	0	10	0	41	0	101	8	0	0	0	5	53	0	218
7:45 AM	0	0	0	0	16	0	66	0	280	14	0	0	0	2	71	0	449
8:00 AM	0	0	0	0	15	0	73	0	183	15	0	0	0	7	134	0	427
8:15 AM	0	0	0	0	16	0	60	0	285	11	0	0	0	5	103	0	480
8:30 AM	0	0	0	0	15	0	52	0	120	12	0	0	0	1	44	0	244
8:45 AM	0	0	0	0	3	0	44	0	95	5	0	0	0	2	31	0	180
9:00 AM	0	0	0	0	13	0	36	0	90	15	0	0	0	1	24	0	179
9:15 AM	0	0	0	0	11	0	49	0	137	6	0	0	0	4	32	0	239
9:30 AM	0	0	0	0	19	0	66	0	289	9	0	0	0	3	46	0	432
9:45 AM	0	0	0	0	40	0	127	0	366	8	0	0	0	6	61	0	608
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	162	0	682	0	2045	125	0	0	0	43	655	0	3712
APPROACH %'s :					19.19%	0.00%	80.81%	0.00%	94.24%	5.76%	0.00%	0.00%	0.00%	6.16%	93.84%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	62	0	251	0	868	52	0	0	0	15	352	0	1600
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.969	0.000	0.860	0.000	0.761	0.867	0.000	0.000	0.000	0.536	0.657	0.000	0.833
					0.889				0.777				0.651				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	1	0	1	0	1.5	0.5	0	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	40	0	30	0	25	30	0	0	0	0	50	0	175
4:45 PM	0	0	0	0	62	0	60	0	79	103	0	0	0	0	66	0	370
5:00 PM	0	0	0	0	81	0	49	0	95	56	0	0	0	3	55	0	339
5:15 PM	0	0	0	0	37	0	38	0	117	88	0	0	0	2	48	0	330
5:30 PM	0	0	0	0	33	0	32	0	114	100	0	0	0	0	42	0	321
5:45 PM	0	0	0	0	38	0	41	0	105	90	0	0	0	0	41	0	315
6:00 PM	0	0	0	0	40	0	56	0	66	79	0	0	0	3	28	0	272
6:15 PM	0	0	0	0	52	0	56	0	92	72	0	0	0	6	36	0	314
6:30 PM	0	0	0	0	28	0	48	0	93	67	0	0	0	0	32	0	268
6:45 PM	0	0	0	0	26	0	70	0	102	12	0	0	0	4	28	0	242
7:00 PM	0	0	0	0	11	0	62	0	45	25	0	0	0	2	31	0	176
7:15 PM	0	0	0	0	28	0	59	0	47	15	0	0	0	5	41	0	195
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	476	0	601	0	980	737	0	0	0	25	498	0	3317
APPROACH %'s :					44.20%	0.00%	55.80%	0.00%	57.08%	42.92%	0.00%	0.00%	0.00%	4.78%	95.22%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	213	0	179	0	405	347	0	0	0	5	211	0	1360
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.657	0.000	0.746	0.000	0.865	0.842	0.000	0.000	0.000	0.417	0.799	0.000	0.919
					0.754				0.879				0.818				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-23 SB Ramps & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-015
Date: 4/17/2019

Total

NS/EW Streets:	SR-23 SB Ramps				SR-23 SB Ramps				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	0	2	2	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	12	0	209	0	0	143	194	0	1	92	0	0	651
7:15 AM	0	0	0	0	10	0	175	0	0	174	234	0	1	89	0	0	683
7:30 AM	0	0	0	0	9	0	192	0	0	172	276	0	3	118	0	2	772
7:45 AM	0	0	0	0	5	0	261	0	0	209	189	0	1	168	0	1	834
8:00 AM	0	0	0	0	7	0	207	0	0	196	190	0	0	137	0	0	737
8:15 AM	0	0	0	0	3	0	219	0	0	203	171	0	1	122	0	0	719
8:30 AM	0	0	0	0	2	0	249	0	0	206	177	0	0	102	0	5	741
8:45 AM	0	0	0	0	4	0	234	0	0	177	175	0	0	115	0	1	706
9:00 AM	0	0	0	0	5	1	197	0	0	158	138	0	3	96	0	0	598
9:15 AM	0	0	0	0	2	0	202	0	0	178	122	0	3	101	0	2	610
9:30 AM	0	0	0	0	3	0	158	0	0	139	137	0	1	104	0	3	545
9:45 AM	0	0	0	0	3	0	188	0	0	108	164	0	0	101	0	0	564
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	65	1	2491	0	0	2063	2167	0	14	1345	0	14	8160
APPROACH %'s :					2.54%	0.04%	97.42%	0.00%	0.00%	48.77%	51.23%	0.00%	1.02%	97.96%	0.00%	1.02%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	24	0	879	0	0	780	826	0	5	545	0	3	3062
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.667	0.000	0.842	0.000	0.000	0.933	0.748	0.000	0.417	0.811	0.000	0.375	0.918
					0.849				0.896				0.813				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	0	2	2	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	4	0	189	0	2	234	142	0	16	201	0	0	788
4:45 PM	0	0	0	0	2	1	234	0	0	202	191	0	20	222	0	2	874
5:00 PM	0	0	0	0	1	0	229	0	0	224	191	0	12	246	0	2	905
5:15 PM	2	0	0	0	3	0	248	0	0	207	152	0	7	217	0	0	836
5:30 PM	0	0	0	0	3	0	259	0	0	187	142	0	7	233	0	0	831
5:45 PM	0	0	0	0	2	0	250	0	0	242	127	0	9	238	0	2	870
6:00 PM	0	0	0	0	1	0	275	0	0	223	135	0	7	233	0	1	875
6:15 PM	0	0	0	0	1	0	212	0	0	148	90	0	6	229	0	1	687
6:30 PM	0	0	0	0	2	1	143	0	1	221	132	0	4	168	0	3	675
6:45 PM	6	0	0	0	1	0	168	0	0	187	99	0	3	136	0	1	601
7:00 PM	1	0	0	0	3	0	159	0	0	167	104	0	7	119	0	0	560
7:15 PM	0	0	0	0	1	0	170	0	0	170	92	0	2	135	2	1	573
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	9	0	0	0	24	2	2536	0	3	2412	1597	0	100	2377	2	13	9075
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	0.94%	0.08%	98.99%	0.00%	0.07%	60.12%	39.81%	0.00%	4.01%	95.39%	0.08%	0.52%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	2	0	0	0	9	1	970	0	0	820	676	0	46	918	0	4	3446
PEAK HR FACTOR :	0.250	0.000	0.000	0.000	0.750	0.250	0.936	0.000	0.000	0.915	0.885	0.000	0.575	0.933	0.000	0.500	0.952
	0.250				0.935				0.901				0.931				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-23 SB Ramps & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-015
Date: 4/18/2019

Total

NS/EW Streets:	SR-23 SB Ramps				SR-23 SB Ramps				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	0	2	2	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	7	0	180	0	0	159	191	0	0	66	0	0	603
7:15 AM	0	0	0	0	8	0	167	0	0	157	233	0	2	94	0	0	661
7:30 AM	0	0	0	0	5	0	191	0	0	172	212	0	0	112	0	0	692
7:45 AM	0	0	0	0	8	0	191	0	0	198	190	0	0	165	0	0	752
8:00 AM	0	0	0	0	7	0	191	0	0	192	163	0	0	104	0	0	657
8:15 AM	0	0	0	0	7	0	238	0	0	182	183	0	0	112	0	0	722
8:30 AM	0	0	0	0	6	2	222	0	0	183	192	0	2	101	0	0	708
8:45 AM	0	0	0	0	3	0	201	0	0	175	160	0	4	115	0	0	658
9:00 AM	0	0	0	0	2	0	160	0	0	162	157	0	1	101	0	0	583
9:15 AM	0	0	0	0	4	0	148	0	0	164	140	0	4	98	0	0	558
9:30 AM	0	0	0	0	0	0	158	0	0	191	118	0	9	81	0	0	557
9:45 AM	0	0	0	0	3	0	181	0	0	155	120	0	4	99	0	0	562
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	60	2	2228	0	0	2090	2059	0	26	1248	0	0	7713
APPROACH %'s :					2.62%	0.09%	97.29%	0.00%	0.00%	50.37%	49.63%	0.00%	2.04%	97.96%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	28	2	842	0	0	755	728	0	2	482	0	0	2839
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.875	0.250	0.884	0.000	0.000	0.953	0.948	0.000	0.250	0.730	0.000	0.000	0.944
					0.890				0.956				0.733				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	0	2	2	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	6	0	203	0	0	225	139	0	14	279	0	0	866
4:45 PM	0	0	0	0	14	0	202	0	0	180	178	0	5	240	0	0	819
5:00 PM	0	0	0	0	9	0	242	0	0	187	162	0	4	234	0	0	838
5:15 PM	0	0	0	0	8	0	250	0	0	169	187	0	4	236	0	0	854
5:30 PM	0	0	0	0	6	0	241	0	0	206	173	0	14	225	0	0	865
5:45 PM	0	0	0	0	4	0	218	0	0	139	115	0	5	206	0	0	687
6:00 PM	0	0	0	0	0	0	229	0	0	154	122	0	3	188	0	0	696
6:15 PM	0	0	0	0	3	0	206	0	0	149	141	0	1	163	0	0	663
6:30 PM	0	0	0	0	0	0	166	0	0	150	175	0	3	141	0	0	635
6:45 PM	0	0	0	0	1	0	206	0	0	144	112	0	2	155	0	0	620
7:00 PM	0	0	0	0	0	0	179	0	0	144	88	0	2	138	0	0	551
7:15 PM	0	0	0	0	5	0	187	0	0	137	67	0	3	130	0	0	529
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	56	0	2529	0	0	1984	1659	0	60	2335	0	0	8623
APPROACH %'s :					2.17%	0.00%	97.83%	0.00%	0.00%	54.46%	45.54%	0.00%	2.51%	97.49%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	37	0	897	0	0	761	666	0	27	989	0	0	3377
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.661	0.000	0.897	0.000	0.000	0.846	0.890	0.000	0.482	0.886	0.000	0.000	0.975
					0.905				0.980				0.867				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-23 NB Ramps & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-016
Date: 4/17/2019

Total

NS/EW Streets:	SR-23 NB Ramps				SR-23 NB Ramps				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	1	0	0	0	0	0	0	2	2	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	80	0	6	0	0	0	0	0	0	18	136	1	0	1	0	0	242
7:15 AM	96	0	10	0	0	0	0	0	0	12	172	0	0	3	0	0	293
7:30 AM	117	0	12	0	0	0	0	0	0	13	163	0	0	0	0	0	305
7:45 AM	175	0	11	0	0	0	0	0	0	7	215	0	0	3	0	0	411
8:00 AM	130	0	7	0	0	0	0	0	0	11	192	0	0	2	0	0	342
8:15 AM	127	0	10	0	0	0	0	0	0	10	198	0	3	1	0	0	349
8:30 AM	99	0	4	0	0	0	0	0	0	9	202	0	2	4	0	0	320
8:45 AM	120	0	2	0	0	0	0	0	0	4	171	0	0	0	0	0	297
9:00 AM	89	0	1	0	0	0	0	0	0	9	161	0	2	8	0	0	270
9:15 AM	102	0	1	0	0	0	0	0	0	5	172	1	0	5	0	0	286
9:30 AM	105	0	5	0	0	0	0	0	0	4	153	0	0	4	0	0	271
9:45 AM	91	0	2	0	0	0	0	0	0	4	103	0	0	4	0	0	204
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1331	0	71	0	0	0	0	0	0	106	2038	2	7	35	0	0	3590
APPROACH %'s :	94.94%	0.00%	5.06%	0.00%					0.00%	4.94%	94.97%	0.09%	16.67%	83.33%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	531	0	32	0	0	0	0	0	0	37	807	0	5	10	0	0	1422
PEAK HR FACTOR :	0.759	0.000	0.727	0.000	0.000	0.000	0.000	0.000	0.000	0.841	0.938	0.000	0.417	0.625	0.000	0.000	0.865
	0.757								0.950				0.625				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	1	0	0	0	0	0	0	2	2	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	195	0	4	0	0	0	0	0	0	6	242	0	14	27	0	0	488
4:45 PM	228	0	2	0	0	0	0	0	0	2	193	0	7	22	0	1	455
5:00 PM	240	0	2	0	0	0	0	0	0	4	210	0	9	11	0	0	476
5:15 PM	219	0	2	0	0	0	0	0	0	6	222	0	11	7	0	0	467
5:30 PM	214	0	2	0	0	0	0	0	0	6	198	0	9	21	0	0	450
5:45 PM	232	0	1	0	0	0	0	0	2	4	229	0	6	11	0	0	485
6:00 PM	236	0	7	0	0	0	0	0	1	2	206	0	11	12	0	0	475
6:15 PM	226	0	3	0	0	0	0	0	2	8	156	0	1	0	0	0	396
6:30 PM	173	0	1	0	0	0	0	0	2	5	213	0	6	13	0	0	413
6:45 PM	144	0	0	0	0	0	0	0	0	2	194	0	1	2	0	0	343
7:00 PM	109	0	0	0	0	0	0	0	0	3	181	0	4	3	0	0	300
7:15 PM	141	0	3	0	0	0	0	0	0	3	154	0	3	2	0	0	306
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2357	0	27	0	0	0	0	0	7	51	2398	0	82	131	0	1	5054
APPROACH %'s :	98.87%	0.00%	1.13%	0.00%					0.29%	2.08%	97.64%	0.00%	38.32%	61.21%	0.00%	0.47%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	882	0	10	0	0	0	0	0	0	18	867	0	41	67	0	1	1886
PEAK HR FACTOR :	0.919	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.896	0.000	0.732	0.620	0.000	0.250	0.966
	0.921								0.892				0.665				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-23 NB Ramps & Los Angeles Ave
City: Moorpark
Control: Signalized

Project ID: 19-05109-016
Date: 4/18/2019

Total

NS/EW Streets:	SR-23 NB Ramps				SR-23 NB Ramps				Los Angeles Ave				Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	1	0	0	0	0	0	0	2	2	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	67	0	6	0	0	0	0	0	0	23	145	0	1	1	0	0	243
7:15 AM	85	0	9	0	0	0	0	0	0	8	145	0	0	1	0	0	248
7:30 AM	116	0	8	0	0	0	0	0	0	14	164	0	1	6	0	0	309
7:45 AM	162	0	12	0	0	0	0	0	0	9	189	0	1	3	0	0	376
8:00 AM	116	0	9	0	0	0	0	0	0	9	197	0	0	0	0	0	331
8:15 AM	101	0	7	0	0	0	0	0	0	11	161	0	1	2	0	0	283
8:30 AM	94	0	2	0	0	0	0	0	0	7	143	0	0	0	0	0	246
8:45 AM	103	0	6	0	0	0	0	0	0	3	181	0	1	4	0	0	298
9:00 AM	105	0	0	0	0	0	0	0	0	2	132	0	1	2	0	0	242
9:15 AM	90	0	4	0	0	0	0	0	0	4	140	0	2	2	0	0	242
9:30 AM	92	0	2	0	0	0	0	0	0	3	138	0	3	1	0	0	239
9:45 AM	99	0	8	0	0	0	0	0	0	2	172	0	6	0	0	0	287
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1230	0	73	0	0	0	0	0	0	95	1907	0	17	22	0	0	3344
APPROACH %'s :	94.40%	0.00%	5.60%	0.00%					0.00%	4.75%	95.25%	0.00%	43.59%	56.41%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	495	0	36	0	0	0	0	0	0	43	711	0	3	11	0	0	1299
PEAK HR FACTOR :	0.764	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.768	0.902	0.000	0.750	0.458	0.000	0.000	0.864
	0.763								0.915				0.500				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	2	0	1	0	0	0	0	0	0	2	2	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	242	0	2	0	0	0	0	0	0	5	207	0	17	31	0	0	504
4:45 PM	262	0	4	0	0	0	0	0	0	4	201	0	6	11	0	0	488
5:00 PM	218	0	2	0	0	0	0	0	0	4	186	0	4	19	0	0	433
5:15 PM	235	0	1	0	0	0	0	0	0	8	176	0	7	11	0	0	438
5:30 PM	209	0	1	0	0	0	0	0	0	6	196	0	11	11	0	0	434
5:45 PM	216	0	1	0	0	0	0	0	0	2	149	0	6	10	0	0	384
6:00 PM	183	0	2	0	0	0	0	0	0	1	167	0	1	7	0	0	361
6:15 PM	178	0	2	0	0	0	0	0	0	6	142	0	2	4	0	0	334
6:30 PM	128	0	2	0	0	0	0	0	0	1	164	0	11	8	0	0	314
6:45 PM	169	0	0	0	0	0	0	0	0	4	149	0	2	2	0	0	326
7:00 PM	127	0	2	0	0	0	0	0	0	2	134	0	3	4	0	0	272
7:15 PM	127	0	3	0	0	0	0	0	0	3	142	0	3	1	0	0	279
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2294	0	22	0	0	0	0	0	0	46	2013	0	73	119	0	0	4567
APPROACH %'s :	99.05%	0.00%	0.95%	0.00%					0.00%	2.23%	97.77%	0.00%	38.02%	61.98%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	957	0	9	0	0	0	0	0	0	21	770	0	34	72	0	0	1863
PEAK HR FACTOR :	0.913	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.656	0.930	0.000	0.500	0.581	0.000	0.000	0.924
	0.908								0.933				0.552				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-23 SB Ramps & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-025
Date: 4/24/2019

Total

NS/EW Streets: SR-23 SB Ramps (Northbound) | SR-23 SB Ramps (Southbound) | Tierra Rejada Rd (Eastbound) | Tierra Rejada Rd (Westbound)

AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	0	3	1	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	10	0	81	0	0	181	193	0	0	145	100	0	710
7:15 AM	0	0	0	0	10	0	71	0	0	209	187	0	0	218	156	0	851
7:30 AM	0	0	0	0	13	0	79	0	0	269	158	0	0	284	186	0	989
7:45 AM	0	0	0	0	15	0	100	0	0	238	165	0	0	251	134	0	903
8:00 AM	0	0	0	0	8	0	114	0	0	231	155	0	0	263	140	0	911
8:15 AM	0	0	0	0	8	0	103	0	0	268	178	1	0	262	153	0	973
8:30 AM	0	0	0	0	9	0	112	0	0	263	148	0	0	224	105	0	861
8:45 AM	0	0	0	0	12	0	109	0	0	260	134	0	0	202	98	0	815
9:00 AM	0	0	0	0	12	0	83	0	0	196	143	0	0	159	58	0	651
9:15 AM	0	0	0	0	9	0	69	0	0	230	117	0	0	154	42	0	621
9:30 AM	0	0	0	0	16	0	61	0	0	170	130	0	0	171	43	0	591
9:45 AM	0	0	0	0	17	0	78	0	0	188	100	0	0	162	36	0	581
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	139	0	1060	0	0	2703	1808	1	0	2495	1251	0	9457
APPROACH %'s :					11.59%	0.00%	88.41%	0.00%	0.00%	59.91%	40.07%	0.02%	0.00%	66.60%	33.40%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	44	0	396	0	0	1006	656	1	0	1060	613	0	3776
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.733	0.000	0.868	0.000	0.000	0.935	0.921	0.250	0.000	0.933	0.824	0.000	0.954
					0.902				0.930				0.890				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	0	3	1	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	34	0	102	0	0	298	42	0	0	260	38	0	774
4:45 PM	0	0	0	0	35	0	142	0	0	405	89	0	0	302	48	0	1021
5:00 PM	0	0	0	0	34	0	126	0	0	285	86	0	0	339	76	0	946
5:15 PM	0	0	0	0	31	0	126	0	0	274	48	0	0	272	51	0	802
5:30 PM	0	0	0	0	15	0	107	0	0	240	52	0	0	221	44	0	679
5:45 PM	0	0	0	0	25	0	107	0	0	314	66	0	0	272	39	0	823
6:00 PM	0	0	0	0	19	0	105	0	0	311	62	0	0	251	56	0	804
6:15 PM	0	0	0	0	23	0	85	0	0	329	56	0	0	226	33	0	752
6:30 PM	0	0	0	0	16	0	75	0	0	180	66	0	0	189	23	0	549
6:45 PM	0	0	0	0	15	0	91	0	0	167	51	0	0	213	27	0	564
7:00 PM	0	0	0	0	20	0	89	0	0	129	38	0	0	158	29	0	463
7:15 PM	0	0	0	0	10	0	48	0	0	108	17	0	0	136	19	0	338
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	277	0	1203	0	0	3040	673	0	0	2839	483	0	8515
APPROACH %'s :					18.72%	0.00%	81.28%	0.00%	0.00%	81.87%	18.13%	0.00%	0.00%	85.46%	14.54%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	134	0	496	0	0	1262	265	0	0	1173	213	0	3543
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.957	0.000	0.873	0.000	0.000	0.779	0.744	0.000	0.000	0.865	0.701	0.000	0.868
					0.890				0.773				0.835				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-23 SB Ramps & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-025
Date: 4/25/2019

Total

NS/EW Streets:	SR-23 SB Ramps				SR-23 SB Ramps				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	0	3	1	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	7	0	109	0	0	180	257	0	0	150	119	0	822
7:15 AM	0	0	0	0	10	0	107	0	0	212	212	0	0	188	145	0	874
7:30 AM	0	0	0	0	8	0	124	0	0	259	203	0	0	242	137	0	973
7:45 AM	0	0	0	0	10	0	107	0	0	280	203	0	0	252	118	0	970
8:00 AM	0	0	0	0	10	0	83	0	0	250	241	0	0	208	110	0	902
8:15 AM	0	0	0	0	7	0	81	0	0	217	236	0	0	223	130	0	894
8:30 AM	0	0	0	0	14	0	54	0	0	195	246	0	0	181	141	0	831
8:45 AM	0	0	0	0	14	0	83	0	0	206	171	0	0	179	91	0	744
9:00 AM	0	0	0	0	13	0	68	0	0	182	150	0	0	126	71	0	610
9:15 AM	0	0	0	0	12	0	77	0	0	152	126	0	0	127	45	0	539
9:30 AM	0	0	0	0	19	0	80	0	0	201	119	0	0	140	48	0	607
9:45 AM	0	0	0	0	15	0	109	0	0	199	116	0	0	142	37	0	618
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	139	0	1082	0	0	2533	2280	0	0	2158	1192	0	9384
APPROACH %'s :					11.38%	0.00%	88.62%	0.00%	0.00%	52.63%	47.37%	0.00%	0.00%	64.42%	35.58%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	35	0	395	0	0	1006	883	0	0	925	495	0	3739
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.875	0.000	0.796	0.000	0.000	0.898	0.916	0.000	0.000	0.918	0.903	0.000	0.961
					0.814				0.962				0.937				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	1	0	1	0	0	3	1	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	0	0	0	0	46	0	150	0	0	337	98	0	0	295	46	0	972
4:45 PM	0	0	0	0	46	0	165	0	0	296	112	0	0	245	42	1	907
5:00 PM	0	0	0	0	52	0	168	0	0	349	98	0	0	307	63	0	1037
5:15 PM	0	0	0	0	33	0	133	0	0	304	113	0	0	309	51	0	943
5:30 PM	0	0	0	0	37	0	128	0	0	302	102	0	0	267	65	0	901
5:45 PM	0	0	0	0	32	0	108	0	0	256	148	0	0	249	38	0	831
6:00 PM	0	0	0	0	26	0	109	0	0	272	104	0	0	261	41	0	813
6:15 PM	0	0	0	0	21	0	80	0	0	212	112	0	0	221	32	0	678
6:30 PM	0	0	0	0	21	0	64	0	0	176	60	0	0	217	28	0	566
6:45 PM	0	0	0	0	15	0	83	0	0	159	78	0	0	198	18	0	551
7:00 PM	0	0	0	0	27	0	85	0	0	140	50	0	0	166	27	0	495
7:15 PM	0	0	0	0	14	0	77	0	0	102	47	1	0	169	18	0	428
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	370	0	1350	0	0	2905	1122	1	0	2904	469	1	9122
APPROACH %'s :					21.51%	0.00%	78.49%	0.00%	0.00%	72.12%	27.86%	0.02%	0.00%	86.07%	13.90%	0.03%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	177	0	616	0	0	1286	421	0	0	1156	202	1	3859
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.851	0.000	0.917	0.000	0.000	0.921	0.931	0.000	0.000	0.935	0.802	0.250	0.930
					0.901				0.955				0.918				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-23 NB Ramps & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-026
Date: 4/24/2019

Total

NS/EW Streets:	SR-23 NB Ramps				SR-23 NB Ramps				Tierra Rejada Rd				Tierra Rejada Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0	0.5	0	0	0	0	0	0	2	1	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	27	0	25	0	0	0	0	0	0	84	110	0	0	218	16	0	480
7:15 AM	36	0	47	0	0	0	0	0	0	116	100	0	0	348	26	0	673
7:30 AM	52	0	48	0	0	0	0	0	0	132	138	0	0	408	35	0	813
7:45 AM	65	0	40	0	0	0	0	0	0	128	137	0	0	312	44	0	726
8:00 AM	69	0	48	0	0	0	0	0	0	119	121	0	0	342	33	0	732
8:15 AM	65	0	63	0	0	0	0	0	0	140	135	0	0	335	44	0	782
8:30 AM	60	0	51	0	0	0	0	0	0	139	134	0	0	284	27	0	695
8:45 AM	62	0	55	0	0	0	0	0	0	130	141	0	0	238	18	0	644
9:00 AM	51	0	43	0	0	0	0	0	0	109	99	0	0	164	21	0	487
9:15 AM	73	0	43	0	0	0	0	0	0	110	130	0	0	127	18	0	501
9:30 AM	72	0	46	0	0	0	0	0	0	84	101	0	0	140	19	0	462
9:45 AM	64	0	37	0	0	0	0	0	0	92	113	0	0	124	17	0	447
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	696	0	546	0	0	0	0	0	0	1383	1459	0	0	3040	318	0	7442
APPROACH %'s :	56.04%	0.00%	43.96%	0.00%					0.00%	48.66%	51.34%	0.00%	0.00%	90.53%	9.47%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	251	0	199	0	0	0	0	0	0	519	531	0	0	1397	156	0	3053
PEAK HR FACTOR :	0.909	0.000	0.790	0.000	0.000	0.000	0.000	0.000	0.000	0.927	0.962	0.000	0.000	0.856	0.886	0.000	0.939
	0.879								0.955				0.876				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0	0.5	0	0	0	0	0	0	2	1	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	129	0	179	0	0	0	0	0	0	306	47	0	0	191	12	0	864
4:45 PM	118	0	155	0	0	0	0	0	0	358	59	0	0	209	10	0	909
5:00 PM	157	0	184	0	0	0	0	0	0	290	55	0	0	261	35	0	982
5:15 PM	184	0	148	0	0	0	0	0	0	197	86	0	0	136	28	0	779
5:30 PM	164	0	199	0	0	0	0	0	0	214	61	0	0	116	26	0	780
5:45 PM	183	0	141	0	0	0	0	0	0	266	49	0	0	111	12	0	762
6:00 PM	152	0	123	0	0	0	0	0	0	277	66	0	0	187	8	0	813
6:15 PM	102	0	77	0	0	0	0	0	0	279	61	0	0	130	21	0	670
6:30 PM	105	0	59	0	0	0	0	0	0	156	48	0	0	119	14	0	501
6:45 PM	91	0	34	0	0	0	0	0	0	128	50	0	0	137	11	0	451
7:00 PM	102	0	44	0	0	0	0	0	0	110	40	0	0	80	12	0	388
7:15 PM	119	0	52	0	0	0	0	0	0	92	35	0	0	39	6	0	343
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1606	0	1395	0	0	0	0	0	0	2673	657	0	0	1716	195	0	8242
APPROACH %'s :	53.52%	0.00%	46.48%	0.00%					0.00%	80.27%	19.73%	0.00%	0.00%	89.80%	10.20%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	588	0	666	0	0	0	0	0	0	1151	247	0	0	797	85	0	3534
PEAK HR FACTOR :	0.799	0.000	0.905	0.000	0.000	0.000	0.000	0.000	0.000	0.804	0.718	0.000	0.000	0.763	0.607	0.000	0.900
	0.919								0.838				0.745				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-23 NB Ramps & Tierra Rejada Rd
City: Moorpark
Control: Signalized

Project ID: 19-05109-026
Date: 4/25/2019

Total

NS/EW Streets:	SR-23 NB Ramps				SR-23 NB Ramps				Tierra Rejada Rd				Tierra Rejada Rd				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1.5	0	0.5	0	0	0	0	0	0	2	1	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	45	0	38	0	0	0	0	0	0	100	70	0	0	218	9	0	480
7:15 AM	49	0	40	0	0	0	0	0	0	119	110	0	0	308	12	0	638
7:30 AM	52	0	45	0	0	0	0	0	0	146	111	0	0	317	11	0	682
7:45 AM	65	0	52	0	0	0	0	0	0	115	178	0	0	295	21	0	726
8:00 AM	53	0	36	0	0	0	0	0	0	127	152	0	0	269	18	0	655
8:15 AM	52	0	49	0	0	0	0	0	0	96	124	0	0	278	15	0	614
8:30 AM	40	0	36	0	0	0	0	0	0	120	101	0	0	286	14	0	597
8:45 AM	58	0	45	0	0	0	0	0	0	111	108	0	0	191	20	0	533
9:00 AM	63	0	35	0	0	0	0	0	0	92	113	0	0	129	15	0	447
9:15 AM	66	0	32	0	0	0	0	0	0	83	88	0	0	106	10	0	385
9:30 AM	66	0	46	0	0	0	0	0	0	101	104	0	0	130	18	0	465
9:45 AM	63	0	38	0	0	0	0	0	0	102	115	0	0	112	15	0	445
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	672	0	492	0	0	0	0	0	0	1312	1374	0	0	2639	178	0	6667
APPROACH %'s :	57.73%	0.00%	42.27%	0.00%					0.00%	48.85%	51.15%	0.00%	0.00%	93.68%	6.32%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	219	0	173	0	0	0	0	0	0	507	551	0	0	1189	62	0	2701
PEAK HR FACTOR :	0.842	0.000	0.832	0.000	0.000	0.000	0.000	0.000	0.000	0.868	0.774	0.000	0.000	0.938	0.738	0.000	0.930
	0.838								0.903				0.954				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1.5	0	0.5	0	0	0	0	0	0	2	1	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:30 PM	126	0	164	0	0	0	0	0	0	316	42	0	0	191	10	0	849
4:45 PM	132	0	153	0	0	0	0	0	0	328	54	0	0	191	11	0	869
5:00 PM	161	0	192	0	0	0	0	0	0	330	53	0	0	214	23	0	973
5:15 PM	166	0	180	0	0	0	0	0	0	265	82	0	0	181	19	0	893
5:30 PM	162	0	165	0	0	0	0	0	0	264	81	0	0	176	22	0	870
5:45 PM	148	0	162	0	0	0	0	0	0	226	57	0	0	133	10	0	736
6:00 PM	158	0	129	0	0	0	0	0	0	227	55	0	0	153	17	0	739
6:15 PM	126	0	84	0	0	0	0	0	0	170	66	0	0	115	20	0	581
6:30 PM	127	0	74	0	0	0	0	0	0	134	41	1	0	107	12	0	496
6:45 PM	101	0	33	0	0	0	0	0	0	134	50	0	0	118	9	0	445
7:00 PM	120	0	41	0	0	0	0	0	0	119	35	0	0	85	10	0	410
7:15 PM	104	0	44	0	0	0	0	0	0	87	36	0	0	59	8	0	338
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1631	0	1421	0	0	0	0	0	0	2600	652	1	0	1723	171	0	8199
APPROACH %'s :	53.44%	0.00%	46.56%	0.00%					0.00%	79.93%	20.04%	0.03%	0.00%	90.97%	9.03%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	621	0	690	0	0	0	0	0	0	1187	270	0	0	762	75	0	3605
PEAK HR FACTOR :	0.935	0.000	0.898	0.000	0.000	0.000	0.000	0.000	0.000	0.899	0.823	0.000	0.000	0.890	0.815	0.000	0.926
	0.928								0.951				0.883				

APPENDIX B – LOS CALCULATION SHEETS

Existing Conditions

Iteris, Inc.

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	82	885	776	20	60	122	
Future Volume (veh/h)	82	885	776	20	60	122	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	86	932	817	21	63	128	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	398	1214	1214	1029	88	178	
Arrive On Green	0.65	0.65	0.65	0.65	0.16	0.16	
Sat Flow, veh/h	656	1870	1870	1585	540	1097	
Grp Volume(v), veh/h	86	932	817	21	192	0	
Grp Sat Flow(s),veh/h/ln	656	1870	1870	1585	1646	0	
Q Serve(g_s), s	4.5	16.6	13.0	0.2	5.3	0.0	
Cycle Q Clear(g_c), s	17.5	16.6	13.0	0.2	5.3	0.0	
Prop In Lane	1.00			1.00	0.33	0.67	
Lane Grp Cap(c), veh/h	398	1214	1214	1029	268	0	
V/C Ratio(X)	0.22	0.77	0.67	0.02	0.72	0.00	
Avail Cap(c_a), veh/h	1092	3193	3193	2706	758	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	10.7	5.9	5.2	3.0	19.0	0.0	
Incr Delay (d2), s/veh	0.3	1.0	0.7	0.0	3.6	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	3.6	2.8	0.0	2.1	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	10.9	6.9	5.9	3.0	22.5	0.0	
LnGrp LOS	B	A	A	A	C	A	
Approach Vol, veh/h		1018	838		192		
Approach Delay, s/veh		7.3	5.8		22.5		
Approach LOS		A	A		C		
Timer - Assigned Phs				4		6	8
Phs Duration (G+Y+Rc), s				35.5		12.3	35.5
Change Period (Y+Rc), s				4.5		4.5	4.5
Max Green Setting (Gmax), s				81.5		22.0	81.5
Max Q Clear Time (g_c+I1), s				19.5		7.3	15.0
Green Ext Time (p_c), s				11.5		0.5	7.9
Intersection Summary							
HCM 6th Ctrl Delay			8.1				
HCM 6th LOS			A				

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	40	3	64	30	16	119
Future Volume (veh/h)	40	3	64	30	16	119
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	3	72	34	18	134
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	108	96	628	532	881	628
Arrive On Green	0.06	0.06	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1585	1870	1585	1288	1870
Grp Volume(v), veh/h	45	3	72	34	18	134
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1288	1870
Q Serve(g_s), s	0.4	0.0	0.4	0.2	0.1	0.8
Cycle Q Clear(g_c), s	0.4	0.0	0.4	0.2	0.5	0.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	108	96	628	532	881	628
V/C Ratio(X)	0.42	0.03	0.11	0.06	0.02	0.21
Avail Cap(c_a), veh/h	3766	3351	6213	5265	4727	6213
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.7	6.6	3.4	3.4	3.6	3.5
Incr Delay (d2), s/veh	2.6	0.1	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	6.7	3.5	3.4	3.6	3.7
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	48		106			152
Approach Delay, s/veh	9.2		3.5			3.7
Approach LOS	A		A			A

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	9.5	9.5	5.4
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	49.5	49.5	31.5
Max Q Clear Time (g_c+I1), s	2.4	2.8	2.4
Green Ext Time (p_c), s	0.5	0.9	0.1

Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	263	7	13	239	18	16
Future Vol, veh/h	263	7	13	239	18	16
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	325	9	16	295	22	20
Number of Lanes	1	1	1	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	15	10.8	9.4
HCM LOS	B	B	A

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	0%	53%
Vol Thru, %	100%	0%	0%	0%	47%
Vol Right, %	0%	100%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	239	263	7	34
LT Vol	0	0	263	0	18
Through Vol	13	0	0	0	16
RT Vol	0	239	0	7	0
Lane Flow Rate	16	295	325	9	42
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.025	0.401	0.53	0.011	0.068
Departure Headway (Hd)	5.6	4.894	5.88	4.674	5.854
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	637	732	607	757	607
Service Time	3.349	2.643	3.663	2.456	3.941
HCM Lane V/C Ratio	0.025	0.403	0.535	0.012	0.069
HCM Control Delay	8.5	10.9	15.2	7.5	9.4
HCM Lane LOS	A	B	C	A	A
HCM 95th-tile Q	0.1	1.9	3.1	0	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	680	234	346	556	45	204	194	503	40	221	77
Future Volume (veh/h)	86	680	234	346	556	45	204	194	503	40	221	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	764	263	389	625	51	229	218	565	45	248	87
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	994	443	472	1230	549	382	401	556	301	316	268
Arrive On Green	0.07	0.28	0.28	0.14	0.35	0.35	0.21	0.21	0.21	0.17	0.17	0.17
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	97	764	263	389	625	51	229	218	565	45	248	87
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.8	17.7	12.9	9.9	12.6	2.0	10.4	9.3	19.3	1.9	11.4	4.3
Cycle Q Clear(g_c), s	4.8	17.7	12.9	9.9	12.6	2.0	10.4	9.3	19.3	1.9	11.4	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	994	443	472	1230	549	382	401	556	301	316	268
V/C Ratio(X)	0.78	0.77	0.59	0.82	0.51	0.09	0.60	0.54	1.02	0.15	0.78	0.32
Avail Cap(c_a), veh/h	259	1343	599	565	1407	627	382	401	556	673	707	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	29.7	28.0	37.8	23.3	19.9	31.8	31.4	29.2	31.9	35.8	32.9
Incr Delay (d2), s/veh	9.9	1.9	1.3	8.3	0.3	0.1	6.8	5.2	42.0	0.2	4.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.6	4.9	4.6	5.2	0.7	5.1	4.7	17.9	0.8	5.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	31.6	29.2	46.1	23.7	19.9	38.6	36.6	71.2	32.1	40.1	33.5
LnGrp LOS	D	C	C	D	C	B	D	D	F	C	D	C
Approach Vol, veh/h		1124			1065			1012			380	
Approach Delay, s/veh		32.7			31.7			56.4			37.6	
Approach LOS		C			C			E			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.8	16.8	29.7		19.7	10.8	35.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.3	14.7	34.0		34.0	13.1	35.6				
Max Q Clear Time (g_c+I1), s		21.3	11.9	19.7		13.4	6.8	14.6				
Green Ext Time (p_c), s		0.0	0.4	5.4		1.8	0.1	4.5				

Intersection Summary			
HCM 6th Ctrl Delay			39.6
HCM 6th LOS			D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	517	47	129	505	79	84	22	186	123	40	166
Future Volume (veh/h)	79	517	47	129	505	79	84	22	186	123	40	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	646	59	161	631	99	105	28	232	154	50	208
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	985	90	213	1050	165	332	545	462	469	92	384
Arrive On Green	0.08	0.30	0.30	0.12	0.34	0.34	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	3293	300	1781	3078	482	1121	1870	1585	1119	317	1317
Grp Volume(v), veh/h	99	348	357	161	364	366	105	28	232	154	0	258
Grp Sat Flow(s),veh/h/ln	1781	1777	1816	1781	1777	1784	1121	1870	1585	1119	0	1633
Q Serve(g_s), s	2.5	8.0	8.0	4.1	7.9	7.9	4.0	0.5	5.7	5.3	0.0	6.2
Cycle Q Clear(g_c), s	2.5	8.0	8.0	4.1	7.9	7.9	10.2	0.5	5.7	5.8	0.0	6.2
Prop In Lane	1.00		0.17	1.00		0.27	1.00		1.00	1.00		0.81
Lane Grp Cap(c), veh/h	138	532	544	213	606	609	332	545	462	469	0	476
V/C Ratio(X)	0.72	0.65	0.66	0.76	0.60	0.60	0.32	0.05	0.50	0.33	0.00	0.54
Avail Cap(c_a), veh/h	409	973	994	608	1171	1175	850	1409	1194	986	0	1231
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	14.2	14.2	19.9	12.7	12.7	18.2	11.9	13.7	14.0	0.0	13.9
Incr Delay (d2), s/veh	6.8	1.4	1.4	5.4	1.0	1.0	0.5	0.0	0.8	0.4	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.9	2.9	1.8	2.7	2.8	1.0	0.2	1.8	1.2	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	15.6	15.6	25.3	13.7	13.7	18.7	11.9	14.5	14.4	0.0	14.8
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	A	B
Approach Vol, veh/h		804			891			365			412	
Approach Delay, s/veh		17.1			15.8			15.5			14.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		18.1	10.1	18.4		18.1	8.1	20.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		35.1	15.9	25.5		35.1	10.7	30.7
Max Q Clear Time (g_c+I1), s		12.2	6.1	10.0		8.2	4.5	9.9
Green Ext Time (p_c), s		1.3	0.3	4.0		2.4	0.1	4.7

Intersection Summary		
HCM 6th Ctrl Delay		16.0
HCM 6th LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	707	23	27	622	157	38	38	58	118	19	40
Future Volume (veh/h)	95	707	23	27	622	157	38	38	58	118	19	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	862	28	33	759	191	46	46	71	144	23	49
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	1558	51	67	1114	280	410	150	231	371	120	256
Arrive On Green	0.08	0.44	0.44	0.04	0.40	0.40	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3513	114	1781	2812	708	1328	663	1023	1275	532	1134
Grp Volume(v), veh/h	116	436	454	33	480	470	46	0	117	144	0	72
Grp Sat Flow(s),veh/h/ln	1781	1777	1850	1781	1777	1743	1328	0	1686	1275	0	1666
Q Serve(g_s), s	2.9	8.3	8.3	0.8	10.3	10.3	1.3	0.0	2.7	4.9	0.0	1.6
Cycle Q Clear(g_c), s	2.9	8.3	8.3	0.8	10.3	10.3	2.9	0.0	2.7	7.5	0.0	1.6
Prop In Lane	1.00		0.06	1.00		0.41	1.00		0.61	1.00		0.68
Lane Grp Cap(c), veh/h	151	788	821	67	704	691	410	0	381	371	0	377
V/C Ratio(X)	0.77	0.55	0.55	0.50	0.68	0.68	0.11	0.00	0.31	0.39	0.00	0.19
Avail Cap(c_a), veh/h	406	1311	1365	232	1138	1116	1162	0	1336	1093	0	1320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	9.5	9.5	21.8	11.5	11.5	15.6	0.0	14.8	18.0	0.0	14.4
Incr Delay (d2), s/veh	7.9	0.6	0.6	5.6	1.2	1.2	0.1	0.0	0.5	0.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.6	2.7	0.4	3.4	3.4	0.4	0.0	0.9	1.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	10.1	10.0	27.4	12.7	12.7	15.7	0.0	15.3	18.6	0.0	14.7
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		1006			983			163			216	
Approach Delay, s/veh		12.2			13.2			15.4			17.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.9	6.2	24.9		14.9	8.4	22.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		36.5	6.0	34.0		36.5	10.5	29.5
Max Q Clear Time (g_c+I1), s		4.9	2.8	10.3		9.5	4.9	12.3
Green Ext Time (p_c), s		0.8	0.0	6.1		0.9	0.1	6.0

Intersection Summary			
HCM 6th Ctrl Delay			13.3
HCM 6th LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	20	845	8	25	762	55	13	2	169	191	6	35
Future Volume (veh/h)	20	845	8	25	762	55	13	2	169	191	6	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	983	9	29	886	64	15	2	197	222	7	41
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	1397	13	58	1321	95	553	5	518	410	78	456
Arrive On Green	0.03	0.39	0.39	0.03	0.39	0.39	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3608	33	1781	3361	243	1357	16	1572	1183	236	1385
Grp Volume(v), veh/h	23	484	508	29	468	482	15	0	199	222	0	48
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1777	1827	1357	0	1587	1183	0	1621
Q Serve(g_s), s	0.7	12.4	12.4	0.9	11.7	11.7	0.4	0.0	5.2	9.5	0.0	1.1
Cycle Q Clear(g_c), s	0.7	12.4	12.4	0.9	11.7	11.7	1.5	0.0	5.2	14.7	0.0	1.1
Prop In Lane	1.00		0.02	1.00		0.13	1.00		0.99	1.00		0.85
Lane Grp Cap(c), veh/h	48	688	722	58	698	718	553	0	523	410	0	534
V/C Ratio(X)	0.48	0.70	0.70	0.50	0.67	0.67	0.03	0.00	0.38	0.54	0.00	0.09
Avail Cap(c_a), veh/h	182	1118	1173	195	1131	1163	1030	0	1081	826	0	1104
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	13.9	13.9	25.6	13.5	13.5	13.0	0.0	13.8	19.5	0.0	12.5
Incr Delay (d2), s/veh	7.2	1.3	1.3	6.5	1.1	1.1	0.0	0.0	0.5	1.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.4	4.7	0.4	4.2	4.3	0.1	0.0	1.7	2.5	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	15.2	15.2	32.1	14.6	14.6	13.0	0.0	14.3	20.6	0.0	12.6
LnGrp LOS	C	B	B	C	B	B	B	A	B	C	A	B
Approach Vol, veh/h		1015			979			214			270	
Approach Delay, s/veh		15.6			15.1			14.2			19.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.3	6.3	25.4		22.3	6.0	25.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		36.7	5.9	33.9		36.7	5.5	34.3
Max Q Clear Time (g_c+I1), s		7.2	2.9	14.4		16.7	2.7	13.7
Green Ext Time (p_c), s		1.4	0.0	6.5		1.0	0.0	6.3

Intersection Summary		
HCM 6th Ctrl Delay		15.7
HCM 6th LOS		B

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	113	96	258	761	3
Future Vol, veh/h	2	113	96	258	761	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	119	101	272	801	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1275	801	804	0	-	0
Stage 1	801	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	184	384	820	-	-	-
Stage 1	442	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	161	384	820	-	-	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	626	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.7	2.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	820	-	161	384	-	-
HCM Lane V/C Ratio	0.123	-	0.013	0.31	-	-
HCM Control Delay (s)	10	-	27.7	18.5	-	-
HCM Lane LOS	B	-	D	C	-	-
HCM 95th %tile Q(veh)	0.4	-	0	1.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	3	49	2	235	1	123	25	658	229	1
Future Volume (veh/h)	0	0	3	49	2	235	1	123	25	658	229	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	3	53	2	255	1	134	27	715	249	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	7	6	302	11	279	525	765	649	962	1309	5
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.18	0.41	0.41	0.41	0.25	0.70	0.70
Sat Flow, veh/h	0	1870	1585	1719	65	1585	1130	1870	1585	1781	1862	7
Grp Volume(v), veh/h	0	0	3	55	0	255	1	134	27	715	0	250
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1784	0	1585	1130	1870	1585	1781	0	1869
Q Serve(g_s), s	0.0	0.0	0.2	3.0	0.0	18.2	0.1	5.2	1.2	24.6	0.0	5.3
Cycle Q Clear(g_c), s	0.0	0.0	0.2	3.0	0.0	18.2	0.1	5.2	1.2	24.6	0.0	5.3
Prop In Lane	0.00		1.00	0.96		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	7	6	314	0	279	525	765	649	962	0	1314
V/C Ratio(X)	0.00	0.00	0.48	0.18	0.00	0.92	0.00	0.18	0.04	0.74	0.00	0.19
Avail Cap(c_a), veh/h	0	83	70	318	0	282	525	765	649	1367	0	1314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	57.2	40.3	0.0	46.6	20.1	21.6	20.4	10.3	0.0	5.9
Incr Delay (d2), s/veh	0.0	0.0	46.9	0.3	0.0	32.1	0.0	0.5	0.1	1.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	1.4	0.0	9.6	0.0	2.4	0.5	9.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	104.1	40.6	0.0	78.7	20.1	22.1	20.5	11.7	0.0	6.2
LnGrp LOS	A	A	F	D	A	E	C	C	C	B	A	A
Approach Vol, veh/h		3			310			162			965	
Approach Delay, s/veh		104.1			72.0			21.9			10.2	
Approach LOS		F			E			C			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	33.8	51.6		5.0		85.4		24.7				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	55.5	20.9		5.1		80.9		20.5				
Max Q Clear Time (g_c+I1), s	26.6	7.2		2.2		7.3		20.2				
Green Ext Time (p_c), s	2.7	0.6		0.0		1.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			25.0
HCM 6th LOS			C

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	118	42	133	287	15
Future Vol, veh/h	18	118	42	133	287	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	130	46	146	315	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	553	315	331	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	494	725	1228	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	476	725	1228	-	-	-
Mov Cap-2 Maneuver	476	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	802	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1228	-	476	725	-	-
HCM Lane V/C Ratio	0.038	-	0.042	0.179	-	-
HCM Control Delay (s)	8	-	12.9	11	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.6	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	13	14	206	13	141	13	262	183	174	403	5
Future Volume (veh/h)	5	13	14	206	13	141	13	262	183	174	403	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	15	16	240	15	164	15	305	213	202	469	6
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	107	81	213	8	572	56	727	640	480	993	13
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.40	0.40	0.40	0.09	0.54	0.54
Sat Flow, veh/h	0	295	225	376	23	1585	34	1801	1585	1781	1843	24
Grp Volume(v), veh/h	37	0	0	255	0	164	320	0	213	202	0	475
Grp Sat Flow(s),veh/h/ln	521	0	0	399	0	1585	1835	0	1585	1781	0	1866
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	8.3	5.6	0.0	14.2
Cycle Q Clear(g_c), s	32.5	0.0	0.0	32.5	0.0	6.6	11.1	0.0	8.3	5.6	0.0	14.2
Prop In Lane	0.16		0.43	0.94		1.00	0.05		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	234	0	0	222	0	572	782	0	640	480	0	1006
V/C Ratio(X)	0.16	0.00	0.00	1.15	0.00	0.29	0.41	0.00	0.33	0.42	0.00	0.47
Avail Cap(c_a), veh/h	234	0	0	222	0	572	782	0	640	516	0	1006
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	0.0	34.4	0.0	20.5	19.3	0.0	18.5	13.4	0.0	12.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	106.9	0.0	0.3	1.6	0.0	1.4	0.6	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	11.5	0.0	2.4	5.0	0.0	3.2	2.2	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	0.0	141.3	0.0	20.8	20.9	0.0	19.9	14.0	0.0	14.4
LnGrp LOS	C	A	A	F	A	C	C	A	B	B	A	B
Approach Vol, veh/h		37			419			533			677	
Approach Delay, s/veh		22.0			94.1			20.5			14.3	
Approach LOS		C			F			C			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.2	40.8		37.0		53.0		37.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	9.5	34.5		32.5		48.5		32.5				
Max Q Clear Time (g_c+I1), s	7.6	13.1		34.5		16.2		34.5				
Green Ext Time (p_c), s	0.1	2.7		0.0		3.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			36.5									
HCM 6th LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	28	70	3	56	16	85	263	4	9	289	319
Future Volume (veh/h)	201	28	70	3	56	16	85	263	4	9	289	319
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	221	31	77	3	62	18	93	289	4	10	318	351
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	414	117	289	385	341	99	126	891	12	23	346	382
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.07	0.48	0.48	0.01	0.43	0.43
Sat Flow, veh/h	1319	476	1182	1286	1393	404	1781	1840	25	1781	812	897
Grp Volume(v), veh/h	221	0	108	3	0	80	93	0	293	10	0	669
Grp Sat Flow(s),veh/h/ln	1319	0	1658	1286	0	1798	1781	0	1866	1781	0	1709
Q Serve(g_s), s	8.3	0.0	2.8	0.1	0.0	1.8	2.7	0.0	5.0	0.3	0.0	19.3
Cycle Q Clear(g_c), s	10.2	0.0	2.8	2.9	0.0	1.8	2.7	0.0	5.0	0.3	0.0	19.3
Prop In Lane	1.00		0.71	1.00		0.22	1.00		0.01	1.00		0.52
Lane Grp Cap(c), veh/h	414	0	406	385	0	440	126	0	903	23	0	728
V/C Ratio(X)	0.53	0.00	0.27	0.01	0.00	0.18	0.74	0.00	0.32	0.43	0.00	0.92
Avail Cap(c_a), veh/h	545	0	571	513	0	619	174	0	903	170	0	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.6	0.0	15.9	17.1	0.0	15.6	23.8	0.0	8.3	25.6	0.0	14.2
Incr Delay (d2), s/veh	1.1	0.0	0.3	0.0	0.0	0.2	10.0	0.0	0.2	12.4	0.0	15.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	1.0	0.0	0.0	0.7	1.4	0.0	1.6	0.2	0.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	0.0	16.3	17.1	0.0	15.8	33.8	0.0	8.5	38.0	0.0	29.9
LnGrp LOS	C	A	B	B	A	B	C	A	A	D	A	C
Approach Vol, veh/h		329			83			386			679	
Approach Delay, s/veh		19.2			15.8			14.6			30.0	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	29.8		17.3	8.2	26.8		17.3
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0
Max Q Clear Time (g_c+I1), s	2.3	7.0		12.2	4.7	21.3		4.9
Green Ext Time (p_c), s	0.0	1.5		0.7	0.0	1.0		0.3

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	900	34	108	861	119	65	87	107	162	56	114
Future Volume (veh/h)	129	900	34	108	861	119	65	87	107	162	56	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	957	36	115	916	127	69	93	114	126	143	101
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	1517	57	141	1023	456	646	678	575	186	195	165
Arrive On Green	0.09	0.30	0.30	0.08	0.29	0.29	0.36	0.36	0.36	0.10	0.10	0.10
Sat Flow, veh/h	1781	5051	190	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	137	645	348	115	916	127	69	93	114	126	143	101
Grp Sat Flow(s),veh/h/ln	1781	1702	1836	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	8.9	19.2	19.2	7.5	29.0	7.3	3.0	3.9	5.8	8.0	8.7	7.2
Cycle Q Clear(g_c), s	8.9	19.2	19.2	7.5	29.0	7.3	3.0	3.9	5.8	8.0	8.7	7.2
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1022	551	141	1023	456	646	678	575	186	195	165
V/C Ratio(X)	0.84	0.63	0.63	0.81	0.90	0.28	0.11	0.14	0.20	0.68	0.73	0.61
Avail Cap(c_a), veh/h	174	1022	551	205	1086	485	646	678	575	637	669	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	35.5	35.5	53.2	40.1	32.4	24.8	25.1	25.7	50.7	51.0	50.3
Incr Delay (d2), s/veh	27.4	1.3	2.3	14.7	9.5	0.3	0.3	0.4	0.8	4.3	5.3	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	8.1	8.9	3.9	13.9	2.8	1.3	1.8	2.3	3.8	4.4	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.9	36.7	37.8	67.9	49.6	32.7	25.1	25.5	26.5	55.0	56.3	53.9
LnGrp LOS	E	D	D	E	D	C	C	C	C	D	E	D
Approach Vol, veh/h		1130			1158			276			370	
Approach Delay, s/veh		42.3			49.5			25.8			55.2	
Approach LOS		D			D			C			E	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		47.1	13.8	39.8		16.7	15.3	38.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		42.6	13.5	33.9		42.0	11.5	35.9
Max Q Clear Time (g_c+I1), s		7.8	9.5	21.2		10.7	10.9	31.0
Green Ext Time (p_c), s		1.1	0.1	5.3		1.5	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	107	1135	677	54	168	165
Future Volume (veh/h)	107	1135	677	54	168	165
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	1275	761	61	189	185
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	171	2012	1158	93	336	299
Arrive On Green	0.10	0.57	0.35	0.35	0.19	0.19
Sat Flow, veh/h	1781	3647	3426	267	1781	1585
Grp Volume(v), veh/h	120	1275	406	416	189	185
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1822	1781	1585
Q Serve(g_s), s	2.4	8.9	7.1	7.1	3.5	3.9
Cycle Q Clear(g_c), s	2.4	8.9	7.1	7.1	3.5	3.9
Prop In Lane	1.00			0.15	1.00	1.00
Lane Grp Cap(c), veh/h	171	2012	617	633	336	299
V/C Ratio(X)	0.70	0.63	0.66	0.66	0.56	0.62
Avail Cap(c_a), veh/h	412	3048	895	918	946	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	5.4	10.1	10.1	13.5	13.7
Incr Delay (d2), s/veh	5.1	0.3	1.2	1.2	1.5	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.6	2.2	2.2	1.3	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.2	5.7	11.3	11.3	15.0	15.8
LnGrp LOS	C	A	B	B	B	B
Approach Vol, veh/h		1395	822		374	
Approach Delay, s/veh		7.1	11.3		15.4	
Approach LOS		A	B		B	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				25.3		11.4	8.0	17.3
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				31.5		19.5	8.5	18.5
Max Q Clear Time (g_c+I1), s				10.9		5.9	4.4	9.1
Green Ext Time (p_c), s				9.9		1.0	0.1	3.6

Intersection Summary		
HCM 6th Ctrl Delay		9.6
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	242	151	78	244	152	123	206	223	414	588	23
Future Volume (veh/h)	11	242	151	78	244	152	123	206	223	414	588	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	255	159	82	257	160	129	217	235	436	619	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	462	392	213	462	392	164	1272	567	407	1725	67
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.09	0.36	0.36	0.23	0.49	0.49
Sat Flow, veh/h	969	1870	1585	972	1870	1585	1781	3554	1585	1781	3488	135
Grp Volume(v), veh/h	12	255	159	82	257	160	129	217	235	436	315	328
Grp Sat Flow(s),veh/h/ln	969	1870	1585	972	1870	1585	1781	1777	1585	1781	1777	1846
Q Serve(g_s), s	0.9	9.6	6.8	6.5	9.7	6.8	5.7	3.4	9.1	18.5	8.8	8.8
Cycle Q Clear(g_c), s	10.6	9.6	6.8	16.1	9.7	6.8	5.7	3.4	9.1	18.5	8.8	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	212	462	392	213	462	392	164	1272	567	407	879	913
V/C Ratio(X)	0.06	0.55	0.41	0.38	0.56	0.41	0.79	0.17	0.41	1.07	0.36	0.36
Avail Cap(c_a), veh/h	320	670	567	321	670	567	288	1272	567	407	879	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	26.6	25.5	33.6	26.6	25.5	36.0	17.8	19.6	31.3	12.6	12.6
Incr Delay (d2), s/veh	0.1	1.0	0.7	1.1	1.0	0.7	8.1	0.3	2.2	65.1	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.3	2.6	1.6	4.3	2.6	2.8	1.4	3.5	15.0	3.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	27.6	26.2	34.8	27.7	26.2	44.2	18.1	21.8	96.4	13.7	13.7
LnGrp LOS	C	C	C	C	C	C	D	B	C	F	B	B
Approach Vol, veh/h		426			499			581			1079	
Approach Delay, s/veh		27.2			28.4			25.4			47.1	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	33.5		24.5	11.9	44.6		24.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	18.5	29.0		29.0	13.1	34.4		29.0				
Max Q Clear Time (g_c+I1), s	20.5	11.1		12.6	7.7	10.8		18.1				
Green Ext Time (p_c), s	0.0	2.0		1.9	0.1	4.1		1.9				
Intersection Summary												
HCM 6th Ctrl Delay			35.3									
HCM 6th LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	894	179	44	777	245	210	293	61	588	313	97
Future Volume (veh/h)	143	894	179	44	777	245	210	293	61	588	313	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	147	922	185	45	801	253	216	302	63	606	323	100
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	1019	455	58	951	726	278	987	203	657	835	790
Arrive On Green	0.05	0.29	0.29	0.03	0.27	0.27	0.08	0.34	0.34	0.19	0.45	0.45
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	2935	604	3456	1870	1585
Grp Volume(v), veh/h	147	922	185	45	801	253	216	181	184	606	323	100
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1762	1728	1870	1585
Q Serve(g_s), s	4.9	29.3	11.0	2.9	25.0	12.1	7.2	8.8	9.1	20.2	13.5	4.0
Cycle Q Clear(g_c), s	4.9	29.3	11.0	2.9	25.0	12.1	7.2	8.8	9.1	20.2	13.5	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	180	1019	455	58	951	726	278	598	593	657	835	790
V/C Ratio(X)	0.82	0.90	0.41	0.77	0.84	0.35	0.78	0.30	0.31	0.92	0.39	0.13
Avail Cap(c_a), veh/h	180	1065	475	76	1032	762	381	598	593	664	835	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	40.2	33.7	56.2	40.5	20.5	52.8	28.7	28.8	46.6	21.7	15.7
Incr Delay (d2), s/veh	24.5	10.6	0.6	29.0	6.0	0.3	6.8	1.3	1.4	18.4	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	14.1	4.3	1.8	11.6	4.5	3.4	4.0	4.1	10.3	6.2	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.4	50.8	34.3	85.1	46.6	20.8	59.7	30.0	30.1	64.9	23.1	16.1
LnGrp LOS	E	D	C	F	D	C	E	C	C	E	C	B
Approach Vol, veh/h		1254			1099			581			1029	
Approach Delay, s/veh		51.7			42.2			41.1			47.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.8	43.9	8.3	38.1	13.9	56.8	10.6	35.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	39.4	5.0	35.1	12.9	49.0	6.1	34.0
Max Q Clear Time (g_c+I1), s	22.2	11.1	4.9	31.3	9.2	15.5	6.9	27.0
Green Ext Time (p_c), s	0.1	2.3	0.0	2.3	0.2	2.4	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	125	98	91	63	203	29	287	84	113	322	109
Future Volume (veh/h)	156	125	98	91	63	203	29	287	84	113	322	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	168	134	105	98	68	218	31	309	90	122	346	117
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	650	551	512	136	436	64	447	378	161	548	465
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.04	0.24	0.24	0.09	0.29	0.29
Sat Flow, veh/h	1093	1870	1585	1141	391	1254	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	168	134	105	98	0	286	31	309	90	122	346	117
Grp Sat Flow(s),veh/h/ln	1093	1870	1585	1141	0	1645	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.0	2.1	1.9	2.8	0.0	5.7	0.7	6.3	1.9	2.8	6.7	2.4
Cycle Q Clear(g_c), s	11.7	2.1	1.9	4.9	0.0	5.7	0.7	6.3	1.9	2.8	6.7	2.4
Prop In Lane	1.00		1.00	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	402	650	551	512	0	572	64	447	378	161	548	465
V/C Ratio(X)	0.42	0.21	0.19	0.19	0.00	0.50	0.48	0.69	0.24	0.76	0.63	0.25
Avail Cap(c_a), veh/h	506	828	701	620	0	728	226	917	777	320	1016	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	9.6	9.5	11.3	0.0	10.8	19.8	14.5	12.8	18.6	12.8	11.3
Incr Delay (d2), s/veh	0.7	0.2	0.2	0.2	0.0	0.7	5.5	1.9	0.3	7.0	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.7	0.5	0.6	0.0	1.7	0.4	2.4	0.6	1.3	2.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	9.7	9.7	11.5	0.0	11.4	25.2	16.4	13.2	25.6	14.0	11.6
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		407			384			430			585	
Approach Delay, s/veh		12.3			11.4			16.4			15.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	14.5		19.0	6.0	16.8		19.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	20.5		18.5	5.3	22.7		18.5				
Max Q Clear Time (g_c+I1), s	4.8	8.3		13.7	2.7	8.7		7.7				
Green Ext Time (p_c), s	0.1	1.7		0.8	0.0	2.1		1.6				

Intersection Summary			
HCM 6th Ctrl Delay			14.3
HCM 6th LOS			B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	116	1202	650	272	549	77
Future Volume (veh/h)	116	1202	650	272	549	77
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	1279	691	289	584	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	159	1696	1161	518	1384	635
Arrive On Green	0.09	0.48	0.33	0.33	0.40	0.40
Sat Flow, veh/h	1781	3647	3647	1585	3456	1585
Grp Volume(v), veh/h	123	1279	691	289	584	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1728	1585
Q Serve(g_s), s	5.0	21.6	12.0	11.1	9.0	2.4
Cycle Q Clear(g_c), s	5.0	21.6	12.0	11.1	9.0	2.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	159	1696	1161	518	1384	635
V/C Ratio(X)	0.77	0.75	0.59	0.56	0.42	0.13
Avail Cap(c_a), veh/h	375	2485	1520	678	1384	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	15.7	20.7	20.4	15.9	14.0
Incr Delay (d2), s/veh	7.8	0.8	0.5	0.9	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	8.0	4.7	4.0	3.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.6	16.5	21.2	21.3	16.9	14.4
LnGrp LOS	D	B	C	C	B	B
Approach Vol, veh/h		1402	980		666	
Approach Delay, s/veh		18.6	21.2		16.6	
Approach LOS		B	C		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	39.6	34.0	11.1	28.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	51.5	29.5	15.5	31.5
Max Q Clear Time (g_c+I1), s	23.6	11.0	7.0	14.0
Green Ext Time (p_c), s	11.5	2.4	0.2	5.5

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	1396	121	81	1071	118	65	14	70	11	1	17
Future Volume (veh/h)	67	1396	121	81	1071	118	65	14	70	11	1	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	1501	130	87	1152	127	70	15	75	12	1	18
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	93	1933	600	142	1877	583	1365	739	626	18	1	27
Arrive On Green	0.05	0.38	0.38	0.04	0.37	0.37	0.39	0.39	0.39	0.03	0.03	0.03
Sat Flow, veh/h	1781	5106	1585	3456	5106	1585	3456	1870	1585	644	54	966
Grp Volume(v), veh/h	72	1501	130	87	1152	127	70	15	75	31	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1702	1585	1728	1870	1585	1664	0	0
Q Serve(g_s), s	4.6	29.5	6.3	2.8	21.0	6.3	1.4	0.6	3.4	2.1	0.0	0.0
Cycle Q Clear(g_c), s	4.6	29.5	6.3	2.8	21.0	6.3	1.4	0.6	3.4	2.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.39		0.58
Lane Grp Cap(c), veh/h	93	1933	600	142	1877	583	1365	739	626	46	0	0
V/C Ratio(X)	0.78	0.78	0.22	0.61	0.61	0.22	0.05	0.02	0.12	0.68	0.00	0.00
Avail Cap(c_a), veh/h	192	2308	716	227	2092	650	1365	739	626	263	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	53.4	31.2	24.0	53.7	29.4	24.8	21.3	21.0	21.9	54.9	0.0	0.0
Incr Delay (d2), s/veh	12.9	1.4	0.2	4.2	0.4	0.2	0.1	0.1	0.4	16.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	12.2	2.4	1.3	8.6	2.4	0.6	0.3	1.3	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	32.6	24.1	58.0	29.9	25.0	21.4	21.1	22.3	71.1	0.0	0.0
LnGrp LOS	E	C	C	E	C	C	C	C	C	E	A	A
Approach Vol, veh/h		1703			1366			160			31	
Approach Delay, s/veh		33.4			31.2			21.8			71.1	
Approach LOS		C			C			C			E	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		49.5	9.2	47.7		7.6	10.4	46.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		45.0	7.5	51.5		18.0	12.3	46.7
Max Q Clear Time (g_c+I1), s		5.4	4.8	31.5		4.1	6.6	23.0
Green Ext Time (p_c), s		0.6	0.0	11.7		0.1	0.1	9.6

Intersection Summary			
HCM 6th Ctrl Delay			32.3
HCM 6th LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	1070	624	729	599	82	202	0	485	145	0	98
Future Volume (vph)	67	1070	624	729	599	82	202	0	485	145	0	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97		0.88	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	3433		2787	1770		1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	3433	3539	1583	3433		2787	1770		1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	69	1103	643	752	618	85	208	0	500	149	0	101
RTOR Reduction (vph)	0	0	305	0	0	39	0	0	0	0	0	78
Lane Group Flow (vph)	69	1103	338	752	618	46	208	0	500	149	0	23
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8							
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	6.8	33.2	33.2	22.3	48.7	48.7	20.5		20.5	20.5		20.5
Effective Green, g (s)	6.8	33.2	33.2	22.3	48.7	48.7	20.5		20.5	20.5		20.5
Actuated g/C Ratio	0.08	0.37	0.37	0.25	0.54	0.54	0.23		0.23	0.23		0.23
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	134	1312	587	855	1925	861	786		638	405		362
v/s Ratio Prot	0.04	c0.31		c0.22	0.17							
v/s Ratio Perm			0.21			0.03	0.06		c0.18	0.08		0.01
v/c Ratio	0.51	0.84	0.58	0.88	0.32	0.05	0.26		0.78	0.37		0.06
Uniform Delay, d1	39.8	25.7	22.5	32.3	11.3	9.6	28.3		32.4	29.0		27.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	3.3	5.0	1.4	10.2	0.1	0.0	0.8		9.3	2.6		0.3
Delay (s)	43.1	30.8	23.9	42.5	11.4	9.6	29.1		41.7	31.6		27.3
Level of Service	D	C	C	D	B	A	C		D	C		C
Approach Delay (s)		28.8			27.4			38.0			29.9	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	89.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	572	377	3	1	144	100	3	2	5	407	1	878
Future Volume (veh/h)	572	377	3	1	144	100	3	2	5	407	1	878
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	650	428	3	1	164	114	3	2	6	462	1	998
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	741	606	4	2	213	181	40	36	43	346	1	879
Arrive On Green	0.21	0.33	0.33	0.00	0.11	0.11	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	3456	1855	13	1781	1870	1585	0	65	77	512	1	1585
Grp Volume(v), veh/h	650	0	431	1	164	114	11	0	0	463	0	998
Grp Sat Flow(s),veh/h/ln	1728	0	1868	1781	1870	1585	142	0	0	513	0	1585
Q Serve(g_s), s	21.0	0.0	23.3	0.1	9.8	7.9	0.0	0.0	0.0	0.0	0.0	64.0
Cycle Q Clear(g_c), s	21.0	0.0	23.3	0.1	9.8	7.9	64.0	0.0	0.0	64.0	0.0	64.0
Prop In Lane	1.00		0.01	1.00		1.00	0.27		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	741	0	611	2	213	181	118	0	0	347	0	879
V/C Ratio(X)	0.88	0.00	0.71	0.41	0.77	0.63	0.09	0.00	0.00	1.34	0.00	1.14
Avail Cap(c_a), veh/h	943	0	1093	77	665	563	118	0	0	347	0	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	34.0	57.6	49.6	48.8	26.4	0.0	0.0	31.4	0.0	25.7
Incr Delay (d2), s/veh	7.8	0.0	1.5	84.4	5.8	3.6	1.6	0.0	0.0	169.4	0.0	74.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	10.7	0.1	4.9	3.3	0.2	0.0	0.0	26.4	0.0	40.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	0.0	35.5	142.0	55.4	52.4	28.0	0.0	0.0	200.8	0.0	100.5
LnGrp LOS	D	A	D	F	E	D	C	A	A	F	A	F
Approach Vol, veh/h		1081			279			11			1461	
Approach Delay, s/veh		45.2			54.5			28.0			132.3	
Approach LOS		D			D			C			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		68.5	4.7	42.2		68.5	29.2	17.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		64.0	5.0	67.5		64.0	31.5	41.0				
Max Q Clear Time (g_c+I1), s		66.0	2.1	25.3		66.0	23.0	11.8				
Green Ext Time (p_c), s		0.0	0.0	3.0		0.0	1.7	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			91.0									
HCM 6th LOS			F									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	7	1	583	75	1110	0	0	281	449
Future Volume (veh/h)	0	0	0	7	1	583	75	1110	0	0	281	449
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				0	0	671	85	1261	0	0	319	510
Peak Hour Factor				0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				0	522	884	362	1996	0	0	998	890
Arrive On Green				0.00	0.00	0.28	0.56	0.56	0.00	0.00	0.56	0.56
Sat Flow, veh/h				0	1870	3170	661	3647	0	0	1870	1585
Grp Volume(v), veh/h				0	0	671	85	1261	0	0	319	510
Grp Sat Flow(s),veh/h/ln				0	1870	1585	661	1777	0	0	1777	1585
Q Serve(g_s), s				0.0	0.0	10.9	5.4	13.6	0.0	0.0	5.4	11.7
Cycle Q Clear(g_c), s				0.0	0.0	10.9	17.1	13.6	0.0	0.0	5.4	11.7
Prop In Lane				0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	522	884	362	1996	0	0	998	890
V/C Ratio(X)				0.00	0.00	0.76	0.24	0.63	0.00	0.00	0.32	0.57
Avail Cap(c_a), veh/h				0	1077	1826	559	3055	0	0	1527	1362
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	18.6	13.5	8.4	0.0	0.0	6.6	8.0
Incr Delay (d2), s/veh				0.0	0.0	1.4	0.3	0.3	0.0	0.0	0.2	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	3.7	0.7	4.0	0.0	0.0	1.6	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	20.0	13.9	8.7	0.0	0.0	6.8	8.6
LnGrp LOS				A	A	B	B	A	A	A	A	A
Approach Vol, veh/h					671			1346			829	
Approach Delay, s/veh					20.0			9.1			7.9	
Approach LOS					B			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		36.2				36.2		20.2				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		48.5				48.5		32.5				
Max Q Clear Time (g_c+I1), s		19.1				13.7		12.9				
Green Ext Time (p_c), s		12.6				6.7		2.8				

Intersection Summary			
HCM 6th Ctrl Delay			11.3
HCM 6th LOS			B

Notes
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	864	62	0	0	18	319	0	0	0	55	0	245
Future Volume (vph)	864	62	0	0	18	319	0	0	0	55	0	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	4.5				4.5		4.5
Lane Util. Factor	0.95	0.95			1.00	1.00				1.00		1.00
Frt	1.00	1.00			1.00	0.85				1.00		0.85
Flt Protected	0.95	0.96			1.00	1.00				0.95		1.00
Satd. Flow (prot)	1681	1696			1863	1583				1770		1583
Flt Permitted	0.95	0.96			1.00	1.00				0.95		1.00
Satd. Flow (perm)	1681	1696			1863	1583				1770		1583
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	1041	75	0	0	22	384	0	0	0	66	0	295
RTOR Reduction (vph)	0	0	0	0	0	328	0	0	0	0	0	252
Lane Group Flow (vph)	552	564	0	0	22	56	0	0	0	66	0	43
Turn Type	Split	NA			NA	Perm				Perm		Perm
Protected Phases	4	4			8							
Permitted Phases						8				6		6
Actuated Green, G (s)	27.5	27.5			8.5	8.5				8.5		8.5
Effective Green, g (s)	27.5	27.5			8.5	8.5				8.5		8.5
Actuated g/C Ratio	0.47	0.47			0.15	0.15				0.15		0.15
Clearance Time (s)	4.5	4.5			4.5	4.5				4.5		4.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0		3.0
Lane Grp Cap (vph)	797	804			273	231				259		231
v/s Ratio Prot	0.33	c0.33			0.01							
v/s Ratio Perm						c0.04				c0.04		0.03
v/c Ratio	0.69	0.70			0.08	0.24				0.25		0.19
Uniform Delay, d1	11.9	12.0			21.4	21.9				21.9		21.7
Progression Factor	1.00	1.00			1.00	1.00				1.00		1.00
Incremental Delay, d2	2.6	2.8			0.1	0.6				0.5		0.4
Delay (s)	14.6	14.8			21.5	22.5				22.5		22.1
Level of Service	B	B			C	C				C		C
Approach Delay (s)		14.7			22.4			0.0			22.2	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	768	777	5	514	0	0	0	0	26	0	861
Future Volume (vph)	0	768	777	5	514	0	0	0	0	26	0	861
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0	4.5	4.5					4.5		4.0
Lane Util. Factor		0.91	0.91	1.00	1.00					1.00		1.00
Frt		0.96	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3246	1441	1770	1863					1770		1583
Flt Permitted		1.00	1.00	0.19	1.00					0.95		1.00
Satd. Flow (perm)		3246	1441	356	1863					1770		1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	826	835	5	553	0	0	0	0	28	0	926
RTOR Reduction (vph)	0	53	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1099	509	5	553	0	0	0	0	28	0	926
Turn Type		NA	Free	Perm	NA					Perm		Free
Protected Phases		4			8							
Permitted Phases			Free	8						6		Free
Actuated Green, G (s)		21.0	36.4	21.0	21.0					6.4		36.4
Effective Green, g (s)		21.0	36.4	21.0	21.0					6.4		36.4
Actuated g/C Ratio		0.58	1.00	0.58	0.58					0.18		1.00
Clearance Time (s)		4.5		4.5	4.5					4.5		
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Lane Grp Cap (vph)		1872	1441	205	1074					311		1583
v/s Ratio Prot		0.34			0.30							
v/s Ratio Perm			0.35	0.01						0.02		c0.58
v/c Ratio		0.59	0.35	0.02	0.51					0.09		0.58
Uniform Delay, d1		4.9	0.0	3.3	4.6					12.6		0.0
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		0.5	0.7	0.0	0.4					0.1		1.6
Delay (s)		5.4	0.7	3.4	5.1					12.7		1.6
Level of Service		A	A	A	A					B		A
Approach Delay (s)		4.0			5.0			0.0			1.9	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	3.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	36.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	40	759	4	11	0	513	0	34	0	0	0
Future Volume (vph)	0	40	759	4	11	0	513	0	34	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5		4.5		4.5			
Lane Util. Factor		0.95	0.88		1.00		0.97		1.00			
Frt		1.00	0.85		1.00		1.00		0.85			
Flt Protected		1.00	1.00		0.99		0.95		1.00			
Satd. Flow (prot)		3539	2787		1837		3433		1583			
Flt Permitted		1.00	1.00		1.00		0.95		1.00			
Satd. Flow (perm)		3539	2787		1863		3433		1583			
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	0	47	883	5	13	0	597	0	40	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	14	0	0	0
Lane Group Flow (vph)	0	47	883	0	18	0	597	0	26	0	0	0
Turn Type		NA	Free	Perm	NA		Perm		Perm			
Protected Phases		4			8							
Permitted Phases			Free	8			2		2			
Actuated Green, G (s)		2.2	33.1		2.2		21.9		21.9			
Effective Green, g (s)		2.2	33.1		2.2		21.9		21.9			
Actuated g/C Ratio		0.07	1.00		0.07		0.66		0.66			
Clearance Time (s)		4.5			4.5		4.5		4.5			
Vehicle Extension (s)		3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)		235	2787		123		2271		1047			
v/s Ratio Prot		0.01										
v/s Ratio Perm			c0.32		0.01		0.17		0.02			
v/c Ratio		0.20	0.32		0.15		0.26		0.03			
Uniform Delay, d1		14.6	0.0		14.6		2.3		1.9			
Progression Factor		1.00	1.00		1.00		1.00		1.00			
Incremental Delay, d2		0.4	0.3		0.6		0.1		0.0			
Delay (s)		15.0	0.3		15.1		2.4		1.9			
Level of Service		B	A		B		A		A			
Approach Delay (s)		1.0			15.1			2.3			0.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	1.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	33.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1006	770	0	993	554	0	0	0	40	0	396
Future Volume (vph)	0	1006	770	0	993	554	0	0	0	40	0	396
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5	4.0				4.5		4.5
Lane Util. Factor		0.91	1.00		0.95	1.00				1.00		1.00
Frt		1.00	0.85		1.00	0.85				1.00		0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95		1.00
Satd. Flow (prot)		5085	1583		3539	1583				1770		1583
Flt Permitted		1.00	1.00		1.00	1.00				0.95		1.00
Satd. Flow (perm)		5085	1583		3539	1583				1770		1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	1048	802	0	1034	577	0	0	0	42	0	412
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	29
Lane Group Flow (vph)	0	1048	802	0	1034	577	0	0	0	42	0	384
Turn Type		NA	Free		NA	Free				Perm		Perm
Protected Phases		4			8							
Permitted Phases			Free			Free				6		6
Actuated Green, G (s)		24.9	53.7		24.9	53.7				19.8		19.8
Effective Green, g (s)		24.9	53.7		24.9	53.7				19.8		19.8
Actuated g/C Ratio		0.46	1.00		0.46	1.00				0.37		0.37
Clearance Time (s)		4.5			4.5					4.5		4.5
Vehicle Extension (s)		3.0			3.0					3.0		3.0
Lane Grp Cap (vph)		2357	1583		1640	1583				652		583
v/s Ratio Prot		0.21			c0.29							
v/s Ratio Perm			0.51			0.36				0.02		c0.24
v/c Ratio		0.44	0.51		0.63	0.36				0.06		0.66
Uniform Delay, d1		9.7	0.0		10.9	0.0				11.0		14.1
Progression Factor		1.00	1.00		1.00	1.00				1.00		1.00
Incremental Delay, d2		0.1	1.2		0.8	0.7				0.0		2.7
Delay (s)		9.9	1.2		11.7	0.7				11.0		16.8
Level of Service		A	A		B	A				B		B
Approach Delay (s)		6.1			7.7			0.0			16.3	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	53.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	513	541	0	1293	109	235	0	186	0	0	0
Future Volume (veh/h)	0	513	541	0	1293	109	235	0	186	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	552	0	0	1390	0	226	37	200			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2			
Cap, veh/h	0	2129		0	2129		387	55	297			
Arrive On Green	0.00	0.60	0.00	0.00	0.60	0.00	0.22	0.22	0.22			
Sat Flow, veh/h	0	3647	1585	0	3647	1585	1781	253	1370			
Grp Volume(v), veh/h	0	552	0	0	1390	0	226	0	237			
Grp Sat Flow(s),veh/h/ln	0	1777	1585	0	1777	1585	1781	0	1624			
Q Serve(g_s), s	0.0	3.6	0.0	0.0	12.6	0.0	5.6	0.0	6.6			
Cycle Q Clear(g_c), s	0.0	3.6	0.0	0.0	12.6	0.0	5.6	0.0	6.6			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		0.84			
Lane Grp Cap(c), veh/h	0	2129		0	2129		387	0	352			
V/C Ratio(X)	0.00	0.26		0.00	0.65		0.58	0.00	0.67			
Avail Cap(c_a), veh/h	0	3882		0	3882		1000	0	912			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	4.7	0.0	0.0	6.5	0.0	17.2	0.0	17.6			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.3	0.0	1.4	0.0	2.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.9	0.0	0.0	3.0	0.0	2.2	0.0	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.7	0.0	0.0	6.8	0.0	18.6	0.0	19.8			
LnGrp LOS	A	A		A	A		B	A	B			
Approach Vol, veh/h		552	A		1390	A		463				
Approach Delay, s/veh		4.7			6.8			19.2				
Approach LOS		A			A			B				

Timer - Assigned Phs		2		4				8
Phs Duration (G+Y+Rc), s		15.1		33.8				33.8
Change Period (Y+Rc), s		4.5		4.5				4.5
Max Green Setting (Gmax), s		27.5		53.5				53.5
Max Q Clear Time (g_c+I1), s		8.6		5.6				14.6
Green Ext Time (p_c), s		2.1		4.3				14.7

Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	136	883	898	33	29	92
Future Volume (veh/h)	136	883	898	33	29	92
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	145	939	955	35	31	98
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	378	1365	1365	1157	45	142
Arrive On Green	0.73	0.73	0.73	0.73	0.12	0.12
Sat Flow, veh/h	569	1870	1870	1585	389	1229
Grp Volume(v), veh/h	145	939	955	35	130	0
Grp Sat Flow(s),veh/h/ln	569	1870	1870	1585	1630	0
Q Serve(g_s), s	11.0	15.9	16.4	0.4	4.5	0.0
Cycle Q Clear(g_c), s	27.4	15.9	16.4	0.4	4.5	0.0
Prop In Lane	1.00			1.00	0.24	0.75
Lane Grp Cap(c), veh/h	378	1365	1365	1157	189	0
V/C Ratio(X)	0.38	0.69	0.70	0.03	0.69	0.00
Avail Cap(c_a), veh/h	778	2681	2681	2272	560	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.9	4.3	4.3	2.2	24.7	0.0
Incr Delay (d2), s/veh	0.6	0.6	0.7	0.0	4.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.1	3.2	0.1	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.6	4.9	5.0	2.2	29.2	0.0
LnGrp LOS	B	A	A	A	C	A
Approach Vol, veh/h		1084	990		130	
Approach Delay, s/veh		5.9	4.9		29.2	
Approach LOS		A	A		C	

Timer - Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				47.0		11.2		47.0
Change Period (Y+Rc), s				4.5		4.5		4.5
Max Green Setting (Gmax), s				83.5		20.0		83.5
Max Q Clear Time (g_c+I1), s				29.4		6.5		18.4
Green Ext Time (p_c), s				13.1		0.3		10.8

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	28	4	127	31	5	67
Future Volume (veh/h)	28	4	127	31	5	67
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	5	155	38	6	82
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	89	79	635	538	821	635
Arrive On Green	0.05	0.05	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1585	1870	1585	1190	1870
Grp Volume(v), veh/h	34	5	155	38	6	82
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1190	1870
Q Serve(g_s), s	0.3	0.0	0.9	0.2	0.1	0.4
Cycle Q Clear(g_c), s	0.3	0.0	0.9	0.2	0.9	0.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	89	79	635	538	821	635
V/C Ratio(X)	0.38	0.06	0.24	0.07	0.01	0.13
Avail Cap(c_a), veh/h	3566	3173	6536	5539	4576	6536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.8	6.7	3.5	3.3	3.8	3.4
Incr Delay (d2), s/veh	2.7	0.3	0.2	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.4	7.0	3.7	3.4	3.8	3.5
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	39		193			88
Approach Delay, s/veh	9.1		3.6			3.5
Approach LOS	A		A			A

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	9.5	9.5	5.2
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	51.5	51.5	29.5
Max Q Clear Time (g_c+I1), s	2.9	2.9	2.3
Green Ext Time (p_c), s	1.1	0.5	0.1

Intersection Summary	
HCM 6th Ctrl Delay	4.3
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	257	13	16	182	9	9
Future Vol, veh/h	257	13	16	182	9	9
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	302	15	19	214	11	11
Number of Lanes	1	1	1	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	13.1	9.3	8.9
HCM LOS	B	A	A

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	0%	50%
Vol Thru, %	100%	0%	0%	0%	50%
Vol Right, %	0%	100%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	182	257	13	18
LT Vol	0	0	257	0	9
Through Vol	16	0	0	0	9
RT Vol	0	182	0	13	0
Lane Flow Rate	19	214	302	15	21
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.029	0.284	0.473	0.019	0.033
Departure Headway (Hd)	5.484	4.778	5.637	4.433	5.651
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	653	752	638	803	631
Service Time	3.215	2.51	3.389	2.185	3.706
HCM Lane V/C Ratio	0.029	0.285	0.473	0.019	0.033
HCM Control Delay	8.4	9.4	13.4	7.3	8.9
HCM Lane LOS	A	A	B	A	A
HCM 95th-tile Q	0.1	1.2	2.5	0.1	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	703	248	305	712	34	133	95	314	55	174	123
Future Volume (veh/h)	78	703	248	305	712	34	133	95	314	55	174	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	756	267	328	766	37	143	102	338	59	187	132
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	1022	456	428	1245	555	405	425	556	250	263	223
Arrive On Green	0.06	0.29	0.29	0.12	0.35	0.35	0.23	0.23	0.23	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	84	756	267	328	766	37	143	102	338	59	187	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.8	15.7	11.8	7.5	14.5	1.3	5.5	3.6	14.3	2.4	7.8	6.4
Cycle Q Clear(g_c), s	3.8	15.7	11.8	7.5	14.5	1.3	5.5	3.6	14.3	2.4	7.8	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	109	1022	456	428	1245	555	405	425	556	250	263	223
V/C Ratio(X)	0.77	0.74	0.59	0.77	0.62	0.07	0.35	0.24	0.61	0.24	0.71	0.59
Avail Cap(c_a), veh/h	269	1483	662	658	1623	724	405	425	556	743	781	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	26.3	24.9	34.5	21.9	17.6	26.5	25.7	21.8	31.1	33.4	32.8
Incr Delay (d2), s/veh	10.8	1.1	1.2	2.9	0.5	0.1	2.4	1.3	4.9	0.5	3.6	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	6.5	4.4	3.2	5.9	0.5	2.5	1.7	5.8	1.0	3.7	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	27.4	26.1	37.4	22.4	17.7	28.9	27.1	26.7	31.6	37.0	35.3
LnGrp LOS	D	C	C	D	C	B	C	C	C	C	D	D
Approach Vol, veh/h		1107			1131			583			378	
Approach Delay, s/veh		28.7			26.6			27.3			35.6	
Approach LOS		C			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		23.0	14.6	27.9		15.9	9.5	33.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.5	15.5	34.0		34.0	12.3	37.2
Max Q Clear Time (g_c+I1), s		16.3	9.5	17.7		9.8	5.8	16.5
Green Ext Time (p_c), s		0.6	0.6	5.8		1.7	0.1	5.5

Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	522	67	209	459	38	55	13	96	37	23	61
Future Volume (veh/h)	91	522	67	209	459	38	55	13	96	37	23	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	574	74	230	504	42	60	14	105	41	25	67
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	954	123	307	1285	107	341	303	257	393	73	195
Arrive On Green	0.09	0.30	0.30	0.17	0.39	0.39	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	3167	407	1781	3321	276	1304	1870	1585	1273	449	1204
Grp Volume(v), veh/h	100	321	327	230	269	277	60	14	105	41	0	92
Grp Sat Flow(s),veh/h/ln	1781	1777	1797	1781	1777	1821	1304	1870	1585	1273	0	1654
Q Serve(g_s), s	2.0	5.7	5.8	4.5	4.1	4.1	1.6	0.2	2.2	1.0	0.0	1.8
Cycle Q Clear(g_c), s	2.0	5.7	5.8	4.5	4.1	4.1	3.4	0.2	2.2	1.3	0.0	1.8
Prop In Lane	1.00		0.23	1.00		0.15	1.00		1.00	1.00		0.73
Lane Grp Cap(c), veh/h	154	535	541	307	688	704	341	303	257	393	0	268
V/C Ratio(X)	0.65	0.60	0.60	0.75	0.39	0.39	0.18	0.05	0.41	0.10	0.00	0.34
Avail Cap(c_a), veh/h	562	1031	1042	889	1357	1390	1414	1842	1561	1440	0	1628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	11.0	11.1	14.6	8.2	8.2	15.3	13.1	13.9	13.6	0.0	13.8
Incr Delay (d2), s/veh	4.5	1.1	1.1	3.7	0.4	0.4	0.2	0.1	1.0	0.1	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.8	1.9	1.8	1.2	1.2	0.4	0.1	0.7	0.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	12.1	12.1	18.2	8.6	8.6	15.5	13.2	15.0	13.8	0.0	14.5
LnGrp LOS	C	B	B	B	A	A	B	B	B	B	A	B
Approach Vol, veh/h		748			776			179			133	
Approach Delay, s/veh		13.3			11.4			15.0			14.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	10.5	10.9	15.7	10.5	7.7	18.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	36.5	18.5	21.5	36.5	11.7	28.3
Max Q Clear Time (g_c+I1), s	5.4	6.5	7.8	3.8	4.0	6.1
Green Ext Time (p_c), s	0.6	0.5	3.4	0.7	0.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	587	39	91	660	87	27	4	44	58	3	14
Future Volume (veh/h)	17	587	39	91	660	87	27	4	44	58	3	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	652	43	101	733	97	30	4	49	64	3	16
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	1173	77	163	1306	173	416	18	225	385	39	208
Arrive On Green	0.02	0.35	0.35	0.09	0.41	0.41	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3384	223	1781	3155	417	1393	121	1482	1351	256	1368
Grp Volume(v), veh/h	19	342	353	101	413	417	30	0	53	64	0	19
Grp Sat Flow(s),veh/h/ln	1781	1777	1830	1781	1777	1795	1393	0	1604	1351	0	1624
Q Serve(g_s), s	0.3	5.1	5.1	1.8	5.8	5.8	0.6	0.0	1.0	1.4	0.0	0.3
Cycle Q Clear(g_c), s	0.3	5.1	5.1	1.8	5.8	5.8	1.0	0.0	1.0	2.4	0.0	0.3
Prop In Lane	1.00		0.12	1.00		0.23	1.00		0.92	1.00		0.84
Lane Grp Cap(c), veh/h	43	616	635	163	736	743	416	0	243	385	0	247
V/C Ratio(X)	0.44	0.56	0.56	0.62	0.56	0.56	0.07	0.00	0.22	0.17	0.00	0.08
Avail Cap(c_a), veh/h	297	1430	1473	676	1807	1826	1791	0	1826	1718	0	1849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	8.7	8.7	14.4	7.4	7.4	12.4	0.0	12.3	13.3	0.0	12.0
Incr Delay (d2), s/veh	6.9	0.8	0.8	3.8	0.7	0.7	0.1	0.0	0.4	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.4	1.5	0.8	1.5	1.5	0.2	0.0	0.3	0.4	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	9.5	9.5	18.2	8.0	8.0	12.5	0.0	12.7	13.5	0.0	12.1
LnGrp LOS	C	A	A	B	A	A	B	A	B	B	A	B
Approach Vol, veh/h		714			931			83			83	
Approach Delay, s/veh		9.8			9.1			12.6			13.2	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		9.5	7.5	15.9		9.5	5.3	18.1
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		37.5	12.5	26.5		37.5	5.5	33.5
Max Q Clear Time (g_c+I1), s		3.0	3.8	7.1		4.4	2.3	7.8
Green Ext Time (p_c), s		0.4	0.1	4.2		0.3	0.0	5.8

Intersection Summary			
HCM 6th Ctrl Delay			9.8
HCM 6th LOS			A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	645	12	105	804	128	4	2	73	83	2	25
Future Volume (veh/h)	32	645	12	105	804	128	4	2	73	83	2	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	686	13	112	855	136	4	2	78	88	2	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	1417	27	160	1375	219	395	7	261	347	19	251
Arrive On Green	0.04	0.40	0.40	0.09	0.45	0.45	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	3567	68	1781	3071	488	1381	40	1551	1319	110	1491
Grp Volume(v), veh/h	34	342	357	112	495	496	4	0	80	88	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1782	1381	0	1591	1319	0	1602
Q Serve(g_s), s	0.7	5.6	5.6	2.4	8.3	8.3	0.1	0.0	1.7	2.5	0.0	0.6
Cycle Q Clear(g_c), s	0.7	5.6	5.6	2.4	8.3	8.3	0.7	0.0	1.7	4.2	0.0	0.6
Prop In Lane	1.00		0.04	1.00		0.27	1.00		0.98	1.00		0.93
Lane Grp Cap(c), veh/h	70	706	738	160	795	798	395	0	267	347	0	269
V/C Ratio(X)	0.48	0.48	0.48	0.70	0.62	0.62	0.01	0.00	0.30	0.25	0.00	0.11
Avail Cap(c_a), veh/h	277	1284	1343	569	1574	1579	1422	0	1451	1328	0	1460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	8.8	8.8	17.3	8.3	8.3	14.1	0.0	14.3	16.1	0.0	13.8
Incr Delay (d2), s/veh	5.1	0.5	0.5	5.4	0.8	0.8	0.0	0.0	0.6	0.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.7	1.7	1.1	2.3	2.3	0.0	0.0	0.6	0.7	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	9.3	9.3	22.7	9.1	9.1	14.1	0.0	14.9	16.5	0.0	14.0
LnGrp LOS	C	A	A	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		733			1103			84			117	
Approach Delay, s/veh		10.0			10.5			14.8			15.9	
Approach LOS		A			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.1	8.0	20.1		11.1	6.0	22.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.7	12.5	28.3		35.7	6.1	34.7				
Max Q Clear Time (g_c+I1), s		3.7	4.4	7.6		6.2	2.7	10.3				
Green Ext Time (p_c), s		0.5	0.1	4.3		0.4	0.0	7.2				
Intersection Summary												
HCM 6th Ctrl Delay			10.8									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	104	120	895	312	2
Future Vol, veh/h	3	104	120	895	312	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	107	124	923	322	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1493	322	324	0	-	0
Stage 1	322	-	-	-	-	-
Stage 2	1171	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	136	719	1236	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	122	719	1236	-	-	-
Mov Cap-2 Maneuver	122	-	-	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	295	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1236	-	122	719	-	-
HCM Lane V/C Ratio	0.1	-	0.025	0.149	-	-
HCM Control Delay (s)	8.2	-	35.3	10.9	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	0.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	2	46	2	786	1	207	37	286	125	1
Future Volume (veh/h)	0	1	2	46	2	786	1	207	37	286	125	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	2	49	2	845	1	223	40	308	134	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	7	6	780	32	721	363	449	380	474	786	6
Arrive On Green	0.00	0.00	0.00	0.46	0.46	0.46	0.24	0.24	0.24	0.14	0.42	0.42
Sat Flow, veh/h	0	1870	1585	1715	70	1585	1254	1870	1585	1781	1854	14
Grp Volume(v), veh/h	0	1	2	51	0	845	1	223	40	308	0	135
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1785	0	1585	1254	1870	1585	1781	0	1868
Q Serve(g_s), s	0.0	0.1	0.1	1.8	0.0	52.5	0.1	11.9	2.3	14.4	0.0	5.2
Cycle Q Clear(g_c), s	0.0	0.1	0.1	1.8	0.0	52.5	0.1	11.9	2.3	14.4	0.0	5.2
Prop In Lane	0.00		1.00	0.96		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	7	6	812	0	721	363	449	380	474	0	792
V/C Ratio(X)	0.00	0.13	0.32	0.06	0.00	1.17	0.00	0.50	0.11	0.65	0.00	0.17
Avail Cap(c_a), veh/h	0	83	70	812	0	721	363	449	380	517	0	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	57.3	57.3	17.6	0.0	31.4	33.3	37.8	34.2	26.1	0.0	20.6
Incr Delay (d2), s/veh	0.0	8.0	26.5	0.0	0.0	91.5	0.0	3.9	0.6	2.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	0.8	0.0	37.6	0.0	5.9	0.9	6.4	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	65.2	83.8	17.7	0.0	122.9	33.4	41.7	34.7	28.6	0.0	21.1
LnGrp LOS	A	E	F	B	A	F	C	D	C	C	A	C
Approach Vol, veh/h		3			896			264			443	
Approach Delay, s/veh		77.6			116.9			40.6			26.3	
Approach LOS		E			F			D			C	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	21.2	32.2		5.0		53.4		57.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	19.5	24.9		5.1		48.9		52.5				
Max Q Clear Time (g_c+I1), s	16.4	13.9		2.1		7.2		54.5				
Green Ext Time (p_c), s	0.3	1.0		0.0		0.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			79.3									
HCM 6th LOS			E									

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	57	68	210	127	29
Future Vol, veh/h	16	57	68	210	127	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	63	76	233	141	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	526	141	173	0	-	0
Stage 1	141	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	512	907	1404	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	484	907	1404	-	-	-
Mov Cap-2 Maneuver	484	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1404	-	484	907	-	-
HCM Lane V/C Ratio	0.054	-	0.037	0.07	-	-
HCM Control Delay (s)	7.7	-	12.7	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	22	41	262	22	122	35	293	297	90	217	7
Future Volume (veh/h)	7	22	41	262	22	122	35	293	297	90	217	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	23	44	279	23	130	37	312	316	96	231	7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	121	177	187	9	625	91	681	642	384	913	28
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.41	0.41	0.41	0.05	0.51	0.51
Sat Flow, veh/h	0	306	449	280	23	1585	115	1682	1585	1781	1806	55
Grp Volume(v), veh/h	74	0	0	302	0	130	349	0	316	96	0	238
Grp Sat Flow(s),veh/h/ln	755	0	0	303	0	1585	1797	0	1585	1781	0	1861
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	13.3	2.7	0.0	6.5
Cycle Q Clear(g_c), s	35.5	0.0	0.0	35.5	0.0	4.9	12.3	0.0	13.3	2.7	0.0	6.5
Prop In Lane	0.09		0.59	0.92		1.00	0.11		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	342	0	0	196	0	625	772	0	642	384	0	941
V/C Ratio(X)	0.22	0.00	0.00	1.54	0.00	0.21	0.45	0.00	0.49	0.25	0.00	0.25
Avail Cap(c_a), veh/h	342	0	0	196	0	625	772	0	642	423	0	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	0.0	0.0	34.2	0.0	18.0	19.6	0.0	19.9	14.3	0.0	12.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	265.8	0.0	0.2	1.9	0.0	2.7	0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	18.8	0.0	1.8	5.6	0.0	5.2	1.1	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	0.0	0.0	300.0	0.0	18.1	21.5	0.0	22.6	14.6	0.0	13.3
LnGrp LOS	B	A	A	F	A	B	C	A	C	B	A	B
Approach Vol, veh/h		74			432			665			334	
Approach Delay, s/veh		19.7			215.2			22.0			13.6	
Approach LOS		B			F			C			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		40.0		50.0		40.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	6.5	34.5		35.5		45.5		35.5				
Max Q Clear Time (g_c+I1), s	4.7	15.3		37.5		8.5		37.5				
Green Ext Time (p_c), s	0.0	3.2		0.0		1.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			75.5									
HCM 6th LOS			E									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	28	70	8	30	14	51	377	11	11	336	214
Future Volume (veh/h)	286	28	70	8	30	14	51	377	11	11	336	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	311	30	76	9	33	15	55	410	12	12	365	233
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	507	135	343	451	352	160	95	778	23	27	418	267
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.05	0.43	0.43	0.02	0.39	0.39
Sat Flow, veh/h	1357	469	1188	1288	1217	553	1781	1808	53	1781	1067	681
Grp Volume(v), veh/h	311	0	106	9	0	48	55	0	422	12	0	598
Grp Sat Flow(s),veh/h/ln	1357	0	1657	1288	0	1771	1781	0	1861	1781	0	1748
Q Serve(g_s), s	11.0	0.0	2.5	0.3	0.0	1.0	1.5	0.0	8.5	0.3	0.0	16.1
Cycle Q Clear(g_c), s	12.0	0.0	2.5	2.7	0.0	1.0	1.5	0.0	8.5	0.3	0.0	16.1
Prop In Lane	1.00		0.72	1.00		0.31	1.00		0.03	1.00		0.39
Lane Grp Cap(c), veh/h	507	0	479	451	0	512	95	0	800	27	0	686
V/C Ratio(X)	0.61	0.00	0.22	0.02	0.00	0.09	0.58	0.00	0.53	0.44	0.00	0.87
Avail Cap(c_a), veh/h	598	0	590	538	0	631	179	0	857	175	0	801
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	13.7	14.8	0.0	13.2	23.5	0.0	10.7	24.8	0.0	14.3
Incr Delay (d2), s/veh	1.4	0.0	0.2	0.0	0.0	0.1	5.5	0.0	0.5	10.7	0.0	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.8	0.1	0.0	0.4	0.7	0.0	2.9	0.2	0.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	0.0	14.0	14.8	0.0	13.3	29.0	0.0	11.2	35.5	0.0	23.6
LnGrp LOS	B	A	B	B	A	B	C	A	B	D	A	C
Approach Vol, veh/h		417			57			477			610	
Approach Delay, s/veh		17.7			13.5			13.3			23.8	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.3	26.4		19.2	7.2	24.4		19.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	23.4		18.1	5.1	23.3		18.1
Max Q Clear Time (g_c+I1), s	2.3	10.5		14.0	3.5	18.1		4.7
Green Ext Time (p_c), s	0.0	2.1		0.7	0.0	1.9		0.1

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	913	51	285	957	113	55	69	121	197	114	92
Future Volume (veh/h)	137	913	51	285	957	113	55	69	121	197	114	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	140	932	52	291	977	115	56	70	123	158	175	94
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	126	1225	68	229	1086	484	628	659	559	218	229	194
Arrive On Green	0.07	0.25	0.25	0.13	0.31	0.31	0.35	0.35	0.35	0.12	0.12	0.12
Sat Flow, veh/h	1781	4949	276	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	140	640	344	291	977	115	56	70	123	158	175	94
Grp Sat Flow(s),veh/h/ln	1781	1702	1821	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	8.5	21.0	21.1	15.5	31.7	6.6	2.5	3.0	6.6	10.3	10.9	6.7
Cycle Q Clear(g_c), s	8.5	21.0	21.1	15.5	31.7	6.6	2.5	3.0	6.6	10.3	10.9	6.7
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	842	451	229	1086	484	628	659	559	218	229	194
V/C Ratio(X)	1.11	0.76	0.76	1.27	0.90	0.24	0.09	0.11	0.22	0.73	0.77	0.49
Avail Cap(c_a), veh/h	126	903	483	229	1150	513	628	659	559	621	652	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	42.1	42.1	52.5	40.1	31.3	26.1	26.3	27.4	51.0	51.2	49.4
Incr Delay (d2), s/veh	114.5	3.6	6.6	151.5	9.4	0.2	0.3	0.3	0.9	4.6	5.3	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	9.2	10.3	16.5	15.2	2.6	1.1	1.4	2.6	4.9	5.5	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	170.5	45.6	48.7	204.0	49.5	31.6	26.4	26.6	28.3	55.5	56.5	51.3
LnGrp LOS	F	D	D	F	D	C	C	C	C	E	E	D
Approach Vol, veh/h		1124			1383			249			427	
Approach Delay, s/veh		62.1			80.5			27.4			55.0	
Approach LOS		E			F			C			E	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		47.0	20.0	34.3		19.2	13.0	41.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		42.5	15.5	32.0		42.0	8.5	39.0				
Max Q Clear Time (g_c+I1), s		8.6	17.5	23.1		12.9	10.5	33.7				
Green Ext Time (p_c), s		1.0	0.0	4.2		1.8	0.0	3.1				

Intersection Summary			
HCM 6th Ctrl Delay			66.4
HCM 6th LOS			E

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	718	964	128	63	96
Future Volume (veh/h)	90	718	964	128	63	96
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	740	994	132	65	99
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	146	2267	1386	184	230	205
Arrive On Green	0.08	0.64	0.44	0.44	0.13	0.13
Sat Flow, veh/h	1781	3647	3247	419	1781	1585
Grp Volume(v), veh/h	93	740	560	566	65	99
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1795	1781	1585
Q Serve(g_s), s	2.0	3.7	10.0	10.0	1.3	2.2
Cycle Q Clear(g_c), s	2.0	3.7	10.0	10.0	1.3	2.2
Prop In Lane	1.00			0.23	1.00	1.00
Lane Grp Cap(c), veh/h	146	2267	781	789	230	205
V/C Ratio(X)	0.64	0.33	0.72	0.72	0.28	0.48
Avail Cap(c_a), veh/h	253	2896	988	998	899	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	3.2	8.9	8.9	15.2	15.6
Incr Delay (d2), s/veh	4.6	0.1	1.8	1.8	0.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.5	2.9	3.0	0.5	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.8	3.3	10.7	10.7	15.9	17.4
LnGrp LOS	C	A	B	B	B	B
Approach Vol, veh/h		833	1126		164	
Approach Delay, s/veh		5.4	10.7		16.8	
Approach LOS		A	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	29.2	9.5	7.7	21.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	19.5	5.5	21.5
Max Q Clear Time (g_c+I1), s	5.7	4.2	4.0	12.0
Green Ext Time (p_c), s	5.6	0.4	0.0	5.0

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	322	139	102	273	474	168	624	263	218	295	29
Future Volume (veh/h)	35	322	139	102	273	474	168	624	263	218	295	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	350	151	111	297	515	183	678	286	237	321	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	227	632	535	250	632	535	222	1242	554	277	1241	123
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.12	0.35	0.35	0.16	0.38	0.38
Sat Flow, veh/h	672	1870	1585	897	1870	1585	1781	3554	1585	1781	3266	323
Grp Volume(v), veh/h	38	350	151	111	297	515	183	678	286	237	174	179
Grp Sat Flow(s),veh/h/ln	672	1870	1585	897	1870	1585	1781	1777	1585	1781	1777	1812
Q Serve(g_s), s	4.1	13.1	6.0	9.9	10.7	27.4	8.6	13.2	12.3	11.1	5.8	5.8
Cycle Q Clear(g_c), s	14.8	13.1	6.0	23.0	10.7	27.4	8.6	13.2	12.3	11.1	5.8	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	227	632	535	250	632	535	222	1242	554	277	675	689
V/C Ratio(X)	0.17	0.55	0.28	0.44	0.47	0.96	0.82	0.55	0.52	0.86	0.26	0.26
Avail Cap(c_a), veh/h	227	632	535	250	632	535	359	1242	554	363	675	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	23.2	20.8	32.5	22.4	27.9	36.6	22.5	22.2	35.3	18.3	18.3
Incr Delay (d2), s/veh	0.3	1.1	0.3	1.2	0.5	29.4	7.9	1.7	3.4	14.4	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.7	2.2	2.2	4.6	14.2	4.2	5.6	4.9	5.8	2.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	24.2	21.1	33.7	22.9	57.3	44.5	24.2	25.6	49.7	19.2	19.2
LnGrp LOS	C	C	C	C	C	E	D	C	C	D	B	B
Approach Vol, veh/h		539			923			1147			590	
Approach Delay, s/veh		23.6			43.4			27.8			31.4	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.9	34.5		33.5	15.2	37.1		33.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	17.5	30.0		29.0	17.3	30.2		29.0
Max Q Clear Time (g_c+I1), s	13.1	15.2		16.8	10.6	7.8		29.4
Green Ext Time (p_c), s	0.3	5.0		2.4	0.3	2.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	907	188	54	1035	693	245	315	44	350	217	92
Future Volume (veh/h)	158	907	188	54	1035	693	245	315	44	350	217	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	935	194	56	1067	714	253	325	45	361	224	95
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	1188	530	72	1130	698	316	1099	151	422	713	694
Arrive On Green	0.06	0.33	0.33	0.04	0.32	0.32	0.09	0.35	0.35	0.12	0.38	0.38
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3139	431	3456	1870	1585
Grp Volume(v), veh/h	163	935	194	56	1067	714	253	183	187	361	224	95
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1793	1728	1870	1585
Q Serve(g_s), s	5.5	28.0	10.9	3.7	34.5	37.5	8.5	8.8	8.9	12.1	9.9	4.2
Cycle Q Clear(g_c), s	5.5	28.0	10.9	3.7	34.5	37.5	8.5	8.8	8.9	12.1	9.9	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	196	1188	530	72	1130	698	316	622	628	422	713	694
V/C Ratio(X)	0.83	0.79	0.37	0.78	0.94	1.02	0.80	0.29	0.30	0.85	0.31	0.14
Avail Cap(c_a), veh/h	196	1188	530	97	1130	698	425	622	628	484	713	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	35.4	29.8	56.0	39.2	33.0	52.5	27.7	27.8	50.7	25.7	19.8
Incr Delay (d2), s/veh	24.8	3.6	0.4	23.9	15.3	40.1	7.7	1.2	1.2	12.7	1.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	12.6	4.2	2.1	17.2	27.0	4.0	4.0	4.1	6.0	4.7	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.8	39.0	30.2	80.0	54.5	73.1	60.2	28.9	29.0	63.4	26.8	20.2
LnGrp LOS	E	D	C	E	D	F	E	C	C	E	C	C
Approach Vol, veh/h		1292			1837			623			680	
Approach Delay, s/veh		42.9			62.5			41.7			45.3	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	45.8	9.3	43.9	15.3	49.4	11.2	42.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	41.3	6.4	37.8	14.5	43.3	6.7	37.5
Max Q Clear Time (g_c+I1), s	14.1	10.9	5.7	30.0	10.5	11.9	7.5	39.5
Green Ext Time (p_c), s	0.3	2.3	0.0	4.2	0.3	1.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.2
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	37	48	50	108	47	81	439	46	35	290	154
Future Volume (veh/h)	111	37	48	50	108	47	81	439	46	35	290	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	38	49	52	111	48	84	453	47	36	299	159
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	429	364	486	284	123	142	639	541	75	568	482
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.08	0.34	0.34	0.04	0.30	0.30
Sat Flow, veh/h	1227	1870	1585	1310	1238	536	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	114	38	49	52	0	159	84	453	47	36	299	159
Grp Sat Flow(s),veh/h/ln	1227	1870	1585	1310	0	1774	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.0	0.6	0.9	1.1	0.0	2.6	1.6	7.3	0.7	0.7	4.6	2.7
Cycle Q Clear(g_c), s	5.7	0.6	0.9	1.7	0.0	2.6	1.6	7.3	0.7	0.7	4.6	2.7
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	429	364	486	0	407	142	639	541	75	568	482
V/C Ratio(X)	0.29	0.09	0.13	0.11	0.00	0.39	0.59	0.71	0.09	0.48	0.53	0.33
Avail Cap(c_a), veh/h	746	964	817	861	0	915	362	1259	1067	255	1147	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	10.6	10.7	11.2	0.0	11.4	15.5	10.0	7.8	16.3	10.1	9.4
Incr Delay (d2), s/veh	0.4	0.1	0.2	0.1	0.0	0.6	3.9	1.5	0.1	4.7	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.2	0.3	0.0	0.9	0.7	2.3	0.2	0.3	1.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	10.7	10.9	11.3	0.0	12.0	19.4	11.5	7.9	21.0	10.8	9.8
LnGrp LOS	B	B	B	B	A	B	B	B	A	C	B	A
Approach Vol, veh/h		201			211			584			494	
Approach Delay, s/veh		12.7			11.8			12.3			11.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	16.4		12.5	7.3	15.1		12.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	7.1	21.4		18.0				
Max Q Clear Time (g_c+I1), s	2.7	9.3		7.7	3.6	6.6		4.6				
Green Ext Time (p_c), s	0.0	2.6		0.5	0.0	2.0		0.8				
Intersection Summary												
HCM 6th Ctrl Delay			11.9									
HCM 6th LOS			B									

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	689	1098	500	319	79
Future Volume (veh/h)	77	689	1098	500	319	79
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	710	1132	515	329	81
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	103	2034	1605	716	1042	478
Arrive On Green	0.06	0.57	0.45	0.45	0.30	0.30
Sat Flow, veh/h	1781	3647	3647	1585	3456	1585
Grp Volume(v), veh/h	79	710	1132	515	329	81
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1728	1585
Q Serve(g_s), s	3.1	7.6	18.3	18.8	5.2	2.7
Cycle Q Clear(g_c), s	3.1	7.6	18.3	18.8	5.2	2.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	103	2034	1605	716	1042	478
V/C Ratio(X)	0.77	0.35	0.71	0.72	0.32	0.17
Avail Cap(c_a), veh/h	287	2965	2168	967	1042	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	8.2	15.7	15.9	19.2	18.3
Incr Delay (d2), s/veh	11.5	0.1	0.7	1.7	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.5	6.8	6.4	2.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.6	8.3	16.4	17.6	20.0	19.1
LnGrp LOS	D	A	B	B	C	B
Approach Vol, veh/h		789	1647		410	
Approach Delay, s/veh		11.9	16.8		19.8	
Approach LOS		B	B		B	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				45.3		26.0	8.6	36.7
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				59.5		21.5	11.5	43.5
Max Q Clear Time (g_c+I1), s				9.6		7.2	5.1	20.8
Green Ext Time (p_c), s				5.9		1.2	0.1	11.4

Intersection Summary			
HCM 6th Ctrl Delay			15.9
HCM 6th LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1190	102	111	1585	18	207	4	94	102	16	41
Future Volume (veh/h)	19	1190	102	111	1585	18	207	4	94	102	16	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	1214	104	113	1617	18	211	4	96	104	16	42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	1745	542	164	1889	587	1242	672	570	123	19	50
Arrive On Green	0.02	0.34	0.34	0.05	0.37	0.37	0.36	0.36	0.36	0.11	0.11	0.11
Sat Flow, veh/h	1781	5106	1585	3456	5106	1585	3456	1870	1585	1113	171	450
Grp Volume(v), veh/h	19	1214	104	113	1617	18	211	4	96	162	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1702	1585	1728	1870	1585	1734	0	0
Q Serve(g_s), s	1.4	26.2	5.9	4.1	37.3	0.9	5.3	0.2	5.3	11.7	0.0	0.0
Cycle Q Clear(g_c), s	1.4	26.2	5.9	4.1	37.3	0.9	5.3	0.2	5.3	11.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.64		0.26
Lane Grp Cap(c), veh/h	34	1745	542	164	1889	587	1242	672	570	191	0	0
V/C Ratio(X)	0.56	0.70	0.19	0.69	0.86	0.03	0.17	0.01	0.17	0.85	0.00	0.00
Avail Cap(c_a), veh/h	71	1863	578	244	2019	627	1242	672	570	278	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	62.1	36.3	29.6	59.9	37.1	25.6	27.9	26.2	27.9	55.7	0.0	0.0
Incr Delay (d2), s/veh	13.3	1.1	0.2	5.0	3.7	0.0	0.3	0.0	0.6	14.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	11.0	2.3	1.9	16.0	0.4	2.3	0.1	2.1	5.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.4	37.4	29.8	64.9	40.8	25.6	28.2	26.3	28.5	70.5	0.0	0.0
LnGrp LOS	E	D	C	E	D	C	C	C	C	E	A	A
Approach Vol, veh/h		1337			1748			311			162	
Approach Delay, s/veh		37.3			42.2			28.3			70.5	
Approach LOS		D			D			C			E	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		50.4	10.6	48.1		18.6	7.0	51.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		45.9	9.0	46.6		20.5	5.1	50.5
Max Q Clear Time (g_c+I1), s		7.3	6.1	28.2		13.7	3.4	39.3
Green Ext Time (p_c), s		1.1	0.1	8.9		0.4	0.0	8.0

Intersection Summary			
HCM 6th Ctrl Delay			40.4
HCM 6th LOS			D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	756	223	582	1030	158	448	0	786	112	0	95
Future Volume (vph)	60	756	223	582	1030	158	448	0	786	112	0	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97		0.88	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	3433		2787	1770		1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	3433	3539	1583	3433		2787	1770		1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	62	779	230	600	1062	163	462	0	810	115	0	98
RTOR Reduction (vph)	0	0	156	0	0	89	0	0	0	0	0	61
Lane Group Flow (vph)	62	779	74	600	1062	74	462	0	810	115	0	37
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8							
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	5.1	23.7	23.7	18.5	37.1	37.1	33.5		33.5	33.5		33.5
Effective Green, g (s)	5.1	23.7	23.7	18.5	37.1	37.1	33.5		33.5	33.5		33.5
Actuated g/C Ratio	0.06	0.27	0.27	0.21	0.42	0.42	0.38		0.38	0.38		0.38
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	101	940	420	712	1471	658	1289		1046	664		594
v/s Ratio Prot	0.04	c0.22		c0.17	0.30							
v/s Ratio Perm			0.05			0.05	0.13		c0.29	0.06		0.02
v/c Ratio	0.61	0.83	0.18	0.84	0.72	0.11	0.36		0.77	0.17		0.06
Uniform Delay, d1	41.1	30.8	25.2	34.0	21.7	16.0	20.1		24.5	18.6		17.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	10.6	6.1	0.2	8.9	1.8	0.1	0.8		5.6	0.6		0.2
Delay (s)	51.7	37.0	25.4	42.9	23.5	16.0	20.9		30.1	19.2		18.0
Level of Service	D	D	C	D	C	B	C		C	B		B
Approach Delay (s)		35.3			29.2			26.8			18.6	
Approach LOS		D			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	29.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	89.2	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	960	235	0	1	351	385	1	1	5	101	3	868
Future Volume (veh/h)	960	235	0	1	351	385	1	1	5	101	3	868
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	990	242	0	1	362	397	1	1	5	104	3	895
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1041	1059	0	2	499	422	77	87	340	518	14	539
Arrive On Green	0.30	0.57	0.00	0.00	0.27	0.27	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	3456	1870	0	1781	1870	1585	144	256	1000	1381	42	1585
Grp Volume(v), veh/h	990	242	0	1	362	397	7	0	0	107	0	895
Grp Sat Flow(s),veh/h/ln	1728	1870	0	1781	1870	1585	1399	0	0	1423	0	1585
Q Serve(g_s), s	41.2	9.5	0.0	0.1	25.9	36.0	0.0	0.0	0.0	7.4	0.0	50.0
Cycle Q Clear(g_c), s	41.2	9.5	0.0	0.1	25.9	36.0	0.4	0.0	0.0	7.8	0.0	50.0
Prop In Lane	1.00		0.00	1.00		1.00	0.14		0.71	0.97		1.00
Lane Grp Cap(c), veh/h	1041	1059	0	2	499	422	504	0	0	533	0	539
V/C Ratio(X)	0.95	0.23	0.00	0.41	0.73	0.94	0.01	0.00	0.00	0.20	0.00	1.66
Avail Cap(c_a), veh/h	1070	1059	0	61	522	442	504	0	0	533	0	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.3	15.9	0.0	73.3	49.0	52.7	32.1	0.0	0.0	34.5	0.0	48.5
Incr Delay (d2), s/veh	16.8	0.1	0.0	85.2	4.8	27.6	0.1	0.0	0.0	0.8	0.0	304.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.2	4.1	0.0	0.1	12.8	17.6	0.2	0.0	0.0	2.9	0.0	65.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	16.0	0.0	158.5	53.8	80.3	32.2	0.0	0.0	35.3	0.0	353.3
LnGrp LOS	E	B	A	F	D	F	C	A	A	D	A	F
Approach Vol, veh/h		1232			760			7			1002	
Approach Delay, s/veh		57.0			67.8			32.2			319.3	
Approach LOS		E			E			C			F	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		54.5	4.7	87.7		54.5	48.8	43.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		50.0	5.0	81.5		50.0	45.5	41.0
Max Q Clear Time (g_c+I1), s		2.4	2.1	11.5		52.0	43.2	38.0
Green Ext Time (p_c), s		0.0	0.0	1.6		0.0	1.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	147.3
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	26	0	295	153	445	0	0	389	362
Future Volume (veh/h)	0	0	0	26	0	295	153	445	0	0	389	362
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				0	0	359	170	494	0	0	432	402
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				0	352	597	472	2007	0	0	1004	895
Arrive On Green				0.00	0.00	0.19	0.56	0.56	0.00	0.00	0.56	0.56
Sat Flow, veh/h				0	1870	3170	658	3647	0	0	1870	1585
Grp Volume(v), veh/h				0	0	359	170	494	0	0	432	402
Grp Sat Flow(s),veh/h/ln				0	1870	1585	658	1777	0	0	1777	1585
Q Serve(g_s), s				0.0	0.0	3.8	7.4	2.6	0.0	0.0	5.1	5.4
Cycle Q Clear(g_c), s				0.0	0.0	3.8	12.8	2.6	0.0	0.0	5.1	5.4
Prop In Lane				0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	352	597	472	2007	0	0	1004	895
V/C Ratio(X)				0.00	0.00	0.60	0.36	0.25	0.00	0.00	0.43	0.45
Avail Cap(c_a), veh/h				0	1103	1869	1174	5799	0	0	2899	2586
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	13.5	8.4	4.0	0.0	0.0	4.6	4.6
Incr Delay (d2), s/veh				0.0	0.0	1.0	0.5	0.1	0.0	0.0	0.3	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	1.2	0.8	0.4	0.0	0.0	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	14.5	8.8	4.1	0.0	0.0	4.9	5.0
LnGrp LOS				A	A	B	A	A	A	A	A	A
Approach Vol, veh/h					359			664			834	
Approach Delay, s/veh					14.5			5.3			4.9	
Approach LOS					B			A			A	

Timer - Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		25.1				25.1		11.4
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		59.5				59.5		21.5
Max Q Clear Time (g_c+I1), s		14.8				7.4		5.8
Green Ext Time (p_c), s		5.8				6.8		1.3

Intersection Summary			
HCM 6th Ctrl Delay			6.9
HCM 6th LOS			A

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	413	359	0	0	7	211	0	0	0	215	0	194
Future Volume (vph)	413	359	0	0	7	211	0	0	0	215	0	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	4.5				4.5		4.5
Lane Util. Factor	0.95	0.95			1.00	1.00				1.00		1.00
Frt	1.00	1.00			1.00	0.85				1.00		0.85
Flt Protected	0.95	0.99			1.00	1.00				0.95		1.00
Satd. Flow (prot)	1681	1761			1863	1583				1770		1583
Flt Permitted	0.95	0.99			1.00	1.00				0.95		1.00
Satd. Flow (perm)	1681	1761			1863	1583				1770		1583
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	464	403	0	0	8	237	0	0	0	242	0	218
RTOR Reduction (vph)	0	0	0	0	0	206	0	0	0	0	0	165
Lane Group Flow (vph)	418	449	0	0	8	31	0	0	0	242	0	53
Turn Type	Split	NA			NA	Perm				Perm		Perm
Protected Phases	4	4			8							
Permitted Phases						8				6		6
Actuated Green, G (s)	22.5	22.5			7.5	7.5				14.1		14.1
Effective Green, g (s)	22.5	22.5			7.5	7.5				14.1		14.1
Actuated g/C Ratio	0.39	0.39			0.13	0.13				0.24		0.24
Clearance Time (s)	4.5	4.5			4.5	4.5				4.5		4.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0		3.0
Lane Grp Cap (vph)	656	687			242	206				433		387
v/s Ratio Prot	0.25	c0.26			0.00							
v/s Ratio Perm						c0.02				c0.14		0.03
v/c Ratio	0.64	0.65			0.03	0.15				0.56		0.14
Uniform Delay, d1	14.2	14.4			21.9	22.2				19.0		17.0
Progression Factor	1.00	1.00			1.00	1.00				1.00		1.00
Incremental Delay, d2	2.0	2.2			0.1	0.3				1.6		0.2
Delay (s)	16.3	16.6			21.9	22.6				20.6		17.2
Level of Service	B	B			C	C				C		B
Approach Delay (s)		16.4			22.5			0.0			19.0	
Approach LOS		B			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	57.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	791	671	39	954	0	0	0	0	23	0	934
Future Volume (vph)	0	791	671	39	954	0	0	0	0	23	0	934
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0	4.5	4.5					4.5		4.0
Lane Util. Factor		0.91	0.91	1.00	1.00					1.00		1.00
Frt		0.97	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3279	1441	1770	1863					1770		1583
Flt Permitted		1.00	1.00	0.24	1.00					0.95		1.00
Satd. Flow (perm)		3279	1441	439	1863					1770		1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	824	699	41	994	0	0	0	0	24	0	973
RTOR Reduction (vph)	0	28	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1027	468	41	994	0	0	0	0	24	0	973
Turn Type		NA	Free	Perm	NA					Perm		Free
Protected Phases		4			8							
Permitted Phases			Free	8						6		Free
Actuated Green, G (s)		32.7	48.4	32.7	32.7					6.7		48.4
Effective Green, g (s)		32.7	48.4	32.7	32.7					6.7		48.4
Actuated g/C Ratio		0.68	1.00	0.68	0.68					0.14		1.00
Clearance Time (s)		4.5		4.5	4.5					4.5		
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Lane Grp Cap (vph)		2215	1441	296	1258					245		1583
v/s Ratio Prot		0.31			c0.53							
v/s Ratio Perm			0.32	0.09						0.01		c0.61
v/c Ratio		0.46	0.32	0.14	0.79					0.10		0.61
Uniform Delay, d1		3.7	0.0	2.8	5.5					18.2		0.0
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		0.2	0.6	0.2	3.5					0.2		1.8
Delay (s)		3.9	0.6	3.0	8.9					18.4		1.8
Level of Service		A	A	A	A					B		A
Approach Delay (s)		2.9			8.7			0.0			2.2	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	48.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	819	38	70	0	920	0	10	0	0	0
Future Volume (vph)	0	20	819	38	70	0	920	0	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5		4.5		4.5			
Lane Util. Factor		0.95	0.88		1.00		0.97		1.00			
Frt		1.00	0.85		1.00		1.00		0.85			
Flt Protected		1.00	1.00		0.98		0.95		1.00			
Satd. Flow (prot)		3539	2787		1831		3433		1583			
Flt Permitted		1.00	1.00		0.87		0.95		1.00			
Satd. Flow (perm)		3539	2787		1629		3433		1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	21	862	40	74	0	968	0	11	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	4	0	0	0
Lane Group Flow (vph)	0	21	862	0	114	0	968	0	7	0	0	0
Turn Type		NA	Free	Perm	NA		Perm		Perm			
Protected Phases		4			8							
Permitted Phases			Free	8			2		2			
Actuated Green, G (s)		6.9	39.4		6.9		23.5		23.5			
Effective Green, g (s)		6.9	39.4		6.9		23.5		23.5			
Actuated g/C Ratio		0.18	1.00		0.18		0.60		0.60			
Clearance Time (s)		4.5			4.5		4.5		4.5			
Vehicle Extension (s)		3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)		619	2787		285		2047		944			
v/s Ratio Prot		0.01										
v/s Ratio Perm			c0.31		0.07		c0.28		0.00			
v/c Ratio		0.03	0.31		0.40		0.47		0.01			
Uniform Delay, d1		13.5	0.0		14.4		4.5		3.2			
Progression Factor		1.00	1.00		1.00		1.00		1.00			
Incremental Delay, d2		0.0	0.3		0.9		0.2		0.0			
Delay (s)		13.5	0.3		15.3		4.6		3.2			
Level of Service		B	A		B		A		A			
Approach Delay (s)		0.6			15.3			4.6			0.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	3.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	39.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1274	343	0	1165	208	0	0	0	156	0	556
Future Volume (vph)	0	1274	343	0	1165	208	0	0	0	156	0	556
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5	4.0				4.5		4.5
Lane Util. Factor		0.91	1.00		0.95	1.00				1.00		1.00
Frt		1.00	0.85		1.00	0.85				1.00		0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95		1.00
Satd. Flow (prot)		5085	1583		3539	1583				1770		1583
Flt Permitted		1.00	1.00		1.00	1.00				0.95		1.00
Satd. Flow (perm)		5085	1583		3539	1583				1770		1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1416	381	0	1294	231	0	0	0	173	0	618
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	13
Lane Group Flow (vph)	0	1416	381	0	1294	231	0	0	0	173	0	605
Turn Type		NA	Free		NA	Free				Perm		Perm
Protected Phases		4			8							
Permitted Phases			Free			Free				6		6
Actuated Green, G (s)		36.5	80.1		36.5	80.1				34.6		34.6
Effective Green, g (s)		36.5	80.1		36.5	80.1				34.6		34.6
Actuated g/C Ratio		0.46	1.00		0.46	1.00				0.43		0.43
Clearance Time (s)		4.5			4.5					4.5		4.5
Vehicle Extension (s)		3.0			3.0					3.0		3.0
Lane Grp Cap (vph)		2317	1583		1612	1583				764		683
v/s Ratio Prot		0.28			c0.37							
v/s Ratio Perm			0.24			0.15				0.10		c0.38
v/c Ratio		0.61	0.24		0.80	0.15				0.23		0.89
Uniform Delay, d1		16.4	0.0		18.7	0.0				14.3		20.9
Progression Factor		1.00	1.00		1.00	1.00				1.00		1.00
Incremental Delay, d2		0.5	0.4		3.0	0.2				0.2		13.1
Delay (s)		16.9	0.4		21.7	0.2				14.5		34.1
Level of Service		B	A		C	A				B		C
Approach Delay (s)		13.4			18.4			0.0			29.8	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	80.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1169	259	0	780	80	605	0	678	0	0	0
Future Volume (veh/h)	0	1169	259	0	780	80	605	0	678	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	1285	0	0	857	0	665	0	745			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2			
Cap, veh/h	0	1348		0	1348		919	0	818			
Arrive On Green	0.00	0.38	0.00	0.00	0.38	0.00	0.52	0.00	0.52			
Sat Flow, veh/h	0	3647	1585	0	3647	1585	1781	0	1585			
Grp Volume(v), veh/h	0	1285	0	0	857	0	665	0	745			
Grp Sat Flow(s),veh/h/ln	0	1777	1585	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	0.0	30.2	0.0	0.0	17.0	0.0	24.8	0.0	36.9			
Cycle Q Clear(g_c), s	0.0	30.2	0.0	0.0	17.0	0.0	24.8	0.0	36.9			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1348		0	1348		919	0	818			
V/C Ratio(X)	0.00	0.95		0.00	0.64		0.72	0.00	0.91			
Avail Cap(c_a), veh/h	0	1352		0	1352		1001	0	891			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	25.9	0.0	0.0	21.8	0.0	16.1	0.0	19.0			
Incr Delay (d2), s/veh	0.0	14.8	0.0	0.0	1.0	0.0	2.4	0.0	12.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	14.8	0.0	0.0	6.9	0.0	9.8	0.0	15.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.7	0.0	0.0	22.8	0.0	18.4	0.0	31.7			
LnGrp LOS	A	D		A	C		B	A	C			
Approach Vol, veh/h		1285	A		857	A		1410				
Approach Delay, s/veh		40.7			22.8			25.4				
Approach LOS		D			C			C				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		48.8		37.1				37.1				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		48.3		32.7				32.7				
Max Q Clear Time (g_c+I1), s		38.9		32.2				19.0				
Green Ext Time (p_c), s		5.5		0.4				5.1				
Intersection Summary												
HCM 6th Ctrl Delay			30.3									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Future Year 2050 With GPU Project Conditions

1: Los Angeles Ave & Grimes Cyn Rd

AM Peak Hour

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	180	1035	730	40	95	190
Future Volume (veh/h)	180	1035	730	40	95	190
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	189	1089	768	42	100	200
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	397	1270	1270	1076	114	228
Arrive On Green	0.68	0.68	0.68	0.68	0.21	0.21
Sat Flow, veh/h	673	1870	1870	1585	547	1094
Grp Volume(v), veh/h	189	1089	768	42	301	0
Grp Sat Flow(s),veh/h/ln	673	1870	1870	1585	1646	0
Q Serve(g_s), s	17.0	35.8	17.9	0.7	14.1	0.0
Cycle Q Clear(g_c), s	34.9	35.8	17.9	0.7	14.1	0.0
Prop In Lane	1.00			1.00	0.33	0.66
Lane Grp Cap(c), veh/h	397	1270	1270	1076	343	0
V/C Ratio(X)	0.48	0.86	0.60	0.04	0.88	0.00
Avail Cap(c_a), veh/h	627	1909	1909	1618	454	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.5	9.9	7.0	4.2	30.6	0.0
Incr Delay (d2), s/veh	0.9	2.7	0.5	0.0	14.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	12.0	5.7	0.2	6.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.4	12.5	7.5	4.2	44.7	0.0
LnGrp LOS	B	B	A	A	D	A
Approach Vol, veh/h		1278	810		301	
Approach Delay, s/veh		13.3	7.3		44.7	
Approach LOS		B	A		D	

Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	58.7	21.2	58.7
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	81.5	22.0	81.5
Max Q Clear Time (g_c+I1), s	37.8	16.1	19.9
Green Ext Time (p_c), s	16.4	0.5	7.2

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	140	40	45	45	25	135
Future Volume (veh/h)	140	40	45	45	25	135
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	45	51	51	28	152
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	321	286	547	464	774	547
Arrive On Green	0.18	0.18	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	1585	1870	1585	1293	1870
Grp Volume(v), veh/h	157	45	51	51	28	152
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1293	1870
Q Serve(g_s), s	1.4	0.4	0.3	0.4	0.3	1.1
Cycle Q Clear(g_c), s	1.4	0.4	0.3	0.4	0.6	1.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	321	286	547	464	774	547
V/C Ratio(X)	0.49	0.16	0.09	0.11	0.04	0.28
Avail Cap(c_a), veh/h	3285	2923	5420	4593	4141	5420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.3	5.9	4.4	4.4	4.6	4.7
Incr Delay (d2), s/veh	1.1	0.3	0.1	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.0	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.4	6.2	4.5	4.5	4.6	4.9
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	202		102			180
Approach Delay, s/veh	7.2		4.5			4.9
Approach LOS	A		A			A

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	9.5	9.5	7.6
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	49.5	49.5	31.5
Max Q Clear Time (g_c+I1), s	2.4	3.1	3.4
Green Ext Time (p_c), s	0.4	1.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	250	20	60	185	75	160
Future Vol, veh/h	250	20	60	185	75	160
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	309	25	74	228	93	198
Number of Lanes	1	1	1	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	17.2	10.7	14.5
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	0%	32%
Vol Thru, %	100%	0%	0%	0%	68%
Vol Right, %	0%	100%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	185	250	20	235
LT Vol	0	0	250	0	75
Through Vol	60	0	0	0	160
RT Vol	0	185	0	20	0
Lane Flow Rate	74	228	309	25	290
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.126	0.343	0.57	0.037	0.482
Departure Headway (Hd)	6.12	5.41	6.653	5.439	5.978
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	585	665	543	658	603
Service Time	3.865	3.154	4.39	3.175	4.019
HCM Lane V/C Ratio	0.126	0.343	0.569	0.038	0.481
HCM Control Delay	9.8	11	17.9	8.4	14.5
HCM Lane LOS	A	B	C	A	B
HCM 95th-tile Q	0.4	1.5	3.5	0.1	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	800	315	385	535	45	210	190	520	55	325	100
Future Volume (veh/h)	100	800	315	385	535	45	210	190	520	55	325	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	899	354	433	601	51	236	213	584	62	365	112
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	1039	464	491	1264	564	306	321	497	404	424	359
Arrive On Green	0.08	0.29	0.29	0.14	0.36	0.36	0.17	0.17	0.17	0.23	0.23	0.23
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	112	899	354	433	601	51	236	213	584	62	365	112
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.7	25.8	21.9	13.2	14.1	2.3	13.6	11.5	18.5	3.0	20.2	6.3
Cycle Q Clear(g_c), s	6.7	25.8	21.9	13.2	14.1	2.3	13.6	11.5	18.5	3.0	20.2	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	140	1039	464	491	1264	564	306	321	497	404	424	359
V/C Ratio(X)	0.80	0.87	0.76	0.88	0.48	0.09	0.77	0.66	1.17	0.15	0.86	0.31
Avail Cap(c_a), veh/h	250	1122	501	497	1264	564	306	321	497	562	591	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	36.1	34.7	45.3	26.9	23.1	42.6	41.7	36.9	33.4	40.0	34.7
Incr Delay (d2), s/veh	9.9	6.9	6.4	16.7	0.3	0.1	17.0	10.3	97.9	0.2	9.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	12.0	9.2	6.8	6.0	0.9	7.4	6.2	26.3	1.3	10.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	42.9	41.1	62.0	27.2	23.2	59.6	52.0	134.8	33.5	49.2	35.1
LnGrp LOS	E	D	D	E	C	C	E	D	F	C	D	D
Approach Vol, veh/h		1365			1085			1033			539	
Approach Delay, s/veh		43.8			40.9			100.6			44.5	
Approach LOS		D			D			F			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	19.8	36.0		28.9	13.0	42.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	15.5	34.0		34.0	15.1	34.4				
Max Q Clear Time (g_c+I1), s		20.5	15.2	27.8		22.2	8.7	16.1				
Green Ext Time (p_c), s		0.0	0.1	3.7		2.2	0.1	4.1				
Intersection Summary												
HCM 6th Ctrl Delay			57.7									
HCM 6th LOS			E									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	750	55	140	525	80	80	20	220	150	40	155
Future Volume (veh/h)	85	750	55	140	525	80	80	20	220	150	40	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	106	938	69	175	656	100	100	25	275	188	50	194
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1215	89	226	1273	194	291	508	430	410	91	353
Arrive On Green	0.08	0.36	0.36	0.13	0.41	0.41	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1781	3356	247	1781	3092	471	1136	1870	1585	1079	335	1301
Grp Volume(v), veh/h	106	497	510	175	377	379	100	25	275	188	0	244
Grp Sat Flow(s),veh/h/ln	1781	1777	1826	1781	1777	1786	1136	1870	1585	1079	0	1636
Q Serve(g_s), s	3.3	13.9	13.9	5.4	8.9	8.9	4.7	0.6	8.6	8.8	0.0	7.2
Cycle Q Clear(g_c), s	3.3	13.9	13.9	5.4	8.9	8.9	11.9	0.6	8.6	9.3	0.0	7.2
Prop In Lane	1.00		0.14	1.00		0.26	1.00		1.00	1.00		0.80
Lane Grp Cap(c), veh/h	138	644	661	226	732	735	291	508	430	410	0	444
V/C Ratio(X)	0.77	0.77	0.77	0.77	0.51	0.52	0.34	0.05	0.64	0.46	0.00	0.55
Avail Cap(c_a), veh/h	338	804	826	502	968	973	690	1165	987	789	0	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.5	15.9	15.9	23.8	12.4	12.4	22.7	15.2	18.1	18.6	0.0	17.6
Incr Delay (d2), s/veh	8.6	3.7	3.6	5.6	0.6	0.6	0.7	0.0	1.6	0.8	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	5.6	5.7	2.4	3.1	3.2	1.2	0.2	3.0	2.1	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	19.6	19.5	29.4	12.9	12.9	23.4	15.2	19.7	19.4	0.0	18.6
LnGrp LOS	C	B	B	C	B	B	C	B	B	B	A	B
Approach Vol, veh/h		1113			931			400			432	
Approach Delay, s/veh		20.9			16.0			20.3			19.0	
Approach LOS		C			B			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.8	11.7	24.9		19.8	8.9	27.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.1	15.9	25.5		35.1	10.7	30.7				
Max Q Clear Time (g_c+I1), s		13.9	7.4	15.9		11.3	5.3	10.9				
Green Ext Time (p_c), s		1.4	0.3	4.5		2.4	0.1	4.8				
Intersection Summary												
HCM 6th Ctrl Delay			19.0									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	950	30	25	620	160	40	40	60	120	20	45
Future Volume (veh/h)	140	950	30	25	620	160	40	40	60	120	20	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	1159	37	30	756	195	49	49	73	146	24	55
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	1659	53	61	1070	276	391	154	229	354	114	262
Arrive On Green	0.12	0.47	0.47	0.03	0.38	0.38	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3515	112	1781	2796	721	1320	678	1010	1269	505	1157
Grp Volume(v), veh/h	171	586	610	30	480	471	49	0	122	146	0	79
Grp Sat Flow(s),veh/h/ln	1781	1777	1850	1781	1777	1741	1320	0	1689	1269	0	1662
Q Serve(g_s), s	4.7	13.1	13.1	0.8	11.5	11.5	1.6	0.0	3.0	5.5	0.0	1.9
Cycle Q Clear(g_c), s	4.7	13.1	13.1	0.8	11.5	11.5	3.5	0.0	3.0	8.5	0.0	1.9
Prop In Lane	1.00		0.06	1.00		0.41	1.00		0.60	1.00		0.70
Lane Grp Cap(c), veh/h	220	839	873	61	680	666	391	0	383	354	0	377
V/C Ratio(X)	0.78	0.70	0.70	0.50	0.71	0.71	0.13	0.00	0.32	0.41	0.00	0.21
Avail Cap(c_a), veh/h	371	1197	1246	212	1039	1017	1046	0	1221	984	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.5	10.5	10.5	24.0	13.2	13.2	17.3	0.0	16.3	19.8	0.0	15.9
Incr Delay (d2), s/veh	5.9	1.1	1.0	6.1	1.4	1.4	0.1	0.0	0.5	0.8	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.2	4.4	0.4	4.1	4.0	0.4	0.0	1.1	1.5	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	11.6	11.5	30.1	14.5	14.6	17.4	0.0	16.7	20.6	0.0	16.1
LnGrp LOS	C	B	B	C	B	B	B	A	B	C	A	B
Approach Vol, veh/h		1367			981			171			225	
Approach Delay, s/veh		13.5			15.0			16.9			19.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.9	6.2	28.3		15.9	10.7	23.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		36.5	6.0	34.0		36.5	10.5	29.5
Max Q Clear Time (g_c+I1), s		5.5	2.8	15.1		10.5	6.7	13.5
Green Ext Time (p_c), s		0.9	0.0	8.1		0.9	0.2	5.8

Intersection Summary			
HCM 6th Ctrl Delay			14.7
HCM 6th LOS			B

7: Walnut Creek Rd & Tierra Rejada Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1085	15	30	755	55	15	5	220	225	10	40
Future Volume (veh/h)	25	1085	15	30	755	55	15	5	220	225	10	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	1262	17	35	878	64	17	6	256	262	12	47
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	1458	20	61	1378	100	579	14	598	387	128	501
Arrive On Green	0.03	0.41	0.41	0.03	0.41	0.41	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	3590	48	1781	3358	245	1344	36	1554	1117	333	1303
Grp Volume(v), veh/h	29	624	655	35	465	477	17	0	262	262	0	59
Grp Sat Flow(s),veh/h/ln	1781	1777	1862	1781	1777	1826	1344	0	1591	1117	0	1636
Q Serve(g_s), s	1.2	24.8	24.8	1.5	16.1	16.1	0.6	0.0	9.4	17.4	0.0	1.8
Cycle Q Clear(g_c), s	1.2	24.8	24.8	1.5	16.1	16.1	2.4	0.0	9.4	26.7	0.0	1.8
Prop In Lane	1.00		0.03	1.00		0.13	1.00		0.98	1.00		0.80
Lane Grp Cap(c), veh/h	53	722	756	61	729	749	579	0	612	387	0	629
V/C Ratio(X)	0.54	0.87	0.87	0.57	0.64	0.64	0.03	0.00	0.43	0.68	0.00	0.09
Avail Cap(c_a), veh/h	127	782	819	136	791	813	702	0	757	490	0	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	21.0	21.0	36.7	18.1	18.1	15.9	0.0	17.5	27.3	0.0	15.1
Incr Delay (d2), s/veh	8.3	9.5	9.1	8.3	1.5	1.5	0.0	0.0	0.5	2.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	11.4	11.8	0.8	6.4	6.6	0.2	0.0	3.3	4.7	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	30.4	30.1	44.9	19.7	19.6	15.9	0.0	18.0	29.9	0.0	15.2
LnGrp LOS	D	C	C	D	B	B	B	A	B	C	A	B
Approach Vol, veh/h		1308			977			279			321	
Approach Delay, s/veh		30.6			20.5			17.8			27.2	
Approach LOS		C			C			B			C	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.1	7.1	35.8		34.1	6.8	36.1
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		36.7	5.9	33.9		36.7	5.5	34.3
Max Q Clear Time (g_c+I1), s		11.4	3.5	26.8		28.7	3.2	18.1
Green Ext Time (p_c), s		1.8	0.0	4.5		0.9	0.0	5.7

Intersection Summary			
HCM 6th Ctrl Delay			25.6
HCM 6th LOS			C

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	155	100	245	740	5
Future Vol, veh/h	15	155	100	245	740	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	163	105	258	779	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1247	779	784	0	-	0
Stage 1	779	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	192	396	834	-	-	-
Stage 1	452	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	168	396	834	-	-	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	395	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21	2.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	834	-	168	396	-	-
HCM Lane V/C Ratio	0.126	-	0.094	0.412	-	-
HCM Control Delay (s)	9.9	-	28.6	20.3	-	-
HCM Lane LOS	A	-	D	C	-	-
HCM 95th %tile Q(veh)	0.4	-	0.3	2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	80	5	200	5	155	60	890	360	5
Future Volume (veh/h)	0	0	5	80	5	200	5	155	60	890	360	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	5	87	5	217	5	168	65	967	391	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	12	10	262	15	246	329	502	426	1019	1324	17
Arrive On Green	0.00	0.00	0.01	0.16	0.16	0.16	0.27	0.27	0.27	0.41	0.72	0.72
Sat Flow, veh/h	0	1870	1585	1689	97	1585	988	1870	1585	1781	1843	24
Grp Volume(v), veh/h	0	0	5	92	0	217	5	168	65	967	0	396
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1786	0	1585	988	1870	1585	1781	0	1866
Q Serve(g_s), s	0.0	0.0	0.4	5.2	0.0	15.1	0.4	8.1	3.5	40.6	0.0	8.5
Cycle Q Clear(g_c), s	0.0	0.0	0.4	5.2	0.0	15.1	0.4	8.1	3.5	40.6	0.0	8.5
Prop In Lane	0.00		1.00	0.95		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	12	10	277	0	246	329	502	426	1019	0	1341
V/C Ratio(X)	0.00	0.00	0.49	0.33	0.00	0.88	0.02	0.33	0.15	0.95	0.00	0.30
Avail Cap(c_a), veh/h	0	85	72	325	0	289	329	502	426	1167	0	1341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	55.8	42.4	0.0	46.5	30.3	33.1	31.4	13.4	0.0	5.7
Incr Delay (d2), s/veh	0.0	0.0	32.2	0.7	0.0	23.1	0.1	1.8	0.8	14.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	2.3	0.0	7.5	0.1	3.9	1.4	18.1	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	88.0	43.0	0.0	69.7	30.4	34.9	32.2	28.0	0.0	6.2
LnGrp LOS	A	A	F	D	A	E	C	C	C	C	A	A
Approach Vol, veh/h		5			309			238			1363	
Approach Delay, s/veh		88.0			61.7			34.1			21.7	
Approach LOS		F			E			C			C	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	50.7	34.7		5.2		85.4		22.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	55.5	20.9		5.1		80.9		20.5				
Max Q Clear Time (g_c+I1), s	42.6	10.1		2.4		10.5		17.1				
Green Ext Time (p_c), s	3.5	0.8		0.0		2.8		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			29.9									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	12.7					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	170	160	245	55	240	185
Future Vol, veh/h	170	160	245	55	240	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	187	176	269	60	264	203

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	862	264	467	0	-	0
Stage 1	264	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	325	775	1094	-	-	-
Stage 1	780	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	245	775	1094	-	-	-
Mov Cap-2 Maneuver	245	-	-	-	-	-
Stage 1	588	-	-	-	-	-
Stage 2	549	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.7	7.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1094	-	245	775	-	-
HCM Lane V/C Ratio	0.246	-	0.763	0.227	-	-
HCM Control Delay (s)	9.4	-	55.1	11	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	1	-	5.5	0.9	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	20	20	140	15	250	20	250	250	235	605	15
Future Volume (veh/h)	10	20	20	140	15	250	20	250	250	235	605	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	23	23	163	17	291	23	291	291	273	703	17
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	54	99	68	246	22	567	67	660	611	489	985	24
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.39	0.39	0.39	0.11	0.54	0.54
Sat Flow, veh/h	15	276	191	474	62	1585	62	1712	1585	1781	1818	44
Grp Volume(v), veh/h	58	0	0	180	0	291	314	0	291	273	0	720
Grp Sat Flow(s),veh/h/ln	482	0	0	536	0	1585	1774	0	1585	1781	0	1862
Q Serve(g_s), s	0.9	0.0	0.0	0.6	0.0	12.9	0.0	0.0	12.4	7.9	0.0	25.9
Cycle Q Clear(g_c), s	31.4	0.0	0.0	31.2	0.0	12.9	11.1	0.0	12.4	7.9	0.0	25.9
Prop In Lane	0.21		0.40	0.91		1.00	0.07		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	221	0	0	268	0	567	727	0	611	489	0	1009
V/C Ratio(X)	0.26	0.00	0.00	0.67	0.00	0.51	0.43	0.00	0.48	0.56	0.00	0.71
Avail Cap(c_a), veh/h	229	0	0	276	0	575	727	0	611	490	0	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	0.0	28.7	0.0	22.6	20.3	0.0	20.7	13.9	0.0	15.3
Incr Delay (d2), s/veh	0.6	0.0	0.0	6.0	0.0	0.8	1.9	0.0	2.6	1.4	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	4.1	0.0	4.8	5.1	0.0	4.9	3.1	0.0	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	0.0	0.0	34.7	0.0	23.4	22.2	0.0	23.4	15.3	0.0	19.6
LnGrp LOS	C	A	A	C	A	C	C	A	C	B	A	B
Approach Vol, veh/h		58			471			605			993	
Approach Delay, s/veh		22.8			27.7			22.7			18.4	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.0	39.0		36.8		53.0		36.8				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	9.5	34.5		32.5		48.5		32.5				
Max Q Clear Time (g_c+I1), s	9.9	14.4		33.4		27.9		33.2				
Green Ext Time (p_c), s	0.0	3.0		0.0		5.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			21.8									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	30	80	5	60	20	85	270	5	15	375	360
Future Volume (veh/h)	200	30	80	5	60	20	85	270	5	15	375	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	33	88	5	66	22	93	297	5	16	412	396
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	407	112	298	373	333	111	124	885	15	35	379	365
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.07	0.48	0.48	0.02	0.43	0.43
Sat Flow, veh/h	1309	451	1203	1270	1342	447	1781	1834	31	1781	876	842
Grp Volume(v), veh/h	220	0	121	5	0	88	93	0	302	16	0	808
Grp Sat Flow(s),veh/h/ln	1309	0	1654	1270	0	1790	1781	0	1865	1781	0	1719
Q Serve(g_s), s	8.6	0.0	3.2	0.2	0.0	2.1	2.8	0.0	5.4	0.5	0.0	23.4
Cycle Q Clear(g_c), s	10.7	0.0	3.2	3.4	0.0	2.1	2.8	0.0	5.4	0.5	0.0	23.4
Prop In Lane	1.00		0.73	1.00		0.25	1.00		0.02	1.00		0.49
Lane Grp Cap(c), veh/h	407	0	410	373	0	443	124	0	900	35	0	744
V/C Ratio(X)	0.54	0.00	0.30	0.01	0.00	0.20	0.75	0.00	0.34	0.45	0.00	1.09
Avail Cap(c_a), veh/h	518	0	551	481	0	596	168	0	900	165	0	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	16.5	17.9	0.0	16.1	24.7	0.0	8.6	26.2	0.0	15.3
Incr Delay (d2), s/veh	1.1	0.0	0.4	0.0	0.0	0.2	11.8	0.0	0.2	8.9	0.0	58.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	1.1	0.0	0.0	0.8	1.5	0.0	1.8	0.3	0.0	19.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	0.0	16.9	17.9	0.0	16.3	36.5	0.0	8.8	35.1	0.0	74.1
LnGrp LOS	C	A	B	B	A	B	D	A	A	D	A	F
Approach Vol, veh/h		341			93			395			824	
Approach Delay, s/veh		19.8			16.4			15.4			73.4	
Approach LOS		B			B			B			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.6	30.6		17.9	8.3	27.9		17.9
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.1	23.4		18.0
Max Q Clear Time (g_c+I1), s	2.5	7.4		12.7	4.8	25.4		5.4
Green Ext Time (p_c), s	0.0	1.6		0.7	0.0	0.0		0.3

Intersection Summary		
HCM 6th Ctrl Delay		45.3
HCM 6th LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	1295	30	125	905	165	50	85	165	260	50	90
Future Volume (veh/h)	120	1295	30	125	905	165	50	85	165	260	50	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	1378	32	133	963	176	53	90	176	328	0	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	1482	34	160	1038	463	630	662	561	421	0	187
Arrive On Green	0.09	0.29	0.29	0.09	0.29	0.29	0.35	0.35	0.35	0.12	0.00	0.12
Sat Flow, veh/h	1781	5134	119	1781	3554	1585	1781	1870	1585	3563	0	1585
Grp Volume(v), veh/h	128	914	496	133	963	176	53	90	176	328	0	82
Grp Sat Flow(s),veh/h/ln	1781	1702	1849	1781	1777	1585	1781	1870	1585	1781	0	1585
Q Serve(g_s), s	8.5	31.4	31.4	8.8	31.7	10.6	2.4	3.9	9.7	10.8	0.0	5.8
Cycle Q Clear(g_c), s	8.5	31.4	31.4	8.8	31.7	10.6	2.4	3.9	9.7	10.8	0.0	5.8
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	983	534	160	1038	463	630	662	561	421	0	187
V/C Ratio(X)	0.83	0.93	0.93	0.83	0.93	0.38	0.08	0.14	0.31	0.78	0.00	0.44
Avail Cap(c_a), veh/h	170	983	534	200	1060	473	630	662	561	1243	0	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.1	41.6	41.6	53.9	41.4	33.9	25.9	26.4	28.3	51.5	0.0	49.4
Incr Delay (d2), s/veh	26.3	14.7	23.0	20.9	13.5	0.5	0.3	0.4	1.5	3.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	15.1	17.6	4.9	15.7	4.2	1.1	1.8	3.9	5.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.4	56.3	64.6	74.8	54.9	34.5	26.2	26.8	29.7	54.7	0.0	51.0
LnGrp LOS	F	E	E	E	D	C	C	C	C	D	A	D
Approach Vol, veh/h		1538			1272			319			410	
Approach Delay, s/veh		61.0			54.2			28.3			54.0	
Approach LOS		E			D			C			D	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		47.1	15.3	39.3		18.7	14.9	39.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		42.6	13.5	33.9		42.0	11.5	35.9
Max Q Clear Time (g_c+I1), s		11.7	10.8	33.4		12.8	10.5	33.7
Green Ext Time (p_c), s		1.3	0.1	0.4		1.5	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	54.8
HCM 6th LOS	D

Notes
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	120	1445	690	50	175	165
Future Volume (veh/h)	120	1445	690	50	175	165
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	1624	775	56	197	185
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	175	2183	1385	100	317	282
Arrive On Green	0.10	0.61	0.41	0.41	0.18	0.18
Sat Flow, veh/h	1781	3647	3454	243	1781	1585
Grp Volume(v), veh/h	135	1624	410	421	197	185
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1827	1781	1585
Q Serve(g_s), s	3.2	14.1	7.6	7.6	4.4	4.7
Cycle Q Clear(g_c), s	3.2	14.1	7.6	7.6	4.4	4.7
Prop In Lane	1.00			0.13	1.00	1.00
Lane Grp Cap(c), veh/h	175	2183	733	753	317	282
V/C Ratio(X)	0.77	0.74	0.56	0.56	0.62	0.66
Avail Cap(c_a), veh/h	349	2584	759	780	802	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	5.9	9.7	9.7	16.5	16.6
Incr Delay (d2), s/veh	7.0	1.0	0.9	0.8	2.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.9	2.4	2.5	1.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.1	6.9	10.6	10.6	18.5	19.2
LnGrp LOS	C	A	B	B	B	B
Approach Vol, veh/h		1759	831		382	
Approach Delay, s/veh		8.4	10.6		18.8	
Approach LOS		A	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	31.1	12.2	8.8	22.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	19.5	8.5	18.5
Max Q Clear Time (g_c+I1), s	16.1	6.7	5.2	9.6
Green Ext Time (p_c), s	10.6	1.0	0.1	3.5

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	405	205	85	225	200	140	335	155	490	795	50
Future Volume (veh/h)	45	405	205	85	225	200	140	335	155	490	795	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	426	216	89	237	211	147	353	163	516	837	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	603	511	176	603	511	182	1145	511	366	1444	91
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.10	0.32	0.32	0.21	0.43	0.43
Sat Flow, veh/h	942	1870	1585	787	1870	1585	1781	3554	1585	1781	3394	215
Grp Volume(v), veh/h	47	426	216	89	237	211	147	353	163	516	438	452
Grp Sat Flow(s),veh/h/ln	942	1870	1585	787	1870	1585	1781	1777	1585	1781	1777	1832
Q Serve(g_s), s	3.7	18.0	9.6	10.1	8.9	9.4	7.3	6.7	7.0	18.5	16.9	16.9
Cycle Q Clear(g_c), s	12.5	18.0	9.6	28.1	8.9	9.4	7.3	6.7	7.0	18.5	16.9	16.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	291	603	511	176	603	511	182	1145	511	366	756	780
V/C Ratio(X)	0.16	0.71	0.42	0.50	0.39	0.41	0.81	0.31	0.32	1.41	0.58	0.58
Avail Cap(c_a), veh/h	291	603	511	176	603	511	297	1145	511	366	756	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	26.8	23.9	39.1	23.7	23.8	39.5	23.0	23.0	35.7	19.7	19.7
Incr Delay (d2), s/veh	0.3	3.8	0.6	2.3	0.4	0.5	8.2	0.7	1.6	199.8	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	8.4	3.6	2.0	3.9	3.5	3.6	2.9	2.8	28.1	7.3	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	30.6	24.5	41.4	24.1	24.4	47.7	23.7	24.7	235.5	22.9	22.8
LnGrp LOS	C	C	C	D	C	C	D	C	C	F	C	C
Approach Vol, veh/h		689			537			663			1406	
Approach Delay, s/veh		28.5			27.1			29.2			100.9	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	23.0	33.5		33.5	13.7	42.8		33.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	18.5	29.0		29.0	15.0	32.5		29.0
Max Q Clear Time (g_c+I1), s	20.5	9.0		20.0	9.3	18.9		30.1
Green Ext Time (p_c), s	0.0	2.8		2.5	0.2	4.8		0.0

Intersection Summary	
HCM 6th Ctrl Delay	59.3
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑	↱	↰	↑↑	↱	↰↰	↑↱		↰↰	↑	↱
Traffic Volume (veh/h)	140	1210	230	80	795	330	205	370	120	795	620	115
Future Volume (veh/h)	140	1210	230	80	795	330	205	370	120	795	620	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	144	1247	237	82	820	340	211	381	124	820	639	119
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	1039	464	74	1007	746	271	868	279	648	818	774
Arrive On Green	0.05	0.29	0.29	0.04	0.28	0.28	0.08	0.33	0.33	0.19	0.44	0.44
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	2645	850	3456	1870	1585
Grp Volume(v), veh/h	144	1247	237	82	820	340	211	254	251	820	639	119
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1717	1728	1870	1585
Q Serve(g_s), s	5.0	35.1	14.9	5.0	25.8	17.3	7.2	13.5	13.8	22.5	35.0	5.0
Cycle Q Clear(g_c), s	5.0	35.1	14.9	5.0	25.8	17.3	7.2	13.5	13.8	22.5	35.0	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.49	1.00		1.00
Lane Grp Cap(c), veh/h	176	1039	464	74	1007	746	271	583	564	648	818	774
V/C Ratio(X)	0.82	1.20	0.51	1.10	0.81	0.46	0.78	0.44	0.44	1.27	0.78	0.15
Avail Cap(c_a), veh/h	176	1039	464	74	1007	746	371	583	564	648	818	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.4	42.4	35.3	57.5	40.1	21.4	54.3	31.6	31.7	48.8	28.8	17.0
Incr Delay (d2), s/veh	25.4	99.3	0.9	135.9	5.2	0.4	7.0	2.4	2.5	131.5	7.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	29.5	5.9	5.1	11.9	6.5	3.4	6.2	6.1	21.5	17.1	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	141.7	36.3	193.4	45.3	21.8	61.3	34.0	34.2	180.3	36.2	17.4
LnGrp LOS	F	F	D	F	D	C	E	C	C	F	D	B
Approach Vol, veh/h		1628			1242			716			1578	
Approach Delay, s/veh		121.1			48.6			42.1			109.6	
Approach LOS		F			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	43.9	9.5	39.6	13.9	57.0	10.6	38.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	39.4	5.0	35.1	12.9	49.0	6.1	34.0
Max Q Clear Time (g_c+I1), s	24.5	15.8	7.0	37.1	9.2	37.0	7.0	27.8
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.2	3.8	0.0	3.4

Intersection Summary		
HCM 6th Ctrl Delay		89.2
HCM 6th LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	135	120	110	55	220	30	375	110	190	615	145
Future Volume (veh/h)	175	135	120	110	55	220	30	375	110	190	615	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	145	129	118	59	237	32	403	118	204	661	156
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	623	528	435	108	436	62	541	459	240	728	617
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.04	0.29	0.29	0.13	0.39	0.39
Sat Flow, veh/h	1083	1870	1585	1105	326	1309	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	188	145	129	118	0	296	32	403	118	204	661	156
Grp Sat Flow(s),veh/h/ln	1083	1870	1585	1105	0	1635	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	9.5	3.1	3.3	4.8	0.0	8.2	1.0	10.8	3.2	6.2	18.6	3.7
Cycle Q Clear(g_c), s	17.7	3.1	3.3	7.9	0.0	8.2	1.0	10.8	3.2	6.2	18.6	3.7
Prop In Lane	1.00		1.00	1.00		0.80	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	623	528	435	0	544	62	541	459	240	728	617
V/C Ratio(X)	0.57	0.23	0.24	0.27	0.00	0.54	0.51	0.74	0.26	0.85	0.91	0.25
Avail Cap(c_a), veh/h	330	623	528	435	0	544	170	690	585	240	764	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	13.4	13.5	16.3	0.0	15.1	26.3	17.9	15.2	23.5	16.0	11.5
Incr Delay (d2), s/veh	2.3	0.2	0.2	0.3	0.0	1.1	6.4	3.3	0.3	23.7	14.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.2	1.1	1.1	0.0	2.8	0.5	4.6	1.1	4.0	9.6	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	13.6	13.7	16.6	0.0	16.2	32.7	21.2	15.5	47.2	30.4	11.7
LnGrp LOS	C	B	B	B	A	B	C	C	B	D	C	B
Approach Vol, veh/h		462			414			553			1021	
Approach Delay, s/veh		18.1			16.3			20.6			30.9	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	20.6		23.0	6.4	26.1		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	20.5		18.5	5.3	22.7		18.5				
Max Q Clear Time (g_c+I1), s	19.2	12.8		19.7	3.0	20.6		10.2				
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	1.1		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			23.7									
HCM 6th LOS			C									

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	130	1515	655	385	925	85
Future Volume (veh/h)	130	1515	655	385	925	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	1612	697	410	984	90
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	174	1924	1387	619	1214	557
Arrive On Green	0.10	0.54	0.39	0.39	0.35	0.35
Sat Flow, veh/h	1781	3647	3647	1585	3456	1585
Grp Volume(v), veh/h	138	1612	697	410	984	90
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1728	1585
Q Serve(g_s), s	6.4	32.0	12.5	17.9	21.7	3.3
Cycle Q Clear(g_c), s	6.4	32.0	12.5	17.9	21.7	3.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	174	1924	1387	619	1214	557
V/C Ratio(X)	0.79	0.84	0.50	0.66	0.81	0.16
Avail Cap(c_a), veh/h	329	2180	1387	619	1214	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	16.2	19.4	21.1	24.7	18.7
Incr Delay (d2), s/veh	7.9	2.8	0.3	2.7	5.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	12.2	5.0	6.7	9.4	3.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.0	18.9	19.7	23.7	30.6	19.4
LnGrp LOS	D	B	B	C	C	B
Approach Vol, veh/h		1750	1107		1074	
Approach Delay, s/veh		21.0	21.2		29.7	
Approach LOS		C	C		C	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				50.0		34.0	12.7	37.3
Change Period (Y+Rc), s				4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s				51.5		29.5	15.5	31.5
Max Q Clear Time (g_c+I1), s				34.0		23.7	8.4	19.9
Green Ext Time (p_c), s				11.5		2.3	0.2	4.9

Intersection Summary			
HCM 6th Ctrl Delay			23.4
HCM 6th LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	1885	355	110	1215	80	155	20	120	10	5	20
Future Volume (veh/h)	105	1885	355	110	1215	80	155	20	120	10	5	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	2027	382	118	1306	86	167	22	129	11	5	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	2114	656	170	1970	611	1252	678	574	14	6	28
Arrive On Green	0.08	0.41	0.41	0.05	0.39	0.39	0.36	0.36	0.36	0.03	0.03	0.03
Sat Flow, veh/h	1781	5106	1585	3456	5106	1585	3456	1870	1585	484	220	968
Grp Volume(v), veh/h	113	2027	382	118	1306	86	167	22	129	38	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1702	1585	1728	1870	1585	1672	0	0
Q Serve(g_s), s	7.8	47.9	23.1	4.2	26.2	4.4	4.0	0.9	7.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	7.8	47.9	23.1	4.2	26.2	4.4	4.0	0.9	7.0	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.29		0.58
Lane Grp Cap(c), veh/h	138	2114	656	170	1970	611	1252	678	574	49	0	0
V/C Ratio(X)	0.82	0.96	0.58	0.69	0.66	0.14	0.13	0.03	0.22	0.77	0.00	0.00
Avail Cap(c_a), veh/h	176	2118	657	209	1970	611	1252	678	574	242	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	56.4	35.3	28.1	58.1	31.5	24.8	26.5	25.5	27.5	59.8	0.0	0.0
Incr Delay (d2), s/veh	20.6	11.4	1.3	7.3	0.8	0.1	0.2	0.1	0.9	22.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	21.6	9.0	2.0	10.9	1.7	1.7	0.4	2.8	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.0	46.8	29.4	65.4	32.3	24.9	26.7	25.6	28.4	82.0	0.0	0.0
LnGrp LOS	E	D	C	E	C	C	C	C	C	F	A	A
Approach Vol, veh/h		2522			1510			318			38	
Approach Delay, s/veh		45.5			34.5			27.3			82.0	
Approach LOS		D			C			C			F	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		49.5	10.6	55.9		8.2	14.1	52.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		45.0	7.5	51.5		18.0	12.3	46.7
Max Q Clear Time (g_c+I1), s		9.0	6.2	49.9		4.8	9.8	28.2
Green Ext Time (p_c), s		1.2	0.0	1.5		0.1	0.1	9.5

Intersection Summary	
HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	1445	630	730	730	150	170	0	520	255	0	135
Future Volume (vph)	125	1445	630	730	730	150	170	0	520	255	0	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97		0.88	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	3433		2787	1770		1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	3433	3539	1583	3433		2787	1770		1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	129	1490	649	753	753	155	175	0	536	263	0	139
RTOR Reduction (vph)	0	0	230	0	0	75	0	0	0	0	0	107
Lane Group Flow (vph)	129	1490	419	753	753	80	175	0	536	263	0	32
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8							
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	8.8	32.5	32.5	22.3	46.0	46.0	20.5		20.5	20.5		20.5
Effective Green, g (s)	8.8	32.5	32.5	22.3	46.0	46.0	20.5		20.5	20.5		20.5
Actuated g/C Ratio	0.10	0.37	0.37	0.25	0.52	0.52	0.23		0.23	0.23		0.23
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	175	1295	579	862	1833	820	792		643	408		365
v/s Ratio Prot	0.07	c0.42		c0.22	0.21							
v/s Ratio Perm			0.26			0.05	0.05		c0.19	0.15		0.02
v/c Ratio	0.74	1.15	0.72	0.87	0.41	0.10	0.22		0.83	0.64		0.09
Uniform Delay, d1	38.9	28.1	24.3	31.9	13.1	10.9	27.7		32.5	30.9		26.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	14.9	77.1	4.5	9.8	0.2	0.1	0.6		12.1	7.6		0.5
Delay (s)	53.8	105.2	28.7	41.7	13.3	10.9	28.3		44.6	38.5		27.3
Level of Service	D	F	C	D	B	B	C		D	D		C
Approach Delay (s)		80.4			25.9			40.6			34.6	
Approach LOS		F			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	53.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	88.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	86.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	775	480	5	5	150	120	5	5	10	435	5	875
Future Volume (veh/h)	775	480	5	5	150	120	5	5	10	435	5	875
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	881	545	6	6	170	136	6	6	11	494	6	994
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	883	672	7	13	217	184	37	41	38	312	3	823
Arrive On Green	0.26	0.36	0.36	0.01	0.12	0.12	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	3456	1846	20	1781	1870	1585	0	80	73	489	6	1585
Grp Volume(v), veh/h	881	0	551	6	170	136	23	0	0	500	0	994
Grp Sat Flow(s),veh/h/ln	1728	0	1867	1781	1870	1585	152	0	0	495	0	1585
Q Serve(g_s), s	31.4	0.0	32.8	0.4	10.9	10.2	0.0	0.0	0.0	0.0	0.0	64.0
Cycle Q Clear(g_c), s	31.4	0.0	32.8	0.4	10.9	10.2	64.0	0.0	0.0	64.0	0.0	64.0
Prop In Lane	1.00		0.01	1.00		1.00	0.26		0.48	0.99		1.00
Lane Grp Cap(c), veh/h	883	0	680	13	217	184	116	0	0	315	0	823
V/C Ratio(X)	1.00	0.00	0.81	0.45	0.78	0.74	0.20	0.00	0.00	1.59	0.00	1.21
Avail Cap(c_a), veh/h	883	0	1022	72	622	527	116	0	0	315	0	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	35.4	60.9	53.0	52.7	28.3	0.0	0.0	35.6	0.0	29.7
Incr Delay (d2), s/veh	29.8	0.0	3.0	21.6	6.1	5.7	3.8	0.0	0.0	279.7	0.0	105.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.0	0.0	15.4	0.3	5.5	4.4	0.4	0.0	0.0	34.3	0.0	47.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	0.0	38.4	82.5	59.0	58.4	32.1	0.0	0.0	315.2	0.0	134.8
LnGrp LOS	E	A	D	F	E	E	C	A	A	F	A	F
Approach Vol, veh/h		1432			312			23			1494	
Approach Delay, s/veh		61.4			59.2			32.1			195.2	
Approach LOS		E			E			C			F	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		68.5	5.4	49.4		68.5	36.0	18.8
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		64.0	5.0	67.5		64.0	31.5	41.0
Max Q Clear Time (g_c+I1), s		66.0	2.4	34.8		66.0	33.4	12.9
Green Ext Time (p_c), s		0.0	0.0	4.0		0.0	0.0	1.4

Intersection Summary		
HCM 6th Ctrl Delay		122.3
HCM 6th LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	5	580	90	1120	0	0	300	440
Future Volume (veh/h)	0	0	0	10	5	580	90	1120	0	0	300	440
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				0	0	675	102	1273	0	0	341	500
Peak Hour Factor				0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				0	520	881	365	2018	0	0	1009	900
Arrive On Green				0.00	0.00	0.28	0.57	0.57	0.00	0.00	0.57	0.57
Sat Flow, veh/h				0	1870	3170	654	3647	0	0	1870	1585
Grp Volume(v), veh/h				0	0	675	102	1273	0	0	341	500
Grp Sat Flow(s),veh/h/ln				0	1870	1585	654	1777	0	0	1777	1585
Q Serve(g_s), s				0.0	0.0	11.4	6.8	14.1	0.0	0.0	6.0	11.6
Cycle Q Clear(g_c), s				0.0	0.0	11.4	18.4	14.1	0.0	0.0	6.0	11.6
Prop In Lane				0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	520	881	365	2018	0	0	1009	900
V/C Ratio(X)				0.00	0.00	0.77	0.28	0.63	0.00	0.00	0.34	0.56
Avail Cap(c_a), veh/h				0	1042	1767	537	2956	0	0	1478	1318
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	19.3	13.8	8.5	0.0	0.0	6.7	8.0
Incr Delay (d2), s/veh				0.0	0.0	1.4	0.4	0.3	0.0	0.0	0.2	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	4.0	0.9	4.2	0.0	0.0	1.8	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	20.7	14.2	8.8	0.0	0.0	6.9	8.5
LnGrp LOS				A	A	C	B	A	A	A	A	A
Approach Vol, veh/h					675			1375			841	
Approach Delay, s/veh					20.7			9.2			7.9	
Approach LOS					C			A			A	

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	37.6	37.6	20.7
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	48.5	48.5	32.5
Max Q Clear Time (g_c+I1), s	20.4	13.6	13.4
Green Ext Time (p_c), s	12.7	6.8	2.8

Intersection Summary	
HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	910	85	0	0	25	310	0	0	0	60	0	245
Future Volume (vph)	910	85	0	0	25	310	0	0	0	60	0	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	4.5				4.5		4.5
Lane Util. Factor	0.95	0.95			1.00	1.00				1.00		1.00
Frt	1.00	1.00			1.00	0.85				1.00		0.85
Flt Protected	0.95	0.96			1.00	1.00				0.95		1.00
Satd. Flow (prot)	1681	1699			1863	1583				1770		1583
Flt Permitted	0.95	0.96			1.00	1.00				0.95		1.00
Satd. Flow (perm)	1681	1699			1863	1583				1770		1583
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	1096	102	0	0	30	373	0	0	0	72	0	295
RTOR Reduction (vph)	0	0	0	0	0	321	0	0	0	0	0	253
Lane Group Flow (vph)	592	606	0	0	30	52	0	0	0	72	0	42
Turn Type	Split	NA			NA	Perm				Perm		Perm
Protected Phases	4	4			8							
Permitted Phases						8				6		6
Actuated Green, G (s)	30.2	30.2			8.5	8.5				8.6		8.6
Effective Green, g (s)	30.2	30.2			8.5	8.5				8.6		8.6
Actuated g/C Ratio	0.50	0.50			0.14	0.14				0.14		0.14
Clearance Time (s)	4.5	4.5			4.5	4.5				4.5		4.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0		3.0
Lane Grp Cap (vph)	834	843			260	221				250		223
v/s Ratio Prot	0.35	c0.36			0.02							
v/s Ratio Perm						c0.03				c0.04		0.03
v/c Ratio	0.71	0.72			0.12	0.24				0.29		0.19
Uniform Delay, d1	11.9	12.0			22.9	23.3				23.4		23.0
Progression Factor	1.00	1.00			1.00	1.00				1.00		1.00
Incremental Delay, d2	2.8	3.0			0.2	0.6				0.6		0.4
Delay (s)	14.7	14.9			23.1	23.8				24.0		23.4
Level of Service	B	B			C	C				C		C
Approach Delay (s)		14.8			23.8			0.0			23.5	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	60.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1040	780	5	665	0	0	0	0	35	0	860
Future Volume (vph)	0	1040	780	5	665	0	0	0	0	35	0	860
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0	4.5	4.5					4.5		4.0
Lane Util. Factor		0.91	0.91	1.00	1.00					1.00		1.00
Frt		0.97	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3299	1441	1770	1863					1770		1583
Flt Permitted		1.00	1.00	0.14	1.00					0.95		1.00
Satd. Flow (perm)		3299	1441	267	1863					1770		1583
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	1118	839	5	715	0	0	0	0	38	0	925
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1340	596	5	715	0	0	0	0	38	0	925
Turn Type		NA	Free	Perm	NA					Perm		Free
Protected Phases		4			8							
Permitted Phases			Free	8						6		Free
Actuated Green, G (s)		27.9	43.8	27.9	27.9					6.9		43.8
Effective Green, g (s)		27.9	43.8	27.9	27.9					6.9		43.8
Actuated g/C Ratio		0.64	1.00	0.64	0.64					0.16		1.00
Clearance Time (s)		4.5		4.5	4.5					4.5		
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Lane Grp Cap (vph)		2101	1441	170	1186					278		1583
v/s Ratio Prot		0.41			0.38							
v/s Ratio Perm			0.41	0.02						0.02		c0.58
v/c Ratio		0.64	0.41	0.03	0.60					0.14		0.58
Uniform Delay, d1		4.9	0.0	2.9	4.7					15.9		0.0
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		0.6	0.9	0.1	0.9					0.2		1.6
Delay (s)		5.5	0.9	3.0	5.6					16.1		1.6
Level of Service		A	A	A	A					B		A
Approach Delay (s)		4.1			5.5			0.0			2.2	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	43.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	50	1025	5	15	0	665	0	30	0	0	0
Future Volume (vph)	0	50	1025	5	15	0	665	0	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5		4.5		4.5			
Lane Util. Factor		0.95	0.88		1.00		0.97		1.00			
Frt		1.00	0.85		1.00		1.00		0.85			
Flt Protected		1.00	1.00		0.99		0.95		1.00			
Satd. Flow (prot)		3539	2787		1839		3433		1583			
Flt Permitted		1.00	1.00		0.89		0.95		1.00			
Satd. Flow (perm)		3539	2787		1660		3433		1583			
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	0	58	1192	6	17	0	773	0	35	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	13	0	0	0
Lane Group Flow (vph)	0	58	1192	0	23	0	773	0	22	0	0	0
Turn Type		NA	Free	Perm	NA		Perm		Perm			
Protected Phases		4			8							
Permitted Phases			Free	8			2		2			
Actuated Green, G (s)		3.5	34.9		3.5		22.4		22.4			
Effective Green, g (s)		3.5	34.9		3.5		22.4		22.4			
Actuated g/C Ratio		0.10	1.00		0.10		0.64		0.64			
Clearance Time (s)		4.5			4.5		4.5		4.5			
Vehicle Extension (s)		3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)		354	2787		166		2203		1016			
v/s Ratio Prot		0.02										
v/s Ratio Perm			c0.43		0.01		0.23		0.01			
v/c Ratio		0.16	0.43		0.14		0.35		0.02			
Uniform Delay, d1		14.4	0.0		14.3		2.9		2.3			
Progression Factor		1.00	1.00		1.00		1.00		1.00			
Incremental Delay, d2		0.2	0.5		0.4		0.1		0.0			
Delay (s)		14.6	0.5		14.7		3.0		2.3			
Level of Service		B	A		B		A		A			
Approach Delay (s)		1.1			14.7			3.0			0.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	2.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	34.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1360	770	0	1050	555	0	0	0	60	0	375
Future Volume (vph)	5	1360	770	0	1050	555	0	0	0	60	0	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5	4.0				4.5		4.5
Lane Util. Factor		0.91	1.00		0.95	1.00				1.00		1.00
Frt		1.00	0.85		1.00	0.85				1.00		0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95		1.00
Satd. Flow (prot)		5084	1583		3539	1583				1770		1583
Flt Permitted		0.94	1.00		1.00	1.00				0.95		1.00
Satd. Flow (perm)		4763	1583		3539	1583				1770		1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	1417	802	0	1094	578	0	0	0	62	0	391
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	25
Lane Group Flow (vph)	0	1422	802	0	1094	578	0	0	0	63	0	366
Turn Type	Perm	NA	Free		NA	Free				Perm		Perm
Protected Phases		4			8							
Permitted Phases	4		Free			Free				6		6
Actuated Green, G (s)		29.4	58.3		29.4	58.3				19.9		19.9
Effective Green, g (s)		29.4	58.3		29.4	58.3				19.9		19.9
Actuated g/C Ratio		0.50	1.00		0.50	1.00				0.34		0.34
Clearance Time (s)		4.5			4.5					4.5		4.5
Vehicle Extension (s)		3.0			3.0					3.0		3.0
Lane Grp Cap (vph)		2401	1583		1784	1583				604		540
v/s Ratio Prot					c0.31							
v/s Ratio Perm		0.30	0.51			0.37				0.04		c0.23
v/c Ratio		0.59	0.51		0.61	0.37				0.10		0.68
Uniform Delay, d1		10.2	0.0		10.4	0.0				13.1		16.5
Progression Factor		1.00	1.00		1.00	1.00				1.00		1.00
Incremental Delay, d2		0.4	1.2		0.6	0.7				0.1		3.4
Delay (s)		10.6	1.2		11.0	0.7				13.2		19.8
Level of Service		B	A		B	A				B		B
Approach Delay (s)		7.2			7.4			0.0			18.9	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	58.3	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	695	545	0	1330	110	345	0	355	0	0	0
Future Volume (veh/h)	0	695	545	0	1330	110	345	0	355	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	747	0	0	1430	0	371	0	382			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2			
Cap, veh/h	0	1978		0	1978		537	0	477			
Arrive On Green	0.00	0.56	0.00	0.00	0.56	0.00	0.30	0.00	0.30			
Sat Flow, veh/h	0	3647	1585	0	3647	1585	1781	0	1585			
Grp Volume(v), veh/h	0	747	0	0	1430	0	371	0	382			
Grp Sat Flow(s),veh/h/ln	0	1777	1585	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	0.0	7.5	0.0	0.0	18.9	0.0	11.6	0.0	14.0			
Cycle Q Clear(g_c), s	0.0	7.5	0.0	0.0	18.9	0.0	11.6	0.0	14.0			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	1978		0	1978		537	0	477			
V/C Ratio(X)	0.00	0.38		0.00	0.72		0.69	0.00	0.80			
Avail Cap(c_a), veh/h	0	3003		0	3003		774	0	689			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	7.9	0.0	0.0	10.4	0.0	19.5	0.0	20.4			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.5	0.0	1.6	0.0	4.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	2.4	0.0	0.0	6.0	0.0	4.7	0.0	5.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.0	0.0	0.0	10.9	0.0	21.1	0.0	24.7			
LnGrp LOS	A	A		A	B		C	A	C			
Approach Vol, veh/h		747	A		1430	A		753				
Approach Delay, s/veh		8.0			10.9			22.9				
Approach LOS		A			B			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		23.6		39.7				39.7				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		27.5		53.5				53.5				
Max Q Clear Time (g_c+I1), s		16.0		9.5				20.9				
Green Ext Time (p_c), s		3.0		6.2				14.3				

Intersection Summary		
HCM 6th Ctrl Delay		13.3
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	220	870	985	50	45	170
Future Volume (veh/h)	220	870	985	50	45	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	234	926	1048	53	48	181
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	297	1420	1420	1204	54	203
Arrive On Green	0.76	0.76	0.76	0.76	0.16	0.16
Sat Flow, veh/h	512	1870	1870	1585	339	1278
Grp Volume(v), veh/h	234	926	1048	53	230	0
Grp Sat Flow(s),veh/h/ln	512	1870	1870	1585	1623	0
Q Serve(g_s), s	49.8	25.9	33.7	0.9	15.3	0.0
Cycle Q Clear(g_c), s	83.5	25.9	33.7	0.9	15.3	0.0
Prop In Lane	1.00			1.00	0.21	0.79
Lane Grp Cap(c), veh/h	297	1420	1420	1204	258	0
V/C Ratio(X)	0.79	0.65	0.74	0.04	0.89	0.00
Avail Cap(c_a), veh/h	297	1420	1420	1204	295	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.3	6.3	7.2	3.3	45.3	0.0
Incr Delay (d2), s/veh	13.1	1.1	2.1	0.0	24.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	8.6	11.5	0.2	7.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.4	7.4	9.3	3.3	70.3	0.0
LnGrp LOS	D	A	A	A	E	A
Approach Vol, veh/h		1160	1101		230	
Approach Delay, s/veh		14.7	9.0		70.3	
Approach LOS		B	A		E	

Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	88.0	22.0	88.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	83.5	20.0	83.5
Max Q Clear Time (g_c+I1), s	85.5	17.3	35.7
Green Ext Time (p_c), s	0.0	0.2	12.8

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	155	10	160	95	80	25
Future Volume (veh/h)	155	10	160	95	80	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	189	12	195	116	98	30
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	317	282	575	487	654	575
Arrive On Green	0.18	0.18	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	1585	1870	1585	1068	1870
Grp Volume(v), veh/h	189	12	195	116	98	30
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1068	1870
Q Serve(g_s), s	1.7	0.1	1.4	1.0	1.4	0.2
Cycle Q Clear(g_c), s	1.7	0.1	1.4	1.0	2.8	0.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	317	282	575	487	654	575
V/C Ratio(X)	0.60	0.04	0.34	0.24	0.15	0.05
Avail Cap(c_a), veh/h	3004	2673	5506	4666	3471	5506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.6	6.0	4.7	4.5	5.8	4.3
Incr Delay (d2), s/veh	1.8	0.1	0.3	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.2	0.1	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	6.0	5.0	4.8	5.9	4.3
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	201		311			128
Approach Delay, s/veh	8.3		4.9			5.5
Approach LOS	A		A			A

Timer - Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		9.9				9.9		7.6
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		51.5				51.5		29.5
Max Q Clear Time (g_c+I1), s		3.4				4.8		3.7
Green Ext Time (p_c), s		1.6				0.6		0.6

Intersection Summary		
HCM 6th Ctrl Delay		6.1
HCM 6th LOS		A

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	215	80	150	160	35	55
Future Vol, veh/h	215	80	150	160	35	55
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	253	94	176	188	41	65
Number of Lanes	1	1	1	1	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	12.4	10	10.2
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	0%	39%
Vol Thru, %	100%	0%	0%	0%	61%
Vol Right, %	0%	100%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	160	215	80	90
LT Vol	0	0	215	0	35
Through Vol	150	0	0	0	55
RT Vol	0	160	0	80	0
Lane Flow Rate	176	188	253	94	106
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.277	0.258	0.441	0.132	0.174
Departure Headway (Hd)	5.743	4.937	6.27	5.061	5.902
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	630	717	577	712	610
Service Time	3.443	2.736	3.97	2.761	3.919
HCM Lane V/C Ratio	0.279	0.262	0.438	0.132	0.174
HCM Control Delay	10.6	9.5	13.8	8.5	10.2
HCM Lane LOS	B	A	B	A	B
HCM 95th-tile Q	1.1	1	2.2	0.5	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	690	255	305	750	45	180	155	390	55	175	130
Future Volume (veh/h)	100	690	255	305	750	45	180	155	390	55	175	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	742	274	328	806	48	194	167	419	59	188	140
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	1010	451	428	1174	524	406	427	558	252	265	224
Arrive On Green	0.08	0.28	0.28	0.12	0.33	0.33	0.23	0.23	0.23	0.14	0.14	0.14
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	108	742	274	328	806	48	194	167	419	59	188	140
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.8	15.3	12.1	7.4	15.9	1.7	7.6	6.1	18.5	2.4	7.8	6.7
Cycle Q Clear(g_c), s	4.8	15.3	12.1	7.4	15.9	1.7	7.6	6.1	18.5	2.4	7.8	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	1010	451	428	1174	524	406	427	558	252	265	224
V/C Ratio(X)	0.78	0.73	0.61	0.77	0.69	0.09	0.48	0.39	0.75	0.23	0.71	0.62
Avail Cap(c_a), veh/h	270	1490	665	661	1630	727	406	427	558	747	784	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	26.2	25.1	34.4	23.5	18.7	27.1	26.5	23.1	30.9	33.2	32.8
Incr Delay (d2), s/veh	9.0	1.1	1.3	2.9	0.7	0.1	4.0	2.7	9.0	0.5	3.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.4	4.6	3.2	6.5	0.6	3.6	3.0	8.1	1.0	3.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	27.3	26.4	37.3	24.2	18.8	31.1	29.2	32.1	31.4	36.7	35.6
LnGrp LOS	D	C	C	D	C	B	C	C	C	C	D	D
Approach Vol, veh/h		1124			1182			780			387	
Approach Delay, s/veh		28.9			27.6			31.2			35.5	
Approach LOS		C			C			C			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0	14.6	27.6		16.0	10.8	31.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	15.5	34.0		34.0	12.3	37.2				
Max Q Clear Time (g_c+I1), s		20.5	9.4	17.3		9.8	6.8	17.9				
Green Ext Time (p_c), s		0.0	0.6	5.7		1.7	0.1	5.8				
Intersection Summary												
HCM 6th Ctrl Delay			29.7									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	520	55	240	630	50	60	15	105	40	20	65
Future Volume (veh/h)	85	520	55	240	630	50	60	15	105	40	20	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	571	60	264	692	55	66	16	115	44	22	71
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	939	98	347	1341	107	338	311	263	387	65	209
Arrive On Green	0.08	0.29	0.29	0.19	0.40	0.40	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	3246	340	1781	3335	265	1303	1870	1585	1259	389	1255
Grp Volume(v), veh/h	93	312	319	264	368	379	66	16	115	44	0	93
Grp Sat Flow(s),veh/h/ln	1781	1777	1809	1781	1777	1823	1303	1870	1585	1259	0	1644
Q Serve(g_s), s	2.0	5.8	5.9	5.4	6.0	6.0	1.8	0.3	2.5	1.2	0.0	1.9
Cycle Q Clear(g_c), s	2.0	5.8	5.9	5.4	6.0	6.0	3.7	0.3	2.5	1.5	0.0	1.9
Prop In Lane	1.00		0.19	1.00		0.15	1.00		1.00	1.00		0.76
Lane Grp Cap(c), veh/h	146	514	523	347	715	733	338	311	263	387	0	273
V/C Ratio(X)	0.64	0.61	0.61	0.76	0.52	0.52	0.20	0.05	0.44	0.11	0.00	0.34
Avail Cap(c_a), veh/h	540	990	1008	854	1303	1337	1354	1769	1499	1369	0	1556
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	11.8	11.8	14.7	8.7	8.7	15.9	13.5	14.5	14.1	0.0	14.2
Incr Delay (d2), s/veh	4.6	1.2	1.2	3.5	0.6	0.6	0.3	0.1	1.1	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.0	2.0	2.1	1.8	1.8	0.5	0.1	0.8	0.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	13.0	13.0	18.1	9.3	9.3	16.2	13.6	15.6	14.3	0.0	15.0
LnGrp LOS	C	B	B	B	A	A	B	B	B	B	A	B
Approach Vol, veh/h		724			1011			197			137	
Approach Delay, s/veh		14.1			11.6			15.6			14.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.9	12.0	15.7		10.9	7.7	20.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		36.5	18.5	21.5		36.5	11.7	28.3				
Max Q Clear Time (g_c+I1), s		5.7	7.4	7.9		3.9	4.0	8.0				
Green Ext Time (p_c), s		0.7	0.6	3.3		0.7	0.1	4.7				
Intersection Summary												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	580	40	90	890	80	35	5	40	70	5	25
Future Volume (veh/h)	20	580	40	90	890	80	35	5	40	70	5	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	644	44	100	989	89	39	6	44	78	6	28
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	1418	97	152	1576	142	360	28	204	345	41	193
Arrive On Green	0.03	0.42	0.42	0.09	0.48	0.48	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1781	3375	230	1781	3297	297	1375	194	1421	1355	287	1341
Grp Volume(v), veh/h	22	339	349	100	533	545	39	0	50	78	0	34
Grp Sat Flow(s),veh/h/ln	1781	1777	1829	1781	1777	1817	1375	0	1615	1355	0	1629
Q Serve(g_s), s	0.5	5.3	5.3	2.1	8.6	8.6	1.0	0.0	1.1	2.1	0.0	0.7
Cycle Q Clear(g_c), s	0.5	5.3	5.3	2.1	8.6	8.6	1.7	0.0	1.1	3.1	0.0	0.7
Prop In Lane	1.00		0.13	1.00		0.16	1.00		0.88	1.00		0.82
Lane Grp Cap(c), veh/h	49	746	768	152	850	869	360	0	232	345	0	234
V/C Ratio(X)	0.45	0.45	0.45	0.66	0.63	0.63	0.11	0.00	0.22	0.23	0.00	0.15
Avail Cap(c_a), veh/h	255	1224	1260	579	1547	1582	1502	0	1574	1471	0	1588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	8.0	8.0	17.0	7.5	7.5	15.1	0.0	14.6	15.9	0.0	14.4
Incr Delay (d2), s/veh	6.5	0.4	0.4	4.8	0.8	0.8	0.1	0.0	0.5	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.5	1.5	0.9	2.2	2.3	0.3	0.0	0.4	0.6	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	8.4	8.4	21.8	8.3	8.2	15.3	0.0	15.0	16.3	0.0	14.7
LnGrp LOS	C	A	A	C	A	A	B	A	B	B	A	B
Approach Vol, veh/h		710			1178			89			112	
Approach Delay, s/veh		8.9			9.4			15.1			15.8	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		10.0	7.8	20.7		10.0	5.5	22.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		37.5	12.5	26.5		37.5	5.5	33.5
Max Q Clear Time (g_c+I1), s		3.7	4.1	7.3		5.1	2.5	10.6
Green Ext Time (p_c), s		0.4	0.1	4.2		0.4	0.0	7.8

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	640	15	140	1025	155	5	5	80	80	5	25
Future Volume (veh/h)	35	640	15	140	1025	155	5	5	80	80	5	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	681	16	149	1090	165	5	5	85	85	5	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	1550	36	195	1566	236	357	15	247	303	41	224
Arrive On Green	0.04	0.44	0.44	0.11	0.51	0.51	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	3549	83	1781	3095	468	1377	89	1510	1307	254	1370
Grp Volume(v), veh/h	37	341	356	149	625	630	5	0	90	85	0	32
Grp Sat Flow(s),veh/h/ln	1781	1777	1855	1781	1777	1786	1377	0	1599	1307	0	1624
Q Serve(g_s), s	0.9	6.2	6.2	3.8	12.5	12.5	0.1	0.0	2.3	2.9	0.0	0.8
Cycle Q Clear(g_c), s	0.9	6.2	6.2	3.8	12.5	12.5	0.9	0.0	2.3	5.2	0.0	0.8
Prop In Lane	1.00		0.04	1.00		0.26	1.00		0.94	1.00		0.84
Lane Grp Cap(c), veh/h	73	776	811	195	899	903	357	0	261	303	0	265
V/C Ratio(X)	0.51	0.44	0.44	0.76	0.70	0.70	0.01	0.00	0.34	0.28	0.00	0.12
Avail Cap(c_a), veh/h	233	1080	1128	478	1325	1331	1188	0	1226	1092	0	1245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	9.1	9.1	20.1	8.8	8.8	17.0	0.0	17.3	19.6	0.0	16.6
Incr Delay (d2), s/veh	5.4	0.4	0.4	6.0	1.0	1.0	0.0	0.0	0.8	0.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.9	2.0	1.7	3.6	3.7	0.0	0.0	0.8	0.8	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	9.5	9.5	26.2	9.7	9.8	17.0	0.0	18.0	20.1	0.0	16.8
LnGrp LOS	C	A	A	C	A	A	B	A	B	C	A	B
Approach Vol, veh/h		734			1404			95			117	
Approach Delay, s/veh		10.4			11.5			18.0			19.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.1	9.6	24.8		12.1	6.4	28.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		35.7	12.5	28.3		35.7	6.1	34.7
Max Q Clear Time (g_c+I1), s		4.3	5.8	8.2		7.2	2.9	14.5
Green Ext Time (p_c), s		0.5	0.2	4.3		0.4	0.0	9.0

Intersection Summary			
HCM 6th Ctrl Delay			11.8
HCM 6th LOS			B

Intersection						
Int Delay, s/veh	1.9					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	110	155	895	330	20
Future Vol, veh/h	10	110	155	895	330	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	113	160	923	340	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1583	340	361	0	-	0
Stage 1	340	-	-	-	-	-
Stage 2	1243	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	120	702	1198	-	-	-
Stage 1	721	-	-	-	-	-
Stage 2	272	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	702	1198	-	-	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	624	-	-	-	-	-
Stage 2	272	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1198	-	104	702	-	-
HCM Lane V/C Ratio	0.133	-	0.099	0.162	-	-
HCM Control Delay (s)	8.5	-	43.4	11.1	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.3	0.6	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	5	5	65	1	895	5	360	55	270	170	5
Future Volume (veh/h)	0	5	5	65	1	895	5	360	55	270	170	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	5	5	70	1	962	5	387	59	290	183	5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	22	19	793	11	715	366	476	403	346	763	21
Arrive On Green	0.00	0.01	0.01	0.45	0.45	0.45	0.25	0.25	0.25	0.13	0.42	0.42
Sat Flow, veh/h	0	1870	1585	1757	25	1585	1195	1870	1585	1781	1812	50
Grp Volume(v), veh/h	0	5	5	71	0	962	5	387	59	290	0	188
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1782	0	1585	1195	1870	1585	1781	0	1861
Q Serve(g_s), s	0.0	0.3	0.4	2.7	0.0	52.5	0.4	22.6	3.4	13.6	0.0	7.6
Cycle Q Clear(g_c), s	0.0	0.3	0.4	2.7	0.0	52.5	0.4	22.6	3.4	13.6	0.0	7.6
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	0	22	19	804	0	715	366	476	403	346	0	784
V/C Ratio(X)	0.00	0.23	0.27	0.09	0.00	1.35	0.01	0.81	0.15	0.84	0.00	0.24
Avail Cap(c_a), veh/h	0	80	68	804	0	715	366	476	403	346	0	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	57.0	57.0	18.3	0.0	31.9	32.5	40.8	33.6	28.7	0.0	21.7
Incr Delay (d2), s/veh	0.0	5.0	7.3	0.0	0.0	164.7	0.1	14.1	0.8	16.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	1.1	0.0	52.1	0.1	12.2	1.4	7.3	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	62.0	64.3	18.3	0.0	196.6	32.6	54.9	34.4	45.0	0.0	22.4
LnGrp LOS	A	E	E	B	A	F	C	D	C	D	A	C
Approach Vol, veh/h		10			1033			451			478	
Approach Delay, s/veh		63.2			184.4			52.0			36.1	
Approach LOS		E			F			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	19.4	34.1		5.9		53.5		57.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	14.9	29.6		5.0		49.0		52.5				
Max Q Clear Time (g_c+I1), s	15.6	24.6		2.4		9.6		54.5				
Green Ext Time (p_c), s	0.0	1.1		0.0		1.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			117.5									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	175	75	90	195	45	180
Future Vol, veh/h	175	75	90	195	45	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	194	83	100	217	50	200

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	467	50	250	0	-	0
Stage 1	50	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	554	1018	1316	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	512	1018	1316	-	-	-
Mov Cap-2 Maneuver	512	-	-	-	-	-
Stage 1	898	-	-	-	-	-
Stage 2	665	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.1	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1316	-	512	1018	-	-
HCM Lane V/C Ratio	0.076	-	0.38	0.082	-	-
HCM Control Delay (s)	8	-	16.3	8.9	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	1.8	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	35	55	235	35	160	50	450	235	320	270	15
Future Volume (veh/h)	20	35	55	235	35	160	50	450	235	320	270	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	37	59	250	37	170	53	479	250	340	287	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	84	85	225	22	625	92	634	608	298	887	49
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.38	0.38	0.38	0.07	0.51	0.51
Sat Flow, veh/h	0	212	216	380	56	1585	125	1654	1585	1781	1755	98
Grp Volume(v), veh/h	117	0	0	287	0	170	532	0	250	340	0	303
Grp Sat Flow(s),veh/h/ln	428	0	0	436	0	1585	1778	0	1585	1781	0	1853
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	6.5	13.6	0.0	10.4	6.5	0.0	8.7
Cycle Q Clear(g_c), s	35.5	0.0	0.0	35.5	0.0	6.5	23.4	0.0	10.4	6.5	0.0	8.7
Prop In Lane	0.18		0.50	0.87		1.00	0.10		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	216	0	0	247	0	625	726	0	608	298	0	937
V/C Ratio(X)	0.54	0.00	0.00	1.16	0.00	0.27	0.73	0.00	0.41	1.14	0.00	0.32
Avail Cap(c_a), veh/h	216	0	0	247	0	625	726	0	608	298	0	937
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	0.0	32.6	0.0	18.5	24.1	0.0	20.3	26.2	0.0	13.2
Incr Delay (d2), s/veh	2.7	0.0	0.0	108.6	0.0	0.2	6.5	0.0	2.1	95.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	12.9	0.0	0.0	10.7	0.0	4.1	11.3	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	0.0	0.0	141.2	0.0	18.7	30.6	0.0	22.4	121.3	0.0	14.1
LnGrp LOS	C	A	A	F	A	B	C	A	C	F	A	B
Approach Vol, veh/h		117			457			782			643	
Approach Delay, s/veh		24.4			95.7			28.0			70.8	
Approach LOS		C			F			C			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.0	39.0		40.0		50.0		40.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	6.5	34.5		35.5		45.5		35.5				
Max Q Clear Time (g_c+I1), s	8.5	25.4		37.5		10.7		37.5				
Green Ext Time (p_c), s	0.0	3.1		0.0		2.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay			57.0
HCM 6th LOS			E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	30	85	10	30	15	70	450	15	10	355	200
Future Volume (veh/h)	275	30	85	10	30	15	70	450	15	10	355	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	299	33	92	11	33	16	76	489	16	11	386	217
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	494	123	343	422	335	163	115	796	26	25	440	248
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.06	0.44	0.44	0.01	0.39	0.39
Sat Flow, veh/h	1356	436	1216	1266	1190	577	1781	1801	59	1781	1124	632
Grp Volume(v), veh/h	299	0	125	11	0	49	76	0	505	11	0	603
Grp Sat Flow(s),veh/h/ln	1356	0	1652	1266	0	1767	1781	0	1860	1781	0	1757
Q Serve(g_s), s	10.8	0.0	3.0	0.4	0.0	1.1	2.1	0.0	10.7	0.3	0.0	16.4
Cycle Q Clear(g_c), s	11.8	0.0	3.0	3.4	0.0	1.1	2.1	0.0	10.7	0.3	0.0	16.4
Prop In Lane	1.00		0.74	1.00		0.33	1.00		0.03	1.00		0.36
Lane Grp Cap(c), veh/h	494	0	465	422	0	498	115	0	822	25	0	688
V/C Ratio(X)	0.60	0.00	0.27	0.03	0.00	0.10	0.66	0.00	0.61	0.44	0.00	0.88
Avail Cap(c_a), veh/h	589	0	580	510	0	621	176	0	845	173	0	795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	0.0	14.4	15.7	0.0	13.7	23.5	0.0	11.0	25.2	0.0	14.5
Incr Delay (d2), s/veh	1.3	0.0	0.3	0.0	0.0	0.1	6.4	0.0	1.3	11.5	0.0	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.0	0.1	0.0	0.4	1.0	0.0	3.8	0.2	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	14.7	15.7	0.0	13.7	30.0	0.0	12.3	36.6	0.0	24.3
LnGrp LOS	B	A	B	B	A	B	C	A	B	D	A	C
Approach Vol, veh/h		424			60			581			614	
Approach Delay, s/veh		17.9			14.1			14.6			24.5	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.2	27.3		19.0	7.8	24.7		19.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	23.4		18.1	5.1	23.3		18.1
Max Q Clear Time (g_c+I1), s	12.3	12.7		13.8	4.1	18.4		5.4
Green Ext Time (p_c), s	0.0	2.4		0.7	0.0	1.8		0.1

Intersection Summary			
HCM 6th Ctrl Delay			19.1
HCM 6th LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	990	25	350	1120	205	35	60	160	305	80	65
Future Volume (veh/h)	100	990	25	350	1120	205	35	60	160	305	80	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	1010	26	357	1143	209	36	61	163	196	242	66
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	1277	33	215	1136	507	590	620	525	281	296	250
Arrive On Green	0.05	0.25	0.25	0.12	0.32	0.32	0.33	0.33	0.33	0.16	0.16	0.16
Sat Flow, veh/h	1781	5119	132	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	102	671	365	357	1143	209	36	61	163	196	242	66
Grp Sat Flow(s),veh/h/ln	1781	1702	1847	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.5	23.7	23.7	15.5	41.0	13.3	1.8	2.9	9.8	13.4	16.1	4.7
Cycle Q Clear(g_c), s	6.5	23.7	23.7	15.5	41.0	13.3	1.8	2.9	9.8	13.4	16.1	4.7
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	849	461	215	1136	507	590	620	525	281	296	250
V/C Ratio(X)	1.13	0.79	0.79	1.66	1.01	0.41	0.06	0.10	0.31	0.70	0.82	0.26
Avail Cap(c_a), veh/h	90	849	461	215	1136	507	590	620	525	583	612	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	45.0	45.0	56.4	43.6	34.2	29.3	29.6	32.0	51.1	52.2	47.4
Incr Delay (d2), s/veh	134.1	5.1	9.1	316.1	28.2	0.5	0.2	0.3	1.5	3.1	5.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	10.6	12.0	25.9	22.3	5.2	0.8	1.4	4.0	6.2	8.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	195.0	50.1	54.1	372.4	71.9	34.7	29.5	30.0	33.5	54.2	57.8	48.0
LnGrp LOS	F	D	D	F	F	C	C	C	C	D	E	D
Approach Vol, veh/h		1138			1709			260			504	
Approach Delay, s/veh		64.4			130.1			32.1			55.1	
Approach LOS		E			F			C			E	

Timer - Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		47.0	20.0	36.5		24.8	11.0	45.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		42.5	15.5	32.0		42.0	6.5	41.0
Max Q Clear Time (g_c+I1), s		11.8	17.5	25.7		18.1	8.5	43.0
Green Ext Time (p_c), s		1.0	0.0	3.4		2.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	91.9
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	745	1250	140	65	100
Future Volume (veh/h)	80	745	1250	140	65	100
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	768	1289	144	67	103
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	131	2362	1558	173	213	190
Arrive On Green	0.07	0.66	0.48	0.48	0.12	0.12
Sat Flow, veh/h	1781	3647	3318	359	1781	1585
Grp Volume(v), veh/h	82	768	708	725	67	103
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1806	1781	1585
Q Serve(g_s), s	1.9	3.9	14.3	14.5	1.4	2.6
Cycle Q Clear(g_c), s	1.9	3.9	14.3	14.5	1.4	2.6
Prop In Lane	1.00			0.20	1.00	1.00
Lane Grp Cap(c), veh/h	131	2362	859	873	213	190
V/C Ratio(X)	0.63	0.33	0.82	0.83	0.31	0.54
Avail Cap(c_a), veh/h	235	2682	915	930	832	741
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	3.0	9.3	9.3	16.8	17.3
Incr Delay (d2), s/veh	4.8	0.1	5.9	6.1	0.8	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.5	5.1	5.3	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.6	3.1	15.2	15.4	17.6	19.7
LnGrp LOS	C	A	B	B	B	B
Approach Vol, veh/h		850	1433		170	
Approach Delay, s/veh		5.1	15.3		18.9	
Approach LOS		A	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	32.2	9.5	7.6	24.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	19.5	5.5	21.5
Max Q Clear Time (g_c+I1), s	5.9	4.6	3.9	16.5
Green Ext Time (p_c), s	5.8	0.4	0.0	3.7

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	310	250	110	380	465	220	805	295	235	580	80
Future Volume (veh/h)	60	310	250	110	380	465	220	805	295	235	580	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	337	272	120	413	505	239	875	321	255	630	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	623	528	234	623	528	277	1233	550	294	1117	154
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.16	0.35	0.35	0.16	0.36	0.36
Sat Flow, veh/h	609	1870	1585	812	1870	1585	1781	3554	1585	1781	3137	432
Grp Volume(v), veh/h	65	337	272	120	413	505	239	875	321	255	356	361
Grp Sat Flow(s),veh/h/ln	609	1870	1585	812	1870	1585	1781	1777	1585	1781	1777	1793
Q Serve(g_s), s	8.9	12.8	12.0	12.3	16.5	27.1	11.4	18.6	14.4	12.1	14.1	14.1
Cycle Q Clear(g_c), s	25.4	12.8	12.0	25.0	16.5	27.1	11.4	18.6	14.4	12.1	14.1	14.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	170	623	528	234	623	528	277	1233	550	294	633	638
V/C Ratio(X)	0.38	0.54	0.52	0.51	0.66	0.96	0.86	0.71	0.58	0.87	0.56	0.56
Avail Cap(c_a), veh/h	170	623	528	234	623	528	338	1233	550	358	633	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	23.6	23.4	33.8	24.8	28.4	35.8	24.6	23.3	35.4	22.6	22.6
Incr Delay (d2), s/veh	1.4	0.9	0.9	1.9	2.6	28.4	17.2	3.5	4.5	17.1	3.6	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.6	4.5	2.5	7.5	14.0	6.2	8.1	5.9	6.5	6.3	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	24.6	24.2	35.7	27.5	56.9	53.0	28.1	27.8	52.6	26.2	26.2
LnGrp LOS	D	C	C	D	C	E	D	C	C	D	C	C
Approach Vol, veh/h		674			1038			1435			972	
Approach Delay, s/veh		25.6			42.7			32.2			33.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.9	34.7		33.5	18.1	35.5		33.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	17.5	30.0		29.0	16.5	31.0		29.0
Max Q Clear Time (g_c+I1), s	14.1	20.6		27.4	13.4	16.1		29.1
Green Ext Time (p_c), s	0.2	4.9		0.6	0.2	4.0		0.0

Intersection Summary			
HCM 6th Ctrl Delay			34.0
HCM 6th LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	1055	170	75	1255	895	295	555	80	455	310	115
Future Volume (veh/h)	185	1055	170	75	1255	895	295	555	80	455	310	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	191	1088	175	77	1294	923	304	572	82	469	320	119
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	1122	501	91	1140	713	360	1105	158	446	709	674
Arrive On Green	0.05	0.32	0.32	0.05	0.32	0.32	0.10	0.35	0.35	0.13	0.38	0.38
Sat Flow, veh/h	3456	3554	1585	1781	3554	1585	3456	3121	446	3456	1870	1585
Grp Volume(v), veh/h	191	1088	175	77	1294	923	304	325	329	469	320	119
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1781	1777	1585	1728	1777	1790	1728	1870	1585
Q Serve(g_s), s	5.5	36.2	10.2	5.1	38.5	38.5	10.4	17.4	17.4	15.5	15.4	5.6
Cycle Q Clear(g_c), s	5.5	36.2	10.2	5.1	38.5	38.5	10.4	17.4	17.4	15.5	15.4	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	158	1122	501	91	1140	713	360	629	634	446	709	674
V/C Ratio(X)	1.21	0.97	0.35	0.85	1.13	1.29	0.85	0.52	0.52	1.05	0.45	0.18
Avail Cap(c_a), veh/h	158	1122	501	91	1140	713	386	629	634	446	709	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	40.5	31.6	56.5	40.8	33.0	52.8	30.6	30.7	52.3	27.9	21.4
Incr Delay (d2), s/veh	137.5	19.8	0.4	49.7	71.9	142.6	15.0	3.0	3.0	56.5	2.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	18.7	4.0	3.6	28.0	48.3	5.2	7.9	8.0	10.2	7.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	194.8	60.3	32.0	106.2	112.7	175.6	67.8	33.6	33.7	108.8	30.0	22.0
LnGrp LOS	F	E	C	F	F	F	E	C	C	F	C	C
Approach Vol, veh/h		1454			2294			958			908	
Approach Delay, s/veh		74.6			137.8			44.5			69.6	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	47.0	10.6	42.4	17.0	50.0	10.0	43.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	42.5	6.1	37.9	13.4	44.6	5.5	38.5
Max Q Clear Time (g_c+I1), s	17.5	19.4	7.1	38.2	12.4	17.4	7.5	40.5
Green Ext Time (p_c), s	0.0	4.2	0.0	0.0	0.1	2.4	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		94.5
HCM 6th LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	40	55	85	120	85	90	730	75	50	395	140
Future Volume (veh/h)	125	40	55	85	120	85	90	730	75	50	395	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	41	57	88	124	88	93	753	77	52	407	144
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	475	403	446	259	184	126	816	691	90	778	659
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.07	0.44	0.44	0.05	0.42	0.42
Sat Flow, veh/h	1170	1870	1585	1297	1018	722	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	129	41	57	88	0	212	93	753	77	52	407	144
Grp Sat Flow(s),veh/h/ln	1170	1870	1585	1297	0	1740	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.5	0.9	1.5	2.9	0.0	5.4	2.7	19.8	1.5	1.5	8.5	3.0
Cycle Q Clear(g_c), s	10.9	0.9	1.5	3.8	0.0	5.4	2.7	19.8	1.5	1.5	8.5	3.0
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	475	403	446	0	442	126	816	691	90	778	659
V/C Ratio(X)	0.41	0.09	0.14	0.20	0.00	0.48	0.74	0.92	0.11	0.58	0.52	0.22
Avail Cap(c_a), veh/h	421	646	547	565	0	601	243	843	715	171	778	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	14.8	15.0	16.3	0.0	16.5	23.7	13.9	8.7	24.2	11.4	9.8
Incr Delay (d2), s/veh	0.9	0.1	0.2	0.2	0.0	0.8	8.0	15.3	0.1	5.7	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.3	0.5	0.8	0.0	2.0	1.3	10.1	0.4	0.7	3.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	14.9	15.2	16.5	0.0	17.3	31.7	29.2	8.8	29.8	12.0	9.9
LnGrp LOS	C	B	B	B	A	B	C	C	A	C	B	A
Approach Vol, veh/h		227			300			923			603	
Approach Delay, s/veh		19.0			17.1			27.7			13.0	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.1	27.2		17.7	8.2	26.2		17.7
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.0	23.5		18.0	7.1	21.4		18.0
Max Q Clear Time (g_c+I1), s	3.5	21.8		12.9	4.7	10.5		7.4
Green Ext Time (p_c), s	0.0	0.9		0.4	0.0	2.3		1.1

Intersection Summary		
HCM 6th Ctrl Delay		20.9
HCM 6th LOS		C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	85	715	1380	905	480	85
Future Volume (veh/h)	85	715	1380	905	480	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	737	1423	933	495	88
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	114	2261	1843	822	886	406
Arrive On Green	0.06	0.64	0.52	0.52	0.26	0.26
Sat Flow, veh/h	1781	3647	3647	1585	3456	1585
Grp Volume(v), veh/h	88	737	1423	933	495	88
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1728	1585
Q Serve(g_s), s	4.1	8.0	27.0	43.5	10.4	3.7
Cycle Q Clear(g_c), s	4.1	8.0	27.0	43.5	10.4	3.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	114	2261	1843	822	886	406
V/C Ratio(X)	0.77	0.33	0.77	1.13	0.56	0.22
Avail Cap(c_a), veh/h	244	2521	1843	822	886	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	7.0	16.2	20.2	27.1	24.5
Incr Delay (d2), s/veh	10.5	0.1	2.1	75.5	2.5	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.6	10.4	31.5	4.5	3.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.2	7.1	18.3	95.6	29.6	25.8
LnGrp LOS	D	A	B	F	C	C
Approach Vol, veh/h		825	2356		583	
Approach Delay, s/veh		11.6	48.9		29.0	
Approach LOS		B	D		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	57.9	26.0	9.9	48.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	59.5	21.5	11.5	43.5
Max Q Clear Time (g_c+I1), s	10.0	12.4	6.1	45.5
Green Ext Time (p_c), s	6.2	1.5	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1500	280	145	2040	15	270	10	165	85	30	50
Future Volume (veh/h)	25	1500	280	145	2040	15	270	10	165	85	30	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	1531	286	148	2082	15	276	10	168	87	31	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	1883	585	197	2057	638	1136	615	521	100	36	59
Arrive On Green	0.02	0.37	0.37	0.06	0.40	0.40	0.33	0.33	0.33	0.11	0.11	0.11
Sat Flow, veh/h	1781	5106	1585	3456	5106	1585	3456	1870	1585	891	318	523
Grp Volume(v), veh/h	26	1531	286	148	2082	15	276	10	168	169	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1702	1585	1728	1870	1585	1732	0	0
Q Serve(g_s), s	2.0	36.6	18.8	5.7	54.5	0.8	7.9	0.5	10.8	13.0	0.0	0.0
Cycle Q Clear(g_c), s	2.0	36.6	18.8	5.7	54.5	0.8	7.9	0.5	10.8	13.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	0.51		0.30
Lane Grp Cap(c), veh/h	41	1883	585	197	2057	638	1136	615	521	194	0	0
V/C Ratio(X)	0.63	0.81	0.49	0.75	1.01	0.02	0.24	0.02	0.32	0.87	0.00	0.00
Avail Cap(c_a), veh/h	66	1925	597	217	2057	638	1136	615	521	230	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	65.5	38.5	32.9	62.9	40.4	24.4	33.1	30.6	34.1	59.1	0.0	0.0
Incr Delay (d2), s/veh	15.0	2.7	0.6	12.5	22.9	0.0	0.5	0.0	1.6	25.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	15.7	7.4	2.9	26.8	0.3	3.4	0.2	4.4	7.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.5	41.2	33.5	75.3	63.3	24.4	33.6	30.7	35.7	84.2	0.0	0.0
LnGrp LOS	F	D	C	E	F	C	C	C	D	F	A	A
Approach Vol, veh/h		1843			2245			454			169	
Approach Delay, s/veh		40.6			63.9			34.3			84.2	
Approach LOS		D			E			C			F	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		49.0	12.2	54.4		19.7	7.6	59.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		44.5	8.5	51.0		18.0	5.0	54.5				
Max Q Clear Time (g_c+I1), s		12.8	7.7	38.6		15.0	4.0	56.5				
Green Ext Time (p_c), s		1.6	0.0	8.8		0.2	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			52.6									
HCM 6th LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	945	185	625	1330	345	445	0	800	255	0	210
Future Volume (vph)	105	945	185	625	1330	345	445	0	800	255	0	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97		0.88	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	3433	3539	1583	3433		2787	1770		1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (perm)	1770	3539	1583	3433	3539	1583	3433		2787	1770		1583
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	108	974	191	644	1371	356	459	0	825	263	0	216
RTOR Reduction (vph)	0	0	104	0	0	154	0	0	0	0	0	121
Lane Group Flow (vph)	108	974	87	644	1371	202	459	0	825	263	0	95
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8							
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	6.5	23.9	23.9	19.1	36.5	36.5	33.5		33.5	33.5		33.5
Effective Green, g (s)	6.5	23.9	23.9	19.1	36.5	36.5	33.5		33.5	33.5		33.5
Actuated g/C Ratio	0.07	0.27	0.27	0.21	0.41	0.41	0.37		0.37	0.37		0.37
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	127	939	420	728	1435	641	1277		1037	658		589
v/s Ratio Prot	0.06	0.28		c0.19	c0.39							
v/s Ratio Perm			0.06			0.13	0.13		c0.30	0.15		0.06
v/c Ratio	0.85	1.04	0.21	0.88	0.96	0.32	0.36		0.80	0.40		0.16
Uniform Delay, d1	41.3	33.0	25.7	34.4	26.0	18.2	20.5		25.2	20.8		18.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2	38.8	39.5	0.2	12.4	14.4	0.3	0.8		6.3	1.8		0.6
Delay (s)	80.1	72.5	25.9	46.8	40.4	18.5	21.3		31.5	22.6		19.5
Level of Service	F	E	C	D	D	B	C		C	C		B
Approach Delay (s)		66.2			38.8			27.9			21.2	
Approach LOS		E			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	41.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	915	275	0	5	415	475	5	5	10	145	5	980
Future Volume (veh/h)	915	275	0	5	415	475	5	5	10	145	5	980
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	943	284	0	5	428	490	5	5	10	149	5	1010
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	894	983	0	11	511	433	65	69	103	341	11	599
Arrive On Green	0.26	0.53	0.00	0.01	0.27	0.27	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	3456	1870	0	1781	1870	1585	91	182	274	778	28	1585
Grp Volume(v), veh/h	943	284	0	5	428	490	20	0	0	154	0	1010
Grp Sat Flow(s),veh/h/ln	1728	1870	0	1781	1870	1585	548	0	0	806	0	1585
Q Serve(g_s), s	38.8	12.7	0.0	0.4	32.3	41.0	0.6	0.0	0.0	0.8	0.0	56.7
Cycle Q Clear(g_c), s	38.8	12.7	0.0	0.4	32.3	41.0	38.6	0.0	0.0	38.7	0.0	56.7
Prop In Lane	1.00		0.00	1.00		1.00	0.25		0.50	0.97		1.00
Lane Grp Cap(c), veh/h	894	983	0	11	511	433	237	0	0	352	0	599
V/C Ratio(X)	1.05	0.29	0.00	0.45	0.84	1.13	0.08	0.00	0.00	0.44	0.00	1.69
Avail Cap(c_a), veh/h	894	983	0	59	511	433	237	0	0	352	0	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	19.9	0.0	74.3	51.4	54.5	32.8	0.0	0.0	41.6	0.0	46.7
Incr Delay (d2), s/veh	45.7	0.2	0.0	25.6	11.6	84.1	0.7	0.0	0.0	3.9	0.0	315.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.5	5.7	0.0	0.3	16.8	26.4	0.5	0.0	0.0	5.5	0.0	74.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.3	20.1	0.0	99.9	63.0	138.6	33.5	0.0	0.0	45.5	0.0	362.4
LnGrp LOS	F	C	A	F	E	F	C	A	A	D	A	F
Approach Vol, veh/h		1227			923			20			1164	
Approach Delay, s/veh		82.5			103.3			33.5			320.5	
Approach LOS		F			F			C			F	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	61.2	5.4	83.4		61.2	43.3	45.5
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s	56.7	5.0	74.8		56.7	38.8	41.0
Max Q Clear Time (g_c+I1), s	40.6	2.4	14.7		58.7	40.8	43.0
Green Ext Time (p_c), s	0.0	0.0	1.9		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	171.1
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	30	0	290	165	455	0	0	390	355
Future Volume (veh/h)	0	0	0	30	0	290	165	455	0	0	390	355
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				0	0	357	183	506	0	0	433	394
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				0	348	589	479	2038	0	0	1019	909
Arrive On Green				0.00	0.00	0.19	0.57	0.57	0.00	0.00	0.57	0.57
Sat Flow, veh/h				0	1870	3170	663	3647	0	0	1870	1585
Grp Volume(v), veh/h				0	0	357	183	506	0	0	433	394
Grp Sat Flow(s),veh/h/ln				0	1870	1585	663	1777	0	0	1777	1585
Q Serve(g_s), s				0.0	0.0	3.9	8.1	2.6	0.0	0.0	5.1	5.3
Cycle Q Clear(g_c), s				0.0	0.0	3.9	13.4	2.6	0.0	0.0	5.1	5.3
Prop In Lane				0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	348	589	479	2038	0	0	1019	909
V/C Ratio(X)				0.00	0.00	0.61	0.38	0.25	0.00	0.00	0.43	0.43
Avail Cap(c_a), veh/h				0	1075	1823	1154	5655	0	0	2827	2522
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				0.0	0.0	14.0	8.3	4.0	0.0	0.0	4.5	4.5
Incr Delay (d2), s/veh				0.0	0.0	1.0	0.5	0.1	0.0	0.0	0.3	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	1.2	0.8	0.5	0.0	0.0	1.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	15.0	8.8	4.0	0.0	0.0	4.8	4.9
LnGrp LOS				A	A	B	A	A	A	A	A	A
Approach Vol, veh/h					357			689			827	
Approach Delay, s/veh					15.0			5.3			4.8	
Approach LOS					B			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		25.9				25.9		11.5				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		59.5				59.5		21.5				
Max Q Clear Time (g_c+I1), s		15.4				7.3		5.9				
Green Ext Time (p_c), s		6.1				6.8		1.3				

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	445	400	0	0	10	210	0	0	0	220	0	195
Future Volume (vph)	445	400	0	0	10	210	0	0	0	220	0	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5	4.5				4.5		4.5
Lane Util. Factor	0.95	0.95			1.00	1.00				1.00		1.00
Frt	1.00	1.00			1.00	0.85				1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00				0.95		1.00
Satd. Flow (prot)	1681	1761			1863	1583				1770		1583
Flt Permitted	0.95	1.00			1.00	1.00				0.95		1.00
Satd. Flow (perm)	1681	1761			1863	1583				1770		1583
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	500	449	0	0	11	236	0	0	0	247	0	219
RTOR Reduction (vph)	0	0	0	0	0	207	0	0	0	0	0	166
Lane Group Flow (vph)	450	499	0	0	11	29	0	0	0	247	0	53
Turn Type	Split	NA			NA	Perm				Perm		Perm
Protected Phases	4	4			8							
Permitted Phases						8				6		6
Actuated Green, G (s)	24.8	24.8			7.5	7.5				14.5		14.5
Effective Green, g (s)	24.8	24.8			7.5	7.5				14.5		14.5
Actuated g/C Ratio	0.41	0.41			0.12	0.12				0.24		0.24
Clearance Time (s)	4.5	4.5			4.5	4.5				4.5		4.5
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0		3.0
Lane Grp Cap (vph)	691	724			231	196				425		380
v/s Ratio Prot	0.27	c0.28			0.01							
v/s Ratio Perm						c0.02				c0.14		0.03
v/c Ratio	0.65	0.69			0.05	0.15				0.58		0.14
Uniform Delay, d1	14.3	14.6			23.3	23.6				20.2		18.0
Progression Factor	1.00	1.00			1.00	1.00				1.00		1.00
Incremental Delay, d2	2.2	2.7			0.1	0.4				2.0		0.2
Delay (s)	16.5	17.3			23.3	23.9				22.2		18.2
Level of Service	B	B			C	C				C		B
Approach Delay (s)		16.9			23.9			0.0			20.3	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	60.3	Sum of lost time (s)	13.5
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	890	660	55	1270	0	0	0	0	30	0	955
Future Volume (vph)	0	890	660	55	1270	0	0	0	0	30	0	955
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0	4.5	4.5					4.5		4.0
Lane Util. Factor		0.91	0.91	1.00	1.00					1.00		1.00
Frt		0.97	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3303	1441	1770	1863					1770		1583
Flt Permitted		1.00	1.00	0.23	1.00					0.95		1.00
Satd. Flow (perm)		3303	1441	424	1863					1770		1583
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	927	688	57	1323	0	0	0	0	31	0	995
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1108	495	57	1323	0	0	0	0	31	0	995
Turn Type		NA	Free	Perm	NA					Perm		Free
Protected Phases		4			8							
Permitted Phases			Free	8						6		Free
Actuated Green, G (s)		62.5	78.4	62.5	62.5					6.9		78.4
Effective Green, g (s)		62.5	78.4	62.5	62.5					6.9		78.4
Actuated g/C Ratio		0.80	1.00	0.80	0.80					0.09		1.00
Clearance Time (s)		4.5		4.5	4.5					4.5		
Vehicle Extension (s)		3.0		3.0	3.0					3.0		
Lane Grp Cap (vph)		2633	1441	338	1485					155		1583
v/s Ratio Prot		0.34			c0.71							
v/s Ratio Perm			0.34	0.13						0.02		c0.63
v/c Ratio		0.42	0.34	0.17	0.89					0.20		0.63
Uniform Delay, d1		2.4	0.0	1.9	5.6					33.2		0.0
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		0.1	0.7	0.2	7.1					0.6		1.9
Delay (s)		2.5	0.7	2.1	12.7					33.8		1.9
Level of Service		A	A	A	B					C		A
Approach Delay (s)		2.0			12.2			0.0			2.9	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	78.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	25	900	35	80	0	1245	0	10	0	0	0
Future Volume (vph)	0	25	900	35	80	0	1245	0	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5		4.5		4.5			
Lane Util. Factor		0.95	0.88		1.00		0.97		1.00			
Frt		1.00	0.85		1.00		1.00		0.85			
Flt Protected		1.00	1.00		0.98		0.95		1.00			
Satd. Flow (prot)		3539	2787		1835		3433		1583			
Flt Permitted		1.00	1.00		0.89		0.95		1.00			
Satd. Flow (perm)		3539	2787		1652		3433		1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	26	947	37	84	0	1311	0	11	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	4	0	0	0
Lane Group Flow (vph)	0	26	947	0	121	0	1311	0	7	0	0	0
Turn Type		NA	Free	Perm	NA		Perm		Perm			
Protected Phases		4			8							
Permitted Phases			Free	8			2		2			
Actuated Green, G (s)		7.7	46.4		7.7		29.7		29.7			
Effective Green, g (s)		7.7	46.4		7.7		29.7		29.7			
Actuated g/C Ratio		0.17	1.00		0.17		0.64		0.64			
Clearance Time (s)		4.5			4.5		4.5		4.5			
Vehicle Extension (s)		3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)		587	2787		274		2197		1013			
v/s Ratio Prot		0.01										
v/s Ratio Perm			c0.34		0.07		c0.38		0.00			
v/c Ratio		0.04	0.34		0.44		0.60		0.01			
Uniform Delay, d1		16.3	0.0		17.4		4.9		3.0			
Progression Factor		1.00	1.00		1.00		1.00		1.00			
Incremental Delay, d2		0.0	0.3		1.1		0.4		0.0			
Delay (s)		16.3	0.3		18.6		5.3		3.0			
Level of Service		B	A		B		A		A			
Approach Delay (s)		0.8			18.6			5.3			0.0	
Approach LOS		A			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	46.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1255	345	0	1500	210	0	0	0	180	0	720
Future Volume (vph)	0	1255	345	0	1500	210	0	0	0	180	0	720
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5	4.0				4.5		4.5
Lane Util. Factor		0.91	1.00		0.95	1.00				1.00		1.00
Frt		1.00	0.85		1.00	0.85				1.00		0.85
Flt Protected		1.00	1.00		1.00	1.00				0.95		1.00
Satd. Flow (prot)		5085	1583		3539	1583				1770		1583
Flt Permitted		1.00	1.00		1.00	1.00				0.95		1.00
Satd. Flow (perm)		5085	1583		3539	1583				1770		1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1394	383	0	1667	233	0	0	0	200	0	800
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	10
Lane Group Flow (vph)	0	1394	383	0	1667	233	0	0	0	200	0	790
Turn Type		NA	Free		NA	Free				Perm		Perm
Protected Phases		4			8							
Permitted Phases			Free			Free				6		6
Actuated Green, G (s)		39.9	90.0		39.9	90.0				41.1		41.1
Effective Green, g (s)		39.9	90.0		39.9	90.0				41.1		41.1
Actuated g/C Ratio		0.44	1.00		0.44	1.00				0.46		0.46
Clearance Time (s)		4.5			4.5					4.5		4.5
Vehicle Extension (s)		3.0			3.0					3.0		3.0
Lane Grp Cap (vph)		2254	1583		1568	1583				808		722
v/s Ratio Prot		0.27			c0.47							
v/s Ratio Perm			0.24			0.15				0.11		c0.50
v/c Ratio		0.62	0.24		1.06	0.15				0.25		1.09
Uniform Delay, d1		19.2	0.0		25.1	0.0				15.0		24.4
Progression Factor		1.00	1.00		1.00	1.00				1.00		1.00
Incremental Delay, d2		0.5	0.4		41.6	0.2				0.2		62.2
Delay (s)		19.7	0.4		66.7	0.2				15.1		86.7
Level of Service		B	A		E	A				B		F
Approach Delay (s)		15.6			58.5			0.0			72.4	
Approach LOS		B			E			A			E	

Intersection Summary			
HCM 2000 Control Delay	45.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1240	260	0	1005	80	760	0	615	0	0	0
Future Volume (veh/h)	0	1240	260	0	1005	80	760	0	615	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	1363	0	0	1104	0	756	111	676			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2			
Cap, veh/h	0	1325		0	1325		934	120	730			
Arrive On Green	0.00	0.37	0.00	0.00	0.37	0.00	0.52	0.52	0.52			
Sat Flow, veh/h	0	3647	1585	0	3647	1585	1781	228	1391			
Grp Volume(v), veh/h	0	1363	0	0	1104	0	756	0	787			
Grp Sat Flow(s),veh/h/ln	0	1777	1585	0	1777	1585	1781	0	1620			
Q Serve(g_s), s	0.0	32.7	0.0	0.0	24.8	0.0	30.7	0.0	39.4			
Cycle Q Clear(g_c), s	0.0	32.7	0.0	0.0	24.8	0.0	30.7	0.0	39.4			
Prop In Lane	0.00		1.00	0.00		1.00	1.00		0.86			
Lane Grp Cap(c), veh/h	0	1325		0	1325		934	0	850			
V/C Ratio(X)	0.00	1.03		0.00	0.83		0.81	0.00	0.93			
Avail Cap(c_a), veh/h	0	1325		0	1325		981	0	892			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	27.5	0.0	0.0	25.0	0.0	17.2	0.0	19.3			
Incr Delay (d2), s/veh	0.0	32.4	0.0	0.0	4.7	0.0	4.9	0.0	14.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	19.1	0.0	0.0	10.8	0.0	12.7	0.0	16.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	59.9	0.0	0.0	29.7	0.0	22.2	0.0	34.2			
LnGrp LOS	A	F		A	C		C	A	C			
Approach Vol, veh/h		1363	A		1104	A		1543				
Approach Delay, s/veh		59.9			29.7			28.3				
Approach LOS		E			C			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		50.5		37.2				37.2				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		48.3		32.7				32.7				
Max Q Clear Time (g_c+I1), s		41.4		34.7				26.8				
Green Ext Time (p_c), s		4.6		0.0				3.6				

Intersection Summary			
HCM 6th Ctrl Delay			39.4
HCM 6th LOS			D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX C – FUTURE YEAR 2050 WITH GPU VOLUMES

Future Year 2050 With GPU Project - AM Volumes

#	Intersection	Northbound			Southbound			Eastbound			Westbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Grimes Cyn Rd/Los Angeles Ave (SOI)	0	0	0	95	0	190	180	1,035	0	0	730	40
2	Grimes Cyn Rd/Championship Dr	0	45	45	25	135	0	0	0	0	140	0	40
3	Gabbert Rd/Poindexter Ave	5	60	185	75	160	0	0	0	0	250	0	20
4	Tierra Rejada Rd-Gabbert Rd/Los Angeles Ave	210	190	520	55	325	100	100	800	315	385	535	45
5	Mountain Trail St/Tierra Rejada Rd	80	20	220	150	40	155	85	750	55	140	525	80
6	Mountain Meadow Dr/Tierra Rejada Rd	40	40	60	120	20	45	140	950	30	25	620	160
7	Walnut Creek Rd/Tierra Rejada Rd	15	5	220	225	10	40	25	1,085	15	30	755	55
8	Walnut Cyn Rd/Championship Dr	100	245	0	0	740	5	15	0	155	0	0	0
9	Walnut Cyn Rd/Spring Rd	5	155	60	890	360	5	0	0	5	80	5	200
10	Walnut Cyn Rd/Meridian Hills Dr	245	55	0	0	240	185	170	0	160	0	0	0
11	Moorpark Ave/High St	20	250	250	235	605	15	10	20	20	140	15	250
12	Moorpark Ave/Poindexter Ave-1st St	85	270	5	15	375	360	200	30	80	5	60	20
13	Moorpark Ave/Los Angeles Ave	50	85	165	260	50	90	120	1,295	30	125	905	165
14	Peach Hill Rd/Tierra Rejada Rd	0	0	0	175	0	165	120	1,445	0	0	690	50
15	Spring Rd/High St-Princeton Ave	140	335	155	490	795	50	45	405	205	85	225	200
16	Spring Rd/Los Angeles Ave	205	370	120	795	620	115	140	1,210	230	80	795	330
17	Spring Rd/Peach Hill Rd	30	375	110	190	615	145	175	135	120	110	55	220
18	Spring Rd/Tierra Rejada Rd	0	0	0	925	0	85	130	1,515	0	0	655	385
19	Science Dr-Miller Pkwy/Los Angeles Ave	155	20	120	10	5	20	105	1,885	355	110	1,215	80
20	Miller Pkwy-Moorpark Rd/Tierra Rejada Rd	170	0	520	255	5	135	125	1,445	630	730	730	150
21	Moorpark Rd/Santa Rosa Rd (SOI)	5	5	10	435	5	875	775	480	5	5	150	120
22	Collins Dr/SR-118 WB Ramps	90	1,120	0	0	300	440	0	0	0	10	5	580
23	Collins Dr/SR-118 EB Ramps	0	0	0	60	0	245	910	85	0	0	25	310
24	SR-23 SB Ramps/Los Angeles Ave	0	0	0	35	0	860	0	1,040	780	5	665	0
25	SR-23 NB Ramps/Los Angeles Ave	665	0	30	0	0	0	0	50	1,025	5	15	0
26	SR-23 SB Ramps/Tierra Rejada Rd	0	0	0	60	0	375	5	1,360	770	0	1,050	555
27	SR-23 NB Ramps/Tierra Rejada Rd	345	0	355	0	0	0	0	695	545	0	1,330	110

Future Year 2050 With GPU Project - PM Volumes

#	Intersection	Northbound			Southbound			Eastbound			Westbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	Grimes Cyn Rd/Los Angeles Ave (SOI)	0	0	0	45	0	170	220	870	0	0	985	50
2	Grimes Cyn Rd/Championship Dr	0	160	95	80	25	0	0	0	0	155	0	10
3	Gabbert Rd/Poindexter Ave	0	150	160	35	55	0	0	0	0	215	0	80
4	Tierra Rejada Rd-Gabbert Rd/Los Angeles Ave	180	155	390	55	175	130	100	690	255	305	750	45
5	Mountain Trail St/Tierra Rejada Rd	60	15	105	40	20	65	85	520	55	240	630	50
6	Mountain Meadow Dr/Tierra Rejada Rd	35	5	40	70	5	25	20	580	40	90	890	80
7	Walnut Creek Rd/Tierra Rejada Rd	5	5	80	80	5	25	35	640	15	140	1,025	155
8	Walnut Cyn Rd/Championship Dr	155	895	0	0	330	20	10	0	110	0	0	0
9	Walnut Cyn Rd/Spring Rd	5	360	55	270	170	5	0	5	5	65	2	895
10	Walnut Cyn Rd/Meridian Hills Dr	90	195	0	0	45	180	175	0	75	0	0	0
11	Moorpark Ave/High St	50	450	235	320	270	15	20	35	55	235	35	160
12	Moorpark Ave/Poindexter Ave-1st St	70	450	15	10	355	200	275	30	85	10	30	15
13	Moorpark Ave/Los Angeles Ave	35	60	160	305	80	65	100	990	25	350	1,120	205
14	Peach Hill Rd/Tierra Rejada Rd	0	0	0	65	0	100	80	745	0	0	1,250	140
15	Spring Rd/High St-Princeton Ave	220	805	295	235	580	80	60	310	250	110	380	465
16	Spring Rd/Los Angeles Ave	295	555	80	455	310	115	185	1,055	170	75	1,255	895
17	Spring Rd/Peach Hill Rd	90	730	75	50	395	140	125	40	55	85	120	85
18	Spring Rd/Tierra Rejada Rd	0	0	0	480	0	85	85	715	0	0	1,380	905
19	Science Dr-Miller Pkwy/Los Angeles Ave	270	10	165	85	30	50	25	1,500	280	145	2,040	15
20	Miller Pkwy-Moorpark Rd/Tierra Rejada Rd	445	5	800	255	0	210	105	945	185	625	1,330	345
21	Moorpark Rd/Santa Rosa Rd (SOI)	5	5	10	145	5	980	915	275	0	5	415	475
22	Collins Dr/SR-118 WB Ramps	165	455	0	0	390	355	0	0	0	30	0	290
23	Collins Dr/SR-118 EB Ramps	0	0	0	220	0	195	445	400	0	0	10	210
24	SR-23 SB Ramps/Los Angeles Ave	5	0	0	30	0	955	0	890	660	55	1,270	0
25	SR-23 NB Ramps/Los Angeles Ave	1,245	0	10	0	0	0	0	25	900	35	80	0
26	SR-23 SB Ramps/Tierra Rejada Rd	0	0	0	180	0	720	0	1,255	345	5	1,500	210
27	SR-23 NB Ramps/Tierra Rejada Rd	760	0	615	0	0	0	0	1,240	260	0	1,005	80

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