AGENDA ITEM: IX-1

MILPITAS PLANNING COMMISSION
STAFF REPORT

September 10, 2025

APPLICATION:

NEW INDUSTRIAL BUILDING (WAREHOUSING AND DISTIRBUTION) – 1000 GIBRALTAR DR – P-SD24-0006, – P-EA24-0002, and P-TR25-0021: A request for a Site Development Permit, Environmental Assessment, and Tree Removal Permit to remove and replace 25-ordinance sized trees, demolish all existing structures on the site including four industrial/office buildings, surface parking lots, and associated improvements and develop a new, one-story, 487,564-square foot tilt-up concrete industrial building with office space and associated site improvements on an approximately 28.96-acre site in the M2 (Heavy Industrial) Zoning District located at 1000 Gibraltar Drive (also known as 1001 S. Milpitas Blvd.). The height of the new building will be approximately 46-feet and 6-inches above grade level (up to a maximum height of 49-feet and 6-inches to top of parapet). Proposed site improvements include new internal roadways, landscaping, offsite public improvements, and a new surface parking lot with 781 vehicle parking spaces, 50 oversized parking stalls for tractor-trailers, and 27 loading dock doors. As a Lead Agency, the City has prepared an Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (SCH No. 2020069024) in accordance with the California Environmental Quality Act (CEQA) Guidelines Sections 15162 and 15164.

RECOMMENDATION:

Staff recommends that the Planning Commission open and close the public hearing, consider the Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (SCH No. 2020069024) in accordance with CEQA Guidelines Sections 15162 and 15164, and adopt Resolution 25-012, approving Site Development Permit No. SD24-0006, Environmental Assessment No. 24-0002, and Tree Removal Permit No. 25-0021 subject to the findings and Conditions of Approval.

PROJECT LOCATION:

Addresses and Assessor's Parcel Number (APN): 1000 Gibraltar Drive (also known as 1001 S. Milpitas Blvd.) / (086-42-033)

Area of City: West of South Milpitas Boulevard, North and East of Gibraltar Dr.

PEOPLE:

Project Applicant on behalf of Property Owner: Steve Beauchamp and Todd Chandler
Panattoni Development Company, Sacramento, CA

Consultant(s):	Architect: Stantec, Irvine, CA Civil Engineer: Kier + Wright, Livermore, CA Landscape Architect: Green Design Landscape Architects, Inc., Reno, NV
Project Planner:	Kristina Phung, AICP, Senior Planner

LAND USE:

General Plan Designation:	Manufacturing (MFG)
Zoning District:	Heavy Industrial (M2)

ENVIRONMENTAL: An Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (FEIR) (State Clearinghouse No. 2020069024), approved by the Planning Commission on March 24, 2021 (Resolution No. 21-007), has been prepared pursuant to CEQA Guidelines Section 15162 and 15164. The Addendum finds that the impacts of the proposed Project remain consistent with the impacts previously analyzed in the certified FEIR, and no further environmental analysis pursuant to CEQA is required.

EXECUTIVE SUMMARY

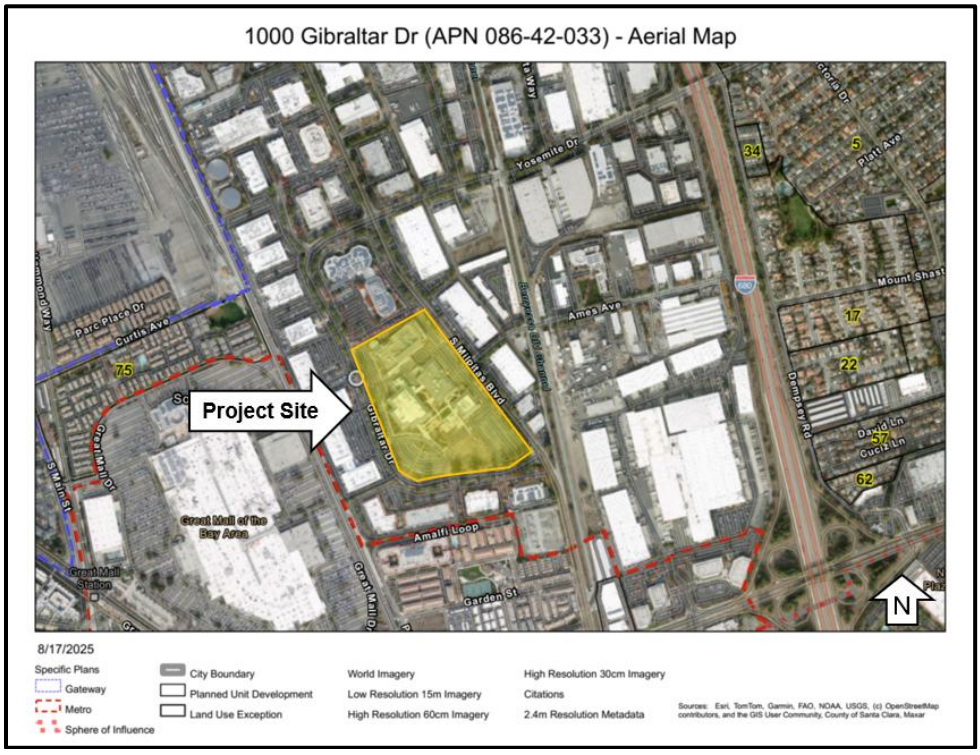
The Applicant, Panattoni Development Company, on behalf of the current property owner, requests Planning Commission approval of the following planning entitlements to apply for building permits to demolish all existing onsite buildings, parking lots, and associated structures to develop a new, 487,564-square foot tilt-up concrete industrial building with associated site improvements for one tenant at 1000 Gibraltar Drive (also known as 1001 S. Milpitas Blvd) (APN: 086-42-033) (the "Project"). The following is a summary of the Applicant's request:

- Site Development Permit (P-SD24-0006): Develop a new, one-story, 487,564-square foot tilt-up concrete industrial building with office space and associated site improvements on an approximately 28.96-acre site in the M2 (Heavy Industrial) Zoning District located at 1000 Gibraltar Drive (also known as 1001 S. Milpitas Blvd.). The height of the new building will be approximately 46-feet and 6-inches above grade level (up to a maximum height of 49-feet and 6-inches to top of parapet). Proposed site improvements include new internal roadways, landscaping, offsite public improvements, and a new surface parking lot with 781 vehicle parking spaces, 50 oversized parking stalls for tractor-trailers, and 27 loading dock doors; and
- Environmental Assessment (P-EA24-0002): Consider an Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (State Clearinghouse No. 2020069024) ("Addendum"); and
- Tree Removal Permit (P-TR25-0021): To remove 25-ordinance sized trees pursuant to Section X-2-4.02 of the Milpitas Municipal Code.

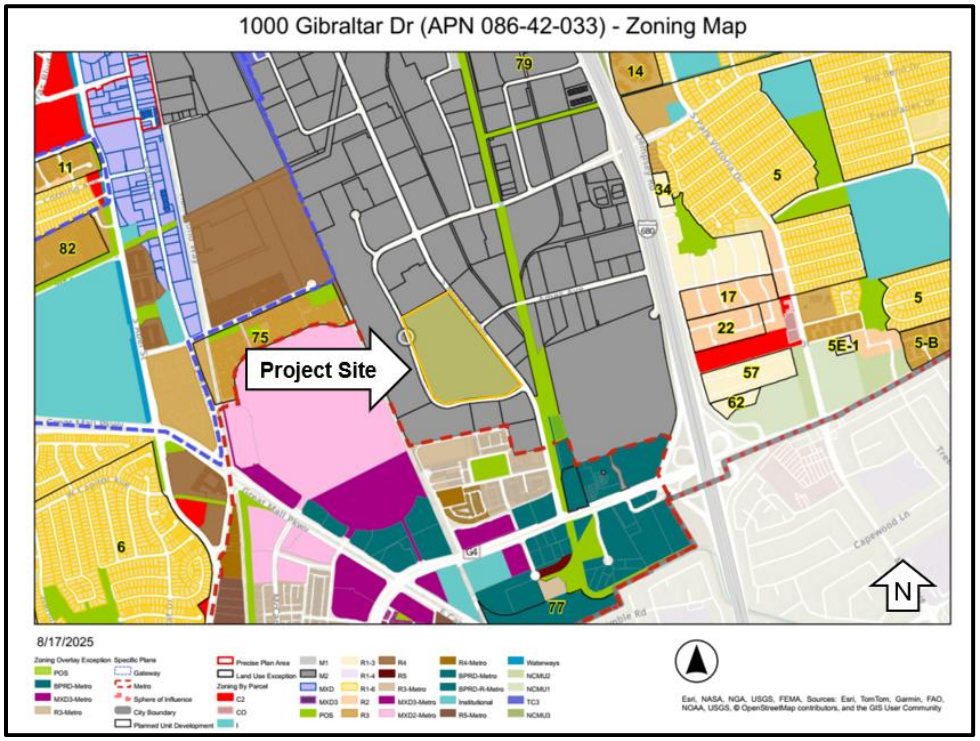
Staff has found that the required entitlements comply with the policies, standards, and processes outlined in the City of Milpitas 2040 General Plan, the Zoning Ordinance, and other provisions of the Milpitas Municipal Code (MMC). Staff recommends that the Planning Commission conduct a

public hearing and adopt Resolution No. 25-012, approving Site Development Permit No. SD24-0006, Environmental Assessment No. EA24-0002, and Tree Removal Permit No. TR25-0021 subject to the findings and attached Conditions of Approval.

Map 1: Project Site with Aerial View



Map 2: Project Site with Zoning Map



BACKGROUND

History

The Project site was historically used as a corporate campus with four existing industrial/office buildings, totaling approximately 397,009-square feet with surface parking lots, ancillary structures, and associated landscaping. Lifescan, Inc., a research and development company specializing in medical devices, was the longest operator of the site until operations ceased in 2015. Lifescan, Inc. acquired the property in 1986 with two existing buildings developed on the site, circa 1980. The third and fourth buildings on the site include a 144,000-square foot research and development building constructed in 1990, and a 125,000-square foot office building constructed in 1996. Subsequent improvements included a building expansion, equipment enclosure, and parking lot alterations.

The City of Milpitas (City) building permit records show minimal and short-term activity with no major long-term tenants on the site between 2015 and ending in late 2017, including minor interior tenant improvements and mechanical/electrical work for two different industrial companies. Overall, the Project site has been vacant since 2018.

Previous Project Iteration - Expired Planning Entitlements on March 21, 2024

On March 24, 2021, the Planning Commission adopted Resolution No. 21-006 and 21-007, approving a Site Development Permit (P-SD19-0008), Tree Removal Permit (P-TR19-0007), and Environmental Assessment (P-EA20-0004) to remove and replace 88 ordinance-size trees with approximately 215 new trees, demolish existing onsite buildings, surface parking lots, and associated improvements, and construct a new 491,040 square-foot tilt-up concrete distribution center with office space, new surface parking lots, and associated site improvements at the Project site. For the environmental assessment, the City as Lead Agency, prepared an Environmental Impact Report (SCH #2020069024) in accordance with the California Environmental Quality Act (CEQA), pursuant to Public Resources Code Sections 21080(d) and 21082.2(d) and CEQA Guidelines Section 15064, that was certified by the Planning Commission on the same date.

After the prior Project entitlements were approved, the former applicant (Overton Moore Properties "OMP"), on behalf of the former property owner (CTC Property, LLC), sold the existing entitlements and Project site to a new property owner. In May 2022, the City received an application for a time extension (P-TE22-0003) pursuant to MMC Section XI-10-64.06, Expiration of Permit or Approvals, for the prior entitlements to allow more time to conduct due diligence regarding the potential business use at the site and did not anticipate obtaining the necessary building permits to vest the planning entitlements before expiring on March 21, 2023. Subsequently, the Planning Commission approved the time extension request on June 22, 2022, to extend the prior entitlements until March 21, 2024.

The prior application was submitted before the global COVID-19 pandemic began and received approval of its entitlements in the midst of the pandemic during unstable market conditions and at a time when costs to construct and finance the development were at its peak. As a result, the potential development was put on hold until speculative market conditions improved, and the prior entitlements were not vested before the extended expiration date. As market conditions began to improve over time, the current property owner wanted to use a new applicant team to propose a similar but modified warehouse and distribution center designed more as a "last mile" facility for one tenant instead of the previous "cross-docking" speculative design for up to two tenants. The

modified Project proposal is summarized above in the Executive Summary and is detailed in the remainder of the staff report.

PROJECT DESCRIPTION

Overview of Proposed Project's Planning Entitlements

On September 19, 2024, Panattoni Development Company (Applicant), submitted a development application for a Site Development Permit, Environmental Assessment, and Tree Removal Permit to demolish all existing onsite buildings, representing 397,009-square feet of industrial/office space, parking lots, and associated improvements, to construct a new, single-story industrial concrete tilt up building, totaling 487,564-square feet in size, with associated site improvements including new internal roadways and surface parking lots, landscaping, and offsite public improvements on a trapezoidal shaped lot located at 1000 Gibraltar Drive, also known as 1001 South Milpitas Boulevard.

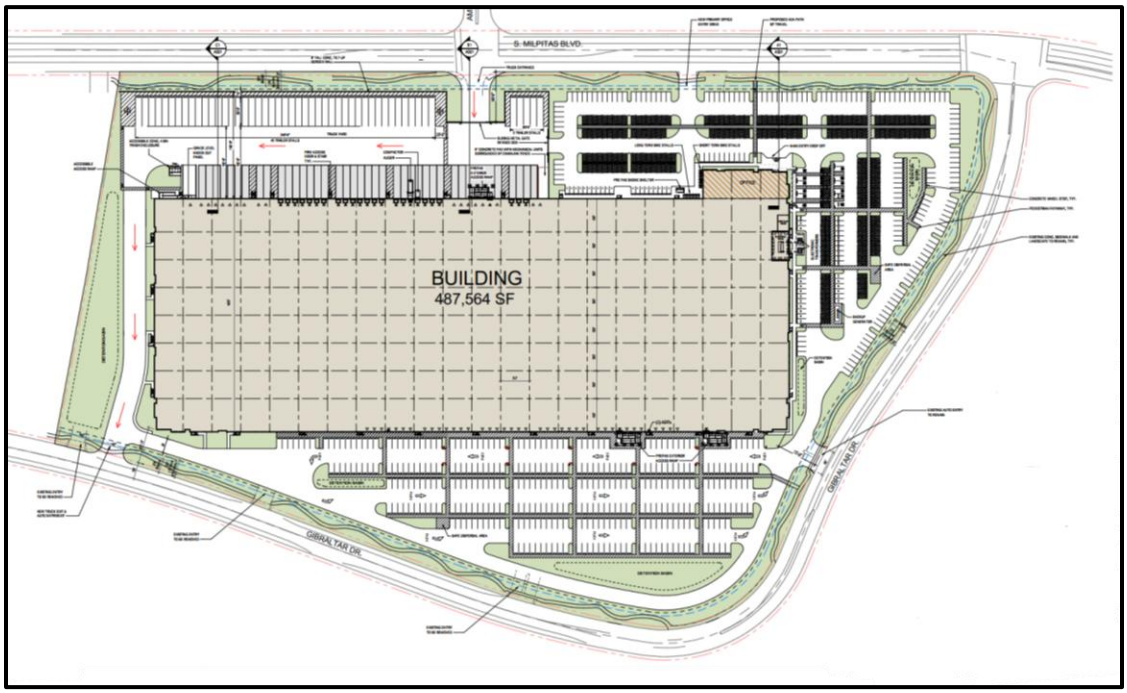
The application is submitted pursuant to Milpitas Municipal Code (MMC) Section XI-10-57.03(C), which requires Planning Commission approval for new main buildings. Additionally, although the Heavy Industrial (M2) Zoning District per MMC XI-10.7.03 does not have a maximum building height, the Planning Commission must make a finding that prior to construction of any structure that exceeds 35-feet in height, that such excess height will not be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated.

The proposed rectangular-shaped warehouse building will consist of approximately 476,864-square feet of warehouse space and 10,700-square feet of office space located in the southeast corner of the building. The Project includes 27 loading dock doors, 50 oversized trailer parking stalls, 781 vehicle parking stalls, a backup generator, and new stormwater detention basins. The height of the new building will be approximately 46-feet and 6-inches above grade level, up to a maximum height of 49-feet and 6-inches to top of parapet. The Applicant has indicated the Project is designed as a built-to-suit for a major web-based retail tenant with a 36-foot-tall clear vertical height inside the warehouse. The primary proposed use for the new building will be warehousing and distribution, a permitted by right use in the M2 Zoning District and is intended to accommodate one tenant with office space supporting the Project's primary operations.

The Project's new landscaping improvements are proposed around the perimeter of the lot and within portions of the new surface parking lot with new grasses, shrubs, perennials, and trees. Additionally, new stormwater detention basins will be constructed on the site. The Tree Removal Permit proposes to remove 25[1]-ordinance sized trees and will meet the minimum 2:1 required planting ratio by adding approximately 234 new trees to the site, in addition to retaining 58 existing trees, bringing the new onsite tree total to approximately 292. Sheets LC1.1 and LC1.2 of the Project Plans (Attachment B) shows details of the proposed landscaping plans.
Figure 1 shows the proposed Project's site plan, and additional specific details of the proposed site and architectural design, access and circulation, and more are discussed under the Project Analysis section.

[1] Per the City's Tree Removal Ordinance per MMC Sec. X-2-7.01 on developed industrial property, a protected tree is designated as one that has thirty-seven-inch (37"), or greater circumference of its trunk measured 4 1/2 feet from the ground. The Project considers the total count for the Tree Removal Permit to remove a total of 25-ordinance sized trees to retroactively account for seven ordinance sized trees removed without a permit between certification of the previous FEIR and the proposed Project's proposal to remove eighteen (18) additional ordinance sized trees.

Figure 1: Proposed Project Site Plan



Location and Context

The Project site is located within the south-central portion of the City, bounded by South Milpitas Boulevard to the east, Gibraltar Drive to the south and west, and by a multi-tenant office building to the north on a 29.86-acre trapezoidal-shaped lot in the Heavy Industrial (M2) Zoning District. The site is surrounded by a mix of one- and two- story industrial and commercial office buildings. Map 1 shows an aerial view of the area and Map 2 shows the existing zoning around the Project site, and Table 1 summarizes the General Plan land use designations and zoning for the Project site and surrounding area.

Table 1: Surrounding Zoning and Land Uses

	General Plan	Zoning	Uses
Subject Site	Manufacturing (MFG)	Heavy Industrial (M2)	Vacant; Industrial/Commercial Corporate Office Campus
North	Manufacturing (MFG)	Heavy Industrial (M2)	Multi-Tenant Industrial/Commercial Office Building
South	Manufacturing (MFG)	Heavy Industrial (M2)	Gibraltar Dr.; Industrial/Commercial Office Building
East	Manufacturing (MFG)	Heavy Industrial (M2)	S. Milpitas Blvd.; Industrial/Commercial Office Buildings

West	Manufacturing (MFG)	Heavy Industrial (M2)	Gibraltar Dr.; Industrial/Commercial Office Building

PROJECT ANALYSIS

General Plan and Zoning Ordinance Conformance

Milpitas 2040 General Plan

The City's 2040 General Plan land use designation for the Project site is Manufacturing (MFG). The General Plan details the goals, objectives, and policies for the City's Manufacturing land use designation, which encompasses a variety of light and heavy industrial activities, such as manufacturing, packaging, processing, warehousing and distribution, and ancillary support uses at a Floor Area Ratio (FAR) up to 1.0. The proposed Project is in conformance with the applicable policies and standards in the City's General Plan, as outlined in Table 2:

Table 2: General Plan Consistency

Policy	Consistency Finding
ED 1-3: Strengthen the City's position as a premier regional location for high-tech industrial and advanced manufacturing uses in Silicon Valley.	**Consistent:** The City embarked on a multi-year process to update the City's General Plan in 2016, which included several consultant-prepared studies including economic development projections, which at the time saw increasing potential growth of attracting new high-tech industrial and advanced manufacturing uses in the City. The previously approved project was submitted before the unprecedented global COVID-19 pandemic and was approved in the midst of the pandemic in March 2021, at a time of uncertain economic conditions and high construction costs. As such, construction of the previous project became financially infeasible, resulting in expired entitlements. As economic conditions began to improve over time, renewed interest in redeveloping this subject lot with a modified Project proposal ensued. Approval of the proposed Project would attract an established web-based retail tenant or similar prospective tenants to invest in the site and City as a viable "last mile" warehousing and distribution facility and ensure the lot remains as an industrial use and strengthens the City's position as a premier regional location in Silicon Valley. The Project site is also strategically located near major freeways

	and the Applicant has strategically modified the Project's surface parking lot design from the previously approved entitlements for efficiency, including separating locations for access and circulation for trucks, employee/visitor vehicles, and flex delivery parking in designated areas of the surface parking lot with gates separating internal access into the truck yard area.
ED 1-5: Make Milpitas a more predictable place for companies to do business by reducing impediments to growth and actively planning to provide adequate space for companies to meet long-term growth needs.	**Consistent:** The proposed Project's new concrete tilt up industrial warehouse building and site planning was carefully modified from the expired entitlements to plan for the future growth of a web-based retail tenant to meet long-term growth needs and add an employment center with local job opportunities. The Addendum prepared to the 1000 Gibraltar Drive Final Environmental Impact Report estimates the Project to generate an average of 363 employees, which also accounts for seasonal fluctuations. The large 28.96-acre site has been vacant and underutilized since 2018, and the City's General Plan 2040 prioritizes the maintenance of its industrial lands with active uses and tenants that are consistent the intent of the Manufacturing land use designation. Additionally, the City's Office of Economic Development provided a letter of support for the Project (Attachment C).
LU 7-3: Encourage the development of new industrial, manufacturing, and business park areas and the redevelopment of existing older or marginal areas with new similar uses, especially those in locations which facilitate efficient multi-modal commute patterns. Use available public financing to provide necessary infrastructure improvements to encourage economic development and revitalization.	**Consistent:** The redevelopment of the existing, outdated, and underutilized site will lead to a new state-of-the-art modern industrial warehousing building with careful site planning, such as locating all oversized trucks and trailers in the parking lot to be separated by different entry points with two protective gates, while ensuring adequate parking, access and circulation remains for other passenger vehicle types with new improved pedestrian walkways. Through these ongoing coordination efforts with City staff, the Applicant has agreed to several off-street public improvements including but not limited to pavement restoration along portions of Gibraltar Drive

	and S. Milpitas Blvd., sidewalk replacements along perimeter of the lot to meet ADA requirements, and operational upgrades to traffic signals at the S. Milpitas Blvd./Ames Avenue and Gibraltar Drive intersections. The improvements will be coordinated by the City's Engineering Division with the Applicant and are included as Conditions of Approval (Exhibit 1 to Resolution 25-012).
CD 1-2: *Encourage infill development projects to accommodate contemporary uses and design and planning approaches and requirements in manner that minimizes conflicts with the surrounding existing development.*	**Consistent:** This infill Project will accommodate a new warehouse/distribution building to serve the needs of a contemporary business that would be constructed with a modern design to replace a dilapidated corporate industrial office campus site that was constructed over 45 years ago around 1980. The Project site is surrounded by a mix of other commercial, office, manufacturing, and industrial uses and the Project will retain its industrial land use. Therefore, the proposed Project will not create a conflict with the surrounding development and will add to the diversity of contemporary building types in the area.

Zoning Ordinance

The zoning designation for the Project site is Heavy Industrial (M2), defined by the Zoning Ordinance per MMC Section XI-10-7.01 as reserved for the construction, use, and occupancy of buildings and facilities for office, research, general manufacturing, warehousing and distribution and other uses compatible with the district. The proposed Project will construct a facility for warehousing and distribution, which is a permitted by right use, and will be designed as a last mile facility. The Project is consistent with the City's development standards for the M2 Zoning District, as outlined in Table 3.

Table 3: Heavy Industrial (M2) Zoning District Development Standards Conformance

Standards	M2 Requirements	Proposed	Complies
Front Setback (Min.)	35 feet from face of curb	65 feet, 9 inches	Yes
Street Side Setback (Min.)	35 feet from face of curb	73 feet	Yes
Rear Setback (Min.)	None	217 feet	Yes

Standards	M2 Requirements	Proposed	Complies
Floor Area Ratio (FAR)	1.0	0.387	Yes
Landscaping	Required front yard area and required side yard area	New landscaped areas within required front yard and side yard areas	Yes
Parking	Office: 1 per 350 sq. ft. Warehouse:1 per 1,500 sq. ft. 349 stalls required	781 stalls	Yes
Building Height (Max.)	None. However, prior to construction of any structure that exceeds three (3) stories or thirty-five (35) feet in height, the Planning Commission must make a finding as stated in the Complies column	46 feet, 6 inches; up to 49 feet, 6 inches to top of parapet	Yes, if the Planning Commission makes the following finding: That any such excess height will not be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated.

Proposed Project Details

Specific details about the proposed Project are provided below to aid the Planning Commission in making its decision:

Site & Architectural Design

The Applicant has maintained a similar modern and contemporary design concept from the previously entitled/expired project iteration, which will improve the architectural design on the site when compared to the existing onsite buildings. Figure 2 shows a partial ground level view from the parking lot of the existing vacant one- to two-story industrial/office buildings with an outdated architectural style constructed around 1980. Although the Project will be one-story tall overall, the exterior façade of the Project includes three, two-story glass corners including a prominent main entry for the office as seen from S. Milpitas Bouevard and surrounding site vantage points while the bulk of the structure is offset by various façade movement and vertical undulation (Figure 3). Clearstory glazing occurs frequently on the exterior façade between the building corners to allow for ample natural light into the building. Concrete panel elements are used as accent pieces and multi-colored paint patterning breaks down the scale of the concrete tilt-up walls on all elevations of the building.

The proposed Project's façade includes a total of four different paint colors including three contrasting gray shades and one blue accent shade. Two different glass materials would be included, providing contrasting glazing colors as a darker color (spandrel glass) and a lighter color (vision glass), adding additional visual appeal to the warehouse building. Additional elevation drawings are provided in Sheets A301 and A302 of the Project Plans (Attachment B). Figures 4

and 5 provide realistic renderings of the proposed Project's design and massing. Overall, the proposed Project incorporates high-quality site planning, materials, and building design so the Project meets the intent of the General Plan goals and policies and the development standards of the M2 Zoning District.

Figure 2: Partial View of Existing Onsite Buildings



Figure 3: Enlarged North Elevation View from S. Milpitas Blvd.

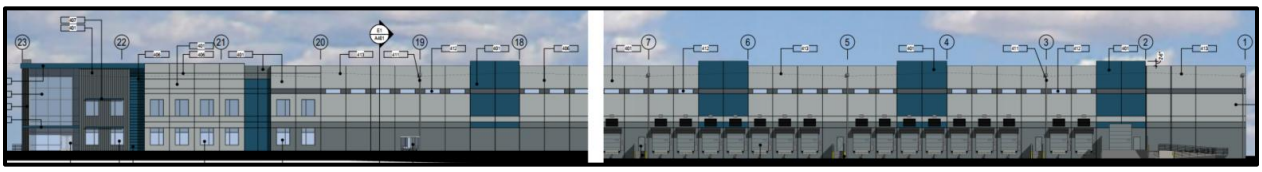


Figure 4: Southwest Corner Exterior Façade Rendering View from S. Milpitas Blvd.



Figure 5: Aerial Rendering View of Truck Yard from S. Milpitas Blvd.



Access, Circulation, and Parking

The access and circulation for the Project has been designed to ensure the safe and efficient movement of cars and trucks throughout the site, including designated areas for trucks, employee/visitor parking, and flex delivery drivers. Construction of the Project would involve modifying seven existing driveways/curb cuts into four and include new surface parking lots. A total of four driveways ranging in widths of 30- to 50-feet would be provided along South Milpitas Boulevard and Gibraltar Drive, with two at each street frontage.

On Gibraltar Drive, the existing 45-foot driveway along the southern property line will remain, two existing driveways along the western property line will be removed, and an existing driveway entry along the northwest corner of the lot will be removed and relocated slightly south with a new 40-foot-wide driveway to accommodate the new truck exit route and automobile ingress and egress. On South Milpitas Boulevard, the existing 50-foot-wide driveway along the intersection of Ames Avenue and South Milpitas Boulevard will remain for truck route entry, and a new 26-foot-wide driveway will be constructed south of the truck access entry as the primary driveway entrance for staff and visitors to park by the office.

To ensure the safe access and circulation of the oversized trucks, a designated one-way entry and exit route has been designed as part of the Project. The trucks are proposed to enter at the South Milpitas Boulevard and Ames Avenue intersection and travel north to either use loading truck docks or oversized trailer parking. To exit, they would travel west along the northern side of the lot on a new one-way internal driveway path to exit onto Gibraltar Drive. The northwestern portion of the parking lot is designed to be limited to the larger trucks and will be protected by immediate entry from passenger vehicles with the installation of two new sliding metal gates with Knox boxes, one located at the driveway entrance of South Milpitas Boulevard and Ames Avenue, with the second gate proposed south of the end of the designated truck parking and loading area. No other internal driveways would be gated. Additionally, the truck parking area would be screened along the South Milpitas Boulevard frontage with a new 8-foot-tall concrete tilt up screen wall.

Employee and visitor parking wraps around the southeast corner of the lot to be located adjacent to the office entry. Additionally, flex delivery parking stalls are allocated to the western elevation of the building. Figure 1 shows the site plan and the aforementioned designated areas for parking and circulation between the trucks including the truck access route shown with red arrows, employees/visitors, and flex delivery drivers.

The total floor area of the proposed building is 487,564-square feet, with 10,700-square feet of office space and 476,864-square feet of warehouse space. The City's Zoning Ordinance requires the following parking ratios:

- One parking space for every 350-square feet of office space; and
- One parking space for every 1500 square feet of warehouse space.

Therefore, the Project requires a minimum total of 318 parking stalls. However, the proposed Project is providing 781 surface parking stalls, resulting in a surplus of 463 parking stalls. Of these parking stalls, 90 stalls would be prepared as electric vehicle (EV) ready and 20 stalls as an Electric Vehicle Charging Station (EVCS). In addition, the Project includes 50 oversized trailer stalls, 27 loading docks, and 24 bicycle parking stalls (12 short-term, 12-long term) with the exterior of the building flexibly designed in consideration of future tenant needs with 55 knock out panels and one grade level knock out panel that could be converted into loading docks.

The City's Transportation and Traffic Engineering Division and the Fire Prevention Division staff reviewed the proposed site plan with its new circulation and ingress/egress routes to meet minimum requirements and have provided conditional approvals to the Project as included in Exhibit 1 of Attachment A.

Local Transportation Analysis (LTA) and Vehicle Miles Traveled (VMT) Analysis

In compliance with the City's Transportation Analysis Guidelines and CEQA Guidelines Section 15064.3(b), the proposed Project had an LTA and VMT analysis prepared by the traffic engineering and transportation firm, NV5, included as Appendix D to the Addendum as Appendices D.1 and D.2, respectively (Attachment G). The City's Traffic and Engineering staff reviewed the scope of work for the LTA report in compliance with the City's Transportation Analyses and closely coordinated with the Applicant and NV5.

The LTA and VMT reports confirm that the proposed Project aligns with the City's 2040 General Plan, Valley Transportation Authority (VTA) standards, and Plan Bay Area 2040, with no conflicts in circulation systems for vehicles, bicycles, pedestrians, or transit. The Project incorporates 24 bicycle parking spaces, ADA-compliant pedestrian connections, and is located in close proximity (0.4-miles away) to the Milpitas BART station and transit center to support multimodal access.

The LTA reviewed intersection level of service (LOS) and queuing at 12 study intersections and found all intersections to remain acceptable under existing (2024), near-term (2026), and horizon year (2040) conditions with minimal delay increases, that emergency access is maintained via the four driveways with adequate turning radii, with no identified no geometric design hazards.

The VMT analysis found that the VMT impacts are less than significant per CEQA Guidelines and City thresholds due to delivery efficiencies related to using the site for one tenant compared to the previous project's two tenants and via the implementation a Travel Demand Management (TDM) mitigation measure (MM TRANS-1) (Exhibit 3 of Attachment A), requiring an employee

commute trip reduction program. Overall and as further discussed in the Addendum to the 1000 Gibraltar Drive FEIR, the proposed Project will have no new or more severe identified VMT impacts compared to the previously entitled project.

Building Height

The Heavy Industrial (M2) Zoning District development standards do not prescribe a maximum building height. However, per MMC XI-10-7.03, prior to the construction of any structure that exceeds three (3) stories or thirty-five (35) feet in height in this zoning district, the Planning Commission must make the following finding: "That any such excess height will not be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated."

To assist the Planning Commission in making the finding, the following facts are provided:

- The previously approved project for a similar building required the same Planning Commission request for excess height and was proposed at a maximum height of 44-feet to the top of parapet with a 36-foot clear interior height. In comparison, the proposed Project also proposes the same internal height clearance, with a maximum building height to the top of the parapet at 49.5-feet to accommodate structural and roof elements.
    - The City's Planning Code per MMC XI-10-55.02(B), Structures Permitted Above Height Limit, allows exceptions to height as such roof structures housing elevators, stairways, tanks, ventilating fans or other similar equipment required to operate the building may be necessary, and as screened per MMC XI-10-54.16, Trash Enclosures, Equipment and their Screening. This section requires all rooftop equipment to be screened and not visible from any ground-level viewpoint such as the parking lot or public right of way. The Applicant has demonstrated compliance with this code section by including a line-of-sight study on Sheet A501 of the Project Plans (Attachment B), and allowing the Project's increased height to account for the parapet walls would allow for adequate rooftop equipment screening.

- The Applicant has indicated that industry standards for industrial warehouses now favor a minimum 36- to 40-foot-tall internal ceiling height for density and cost savings, as lower heights limit scalability and competitiveness. The additional height allowance would allow the warehouse to accommodate taller pallet racking (up to 6-7 levels vs. 5 at 32-35-feet of internal ceiling feet), increases storage capacity by 15-25% without expanding the footprint and allows more surface parking to be provided. Allowing the additional height also supports automated material handling equipment (e.g., forklifts reaching over 35-feet), fire suppression systems, and efficient vertical stacking for high-volume e-commerce/delivery operations.

- The proposed building will be centered towards the middle of the expansive 28.96-acre lot and surrounded by surface parking lots with new landscaping and tree improvements. The property only abuts one lot to the north, with the remainder of the property further substantially separated from any other adjacent lots with existing structures to the east, west, and south by two major arterial roadways, Gibraltar Drive and South Milpitas Boulevard. The surrounding lots also have one- to two-story industrial office/commercial buildings, with a majority of the neighboring buildings constructed closer to their rear property line with a larger portion of surface parking lot in the front, providing greater distance separation. Additionally, no existing residential development is immediately surrounding the subject property.

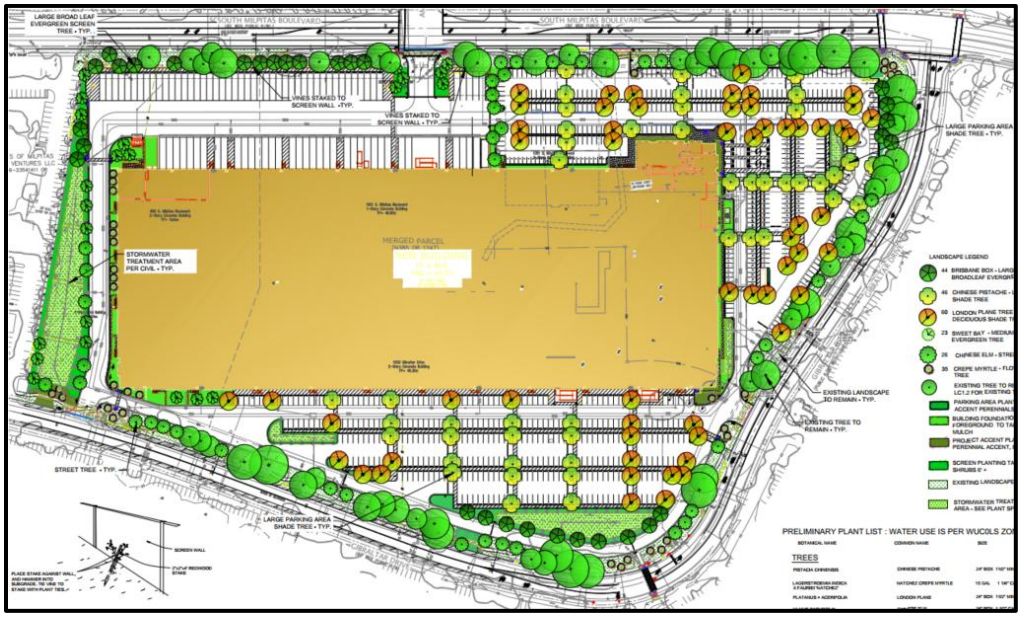
Figures 4 and 5 show renderings of the scale, bulk, and design of the Project relative to its surroundings and while considering all of the above facts, demonstrates that the Project's excess height request over 35-feet will not be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated.

Landscaping and Tree Removal Permit

The M2 Zoning District requires landscaping along the required front and street side yard areas of industrial projects. The proposed Project's landscaping plan as shown in Figure 6 is in compliance as it places heavy emphasis on a strong street frontage tree layout with new and existing trees and retains existing groundcover landscaping along the perimeter of the lot, as well as incorporates landscaping improvements at driveway and pedestrian entries. New groundcover and tree plantings are also proposed within parking areas of the new surface parking lot. Additionally, stormwater infrastructure, in the form of detention basins, would be incorporated into onsite landscaping and open space with larger basins located along the Project site's northern boundary and southwestern corner.

The proposed Project would remove 25 of the existing 98 onsite trees that classify as protected/ordinance sized trees under MMC Section X-2-7.01, but would include the planting of 234 new trees, exceeding the required tree replacement ratio of 2:1. The new planted trees would range in size from a minimum of 15 gallons or 24-inch box size. The Project would also retain approximately 58 existing tees along the perimeter of the lot, for a net total of approximately 292 trees. Overall, the Project will be increasing the urban canopy on this site from its existing condition. Refer to the landscaping sheets LC1.1 and LC1.2 of the Project Plans (Attachment B) for details.

Figure 6: Proposed Landscaping Plan



Lighting

The exterior lighting is required per MMC XI-10-54.17 to be shielded or recessed so that direct glare and reflections are contained within the boundaries of the parcel and directed downward

and away from adjoining properties and public rights-of-way, which is demonstrated on Sheets E101, E201, and E301 of the Project Plans (Attachment B).

Offsite Public Improvements

The City's Traffic and Engineering Division worked closely with the Applicant on required offsite public improvements to improve and maintain the surrounding transportation network as a result of construction and operation of the proposed Project. Details of the Project's required offsite public improvements are listed in the attached Conditions of Approval (Exhibit 1 of Attachment A). Some of the offsite public improvements include equipment upgrades to traffic signals at the South Milpitas Boulevard/Ames Avenue and South Milpitas Boulevard/Gibraltar Drive intersections, replacement of non-ADA compliant sidewalks along South Milpitas Boulevard and Gibraltar Drive to meet ADA requirements, replacement of existing curb ramps for ADA accessibility, and crosswalks/curb ramps at the northern/western leg of South Milpitas Boulevard/Ames Avenue, and replacement of curb ramps at the intersection of South Milpitas Boulevard/Gibraltar Drive with new sidewalks meeting the City's standard engineering requirements.

The Applicant will also provide improvements to the existing conditions of public roadways immediately surrounding the Project site. Pavement restoration efforts will include the installation of full street width concrete repairs and improvements on Gibraltar Drive and the intersection of Gibraltar Dr./South Milpitas Boulevard by including a 3-inch Asphalt Concrete (AC) grind and overlay (G&O) layer. Other pavement restoration efforts will include full street width crack and slurry seal on South Milpitas Blvd. along the Project site's frontage with base repairs as needed. Restriping of both South Milpitas Blvd. and Gibraltar Dr. will occur after pavement restoration efforts have been completed.

Utilities and Infrastructure

The proposed Project would connect to the City's existing utility and service systems and would include the construction of sanitary sewer lines that would connect to two existing sanitary sewer lines in South Milpitas Boulevard and Gibraltar Drive. Existing fire hydrants on South Milpitas Boulevard and Gibraltar Drive would serve the proposed Project. An existing fire hydrant on South Milpitas Boulevard would be relocated to the east to allow for driveway access. The proposed Project's new domestic water lines would connect to 8- to 14-inch water lines on South Milpitas Boulevard. Fire service water would be served to the Project site via connections in Gibraltar Drive. Electricity would be provided by Pacific, Gas, and Electric Company (PG&E), which currently serves the site.

Drainage

The proposed Project would construct new detention basins and storm drains that would connect to existing 15- to 18-inch storm drains on-site and on Gibraltar Drive. The proposed Project includes the construction of Low Impact Development (LID) stormwater management systems, including proposed bioretention treatment and pervious pavement (self-retaining) areas, which would allow stormwater runoff from the Project site to infiltrate the ground surface and would treat, as well as reduce runoff from the site. As shown in the proposed civil and landscaping plans, a combination of on-site bioretention basins and landscaping will be used to manage stormwater ran drainage on the Project site. All drainage facilities will comply with the C.3 design requirements of the Santa Clara Valley Urban Runoff Pollution Prevention Program and will be assessed by the City's Engineering Division in detail during the building permit review phase.

Development Fees

The Project is subject to the following impact fees and have been added as Conditions of Approval:

Public Art Fee
The Project will comply with the City's Public Art Requirements for Private Development, as set forth in MMC Section XI-10-14. This fee is currently set at one-half of one percent of building development costs. The proposed Project will pay the fee based on the construction valuation at the building permit issuance.

Non-Residential Affordable Housing Impact Fee
In accordance with MMC Sections XII-1-5.01 and XII-1-5.02, the Applicant is required to pay a non-residential affordable housing impact fee, which shall be paid prior to issuance of the building permit. This fee is subject to change and will be officially calculated during the building permit review process once the gross non-residential space is finalized and the building permit is close to approval.

Engineering Division Impact Fees
The Applicant will have to pay for any necessary utility connection fees as required by the City's Engineering Division and detailed in the attached Conditions of Approval as applicable, including but not limited to water, sewer, and wastewater treatment. The Applicant may also have to contribute to the Calaveras Boulevard Widening Traffic Impact Fee pursuant to Resolution No. 7894. The fee rates are subject to change and the exact fee amount is calculated at the time of building permit issuance. All fees must be paid prior to building permit issuance.

FINDINGS FOR APPROVAL

A finding is a statement of fact relating to the information that the Planning Commission has considered in making a decision. Findings shall identify the rationale behind the decision to take a certain action.

Site Development Permit
To approve the Site Development Permit for the new building, the following findings must be made pursuant to Milpitas Municipal Code Section XI-10-57.03(F)(1):

1. *The layout of the site and design of the proposed buildings, structures and landscaping are compatible and aesthetically harmonious with adjacent and surrounding development.*

   The proposed Project's architecture is reflective of a modern and 'Contemporary' architectural style that incorporates various wall planes and massing elements that adds interest to the proposed elevations and was modeled to be similar from the previously approved building. The high-quality architecture sets a new standard for future development in the heavy industrial zoned area. Although the proposed warehouse will be one-story tall, the proposed architectural design with alternating colors, delineations, and materials provides the illusion that the building could be more than one-story. The exterior façade of the Project includes three, two-story glass corners including the main office entry and surrounding site vantage points while the bulk of the structure is offset by various

façade elements including concrete panel accents and multi-colored paint patterns with three different shades of gray and a blue accent trim and two types of blue-glazed glass.

The proposed landscaping plan is compatible as it adds a variety of drought tolerant groundcovers and approximately 234 new trees, in addition to retaining approximately 58 existing trees along the perimeter of the site and will include modern stormwater bioretention areas. The proposed new surface parking lots will also be a substantial improvement from the existing unmaintained site with new striped parking stalls, EV ready and EV charging stalls, landscaping, and delineated areas for trucks, employee/visitor parking, and flex delivery drivers.

Generally, buildings surrounding the Project site vary in height. At a maximum height of 46.5-feet up to 49.5-feet to the top of parapet, the proposed building complements neighboring one- to two-story buildings that are also industrially zoned uses. The varying rooflines add to the building's aesthetic and the Applicant has provided line of sight studies in the proposed plan set to ensure that rooftop equipment is adequately screened by parapets from any ground or street level vantage point, as well as realistic renderings which demonstrate that the proposed Project will be compatible to the neighborhood in scale, bulk, and height and will be aesthetically harmonious with adjacent and surrounding development.

2. *The Project is consistent with the Milpitas Zoning Ordinance.*

The Project site is zoned M2 (Heavy Industrial). It is anticipated that the facility would operate as a warehousing and distribution center and is a permitted use per MMC Table XI-10-7.02-1 "Industrial Zone Uses". As demonstrated in Table 3, the Project complies with the required setbacks, number of parking spaces, landscaped area, and maximum floor area ratio. The proposed signage will be reviewed under a future separate permit.

Although the M2 Zoning District does not identify any maximum height limits, the construction of any new building greater than 35-feet in height requires the Planning Commission to make a finding that any such excess height will not be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated, pursuant to MMC XI-10-7.03. Given that heights of surrounding structures vary and there are sufficient setbacks between the proposed building and structures on adjacent parcels and the Project would be largely centered around the surface parking lot in a large 28.96-acre lot, the proposed height of the Project would not be detrimental to the light, air, or privacy of any other structure as further demonstrated by the renderings on Sheet A601 of the Project Plans (Attachment B).

Additionally, during the development review process, Planning staff asked the Applicant if it was feasible to reduce the maximum height of the building to 35-feet or below; however, the Applicant indicated that the proposed height is the minimum required height necessary for the feasibility of the development to occur and support the operations of the Project, provides more storage and shelfing capacity, and is the industry standard to include interior ceiling heights at a minimum of 36-40 feet. Considering all of the above and if the Planning Commission grants the excess height beyond 35-feet at approximately

46-feet and 6-inches (up to 49-feet and 9-inches to top of parapet) with an internal 36-foot clear ceiling height, the Project will be consistent with the Milpitas Zoning Code.

3. *The Project is consistent with the Milpitas General Plan.*

   The proposed Project is consistent with the Milpitas General Plan, as demonstrated and outlined in Table 2, and particularly Policy *ED 1-5*, which wants to make Milpitas a more predictable place for companies to do business by reducing impediments to growth and actively planning to provide adequate space for companies to provide long-term growth needs, and Policy LU 7-3, which encourages the development of new industrial areas and the redevelopment of existing older or marginal areas with new similar uses, especially those in locations which facilitate efficient multi-modal commute patterns. The proposed Project will be developed on an existing corporate industrial/office campus lot spawning 28.96-acres that has been underutilized and vacant since 2018 and is over 45 years old. The Project is also considered an infill development on previously developed land and will be served by existing utilities and will ensure the land continues to be used as an industrial use, providing a desired manufacturing land use as a warehousing and distribution center that is specifically listed in the General Plan's description for Manufacturing (MFG). The City's Office of Economic Development has also provided a letter of support. Furthermore, reinvestment into the Project site will help promote additional economic activity into the area and employment opportunities, as well as provide offsite public improvements that was coordinated closely with the Applicant and City's Engineering Division.

ENVIRONMENTAL REVIEW

The City as Lead Agency determined that pursuant to CEQA Guidelines Sections 15162 and 15164 (Addendum to an EIR or Negative Declaration), an Addendum to the 1000 Gibraltar Drive FEIR (SCH No. 2020069024) should be prepared for the proposed Project and was published on the City's website on September 5, 2025. Sections 1.2.1 (Findings) and 1.2.2 (Conclusions) of the Addendum finds that the impacts of the proposed Project remain consistent with the impacts previously analyzed in the certified 1000 Gibraltar Drive FEIR. The Addendum further concludes that proposed Project does not require any substantial revisions to the 1000 Gibraltar Drive FEIR, and that no new significant information or changes in circumstances surrounding the proposed Project have occurred since the certification of the 1000 Gibraltar Drive FEIR, and that no subsequent EIR is necessary.

As required by Public Resources Code Section 21081.6(a)(1), an updated Mitigation Monitoring and Reporting Program (MMRP), adapted from the FEIR, was prepared and requires the relevant applicable mitigation measures from the FEIR to apply to the Addendum. The Addendum and its MMRP included as Exhibits 2 and 3 of Attachment A: Resolution No. 25-012, and the supporting technical reports and information to the Addendum included as Attachments D-G to this staff report, demonstrates that the previous analysis completed for the 1000 Gibraltar Drive FEIR remains adequate under CEQA; therefore, no further environmental review is required.

PUBLIC COMMENT/OUTREACH

Staff provided public notice of the application in accordance with City and State public noticing requirements. A notice was published in the Milpitas Post on August 29, 2025. In addition, notices were sent to all owners and occupants within 300 feet of the Project site. A public notice was also

posted at the Project site, on the City's Website, www.milpitas.gov, and at City Hall. At the time of publishing this report, no public comments have been received.

RECOMMENDATION

Staff recommends that the Planning Commission:

1. Open the Public Hearing to receive comments; and
2. Close the Public Hearing; and
3. Determine that the Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (State Clearinghouse No. 2020069024) adequately analyzes the potential environmental impacts associated with the Project, and that the Addendum is in compliance pursuant to CEQA Guidelines §15162 and §15164; and
4. Adopt Resolution No. 25-012, recommending that the Planning Commission approve Site Development Permit No. SD24-0006, Environmental Assessment No. EA24-0002, and Tree Removal Permit No. TR25-0021, subject to the findings and attached Conditions of Approval.

ATTACHMENTS

A: Resolution No. 25-012, with:
Exhibit 1: Conditions of Approval;
Exhibit 2: Addendum to 1000 Gibraltar Drive FEIR; and
Exhibit 3: MMRP to the Addendum to 1000 Gibraltar Drive FEIR
B: Project Plans (dated August 8, 2025)
C: Project Letter of Support from the City’s Office of Economic Development
D: Appendix A to Addendum (AQ-GHG-Energy Supporting Reports)
E: Appendix B to Addendum (Biological Resources Supporting Reports)
F: Appendix C to Addendum (Cultural Resources Supporting Reports)
G: Appendix D to Addendum (Transportation Supporting Reports)

RESOLUTION NO. 25-012

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MILPITAS, APPROVING SITE DEVELOPMENT PERMIT NO. SD24-0006, ENVIRONMENTAL ASSESSMENT NO. EA24-0002, AND TREE REMOVAL PERMIT NO. TR25-0021, TO REMOVE AND REPLACE 25-ORDINANCE SIZED TREES, DEMOLISH ALL EXISTING STRUCTURES ON THE SITE INCLUDING FOUR INDUSTRIAL/OFFICE BUILDINGS, SURFACE PARKING LOTS, AND ASSOCIATED IMPROVEMENTS, AND DEVELOP A NEW, ONE-STORY, 487,564-SQUARE FOOT TILT-UP CONCRETE INDUSTRIAL BUILDING WITH OFFICE SPACE, SURFACE PARKING LOTS, 781 VEHICLE PARKING SPACES, 50 OVERSIZED TRUCK TRAILER PARKING SPACES, AND ASSOCIATED SITE IMPROVEMENTS ON AN APPROXIMATELY 28.96-ACRE SITE IN THE M2 (HEAVY INDUSTRIAL) ZONING DISTRICT LOCATED AT 1000 GIBRALTAR DRIVE (ALSO KNOWN AS 1001 S. MILPITAS BLVD.) (APN 086-42-033); AND ADOPT THE ADDENDUM TO THE 1000 GIBRALTAR DRIVE FINAL ENVIRONMENTAL IMPACT REPORT (SCH NO. 2020069024), MAKING CEQA FINDINGS PURSUANT TO CEQA GUIDELINES SECTION 15162 AND 15164.

WHEREAS, on March 24, 2021, by adoption of Resolution No. 21-006, the Planning Commission of the City of Milpitas approved to demolish existing onsite buildings, parking lots, and associated improvements and to remove and replace 88 ordinance-sized trees, construct a new, 491,040-square foot tilt-up concrete distribution center with office space, parking lots, 346 vehicle parking spaces, 101 truck trailer spaces, and associated site improvements located at 1000 Gibraltar Drive per Site Development Permit No. SD19-0008, Environmental Assessment EA20-0007, and Tree Removal Permit TR19-0007 (the "previous project"); and

WHEREAS, in order to evaluate the previous project under the California Environmental Quality Act ("CEQA," codified at Public Resources Code § 21000, *et seq*., as further governed by the CEQA Guidelines, found at 14 C.C.R. § 15000, *et seq*.), an environmental impact report was prepared (the Draft EIR, as revised by the Final EIR's errata section, together with the other sections of the Final EIR, are collectively referred to herein as the "1000 Gibraltar Drive FEIR," State Clearinghouse No. 2020069024) was certified on March 24, 2021, by the Planning Commission by adoption of Resolution No. 21-007 available for review at https://www.milpitas.gov/379/Environmental-Documents-CEQA; and

WHEREAS, on June 22, 2022, by adoption of Resolution No. 22-008, the Planning Commission of the City of Milpitas approved a time extension request per Time Extension No. TE22-0005 to extend the expiration date of the previous project's entitlements, Site Development Permit No. 19-0008 and Tree Removal Permit No. TR19-0007 to March 24, 2024. The approved project entitlements expired as the development did not vest the previous project per Milpitas Municipal Code Section XI-10-64.06, Expiration of Permit or Approvals, and was not constructed; and

WHEREAS, on November 25, 2024, Panattoni Development Company ("Applicant"), on behalf of the property owner, submitted an application to the City of Milpitas for the approvals

necessary for Site Development Permit SD24-0006, Environmental Assessment EA24-0002, and Tree Removal Permit TR25-0021. The proposed development (the "Project") is a similar but modified version of the previous project, thus consists of and requires:

a. *Site Development Permit (P-SD24-0002):* Develop a new, one-story, 487,564-square foot tilt-up concrete industrial building with office space and associated site improvements, including new internal roadways, landscaping, offsite public improvements, and a new surface parking lot with 781 vehicle parking spaces, 50 oversized parking stalls for tractor-trailers, and 27 loading dock doors; and

b. *Environmental Assessment (P-EA24-0002):* Consider an Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (State Clearinghouse No. 2020069024); and

c. *Tree Removal Permit (P-TR25-0021):* To remove 25-ordinance sized trees pursuant to Section X-2-4.02 of the Milpitas Municipal Code.

WHEREAS, Milpitas City Staff conducted a full analysis of the Project to ensure compliance with the City's General Plan, Zoning Ordinance, Engineering Design Requirements, Transportation Analysis Guidelines, and all other applicable laws, regulations and standards, as all further explained in detail in City staff's report to the Planning Commission; and

WHEREAS, the Planning Division completed an environmental impact assessment for the project in accordance with the California Environmental Quality Act ("CEQA") and prepared an Addendum to the 1000 Gibraltar Drive FEIR in accordance with CEQA, and State and local guidelines implementing CEQA; and

WHEREAS, the Addendum to the 1000 Gibraltar Drive FEIR concluded that impacts of the proposed Project are consistent with or less than the previous project and the environmental analysis conducted for the same;

WHEREAS, in connection with the approval of a project involving the preparation of an environmental impact report that identifies one or more significant effects, CEQA requires the decision-making body of the lead agency to incorporate feasible mitigation measures that would reduce those significant environment effects to less than significant level; and

WHEREAS, whenever a lead agency approves a project requiring the implementation of measures to mitigate or avoid significant effects on the environment, CEQA also requires a lead agency to adopt a Mitigation Monitoring and Reporting Program to ensure compliance with the mitigation measures during the project implementation; and

WHEREAS, the City of Milpitas is the lead agency, and the Milpitas Planning Commission is the decision-making body for the proposed Project; and

WHEREAS, the Milpitas Planning Commission reviewed and considered the Addendum to the 1000 Gibraltar Drive FEIR ("Addendum"), attached hereto and incorporated herein as

Exhibit 2, together with the Addendum's Mitigation Monitoring and Reporting Program for the Project, attached hereto and incorporated herein as **Exhibit 3**, and adopted the Addendum's Mitigation Monitoring and Reporting Program, as modified by this Resolution, to ensure the Project is in compliance with CEQA and State and local guidelines implementing CEQA at its meeting on September 10, 2025; and

WHEREAS, per 14 C.C.R. §§ 15162 and 15164, the Planning Commission hereby adopts the Addendum, together with its findings and conclusions that no supplemental or subsequent environmental review is required because: (a) no substantial changes are proposed in the Project which will require major revisions of the 1000 Gibraltar Drive FEIR; (b) no substantial changes have occurred with respect to the circumstances under which the Project is being undertaken which will require major revisions in the 1000 Gibraltar Drive FEIR; and (c) no new information which was not known and could not have been known at the time the 1000 Gibraltar Drive FEIR was certified has become available; and

WHEREAS, as separate and independent bases, the Planning Commission hereby finds and determines that the Project is exempt from further CEQA review pursuant to CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan, General Plan or Zoning); and

WHEREAS, the Planning Commission makes and accepts as its own the findings set forth in the resolution; and

WHEREAS, on September 10, 2025, the Planning Commission held a duly noticed public hearing on the subject application, at which all those in attendance were given the opportunity to speak on the Project; and

WHEREAS, the Planning Commission has considered all of the written and oral testimony presented at the public hearing in making its decision; and

NOW THEREFORE, the Planning Commission of the City of Milpitas hereby finds, determines and resolves as follows:

SECTION 1. Recitals

The Planning Commission has duly considered the full record before it, which may include but is not limited to such things as the City staff report, testimony by staff and the public, and other materials and evidence submitted or provided to the Planning Commission. Furthermore, the recitals set forth above are found to be true and correct and are incorporated herein by reference.

SECTION 2: Record

The location and custodian of the documents or other material which constitute the record of proceedings upon which this decision is based is within the Planning Department, City of Milpitas, 455 East Calaveras Boulevard, Milpitas, California 95035.

SECTION 3. CEQA Finding

An Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (FEIR) (SCH No. 2020069024) was published on September 5, 2025. The Addendum finds that the impacts of the proposed Project remain consistent or less than with the impacts previously analyzed in the certified 1000 Gibraltar Drive FEIR. The Addendum further concludes that proposed Project does not require any substantial revisions to the 1000 Gibraltar Drive FEIR, that no new significant information or changes in circumstances surrounding the proposed Project have occurred since the certification of the 1000 Gibraltar Drive FEIR, and that the previous analysis completed for the 1000 Gibraltar Drive FEIR remains adequate under CEQA. As further discussed in the Addendum, the Addendum's Mitigation Monitoring Reporting Program (MMRP) has been updated to identify the relevant mitigation measures applicable to the Project from the 1000 Gibraltar Drive FEIR's MMRP. The Planning Commission therefore finds that its actions are consistent with CEQA and CEQA Guidelines Sections 15162 and 15164, and that no additional environmental review is required. Therefore, the Planning Commission thereby approves and adopts this Addendum and its Mitigation Monitoring and Reporting Program, attached hereto and incorporated herein as **Exhibit 2** and **Exhibit 3**, respectively.

SECTION 4. Site Development Permit (MMC Section XI-10-57.03(F))

The Planning Commission makes the following findings based on the evidence in the public record in approving Site Development Permit No. SD24-0006:

1. *The layout of the site and design of the proposed buildings, structures and landscaping are compatible and aesthetically harmonious with adjacent and surrounding development.*

   The proposed Project's architecture is reflective of a modern and 'Contemporary' architectural style that incorporates various wall planes and massing elements that adds interest to the proposed elevations and was modeled to be similar from the previously approved building. The high-quality architecture sets a new standard for future development in the heavy industrial zoned area. Although the proposed warehouse will be one-story tall, the proposed architectural design with alternating colors, delineations, and materials provides the illusion that the building could be more than one-story. The exterior façade of the Project includes three, two-story glass corners including the main office entry and surrounding site vantage points while the bulk of the structure is offset by various façade elements including concrete panel accents and multi-colored paint patterns with three different shades of gray and a blue accent trim and two types of blue-glazed glass.

   The proposed landscaping plan is compatible as it adds a variety of drought tolerant groundcovers and approximately 234 new trees, in addition to retaining approximately 58 existing trees along the perimeter of the site and will include modern stormwater bioretention areas. The proposed new surface parking lots will also be a substantial improvement from the existing unmaintained site with new striped parking stalls, EV ready and EV charging stalls, landscaping, and delineated areas for trucks, employee/visitor parking, and flex delivery drivers.

Generally, buildings surrounding the Project site vary in height. At a maximum height of 46.5-feet up to 49.5-feet to the top of parapet, the proposed building complements neighboring one- to two-story buildings that are also industrially zoned uses. The varying rooflines add to the building's aesthetic and the Applicant has provided line of sight studies in the proposed plan set to ensure that rooftop equipment is adequately screened by parapets from any ground or street level vantage point, as well as realistic renderings which demonstrate that the proposed Project will be compatible to the neighborhood in scale, bulk, and height and will be aesthetically harmonious with adjacent and surrounding development.

2. *The Project is consistent with the Milpitas Zoning Ordinance.*

The Project site is zoned M2 (Heavy Industrial). It is anticipated that the facility would operate as a warehousing and distribution center and is a permitted use per MMC Table XI-10-7.02-1 "Industrial Zone Uses". As demonstrated in Table 1, the Project complies with the required setbacks, number of parking spaces, landscaped area, and maximum floor area ratio. The proposed signage will be reviewed under a future separate permit.

Although the M2 Zoning District does not identify any maximum height limits, the construction of any new building greater than 35-feet in height requires the Planning Commission to make a finding that any such excess height will not be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated, pursuant to MMC XI-10-7.03. Given that heights of surrounding structures vary and there are sufficient setbacks between the proposed building and structures on adjacent parcels and the Project would be largely centered around the surface parking lot in a large 28.96-acre lot, the proposed height of the Project would not be detrimental to the light, air, or privacy of any other structure as further demonstrated by the renderings on Sheet A601 of the proposed plans.

Additionally, during the development review process, Planning staff asked the Applicant if it was feasible to reduce the maximum height of the building to 35-feet or below; however, the Applicant indicated that the proposed height is the minimum required height necessary for the feasibility of the development to occur and support the operations of the Project, provides more storage and shelfing capacity, and is the industry standard to include interior ceiling heights at a minimum of 36-40 feet. Considering all of the above and if the Planning Commission grants the finding of excess height beyond 35-feet at approximately 46-feet and 6-inches (up to 49-feet and 9-inches to top of parapet) with an internal 36-foot clear ceiling height, the Project will be consistent with the Milpitas Zoning Code. The Planning Commission finding is included as **Section 5** of this Resolution

Table 1: Heavy Industrial (M2) Zoning District
Development Standards Conformance

Standards	M2 Requirements	Proposed	Complies

Front Setback (Min.)	35 feet from face of curb	65 feet, 9 inches	Yes
Street Side Setback (Min.)	35 feet from face of curb	73 feet	Yes
Rear Setback (Min.)	None	217 feet	Yes
Floor Area Ratio (FAR)	1.0	0.387	Yes
Landscaping	Required front yard area and required side yard area	New landscaped areas within required front yard and side yard areas	Yes
Parking	Office: 1 per 350 sq. ft. Warehouse:1 per 1,500 sq. ft. 349 stalls required	781 stalls	Yes
Building Height (Max.)	None. However, prior to construction of any structure that exceeds three (3) stories or thirty-five (35) feet in height, the Planning Commission must make a finding as stated in the Complies column	46 feet, 6 inches; up to 49 feet, 6 inches to top of parapet	Yes, if the Planning Commission makes the following finding: That any such excess height will not be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated. The Planning Commission finding is included as **Section 5** of this Resolution

3. The Project is consistent with the Milpitas General Plan.

The proposed Project is consistent with the Milpitas General Plan, as demonstrated and outlined in Table 2, and particularly Policy *ED 1-5*, which wants to make Milpitas a more predictable place for companies to do business by reducing impediments to growth and actively planning to provide adequate space for companies to provide long-term growth needs, and Policy LU 7-3, which encourages the development of new industrial areas and the redevelopment of existing older or marginal areas with new similar uses, especially those in locations which facilitate efficient multi-modal commute patterns. The proposed Project will be developed on an existing corporate industrial/office campus lot spawning 28.96-acres that has been underutilized and vacant since 2018 and is over 45 years old. The Project is also considered an infill development on previously developed land and will be

served by existing utilities and will ensure the land continues to be used as an industrial use, providing a desired manufacturing land use as a warehousing and distribution center that is specifically listed in the General Plan's description for Manufacturing (MFG). The City's Office of Economic Development has also provided a letter of support. Furthermore, reinvestment into the Project site will help promote additional economic activity into the area and employment opportunities, as well as provide offsite public improvements that was coordinated closely with the Applicant and City's Engineering Division.

Table 2: General Plan Consistency

Policy	Consistency Finding
ED 1-3: Strengthen the City's position as a premier regional location for high-tech industrial and advanced manufacturing uses in Silicon Valley.	**Consistent:** The City embarked on a multi-year process to update the City's General Plan in 2016, which included several consultant-prepared studies including economic development projections, which at the time saw increasing potential growth of attracting new high-tech industrial and advanced manufacturing uses in the City. The previously approved project was submitted before the unprecedented global COVID-19 pandemic and was approved in the midst of the pandemic in March 2021, at a time of uncertain economic conditions and high construction costs. As such, construction of the previous project became financially infeasible, resulting in expired entitlements. As economic conditions began to improve over time, renewed interest in redeveloping this subject lot with a modified Project proposal ensued. Approval of the proposed Project would attract an established web-based retail tenant or similar prospective tenants to invest in the site and City as a viable "last mile" warehousing and distribution facility and ensure the lot remains as an industrial use and strengthens the City's position as a premier regional location in Silicon Valley. The Project site is also strategically located near major freeways and the Applicant has strategically modified the Project's surface parking lot

Policy	Consistency Finding
	design from the previously approved entitlements for efficiency, including separating locations for access and circulation for trucks, employee/visitor vehicles, and flex delivery parking in designated areas of the surface parking lot with gates separating internal access into the truck yard area.
ED 1-5: Make Milpitas a more predictable place for companies to do business by reducing impediments to growth and actively planning to provide adequate space for companies to meet long-term growth needs.	**Consistent:** The proposed Project's new concrete tilt up industrial warehouse building and site planning was carefully modified from the expired entitlements to plan for the future growth of a web-based retail tenant to meet long-term growth needs and add an employment center with local job opportunities. The Addendum prepared to the 1000 Gibraltar Drive Final Environmental Impact Report estimates the Project to generate an average of 363 employees, which also accounts for seasonal fluctuations. The large 28.96-acre site has been vacant and underutilized since 2018, and the City's General Plan 2040 prioritizes the maintenance of its industrial lands with active uses and tenants that are consistent the intent of the Manufacturing land use designation. Additionally, the City's Office of Economic Development provided a letter of support for the Project.
LU 7-3: Encourage the development of new industrial, manufacturing, and business park areas and the redevelopment of existing older or marginal areas with new similar uses, especially those in locations which facilitate efficient multi-modal commute patterns. Use available public financing to provide necessary infrastructure improvements to encourage economic development and revitalization.	**Consistent:** The redevelopment of the existing, outdated, and underutilized site will lead to a new state-of-the-art modern industrial warehousing building with careful site planning, such as locating all oversized trucks and trailers in the parking lot to be separated by different entry points with two protective gates, while ensuring adequate parking, access and circulation remains for other passenger vehicle types with new improved pedestrian walkways.

Policy	Consistency Finding
	Through these ongoing coordination efforts with City staff, the Applicant has agreed to several off-street public improvements including but not limited to pavement restoration along portions of Gibraltar Drive and S. Milpitas Blvd., sidewalk replacements along perimeter of the lot to meet ADA requirements, and operational upgrades to traffic signals at the S. Milpitas Blvd./Ames Avenue and Gibraltar Drive intersections. The improvements will be coordinated by the City's Engineering Division with the Applicant and are included as Conditions of Approval (Exhibit 1 to Resolution 25-012).
CD 1-2: Encourage infill development projects to accommodate contemporary uses and design and planning approaches and requirements in manner that minimizes conflicts with the surrounding existing development.	**Consistent:** This infill Project will accommodate a new warehouse/distribution building to serve the needs of a contemporary business that would be constructed with a modern design to replace a dilapidated corporate industrial office campus site that was constructed over 45 years ago around 1980. The Project site is surrounded by a mix of other commercial, office, manufacturing, and industrial uses and the Project will retain its industrial land use. Therefore, the proposed Project will not create a conflict with the surrounding development and will add to the diversity of contemporary building types in the area.

SECTION 5: Building Height Finding (MMC Section XI-10.7.03)

Consistent with MMC Section XI-10.7.03, Industrial Zone General Development Standards, the Planning Commission finds and determines, based upon the totality of circumstances in the record, that although there is no maximum building height in the M2 Heavy Industrial Zoning District and that construction of the new, one-story warehouse would result in a maximum building height of 46.5-feet up to 49.5-feet to the top of its parapet with a maximum internal ceiling height of 36-feet, that the proposed excess height above 35-feet in height will not

be detrimental to the light, air or privacy of any other structure or use currently existing or anticipated.

SECTION 6: Planning Commission Approval

The Planning Commission of the City of Milpitas hereby adopts the Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report per Environmental Assessment No. EA24-0002, attached hereto as Exhibit 2, and approves Site Development Permit No. SD24-0006 and Tree Removal Permit No. TR25-0021 based on the above Findings and subject to the Conditions of Approval, attached hereto as Exhibit 1 and the Addendum's Mitigation Monitoring and Reporting Program, attached hereto as Exhibit 3 incorporated herein.

PASSED AND ADOPTED at a regular meeting of the Planning Commission of the City of Milpitas on September 10, 2025.

_____
Chair

TO WIT:

I HEREBY CERTIFY that the following resolution was duly adopted at a regular meeting of the Planning Commission of the City of Milpitas on September 10, 2025, and carried by the following roll call vote:

COMMISSIONER	**AYES**	**NOES**	**ABSENT**	**ABSTAIN**
Chia Ling Kong				
Michael Caulkins				
Mercedes Albana				
Dipak Awasthi				
Alexander Galang				
Parveen Gupta				
Sonia Medina-Ashby				

EXHIBIT 1

CONDITIONS OF APPROVAL
1000 GIBRALTAR DRIVE
(ALSO KNOWN AS 1001 S. MILPITAS BLVD)
(APN 086-42-033)

SITE DEVELOPMENT PERMIT NO. SD24-0006
ENVIRONMENTAL ASSESSMENT NO. EA24-0002
TREE REMOVAL PERMIT NO. TR25-0021

The City of Milpitas Planning Commission approves Site Development Permit No. SD24-0006, Environmental Assessment No. EA24-0002, and Tree Removal Permit No. TR25-0021, in accordance with Chapter 21 and Sections XI-10-57.03, XI-2-4.02, and XI-10-7.03-1, of the Milpitas Municipal Code, subject to and conditioned upon all applicable State and local laws and regulations and the Conditions of Approval outlined below. This Site Development Permit, Environmental Assessment, and Tree Removal Permit entitlement includes the demolition of four industrial/office buildings, surface parking lots, and associated improvements, and allow the development of a new, one-story, 487,564-square foot tilt-up concrete industrial building with office space and associated site improvements on an approximately 28.96-acre site in the M2 (Heavy Industrial) Zoning District located at 1000 Gibraltar Drive (also known as 1001 S Milpitas Blvd.). The height of the new building will be approximately 46-feet and 6-inches above grade level (up to a maximum height of 49-feet and 6-inches to top of parapet). Proposed site improvements include new internal roadways, landscaping, offsite public improvements, and a new surface parking lot with 781 vehicle parking spaces, 50 oversized parking stalls for tractor-trailers, and 27 loading dock doors. These approvals are subject to all other necessary reviews, approvals, studies, and inspections necessary for such development including for the issuance building permits or occupancy.

APPROVED SUBJECT TO THE FOLLOWING CONDITIONS OF APPROVAL:

General Conditions

1. General Compliance. The Permittee/Applicant and owner, including all successors in interest (collectively "Permittee") shall comply with each and every condition set forth in this Permit. No certificate of occupancy or temporary certificate of occupancy shall be issued for the development project described in **Site Development Permit No. SD24-0006, Environmental Assessment No. EA24-0002, and Tree Removal Permit No. TR25-0021** (collectively "Permit"), and the Permit shall have no force or effect and no building permit shall be issued unless and until all things required by the below-enumerated precedent conditions have been performed or caused to be performed. **(P)**

2. The Permittee shall develop the approved project in conformance with the approved plans (dated August 8, 2025), and sample color and materials approved by the Planning Commission on September 10, 2025, in accordance with these Conditions of Approval. **(P)**

3. Modifications to Project. Any deviation from the approved site plan, floor plans, or other approved submittal shall require that, prior to the issuance of building permits, the Permittee shall submit modified plans and any other applicable materials as required by the City for review and obtain the approval of the Planning Director or Designee. If the Planning Director or designee determines that the deviation is significant, the Permittee shall be required to apply for review and obtain approval of the Planning Commission, in accordance with the Zoning Ordinance. **(P)**

4. Effective Date. Unless there is a timely appeal filed in accordance with the Milpitas Zoning Code, the date of approval of this Permit is the date on which the decision-making body approved this Permit. **(P)**

5. Conditions of Approval. As part of the issuance of building permits, the Permittee shall include within the first four pages of the working drawings for a plan check, a list of all conditions of approval imposed by the final approval of the project. Each and every condition set forth in this Exhibit shall apply to the Project and continue to apply to the Project so long as the Permittee is operating the Project under the permits and approvals in this Resolution **(P)**

6. Written Response to Conditions. The Permittee shall provide a written response to the Conditions of Approval indicating how each condition has been addressed with the building permit application submittal. **(ALL)**

7. Permit Expiration. Pursuant to Section XI-10-64.06 of the Milpitas Municipal Code, this Permit shall be deemed to have expired and become null and void if the activity permitted by this Permit is not commenced within two (2) years from the date of approval, or for a project submitted with a tentative map, within the time limits of the approved tentative map. Pursuant to Section XI-10-64.06(B) of the Milpitas Municipal Code, an activity permitted by this Permit shall be deemed to have commenced when the project:
   a. Completes a foundation associated with the project; or
   b. Dedicates any land or easement as required from the zoning action; or
   c. Complies with all legal requirements necessary to commence the use, or obtains an occupancy permit, whichever is sooner.

8. Time Extension. Pursuant to Section XI-10-64.07 of the Milpitas Municipal Code, unless otherwise provided by State law, Permittee shall have the right to request a one-time extension of the Permit if the request is made in writing to the Planning Division prior to the expiration date of the approval. **(P)**

9. Project Job Account. If Permittee's project job account is at any time delinquent or below the required deposit amount, City will not continue to review or process the application until Permittee's private job account is paid in full and the required deposit has been made.

Additionally, prior to the issuance of any building permit or occupancy permit, as applicable, Permittee shall pay in full the project account balance and establish a remaining balance of at least twenty-five percent (25%) of the required initial deposit. **(P/E)**

10. Cost and Approval. Permittee shall fully complete and satisfy each and every condition set forth in this Resolution and any other condition applicable to the project to the sole satisfaction of the City. Additionally, Permittee shall be solely responsible and liable for the cost to satisfy each and every condition. Permittee shall pay all required fees and charges to the City at the rate in effect at time of building permit issuance, or, the rate in effect when the fees and charges are due and paid in full to the City. There is no vesting of any fees or charges with the adoption of this Resolution. (ALL)

11. Conditions. Each and every condition set forth in this Exhibit shall apply to the project and continue to apply to the project so long as the Permittee is operating the project under the permits and approvals in this Resolution. (ALL)

12. Compliance with Laws. The construction, use, and all related activity authorized under this Permit shall comply with all applicable local, state, and federal laws, rules, regulations, guidelines, requirements, and policies. **(CA/P)**

13. Acceptance of Permit. Should Permittee fail to file a timely appeal within twelve (12) calendar days of the date of approval of this Permit, inaction by Permittee shall be deemed to constitute each of the following:
    a. Acceptance of this Permit by Permittee; and
    b. Agreement by the Permittee to be bound by, comply with, and to do all things required of or by Permittee pursuant to all of the terms, obligations, and conditions of this Permit. **(P)**

14. Indemnification. To the fullest extent permitted by law, Permittee shall indemnify, defend with counsel of the City's choosing, and hold harmless City, its City Council, its boards and commissions, officials, officers, employees, and agents (the "Indemnified Parties") from and against any and all third party claim, action, or proceeding against City and/or the Indemnified Parties to attack, review, set aside, void or annul the City's approval of **SITE DEVELOPMENT PERMIT NO. SD24-0006, ENVIRONMENTAL ASSESSMENT NO. EA24-0002, AND TREE REMOVAL PERMIT NO. TR25-0021**; including any environmental determination made therefore. This indemnification shall include, but not be limited to, damages awarded against the City, if any, costs of suit, reasonable attorneys' fees, and other reasonable expenses incurred in connection with such claim, action, causes of action, suit or proceeding. The Permittee shall pay to the City upon demand or, as applicable, on a monthly basis to counsel of City's reasonable choosing, amounts owed pursuant to the indemnification requirements prescribed in this condition, provided each such demand or monthly payment request includes reasonably detailed back-up documentation, including invoices and/or receipts, as applicable, for all amounts to be paid. Notwithstanding the foregoing, City shall have the right to redact invoices and/or receipts as necessary to preserve attorney-client privilege. City shall promptly notify the Permittee of any claim, action, or

proceeding and shall engage in reasonable efforts to cooperate in the defense. If City fails to so promptly notify the Permittee, or if City fails to engage in reasonable efforts to cooperate in the defense, then the Permittee's indemnification obligations as set forth in this condition of approval shall thereafter terminate. The Permittee shall not be required to pay or perform any settlement unless the settlement is approved by the Permittee. The above indemnification is intended to be as broad as permitted by applicable law. To the extent the above indemnification is limited by Government Code Section 66474.9, any limitations shall only apply to **SITE DEVELOPMENT PERMIT NO. SD24-0006, ENVIRONMENTAL ASSESSMENT NO. EA24-0002, AND TREE REMOVAL PERMIT NO. TR25-0021**, and the balance of the Permit shall be unaffected by said Government Code section. **(CA)**

15. Revocation, Suspension, Modification. This Permit may be suspended, revoked, or modified in accordance with Section XI-10-63.06 of the Milpitas Municipal Code. **(P)**

16. Severability. If any term, provision, or condition of this Permit is held to be illegal or unenforceable by the Court, such term, provision, or condition shall be severed and shall be inoperative, and the remainder of this Permit shall remain operative, binding, and fully enforceable. **(ALL)**

17. Certificate of Insurance: Permittee shall provide certificate of insurance and name City as an additional insured in its insurance policies for the Project.

18. Previous Approvals. Permittee shall abide by and continue to comply with all previous City approvals, permits, or requirements relating to the subject property, unless explicitly superseded or revised by this Permit. **(P)**

PLANNING DEPARTMENT
CONDITIONS OF APPROVAL

19. Significant Deviation of Use: Given that the tenant could be subject to change at any time, should a future tenant propose a use that significantly deviate from the approved project, the Planning Director or designee may require additional analysis to demonstrate the extent of environmental impact of the proposed use. If the Planning Director or designee determines that the deviation is significant, the Permittee shall be required to apply for review and obtain approval of the Planning Commission, in accordance with the Zoning Ordinance. **(P)**

20. Tree Removal Permit: Removal of any protected trees shall require a tree removal permit that is issued from the Planning Department. Removal of any protected trees shall be replaced at a 2:1 ratio as provided by Tree Removal Permit P-TR25-0021. Any proposed changes to the proposed tree planting plan and/or landscaping sheets from the project plan set dated August 8, 2025, approved at the Planning Commission public hearing on September 10, 2025, shall be reviewed and approved by the Planning Department. **(P)**

21. Environmental Assessment Compliance: The Project is subject to the applicable mitigation

measures in the Mitigation, Monitoring, and Reporting Program (MMRP) in the 15164 Addendum (August 2025) to the 1000 Gibraltar Drive Final Environmental Impact Report (March 2021) (SCH# 2020069024). Permittee shall comply with the requirements of the Addendum's MMRP (Exhibit 3) pursuant to State law (Public Resources Code Section 21081.6). **(P)**

22. Public Art Requirement: Permittee shall comply with the City's Public Art Requirements for Private Development, as set forth in Milpitas Municipal Code Section XI-10-14. If Permittee opts to pay a fee in lieu of installing public art on site, the fee shall be no less than one-half of one percent of building development costs and shall be payable at time of building permit issuance, or installation of "Public Art", as defined per MMC Section V-20-310 and XI-10-14.01. **(P)**

23. Parking: The Project shall supply at least 781 vehicle parking spaces and 50 oversized truck trailer parking spaces onsite, pursuant to the project plans dated August 8, 2025, and approved at the Planning Commission hearing on September 10, 2025. Any deviations shall be reviewed by the Planning Division, meet minimum requirements of the City's Municipal Code for Off-Street Parking Regulations and shall maintain compliance with all applicable laws. **(P)**

24. Landscaping: Prior to certificate of occupancy permit issuance, all required landscaping shall be planted in place. All planter areas (including containerized planters) shall be serviced by a sprinkler or drip system. **(P)**

25. Landscaping Maintenance and Replacement: All required landscaping, as approved on the final landscape plan, shall be replaced and continuously maintained as necessary to provide a permanent, attractive and effective appearance. **(P)**

26. Lighting: Exterior lighting shall be shielded or recessed so that direct glare and reflections are contained within the boundaries of the parcel, and shall be directed downward and away from adjoining properties and public rights-of-way. Fixtures shall be appropriate in terms of height, style, design, scale and wattage to the use of the property. Fixtures shall be spaced appropriately to maximize pedestrian safety. Prior to building permit issuance, the Permittee shall submit details and elevations of all site lighting fixtures to the Planning Division for review and approval. **(P)**

27. Trash Enclosures and Equipment Screening: All trash enclosures and equipment screening shall meet MMC Section XI-10-54.16, Trash Enclosures, Equipment and their Screening. Rooftop equipment shall be adequately screened from the parking lot areas and street level views through rough design that is architecturally integrated with the building, such as equipment wells and parapets. All ground-mounted and mechanical equipment including ground transformers and meters shall be adequately screened, if feasible, and subject to the Planning Department review and approval. If the screening is proven infeasible as solely determined by the Planning Director, then all ground-mounted equipment and surrounding bollards (if any) shall be of design and color that will minimize visual impact. **(P)**

28. Signage: Prior to approval of any signage for the development, proper applications, depending on signage type will need to be submitted to the Planning Department. **(P)**

OFFICE OF HOUSING
CONDITIONS OF APPROVAL

29. Non-Residential Affordable Housing Impact Fee: Per MMC Section XII-1-5.01 of the City's Affordable Housing Ordinance, the Project is subject to payment of a non-residential affordable housing impact fee due prior to the issuance of the building permit. The impact fee will be calculated per MMC Section XII-1-5.02 and per Section MMC XII-1.5.01 is subject to change and will be officially calculated once the gross non-residential square footage is finalized and the building permit application is approved.

PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION
CONDITIONS OF APPROVAL

PRIOR TO CONSTRUCTION PLAN SUBMITTALS

*The following conditions shall be met **prior to** any detailed construction plan check submittals (Building or Engineering, except demolition and rough grade plans), unless otherwise approved by the City Engineer. City reserves the right to reject any plan check submittal if any of the following conditions are not met.* ***(E)***

30. Modifications: The Site Development Plan plans dated 8/8/2025 is subject to change during the plan check stage based upon City's previous comments and conditions stated herein.

31. Solid Waste and Recycling Handling Plan: Permittee shall submit final Solid Waste and Recycling Handling Plan based upon City's previous comments for City's review and approval by the Solid Waste Program. The Plan shall show calculations of waste generation volumes and how materials will be transferred from the waste generation areas to the trash enclosure/external collection point; demonstrate how recycling food waste, and yard trimmings shall have a separately maintained process from garbage handling; address other requirements such as waste generation and compactor sizing, chute shut-off and property management responsibility for bin management and litter control; outreach and education to tenants/occupants, and procure sufficient service frequency based upon waste generation calculation volumes.

32. Stormwater Control Plan: Permittee shall submit City approved final Stormwater Control Plan (SWCP) that complies with the latest Municipal Regional Stormwater NPDES Permit, including Low Impact Development (LID) Section C3.c.i.(2)(b) measures for harvesting and reuse, infiltration, or evapo-transpiration, for City's review and approval by the Engineering Division.

33. Photometric Analysis: Permittee shall submit streetlight photometric analysis for City's review and approval by the Engineering Division along **Milpitas Boulevard, Gibraltar**

Dr, and public sidewalk area that meet the Illuminating Engineering Society of North America (IESNA), RP8, for roadway and sidewalk lighting standards and City standard design guidelines.

34. Recycled Water Cross-Connection Specialist: In order to comply with the California Code of Regulations Title 17 and 22, and for timely plan approval by the California State Water Resources Control Board/Division of Drinking Water (SWRCB/DDW) as well as by South Bay Water Recycling (SBWR), Permittee must hire a certified cross-connection specialist for their consultation as to irrigation water system design and construction phasing. The name and contact information of the certified cross-connection specialist shall be provided on all landscape submittal plans.

35. Submittal Requirements: Permittee to ensure that all plan check submittals are in accordance with City's submittal check list for each permit type, including but not limited to, payment of permit fees and/or fee deposit at the time of the submittal.

36. Project Job Account/Fee Deposit: Permittee shall open a new PJ account as a deposit to cover the costs for Engineering Department's services for review and inspection of the project. The amount shall be determined based on the approved City fee schedule at the time of application submittal.

PRIOR TO OFF-SITE PLAN APPROVAL/ENCROACHMENT PERMIT ISSUANCE

The following conditions shall be addressed as part of the off-site improvement plan review and shall be met ***prior to*** *encroachment permit issuance, unless otherwise approved by the City Engineer.* ***(E)***

37. Public Improvement Design Standards: All public improvements shall be designed and constructed in accordance with all applicable public improvement design standards, including but not limited to:
    a. Milpitas Design Guidelines: (https://www.milpitas.gov/317/Land-Development-Procedures-Guidelines);
    b. Standard details and specifications: (https://www.milpitas.gov/333/Standard-Details-Specifications);
    c. Americans with Disabilities Act (ADA) requirements, where applicable.

38. Improvement Agreement and Securities: Permittee shall execute an Improvement Agreement and provide improvement securities in accordance with MMC Title XI, Section 17, and submit all other supplemental documents as stipulated in the Improvement Agreement (such as certificate of insurance).

39. Sanitary Sewer Calculations: Permittee shall submit a completed "Sewer Needs Questionnaire" form and sanitary sewer calculations to justify lateral size design, allocation of discharge for each of the lateral, and impact to the existing main. Permittee shall be responsible to implement any necessary improvements if there is any identified deficiency to the existing main as a result of the project.

40. Storm Drain Design: Permittee shall submit storm drain hydrology and hydraulic calculations based upon a 10-year storm event to justify the size of the storm drain lateral flowing full, without surcharging the main line pipe, and to be reviewed and approved by the Engineering Division.

41. Domestic Water and Fire Service Calculations: Permittee shall submit potable water and fire service calculations to confirm adequacy of lateral size, pressure and flow, to be reviewed and approved by the Engineering Division and Fire Department. Hydraulic modeling analysis by the City and paid by the Permittee may be required as needed. Permittee shall be responsible to implement any necessary improvements if there is any identified deficiency to the existing main as a result of the project.

42. Specific Improvements: In addition to standard public improvements required under Milpitas Municipal Code (MMC) Title XI, Chapter 1, Section 7, Permittee shall install other specific improvements listed below including incidental improvements as required by the City as part of the encroachment permit.
    a) Installation of separate water service tap and meter for each of the following services: residential, non-residential, irrigation, and fire.
    b) Installation of separate utility service lines (domestic water, fire service, sanitary sewer) for non-residential.
    c) Installation of radio-transmitted water meters with a meter antenna, any repeaters or transmitters as needed with dedicated power supplies at no cost to the City at locations acceptable to the City to ensure accurate and timely reception of meter readings. Permittee shall execute a recorded instrument providing dedicated space, access rights and dedicated power supplies to the City for operation/maintenance/repair/replacement of subject radio antenna.
    d) Installation of full street width 3-inch Asphalt Concrete (AC) grind and overlay (G&O), with a 3-inch base repair on Gibraltar Dr. Including the intersection of Gibraltar Dr and South Milpitas Blvd., and full street width crack and slurry seal with base repairs on South Milpitas Blvd, along the project frontage limits.
    e) Installation of ADA-compliant curb ramps at two intersections along South Milpitas Blvd., Ames Ave., and Gibraltar Dr., and sidewalk along the project frontage, ensuring compliance with the latest ADA standards.
    f) Remove curb ramp at southeast corner of Gibraltar Dr. & S. Milpitas Blvd. intersection and replace it with City standard sidewalk.
    g) The crosswalk on south leg of the Gibraltar Dr. and S. Milpitas Blvd. intersection should be closed due to non-ADA compliant and a sign combination of R9-3 & R49 (CA) shall be installed on southwest corner of the intersection
    h) Installation of street trees along the project frontage. The locations, spacing of street tree and tree species shall be in compliance with applicable City standards and details.
    i) Installation of a 36-strand fiber optic cable within the existing SIC conduit from Yosemite Dr to the Gibraltar Dr intersection along South Milpitas Blvd, or wireless Signal Interconnect (SIC), to enhance connectivity and improve traffic flow along the corridor. Additionally, implementation of a wireless SIC connection between the Gibraltar Dr and Garden St intersection. This is necessary to ensure better traffic flow thru proper connection to and communication from City owned Advance Traffic

Management System (ATMS). City to confirm make and model of wireless SIC or type of Fiber optic cable at later time.

j) Installation of a new traffic cabinet with new traffic signal equipment at the Ames Ave and South Milpitas Blvd intersection, along with battery backups. Removal and replacement of any required existing traffic signal equipment related to traffic signal communication only at Gibraltar Drive and South Milpitas Blvd. intersection, to ensure efficient and uninterrupted traffic flow along the corridor. City to confirm the make and model of the traffic signal equipment at later time.

k) Installation of a new Rectangular Rapid Flashing Beacon (RRFB) to replace the outdated and non-functioning RRFB at its existing location along Gibraltar Dr. City to confirm make and model of the RRFB at later time.

l) Installation of video detection cameras (VDS) and Accessible Pedestrian Signal (APS) at two intersections along S. Milpitas Blvd. from Ames Ave. to Gibraltar Dr. City to confirm make and model of VDS and APS at a later time.

m) Either install the Video Detection Cameras (VDS) on existing signal pole or install a new traffic signal pole with a mast arm at the northeast corner and replace the two existing poles without mast arms at the Gibraltar Dr and South Milpitas Blvd. intersection. City to confirm the type of pole and mast arm length at later time.

n) Developer to finish an additional street light pole and be delivered to the Public Works Corporation Yard for storage and future use in the event of a pole getting damaged.

43. Abandonment of Existing City Utilities: Permittee shall cap, abandon or remove any unused existing public utilities based upon City's Abandonment Notes and to the City's satisfaction.

44. Relocation and Adjustment of Existing Public Utilities: Permittee shall relocate and/or adjust existing public utilities as needed that are in conflict with the proposed improvements.

45. Maintenance Agreement: Permittee shall record a Maintenance Agreement for perpetual maintenance of certain public improvements, such as sidewalk within the 25' sidewalk easement, mutually agreed between the City and the Permittee.

46. Water Service Agreement: Permittee shall complete a water service agreement to obtain water service.

47. Encroachment Permit: Prior to any work in the public right-of-way and/or public easement, obtain an encroachment permit with insurance requirements for all public improvements including a traffic control plan per the latest California Manual on Uniform Traffic Control Devices (MUTCD) standards to be reviewed and approved by the Engineering Division.

48. Pothole Encroachment Permit: Due to multiple new utility service connections on arterial/collector streets, Permittee shall pothole and verify all potential utility crossing conflict as part of the public improvement plan during the design stage.

PRIOR TO BUILDING PERMIT ISSUANCE

*The following conditions shall be addressed during the building plan check process and shall be met **prior to** any building permit issuance (except demolition permit and rough grade permit), unless otherwise approved by the City Engineer. **(E)***

49. Easements on the Building Permit Plans: Permittee shall depict all existing easements to remain based upon current preliminary title report and depict new easements on applicable building permit plans.

50. Concurrent Off-site Plan Reviews: Permittee shall submit separate off-site improvement plans for City's review and approval by the Engineering Department.

51. Abandonment/Quitclaim Easements: Permittee shall abandon/quit claim existing easements that are in conflict with or unnecessary for the project.

52. Stormwater Facility Operation & Maintenance Plan: Permittee shall incorporate design details into applicable construction plans in accordance with City-approved SWCP. Permittee shall also submit Stormwater Facility Operation & Maintenance Plan that describes operation and maintenance procedures needed to ensure that treatment Best Management Practices (BMPs) and other storm water control measures continue to work as intended and do not create a nuisance (including vector control).

53. Stormwater Management Facilities O&M Agreement: Permittee shall execute and record a Stormwater Management Facilities Operation and Maintenance (O&M) Agreement associated with the SWCP O&M Plan, including perpetual maintenance of treatment areas/units, as reviewed and accepted by the Engineering Division. The subject O&M Agreement shall be referenced in the Covenants, Conditions and Restrictions (CC&Rs), if applicable.

54. Water Supply and Force Majeure: The City reserves the right to suspend the issuance of building permits in case of an emergency declaration of water supply in the case of a major catastrophic event that restricts City's assurance to provide water supply.

55. Recycled Water Approval: Permittee shall use recycled water for landscape irrigation purpose, except for the interior courtyard/podium areas within the building footprint where the potable water shall be used for irrigation. Permittee shall comply with California Code of Regulations (CCR), Title 22, Division 4, Chapter 3, titled *"Water Recycling Criteria"*, CCR, Title 17, Division 1, Chapter 5, Subchapter 1 titled *"Drinking Water Supply"* and all other recycled water regulations as listed under the publication titled *"California Department of Public Health Regulations Related to Recycled Water June 18, 2014*". Permittee shall obtain approval from the California State Water Resources Control Board/Division of Drinking Water, SBWR and the City for recycled water design, including but not limited to on-site irrigation design, based upon SBWR Guidelines and City of Milpitas Supplemental Guidelines. All landscape plants shall be compatible with recycled water.

56. Water Efficient Landscapes: Permittee shall comply with Milpitas Municipal Code Title VIII, Chapter 5 (Water Efficient Landscapes) for landscape design, including but not limited to, providing separate water meters for domestic water service and irrigation service and providing applicable landscape documentation package.

57. Solid Waste and Recycling Facility Design: Permittee shall comply with all applicable City design guidelines/details associated with haul route, turning radius, vertical and horizontal clearance, trash enclosure, staging area, storage area, etc.

58. Recycling Report Prior to Demolition Permit Issuance: Permittee shall submit Part I of a Recycling Report on business letterhead to the Building Department, for forwarding to the Engineering Division for review and approval. The report shall describe the following resource recovery activities:
    a) What materials will be salvaged.
    b) How materials will be processed during demolition.
    c) Intended locations or businesses for reuse or recycling.
    d) Quantity estimates in tons (both recyclable and for landfill disposal). Estimates for recycling and disposal tonnage amounts by material type shall be included as separate items in all reports to the Building Division before demolition begins.

    Permittee shall make every effort to salvage materials for reuse and recycling and shall comply with the City's demolition and construction debris recycling ordinance.

59. Recycling Report Prior to Building Permit Issuance: Permittee shall submit Part II of the Recycling Report to the Building Department, for forwarding to the Engineering Division. Part II of the Recycling Report shall be supported by copies of weight tags and/or receipts of "end dumps." Actual reuse, recycling and disposal tonnage amounts (and estimates for "end dumps") shall be submitted to the Building Department for approval by the Engineering Division prior to inspection by the Building Department.

60. ~~Development Fees~~: Permittee shall pay the following development fees. The information listed in items "a" through "e" are based upon current fee rates; however, those fee rates are subject to change. The exact fee amount shall be determined at the time of building permit fee payment.
    a) Water connection fee at $1,164/unit for residential and $5.97/gpd for commercial, based upon increased water usage.
    b) Sewer connection fee at $1,406/unit for residential and $8.52/gpd for commercial, based upon increased average wastewater flow.
    c) Wastewater Treatment Plant fee per MMC VIII, Chapter 2, Section 7.04.
    d) Calaveras Boulevard Widening Traffic Impact fee per Resolution No. 7894.
    e) 3.8% of applicable fees in accordance with City Resolution No. 8969 as Permitting Automation Fee.

61. ~~Mailboxes~~: The Permittee shall coordinate with US Postal Services regarding placement of required mailboxes. Mailbox location shall not be on public street frontages and shall

be approved by City and US Postal Services prior to building permit issuance. Mailbox locations shall be shown on the improvement plans and Permittee shall submit a letter to the City's Land Development Engineering Section from the Postmaster approving the location of the mailbox. Structures to protect mailboxes may require Building, Engineering and Planning Department review.

DURING CONSTRUCTION

*The following conditions shall be complied with at all times **during** the construction phase of the project, unless otherwise approved by the City Engineer. **(E)***

62. Dewatering: If dewatering is needed during construction, Permittee shall obtain a Short-Term Industrial Wastewater Permit from the San Jose/Santa Clara Regional Wastewater Facility for discharging the groundwater to a sanitary sewer system.

63. On-site Recycled Water Coordination: Permittee's cross-connection specialist shall coordinate the phasing of the construction; facilitate the cross-connection testing in order to minimize the impact for occupied buildings during cross-connection testing; sign-off before the water meter set; coordinate on-site construction inspection; complete the site inspection; fill out required paperwork/questionnaire; and provide them to the City for forwarding to SBWR. Developer shall notify SBWR 7 days in advance to schedule attendance of SBWR inspector during Cross-Connection Test.

64. Prohibition of Potable Water Usage: Permittee shall use recycled water for construction purposes, including dust control and compaction. Permittee shall comply with MMC VIII-6-5.00 and 6-6.00 where potable water usage is prohibited, unless otherwise approved by the City Council.

65. Construction Staging and Employee Parking: Permittee shall place all construction related materials, equipment, and arrange construction workers parking on-site and not located in the public right-of-ways or public easements.

66. Water Shut-down Plan: Permittee shall provide a water shut-down plan at least seven days in advance of the shut-down in coordination with the Engineering Inspector and notify affected property owners/tenants when cut-in tee(s) is/are required.

PRIOR TO FIRST OCCUPANCY

*The following conditions shall be met **prior to** issuance of a certificate of occupancy of the approved project, unless otherwise approved by the City Engineer.*

67. Completion of Public Improvements: Permittee shall complete all public improvements, including but not limited to **S. Milpitas Boulevard and Gibraltar Dr. frontage improvements** including pavement restoration, signing and striping, concrete work, stormwater treatment facilities, and traffic signal modifications as shown on City approved plans.

68. Grant deed shall be revised to state Property Owner/Developer shall maintain Public Sidewalk around project frontage.

69. Landscape Certificate of Completion: Permittee shall submit a Certificate of Substantial Completion that complies with the Milpitas Municipal Code Water Efficient Landscapes ordinance.

70. Certificate of Cross-Connection: Permittee shall ensure that the cross-connection specialist complete the required recycled water construction inspection checklist, cross connection test results and any special inspection checklist as required by SBWR and forward them to the City.

71. Record Drawings: Permittee shall submit record drawings in Full size hard copy, AutoCAD, TIFF, and PDF formats for City records. Record drawings shall include all public improvements. Additionally, if the project uses recycled water, the permittee shall also submit record drawings of on-site irrigation facilities.

72. Private Job (PJ) Balance: Permittee shall pay for any remaining balance from the Private Job deposit.

OFFICE OF BUILDING SAFETY
CONDITIONS OF APPROVAL

73. Compliance with California Code of Regulations. The Project shall comply with the requirements of the Office of Building Department and the California Code of Regulations Title 24 and the Milpitas Municipal Code as adopted by the City. Building permits shall be submitted to and approved by the Building Safety and Housing Department prior to start of construction. All California Code of Regulations Title 24 and Milpitas Municipal Code requirements applicable at the time of building permit application must be met in advance of any building permit approvals or related construction. Changes to the site plan and/or building plan require review and approval by the Office of Building Safety.

FIRE DEPARTMENT
CONDITIONS OF APPROVAL

*The plans approved by the City Council, Planning Commission, and/or the Planning permit process are **not** building construction plans and have not been reviewed nor approved for conformance to the California Building Code (CBC), California Fire Code (CFC) and the Milpitas Municipal Code (MMC). Do not consider this review as a final review for building construction plans approved by the Fire Department. Building construction plans **must** be submitted for review and approval before construction is to commence. The following notes are a general list of the applicable code requirements (2022 Edition) and are provided to assist with the building permit process. Please note that these are not all inclusive. All applicable Building, Fire and Municipal Code requirements must be met in advance of any building permit approvals or related construction.*

74. Technical Assistance: To determine the acceptability of technologies, processes, products, facilities, materials, and uses attending the design, operation or use of a building or premises subject to inspection by the Fire Code Official, the Fire Code Official is authorized to require the owner or agent to provide, without charge to the jurisdiction, a technical opinion(s), plan review(s) and/or report(s). CFC Section 104.8.2

75. Electronic Documents: The Fire Code Official may require electronic base documents for all construction documents and operational permits. The Fire Code Official shall designate the software base format for the electronic documents. CFC Section 106.1.1, added by MMC Section V-300-2.28

76. Fire Department Access: Fire Department apparatus and staff access shall be provided to all buildings and site. Detailed review will be done during construction permit process. The plans submitted appear to be in general conformance with the requirements. Final design shall meet the requirements listed below. CFC Section 503

    76.1 Minimum Number of Fire Apparatus Access Points: A Minimum of two independent and approved (approved by the Fire Code Official) means of fire apparatus access shall be provided for the site. Buildings or facilities exceeding 30 feet (9144 mm), or three stories in height, or 50,000 square feet (5760 m^2) shall be provided with at least two means of fire apparatus access for each structure. CFC, Section D104.1, adopted and amended by MMC V-300-2.170

    76.2 Fire Apparatus Clearance: Fire apparatus access roads shall provide a minimum clear width of 26 feet. Only conditions with 26 feet roads are applicable. This requirement is for the use and function of a fire ladder apparatus. CFC, Appendix D, Sections D103.1 and D105.2, adopted and amended by Milpitas Municipal Code. MMC V-300-2.169 and 2.172

    76.3 Timing of Installation and Serviceability of Fire Protection Elements: When fire apparatus access roads or a water supply for fire protection is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction. Combustible construction shall not begin until water mains and hydrants are operational and fire apparatus access roads are installed (paved). CFC Section 501.4

    76.4 Fire Apparatus Access: Fire apparatus access shall extend to within 150 feet of all portions of exterior walls of the building/structure per the California Fire Code Section 503.1.1. When there is a dead-end condition, means for fire apparatus turn-around shall be provided.

    76.5 Turning Radius: Fire apparatus access roads shall meet the Milpitas Fire Department turning radii guidelines and shall provide continuous apparatus travel. Turning radii for fire apparatus access roads shall be a minimum net clearance of 48 feet 6 inches for the outside radius and 28 feet 0 inches for the inside radius. The layout for the

outside and the inside radius shall be from the same reference point (center). CFC Section 503.2.4

76.6 Adjacent Access Rights: No source of access from lands adjoining a property to be developed shall be considered fire apparatus access roads, unless there is obtained the irrevocable and unobstructed rights and recorded as an ingress/egress access easement with the Country of Santa Clara. CFC Section 503.7, added by MMC V-300-2.51

76.7 Fire Access Road Materials and Load Bearing Requirements: Fire access roads shall be paved (concrete and/or asphalt cement, or other concrete type pavement approved by the Fire Dept.). Fire apparatus access roads/lanes and emergency vehicle roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather capabilities. CFC Section 503.2.3

76.8 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing up to 75, 000 pounds (34,500kg).

76.9 Emergency Vehicle Access (EVA): EVA roads, when required, shall meet the fire department site access requirements. CFC Section 503

76.10 Obstruction of Fire Access: Ground structures (including landscape) and building projections shall not encroach or impede the fire apparatus access requirements. CFC Section 503.4

76.11 Marking of Fire Access Roads. The required access road shall be designated and clearly marked as a fire lane. The designated fire lane shall be identified as set forth in Section 22500.1 of the Vehicle Code. The designation shall be indicated (1) by a sign posted immediately adjacent to, and visible from, the designated place clearly stating in letters not less than one inch in height that the place is a fire lane, (2) by outlining or painting the place in red and, in contrasting color, marking the place with the words "FIRE LANE", which are clearly visible from a vehicle, or (3) by a red curb or red paint on the edge of the roadway upon which is clearly marked the words "FIRE LANE". CFC Section 503.3. Minimum marking shall be pole signage and red curb with “FIRE LANE” stencil. Signage and red curbs shall be done throughout and as needed to clearly identify the no parking zones.

76.12 Site Design Changes: The Fire Department reserves the right to request site design changes as needed to meet the requirements of the CFC, and/or make the request for additional fire protection measures in conformance with the CFC.

77. Fire Protection. Fire apparatus access roads and water supply for fire protection is required to be installed and made serviceable during the time of construction.

Combustible construction shall not begin until water mains and hydrants are operational and fire apparatus access roads are installed (paved). CFC Section 501.4

78. Fire Protection Water Supply (Hydrants, On-site and/or Public): An approved water supply (hydrants on-site and/or public) capable of supplying the required fire flow for fire protection shall be provided upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into or within the jurisdiction. Water supply shall meet the Fire Code and the City of Milpitas Engineering Division water supply guidelines and the CFC Section 507, Appendix B and Appendix C. Note, the Civil drawings submitted under this Planning review are not approved for construction.

78.1 Water System Calculations: Private fire service mains and appurtenances shall be designed and installed in accordance with the City of Milpitas Engineering design guideline requirements and the NFPA 24. Design calculations and all the necessary design information for the water system to meet the domestic and fire flow requirements as per the City of Milpitas Engineer Division water design requirements shall be provided as part of the construction permit process. CFC Section 507

78.2 Fire Flow Requirement for Buildings. Section B105 fire flow for buildings amends section B105.2 to read:
B105.2 Buildings other than one-and two-family dwellings, Groups R3 and R4 buildings and townhouses. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings, Group R3 and R4 buildings and townhouses shall be as specified in Tables B105.1(2) and B105.2.
The maximum fire flow reduction for all commercial buildings greater than 30,000 square feet and residential podium buildings shall not exceed 25 percent of the fire flow specified in Table B105.1(2). The maximum fire flow seduction for all other buildings shall not exceed 50 percent of the fire flow specified in Table B105.1(2). Industrial areas shall have a fire flow not less than 5,000 gpm, with 20 psi residual pressure.

78.3 Fire Hydrant Location: The location and quantity of hydrants will be evaluated during the construction permit process. This applies to the on-site private streets as well as to the public streets. CFC Section 507.5

78.4 Hydrant for Automatic Fire Sprinkler/Standpipe Systems: Buildings equipped with an automatic fire sprinkler system and/or a standpipe system installed in accordance with Sections 903 and or 905 shall have a fire hydrant within 50 feet of the fire department connections. CFC Section 507.5.1.1, amended by MMC Section V-300-2.56

78.5 Private Hydrant Requirements: Private hydrants shall have the bottom 6 inches of the hydrant painted, with a weather resistive paint, white in color. CFC Section 507.5.7, added by MMC V-300-2.62.

78.6 No Parking in Front of Hydrants: No parking is permitted in front of fire hydrants. Hydrants located on streets (Public or Private Street) shall have an unobstructed clearance of not less than 30 feet per CA Vehicle Code 22514

79. Automatic Fire Sprinkler System for Structures:

79.1 Automatic Fire Sprinkler. The buildings shall be provided with an automatic fire sprinkler system in conformance with the NFPA 13 Standards. California Fire Code Section 903

79.2 Sprinkler Valves: All valves controlling the water supply for the automatic sprinkler system shall be electrically supervised by a listed fire alarm control unit. CFC 903.4

79.3 Sprinkler Monitoring: Alarm, supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an approved supervising station. CFC Section 903.4.1

79.4 Fire Riser Location. The fire sprinkler system riser shall not be located within electrical rooms or storage closets and shall be provided with clear access and working clearance. California Fire Code Section 903.3.5.3, added by MMC Section V-300-2.73

79.5 Sprinkler Design. Hydraulic design for the automatic fire sprinkler system shall provide a minimum of 20% safety margin. CFC Section 903.3.5.6, MMC V-300-2.76

79.6 Requirements for Fire Service Water Laterals for Building Sprinkler Systems: Each building shall have a fire service water laterals for the automatic fire sprinkler system and shall meet the California Fire Code requirements Chapter 9 and the NFPA applicable Standards. Note that the civil drawings provided are not reviewed nor approved for construction. CFC Section 912.1

79.7 Fire pump room and access. There shall be direct and unobstructed access to the fire pump room.

79.8 Fire Pump power. PG&E is not considered a reliable source of power. Standby power will be a requirement. Or provide other listed (listed by a national recognized testing lab) and approved (approved by the local fire dept.) means of power for the fire pump. CA Fire Code Section 102.9

79.9 Fire Pump(s). When required, fire pumps shall be installed in conformance with California Fire Code, the NFPA 20 and applicable standards. And the fire pump room shall be dedicated for no other use.

79.10 FDC/PIV (fire department connection/post indicating valve) Location(s). The location of the fire department FDC's/PIV's shall be at a readily visible and accessible location off the fire access road and approved by the Fire Code Official.

FDC's/PIV's shall not be located behind parking stalls, trees, landscape structures, nor behind any other obstruction. Final review for location for the FDC's/PIV's will be conducted during the construction permit process. CFC Section 912.2.1

Note, the required FDC's and PIV's shall be located off Gibraltar Dr and not on the onsite fire apparatus access road.

All FDC's and PIV's shall have fire department approved locking connection caps/locks. CFC Section 912.4.1

79.11 FDC/PIV Signage. A metal sign with raised letters at least 1 inch in size shall be mounted on all fire department connections. Signage shall be reflective, weather resistive and approved by the Fire Code Official. CFC Section 912.5

79.12 Backflow Protection. Potable water supply to the automatic sprinkler and/or the standpipe systems shall be protected against backflow as required by the Health and Safety Code section 13114.7 and the City of Milpitas Utilities Engineering Division. CFC Section 912.6

79.13 Water Drainage. All new installations of sprinkler systems shall preclude sprinkler test and system drain water from discharging into the storm drain; provisions to direct water to the sanitary sewer or landscape or other approved means shall be provided. Sprinkler system design shall include the proposed method for drainage of sprinkler system discharge. Storm Water Pollution Regulations.

80. Fire Alarm System:

80.1 A fire alarm system shall be installed when required in the buildings when required by the CA Fire Code Section 907.

80.2 All valves controlling the water supply for the automatic sprinkler system shall be electrically supervised by a listed fire alarm control unit. CFC 904.3

80.3 Electrical supervision of the automatic fire sprinkler system shall be transmitted to an approved supervising station. CFC 903.4.1

80.4 One exterior approved audible device (for each riser) shall be connected to every automatic sprinkler system in an approved (by the Fire Code Official) location. CFC 903.4.2

80.5 Fire Alarm Panel: Fire alarm panel (or fire alarm annunciator panel) shall be located in a readily accessible location and shall be provided with the necessary access and working clearance as required by the CA Electrical Code. CFC Section 907.6.5

80.6 Fire Alarm Monitoring: Fire alarm monitoring (approved supervising station - UL, or FM approved). Fire alarm systems required by the Fire Code or by the California Building Code shall be monitored by an approved supervising station in accordance with the NFPA 72. CFC Section 907.6.6

81. Building/Structure Other Requirements:

81.1 Premises Identification: New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters and shall be consistent with Milpitas standardized addressing guidelines. CFC Section 505. The Fire Dept. may require the installation of address numbers at multiple building locations. CFC Section 102.9

81.2 Address Illumination: All required addresses shall be illuminated. CFC Section 505.3, added by MMC V-300-2.55

81.3 Fire Department Emergency Key Box (aka: Knox Box, Knox Locks, Knox Electric Switches, etc.): The Fire Code Official is authorized to require a key box(es) to be installed in an approved location(s) if necessary for lifesaving or fire-fighting purposes. Quantity and location shall be as directed by the Fire Code Official. CFC Section 506. Locked mechanical closets, fire alarm closets, sprinkler riser closets, etc. will need a Fire Dept. approved lock or "Knox" key box.

81.4 Access Control Devices. When access control devices including bars, grates, gates, electric or magnetic locks or similar devices, which would inhibit rapid fire department emergency access to the building, are installed, such devices shall be approved by the fire code official. All access control devices shall be provided with an approved means for deactivation or unlocking by the fire department. Access control devices shall also comply with Chapter 10 Egress. CFC Section 504.6, added to the CFC by MMC Section V-300-2.54

Means to deactivate the locking system shall be located in the fire command room (when required) or other location as directed by the fire department.

In addition, all door lock control systems shall meet the requirements of the CFC Sections 1010.2.

81.5 Fire Command Center. Where required by other sections of this code and in all buildings classified as high-rise buildings by the California Building code and Group I2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access and in all F-1 and S-1 occupancies with a building footprint greater than 500,00 square feet, a fire command center for fire department shall be provided and shall comply with the Sections 508.1.1 through 508.1.7.

A fire command center is required to be located at the front of the building (near fire dept. point of approach) with readily access from the exterior. Location to be approved by the Fire Dept. CFC 508.1.1

Separation. The fire command center shall be separated from the remainder of the building by not less than 2-hour fire barrier constructed in accordance with Section 707 of the California Building Code or horizontal assembly constructed in accordance with Section 711 of the California Building Code, or both. CFC 508.1.2, amended by MMC Section V-300-2.59.

Layout approval. A layout of the fire command center and all features required by this section to be contained therein shall be submitted for approval prior to instal1ation. CFC Section 508.1.4

Required features (CFC Section 508.1.6). The fire command center shall comply with NFPA 72 and shall contain the following features:

i. All items (applicable) noted under the CFC Section 508.1.6.

ii. Knox locking key box, approved by the fire code official, large enough for ten (10) sets of master keys. Added by MMC Section V-300-2.60

iii. Ten (10) sets of master keys for the building(s). Added by MMC Section V-300-2.60

iv. A complete set of architectural, electrical, mechanical and plumbing plans for the building. Sets shall be "as-built" sets. Added by MMC Section V-300-2.60

v. A complete set of underground fire water lines, automatic fire sprinklers, automatic fire alarm drawings, standpipe systems, other fire suppression systems, emergency responders' ratio coverage, etc. All drawings shall be the latest sets and as-built.

81.6 Fire Equipment ID signs. Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning, systems, sprinkler risers and valves, or other fire detection, suppression or control elements hall be identified for the use of the fire department. CA Fire Code Section 509

81.7 Emergency Responder Radio Coverage: A Fire Department approved emergency responder radio coverage system shall be provided. SVRIA (Silicon Reginal Interoperability Authority) registration is required prior to any design. CFC Section 510, MMC V-300-2.61

81.8 Electrical Energy Storage Systems. Stationary storage battery systems shall comply with the CFC, Section 1207.

81.9 Portable Fire Extinguishers. Portable fire extinguishers shall be selected, installed and maintained in accordance with CFC Section 906.

81.10 Fire Protection Service (CFC Section 901.6). All fire alarm systems, fire detection systems, automatic sprinkler or extinguishing systems, communication systems, and all other equipment, material or systems required by these regulations shall be maintained in an operable condition at all times in accordance with this code and California Code of Regulations, Title 19, Division 1. Upon disruption or diminishment of the fire protective qualities of such equipment, material or systems, immediate action shall be instituted to affect a reestablishment of such equipment, material or systems to their original normal and operational condition. California Code of Regulations, Title 19, Division 1, §1.14

81.11 Electrical Generators. Generators with fuel tanks shall meet the requirements of the CFC Chapters 50, 57 and the NFPA 30

i. Installation of aboveground tanks shall conform to Unidocs document UN-018. Please see the following link for a copy.
http://www.unidocs.org/hazmat/new-construction/un-018.pdf

ii. Tank Design and Construction
Each tank shall be designed and constructed in accordance with nationally recognized standards (UL 142/2244 or equivalent. UL 2085 is the listing for protected tanks). CFC 5704.2.7, NFPA 30, 21.4.2.1

iii. Tank Protection. Approved means shall be provided to protect tanks subject to vehicle damage. CFC 5704.2.8.6, CFC 312, NFPA 30, 22.15

iv. Aboveground tanks located outside of buildings shall be located in accordance with Table 22.4.1.1(a) of NFPA 30. CFC 5704.2.9.6.1.1

v. Secondary Containment (protected and unprotected tanks). Tanks shall be provided with secondary containment. CA Fire Code Section 5004.2

vi. Signage and Labeling. Warning and identification signs shall be posted to clearly identify hazards. CFC 5003.5, CFC 5703.5, NFPA 30, 21.7.2.1

vii. Provide a fire extinguisher (minimum 40B:C rating) at each generator location. CFC 5704.3.3.1, NFPA 30, 9.10.2

viii. Hazardous Material Business Plan. Each application for a permit shall include a Hazardous Materials Management Plan (HMMP) in accordance with the CA Fire Code Section 5001.5.1. The fire code official is authorized to accept a similar plan required by other regulations.

ix. HMBPs shall be submitted electronically. HMBPs shall be submitted on the California Environmental Reporting System at http://cers.calepa.ca.gov/. CA Fire Code Section 5001.5.1

82. Fire Safety: Fire safety during construction, alteration or demolition of the building shall meet the requirements of Chapter 33 of the California Fire Code and the Standards for Construction Site Fire Safety (un-024) by "unidocs" organization (http//:www.unidocs.org). A Construction Site Fire Safety plan shall be submitted to the Milpitas Fire Prevention Division for review and approval prior to the start of combustible construction. CFC Chapter 33

83. Landscape sheets: The proposed landscaping may be impacted by the comments above and the requirements for fire access, fire systems and devices (such as apparatus access, hydrants, fire service lines, fire department connections valves, etc.). The Fire Dept. reserves the right to relocate, delete or change the proposed landscaping when in conflict with fire systems and devices. CFC 507.5.4.

84. Plan Submittal: Complete plans and specifications for all aspects of fire protection systems shall be submitted to the Fire Department for review and approval prior to system installation. CFC Section 901.2

POLICE DEPARTMENT
CONDITIONS OF APPROVAL

85. All Ingress and egress of traffic on Gibraltar Drive and South Milpitas Boulevard do not appear to be a concern because the development is being incorporated with an already existing business park.

86. Parking lot areas shall have postings with appropriate signs per 22658(a) CVC to assist in removal of vehicles at the property owners'/managers' request.

87. "No Trespassing/Loitering" signage should be posted at the entrances of parking lots placed in conspicuous areas. Signs should be at least 2' x 1' in overall size, with white background and black 2'' high letters.

88. The parking project should allow circulation for police patrols (vehicles, foot, and bicycles), to prevent and reduce the likelihood of criminal activity occurring in the area.

Addressing:

89. Address numbers shall be illuminated during hours of darkness and should be strategically positioned as to be readily visible from the street. Address numbers should have a minimum height of 12 inches. If numerous alarm zones are utilized then zone numbers should be clearly marked above appropriate common doorways (i.e. office space, break rooms, recreational area, etc.).

Visibility:

90. Parking lots and associated driveways, circulation areas, aisles, passageways, recesses, and grounds contiguous to buildings shall be provided with lighting of sufficient wattage to provide adequate illumination to make clearly visible the presence of any person on or about the premises during the hours of darkness.

91. A building design that encourages visibility of potential crime locations and natural surveillance.

92. Stairwells and/or elevator lobbies should be of open design whenever possible, making users open to visual scrutiny.

93. Any posters, material, and objects near common area exterior windows should not block views in those common areas from the street.

94. All trash enclosures should be located at the perimeter of the parking lot, not adjacent to exterior doors, or in areas where such enclosures can compromise surveillance.

95. Any other line of sight obstructions (including recessed doors, alcoves, etc.) should be avoided on building exterior walls and interior hallways.

96. From a public safety perspective, the front entrance area needs to have as much natural surveillance as possible and exposed to public view. When natural surveillance is afforded, the likely occurrence of burglaries, robberies, etc. to that particular establishment/area are substantially reduced because the risk of detection and apprehension of the perpetrator increases. Seclusion is one of the main elements sought after by perpetrators of a crime.

Accessibility:

97. Any and all areas controlled by electronic security devices (i.e. key fobs, access cards, keypads, etc.) should have Knox boxes installed near such access points with the Knox boxes containing the appropriate security devices to gain entry. If access points are controlled by keypads or access cards, management should provide the police department with the needed code(s) or electronic key(s) and regularly update the police department if such code(s)/key(s) change.

98. An up-to-date map of the interior floor plan shall be provided to the Police Department. The map should minimally identify the locations of each entry/exit points, elevators, storage areas, entry/exit points controlled by electronic security devices, locations of security cameras, maintenance areas, stairwells, recreation centers, etc.

Landscaping:

99. Landscaping shall be of the type and situated in locations to maximize observation while providing the desired degree of aesthetics. Security planting materials are encouraged. Landscaping shall not conceal doors or windows from view, obstruct visibility of the parking lot from the street, nor hinder access to the roof, if needed.

Security:

100. Video/security cameras security system shall be required for the site, with coverage at all access points to the building in and around the business. The video/security cameras shall record in high definition and also cover the parking lot area to have the clarity necessary to identify an individual, vehicle, etc., and have a field of view to maximize the area of coverage. The video/security system shall have the capacity to save/store footage for a minimum of thirty (30) days and have the capability to be downloaded. A copy of video/security footage shall be made available to law enforcement upon request for investigative purposes. It is recommended the employees of the business be appropriately trained on how to use the security surveillance camera system so that footage can be reviewed and collected in a timely fashion by the Police department if needed.

101. Extra security measures should be taken to properly secure mail deliveries including larger boxes. Installing temporary package lock boxes or large parcel drop boxes should assist in preventing package theft. A security camera system should be installed covering both the package lock boxes and the cluster box units to assist the police department and the US Postal Service Inspectors in identifying package/mail thieves.

102. Video/security cameras shall be required for the site with coverage at all access points into the building. The video/security cameras shall record in high definition and cover main areas, entrances/exits, any hallway leading to the restrooms, and the exterior parking lot.

Miscellaneous:

103. The Property Manager shall file an emergency notification form with the police department so law enforcement can contact the property manager in the event of any major accident, emergency, or unforeseen circumstance.

104. Applicant shall have fire extinguishers on site during normal business hours.

Key:
(P) = Planning
(B) = Building
(E) = Engineering
(F) = Fire Prevention
(PD) = Police Department
(CA) = City Attorney
(ALL) = All

NOTICE OF RIGHT TO PROTEST

The Conditions of Project Approval set forth herein include certain fees, dedication requirements, reservation requirements, and other exactions. Pursuant to Government Code Section 66020(d)(1), these Conditions constitute written notice of a statement of the amount of such fees, and a description of the dedications, reservations, and other exactions. You are hereby further notified that the 90-day approval period in which you may protest these fees, dedications, reservations, and other exactions, pursuant to Government Code Section 66020(a), began on date of adoption of this resolution. If you fail to file a protest within this 90-day period complying with all of the requirements of Section 66020, you will be legally barred from later challenging such exactions.

AGREEMENT

Permittee/Property Owner

The undersigned agrees to each and every condition of approval and acknowledges the NOTICE OF RIGHT TO PROTEST and hereby agrees to use the project property on the terms and conditions set forth in this Permit.

Date: _____ _____

Signature of Permitee

Resolution No. 25-012

EXHIBIT 2

ADDENDUM TO THE 1000 GIBRALTAR DRIVE FEIR

ENVIRONMENTAL ASSESSMENT NO. EA24-0002
FOR
SITE DEVELOPMENT PERMIT NO. SD24-0006
AND
TREE REMOVAL PERMIT NO. TR25-0021

FCS
An ADEC Innovation

1000 Gibraltar Drive

15164 Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (State Clearinghouse No. 2020069024)

City of Milpitas, Santa Clara County, California

PREPARED FOR:

City of Milpitas
455 East Calaveras Boulevard
Milpitas, CA 95035
408.586.3274

Contact: Kristina Phung, Senior Planner

PREPARED BY:

FirstCarbon Solutions
2999 Oak Road, Suite 250
Walnut Creek, CA 94597
925.357.2562

Contact: Janna Waligorski, Project Director
Brittany Perez, Project Manager

August 28, 2025

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ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
°F	degrees Fahrenheit
AB	Assembly Bill
ACM	asbestos-containing materials
APN	Assessor's Parcel Number
ARB	California Air Resources Board
BART	Bay Area Rapid Transit
BMP	Best Management Practice
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CBC	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EOP	Emergency Operations Plan
ESA	Environmental Site Assessment
FAR	floor area ratio
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
HVAC	heating, ventilation, and air conditioning
LEED®	Leadership in Energy and Environmental Design
LID	Low Impact Development
M2	Heavy Industrial
MBTA	Migratory Bird Treaty Act
MFG	Manufacturing
mgd	million gallons per day
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
mph	miles per hour
MRP	Municipal Regional Permit

NAHC	Native American Heritage Commission
ND	Negative Declaration
NFHL	National Flood Hazard Layer
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
O&M Plan	Operations & Maintenance Plan
PG&E	Pacific Gas and Electric Company
PRC	Public Resources Code
REC	Recognized Environmental Condition
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCP	Stormwater Control Plan
SCVHP	Santa Clara Valley Habitat Plan
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SFPUC	San Francisco Public Utilities Commission
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act
SMP	Soil Management Plan
SOI	Sphere of Influence
SWPPP	Storm Water Pollution Prevention Plan
TCR	Tribal Cultural Resource
UCMP	University of California Museum of Paleontology
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WPCP	Water Pollution Control Plant
VOC	volatile organic compounds

1 - INTRODUCTION

Pursuant the California Environmental Quality Act (CEQA) Section 15164, this Addendum (herein after referred to as Addendum) and attached supporting documents have been prepared to determine whether and to what extent the 1000 Gibraltar Drive Environmental Impact Report (State Clearinghouse No. 2020069024, certified March 24, 2021), hereinafter referred to as the previous Final Environmental Impact Report (previous FEIR), prepared for the City of Milpitas (City) remains sufficient to address the potential impacts of the proposed 1000 Gibraltar Drive Project (P-SD24-0006) (proposed project) or whether additional documentation is required under the CEQA (Public Resources Code [PRC] § 21000, *et seq*.).

1.1 - Environmental Checklist

Pursuant to Public Resources Code Section 21166, and CEQA Guidelines Sections 15162 and 15164, subd. (a), the attached Addendum has been prepared to evaluate the proposed project. Consistent with the thresholds used by the Lead Agency in the previous FEIR, the attached Addendum uses the standard environmental checklist categories provided in Appendix G of the CEQA Guidelines but provides answer columns for evaluation consistent with the provisions of CEQA Guidelines Section 15162, subd. (a).

1.2 - Environmental Analysis and Conclusions

CEQA Guidelines Section 15164, subd. (a) provides that the lead agency or a responsible agency shall prepare an Addendum to a previously certified Environmental Impact Report (EIR) or Negative Declaration (ND) if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR or ND have occurred (CEQA Guidelines § 15164, subd. (a)).

An Addendum need not be circulated for public review but can be included in or attached to the FEIR or ND (CEQA Guidelines § 15164, subd. (c)). The decision-making body shall consider the Addendum the Final EIR prior to making a decision on the proposed project (CEQA Guidelines § 15164, subd. (d)). An agency must also include a brief explanation of the decision not to prepare a subsequent EIR or ND pursuant to Section 15162 (CEQA Guidelines § 15164, subd. (e)).

Consequently, once an EIR or ND has been certified for a project, no subsequent EIR or ND is required under CEQA unless, based on substantial evidence:

1) Substantial changes are proposed in the project which will require major revisions of the previous FEIR or ND . . . due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; [1]

2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous FEIR or ND . . . due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous FEIR was certified as complete or the ND was adopted. . . shows any of the following:
   A. The project will have one or more significant effects not discussed in the previous FEIR or ND or negative declaration;
   B. Significant effects previously examined will be substantially more severe than shown in the previous FEIR or ND;
   C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
   D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous FEIR or ND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative (CEQA Guidelines, Section 15162, subd. (a); see also Pub. Resources Code, Section 21166).

This Addendum, checklist, and attached documents constitute substantial evidence supporting the conclusion that preparation of a supplemental or subsequent EIR or ND is not required.

This Addendum addresses the conclusions of the previous FEIR in light of the proposed project.

1.2.1 - Findings

There are no substantial changes proposed by the 1000 Gibraltar Drive Project or under the circumstances in which the proposed project would be undertaken that would require major revisions of the previous FEIR. The proposed revisions do not require preparation of a new subsequent or supplemental EIR due to either (1) the involvement of new significant environmental effects, (2) a substantial increase in the severity of previously identified significant effects, or (3) new information of substantial importance. No mitigation measures or alternatives previously found not to be feasible would in fact be feasible nor has the proposed project proponent declined to adopt any additional mitigation measures or alternatives that would substantially reduce one or more significant effects on

[1] CEQA Guidelines Section 15382 defines “significant effect on the environment” as “ . . . a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance . . .” (see also Public Resources Code [PRC] § 21068).

the environment. Applicable mitigation measures from the previous FEIR are identified and discussed in this Addendum.

As illustrated herein, the proposed project is consistent with and within the scope of the previous FEIR and would involve only minor changes; therefore, an Addendum is appropriate and required CEQA compliance for the proposed project.

1.2.2 - Conclusions

The impacts of the proposed project remain within the impacts previously analyzed in the previous FEIR (CEQA Guidelines § 15164).

1.3 - Mitigation Monitoring Program

As required by Public Resources Code Section 21081.6, subd. (a)(1), a Mitigation Monitoring and Reporting Program (MMRP) was adopted to implement the certified previous FEIR and to monitor the implementation of the mitigation measures that were adopted by the Lead Agency. Long-term monitoring of mitigation measures imposed on the overall development will be implemented through the MMRP. The MMRP has been updated to identify the relevant mitigation measures applicable to the 1000 Gibraltar project evaluated in this Addendum.

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2 - PROJECT DESCRIPTION

2.1 - Location and Setting

2.1.1 - Location

The approximately 28.96-acre project site is located in the City of Milpitas (City), in Santa Clara County (County), California (Exhibit 1). The City is located in the northern portion of the County and is bordered by the City of San José to the west and the City of Fremont to the north. The eastern portion of the City is comprised of a range of high foothills and mountains, which are a part of the Diablo Range. The City is divided into three sections by Interstate 680 (I-680) and I-880. Areas west of I-880 are largely industrial and commercial. Between I-880 and I-680, there is an industrial zone in the south and residential neighborhoods in the north. Other residential neighborhoods and undeveloped mountains are to the east of I-680. The proposed project site is located in the industrial zoned area between I-880 and I-680. The project site is located at 1000 Gibraltar Drive and encompasses one corresponding Assessor's Parcel Number (APN): 086-42-033 (Exhibit 2).

2.1.2 - Environmental Setting

Existing Land Use Activities

The project site is currently developed with a vacant, 397,009-square-foot corporate campus including four office buildings and research/development facilities ranging from 1 to 2 stories in height with surface parking lots along the site periphery and has been vacant since 2015. The existing on-site floor area ratio (FAR) is 0.31. Existing impervious surface areas comprise approximately 876,485 square feet. The project site has seven access points, three on South Milpitas Boulevard and four on Gibraltar Drive. The project site is landscaped with a large number and variety of ornamental trees including valley oak, olive, paloverde, pittosporum, coast redwood, coast live oak, queen palm, spruce, crape myrtle, zelkova, strawberry tree, plum/cherry, yellow birch, Chinese pistache, London plane tree, sweetgum, Chinese fringe tree, and shamel ash. According to the Arborist Report Addendum prepared in 2025 a total of 98 on-site trees are large enough to quality for protected status according the Milpitas Municipal Code.

Surrounding Land Uses

The project site is within the south-central portion of the City and is surrounded by industrial offices, places of worship, and a restaurant/café accessory use to the north; Gibraltar Drive as well as office and industrial office uses to the west and south; and South Milpitas Boulevard as well as industrial and office uses to the east (Exhibit 2). The project site is approximately 0.4 mile north of Montague Expressway, 0.4 mile west of I-680, 0.9 mile south of SR-237, and 1.1 mile east of I-880. The Bay Area Rapid Transit (BART) tracks are located approximately 700 feet west of the project site. The

Union Pacific Railroad Milpitas Yard is located approximately 1,200 feet northwest of the site (and approximately 70 feet west of the BART tracks).

2.1.3 - Existing General Plan and Zoning Designations

The project site has a General Plan land use designation of Manufacturing (MFG) and is located within the City's Heavy Industrial District (M2) zoning district. The MFG designation allows a variety of light and heavy industrial uses including manufacturing, packaging, processing, warehousing and distribution, and ancillary support uses at a FAR of up to 1.0. The M2 Zoning District allows for the construction, use, and occupancy of buildings and facilities for office, research, general manufacturing, warehousing and distribution, and other uses compatible with the district.

2.2 - Project Background

2.2.1 - Previously Approved Project

Implementation of the previously approved project would have involved the demolition of all existing on-site buildings (representing 397,009 square feet), parking lots, and associated improvements. The previously approved project included a new 491,040-square-foot tilt-up concrete creative industrial building, inclusive of two supporting offices at the northwest and southeast corners (4,910 square feet) and surface parking on all sides of the building. The previously approved project's FAR was 0.38. The previously approved building was designed to accommodate up to two separate tenants with uses including advanced manufacturing, e-commerce, light assembly, warehouse/distribution, and possibly other uses permitted within the M2 Zoning District. The previously approved project was not constructed.

2.2.2 - 2020 1000 Gibraltar Drive Environmental Impact Report

The previous FEIR (State Clearinghouse No. 2020069024) was certified by the Milpitas City Council on March 24, 2021 per Resolution 21-007. As part of the environmental review an Initial Study was prepared and circulated to the public during the Notice of Preparation process. The Initial Study was attached to the Draft EIR as Appendix A and was available during public comment periods and is incorporated in the previous FEIR. The analysis of impacts was contained in the Initial Study, with the exception of air quality, greenhouse gas emissions, and transportation, which were found to have a potential impact and were therefore analyzed in the FEIR.

2.3 - Proposed Project Characteristics

Panattoni Development Company (applicant) is seeking approval of a modified site plan for the 1000 Gibraltar Drive project site considered in the previous FEIR (Table 1). Implementation of the now proposed project involves the demolition of all existing on-site buildings representing 397,009 square feet, parking lots, and associated improvements. The proposed project consists of a 487,564-square-foot building with 476,864 square feet of warehouse space and 10,700 square feet of office space at the northeast corner of the building, truck docks, trailer parking, passenger vehicle parking, backup

generator, landscaping and stormwater facilities (detention basins) (Exhibit 3). The proposed building would be 1 story with a maximum height of 46.5 feet above the ground surface at the top of the parapet and the project would have 0.39 FAR. The proposed building would have a setback of 35 feet from the face of the curb on Gibraltar Drive and South Milpitas Boulevard. An average of 363 employees (accounting for seasonal flucations) are expected.

Table 1: Project Comparisons

	Existing Conditions	Previously Approved Project	Proposed Project	Difference (Previously Approved vs. Proposed)
Number of Buildings	4	1	1	0
Demolition (square feet)	n/a	397,009	397,009	0
Total Square Footage	397,009 square feet	491,040	487,564	-3,476
Warehouse		486,130 square feet	476,864 square feet	-9,266
Office		4,910 square feet	10,700 square feet	+5,790
Floor Area Ratio (FAR)	0.31	0.38	0.38	+.01
Impervious Surface Area (square feet)	876,485	928,755 (additional 52,270)	982,012 (additional 105,527)	+53,257
Height (feet)	1 to 2 stories	42	46.5	+4.5
Protected Tree Removal	N/A	88	18[1]	-63
Employees	N/A	330	363	+33

Notes:

[1] Seven protected status trees have been removed between certification of the previous FEIR and the currently proposed project. These trees were removed as a result of their declining health. In total, the proposed project and current existing conditions results in 25 fewer protect trees on-site.

Source: City of Milpitas. 2020, Initial Study 1000 Gibraltar Drive. June.

City of Milpitas. 2020. 1000 Gibraltar Drive Draft Environmental Impact Report, State Clearinghouse No. 2020069024. December.

Stantec, Kier-Wright. 2025. SSD–SSJ1 Entitlement Package. June 26.

Santa Clara Valley Urban Runoff Pollution Prevention Program. 2025. Provision C.3 Data Form for Gibraltar Industrial. August 8.

Access, Circulation, and Parking

The circulation for the proposed project has been designed to ensure the safe and efficient movement of cars and trucks throughout the project site. Four driveways ranging in widths of 30 to 50 feet would be provided along South Milpitas Boulevard and Gibraltar Drive. As shown on Exhibit 3, the northern most existing automobile driveway entry on Gibraltar Drive would be relocated slightly to the south.

The two driveways further to the south on Gibraltar Drive would be removed. The fourth driveway on Gibraltar Drive, located on the southern boundary of the site, would be maintained. The northern most existing driveway on South Milpitas Boulevard would be removed. The existing driveway at the intersection of South Milpitas Boulevard and Ames Avenue would be maintained. Finally, a new driveway would be constructed near the southeastern corner of the proposed building and would serve as the primary office driveway.

The primary path of truck traffic on-site site would enter at the South Milpitas Boulevard and Ames Avenue intersection, travel straight and north to truck docks and trailer parking, then west to the northern most driveway on Gibraltar Drive (Exhibit 3). Smaller personal and commercial vehicle paths of travel would be permitted on any of the four proposed driveways for entry or exit. Additionally, the proposed project would include on-site fire lanes which would provide emergency access to the project site.

Truck and trailer parking is proposed to the northeast of the proposed building, adjacent to South Milpitas Boulevard and located along the primary path of truck traffic. An 8-foot-tall concrete tilt-up screen wall is proposed to be constructed around the trailer parking stalls. Automobile parking would be located surrounding the proposed building on the southern half of the project site. Based upon a total of 487,564 square feet of warehouse and office building area, 343 parking spaces are required, whereas the proposed project includes 781 parking spaces, thus exceeding the City's parking requirements. The proposed warehouse building has approximately 1.61 parking stalls per 1,000 square feet. In addition, 24-bicycle parking spaces would be provide adjacent to the proposed office area. Of the 24 bicycle parking spaces, 12 spaces would be short-term and 12 spaces would be long-term.

A metal gate with Knox box would be installed at the South Milpitas Boulevard and Ames Avenue driveway as well as on-site between truck and automobile parking areas. No other driveways would be gated. The proposed project would include frontage street improvements consisting of a full width grind and overlay of Gibraltar Drive and crack and slurry repair on South Milpitas Boulevard.

Pedestrian paths of travel would be demarcated throughout the project site and would connect to the existing sidewalk along South Milpitas Boulevard and Gibraltar Drive. The proposed project would also construct crosswalks and curb ramps as well as upgrades to existing traffic signal equipment at the northern and western leg of the South Milpitas Boulevard and Ames Avenue intersection. Crosswalk striping and curb ramp replacements would also be provided at the intersection of Gibraltar Drive and Milpitas Boulevard as well as at the southwest corner of the project site, crossing Gibraltar Drive.

Open Space and Landscaping

The proposed project would maintain the landscaping areas along South Milpitas Boulevard and Gibraltar Drive. The proposed project would remove 18 of the 98 on-site trees that classify as protected trees under the Milpitas Municipal Code but would include the planting of replacement trees exceeding the required ratio of 2:1. As such, the proposed project would include the planting of 185

trees. The proposed project would maintain other existing trees and proposed trees would include various tree and shrub species consistent with the surrounding area and meeting drought-tolerant requirements. The landscaping plan includes trees along the perimeter of the site, within the site's parking areas, and near the eastern and western façades of the building. Stormwater infrastructure, in the form of detention basins, would be incorporated into on-site landscaping and open space with larger basins located along the project site's northern boundary and southwestern corner.

Lighting

The proposed lighting plan includes night lighting for parking areas, walkways, and driveways. Outdoor lights would cast downward and would be shrouded to prevent glare. Proposed site lighting would be designed to comply with Leadership in Energy and Environmental Design (LEED®) light pollution reduction requirements.

Storm Drainage

The proposed project would construct new detention basins and storm drains that would connect to existing 15- to 18-inch storm drains on-site and in Gibraltar Drive. The proposed project includes the construction of Low Impact Development (LID) stormwater management systems, including proposed bioretention treatment and pervious pavement (self-retaining) areas, which would allow stormwater runoff from the project site to infiltrate the ground surface and would treat as well as reduce runoff from the site. The project site consists of approximately 876,485 square feet of existing impervious surfaces to which the proposed project would add 105,527square feet, resulting in approximately 982,012 square feet of impervious surfaces (Table1).

Utilities

The proposed project would connect to the City's existing utility and service systems. The proposed project would include the construction of sanitary sewer lines that would connect to two existing sanitary sewer lines in South Milpitas Boulevard and Gibraltar Drive. Existing fire hydrants on South Milpitas Boulevard and Gibraltar Drive would serve the proposed project. An existing fire hydrant on South Milpitas Boulevard would be relocated to the east to allow for driveway access. The proposed project's new domestic water lines would connect to 8- to 14-inch water lines on South Milpitas Boulevard. Fire service water would be served to the project site via connections in Gibraltar Drive. Electricity would be provided by Pacific, Gas, and Electric Company (PG&E), which currently serves the site.

Demolition and Construction

The proposed project would result in the demolition of the existing on-site buildings and all surface pavements on the site. The proposed project would require 45,111 cubic yards of cut material and 50,030 cubic yards of fill material, resulting in 3,913 cubic yards of import. Demolition and construction methods, as well as disturbance area, would be generally the same as that considered for the previously approved on-site project, including the potential for temporary dewatering. The demolition and construction phases of the proposed project are anticipated to take approximately 14 months. The proposed project is anticipated to be completed and occupied by December 2026.

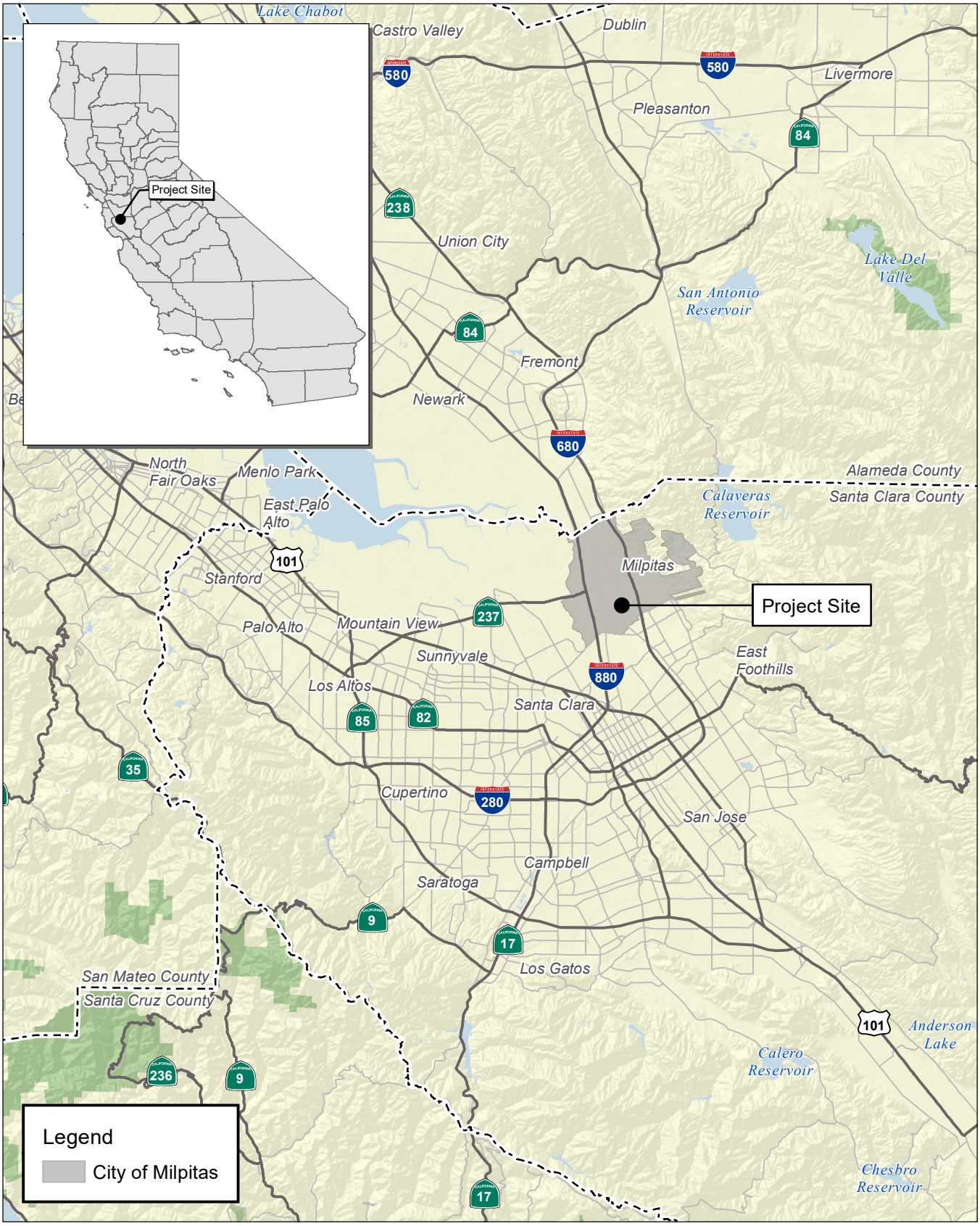
2.4 - Discretionary Approvals

The proposed project requires the following discretionary approvals from the City of Milpitas:

- Site Development Permit No. SD24-0006
- Tree Removal Permit No. TR25-0021
- Environmental Assessment No. EA24-0002

2.5 - Other Approvals

- Approval of site, demolition, grading, and building permits (City of Milpitas Office of Building Safety)
- Approval of permits for streetscape improvements in the public right-of-way (City of Milpitas Public Works, Engineering Division)
- Fire Department Review and Approval of proposed fire truck access and site fire flow design



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

Exhibit 1
Regional Location Map

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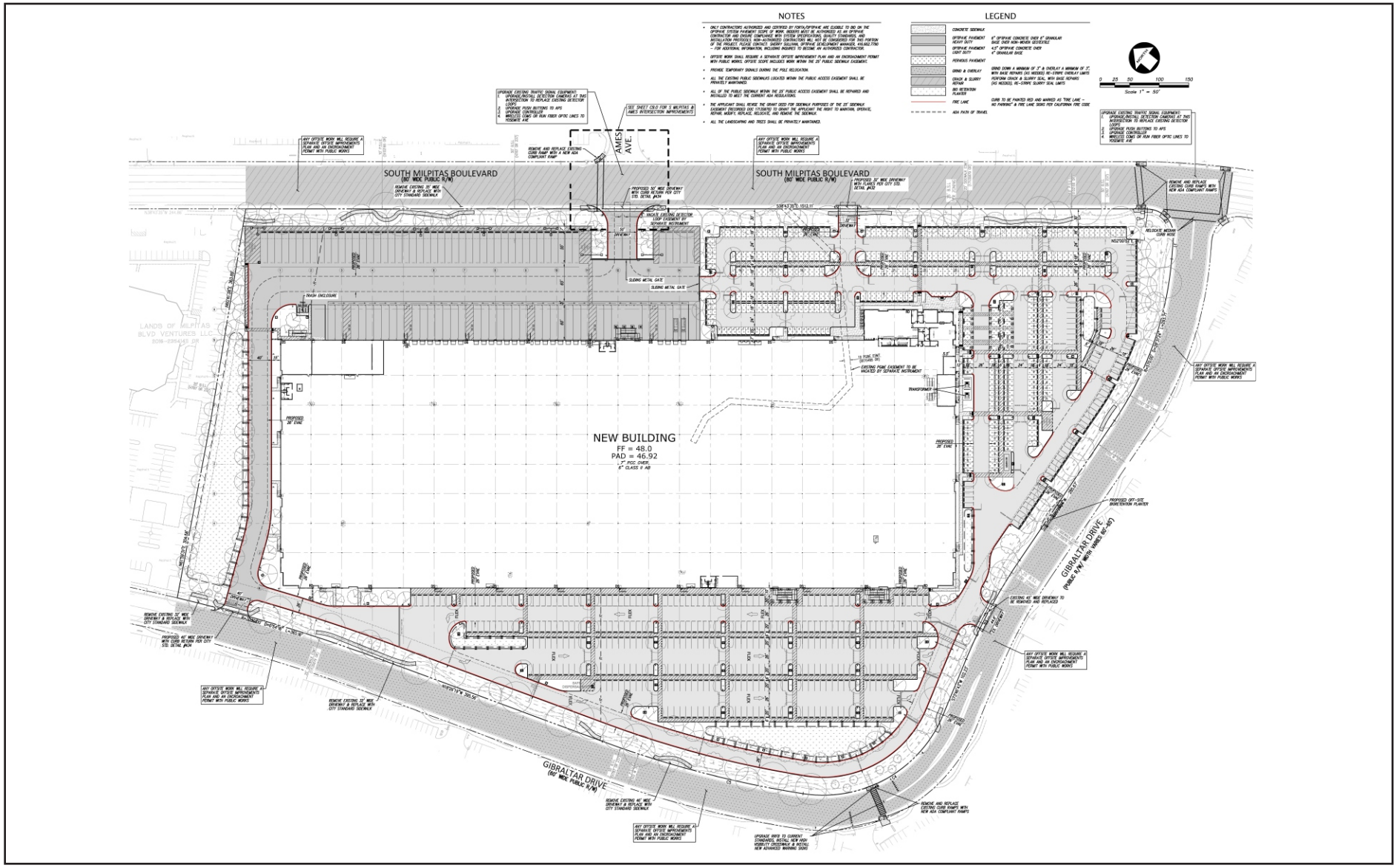


Source: ESRI Aerial Imagery. Santa Clara County.

1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

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Source: Kier + Wright, 06/26/2025.

Exhibit 3
Site Plan

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3 - CEQA ADDENDUM

The purpose of the Addendum's checklist is to evaluate the revisions in the proposed project in light of the previous FEIR to evaluate any changed condition (e.g., changed circumstances, project changes, or new information of substantial importance) that may result in a changed environmental result (e.g., a new significant impact or substantial increase in the severity of a previously identified significant effect) (CEQA Guidelines § 15162).

The questions posed in the Addendum's checklist come from Appendix G of the CEQA Guidelines. A "no" answer does not necessarily mean that there are no potential impacts relative to the environmental category but that there is no change in the condition or status of the impact since it was analyzed and addressed with mitigation measures in the Final EIR. These environmental categories might be answered with a "no" in the checklist since the proposed project does not introduce changes that would result in a modification to the conclusion of the previously approved CEQA document.

This Addendum addresses the conclusions of the 1000 Gibraltar Drive FEIR.

3.1 - Explanation of Addendum Evaluation Categories

(1) Conclusion in the Previous FEIR and Related Documents

This column summarizes the conclusion of the previous FEIR relative to the environmental issue listed under each topic.

(2) Do the Proposed Changes Involve New Impacts?

Pursuant to CEQA Guidelines Section 15162, subd. (a)(1), this column indicates whether the changes represented by the revised project will result in new significant environmental impacts not previously identified or mitigated by the previous FEIR or whether the changes will result in a substantial increase in the severity of a previously identified significant impact.

(3) New Circumstances Involving New Impacts?

Pursuant to CEQA Guidelines Section 15162, subd. (a)(2), this column indicates whether there have been substantial changes with respect to the circumstances under which the project is undertaken that will require major revisions to the previous FEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(4) New Information Requiring New Analysis or Verification?

Pursuant to CEQA Guidelines Section 15162, subd. (a)(3)(A-D), this column indicates whether new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous FEIR was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous FEIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous FEIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous FEIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

If the additional analysis completed as part of this environmental review were to find that the conclusions of the previous FEIR remain the same and no new significant impacts are identified, or identified impacts are not found to be substantially more severe, or additional mitigation is not necessary, then the question would be answered “no” and no additional environmental document would be required.

(5) Mitigation Measures Implemented to Address Impacts

Pursuant to CEQA Guidelines Section 15162, subd. (a)(3), this column indicates whether the previous FEIR provides mitigation measures to address effects in the related impact category. Any previously adopted mitigation measures will be identified. The response will also address proposed revisions to previously adopted mitigation measures. These mitigation measures will be implemented with the construction of the project, as applicable. If “NA” is indicated, the Final EIR has concluded that the impact either does not occur with this project or is not significant, and therefore no additional mitigation measures are needed.

3.2 - Discussion and Mitigation Sections

The following sections include three components for each environmental checklist question: discussion of each checklist question and any potential impacts to the environment, any mitigation measures required, and a conclusion of the analysis. Each component is further described below:

(1) Discussion

A discussion of the elements of the checklist is provided under each environmental category in order to clarify the answers. The discussion provides information about the particular environmental issue, how the project relates to the issue, and the status of any mitigation that may be required or that has already been implemented.

(2) Mitigation Measures

Applicable mitigation measures from the previous FEIR that apply to the proposed project are listed under each environmental category.

(3) Conclusions

A discussion of the conclusion relating to the analysis is contained in each section.

3.3 - Environmental Topics

The following topics are evaluated in accordance with current CEQA Guidelines and requirements:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources and Tribal Cultural Resources
- Energy
- Geology and Soils
- GHG Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

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Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
I. Aesthetics, Light, and Glare *Except as provided in Public Resources Code Section 21099, would the project:*					
a) Have a substantial adverse effect on a scenic vista?	Less than significant impact	No	No	No	None
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a State Scenic Highway?	No impact	No	No	No	None
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations	Less than significant impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
governing scenic quality?					
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than significant impact with mitigation incorporated	No	No	No	None

Existing Conditions

The project site is relatively flat and consists of four 1- to 2-story office buildings, paved surface parking areas, and landscaping including trees. An open grassland area with trees is located at the southern end of the site. The site is surrounded by paved roadways (i.e., South Milpitas Boulevard and Gibraltar Drive) and 1- to 2-story office and industrial buildings with paved parking areas and landscaping. The visual character of the existing site and surrounding areas is consistent with the visual setting described in the previous FEIR.

Discussion

a) Scenic Vistas

Previous FEIR Conclusions

The previous FEIR concluded that the previously approved project would have a less than significant impact on scenic vistas. The previous FEIR indicated that the project site is not located in an area considered to be within view of a scenic vista and would not consist of or block any possible City-designated views. Furthermore, it was concluded that development of the previously approved project would not obscure any views of scenic vistas from surrounding public vantage points. Therefore, in certifying the previous FEIR for the previously approved project, the City found that impacts would be less than significant and no mitigation was required.

Proposed Project Analysis and Conclusion

The proposed project is located on the same site analyzed in the previous FEIR and proposes development substantially similar to what was already analyzed and approved. There are no officially

designated scenic vista points in the General Plan Milpitas Planning Area. The project site is not located in an area considered to be within view of a scenic vista. As such, the proposed project would have no impact on views of scenic vistas.

Significant visual resources in the Milpitas Planning Area include Mission Hills and Monument Peak (more than 5 miles northeast of the site), which form a distinctive scenic backdrop to the City. The project site is surrounded by urban development and landscaping which substantially blocks views of the above-mentioned hillsides from the surrounding area. As shown in Table 1, the proposed project would include a single-story warehouse and office building similar in scale and mass to the previously approved project with an overall reduction in square footage. The proposed building would be approximately 4.5 feet taller than the previously approved project (see Table 1), but this slight increase would not substantially block views of the Mission Hills or Monument Peak from publicly accessible locations due to distance and intervening urban features. Furthermore, as shown in Table 1, the proposed project's building footprint would be approximately 3,476 square feet smaller than the previously approved project. As such, the modifications included in the proposed project are within the scope of and consistent with the analysis in the previous FEIR. For the above reasons, the proposed project would not significantly impact views of visual resources from surrounding public vantage points. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Scenic Highways

Previous FEIR Conclusions

The previous FEIR concluded that there would be no impacts related to the substantial damage of scenic resources within a State scenic highway. The previous FEIR indicated that the California Department of Transportation's (Caltrans's) California Scenic Highway Mapping System identifies I-680 to the north of Mission Boulevard as an officially designated State Scenic Highway, a location approximately 8.5 miles from the project site. The previous FEIR concluded that given this distance, the previously approved project would not be visible from the designated scenic roadway and the previously approved project would have no impact on scenic resources located within view of a State scenic highway.

Proposed Project Analysis and Conclusion

The project site is not located within or adjacent to an officially State-designated scenic highway. As stated above, the nearest officially designated scenic highway is a portion of I-680 to the north of Mission Boulevard, approximately 8.5 miles north of the project site.[2] Given the distance of the proposed project from the nearest State scenic highway, the project would have no impact on a scenic highway. As such, the proposed project would not damage scenic resources within a State scenic highway. The proposed project would have no impact on scenic resources within a State

[2] California Department of Transportation (Caltrans). California State Scenic Highway System Map. Website: https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed April 24, 2025.

scenic highway and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

c) Consistency with Scenic Quality Regulations and Visual Character

Previous FEIR Conclusions

The previous FEIR concluded that although the previously approved project would temporarily degrade the existing visual character of the site due to construction activities, impacts related to the permanent development of the previously approved project and its consistency with scenic quality regulations and visual character of the project area would be less than significant.

Proposed Project Analysis and Conclusion

The project site is located within an urbanized area; the site and surrounding office/industrial uses are located within the M2 Zoning District, in which heavy industrial use is permitted. The proposed project would consist of a 1-story warehouse/office building primarily made of tilt-up concrete panels with glass corners which address the main entry and surrounding site vantage points while the bulk of the structure is offset by various façade movement and vertical undulation. The office portion of the building would contain additional glazing to address the tenant layout. The proposed development would have landscaping, including trees and open space areas. Overall building type and visual appearance would be similar to that of the previously proposed project.

Consistent with the previously approved project, the proposed project could temporarily degrade existing visual character of the site during temporary construction activities (which would be similar to those previously approved). However, these construction activities would be typical of similar projects and would not represent a lasting conflict with existing uses or unusual degradation of the visual environment. Accordingly, impacts would be less than significant.

The proposed project would be consistent with the City's General Plan, Municipal Code, and Streetscape Master Plan policies and regulations governing scenic quality. The proposed project would comply with General Plan Policy CD 3-3, which requires redevelopment to reinforce desirable elements of its neighborhood, district, or center, including architectural style, scale, and setback patterns. The proposed project would have a similar architectural style to the surrounding office/industrial uses and would comply with M2 Zoning District setback and landscaping requirements. The proposed development would have a front and side yard setback of 25 feet from South Milpitas Boulevard and Gibraltar Drive, in compliance with the City's Municipal Code Section 7, Industrial Zones and Standards. The proposed project would also include street trees, in compliance with the City's Streetscape Master Plan and the Municipal Code, Section 7. For the above reasons, the proposed project would not conflict with applicable zoning or other regulations governing scenic quality. The impact would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

d) Light and Glare

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to light and glare would be less than significant with mitigation incorporated. The project site is located in a heavily urbanized area with a variety of existing light sources including streetlights, interior and exterior building lighting, and light associated with traffic on nearby roadways. Development of the previously approved project would incrementally increase the amount of nighttime lighting in the surrounding area due to new interior and exterior building lighting, safety lighting in the parking lot, and lighting associated with additional vehicular traffic to and from the project site. The previous FEIR concluded that the previously approved project would be required to comply with Section XI-10-54.17 of the City's Zoning Ordinance, which includes the following requirements related to outdoor lighting.

- **Section XI-10-54.17–Lighting Exterior**. Lighting shall be shielded or recessed so that direct glare and reflections are contained within the boundaries of the parcel and shall be directed downward and away from adjoining properties and public rights-of-way. Fixtures shall be appropriate in terms of height, style, design, scale and wattage to the use of the property. Fixtures shall be spaced appropriately to maximize pedestrian safety.

In addition, the previous FEIR concluded that the previously approved project would be required to implement Mitigation Measure (MM) AES-1, which requires outdoor lighting to be designed to minimize glare and spillover to surrounding properties.

MM AES-1 Outdoor lighting shall be designed to minimize glare and spillover to surrounding properties. The project design and building materials shall incorporate non-mirrored glass to minimize daylight glare. All lighting elements shall comply with Sections XI-10-45.15-3 of the City's Zoning Ordinance and the proposed lighting plan shall be reviewed and approved by the City's Planning Division prior to issuance of a building permit.

Based on the conclusions in the previous FEIR, with the implementation of MM AES-1 and Municipal Code Section XI-10-54.17, the City found that the previously approved project would result in less than significant light and glare impacts. As such, impacts related to light and glare were determined to be less than significant with mitigation incorporated.

Proposed Project Analysis and Conclusion

As discussed above, the project site is located on the same site as the previously approved project, in a heavily urbanized area with a variety of existing light sources including streetlights, interior and exterior building lighting, and light associated with traffic on nearby roadways. The proposed project is approximately the same size and design as the approved project (as shown in Table 1) and, similar to the previously approved project, development of the proposed project would incrementally increase the amount of nighttime lighting in the surrounding area due to new interior and exterior building lighting, safety lighting in the parking lot, and lighting associated with additional vehicular traffic to and from the project site.

The proposed project would adhere to Municipal Code Section XI-10-54.17, which includes standards related to outdoor lighting. Consistent with the previous FEIR, the proposed project's outdoor lighting is designed to minimize glare and spillover to surrounding properties. The project design and building materials incorporate non-mirrored glass windows to minimize daylight glare. Further, the proposed project would comply with Municipal Code Section XI-10-45.15-3, which states that outdoor lighting should use the minimum wattage lights which will safely illuminate the area. In addition, the proposed project's lighting plan would be reviewed and approved by the City's Planning and Building Departments prior to issuance of a building permit. The lighting requirements in MM AES-1 have been incorporated into the proposed project's design and, therefore, the proposed project would not require mitigation to reduce light and glare impacts to a less than significant level. With the implementation of the above Municipal Code standards related to outdoor lighting, the proposed project would have a less than significant impact related to light and glare. The proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any aesthetic impacts beyond those considered in the previous FEIR. MM AES-1 identified in the previous FEIR, pertaining to light and glare impacts, has been incorporated into the proposed project's design; as such, mitigation is not required to reduce the proposed project's light and glare impacts to a less than significant level. The proposed project's light and glare impacts would be less than significant without mitigation. All other impact conclusions for the proposed project would be the same as the conclusions identified in the previous FEIR.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
II. Agriculture and Forestry Resources *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	No impact	No	No	No	None
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	No impact	No	No	No	None
c) Conflict with existing zoning for, or cause rezoning of, forest land (as	No impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?					
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No impact	No	No	No	None
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	No impact	No	No	No	None

Discussion

The project site is developed with vacant office buildings and is surrounded by urban and built-up land primarily used for industrial and office purposes. There are no agricultural or forest uses on the

project site or the surrounding area. According to the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program, the project site is not located within any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and is marked as being in Urban and Built-up Land. The nearest farmland to the project site is located approximately eight miles south of the project site and is classified as Prime Farmland.[3] In addition, the project site and the surrounding area are not under a Williamson Act Contract.[4]

a) Conversion of Important Farmland to Nonagricultural Use

Previous FEIR Conclusions

The previous FEIR concluded that the previous project would not result in the conversion of farmland to nonagricultural use. The previous FEIR concluded that there are no Prime, Unique, Statewide, or Locally Important farmlands in the project vicinity and the site does not contain any important farmland. Given that the previous FEIR concluded that the previous project would result in no impacts to agricultural and forestry resources, no further analysis of these resources was required in the previous FEIR.

Proposed Project Analysis and Conclusions

The proposed project is located on the same site and involves the same parcels as the approved project. No changes have occurred to the status of the project site's non-farmland designation as indicated by the Farmland Mapping and Monitoring Program of the California Department of Agriculture. There is no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance on the project site or in its vicinity. The project site is currently mapped as Urban Built-Up Land.[5] Thus, the proposed project would not convert any farmland to nonagricultural use. As such, no impacts would occur and the proposed project would not result in a new or more severe adverse impact to agricultural land conversion not previously identified in the previous FEIR.

b) Conflict with Existing Zoning for Agricultural Use or Williamson Act Contract.

Previous FEIR Conclusions

The previous FEIR concluded that the previous project would not result in any impacts to lands zoned for agriculture or existing Williamson Act Contract.[6]

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[3] California Department of Conservation (DOC). 2025. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed April 17, 2025. 2025.

[4] California Department of Conservation (DOC). 2025. California Williamson Act Enrollment Finder. Website: https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html. Accessed March 4, 2025.

[5] Ibid.

[6] Ibid.

Proposed Project Analysis and Conclusion

No changes have occurred to the status of the project site's zoning district identified in the previous FEIR and the site continues to be unencumbered by a Williamson Act Contract.[7] As previously discussed, the project site is currently within the City's M2 Zoning District, which is intended for industrial uses, and has a General Plan land use designation of MFG. As such, the project site is not zoned for agricultural use and is not subject to a Williamson Act Contract. No impacts would occur and the proposed project would not result in any new or more severe adverse impacts related to agricultural zoning or Williamson Act impacts not identified in the previous FEIR.

c) Conflict with Existing Forest Land Zoning

Previous FEIR Conclusions

The previous FEIR concluded that the project would not result in any impacts related to forest land or timberland and that the project site does not contain any forestland or timberland or any land zoned for such uses.

Proposed Project Analysis and Conclusion

The proposed project is on the same site and involves the same parcels and zoning as the approved project. The project site is currently within the M2 Zoning District and is currently occupied by existing vacant office buildings. The project site is not within a zoning district designated for forest land or timberland production. Therefore, the proposed project would not introduce any new forest land or timber land zoning impacts not previously disclosed. No impacts would occur and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

d) Conversion of Forest Land to Non-Forest Use

Previous FEIR Conclusions

The previous FEIR concluded that the project would not result in any impacts related to the conversion or loss of forest land, based on the previous FEIR conclusions. The previous FEIR concluded that the project site does not contain any forest land and that the previously approved project would have no impact to forestry resources.

Proposed Project Analysis and Conclusion

As discussed above, the project site does not contain forest land. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses. Therefore, no impacts would occur and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

[7] California Department of Conservation (DOC). 2025. California Williamson Act Enrollment Finder. Website: https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html. Accessed March 4, 2025.

e) Other Changes to Convert Farmland to Nonagricultural Use or Forest Land to Non-Forest Use

Previous FEIR Conclusions

The previous FEIR concluded that the project would not result in any impacts related to the conversion or loss of agricultural land or forest land. The previous FEIR concludes that the site does not contain agricultural or forestry resources and that the previously approved project would have no impact on such resources.

Proposed Project Analysis and Conclusion

The proposed project does not involve any changes to the location, site, or parcels analyzed in the approved project. Consistent with the previous FEIR conclusions, the project site and surrounding area do not contain farmland or forest land. Therefore, no impacts would occur and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any impacts related to Agricultural or Forest Resources, as found in the previous FEIR. No new impacts are found and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
III. Air Quality *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:*					
a) Conflict with or obstruct implementation of the applicable air quality plan?	Less than significant impact	No	No	No	None
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	Significant and unavoidable impact	No	No	No	None
c) Expose sensitive receptors to substantial pollutant concentrations?	Less than significant impact	No	No	No	MM AIR-3
d) Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?	Less than significant impact	No	No	No	None

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Previous FEIR Conclusions

In certifying the Previous FEIR, the City explained that based on the Bay Area Air Quality Management District's (Bay Area Air District) current CEQA Air Quality Guidelines, the following criteria were to be considered to determine whether a project would conflict with or obstruct implementation of the 2017 Clean Air Plan, the current Air Quality Plan (AQP) to date:

- Does the project support the primary goals of the air quality plan?
- Does the project include applicable control measures from the air quality plan?
- Does the project disrupt or hinder implementation of any air quality plan control measures?

The 2017 Clean Air Plan includes control measures that aim to reduce air pollution and greenhouse gases (GHGs) from stationary, area, and mobile sources. The control measures are organized into nine categories: stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants (e.g., methane, black carbon, and fluorinated gases).

The previous FEIR determined that the project would be consistent with applicable control measures from the 2017 Clean Air Plan. Because the proposed project would not result in any significant and unavoidable air quality impacts related to emissions, ambient concentrations, or public exposures, the proposed project would support the primary goals of the 2017 Clean Air Plan. Therefore, based on Bay Area Air District's CEQA Air Quality Guidelines, the previous FEIR determined that the project would not conflict with or obstruct implementation of the applicable air quality plan, and the associated air quality impact would be less than significant with no mitigation measures required.

Proposed Project Analysis and Conclusion

As mentioned above, the Bay Area Air District does not provide a numerical threshold of significance for project-level consistency analysis with AQPs. Therefore, the following criteria (the same as those used in the previous FEIR) will be used for determining whether the proposed project is within the scope of the analysis in the previous EIR and if the proposed project' is consistent with the 2017 Clean Air Plan, the current AQP to date:

- **Criterion 1:** Does the project support the primary goals of the AQP?
- **Criterion 2:** Does the project include applicable control measures from the AQP?
- **Criterion 3:** Does the project disrupt or hinder the implementation of any AQP control measures?

Criterion 1

The primary goals of the 2017 Clean Air Plan are to:

- Attain air quality standards;
- Reduce population exposure to unhealthy air and protect public health in the Bay Area; and
- Reduce GHG emissions and protect the climate.

A measure for determining whether the proposed project supports the primary goals of the 2017 Clean Air Plan is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. This measure is determined by comparing project emissions to the significance thresholds identified by the Bay Area Air District for construction- and operation-related pollutants. These significance thresholds are applied in the evaluation of Section III(b), below. As discussed under Section III(b) and Section III(c), the proposed project would not significantly contribute to cumulative nonattainment pollutant violations or expose sensitive receptors to substantial pollutant concentrations. Therefore, similar to the analysis in the previous FEIR, the proposed project would be consistent with Criterion 1.

Criterion 2

The 2017 Clean Air Plan also assumes that all mandatory regulations to reduce air pollution would be adhered to. Therefore, to conform to the assumptions in the Clean Air Plan, a project must be consistent with all applicable measures contained in the Clean Air Plan. The Clean Air Plan contains 85 control measures to reduce air pollutants and GHGs at local, regional, and global levels. Along with the traditional stationary, area, mobile source, and transportation control measures, the Clean Air Plan contains several control measures designed to protect the climate, promote mixed use, and compact development to reduce vehicle emissions and exposure to pollutants from stationary and mobile sources.

Table 2 lists the relevant Clean Air Plan policies to the proposed project and evaluates the proposed project's consistency with the policies. As shown below, the proposed project would be consistent with applicable measures.

Table 2: Project Consistency with Clean Air Plan Control Measures

Control Measure	Project Consistency
Buildings Control Measures	
BL1: Green Buildings	**Consistent**. This measure focuses on working with local governments that have authority over local building codes to facilitate adoption of best practices and policies to control GHG emissions. The proposed project would not conflict with the implementation of this measure. The proposed project would comply with the local building codes and the latest energy efficiency standards and will incorporate applicable energy efficiency features designed to reduce project energy consumption.
BL4: Urban Heat Island Mitigation	**Consistent.** This measure seeks to engage cities and counties to adopt ordinances that promote the use of cool surface treatments for new parking facilities. This measures is primarily aimed at cities and counties and is not

Control Measure	Project Consistency
	applicable to the proposed project. Neither the City nor County have adopted cool surface treatment ordinances. However, the proposed project would incorporate landscaping throughout the site. The proposed project would provide landscaping, including trees, that would reduce the urban heat island effect.
Energy Control Measures	
EN1: Decarbonize Electricity Generation	Consistent**.** This measure is about decreasing the carbon intensity of electricity by switching to less GHG-intensive fuel sources for electricity generation. This measure primarily applies to electrical utility providers and is not applicable to the proposed project. Silicon Valley Clean Energy Green Start program obtained 36.7 percent of its electricity from renewable energy sources, while the remaining electricity was sourced from nuclear (25.1 percent), large hydroelectric (38.1 percent), and unspecified power (0.1 percent).[8,9]
EN2: Decrease Electricity Demand	**Consistent.** This measure is aimed at working with local governments to adopt additional energy-efficiency policies and programs and is not applicable to the proposed project. The proposed project would conform to the energy efficiency requirements of the California Building Standards Code (CBC), also known as Title 24, which was adopted to meet an Executive Order in the Green Building Initiative to improve the energy efficiency of buildings through aggressive standards.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	**Consistent.** The proposed project would incorporate new landscaping and trees throughout the site.
WA3: Green Waste Diversion	**Consistent.** The proposed project will comply with local requirements for waste management. The waste service provider for the proposed project will be required to meet AB 341, SB 939, and SB 1374 requirements that require waste service providers to divert green waste. All plant refuse generated during operations of the proposed project would be recycled off-site.
WA4: Recycling and Waste Reduction	**Consistent.** The proposed project will comply with local requirements for waste management. The waste service provider for the proposed project will be required to meet the AB 341, SB 939, and SB 1374 requirements that require waste to be recycled.

[8] Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

[9] Silicon Valley Clean Energy. 2023. Power Content Label. Website: https://www.energy.ca.gov/filebrowser/download/7360. Accessed August 14, 2025.

Control Measure	Project Consistency
Stationary Control Measures	
SS18: Basin-Wide Combustion Strategy	**Consistent.** Stationary sources are regulated directly by the Bay Area Air District, which routinely adopts/revises rules or regulations to implement the stationary source control measures to reduce stationary source emissions. Therefore, any new stationary sources associated with the proposed project would be required to comply with the Bay Area Air District's regulations. The proposed project's emergency generator would require review by Bay Area Air District for permitted sources of air which would ensure consistency with the 2017 Clean Air Plan.
SS36: Particulate Matter from Trackout	**Consistent.** Mud and dirt that may be tracked out onto the nearby public roads during construction activities shall be removed promptly by the contractor based on the Bay Area Air District's requirements. MM AIR-3 from the previous FEIR would be required to implement Best Management Practice (BMP)s recommended by the Bay Area Air District for fugitive dust emissions during construction.
SS37: Particulate Matter from Asphalt Operations	**Consistent.** Asphalt used during project construction would be subject to Bay Area Air District Regulation 8, Rule 15-Emulsified and Liquid Asphalts. Although this rule does not directly apply to the proposed project, it does limit the reactive organic gases (ROG) content of asphalt available for use during construction by regulating the sale and use of asphalt. Using asphalt from facilities that meet Bay Area Air District regulations, the proposed project would be consistent with this Clean Air Plan measure.
Transportation Control Measures	
TR2: Trip Reduction Programs	**Consistent.** Transportation control measures are strategies to reduce vehicle trips, vehicle use, Vehicle Miles Traveled (VMT), vehicle idling, and traffic congestion to reduce motor vehicle emissions. Although most of the transportation control measures are implemented at the regional level—that is, by Metropolitan Transportation Commission (MTC) or California Department of Transportation (Caltrans)—the 2017 Clean Air Plan relies on local communities to assist with the implementation of some measures. Consistent with the FEIR, the proposed project would generate VMT per employee that would exceed the countywide threshold and the impact is conservatively considered significant and unavoidable with implementation of Mitigation Measure TRANS-1, which requires a Travel Demand Management (TDM) program. The proposed project would implement the TDM program discussed in Section XVII b) to reduce VMT. Therefore, the proposed project would be consistent with this measure.
TR9: Bicycle and Pedestrian Access and Facilities	**Consistent.** Pedestrian paths of travel would be demarcated throughout the project site and would connect to the existing sidewalk along South Milpitas Boulevard and Gibraltar Drive. The proposed project would also construct crosswalks and curb ramps at the northern and western leg of the South Milpitas Boulevard and Ames Avenue intersection. In addition,

Control Measure	Project Consistency
	24-bicycle parking spaces would be provided adjacent to the proposed office area. Of the 24 bicycle parking spaces, 12 spaces would be short-term and 12 spaces would be long-term. Therefore, the proposed project would not conflict with and be consistent with the Bay Area Air District's effort to encourage planning for bicycle and pedestrian facilities.
TR19: Medium and Heavy-Duty Trucks	**Consistent.** The truck fleet used for the proposed project is required to comply with the State's rigorous on-road heavy-duty vehicle programs aimed to transition truck fleets from diesel to Zero-Emission Vehicle (ZEV). Relevant regulations include the "omnibus" regulation, Advanced Clean Truck and Advance Clean Fleets regulations, and Transport Refrigeration Unit (TRU) Arborne Toxics Control Measure (ACTM).
Source: Bay Area Air Quality Management District (Bay Area Air District). 2017. Final 2017 Clean Air Plan. April 19.	

In summary, the proposed project would not conflict with any applicable measures under the 2017 Clean Air Plan and would adopt similar measures to the previously approved project; therefore, the proposed project would be consistent with Criterion 2.

Criterion 3

The proposed project does not include any changes compared to the previously approved project that would create an impediment or disruption to implementation of any Clean Air Plan control measures. As shown in Table 2 above, the proposed project would incorporate several Clean Air Plan control measures as project design features, such as utilizing asphalt compliant with Bay Area Air District regulations, conforming with energy efficiency standards contained in the 2022 CBC, and installing landscaping across the project site. Considering this information, the proposed project would not disrupt or hinder the implementation of any Clean Air Plan control measures. The proposed project is therefore consistent with Criterion 3.

Summary

As discussed above, the proposed project would be consistent with all three criteria. Thus, similar to the previously approved project, the proposed project would not conflict with the 2017 Clean Air Plan. Therefore, impacts associated with conflicting with or obstructing the applicable AQP would be less than significant, and the proposed project would not result in a new or more severe adverse impact compared to what was identified in the previous FEIR.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

Previous FEIR Conclusions

Construction Emissions

The previous FEIR identified that project construction activities would generate criteria air pollutant emissions that could potentially adversely affect regional air quality. Construction activities would include demolition, site preparation, grading, trenching, building construction, paving, and applications of architectural coatings. The previous FEIR found that the primary pollutant emissions of concern during project construction would be ROG, Nitrogen Oxides (NOx), particulate matter with an aerodynamic diameter of 2.5 microns and smaller ($PM_{2.5}$) and 10 microns and smaller (PM_{10}) from the exhaust of off-road construction equipment and on-road vehicles related to worker vehicles, vendor trucks, and haul trucks. In addition, fugitive ROG emissions would result from the application of architectural coatings and paving.

The previous FEIR explained that to analyze daily emission rates during project construction, the total emissions estimated during construction were averaged over the total workdays (188 workdays) and compared to the Bay Area Air District's thresholds of significance. As shown in Table 3 extracted from the previous FEIR, the project's estimated emissions for ROG, NOx, and PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction were well below the applicable thresholds and, therefore, were found to have a less than significant impact on regional air quality.

Table 3: Approved Project Estimated Project Construction Emissions (Pounds per Day)

Emissions	ROG	NOx	Exhaust	
			PM_{10}	$PM_{2.5}$
Construction	2.0	24.9	0.7	0.6
Bay Area Air District's Thresholds	54	54	82	54
Exceed Threshold?	No	No	No	No

Source:
WRA Environmental Consultants. 2020. 1000 Gibraltar Drive Environmental Impact Report SCH #2020069024. December.

Operational Emissions

The previous FEIR determined that project operation would generate criteria air pollutant emissions that could potentially affect regional air quality. The primary pollutant emissions of concern during project operation would be ROG, NOx, and exhaust PM_{10} and $PM_{2.5}$ from mobile sources, energy use, area sources (e.g., consumer products and architectural coatings), and stationary sources.

The annual average emissions of criteria pollutants and precursors during the first 3 years of project operation are compared to the Bay Area Air District's thresholds of significance in Table 4. Unmitigated ROG and exhaust PM_{10} and $PM_{2.5}$ emissions from project operation were below the thresholds of significance for each year evaluated; however, unmitigated NOx emissions from project operation were above the threshold of significance. As shown in Table 3, approximately 98 percent of the project's estimated NOx emissions are from mobile sources (e.g., trucks and light-duty vehicles) and are associated with running emissions from project-generated VMT.

Table 4: Approved Project Estimated Unmitigated and Mitigated Project Operation Emissions

Emission Scenario	Sources	Maximum Annual Emissions (Tons)				Average Daily Emissions (Pounds)			
				Exhaust				Exhaust	
		ROG	NOx	PM_{10}	$PM_{2.5}$	ROG	NOx	PM_{10}	$PM_{2.5}$
2022 Unmitigated	Area	2.19	<0.01	<0.01	<0.01	11.98	<0.01	<0.01	<0.01
	Energy	0.01	0.09	0.01	0.01	0.06	0.52	0.04	0.04
	Stationary	0.01	0.02	<0.01	<0.01	0.04	0.11	0.01	0.01
	On Road Mobile	1.17	12.97	0.08	0.08	6.43	71.06	0.46	0.44
	TRUs[1]	1.02	1.42	0.04	0.04	0.16	7.78	0.22	0.22
	Total	3.4	**13.1**	0.1	0.1	18.5	**71.6**	0.5	0.5
2022 With MM AIR-1	Mobile	1.01	10.66	0.08	0.08	5.54	58.41	0.46	0.44
	Total	3.2	**12.2**	0.1	0.1	17.6	**58.9**	0.5	0.5
Bay Area Air District's Thresholds		10	10	15	10	54	54	82	54

Notes:
Bold means threshold exceedance.
[1] TRU = Transport Refrigeration Unit
Source: WRA Environmental Consultants. 2020. 1000 Gibraltar Drive Environmental Impact Report SCH #2020069024. December.

The previous FEIR implemented MM AIR-1: Tenant Owned Vehicle Model Year Requirement, which requires 2014 or newer model year engines on all heavy-duty trucks more than 14,000 pounds gross vehicle weight rating (GVWR) owned by the project tenant accessing the project site. According to the previous FEIR, MM AIR-1 would reduce overall project NOx emissions in 2022 by about 16 percent; however, project NOx emissions in 2022 would remain above the threshold of significance with implementation of MM AIR-1.

The previous FEIR determined that no on-site mitigation options are available other than MM AIR-1: Tenant-Owned Vehicle Model Year Requirement. Although it is possible to reduce NOx emissions further by placing a limit on vehicle model years for the third-party vehicles (vans and other passenger cars) accessing the project site, such measures are difficult to implement in an effective manner. Unlike tenant-owned vehicles, there is no effective protocol for monitoring third-party vehicles accessing the project site. Therefore, the previous FEIR determined that additional off-site mitigation would be required to reduce the residual NOx emissions, a maximum of 12.2 tons per year, as shown in Table 3. MM AIR-2: Emissions Offsets required the project applicant to offset the NOx emissions below the threshold of significance by either implementing a specific offset program (e.g., equipment replacement), funding the implementation of an emission reduction project through payment of a mitigation offset fee to the Bay Area Air District's Bay Area Clean Air Foundation, or a combination of the two approaches, in an amount sufficient to mitigate residual emissions. The Bay Area Air District recommends identifying offset programs located within the nine-county Bay Area in order to reduce the project's cumulative contribution to the region's existing air quality conditions.

As determined by the City in certifying the previous FEIR, implementation of MMs AIR-1 and AIR-2 would reduce the residual NOx emissions below the threshold of significance. However, because the offset program or offset fee required by MM AIR-2 could not be determined to be real, verifiable, and enforceable at the time of preparation of the previous FEIR, the City found that the project's operational impacts related to emissions of criteria pollutant were significant and unavoidable.

Proposed Project Analysis and Conclusion

This impact is related to the cumulative effect of a project's criteria pollutant emissions. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants results from past and present development within the Air Basin, and this regional impact is a cumulative impact. Therefore, new development projects (such as the proposed project) within the Air Basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited but cumulatively considerable when evaluated in combination with past, present, and future development projects.

Potential regional impacts could result in exceedances of State or federal standards for NO_X, particulate matter (PM_{10} and $PM_{2.5}$), or CO. NO_X emissions are of concern because of potential health impacts from exposure to NO_X emissions during both construction and operation and as a precursor in the formation of airborne ozone. PM_{10} and $PM_{2.5}$ are of concern during construction because of the potential to emit exhaust emissions from the operation of off-road construction equipment and fugitive dust during earth-disturbing activities. CO emissions are of concern during project operation because operational CO hotspots are related to increases in on-road vehicle congestion and resulting health effects.

ROG emissions are also important because of their participation in the formation of ground level ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Elevated ozone

concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the project's incremental effects would be cumulatively considerable. Rather, the determination of cumulative air quality impacts for construction and operational emissions is based on whether the proposed project would result in emissions that exceed the Bay Area Air District thresholds of significance for construction and operations on a project level. The thresholds of significance represent the allowable emissions each project can generate without generating a cumulatively considerable contribution to regional air quality impacts. Therefore, a project that would not exceed the Bay Area Air District thresholds of significance on the project level also would not be considered to result in a cumulatively considerable contribution to these regional air quality impacts. Construction and operational emissions are discussed separately below.

Construction Emissions

The proposed project would involve similar means and methods as analyzed in the previous FEIR for demolition and construction of the proposed project.

Construction Air Pollutant Emissions: ROG, NO_X, Exhaust PM_{10}, and Exhaust $PM_{2.5}$

California Emissions Estimator Model (CalEEMod) Version 2022.1 was used to estimate the proposed project's construction emissions. CalEEMod provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the model recommended by the Bay Area Air District for estimating project emissions. Estimated construction emissions are compared with the applicable thresholds of significance established by the Bay Area Air District to assess ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$ construction emissions to determine significance for this criterion.

For the purpose of this analysis, construction of the proposed project is expected to begin in October 2025 and conclude in December 2026 (326 working days). Note that construction emissions would likely decrease if the construction schedule were deferred to later years because of improvements in technology and more stringent regulatory requirements. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as CEQA Guidelines require.

The calculations of pollutant emissions from the construction equipment account for the type of equipment, horsepower and load factors of the equipment, and the duration of equipment use. Average daily construction emissions are compared with the significance thresholds in Table 4.

Table 5: Construction Emissions

Parameter	Air Pollutants (tons/year, lbs or lbs/day)				
	Year	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Project Construction					
Demolition (tons/year)	2025	0.029	0.601	0.013	0.010
Site Preparation (tons/year)	2025	0.004	0.035	0.002	0.001
Grading (tons/year)	2025	0.018	0.177	0.007	0.007
Building Construction (tons/year)	2025	0.028	0.183	0.005	0.005
Building Construction (tons/year)	2026	0.149	1.029	0.029	0.026
Paving (tons/year)	2026	0.018	0.046	0.001	0.001
Architectural Coating (tons/year)	2026	2.622	0.043	0.001	0.001
Total Emissions (tons/year)		2.868	2.114	0.058	0.052
Total Emissions (lbs)		5,735.09	4,228.24	115.09	103.39
Average Daily Emissions (lbs/day)[1]		17.59	12.97	0.35	0.32
Previous FEIR Emissions (lbs/day)		17.6	58.9	0.5	0.5
Significance Threshold (lbs/day)		**54**	**54**	**82**	**54**
Exceeds Significance Threshold?		**No**	**No**	**No**	**No**

Notes:
lbs = pounds
NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
ROG = reactive organic gases
[1] Average daily emissions equal total emissions divided by working days (326 workdays).
Source: CalEEMod Output (see Appendix A).

As shown in Table 4, the proposed project would result in similar average daily ROG emissions as the previously approved project but less NO_x and PM emissions. The proposed project's construction emissions from all construction activities would still be below the recommended thresholds of significance; therefore, the proposed project's construction would have less than significant impact related to emissions of ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$. The proposed project would not result in a new or more severe adverse impact related to construction criteria pollutant emissions compared to what was identified in the previous FEIR.

Operational Emissions

Operational Air Pollutant Emissions: ROG, NO_X, PM_{10}, and $PM_{2.5}$

Similar to the previously approved project, emissions from the operation of the proposed project would be from area sources of emissions at the project site itself, mobile sources (i.e., passenger cars, trucks, and Transport Refrigeration Units (TRUs)[10]), stationary sources (emergency diesel generator), and energy sources associated with the operation of the warehouse.

Area sources refer to volatile organic compound (VOC) emissions from use of consumer products by employees (cosmetics and personal care products) and also include emissions from cleaning products including detergents, cleaning compounds, polishes, floor finishes. Emissions from exhaust of any gasoline-fueled landscaping equipment also contribute to, and are included in, the area source emissions.

According to the previous FEIR, the previously approved project would generate 2,458 passenger vehicle trips, 468 van trips, and 377 truck trips. The proposed project is estimated to generate 3,782 daily passenger vehicle trips (including employees and third-party delivery drivers) and 30 daily truck trips.[11] Any van trips used by third-party delivery drivers are included in the passenger trips and accounts for the increase. The proposed project would result in higher passenger vehicle trips but significantly lower truck trips. The Air Quality Analysis and CalEEMod estimates are conservatively based on CalEEMod defaults for Vehicle Miles Traveled (VMT) trip length for passenger vehicles. For truck trips, the project applicant anticipates that the proposed warehouse would receive merchandise from regional delivery and sortation centers located in Oakland and Tracy. Considering the site's distance from Tracy (approximately 52 miles) and Oakland (approximately 44 miles), an average truck trip distance of 48 miles is used.

The proposed operation would include cold storage. According to applicant provided information, two of the dock doors would be dedicated for trucks with TRUs. Considering the proposed warehouse would have 23 dock doors, it is estimated that trucks equipped with TRUs to transport temperature-controlled goods would account for 10 percent of the daily truck trips (or three out of the 30 truck trips).

For the purpose of this analysis, the proposed 175-horsepower emergency fire pump would not exceed 50 hours of emergency operation per year following Bay Area Air District Rule 9-8-330– Emergency Standby Engines, Hours of Operation. Furthermore, in accordance with the latest Bay Area Air District Best Available Control Technology (BACT) guidance, the proposed diesel emergency generator would need to meet United States Environmental Protection Agency (EPA) Tier 4 Final emission standards.[12] The applicant is required to demonstrate compliance with this requirement in

[10] TRUs are small diesel engines used to run refrigeration devices on trucks.

[11] NV5 Engineers and Consultants. 2025. Local Transportation Analysis for 1000 Gibraltar Drive Delivery Center. July 9.

[12] Bay Area Air Quality Management District (Bay Area Air District). 2024. Best Available Control Technology (BACT) Guideline. November. Website: https://www.baaqmd.gov/~/media/files/engineering/bact-tbact-workshop/combustion/96-1-3.pdf?rev=210312454f084efe9dba8846cda4d372&sc_lang=en. Accessed July 13, 2025.

order to obtain the necessary Bay Area Air District stationary source permit to operate this emergency fire pump.

Operational emissions were also calculated using CalEEMod (Version 2022.1) and compared to the Bay Area Air District-recommended regional thresholds of significance. For detailed assumptions used to estimate emissions, see Appendix A. Table 5 presents the annual and average daily emissions generated during project operation.

Table 6: Operational Emissions

Emissions Source	Air Pollutants [1]			
	ROG	NO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Annual Emissions				
Mobile	1.98	2.72	5.37	1.39
Area	2.49	0.02	0.00	0.00
Energy	0.01	0.13	0.01	0.01
Stationary (Fire Pump)	<0.01	<0.01	<0.01	<0.01
Transport Refrigeration Units (TRUs)	0.03	0.19	<0.01	<0.01
Total (tons/year)	**4.51**	**3.05**	**5.39**	**1.41**
Significance Threshold (tons/year)	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**
Previous FEIR Total Emissions (tons/year)	3.2	12.2	0.1	0.1
Daily Average Emissions				
Total Emissions (pounds/year)	9,014	6,098	10,772	2,811
Average Daily Emissions (pounds/day)[1]	**24.69**	**16.71**	**29.51**	**7.70**
Significance Threshold (pounds/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**
Previous FEIR Total Emissions (pounds/year)	17.6	58.9	0.5	0.5

Notes:
NO_X = nitrous oxides
PM_{10} = particulate matter less than 10 microns or less in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns or less in diameter
ROG = reactive organic gases
[1] Calculated by dividing the total pounds of emissions by 365 days in a typical year.
Source: CalEEMod Output (see Appendix A).

As shown in Table 5 above, the proposed project would result in increased ROG and PM emissions, but significantly decreased NO_X emissions. The decrease in NO_X emissions is expected due to the

significant reduction in heavy-duty truck trips and newer, cleaner vehicle technologies. However, the increase in ROG and PM emissions is likely due to a higher number of passenger vehicle trips, which generate more ROG from fuel systems and cold starts, as well as more non-exhaust PM from tire and brake wear. Changes in fleet mix and updated emission factors between model years can also contribute to these shifts.

The proposed project as a last mile delivery operation would result in far fewer truck trips compared to the previously approved project and would therefore lower criteria pollutant (particularly NO_X) emissions during operation compared to what was analyzed in the previous FEIR. Despite the changes to the proposed project, the project's operational emissions would not exceed the Bay Area Air District's thresholds of significance. MM AIR-1 and MM AIR-2 from the previous FEIR are not needed to reduce project impacts and the proposed project would not result in new or more significant impacts compared to what was identified in the previous FEIR.

Operational Carbon Monoxide Hotspot

The CO emissions from traffic generated by the proposed project are a concern at the local level because congested intersections can result in high, localized concentrations of CO (referred to as a CO hotspot).

Since the certification of the previous FEIR, the Bay Area Air District's latest (2022) CEQA Guidelines has been adopted and provides screening criteria to analyze a project's potential to result in a CO hotspot. While the previous FEIR did not include a CO hotspot analysis due to the absence of applicable Bay Area Air District guidance at the time, the release of new guidance does not, in itself, constitute "new information of substantial importance" under CEQA Guidelines Section 15162. CEQA does not require reconsideration of previously certified EIRs solely due to evolving regulatory methodologies or analytical tools unless such changes reveal that the project would have one or more significant effects not previously analyzed. As shown below, there is no substantial evidence that the proposed project would result in localized CO concentrations exceeding ambient air quality standards. Moreover, the Bay Area has remained in attainment for federal and State CO standards for many years, and regional modeling continues to demonstrate that CO emissions from motor vehicles are declining due to fleet turnover and emission control technologies. As such, the updated CO hotspot screening guidance represents a change in analytical approach—not a change in the environmental setting or project impacts—and does not trigger the need for a subsequent or supplemental environmental review.

According to the latest Bay Area Air District guidance, the CO hotspot screening criteria[13] were used to determine whether implementing the proposed project could result in local carbon monoxide emissions that exceed the thresholds of significance. If all the following screening criteria are met,

[13] Bay Area Air Quality Management District (Bay Area Air District). 2022. CEQA Air Quality Guidelines. April. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?la=en. Accessed May 13, 2024.

operation of the proposed project would result in a less than significant impact related to carbon monoxide:

- The project is consistent with an applicable Congestion Management Program established by the county congestion management agency for designated roads or highways, the Regional Transportation Plan (RTP), and local congestion management agency plans.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Consistent With an Applicable Congestion Management Program

In accordance with California Government Code 65088, Santa Clara County has established a Congestion Management Program (CMP). The intent of the CMP legislation is to develop a comprehensive transportation improvement program among local jurisdictions that will reduce traffic congestion and improve land use decision-making and air quality. The Valley Transportation Authority (VTA) serves as the Congestion Management Agency (CMA) for Santa Clara County's CMP. As a CMA, VTA is required by California Statute to monitor roadway vehicle congestion and the impact of land use and transportation decisions on a countywide level, at least every two years. VTA conducts CMP monitoring and produces the CMP Monitoring and Conformance Report annually.

Milpitas, as a member agency, is required to conform to the CMP requirements for evaluating the transportation effects of land use decision on the designated CMP roadway system.[14] The program is established to address regional transportation issues across City boundaries. The transportation operation analysis is intended to meet the CMP requirements by conducting intersection Level of Service (LOS) analysis at designated CMP intersection and conform to the CMP requirements for bringing intersections into compliance. In accordance with the City's Transportation Analysis Guidelines, a Local Transportation Analysis was prepared for the proposed project.[15] The analysis included evaluation of both designated CMP intersections and non-CMP intersections. It was found that several CMP intersections would experience an adverse effect, defined as operating at LOS E or F, with an increase in critical delay of at least 4.0 seconds and an increase in Volume-to-Capacity ratio of 0.010 or more during the AM and/or PM peak periods. By conducting intersection analysis on nearby roadways, the proposed project is conforming to CMP requirements. As for non-CMP intersections, none of the intersections would experience an adverse effect as defined above and no

[14] City of Milpitas. 2022. Transportation Analysis Guidelines. March. Website: https://www.milpitas.gov/DocumentCenter/View/1623/Transportation-Analysis-Guidelines-PDF?bidId=. Accessed July 17, 2025.

[15] NV5 Engineers and Consultants. 2025. Local Transportation Analysis for 1000 Gibraltar Drive Delivery Center. July 9.

mitigation is required to reduce operation impacts. Therefore, the proposed project is consistent with this criterion.

Increase traffic volumes at affected intersections to more than 44,000 vehicles per hour, or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited

Based on the project's Local Transportation Analysis,[16] the existing plus project traffic volumes on local residential streets would not experience hourly traffic levels above 24,000 and 44,000 vehicles per hour cited in the Bay Area Air District criteria. Specifically, Figure 33 through 35 of the Local Transportation Analysis shows the year 2040 (with project) peak-hour turning volumes at 12 studied intersections. The intersection of Oakland Road and Montague Parkway would experience the highest amount of peak-hour volume (8,668 AM peak-hour trips and 8,982 PM peak-hour trips). The peak-hours trip volume experienced at this intersection is significantly below the threshold levels of 24,000 and 44,000 vehicles per hour. Therefore, the proposed project would meet all the CO screening criteria and would result in a less than significant impact related to carbon monoxide.

The proposed project meets the CO hotspot screening criteria, and operation of the proposed project would result in less than significant impacts related to carbon monoxide.

In summary, the proposed project would not result in construction or operational impacts related to criteria pollutants. In comparison to the conclusions in the previous FEIR, the proposed project would result in similar construction impacts and would result in less operation impacts (due to a significant reduction in project truck trips). The proposed project would not result in a new or more severe adverse impact related to operation criteria pollutant emissions compared to what was identified in the previous FEIR.

c) Expose sensitive receptors to substantial pollutant concentrations?

Previous FEIR Conclusions

Fugitive Dust Emissions

The previous FEIR identified that project demolition, site preparation, grading, and material hauling activities during construction of the previously approved project could generate fugitive dust PM_{10} and $PM_{2.5}$ emissions that could adversely affect local air quality. The Bay Area Air District does not have a quantitative threshold of significance for fugitive dust PM_{10} and $PM_{2.5}$ emissions; however, the Bay Area Air District considers implementation of best management practices to control dust during construction sufficient to reduce potential impacts to a less than significant level. More specifically, the Bay Area Air District recommends that all construction projects implement the Basic Construction Mitigation Measures from the Bay Area Air District's CEQA Air Quality Guidelines to reduce emissions of fugitive dust (regardless of the estimated emissions). As such, the previous FEIR implemented MM AIR-3, which required that the previously approved project implement a dust control program that includes the Basic Construction Mitigation Measures from the Bay Area Air District's CEQA Air Quality Guidelines. In certifying the previous FEIR, the City determined that implementation of MM AIR-3

[16] NV5 Engineers and Consultants. 2025. Local Transportation Analysis for 1000 Gibraltar Drive Delivery Center. July 9.

would reduce potentially significant impacts of fugitive dust emissions during project construction to a less than significant level.

Toxic Air Contaminants from Construction

According to the previous FEIR, the Bay Area Air District recommends evaluating the potential impacts to sensitive receptors located within 1,000 feet of a project. The closest existing sensitive receptors included the following:

- Workers of nearby industrial uses surrounding the site, as close as 60 feet away.
- Multi-family residence to the south of the project site, approximately 460 feet away.
- Multi-family residences to the northwest of the site, approximately 760 feet away.

Table 7 from the previous FEIR below summarizes the estimated health risks at the Maximally Exposed Individual Resident (MEIR) and at the residential receptor northwest of the project site due to Diesel Particulate Matter (DPM) and $PM_{2.5}$ emissions from project construction and compares them to the Bay Area Air District's thresholds of significance. According to the previous FEIR, the estimated cancer risks and chronic hazard indexes (HI) for DPM and annual average $PM_{2.5}$ concentrations from construction emissions were below the Bay Area Air District's thresholds of significance. Therefore, the impact from the previously approved project emissions of DPM and $PM_{2.5}$ during construction on nearby sensitive receptors would be less than significant; therefore, no mitigation was required.

Table 7: Health Risks During Project Construction and Operation at the Maximally Exposed Individual Resident

Sensitive Receptor	Emission Source	Diesel Particulate Matter		Exhaust $PM_{2.5}$
		Cancer Risk (per million)	Chronic Hazard Index	Annual Average Concentration ($\mu g/m^3$)
MEIR	Project Construction	0.89	<0.01	0.01
	Unmitigated Project Operation	2.4	<0.01	<0.01
Residential Receptor Northwest of the Project Site	Project Construction	0.28	<0.01	0.01
	Unmitigated Project Operation	1.2	<0.01	<0.01
Bay Area Air District's Thresholds		10	1	0.3
Exceed Threshold?		No	No	No

Notes:
$\mu g/m^3$ = micrograms per cubic meter.
Source:
WRA Environmental Consultants. 2020. 1000 Gibraltar Drive Environmental Impact Report SCH #2020069024. December.

Toxic Air Contaminants from Operation

According to the previous FEIR, two sources of toxic air contaminants (TAC) emissions would be present during operation of the previously approved project: the proposed emergency fire pump and the diesel vehicles equipped with TRUs accessing the project site.

Based on the results of the air dispersion model prepared for the previously approved project (Appendix F of the previous FEIR), the previous FEIR evaluated operational TAC related potential health risks for the same receptors considered in the construction TAC analysis, discussed above. The previous FEIR conservatively assumed that the sensitive receptors would be exposed to an annual average DPM concentration for 30 years, which is consistent with the California Office of Environmental Health Hazard Assessment (OEHHA's) guidance for evaluating cancer risk at the sensitive receptors. Other parameters for the health risks calculation are similar to those used to evaluate the construction TAC emissions.

Estimates of the health risks at the MEIR and at the residential receptor northwest of the project from exposure to DPM and exhaust $PM_{2.5}$ concentrations from diesel vehicles accessing the project site during operation are summarized and compared to the thresholds of significance in Table 7. The previous FEIR determined that the estimated excess cancer risks and chronic HIs for DPM and annual average $PM_{2.5}$ concentrations from the proposed fire pump and the diesel vehicles during project operation were below the thresholds of significance. Therefore, the previous FEIR found that TAC emissions from project operation would have a less than significant impact on nearby sensitive receptors and no mitigation measures were required.

Cumulative Toxic Air Contaminants Emissions

In addition to a project's individual TAC emissions during construction and operation, the potential cumulative health risks to the MEIR from existing and reasonably foreseeable future sources of TACs were evaluated. The MEIR was evaluated because the project's contribution to health risks at the MEIR are at least three times greater than other nearby sensitive receptors, including the residential receptor northwest of the previously approved project.

Estimates of the cumulative health risks at the MEIR are summarized and compared to the Bay Area Air District's cumulative thresholds of significance in Table 8 below. The cumulative cancer risk and chronic HI from DPM emissions and annual average $PM_{2.5}$ concentrations at the MEIR were below the Bay Area Air District's cumulative thresholds. Therefore, the project's emissions of DPM and $PM_{2.5}$ during construction and operation would have a less than significant cumulative impact on nearby sensitive receptors; therefore, no mitigation measures were required.

Table 8: Summary of Cumulative Health Risks at the Maximally Exposed Individual Resident

Emission Source	Source Type	Diesel Particulate Matter		Exhaust $PM_{2.5}$
		Cancer Risk (per million)	Chronic Hazard Index	Annual Average Concentration ($\mu g/m^3$)
Off-Road Diesel Construction Equipment	Project Construction	0.89	<0.01	0.01
On-Road Diesel Trucks and Fire Pump	Project Operation	2.4	<0.01	<0.01
Highways	Existing Mobile Sources	10.5	NA	0.22
Major Roadways		3.7	NA	0.8
Cumulative Health Risks		17	<0.1	0.3
Bay Area Air District's Threshold		100	10.0	0.8
Exceed Threshold?		No	No	No

Proposed Project Analysis and Conclusion

Fugitive Dust Emissions

Similar to what was identified in the previous FEIR, the proposed project's construction activities include demolition, site preparation, grading, and material hauling activities, which could generate fugitive dust PM_{10} and $PM_{2.5}$ emissions that could adversely affect local air quality. In order for a project to have a less than significant criteria air pollutant impact related to construction-related fugitive dust emissions, it must implement all Bay Area Air District air pollution control measures during construction activities as outlined in the previous FEIR's MM AIR-3. These control measures have not changed and are still recommended by the Bay Area Air District to reduce construction dust emissions. Therefore, similar to the previously approved project, short-term construction fugitive dust impacts would be less than significant with implementation of the previous FEIR MM AIR-3 and the proposed project would not result in new or more severe impacts compared to what was analyzed in the previous FEIR. Note that MM AIR-3 from the previous FEIR has been slightly modified herein to correctly refer the Bay Area Air District's updated name.

Toxic Air Pollutants

Health risk and hazard must be analyzed for sensitive receptors within a 1,000-foot radius of the project site.[17]

[17] Bay Area Air Quality Management District (Bay Area Air District). 2022. CEQA Air Quality Guidelines. April. Website:

The surrounding land uses have remained the same since the certification of the previous FEIR. Therefore, the same residential land uses and sensitive receptors are analyzed in both the previous FEIR and in this addendum. In addition, since the certification of the previous FEIR, the Bay Area Air Distract has published its 2022 CEQA Guidelines, which expands the definition of sensitive receptors to include off-site workers and students. Accordingly, off-site workers are also analyzed. There are no schools within 1,000 feet of the project site.

Toxic Air Contaminants from Construction

A Health Risk Assessment (HRA) was prepared to analyze the potential health impacts on surrounding sensitive receptors resulting from TAC emissions during construction. The assessment is provided below, while Appendix A provides detailed assumptions and modeling parameters.

HRA outputs in Appendix A include local maps showing the project site, locations of sources modeled, and identification of sensitive receptors within 1,000 feet of the site. AERMOD dispersion model reports are also included.

As discussed above, the sensitive receptors near the project site are the same as those identified in the previous FEIR and include residents and off-site workers. Of the nearby sensitive receptors, AERMOD dispersion modeling of construction emissions shows that the MEIR is a residence located on Amalfi Loop approximately 460 feet away, same as the MEIR identified in the previous FEIR. and the maximally exposed individual worker (MEIW) is located in industrial uses immediately north of the project site. Table 9 summarizes the cancer risk and chronic HI results for the proposed project construction at the MEIR and MEIW locations.

Table 8 shows that the construction DPM and $PM_{2.5}$ emissions generated by the proposed project would not result in an exceedance of Bay Area Air District cancer risk and chronic non-cancer HI thresholds at any location. The calculated cancer risks and chronic non-cancer hazards are substantially the same as those calculated for the previously approved project. Therefore, similar to the previously approved project, the proposed project's construction would not result in significant health impacts to nearby sensitive receptors.

Table 9: Estimated Construction Cancer Risks and Chronic Non-Cancer Hazards

Cancer Risk Scenario	DPM Cancer Risk (risk per million)	DPM Chronic Non-Cancer Hazard Index	Annual $PM_{2.5}$ ($\mu g/m^3$)
Maximum Exposed Individual Resident1	0.9	<0.01	0.0113
Maximum Exposed Individual Worker2	0.2	<0.01	0.0369
Thresholds of Significance	**10**	**1**	**0.3**

https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?la=en. Accessed July 15, 2025.

Cancer Risk Scenario	DPM Cancer Risk (risk per million)	DPM Chronic Non-Cancer Hazard Index	Annual $PM_{2.5}$ ($\mu g/m^3$)
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
$\mu g/m^3$ = micrograms per cubic meter
DPM = Diesel Particulate Matter based in PM_{10}
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter (includes $PM_{2.5}$ exhaust, dust, brake wear and tire wear)
[1] The maximum impact for residential was determined as a location on Amalfi Loop, approximately 460 feet to the south of the project site at 598274.94 Easting 4141551.11 Northing.
[2] The maximum impact for off-site workers is immediately to the north of the project site at 597964.64 Easting 4142099.56 Northing approximately 60 feet from the project site boundary.
Emissions Source: Appendix A.
Thresholds Source: Bay Area Air Quality Management District. 2022. CEQA Air Quality Guidelines. April. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?la=en. Accessed July 15, 2025.

Toxic Air Contaminants from Operation

For project operation, as analyzed in the previous FEIR, potential TAC emissions would be from the exhaust of the trucks entering, exiting, and idling on the site and exhaust from the TRUs. Like the previously approved project, the proposed project also includes a new, on-site fire pump, which is a stationary operational emissions source of TACs during its operation. Since this proposed fire pump would be an emergency standby engine, its operation would be limited to testing and emergency hours, and as such it is not expected to be a significant source of TAC emissions to the surroundings. Following Bay Area Air District Rule 9-8-330–Emergency Standby Engines, Hours of Operation, the proposed fire pump would likely not exceed 50 hours of emergency operation per year. However, as a permitted source, the project applicant would be required to demonstrate operational emissions compliance with Bay Area Air District standards through a separately issued Engine Permit prior to operations, per Rule 5-2 New Source Review for Toxics. Furthermore, in accordance with the latest Bay Area Air District BACT guidance, the proposed diesel fire pump would need to meet EPA Tier 4 Final emission standards.[18] Therefore, existing regulations are in place to ensure TACs from the proposed emergency generator would be minimal. The following analysis focuses on potential impacts from truck exhaust and TRUs.

DPM emissions from on-road heavy-duty trucks are substantially less than those from off-road construction equipment and are dispersed over a larger linear roadway path. Projects with the potential for health risk from DPM are those with high level of truck traffic, or sites where trucks with

[18] Bay Area Air Quality Management District (Bay Area Air District). 2024. Best Available Control Technology (BACT) Guideline. November. Website: https://www.baaqmd.gov/~/media/files/engineering/bact-tbact-workshop/combustion/96-1-3.pdf?rev=210312454f084efe9dba8846cda4d372&sc_lang=en. Accessed July 5, 2025.

TRUs idle for a significant amount of time. The ARB's Air Quality and Land Use Handbook provides guidance on levels of activity that could result in a potential impact:[19]

> Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating Transport Refrigeration Units (TRUs) per day, or where TRU unit operations exceed 300 hours per week).

It is anticipated that the proposed project would generate 30 daily heavy heavy-duty (HHD) truck trips, of which three trips would be from trucks with TRUs. The previous EIR analyzed 377 truck trips. The proposed project would have significantly fewer truck trips compared to what was analyzed in the previous FEIR, and the proposed project's truck and truck with TRUs trip generation is substantially below the advisory threshold in the Air Quality and Land Use Handbook; therefore, an operational HRA is not necessary and is not analyzed in this study. As such, the proposed project would have lower operational DPM emission and associated operation health risk impacts compared to the level of operational health risks analyzed in the previous FEIR (which was analyzed to be 2.4 in a million cancer risk, chronic health index of <0.01, and <0.01 µg/m^3 of $PM_{2.5}$ concentration experienced by the MEIR).

Thus, the proposed project would reduce operational TAC exposure as compared to the previously approved project. Like the previously approved project, the proposed project would not generate a significant amount of DPM or other TAC emissions during operation and would not result in significant health impacts to nearby sensitive receptors during operation.

Cumulative Toxic Air Contaminants Emissions

The Bay Area Air District recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a proposed project. As a result, a cumulative HRA was performed that examined the cumulative impacts of the proposed project's construction emissions and sources of TAC emissions within 1,000 feet of the proposed project. As previously discussed, the MEIR was determined to be a multi-family residence to the south of the project site, approximately 460 feet south of the project site.

For a project-level analysis, Bay Area Air District provides several tools for use in screening potential sources of TACs. These include the Stationary Source Screening Map,[20] which provides all the stationary sources permitted by the Air District with risk and hazard estimates; Roadway Screening Data Layers providing estimated cancer risks, hazards, and $PM_{2.5}$ concentrations for all Bay Area highways and surface streets; and Rail and Railyard Screening Data Layers providing estimated cancer risks, hazards, and $PM_{2.5}$ concentrations from diesel locomotives and select railyards. The

[19] California Air Resource Board (ARB). Air Quality and Land Use Handbook: A Community Health Perspective. 2005. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf. Accessed May 15, 2025.

[20] Bay Area Air Quality Management District (Bay Area Air District). 2024. Stationary Source Screening Map. Website: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3. Accessed June 20, 2025.

Bay Area Air District risk and hazard values for the permitted stationary sources are based on concentrations at the sources' centroid and are therefore conservative.

The cumulative health risk results during project construction, including health risks from the existing stationary sources, roadway, and rail data from the Bay Area Air District sources above, are summarized in Table 9. Similar to the previous FEIR, the MEIR of the proposed project would experience health risks (cancer risk, chronic hazard index, and $PM_{2.5}$ concentration) at levels significantly below the Bay Area Air District thresholds.

Table 10: Summary of the Cumulative Health Impacts at the MEIR

Source	Source Name/Type	Cancer Risk (per million)	Chronic Hazard Index	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Proposed Project	Construction Diesel Particulate Matter	0.9	<0.01	0.0113
Existing Stationary Sources				
7441	Flex	1.03	0.00	0.02
3156	Quality Transformer and Electronics	0.00	0.01	0.00
18388	Evoqua Water Technologies	0.00	0.01	0.12
19840	Universal Industrial Finishing	0.02	0.00	0.00
21180	Eco Office Inc	0.00	0.00	0.00
109668-1	Balch Petroleum – Gas Dispensing Facility	0.06	0.00	0.00
110788-1	Flyers #401 – Gas Dispensing Facility	2.31	0.01	0.00
Existing Roadways and Rails				
Existing Roadways		5.72	0.02	0.12
Existing Rails		0.34	<0.01	<0.01
Cumulative Health Risks with Project				
Cumulative Total with Project		**10.38**	**0.07**	**0.28**
Bay Area Air District Cumulative Thresholds of Significance		**100**	**10**	**0.8**
Threshold Exceedance?		**No**	**No**	**No**

Notes:
$\mu g/m^3$ = micrograms per cubic meter
Bay Area Air District = Bay Area Air Quality Management District
MEIR = Maximally Exposed Individual Receptor
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter

Project and stationary source risks and hazards are for diesel exhaust, which does not have an established Acute Reference Exposure Level.
Source: Appendix A

As demonstrated in Table 9, the proposed project would cause lower health impacts at the MEIR than analyzed under the previous FEIR. Therefore, there are no new or more severe cumulative health impacts and the proposed project would have less than significant impacts.

Conclusion

The surrounding land uses have remained the same since the certification of the previous FEIR. Therefore, the same residential land uses and sensitive receptors are analyzed in both the previous FEIR and in this addendum. In summary, similar to the previously approved project, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during construction and operation with the exception of potential construction fugitive dust. Consistent with the previous FEIR, implementation of MM AIR-3 would be required to reduce impacts to less than significant. Overall, with the implementation of mitigation required by the City in certifying the previous FEIR, the proposed project would not result in new or more severe adverse impacts that were not identified in the previous FEIR.

d) Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?

Previous FEIR Conclusions

The previous FEIR determined that because the previously approved project is a warehouse facility, project construction and operation would not be expected to generate significant odors. Therefore, the project would have a less than significant impact related to other emissions; therefore, no mitigation measures were required.

Proposed Project Analysis and Conclusion

The proposed project's construction would generate diesel exhaust and ROGs which could be considered objectionable odors; however, these emissions would disperse rapidly from the project site and therefore would not create significant odors affecting a substantial number of people. The amount of diesel exhaust and ROGs are similar in quantity to what was analyzed under the previous FEIR. As such, construction odor impacts would be less than significant.

Land uses typically associated with objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. (Refer to Table 5-4, Odor Screening Distances, in Chapter 5 Project-level Air Quality Impacts, 2022 Bay Area Air District CEQA Guidelines.)[21] The proposed project would involve the construction of a warehouse. The operation of this type of project would likely not generate objectionable odors that may affect a substantial number of nearby receptors. Minor sources of odors that would be generated by the proposed project, such as exhaust from mobile sources, are not typically associated with numerous odor complaints but are

[21] Bay Area Air Quality Management District (Bay Area Air District). 2022. Bay Area Air District CEQA Guidelines, Chapter 5 Project-level Air Quality Impacts, Table 5-4, Odor Screening Distances.

known to have temporary and less concentrated odors. Therefore, operational odor impacts would be less than significant. The proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Mitigation Measures

MM AIR-3 Fugitive Dust Control during Project Construction

During project construction, the contractor shall implement a dust control program that includes the following measures recommended by the Bay Area Air Quality Management District (Bay Area Air District):

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area Air District phone number shall also be visible to ensure compliance with applicable regulations.

The above measures shall be included in contract specifications. In addition, an independent construction monitor shall conduct periodic site inspections, but in no event less than four total inspections, during the course of construction to ensure these mitigation measures are implemented and shall issue a letter report to the City of Milpitas Office of Building Safety documenting the inspection results. Reports indicating noncompliance with construction mitigation measures shall be cause to issue a stop work order until such time as compliance is achieved.

Conclusion

As discussed above, all applicable mitigation measures from the previous FEIR would be required and implemented to ensure impacts are consistent with the previous FEIR.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
IV. Biological Resources *Would the project:*					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?	No impact	No	No	No	None
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service?	No impact	No	No	No	None
c) Have a substantial adverse effect on	No impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?					
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	Less than significant impact with mitigation incorporated	No	No	No	Previous FEIR: MM BIO-1
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Less than significant impact	No	No	No	None
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved	Less than significant impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
local, regional, or State Habitat Conservation Plan?					

Discussion

a) Substantial Adverse Effects on Sensitive Species

Previous FEIR Conclusions

The previous FEIR concluded that the project would not result in impacts to special-status species.

Proposed Project Analysis and Conclusion

As shown in Table 1, the proposed project would include a single-story warehouse and office building on the same site and similar in scale and mass to the previously approved project with an overall reduction in square footage but increase in impervious surface and a slight height increase. The modifications included in the proposed project are within the overall scale of the previously approved project and consistent with the analysis in the previous FEIR. No changes have occurred with respect to the project or the circumstances under which the project is proposed that would change the significance conclusions in the previous FEIR. There are still no special-status species with the potential to occur within the project site. (Refer to Appendix B.) Recent changes in burrowing owl status under the California Endangered Species Act do not change the conclusions for the proposed project because the project site is already developed and does not contain habitat appropriate for burrowing owl. Because of the fully developed nature of the project site and the presence of buildings and associated hardscape, it is unlikely that the project site would support any special-status species. Therefore, no impact to special-status species would result from the proposed project. The proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Substantial Adverse Effects on Riparian Habitat

Previous FEIR Conclusions

The previous EIR concluded that the project would not result in impact to riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game (CDFW) or United States Fish and Wildlife Service (USFWS).

Proposed Project Analysis and Conclusion

No changes have occurred to the project that would change the impacts analyzed in the previous FEIR. The project site is located within a developed area and does not support any riparian or other sensitive natural communities. Therefore, no impact to riparian habitat or other sensitive natural communities would result from the proposed project. The proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

c) Substantial Adverse Effects on Wetlands

Previous FEIR Conclusions

The previous FEIR concluded that the project would not result in impacts to State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Proposed Project Analysis and Conclusion

No changes have occurred with respect to the project or the circumstances under which the project is proposed that would change the significance conclusions analyzed in the previous FEIR. The project site is on the same site analyzed in the previous FEIR, within a developed area, and not located in an area that supports wetlands, drainages, or water bodies as defined by Section 404 of the Clean Water Act. Moreover, the same as the approved project, the proposed project would not result in the direct removal, filling or hydrological interruption of such wetlands. Therefore, no impact to federally protected wetlands would result from the proposed project. The proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

d) Interfere with Wildlife Corridors

Previous FEIR Conclusions

The previous EIR concluded that the previously approved project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, nor would it impede the use of wildlife nursery sites, and therefore, impacts would be less than significant with MM BIO-1 incorporated.

In addition, the previous FEIR concluded that while trees present at the project site could provide temporary roosts (e.g., night roosts) for bat species, many of the trees at the project site are relatively small and do not provide suitable large/deep hollows for the establishment of hibernacula roosts. Furthermore, anthropogenic activities surrounding the site are a deterrent for several special-status bat species and the buildings had been well maintained, therefore limiting ingress/egress points for bats. Nonetheless, the previous FEIR included in MM BIO-1 pre-construction habitat assessment and surveys for bat roots to ensure impacts would be less than significant.

Proposed Project Analysis and Conclusion

No changes have occurred with respect to the project or the circumstances under which the project is proposed that would change the significance conclusions analyzed in the previous FEIR. The

proposed project is located on the same site as the approved project, within a developed, landscaped area that supports wildlife species typically associated with urban and suburban areas and may have the potential to support bat roosts. Because the project site is within a developed urban area, there are no major wildlife movement corridors that pass through or are adjacent to the site. However, existing trees are located throughout and within disturbance distance of the project site. Trees and other landscape vegetation generally have the potential to support nests of common native bird species. All native birds, regardless of their regulatory status, are protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Wildlife Code. The proposed project would result in the removal of approximately 18 protected trees (in addition to the 7 protected trees removed since approval of the previous project), which is less than the 88 protected trees evaluated for removal in the previously approved project. As indicated in the previous FEIR, if the removal is conducted during the breeding season), vegetation removal and construction activities could directly impact nesting birds by removing trees or vegetation that support active nests. As required by the previous FEIR, this impact is mitigated with the implementation of MM BIO-1. Note that the end of the survey period of the mitigation measure has been updated (from July to August) to ensure pre-construction surveys are conducted during the entirety of the nesting season. This change has been implemented to refine the mitigation measure and reflect a more effective and appropriate implementation period and is not required due to a new or more severe impact.

As concluded in the previous FEIR, on-site trees and buildings may have the potential to provide temporary roosts for bat species, although the likelihood is low due to the urban environment and size of on-site trees. Therefore, consistent with the previous EIR, implementation of MM BIO-1 would be required to ensure impacts are less than significant.

Overall, with the implementation of mitigation from the previous FEIR, the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

e) Conflict with Local Policies or Ordinances

Previous FEIR Conclusions

A Tree Survey Report prepared by Helix in 2019 was prepared for the previously approved project (Appendix B). The Tree Survey Report reviewed Section 4.02 of the City of Milpitas Code of Ordinances (code), stating it is unlawful for any person other than City personnel in the performance of their duty to remove a protected tree or street tree without applying for a permit issued by the Public Works Department. Chapter 201.5 of the code defines protected trees on commercial/industrial properties as “all trees which have a 37-inch or greater circumference of any trunk measured 4.5 feet from the ground.” The code defines street trees as those “located in the public right-of-way between the curb and the sidewalk.” The purpose of the tree survey was to inventory and conduct a rapid visual inspection of protected trees on the project site.

Per the 2019 Tree Survey Report, a total of 183 protected trees on the project site, including those adjacent to street frontages, were inventoried and assessed. Of the 183 protected trees, 82 were identified as large shamel ashes (*Fraxinus uhde*) and another 26 as large sweetgums (*Liquidambar styraciflua*), located along the edges of the property next to Gibraltar Drive and South Milpitas

Boulevard. Most of the remaining 75 protected trees were identified as Chinese fringe trees (*Chionanthus retusus*), Chinese pistache (*Pistacia chinensis*) trees, and London plane (*Platanus x acerifolia*) trees planted around the office buildings and in the parking lots.

The previous FEIR concluded that, with the acquisition of a tree removal permit from the City of Milpitas, removal of the 88 protected trees on-site would not conflict with applicable local policies or ordinances protecting biological resources. As such, the previous FEIR concluded that the project would have a less than significant impact related to local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Proposed Project Analysis and Conclusion

No changes have occurred with respect to the project or the circumstances under which the project is proposed that would change the significance conclusion analyzed in the previous FEIR. The proposed project is located on the same site as the approved project and would be required to comply with the same local, State and federal regulations as addressed in the previous FEIR.

An Addendum to the previously prepared 2019 Tree Survey Report was conducted in May 2025 by Stringer Biological Consulting, Inc. (Appendix B). As noted therein, the majority of the on-site trees have declined since the 2019 survey, with the majority of the trees in fair condition versus the majority of the trees previously being reported as in good condition in the 2019 Tree Survey Report. Many of the ornamental trees in the landscaped areas around the buildings were no longer present at the time of the survey update. Furthermore, many trees were identified as having been removed or identified as having a declining or severe decline status. As a result, a total of only 98 trees present on or overhanging the project site were identified as protected according to the City of Milpitas code; significantly less than the 198 previously identified in the 2019 Tree Survey Report.

Protected trees within the project site would be removed as a part of the proposed project; however, far fewer trees would be removed compared to the previously approved project (see Table 1), resulting in a reduction of the approved project's already less than significant impact. The project applicant is required to obtain a tree removal permit prior to the removal of trees that are determined to be protected (Tree Removal Permit No. TR25-0021). Furthermore, the proposed project would include the planting of 185 trees on-site (not including the existing trees to remain), thereby exceeding the protected tree replacement ratio of 2:1. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources and this impact would be less than significant. Furthermore, the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

f) Conflict with Habitat Conservation Plan

Previous FEIR Conclusions

The previous FEIR concluded that because the project site does not fall withing the Covered Area for the Santa Clara Valley Habitat Plan and does not include activities pertinent to the conservation of burrowing owls. Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approval local, regional, or State Habitat Conservation Plan would be less than significant

Proposed Project Analysis and Conclusion

No changes have occurred with respect to the project or the circumstances under which it is being proposed that would change the significance conclusions analyzed in the previous FEIR. The project site is located on the same parcels as the approved project and does not fall within the Covered Area for the Santa Clara Valley Habitat Plan (SCVHP) and does not include activities pertinent to the conservation of burrowing owls. As such, the proposed project is not considered to be a Covered Activity under the SCVHP. No other Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plans apply to the project site. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan and this impact would be less than significant. The proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Mitigation Measures

MM BIO-1 Nesting Birds and Roosting Bats

If feasible, all vegetation removal shall be conducted during the non-breading season (i.e., September 1 to January 31) to avoid the direct impacts to nesting birds. If such work is scheduled during the breeding season, a qualified biologist or ornithologist shall conduct a pre-construction survey to determine whether any birds are nesting within the project site. The pre-construction survey shall be conducted within 15 days prior to the start of work from March through May (since there is a higher potential for birds to initiate nesting during this period), and within 30 days prior to the start of work from June through August. If active nests are found during the survey, the biologist or ornithologist shall determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have successfully fledged. The size of the buffer shall be determined by the biologist or ornithologist in consultation with the California Department of Fish and Wildlife (CDFW), and would be based on the nesting species, its sensitivity to disturbance, and the expected types of disturbance.

In order to avoid impacts to roosting bats, a pre-construction habitat assessment and survey(s) for bat roosts shall be conducted in any large trees (dbh >24 inches) within 100 feet of any planned work areas and in any buildings planned for demolition. This effort shall occur prior to the start of work to evaluate whether potential roost habitat occurs and to determine the type (i.e., maternity or nonmaternity) and status (i.e., active or inactive) of the roost. If an active maternity or special-status bat roost is found, removal of maternity roost trees or building shall be avoided during the maternity roosting season or until a qualified biologist determines the roost has been vacated. Felled trees without maternity or special-status roosts shall be allowed to lay on the ground for one night to allow any undetected roosting bats to leave the tree before it is chipped or taken off-site.

Conclusion

As discussed above, all applicable mitigation measures from the previous FEIR would be required and implemented to ensure impacts are consistent with the previous FEIR.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
V. Cultural and Tribal Cultural Resources *Would the project:*					
a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?	No impact	No	No	No	None
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Less than significant impact with mitigation incorporated	No	No	No	Previous FEIR: MM CULT-1
c) Disturb any human remains, including those interred outside of formal cemeteries?	Less than significant impact with mitigation incorporated	No	No	No	Previous FEIR: MM CULT-1, MM CULT-2
Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:					
d) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public	Less than significant impact with mitigation incorporated	No	No	No	Previous FEIR: MM CULT-1, MM CULT-2

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
Resources Code Section 5020.1(k), or					
e) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	Less than significant impact with mitigation incorporated	No	No	No	Previous FEIR: MM CULT-1, MM CULT-2

Discussion

Cultural Resources

a) Historical Resources

Previous FEIR Conclusions

The previous FEIR concluded that there are no known historical resources within the project boundaries. The records search, conducted at the Northwest Information Center (NWIC) on May 11, 2020, identified two historical resources within the 0.25-mile search radius, none of which were located within the project boundaries. Review of historic aerial photography dating back to 1948 shows the project area was used for agriculture and/or undeveloped until the early 1980s. Therefore, for the purposes of this analysis, and because there are no historical resources within the project boundaries, the previous FEIR concluded no impacts in relation to historical resources.

Proposed Project Analysis and Conclusion

The proposed project is located on the same site and is consistent with the findings of the previous FEIR. The updated records search results, conducted at the NWIC on March 21, 2025, identified three historical resources within the increased 0.5-mile search radius (Appendix C), none of which are located within the project boundaries. Additionally, a new pedestrian survey, conducted on May 2, 2025, did not identify any historical resources. The analysis did not reveal any significant changes from what was evaluated and disclosed in the previous FEIR. As such, no new impacts would occur, and the proposed project would not result in new or more severe adverse impacts that were not previously identified in the previous FEIR.

b) Archaeological Resources

Previous FEIR Conclusions

The results of the previous NWIC records search identified three archaeological resources within the 0.25-miles search boundary, none of which address the project area. However, because the superficial geology of the project area consists entirely of Holocene alluvium deposits, in addition to the project site's proximity to the San Francisco Bay, the desktop archaeological sensitivity analysis determined a moderate sensitivity of encountering potentially significant archaeological resources during project-related ground-disturbing activities. Therefore, the previous FEIR concluded that project-related ground-disturbing activities could result in significant impacts to previously unidentified archaeological resources. As such, the previous FEIR determined that potentially significant impacts would be reduced to less than significant levels with implementation of MM CULT-1.

Proposed Project Analysis and Conclusion

The proposed project is located on the same site as the approved project. The results of the updated NWIC records search identified three pre-contact archaeological resources within the 0.5-mile search radius, none of which are located within the project site boundaries. Additionally, the pedestrian survey failed to identify any previously unrecorded archaeological resources. Consistent with the

previous FEIR, a buried site sensitivity analysis indicates that the proposed project site is underlain by Holocene age, alluvial fan deposits. Therefore, the analysis of the proposed project does not identify and significant changes or new information compared to the approved project. The proposed project is consistent with the findings of the previous FEIR regarding the potential encounter of significant archaeological resources during project-related ground-disturbing activities and the need for mitigation. Accordingly, implementation of MM CULT-1 would reduce any potential impacts to less than significant. As such, no new impacts would occur, and the proposed project would not result in new or more severe adverse impacts that were not previously identified in the previous FEIR.

c) Burial Sites

Previous FEIR Conclusions

The previous FEIR background research determined that no human remains, or formal cemeteries have been identified within the project boundaries. Additionally, the land use designations for the project area do not include cemetery uses, and no known human remains exist within the project area. Therefore, the previously approved project was not anticipated to disturb any human remains.

However, because the previously approved project would have involved ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. If human remains were discovered during construction activities, impacts on the human remains would be significant if those remains were disturbed or damaged. The previous FEIR concluded that such potentially significant impacts would be reduced to a less than significant with the implementation of MM CULT-2.

Proposed Project Analysis and Conclusion

The proposed project is on the same site as the approved project. The updated NWIC records search results did not identify any changed circumstances or new information, such as burial sites, human remains, or formal cemeteries within the proposed project site or the 0.5-mile search radius. While no formal cemeteries or areas containing human remains are known to be in the project site's vicinity, the possibility always exists that construction-related ground disturbance may uncover previously undiscovered human remains. In the unlikely event such a discovery is made, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. Implementation of MM CULT-2, which details inadvertent discovery procedures, would reduce potential impacts to previously undiscovered human remains to a less than significant level. As such, the proposed project would be consistent with the previous FEIR, no new impacts would occur, and the proposed project would not result in new or more severe adverse impacts that were not previously identified in the previous FEIR.

Tribal Cultural Resources

d) Listed or Eligible Resources

Previous FEIR Conclusions

The previous records search conducted at the NWIC on May 11, 2020, did not identify any Tribal Cultural Resources (TCRs), within the project boundaries or the 0.25-mile radius that might be impacted by the previously approved project. Nevertheless, there remains a possibility that previously unrecorded archaeological deposits, including human remains, are present in the project area. If such deposits are present and were found to qualify as TCRs, as defined in Public Resources Code Section 21074, any potential impacts from the previously approved project on the resource would be potentially significant. Such potentially significant impacts would be reduced to less than significant with the implementation of MM CULT-1 and MM CULT-2.

Proposed Project Analysis and Conclusion

The proposed project is on the same site as the approved project and would have the same project boundaries. The results from the updated NWIC records search, conducted on March 21, 2025, did not identify any changed circumstances or new information. It failed to identify any listed or eligible for listing TCRs that may be adversely affected by the proposed project. Furthermore, the results from the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search results conducted on February 24, 2025, were negative for TCRs within the project boundaries. As such, no eligible or potentially eligible TCRs would be adversely affected by the proposed project. However, because the proposed project would result in similar ground disturbance as the approved project, in the event that undiscovered TCRs are encountered during project-related ground disturbance, the proposed project could result in significant impacts similar to those disclosed in the previous FEIR for the approved project. Accordingly, implementation of MM CULT-1 and MM CULT-2 would reduce any potential impacts to less than significant impact. As such, and consistent with the conclusion in the previous FEIR, no new impacts would occur, and the proposed project would not result in new or more severe adverse impacts that were not previously identified in the previous FEIR.

e) Lead Agency Identified Resources

Previous FEIR Conclusions

The previous FEIR found a less than significant impact with respect to TCRs, as defined by Public Resources Code Section 21074. In certifying the previous FEIR, the City found that the background research and records search did not identify any resources in the project site or in the immediate vicinity that would be adversely impacted by the approved project. Nonetheless, the previous FEIR determined that the potential for unanticipated discovery could result in a potential impact and implemented MM CULT-1 and MM CULT-2 to reduce potential impacts to less than significant levels. As noted in the previous FEIR, no California Native American Tribes requested notification in conjunction with the proposed project.

Proposed Project Analysis and Conclusion

Public Resources Code Section 21074 defines a TCR as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.The proposed project is located on the same site as the approved project. Accordingly, the proposed project would have the same potential for unanticipated discovery as the approved project and would be subject to MM CULT-1 and MM CULT-2.

In order for the Lead Agency to determine significant impacts to TCRs, consultation under Senate Bill (SB) 18 and/or Assembly Bill (AB) 52 shall be initiated between Native American Tribes and the Lead Agency for the purpose of preserving or mitigating potential impacts to TCRs. However, consultation under SB 18 and/or AB 52 applies when a lead agency prepares an EIR, amendment of general plans or specific plans, or designation of open space. As such, it is not applicable to the preparation of this Addendum. Per the discussion above and with the implementation of MM CULT-1 and MM CULT-2, the proposed project would not result in new or more severe adverse impacts that were not previously identified in the previous FEIR.

Mitigation Measures

MM CULT-1 Unanticipated Discovery Protocol for Archaeological Resources

If indigenous or historic era archaeological resources are encountered during proposed project development or operation, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. The City and a qualified Archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archaeology, shall be immediately informed of the discovery. The qualified Archaeologist shall inspect the find within 24 hours of discovery and notify the City of their initial assessment. If the resource is indigenous, the City shall also contact relevant California Native American Tribes to assist in determining whether the resource may qualify as a Tribal Cultural Resource.

If the City determines, based on recommendations from the qualified Archaeologist and, if the resource is indigenous, relevant California Native American Tribes, that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines § 15064.5), or a Tribal Cultural Resource (as defined in Public Resources Code § 21074), the resource shall be avoided if feasible. Avoidance means that no activities associated with the proposed project that may affect cultural resources shall occur within the boundaries of the resource or any defined buffer zones. If avoidance is not feasible, the City shall consult with appropriate Native American Tribes (if the resource is indigenous), and other appropriate interested parties to determine treatment measures to avoid, minimize, or

mitigate any potential impacts to the resource pursuant to Public Resources Code Section 21083.2 and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery or other measures. Treatment for most resources would consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource. The resource and treatment method shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System. Work in the area may commence upon completion of approved treatment and under the direction of the qualified Archaeologist.

MM CULT-2 **Unanticipated Discovery Protocol for Human Remains:** If human remains are uncovered during proposed project construction, all work shall immediately halt within 100 feet of the find and the Santa Clara County Coroner shall be contacted to evaluate the remains and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.5(e)(1). If the County Coroner determines that the remains are Native American, the City shall contact the Native American Heritage Commission (NAHC), in accordance with Health and Safety Code Section 7050.5(c) and Public Resources Code Section 5097.98. As required by Public Resources Code Section 5097.98, the City shall ensure that further development activity avoids damage or disturbance in the immediate vicinity of the Native American human remains, according to generally accepted cultural or archaeological standards or practices, until the City has conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Conclusion

As discussed above, all applicable mitigation measures from the previous FEIR would be required and implemented to ensure impacts are consistent with the previous FEIR.

The proposed project is consistent with the development evaluated in the certified previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1 No substantial changes are proposed in the project which will require major revisions of the previous FEIR.

2 No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.

3 No new information of substantial importance has been identified, which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.

4 No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
VI. Energy *Would the project:*					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than Significant Impact	No	No	No	None
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	Less than Significant Impact	No	No	No	None

Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Previous FEIR Conclusions

In certifying the previous FEIR, the City determined that construction of the previously approved project would require energy for the manufacture and transportation of construction materials, preparation of the site for demolition, and construction of the creative industrial building. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. According to the previous FEIR, construction activities were not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. Energy usage on the project site

during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources.

Energy consumed by the previously approved project would be associated with natural gas use, electricity consumption, and fuel used for vehicle trips associated with the project. The previously approved project would be constructed to California Green Building Standards Code (CALGreen) standards Tier I or Tier II, which would help to reduce energy and natural gas consumption. Therefore, the previous FEIR determined that the previously approved project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment use, and transportation. As such, the previous FEIR found that construction and operation period impacts related to consumption of energy resources would be less than significant.

Proposed Project Analysis and Conclusion

Construction

The proposed project construction schedule is assumed to begin in October 2025 and conclude in December 2026. The proposed project would require demolition, grading, building construction, architectural coating, and paving. Like the previously approved project, the construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition, site clearing, and grading), and the actual construction of the building. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project would be substantially the same as those anticipated for the previously approved project and could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, front-end loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 20,031 gallons of diesel fuel over the entire construction duration (Appendix A).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; these trips include construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB EMFAC mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix A. The proposed project is estimated to generate 988,646 VMT and a combined 80,038 gallons of combined gasoline and diesel for vehicle travel during construction. Table 10 shows the proposed project energy consumption during construction and operation.

While energy consumption was not quantified in the previous FEIR, the energy demand associated with the construction of the proposed project remains consistent with the analysis under the prior FEIR. The types of land uses, building square footage, and anticipated vehicle trips have not changed in a way that would substantially increase energy consumption. For example, the proposed building is slightly smaller (approximately 3,476 square feet) smaller than the approved project. Additionally,

advancements in construction technology and equipment standards may reduce fuel consumption and construction-related energy impacts compared to the assumptions utilized in the previous FEIR. Therefore, similar to the previously approved project, it is anticipated that the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. The proposed project will not result in any new or more severe impacts related to energy consumption. As such, construction-related energy impacts remain less than significant.

Operation

The proposed project would consume energy as part of building operations and transportation activities. Project energy consumption is summarized in Table 11.

Table 11: Estimated Project Construction and Operational Energy Consumption

Energy Consumption Activity	Project Consumption
Construction	
Construction Equipment Fuel	20,031 gallons of diesel
Construction Vehicle Fuel	80,038 gallons of gasoline and diesel
Operation	
Operational Electricity Consumption	5,392,128 kWh/year
Operational Natural Gas Consumption	2,551,228 kBTU/year
Operational Fuel Consumption–Passenger Vehicles	528,607 gallons of gasoline, 1,127 gallons of diesel, 188,337 kWh-hour of electricity and diesel/year
Operational Fuel Consumption–Trucks	78,821 gallons of diesel, 24 gallons of gasoline, 8,990 gallons of compressed natural gas, and 10,925 kWh-hour of electricity per year
Operational Fuel Consumption–Transport Refrigerated Units	3,824 gallons of diesel
Notes: kBTU = kilo-British Thermal Unit kWh = kilowatt-hour VMT = Vehicle Miles Traveled Source: Appendix A.	

The proposed project's building would be designed and constructed in accordance with the City's latest adopted energy efficiency standards, which are based on the State's Building Energy Efficiency Standards. The Building Energy Efficiency Standards have implemented increasingly stringent energy efficiency requirements as part of the State's ongoing efforts to reduce GHG emissions and promote sustainability. Each code cycle has introduced higher performance standards for residential and nonresidential buildings, incorporating advanced technologies and design practices to improve

energy conservation.[22] Therefore, the proposed project would be subject to higher energy efficiency standards than the previously approved project. These are widely regarded as the most advanced Building Energy Efficiency Standards and compliance would ensure that building energy consumption would not be wasteful, inefficient, or unnecessary.

In addition, the proposed project would be required to comply with CALGreen measures for 2022 (which, similar to the Building Energy Efficiency Standards, has more stringent sustainability requirements than the previous cycles) which require rooftop photovoltaics (PV) solar panels with battery storage for warehouses and heat pumps (in all climate zones) for office space in warehouses consistent with decarbonization strategies. Thus, the proposed project would incorporate renewable energy options thereby increasing reliance on renewable energy and improving energy conservation.

Therefore, similar to the previously approved project, energy consumption resulting from construction and operation of the proposed project would not conflict with Statewide goals and would not be considered wasteful, inefficient, or unnecessary. The proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Previous FEIR Conclusions

The previous FEIR determined that energy usage on the project site during construction would be temporary in nature. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the City concluded that the previously approved project would not conflict with California's energy conservation plans as described in the California Energy Commission's (CEC) 2019 Integrated Energy Policy Report. Thus, the previously approved project would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy and would not result in any irreversible or irretrievable commitments of energy. Therefore, the previous FEIR determined that the previously approved project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation and the impact would be less than significant.

[22] California Energy Commission. 2024. Energy Commission Adopts Updated Building Standards Expanding Requirements for Heat Pumps and Electric-Ready Buildings. Website: https://www.energy.ca.gov/news/2024-09/energy-commission-adopts-updated-building-standards-expanding-requirements-heat. Accessed July 22, 2025.

Project Analysis and Conclusions

Senate Bill 100–100 Percent Renewable Energy Act

The proposed project's energy needs would be served by Silicon Valley Clean Energy, which has been serving the City of Milpitas since 2017.[23] In 2023, which is the latest year with available data, Silicon Valley Clean Energy Green Start program obtained 36.7 percent of its electricity from renewable energy sources, while the remaining electricity was sourced from nuclear (25.1 percent), large hydroelectric (38.1 percent), and unspecified power (0.1 percent).[24,25] Silicon Valley Clean Energy would be required to meet the future objective of 60 percent of electricity from renewable energy sources by 2030.

2023 Integrated Energy Policy Report

The 2023 Integrated Energy Policy Report (IEPR), which supersedes the 2019 Integrated Energy Policy Report analyzed in the previous FEIR, serves as a strategic framework guiding California's energy transformation—recommending actionable steps to integrate clean energy more rapidly, anticipate future energy needs, and uphold grid reliability while promoting climate equity and decarbonization.[26] The proposed project supports clean energy goals by incorporating or being solar- and battery-ready, enabling future interconnection to the grid. It aligns with California's shift toward electrification by installing EV charging infrastructure to support eventual translation to a zero-emission delivery fleet. These features also contribute to long-term energy demand forecasts and reduce reliance on natural gas, consistent with State decarbonization targets.

In support of the IEPR's clean transportation and reliability goals, the proposed project reduces vehicle miles traveled by being strategically located near service areas, minimizing delivery distances. Furthermore, the proposed project would be required to comply with Title 24, which contributes to grid reliability by reducing peak electricity demand through energy-efficient building systems, enabling load flexibility, and facilitating integration of rooftop solar and battery-ready infrastructure. Therefore, the proposed project would be consistent with the 2023 IEPR.

Milpitas General Plan

The proposed warehouse building would be designed in accordance with Title 24, California's Energy Efficiency Standards for Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelopes, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. While several of these policies are voluntary or cannot be implemented by an individual development

[23] Silicon Valley Clean Energy. 2025. Your City of Milpitas Clean Energy Impact. February. Website: https://content.govdelivery.com/accounts/CAORGSVCE/bulletins/3d0f868. Accessed August 14, 2025.

[24] Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

[25] Silicon Valley Clean Energy. 2023. Power Content Label. Website: https://www.energy.ca.gov/filebrowser/download/7360. Accessed July 15, 2025.

[26] California Energy Commission (CEC). 2023 Integrated Energy Policy Report. Website: https://www.energy.ca.gov/publications/2023/2023-integrated-energy-policy-report. Accessed August 14, 2025.

project, compliance with Title 24 standards and other applicable regulations would ensure that the proposed project would not conflict with any of the General Plan energy conservation policies related to the proposed project's building, mechanical systems, and indoor and outdoor lighting.

In accordance with California Code of Regulations, Title 13, Section 2485, the proposed project tenant would be required to comply with heavy-duty truck idling limitations while trucks unload and load goods to avoid fuel waste. The owners and operators of trucks and freight operations would be required to comply with the Sustainable Freight Action Plan and phase in zero-emission trucks. In addition, the proposed project would include electric vehicle (EV) charging parking stalls and carpool and vanpool parking stalls on the project site, which would reduce the need to use fossil fuel powered vehicles. Thus, the proposed project would not conflict with the State's goals to minimize fossil fuel reliance with respect to transportation fuel consumption.

Similar to the previous project, the proposed project will not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. There are no substantial changes to the proposed project that would cause conflicts with any State or local plan that would lead to a new or more significant impact.

Mitigation Measures

None required.

Conclusion

As found in the previous FEIR, the proposed project would not result in any impacts related to energy. No new impacts would occur and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
VII. Geology, Seismicity, and Soils *Would the project:*					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No impact	No	No	No	None
ii) Strong seismic ground shaking?	Less than significant impact	No	No	No	None
iii) Seismic-related ground failure, including liquefaction?	Less than significant impact	No	No	No	None
iv) Landslides?	No impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
b) Result in substantial soil erosion or the loss of topsoil?	Less than significant impact	No	No	No	None
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Less than significant impact	No	No	No	None
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less than significant impact	No	No	No	None
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are	No impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
not available for the disposal of wastewater?					
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than significant impact with mitigation incorporated	No	No	No	MM GEO-1

Existing Conditions

Based on the 2014 Working Group on California Earthquake Probabilities research described in the previous FEIR, the probability of at least one earthquake of magnitude 6.7 or larger in the San Francisco Bay region is 72 percent, and for at least one earthquake of magnitude 7.0 or larger it is 51 percent.[27] The project site is not located within or adjacent to a California Geological Survey (CGS) Alquist-Priolo Earthquake Fault Zone. The site is located within a State liquefaction zone and is not located within a landslide hazard zone.[28] The native geologic formations on the project site have been mapped as Pleistocene and Holocene-aged alluvial deposits. Based on the Geotechnical Engineering Study prepared for the previous project, soils encountered in the subsurface of the project site generally consisted of mixtures of clays, silts, sands, and gravels typical of alluvial soil deposits. The predominantly fine-grained soils typically had medium stiff to very stiff consistencies. The predominantly coarse-grained materials were generally medium dense to dense, although zones of loose soils were present in the upper 8 feet of the project site.

As a part of the previous FEIR analysis of potential paleontological resources at the site, the native geologic formations on the project site were mapped as Pleistocene and Holocene-aged alluvial deposits. The results of a search of paleontological localities in the fossil collections database maintained by the University of California Museum of identified five localities (including two

[27] United States Geological Survey (USGS). Earthquake Outlook for the San Francisco Bay Region 2014–2043. Website: https://pubs.usgs.gov/fs/2016/3020/fs20163020.pdf. Accessed April 29, 2025.

[28] California Geological Survey (CGS). CGS Information Warehouse: Regulatory Maps. Earthquake Zones of Required Investigation Milpitas Quadrangle. January 1, 1982, and October 19, 2004 (Revised Official Maps). Website: https://gis.data.ca.gov/datasets/cadoc::cgs-information-warehouse-regulatory-maps/explore?location=37.418033%2C-121.890934%2C15.81. Accessed April 29, 2025.

invertebrate, one microfossil, and two unidentified types of localities) in Holocene geologic formations and 14 localities (including 12 vertebrate and two invertebrate localities) in Pleistocene geologic formations within Santa Clara County, including a bison fossil found in Milpitas.

The geological conditions at the site have not changed since the preparation of the previous FEIR.

Discussion

a) Earthquakes

i. Surface Fault Rupture

Previous FEIR Conclusions

The previous FEIR concluded that development facilitated by the previously approved project would result in no impact related to surface fault rupture. As described above, the project site is not within or adjacent to an Alquist-Priolo Earthquake Fault Zone. As the project site is not within an established earthquake fault zone, no impact would occur.

Proposed Project Analysis and Conclusion

The project site's geological conditions have not changed since the certification of the previous FEIR. Additionally, as shown in Table 1, the proposed project would be substantially the same as the approved project, developing a single-story warehouse and office building similar in scale and mass to the previously approved project but with an overall reduction in square footage. While the proposed building would be slightly taller than the previously approved project (see Table 1), the increase in building height would not cause geologic impacts. As such, the modifications included in the proposed project are within the scope of and consistent with the analysis in the previous FEIR. The project site is not within or adjacent to an Alquist-Priolo Earthquake Fault Zone. No changes have occurred that would alter the conclusion of the previous FEIR. As such, the proposed project would have no impact related to surface fault rupture and would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

ii. Strong Seismic Ground Shaking

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to strong seismic ground shaking would be less than significant. The previous FEIR indicated the site is susceptible to seismic ground shaking and that the nearest active faults include the San Andreas Fault, the Hayward Fault, and the Calaveras Fault, which are respectively located approximately 15.5 miles to the southwest, 1.7 miles to the northeast and 4.9 miles to the northeast. The Monta-Vista Shannon Fault is located approximately 11.4 miles southwest of the site.[29] The previous FEIR concluded that the City of Milpitas Building Safety and Housing Department reviews project plans to ensure that design plans are developed in

[29] California Department of Conservation (DOC). Fault Activity Map of California. Website: https://maps.conservation.ca.gov/cgs/fam/. Accessed April 30, 2025.

accordance with the current version of the California Building Standards Code (CBC) structural specifications, which would ensure that structures associated with the previously approved project would be designed to withstand strong seismic ground shaking. Impacts were concluded to be less than significant.

Project Analysis and Conclusion

No changes to the site's geological conditions described above have occurred that would alter the conclusion of the previous FEIR. The distances of the nearest active faults from the project site have not changed since 2020, when the previous EIR was prepared.[30] The proposed development would be required to comply with the most current CBC structural specifications (as reviewed by the Milpitas Building Safety and Housing Department) that would reduce impacts from strong seismic shaking to a less than significant level. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

iii. Seismic-related Ground Failure, Including Liquefaction

Previous FEIR Conclusions

The previous FEIR concluded that impacts associated with seismic-related ground failure, including liquefaction, would be less than significant. The previous FEIR indicated that the project site is located within a liquefaction hazard zone, as described above. The Geotechnical Engineering Study prepared for the project site, which included a liquefaction/settlement analysis, calculated expected liquefaction-related settlements that could occur during a seismic event to be approximately 2.0 inches, and there is a low likelihood of surface manifestation potential.

The previous FEIR indicated that the site's Geotechnical Engineering Study includes recommendations for site preparation and grading, compaction of native soil and engineered fill material, and the design and construction of foundations (conventional footings) which account for potential liquefaction-related settlements. The previous FEIR concluded that the previously approved project would be required to adhere with the mandatory CBC structural specifications, as well as to comply with the recommendations in the Geotechnical Engineering Study. The previous FEIR also concluded that compliance with the above CBC specifications and Geotechnical Engineering Study recommendations would result in a building that resists adverse effects related to estimated liquefaction settlements. As such, impacts would be less than significant.

In addition, the previous FEIR concluded that, due to the depths of the liquefiable soils and the fact that there are no open creek channels crossing or bordering the project site, the potential for lateral spreading to occur within the project site is low. As such, impacts related to lateral spreading would be less than significant.

[30] United States Geological Survey (USGS). The San Andreas and Other Bay Area Faults. Website: https://earthquake.usgs.gov/earthquakes/events/1906calif/virtualtour/bayarea.php. Accessed April 29, 2025.

Project Analysis and Conclusion

No changes to the site's geological conditions have occurred that would alter the conclusion of the previous FEIR. Consistent with the previous FEIR conclusions, the proposed project would be required to comply with current CBC structural specifications and recommendations in the site's Geotechnical Engineering Study. As such, impacts related to seismic-related ground failure would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

iv. Landslides

Previous FEIR Conclusions

The previous FEIR concluded that the previously approved project would not result in any impacts related to seismically induced landslides. The previous FEIR concluded that the project site and surrounding area are relatively flat and are not designated as a landslide hazard zone. As such, the proposed project would have no impacts related to seismically induced landslides.

Proposed Project Analysis and Conclusion

No changes to the site's geological conditions have occurred that would alter the conclusion of the previous FEIR. As stated in the above environmental setting discussion, the project site is not located in a landslide hazard zone. As such, there would be no impacts related to seismically induced landslide hazards and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Soil Erosion or Topsoil Loss

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to soil erosion or topsoil loss would be less than significant. The previous FEIR indicated that soil erosion could occur during project grading and construction. As described in the previous FEIR, compliance with the State Water Resources Control Board's Construction General Permit, including preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), would ensure that the previously approved project would result in less than-significant impacts related to erosion or loss of topsoil during construction. The previous FEIR indicated that during operation of the previously approved project, the site's surface would be covered by a building, pavement surfaces, and landscaping and therefore would not be susceptible to substantial erosion or loss of topsoil. As such, impacts related to soil erosion or loss of topsoil were considered less than significant.

Proposed Project Analysis and Conclusion

Similar to the previously approved project, the proposed project would be subject to BMPs to reduce soil erosion (identified in Section 10 of this Addendum) and would comply with the California State Water Resources Control Board's (State Water Board's) Construction General Permit, including preparation and implementation of a SWPPP. While the proposed project includes greater impervious surfaces than the previously approved project, it would be subject to the same regulations, including a

SWPPP and Best Management Practices (BMPs). Consistent with the previously approved project, during the proposed project's operations, the site would be covered by a warehouse/office building, paved surfaces, and landscaping that would not include exposed soils; as such, the site would not be susceptible to substantial erosion or loss of topsoil during project operation. Therefore, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

c) Unstable Geologic Unit or Soils

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to being located on a geologic unit or soil that is unstable would be less than significant. The previous FEIR concluded that lateral spreading and landslides are not a concern for the previously approved project because of the relatively flat topography of the area and because there are no open creek channels crossing or bordering the site. Additionally, the previously approved project was designed in accordance with the CBC and recommendations of the site's Geotechnical Engineering Study, which include measures to address the potential for liquefaction and seismically induced settlement impacts related to unstable soils.

The previous FEIR indicated that subsidence or collapse could result from the removal of subsurface water resulting in either catastrophic or gradual depression of the surface elevation of a site. The only removal of subsurface water that was identified as potentially occurring as part of the previously approved project was temporary dewatering of excavations during construction. The temporary dewatering of excavations would not cause significant ground subsidence or collapse as the dewatering would be limited and localized to the area of the excavation. Therefore, the impact related to subsidence or collapse is considered less than significant.

Based on the previous FEIR conclusions and the site's Geotechnical Engineering Study, the potential for static settlement to occur at the site (i.e., the consolidation of soils) would be reduced given the light structural loads that were proposed for the previously approved project. Anticipated static settlements of the on-site native soils were in the order of 1.5 inches, with a differential settlement of 0.75-inch.

In addition, the previous FEIR concluded that previously approved project would adhere to the City's mandatory building code structural specifications, as well as adherence to the recommendations in the Geotechnical Engineering Study. As such, impacts were determined to be less than significant.

Proposed Project Analysis and Conclusion

No changes in the site's geological conditions have occurred that would alter the conclusion of the previous FEIR. As stated above, the potential for lateral spreading and landslides to occur on-site is low. Similar to the previously approved project, the proposed project may require temporary dewatering if groundwater is encountered during construction. As described above, the temporary dewatering of excavations would not cause significant ground subsidence or collapse as the dewatering would be limited and localized to the area of the excavation.

Based on the site's Geotechnical Engineering Study, anticipated static settlements of the on-site native soils (i.e., consolidation of soils) are in the order of 1.5 inches, with a differential settlement of 0.75-inch, which, consistent with the conclusions of the previous FEIR, would not result in significant impacts related to static or differential settlement. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact, related to unstable geologic units or soils, that was not identified in the previous FEIR.

d) Expansive Soils

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to expansive soils would be less than significant. Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. The results of plasticity index tests, completed as a part of the Geotechnical Engineering Study, on samples of the upper soils from the project site indicate that the soils have a low expansion potential. The previously approved project would be required to adhere to the City's mandatory building code structural specifications, as well as adherence to the recommendations pertaining to imported fill in the Geotechnical Engineering Study. As such, the previously approved project's impacts related to expansive soils would be less than significant.

Proposed Project Analysis and Conclusion

The existing soils on-site have not changed since the certification of the previous FEIR. As described above, the soils on-site have a low expansion potential. In addition, the proposed project would comply with the Geotechnical Engineering Study's recommendations related to imported fill (including recommendations for us of non-expansive fill). As such, impacts related to expansive soils would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

e) Wastewater Disposal Systems

Previous FEIR Conclusions

The previous FEIR concluded that the previously approved project would not include septic tanks or alternative wastewater disposal systems; as such, no impact would occur with regards to the use of a septic system or alternative wastewater disposal system.

Proposed Project Analysis and Conclusion

The proposed project would connect to the City sewer system and would not utilize a septic tank or alternative wastewater disposal system. As such, no impact would occur and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

f) Destruction of Paleontological Resources or Unique Geologic Feature

Previous FEIR Conclusions

The previous FEIR indicated that the potential to disturb paleontological resources during the previously approved project's construction depended on the types of geologic units (and their fossil-bearing characteristics) that would be encountered. The previous FEIR concluded that disturbing artificial fill materials (which have been identified as the uppermost materials covering the site) during project construction would not impact paleontological resources because, given the disturbed nature of artificial fill, intact fossils are not generally found or well-preserved in these materials.

However, it was indicated the previously approved project would involve subsurface construction activities which would extend below fill material and into native geologic formations. The previous FEIR determined the project site is situated on Pleistocene and Holocene-aged alluvial deposits based on geologic mapping. A record search from the University of California Museum of Paleontology (UCMP) Locality Search Online Database was utilized and identified five fossil localities associated within Holocene geologic formations. In addition, 4 localities were uncovered in Pleistocene geologic formations where 12 of those localities were associated with vertebrates, including a bison fossil found in Milpitas.

Therefore, the previous FEIR concluded that significant impacts to paleontological resources could occur during excavation into native geologic formations below existing fill material, where fossils may be buried, and physical destruction of fossils could occur. The previous FEIR determined that the implementation of MM GEO-1, which includes measures to be implemented in the event that paleontological resources are discovered during construction, impacts would be less than significant.

Proposed Project Analysis and Conclusion

The Santa Clara Valley region is underlain by undifferentiated quaternary alluvium of Holocene age where several Pleistocene-age vertebrates have been uncovered, potentially indicating Pleistocene-aged rock units to be present at shallow depths. A records search request was submitted to the UCMP on April 8, 2025, to determine whether any specimen from any fossil localities were uncovered on or in proximity to the project site. The records search was completed on April 29, 2025, and determined no significant paleontological resources to be located directly on the project site. However, a right molar from a bison was uncovered approximately 2 miles northeast of the project site in the drainage channel of Coyote Creek. The specimen was unearthed from 2 feet in depth within a sandy layer with an estimated relative geologic age of recent to Pleistocene. The record search results show that Pleistocene rock units may be situated at shallow depths in the region.

The proposed project would not require any new ground disturbance that was not analyzed in the previous FEIR. Mitigation Measure GEO-1 from the previous FEIR would still be applicable to the proposed project, which would reduce potential impact to paleontological resources. Implementation of the proposed project would not change the need for or prohibit the implementation of MM GEO-1. A clarification has been added to MM GEO-1 to identify the timing regarding when the project applicant shall notify its contractors of the sensitivity for paleontological resources in the project area (addition

of the following text: “Prior to conducting ground disturbing activities”). This change has been implemented to refine the mitigation measure and is not required due to a new or more severe impact. Overall, the impact would be less than significant with the implementation of mitigation and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

MM GEO-1 Paleontological Resources Sensitivity

Prior to conducting ground disturbing activities, the applicant shall inform its contractor(s) of the sensitivity of the project area for paleontological resources and shall include the following directive in the appropriate contract documents. The City shall verify that the following directive is included in the appropriate contract documents:

The subsurface of the construction site may be sensitive for paleontological resources. The contractor shall provide information to construction crews on how to recognize paleontological resources. If paleontological resources are encountered during project subsurface construction, all ground-disturbing activities within 25 feet of the find shall be redirected and the City and a qualified Paleontologist contacted to paleontological resources. Project personnel shall not collect or move any paleontological materials. Paleontological resources include fossil plants and animals, and such trace fossil evidence of past life as animal tracks.

The City and a qualified Paleontologist shall make recommendations for the treatment of the discovery. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, preparation of a technical report, and providing the fossil material and technical report to a paleontological repository, such as the University of California Museum of Paleontology (UCMP). Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City for review.

Conclusion

As discussed above, all applicable mitigation measures from the previous FEIR would be required and implemented to ensure impacts are consistent with the previous FEIR.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
VIII. Greenhouse Gas Emissions *Would the project:*					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Significant and unavoidable impact	No	No	No	None
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than significant impact with mitigation incorporated	No	No	No	None

Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Previous FEIR Conclusions

According to the previous FEIR, the land-use sector GHG emissions from operation of the previously approved project were evaluated based on an average service population of 150 employees. As shown in Table 12 from the previous FEIR, the previously approved project's estimated CO_2e emissions per service population would be above the interim 2030 GHG efficiency threshold for the year 2030. According to the previous FEIR, the largest GHG contributions would be from mobile emissions and energy use, which accounted for 90 percent and 6 percent of the total project GHG emissions, respectively. Among the mobile emissions, vehicles associated with goods movements such as vans and heavy trucks would be the primary contributor to the previously approved project's GHG emissions due to sizes of the vehicles and the associated VMTs. According to the previous FEIR the previously approved project does not demonstrate substantial progress toward meeting the

Statewide 2030 GHG reduction target under SB 32. As such, it was concluded that impacts related to the generation of GHG emissions were potentially significant.

Table 12: Project GHG Emissions from Land-Use Sectors

Emission Source	CO_2e (MT/year)	CO_2e (MT/year/SP)	Overall Contribution
Construction	17.5	0.12	0.2%
Operation–Area	<0.1	<0.01	<0.1%
Operation–Energy	564.5	3.76	6.2%
Operation–Mobile	8,184.4	54.56	89.9%
Operation–Waste	232.1	1.55	2.5%
Operation–Water	127.6	0.85	1.4%
Total Project Emissions	9,109	60.7	—
Interim 2030 GHG Threshold	—	2.9	—
Threshold Exceedance?	—	Yes	—

Notes:
MT = metric tons
SP = service population
"—" = not applicable
Source: WRA Environmental Consultants. 2020. 1000 Gibraltar Drive Environmental Impact Report SCH #2020069024. December.

The previous FEIR implemented MM GHG-1 to reduce GHG emissions to the maximum extent feasible. It requires a GHG Reduction Plan to demonstrate that the project's GHG emissions per employee would be below the interim 2030 GHG threshold (2.9 metric tons carbon dioxide equivalent per service population) with the implementation of GHG reduction measures.

According to the previous FEIR, implementation of this mitigation measure would reduce the previously approved project's GHG emissions to the maximum extent feasible and would be likely to reduce GHG emissions to below the applicable thresholds with the purchase of carbon credits. GHG reduction features in this mitigation measure would also make project operation more consistent with the State-level plans and policies, such as the Sustainable Freight Action Plan and the recent executive orders on carbon neutrality and Zero-Emission Vehicles (ZEVs). With the implementation of these GHG reduction features, especially the additional light-duty vehicle charging stations and pre-wiring for future use of heavy- and medium-duty electric trucks, the previous FEIR determined that the previously approved project went beyond the 2019 Building Energy Efficiency Standards and municipal requirements to accommodate anticipated increases in the use of ZEVs.

Nevertheless, the previous FEIR determined that the full implementation of this mitigation measure hinges on the availability of carbon credits. There remains uncertainty of availability of sufficient

carbon offset opportunities as well as uncertainty of reliability with carbon credit purchases through a third party. Therefore, the successful implementation of MM GHG-1 was considered speculative at the time the previous FEIR was published. Thus, the previously approved project's GHG emissions impact on the environment was conservatively considered significant and unavoidable.

Proposed Project Analysis and Conclusion

Project Construction

Like the previously approved project, the proposed project would emit GHG emissions during construction from the off-road equipment, worker vehicles, vendor trucks, and haul trucks. Appendix A includes detailed construction assumptions used in estimating the construction GHG emissions.

For the purpose of the analysis, the construction of the proposed project is estimated to begin in October 2025 and end in December 2026. Note that the proposed project would include later construction schedule compared to the previously approved project. The later schedule does not alter the scope, location, or intensity of construction activities. Nor does it influence the types of equipment, construction methods, and overall footprint. The proposed project would remain consistent with that evaluated in the previous FEIR. Additionally, a later construction start may reduce certain impacts due to improvements in construction technology, such as cleaner-burning engines, lower-emission equipment, and enhanced dust control measures. Compliance with updated requirements may further reduce environmental effects.

The proposed project's construction emissions are presented in Table 12. As vehicle and equipment fuel efficiencies and emission control standards continue to incrementally improve with each year, project construction emissions are likely to decrease nominally from what is shown in Table 12, should the construction schedule move to later years. Therefore, the construction GHG emissions contained in Table 13 represent a conservative assessment of project construction emissions. CalEEMod outputs, which detail the GHG emissions during each construction phase, are provided in Appendix A.

Table 13: Proposed Project Construction GHG Emissions

Construction Year	Total MT CO_2e per year (approx.)
2025	468
2026	521
Entire Construction Duration (2025-2026)	
Total	**990**
Amortized over 30 years	***33***

Source: Appendix A

The proposed project would generate approximately 990 metric tons of carbon dioxide equivalents (MT CO_2e) during construction. These consist of emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. The Bay Area Air District does not provide a construction-related GHG emissions threshold. Considering GHG emissions from construction would be temporary and not represent recurring annual emissions, the proposed project would not present a potentially significant impact from construction-related GHG emissions.

Project Operation

Operational or long-term emissions occur over the life of a project. Proposed project operations were modeled for the 2026 operational year, immediately following the completion of construction. Sources for operational emissions are summarized below:

- **Motor Vehicles:** These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site.
- **Area Sources:** These emissions refer to those produced during activities such as landscape maintenance.
- **Energy–Electricity:** These emissions refer to those generated by off-site power plants to supply electricity required for the project.
- **Energy–Natural gas:** These emissions refer to those generated by natural gas use. Note that the proposed project would use electricity for space heating, water heating, and vehicle charging. However, because the proposed project could include natural gas plumbing, emissions from natural gas use are provided for conservation analysis purposes.
- **Water Transport:** These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- **Waste:** These emissions refer to the GHG emissions produced by decomposing waste generated by the project.
- **Refrigerant:** Fugitive GHG emissions from refrigerants used in air conditioning and refrigeration equipment.
- **Stationary source:** These emissions refer to those generated by the diesel emergency fire pump.

Table 14 presents the estimated annual GHG emissions from the proposed project's operational activities. As shown in Table 13, the proposed project would generate approximately 6,012 MT CO_2e per year after the inclusion of amortized 33 MT CO_2e per year from project construction. CalEEMod outputs, which detail the GHG emissions during operation, are provided in Appendix A.

Table 14: Operational Greenhouse Gas Emissions

GHG Emissions Source	GHG Emissions (MT CO_2e per year)
Mobile	5,478
Transport Refrigerated Units	39
Area	7
Energy–Electricity	5
Energy–Natural Gas	136
Water	154
Waste	143
Refrigerant	3
Stationary (Emergency Fire Pump)	14
Amortized Construction Emissions	33
Total Annual Project Emissions	6,012

Notes:
MT CO_2e = metric tons carbon dioxide equivalent
Source: Appendix A.

The proposed project would add approximately 363 employees to the site. Therefore, the proposed project would have a GHG emissions per employee of 16.6 CO_2e (MT/year/SP). [31] As such, the proposed project would be within the scope of, but would result in fewer GHG emissions than what was analyzed in the previous EIR (Table 14). The primary difference in GHG emissions per service population is attributable to the proposed project generating significantly fewer truck trips as a last-mile delivery operation.

Table 15: Proposed Project GHG Emissions per Service Population Compared to Prior EIR

Previous FEIR	Proposed Project
60.7 CO_2e (MT/year/SP)	16.6 CO_2e (MT/year/SP)

Since the certification of the previous FEIR, the Bay Area Air District has adopted the 2022 CEQA Guidelines. The Bay Area Air District's 2022 CEQA Air Quality Guidelines provides recommended significance thresholds for GHGs for land use development projects and plans. The new thresholds state that, if a project would contribute its "fair share" of what will be required to achieve California's long-term climate goal of carbon neutrality by 2045, then a reviewing agency can find that the impact

[31] 6,012 MT of CO_2e divided by 363 employees equals 16.6 MT of CO_2e per service population.

would not be significant because the project would help to solve the problem of global climate change. One of the pathways to establish a less than significant GHG impact is that the project must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

The City of Milpitas updated its Climate Action Plan (2022 CAP) in August 2022. The 2022 CAP builds upon previous versions of the City's CAPs to align with the reduction targets established in SB 32. The City's 2022 CAP sets a mitigation-only target of reducing the City's GHG emissions by 36 percent below 2019 levels by 2030 (reduction to 283,817 MT CO_2e in 2030), 80 percent below 2019 levels by 2040 (a reduction to 94,606 MT CO_2e in 2040), as well as a goal of carbon neutrality by 2045.32 The 2022 CAP meets the requirements under Section 15183.5 of the State CEQA Guidelines as a qualified plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to new development projects.

In conjunction with the 2022 CAP, the purpose of the CAP Consistency Checklist is to implement GHG reduction measures from the 2022 CAP that apply to new discretionary development projects. New development that demonstrates consistency with relevant 2022 CAP strategies and the City's General Plan 2040 and would not conflict with the City's ability to achieve the identified GHG reduction targets through implementation of applicable measures. Projects that are consistent with the 2022 CAP, as determined through the use of this Checklist, may rely on the 2022 CAP and its associated CEQA documentation for the cumulative impact analysis of GHG emissions.

As demonstrated in the CAP Checklist prepared by the applicant (included as Appendix A), the proposed project would be consistent with all applicable measures in the City's 2022 CAP. Accordingly, the project would not conflict with the City's ability to achieve its GHG reduction targets. Because the proposed project is consistent with and does not conflict with the 2022 CAP, it would be deemed to have a less than significant GHG impact.

Overall, while the previous FEIR identified the need for MM GHG-1 to reduce GHG impacts, the proposed project would result in a less than significant impact related to GHG emissions as a result of 2022 CAP consistency. Therefore, no mitigation is required and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Previous FEIR Conclusions

According to the previous FEIR, the City's 2013 CAP (the applicable CAP at the time) included a development checklist to assist project applicants and City staff to determine whether a project complies with the 2013 CAP and contains applicable measures that will be implemented as part of

[32] City of Milpitas. 2022. Milpitas Climate Action Plan Update. August. Website: https://www.milpitas.gov/DocumentCenter/View/3124/Milpitas-Climate-Action-Plan-Update-2022. Accessed July 22, 2025.

the project to demonstrate consistency with the 2013 CAP. Applicable actions included Measure 2.1, Energy Efficiency in New Development, Action D, Leadership in Energy and Environmental Design (LEED®) requirement for new nonresidential construction; and Measure 4.2, Tiered Water Rates, Action C, Implementation of water-efficient landscaping ordinance and the water conservation ordinance. The development checklist with details on the previously approved project's consistency with the 2013 CAP's action is in Appendix F of the previous FEIR.

The previous FEIR determined that the previously approved project was consistent with the applicable actions from the 2013 CAP and would incorporate some of the recommended actions in the GHG Reduction Plan, required by MM GHG-1. Overall, the previous FEIR found that the mitigated previously approved project would implement GHG reduction measures consistent with the 2013 CAP and, therefore, would have a less than significant impact related to conflict with the applicable plan, policy and regulations.

Proposed Project Analysis and Conclusion

As discussed in Section VIII a), the proposed project would be consistent with Milpitas' 2022 CAP. Therefore, the proposed project would not conflict with applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gases and impacts would be less than significant. As such, no mitigation is required and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

None required.

Conclusion

As discussed above, the proposed project would result in a less than significant GHG impact and similar or reduced impacts compared to the previously approved project; therefore, the previous FEIR's MM GHG-1 is not required to reduce project impacts to less than significant levels.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.

3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
IX. Hazards and Hazardous Materials *Would the project:*					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than significant impact	No	No	No	None
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than significant impact with mitigation incorporated	No	No	No	Previous FEIR: MM HAZ-1
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No impact	No	No	No	None
d) Be located on a site which is included on a list of hazardous	Less than significant impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?					
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No impact	No	No	No	None
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than significant impact	No	No	No	None
g) Expose people or structures, either directly or indirectly	No impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
to a significant risk of loss, injury or death involving wildland fires?					

Discussion

a) Transport, Use, or Disposal of Hazardous Materials

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to the routine transport, use, or disposal of hazardous materials would be less than significant. Although small quantities of commercially available hazardous materials could be used during project construction activities (e.g., oil, gasoline, paint) and for landscape maintenance within the project site, these materials would not be used in sufficient quantities to pose a threat to human or environmental health. Therefore, it was concluded that the previously approved project's impacts would be less than significant in this regard.

Proposed Project Analysis and Conclusion

The proposed project would consist of warehouse and distribution uses located on the same site as contemplated in the previous FEIR. Like the previously approved project, the proposed project may use small quantities of commercially available hazardous materials during project construction activities (e.g., oil, gasoline, paint) and for landscape maintenance within the project site. However, these materials would not be used in sufficient quantities to pose a threat to human or environmental health. As such the proposed project would not result in significant impacts related to routine transport, use, or disposal of hazardous materials. As shown in Table 1, the proposed project is similar in size and scope to the previously approved project. It includes minor design modifications compared to the previously approved project but does not involve significant changes to the circumstances under which the project would be implemented. Impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Hazardous Material Upset or Accident

Previous FEIR Conclusions

The Phase I Environmental Site Assessment (Phase I ESA) provided as part of the previous FEIR indicated that there are no Recognized Environmental Conditions (RECs) in connection with the

project site. However, it did indicate that elevated levels of arsenic concentrations were present in on-site soils and asbestos-containing materials (ACMs) were present at the project site.

Soils from one location on the project site were reported to contain elevated levels of arsenic. Because of historic agricultural activities in the area, it was indicated that most surrounding soils contain similarly elevated levels of arsenic and the on-site arsenic levels reported were considered to be similar to background levels. As reported in the previous FEIR, regulatory authorities did not require further investigation or removal of the soil. It was noted that a soils management plan would be required for future development/excavation of the site.

Separately, the Phase I ESA reported several materials on-site containing ACMs, including flooring, ceiling, and cement piping, noting that as long as the materials were kept in good condition, no further action was needed.

Hazardous materials found on-site consisted of treatment chemicals associated with heating, ventilation, and air conditioning (HVAC) equipment and batteries associated with a power supply systems. Such materials were scheduled to be removed in January 2015. Neither the Phase I ESA nor the previous FEIR further identified the status of these chemicals on-site.

The previous FEIR concluded that due to the existing on-site hazardous materials and chemicals, impacts would be potentially significant. Therefore, implementation of MM HAZ-1, requiring a soil management plan would be required and would reduce impacts to less than significant in this regard.

Proposed Project Analysis and Conclusion

Consistent with the approved project, the proposed project would require the demolition of all on-site buildings and structures and, as such, would have the potential to result in similar potentially significant impacts related to arsenic contamination soils, ACMs, and other on-site chemicals as those already identified in the previous FEIR. The proposed project would be required to comply with federal, State and local regulations regarding the proper removal and disposal of contaminated soils, ACMs, and other on-site chemicals. Furthermore, soils on-site with elevated levels of arsenic are likely to still be present and, therefore, similar to the previously approved project, a soil removal and disposal plan would be required. MM HAZ-1 from the previous FEIR would require implementation of a soil management plan, inclusive of soil disposal methods, and therefore would reduce impacts to less than significant. There are no changes with respect to the modifications identified in the proposed project that would result in increased or different impacts compared to the previously approved project. Additionally, there have not been any changes in circumstances that would result in any changes to the impact conclusion in the previous FEIR with respect to hazards. Therefore, the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

c) Hazardous Materials in Proximity to Schools

Previous FEIR Conclusions

The previous FEIR concluded that because there are no public schools within 0.25 mile of the project site and because any on-site potentially hazardous materials would be handled in compliance with applicable laws and regulations, no impacts related to the use of hazardous materials in proximity to schools would occur.

Proposed Project Analysis and Conclusion

The proposed project would consist of a warehouse building, similar to what was contemplated in the previous FEIR and on the same site previously analyzed. Although there remain no public schools within 0.25 mile of the project site, as noted in the previous FEIR, the Stratford School, a private preparatory high school, is located approximately 0.3 miles southwest of the project site. However, potential impacts would remain less than significant. Similar to the previously approved project, any on-site potentially hazardous materials (including those being distributed) would be handled in compliance with applicable laws and regulations. As a warehouse and distribution facility, any such materials used on-site would be minimal in quantity and consist of standard items used for cleaning, landscaping, and pesticide control. Furthermore, proposed operations do not include emissions of hazardous materials. As such, no impacts related to the release of hazardous materials within proximity to a school would occur. The proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

d) Hazardous Materials Sites

Previous FEIR Conclusions

The previous FEIR concluded that because the project site is not included on the list of hazardous material sites complied pursuant to Government Code Section 65962.5, the previously proposed project would not create a hazard to the public or environment through location on a hazardous materials site. As such, impacts would be less than significant.

Proposed Project Analysis and Conclusion

The proposed project is located on the same site as the previously approved project and there have been no identified changes in circumstances related to hazards. According to the California Department of Toxic Control's EnviroStor database, the project site continues to not be included on the list of hazardous material sites complied pursuant to Government Code Section 65962.5.[33] As such, impact would continue to be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

[33] California Department of Toxic Substance Control (DTSC). 2025. EnviroStor. Website: https://www.envirostor.dtsc.ca.gov/public/map/ Accessed July 5, 2025

e) Airports

Previous FEIR Conclusions

The previous FEIR concluded that the project site is not located within an Airport Safety Zone or Airport Influence Area. Therefore, the previous FEIR concluded that no impacts related to airport hazards would occur.

Proposed Project Analysis and Conclusion

The proposed project is on the same site as the approved project. Consistent with the conclusions in the previous FEIR, the project site is located approximately 4.5 miles southwest of the San José Mineta International Airport and 4.4 miles southeast of the Regional Medical Center heliport. The project site is not located within the Airport Safety Zone or Airport Influence Area.[34] As such, no impact would occur and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR

f) Emergency Response Evacuation

Previous FEIR Conclusions

The previous FEIR indicated that the City of Milpitas Fire Department Office of Emergency Services coordinates the City's preparedness efforts to mitigate, plan for, respond to, and recover from natural and technological disasters. In addition, the County of Santa Clara Office of Emergency Services coordinates countywide emergency response efforts including the preparation and implementation of the County of Santa Clara Emergency Operations Plan (EOP). The previous FEIR concluded that because the previously approved project would not be expected to alter or block adjacent roadways, it would not be expected to impair the function of nearby emergency evacuation routes. Therefore, it was concluded that the proposed project would have a less than significant impact on the implementation of an adopted emergency response plan or emergency evacuation plan.

Proposed Project Analysis and Conclusion

Per the City of Milpitas website, Milpitas Fire Department's Office of Emergency Management (note the minor name change) coordinates the City's preparedness efforts to mitigate against, plan for, respond to and recover from natural and technological disasters.[35] Consistent with the previously approved project, the proposed project would not be expected to alter or block adjacent roadways and therefore it would not be expected to impair the function of nearby emergency evacuation routes. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

[34] Santa Clara County Airport Land Use Commission. 2024. Airport Land Use Compatibility Plan, Santa Clara County, San José Mineta International Airport. March 24.

[35] City of Milpitas. Office of Emergency Management. Website: https://www.milpitas.gov/172/Office-of-Emergency-Management. Accessed July 5, 2025.

g) Wildland Fires

Previous FEIR Conclusions

The previous FEIR concluded that because the project site is within a developed area and is not within or adjacent to a wildland fire hazard area, a State Responsibility Area for fire service, or a very high fire hazard severity zone, the previously proposed project would not expose people or structures to a significant loss, injury, or death involving wildland fires. No impact would occur.

Proposed Project Analysis and Conclusion

The proposed project is on the same site as the approved project. The project site continues to be located within a developed area and remains outside of wildland fire hazard areas, State and Local Responsibility Areas for fire service, and very high fire hazard severity zones.[36,37] As such, the proposed project would not expose people or structures to a significant loss, injury, or death involving wildland fires and no impact would occur. The proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

MM HAZ-1 Soil Management Plan

A Soil Management Plan (SMP) shall be prepared by a qualified environmental professional to outline soil management protocols that would be implemented during project construction to ensure that construction workers, the public, future site occupants, and the environment would not be exposed to hazardous materials (e.g., arsenic) that may be present in soil at the project site. The SMP shall be submitted to the City for review and approval prior to issuance of demolition or grading permits. The SMP shall include, but not be limited to, the following:

- Procedures for soil management, including identification and testing of contaminants, soil stockpiling procedures, soil reuse guidelines, and soil disposal methods.
- Requirements for notification to the City and any applicable regulatory agency(ies) of previously unknown hazardous materials found in soil during development.
- Guidelines for controlling dust during excavation and grading.

[36] California Department of Forestry and Fire Protection (CAL FIRE). 2024. Fire Hazard Severity Zones in State Responsibility Area. Website: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008. Accessed July 22, 2025.

[37] California Department of Forestry and Fire Protection (CAL FIRE). Compare Old (2007-2011) with New (2025) Recommended FHSZ in LRA. 2025. Website: https://experience.arcgis.com/experience/5065c998b4b0462f9ec3c6c226c610a9/page/Compare-old-and-new-LRA-FHSZ#data_s=id%3Awidget_114_output_config_default_geocode_0_0%3A0. Accessed July 22, 2025.

All recommendations included in the SMP shall be implemented during the demolition, grading, and construction phase of the project. Prior to the City's approval of building occupancy, the applicant shall provide the City with a report prepared by a qualified environmental professional documenting that soils on the project site were managed in accordance with the SMP during demolition, grading, and construction, and that appropriate safeguards (e.g., capping of remaining arsenic impacted soil with clean fill or hardscape materials) have been incorporated into the project design, as necessary, to ensure that the public, future site occupants, and the environment would not be exposed to unacceptable health risks from residual hazardous materials in the subsurface of the project site.

Conclusion

As discussed above, all applicable mitigation measures from the previous FEIR would be required and implemented to ensure impacts are consistent with the previous FEIR.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
X. Hydrology and Water Quality *Would the project:*					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than significant impact	No	No	No	None
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than significant impact	No	No	No	None
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a	Less than significant impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
manner which would:					
(i) result in substantial erosion or siltation on- or off-site;	Less than significant impact	No	No	No	None
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	Less than significant impact	No	No	No	None
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less than significant impact	No	No	No	None
(iv) impede or redirect flood flows?	Less than significant impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Less than significant impact	No	No	No	None
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than significant impact	No	No	No	None

Existing Conditions

For informational purposes, the below discussion includes updates to the hydrology and water quality regulatory background and to the description of the City's storm drainage system based on the City's Storm Drain Master Plan adopted in October 2021.[38] The discussion also includes updates based on information from the General Plan EIR (certified in 2021). Additionally, updates to the site's existing impervious surfaces and pervious surfaces data have been included. However, no substantial changes to the existing hydrology and water quality setting have occurred since the certification of the previous FEIR.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) issued the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) in 2009 by Order R2-2009-0074 (and reissued in 2015) to regulate stormwater discharges from municipalities and local agencies in Alameda, Contra Costa, San Mateo, and Santa Clara Counties. Until July 2023, Provision C.3 of the MRP required post-construction stormwater control in project designs for new development and redevelopment projects that would replace more than 10,000 square feet of impervious surfaces. The MRP now requires new development and redevelopment projects that would replace more than 5,000 square feet of impervious surfaces to comply with

[38] City of Milpitas. Storm Drain Master Plan. October 1, 2021. Website: https://www.milpitas.gov/DocumentCenter/View/3432/2021-Storm-Drain-Master-Plan-PDF?bidId=. Accessed May 12, 2025.

Provision C.3 post-construction stormwater control requirements.[39] Under the C.3 requirements, the development projects are required to prepare and submit a Stormwater Control Plan (SCP) that discusses the design elements and implementation measures necessary to meet the post-construction stormwater control requirements of the MRP. In particular, SCPs must include LID design measures to reduce water quality impacts. LID design measures include preserving and recreating natural landscape features, minimizing imperviousness, and using stormwater as a resource, rather than a waste product.

The City of Milpitas is a part of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), which assists cities and towns across the County with complying with the MRP by providing guidance and staff training and by implementing public outreach and water quality monitoring. Based on the SCVURPPP Local Hydromodification Applicability Map for the City, the site is located within area that consists of catchments and subwatersheds in an area that 65 percent impervious or greater.[40] The project site consists of 876,485 square feet of impervious surfaces and 384,816 square feet of pervious surfaces (i.e., landscaping and grassland areas); 69 percent of the site's surfaces are impervious. As described in the previous FEIR, stormwater runoff from the project site is conveyed through underground storm drains/culverts located beneath Gibraltar Drive and South Milpitas Boulevard which discharge to Wrigley Ditch (an engineered channel) approximately 1,500 feet northwest of the project site. Wrigley Ditch merges with other engineered channels prior to discharging into the engineered channel of Lower Penitencia Creek. Lower Penitencia Creek discharges into Coyote Creek Slough, which discharges into southern San Francisco Bay.

As described in the General Plan EIR, tsunamis and seiches are standing waves that occur in the ocean or relatively large bodies of water that can follow seismic, landslide, and other events from local sources. Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays, or harbors. The site does not contain and is not adjacent to enclosed bodies of water. In addition, the project site is outside of the CGS tsunami hazard area.[41] As shown in the General Plan EIR, Figure 3.9-3, Anderson Dam and Reservoir, Coyote Dam and Reservoir, and Sandy Wool Lake dam inundation areas are located within the Milpitas Planning Area. The site is not located within a dam inundation area.

[39] San Francico Bay Regional Water Quality Control Board (San Francisco Bay RWQCB). Municipal Regional Stormwater NPDES Permit – Municipalities and Flood Management Agencies in Alameda County, Contra Costa County, San Mateo County, Santa Clara County, and Solano County – Reissuance of NPDES Permit. 2022. Website: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/MRP/mrp5-22/MRP_3%20Supp.pdf. Accessed May 14, 2025.

[40] Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). 2025. Local Hydromodification Management Applicability Maps – Milpitas. Website: https://scvurppp.org/hmp-maps/. Accessed May 12, 2025.

[41] California Geological Survey (CGS). Tsunami Hazard Area Map. 2022. Website: https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/#data_s=id%3AdataSource_3-1918f9f263a-layer-15%3A9. Accessed May 12, 2025.

Discussion

a) Water Quality Standards

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to water quality would be less than significant. The previous FEIR concluded that during construction of the previously approved project, sediment and potential contaminants that may be in the soil (from any chemicals spilled or leaked onto the ground) could be entrained in stormwater runoff and potentially reduce the quality of the receiving waters. The previous FEIR indicated the previously approved project would disturb greater than 1 acre of land and, therefore, would be required to obtain coverage under the Construction General Permit. In accordance with the Construction General Permit, the previous FEIR indicated a SWPPP would be prepared for the previously approved project. The SWPPP would identify all potential pollutants and their sources, including erosion, sediments, and construction materials and must include a list of BMPs to reduce the discharge of construction-related stormwater pollutants. The previous FEIR concluded that compliance with the requirements of the Construction General Permit would ensure that construction activities do not adversely affect runoff water quality that could result in a violation of water quality standards.

The previous FEIR indicated that groundwater dewatering may be required during construction activities involving excavation. Dewatering effluent may have high turbidity and could contain contaminants. The previous FEIR also indicated that turbid and/or contaminated groundwater could cause degradation of the receiving water quality if discharged directly to storm drains without treatment. The previous FEIR concluded that any groundwater dewatering for the previously approved project would be limited in duration (i.e., during construction) and the discharge of dewatering effluent would be subject to permits from the City of San José (which manages and operates the San José-Santa Clara Regional Wastewater Facility, which treats wastewater from the project site) or the Regional Water Board, depending if the discharge were to the sanitary sewer or storm drain system, respectively.

As indicated in the previous FEIR, during the operational phase of the previously approved project, pollutants associated with truck and vehicle parking would have the potential to be deposited on pavement surfaces thereby contributing petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff being transported to receiving waters. Debris and particulates that gather on impervious surfaces such as paved areas and roofs of buildings can also add metals and sediment to the pollutant load in runoff. It was concluded that long-term degradation of runoff water quality from the project site could adversely affect water quality in the receiving waters.

The previous FEIR indicated that the previously approved project would involve the replacement of over 10,000 square feet of impervious surface and would include alteration of over 50 percent of the existing impervious surface at the project site, and therefore stormwater treatment systems would be designed and sized to treat stormwater runoff from the entire project site, as required by Provision C.3 of the MRP. The previous FEIR indicated that the previously approved project would add 1.2

acres of impervious surfaces (i.e., approximately 52,270 square feet of impervious surfaces) to the site. As indicated in the previous FEIR, an SCP is required and shall include the design elements and implementation measures to meet the requirements of the Municipal Regional Stormwater NPDES Permit requirements. An SCP was prepared for the previously approved project and indicated that it would include the use of bioretention treatment areas to manage and treat stormwater runoff from the project site.

As described in the previous FEIR and in accordance with Required Action 4.d-A-11 of the City of Milpitas General Plan and the SCVURPPP Stormwater C.3. Handbook, the previously approved project would be required to submit a Stormwater Control Operation and Maintenance Plan (O&M Plan). Furthermore, all stormwater management facilities would be inspected and maintained according to the SCVURPPP Stormwater C.3. Handbook and the approved O&M Plan.

Overall, the previous FEIR concluded that compliance with existing regulations, as described above, would ensure that the previously approved project's construction and operational impacts to water quality would be less than significant.

Proposed Project Analysis and Conclusion

Construction Water Quality Impacts

Similar to the previously approved project, construction activities associated with the proposed project would cause disturbance of soil during excavation work, which could adversely impact water quality. The overall construction disturbance area would be similar to that of the previously approved project (see Table 1 for demolition area and impervious surface area). Construction methods and vehicle types would also be substantially similar to those of the previously proposed project. Contaminants from construction vehicles and equipment, as well as sediment from soil erosion during construction activities (including dewatering), could increase the pollutant load in runoff being transported to receiving waters during development. Since, like the previously approved project, construction of the proposed project would disturb more than 1 acre of land (i.e., 28.96 acres of land), the proposed project would be required to comply with the NPDES Construction General Permit.

Consistent with permit requirements, the proposed project, like the previously approved project, would be required to contract a certified Qualified SWPPP Developer to prepare a SWPPP, which would identify all potential pollutants and their sources, including erosion, sediments, and construction materials and include a list of BMPs to reduce the discharge of construction-related stormwater pollutants. The proposed project, like the previously approved project, would implement the BMPs, thereby reducing construction-related water quality impacts. BMPs that the proposed project would implement during construction include, but are not limited to, using straw wattles to trap sediment and reduce erosion, using drop inlet sediment filter bags, utilizing rock barrier bags, watering or covering stockpiles of soil or other similar materials, and replanting of vegetation in disturbed areas or as otherwise indicated in the SWPPP.

Consistent with the conclusions of the previous FEIR, with the compulsory implementation of the above construction BMPs, as required by a NPDES General Construction Permit, the proposed

project would result in less than significant construction-related water quality impacts and the proposed project would not result in a new or more severe adverse construction-related water quality impact that was not identified in the previous FEIR.

Post-Construction Water Quality Impacts

The proposed project would add 105,527 square feet of impervious surfaces to the existing 876,485 square feet on-site, which would result in a total of 982,012 square feet of impervious surfaces. The previously approved project would have added approximately 52,270 square feet of impervious surfaces to the site (Table 1). Since the proposed project would add more than 5,000 square feet of impervious surfaces to the site, like the previously approved project, the proposed project would be required to comply with the NPDES MRP provisions. In compliance with Provision C.3 of the MRP, Provision C.3 of the MRP the proposed project would implement LID source control, site design, and stormwater treatment. The proposed project would include bioretention treatment and pervious pavement (self-retaining) areas which would allow stormwater runoff from the project site to infiltrate the ground surface and treat as well as reduce runoff from the site. Stormwater runoff would be treated, then directed to the City's stormwater system. In addition, an SCP demonstrates that the proposed project will include the use of bioretention treatment areas to manage and treat stormwater runoff from the project site. The SCP would be reviewed by the City to ensure the proposed project complies with the NPDES permit provisions and that the proposed project's post-construction water quality impacts would be less than significant. As such, operation related water quality impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

b) Groundwater

Previous FEIR Conclusions

The previous FEIR concluded impacts related to groundwater would be less than significant.

As described in the previous FEIR, Santa Clara Valley Water District's (Valley Water's) 2016 Groundwater Management Plan[42] indicated that recharge within the Santa Clara Subbasin generally occurs along the margins and southern portion of the sub-basin where coarse-grained sediments predominate and high permeability surface soils allow water to infiltrate the aquifers. As indicated in the Groundwater Management Plan, the project site is located west of a recharge area of the Santa Clara Subbasin and is within the confined area of the sub-basin where a low permeability aquitard restricts the vertical flow of groundwater and contaminants. It was therefore concluded that the previously approved project would have a less than significant impact on groundwater recharge.

The previous FEIR concluded that the previously approved project's LID stormwater management systems, including bioretention treatment areas, would allow much of the stormwater runoff from the project site to infiltrate the ground surface.

[42] Valley Water. Groundwater Management Plan for the Santa Clara Llagas Subbasins. November 2016.

The previous FEIR indicated the previously approved project would not use groundwater. However, the previous FEIR indicated there could be some dewatering required during construction depending on the depths of excavations and groundwater at the time. The dewatering would be temporary and limited to the uppermost shallow groundwater zone. As such, it was concluded that the previously approved project would have a less than significant impact related to the depletion of groundwater supplies.

Proposed Project Analysis and Conclusion

Valley Water updated the Groundwater Management Plan for the Santa Clara and Llagas Subbasins was updated in November 2021. As discussed in the 2021 Groundwater Management Plan,[43] the Santa Clara Plain has two hydrogeologic areas, the recharge (unconfined) and confined areas. The project site is located within a confined area, which consists of low permeability clays and silts that separate shallow and principal aquifers. The confined area consists of low permeability aquitard which restricts the vertical flow of groundwater. Furthermore, the project site is not located within a Santa Clara Plain recharge area shown in the 2021 Groundwater Management Plan. The proposed project would include bioretention treatment and retaining areas which would treat stormwater runoff from the site which could infiltrate into the groundwater. Treated stormwater runoff from the site would also be directed to the site's storm drains and then directed to the City's stormwater system for further treatment and release. For the above reasons and consistent with the previous FEIR conclusions, the proposed project would have a less than significant impact on groundwater recharge.

Depth to ground levels at the site could range from eight to 18 feet below the ground surface.[44] The proposed project would not use groundwater for potable water purposes. The proposed project would, however, include excavation and trenching for utilities. Temporary dewatering could be required during excavation; however, similar to the previously approved project, dewatering would be limited to the areas of the excavation in the uppermost shallow groundwater zone. Therefore, the project would not include substantial groundwater pumping.

Overall, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. The proposed project would have a less than significant impact related to groundwater supplies and recharge and would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

[43] Santa Clara Valley Water District (Valley Water). Groundwater Management Plan for the Santa Clara Llagas Subbasins. 2021. Website: https://www.valleywater.org/your-water/where-your-water-comes/groundwater/sustainable. Accessed May 13, 2025.

[44] Earth Systems Pacific. 2019. Geotechnical Engineering Study. 1000 Gibraltar Drive Warehouse. March

c) Alter Existing Drainage Pattern

i) Drainage Resulting in Erosion

Previous FEIR Conclusions

The previous FEIR concluded impacts related to drainage pattern resulting in erosion would be less than significant. The previous FEIR concluded that the proposed project would not alter the course of a stream or a river and that compliance with the Construction General Permit during construction activities would ensure that the previously proposed project would not result in substantial erosion or siltation during construction. It was determined that, during operation of the previously approved project, the ground surface of the project site would be covered by the building and pavement surfaces as well as landscaped areas and there would not be exposed soil surfaces that could be susceptible to erosion. Additionally, the previous FEIR concluded that compliance with Provision C.3 of the Municipal Regional Permit would ensure that the stormwater treatment systems at the project site would be designed and maintained to prevent siltation of stormwater control and drainage systems.

As described in the previous FEIR, Provision C.3.g of the MRP pertains to hydromodification management and requires that stormwater discharges shall not cause an increase in the erosion potential of the receiving stream over the existing condition. As described in the existing setting above, according to the hydromodification applicability map presented in the MRP for areas under SCVURPPP jurisdiction, the project site is located within an area exempt from hydromodification management requirements because the stormwater catchment area is already at least 65 percent impervious. Therefore, the previous FEIR concluded that potential increases in stormwater runoff from the previously approved project would not be expected to result in substantial erosion or sedimentation in receiving waters due to hydromodification. Therefore, the previously approved project was determined to have a less than significant impact related to substantial erosion or siltation on- or off-site associated with changing the drainage pattern of the project site.

Proposed Project Analysis and Conclusion

Similar to the previously approved project, the proposed project would not alter the existing drainage pattern through the alternation of the course of a stream or a river. As described above, the proposed project would add 105,527 square feet of impervious surfaces to the site. The proposed project would comply with the NPDES SWPPP and construction BMPs described above, which would reduce the proposed project's impact on construction water quality and erosion to less than significant. In addition, the project site would be covered by the proposed warehouse/office building, paved surfaces, as well as landscaped areas, which would not have exposed soil surfaces that could be susceptible to erosion. As such, impacts related to drainage resulting in erosion would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

ii) Drainage Resulting in Flooding

Previous EIR Conclusions

The previous FEIR concluded that impacts related to drainage resulting in flooding would be less than significant. The previous FEIR indicated that the previously approved project would increase the amount of impervious surface area at the project site; however, the proposed stormwater control and treatment systems were designed to manage and treat stormwater runoff from the entire project site in accordance with the requirements of Provision C.3 of the MRP. Additionally, the previous FEIR concluded that management of stormwater runoff using the bioretention treatment areas would result in a decrease in stormwater runoff from the project site compared to existing conditions. Therefore, the previous FEIR concluded that the previously approved project would result in a less than significant impact related to flooding on- or off-site as a result of increasing impervious surface area.

Proposed Project Analysis and Conclusion

The proposed project would add 105,527 square feet of impervious surfaces to the site compared to existing conditions and 95,261 square feet compared to the previously approved project (Table 1). Like the previously approved project, the proposed project would include on-site stormwater control measures such as detention basins, bioretention basins, pervious pavement (self-retaining) areas, and storm drains that would connect to existing 15- to 18-inch storm drains on-site and in Gibraltar Drive. Additionally, like the previously approved project, the proposed project would comply with the post-construction NPDES MRP requirements (including the implementation of bioretention treatment and pervious pavement [self-retaining] areas) to reduce the discharge of pollutants from stormwater runoff and the amount of runoff generated by proposed project.

As such, the proposed project would not increase the rate or amount of surface runoff in a manner which would result in flooding. Therefore, the proposed project's impacts related to flooding from stormwater runoff would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

iii) Existing or Planned Stormwater Drainage Systems Capacity or Additional Sources of polluted runoff

Previous FEIR Conclusions

The previous FEIR concluded impacts related to storm drainage systems capacity and polluted runoff would be less than significant. The previous FEIR indicated that although the previously approved project would increase the area of impervious surface on-site, the management of stormwater runoff using bioretention treatment areas would result in a decrease in stormwater runoff from the project site compared to existing conditions. Therefore, it was concluded that the previously approved project would have a less than significant impact related to exceeding the capacity of stormwater drainage systems. Furthermore, compliance with existing stormwater regulations ,including the Construction General Permit and MRP, would ensure that the previously approved project would have a less than significant impact related to contributing additional sources of polluted runoff.

Proposed Project Analysis and Conclusion

The proposed project would add more impervious surfaces to the site (compared to the previously approved project), as described in the response to Impact X(c)(i). However, the proposed project would comply with the NPDES MRP provisions and include bioretention treatment and pervious pavement (self-retaining) areas that would reduce the amount of stormwater runoff generated by the project and reduce the discharge of pollutants from stormwater runoff. As such, the proposed project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the proposed project's impacts related to storm drainage system capacity and sources of polluted runoff would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

iv) Impede or Redirect Flood Flows

Previous EIR Conclusions

The previous FEIR concluded impacts related to impeding or redirecting flood flows would be less than significant. The project site is not located within a 100-year flood hazard zone (i.e., areas where there is a 0.1 percent chance of flooding in a given year) as mapped by the Federal Emergency Management Agency (FEMA).[45] The previous FEIR indicated that the project site is, however, located in a 500-year flood hazard zone and, therefore, the chance of flooding at the project site in any given year is 0.2 percent. Because of the low risk of flooding at the project site, it was concluded that the previously approved project would result in less than significant impacts related to impeding or redirecting flood flows.

Proposed Project Analysis and Conclusions

The project site continues to be located outside a 100-year flood hazard zone but within a 500-year flood hazard zone. The site is not located within a FEMA Special Flood Hazard Area; as such, there is a low risk of flooding at the site. In addition, as described in the responses to Impact X(c)(i) and (c)(ii), and similar to the previously approved project, with NPDES MRP provisions to reduce stormwater runoff generated from the site, stormwater runoff from the proposed project would not result in flooding or cause an exceedance in the City's stormwater drainage systems capacity. As such, the impacts related to impeding or redirecting flood flows would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

d) Flood, Tsunami, or Seiche Zone

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to flooding, tsunami, or seiche zone would be less than significant. Because of the low risk of flooding at the project site, the previous FEIR concluded

[45] Federal Emergency Management Agency (FEMA). 2025. FEMA's National Flood Hazard Layer (NFHL) Viewer. Website: https:// hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed May 30, 2025.

that the previously approved project would have a less than significant impact associated with the potential release of pollutants due to storm-related flooding.

As detailed in the previous FEIR, the project site is located approximately five miles inland from a mapped tsunami inundation area along Coyote Creek Slough. Therefore, flooding impacts associated with tsunamis would not be expected to occur.

The previous FEIR indicated that while the site is in proximity to the San Fransico Bay, due to the basin geometry and dimensions, seiches pose a negligible hazard to the San Francisco Bay Area and the project site. Therefore, it was concluded that seiches would not pose a risk of inundation for the project site.

Furthermore, the previous FEIR indicated that the project site is not located within a dam failure inundation area. The previous FEIR indicated that there are no other water bodies located near or upgradient to the project site that could pose a risk of inundation for the project site. As such, impacts were determined to be less than significant.

Proposed Project Analysis and Conclusions

As described in response to Impact X(c)(iv), consistent with the previous FEIR conclusions, the project site is not located within a Special Flood Hazard Area and there is a low risk of flooding at the site. The site is not located in a tsunami hazard area, as discussed in the existing setting. Given that the site does not contain and is not adjacent to enclosed or semi-enclosed bodies of water, the site is not located in a seiche zone. Chemicals stored or used on the site could include maintenance chemicals, herbicides, and pesticides for landscape maintenance, cleaning supplies, petroleum hydrocarbons, and diesel fuel. However, the proposed project would be required to comply with applicable federal, State, and local regulations regarding the storage, use, and transport of such materials as well as the NPDES MRP Permit provisions to reduce the discharge of pollutants from stormwater runoff. As such, the proposed project's impacts related to the risk of the release of pollutants in a flood hazard zone would be less than significant. There would be no impacts related to the release of pollutants in a tsunami or seiche zone (given the site is not located in these zones). Therefore, the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

e) Conflict with a Water Quality Control Plan

Previous FEIR Conclusions

The previous FEIR concluded impacts related to conflicts with a water quality control plan or sustainable groundwater management plan would be less than significant. As discussed, the previous FEIR concluded that stormwater and groundwater quality during construction and operation of the previously approved project would be controlled through required compliance with the existing stormwater control regulations. Therefore, it was concluded that the previous project would not conflict with or obstruct the implementation of a Water Quality Control Plan.

The previous FEIR indicated that construction of LID stormwater management systems, including proposed bioretention treatment areas, would allow much of the stormwater runoff from the project site to infiltrate the ground surface and recharge groundwater and the project site is located outside of the recharge area of the Santa Clara subbasin; therefore, the previous FEIR concluded that increasing impervious surface area at the project site would have less than significant impacts on groundwater recharge. As discussed above, compliance with Provision C.3 of the MRP would ensure that stormwater runoff is appropriately treated prior to infiltration, which would protect groundwater quality. Therefore, the previous FEIR concluded that the previously approved project would not conflict with or obstruct implementation of the Groundwater Management Plan for the Santa Clara subbasin.

Proposed Project Analysis and Conclusion

Consistent with the previous FEIR, the proposed project would comply with existing stormwater control regulations. The NPDES permit is designed, in part, to implement the water quality objectives and beneficial uses identified in the applicable Water Quality Control Plans. As described above, the proposed project would comply with the NPDES Construction General Permit, including implementing a SWPPP and construction BMPs that would reduce the project's impact on water quality during construction. The proposed project would also comply with NPDES MRP provisions by including bioretention treatment areas that would reduce the impacts on water quality post-construction.

The proposed project's bioretention treatment areas would allow much of the stormwater runoff from the project site to infiltrate the ground surface and recharge groundwater. Furthermore, the project site is located outside of the recharge area of the Santa Clara subbasin; therefore, increasing the impervious surface area at the project site would have less than significant impacts on groundwater recharge. Additionally, compliance with Provision C.3 of the MRP would ensure that stormwater runoff is appropriately treated prior to infiltration, which would protect groundwater quality. As previously discussed, the proposed project would not include substantial groundwater pumping. The maximum depth of excavation for the proposed project would be 8 feet below the ground surface. Temporary dewatering could be required during excavation; however, similar to the previously approved project, would be limited to dewatering may be required during construction/excavation. Dewatering would be temporary and would not result in the depletion of groundwater supplies. As described in the existing setting, the City does not rely on groundwater to meet water demands under normal conditions and reserves groundwater supply for emergencies. As such, it is not anticipated that the use of groundwater would be required for the proposed project. Consistent with the previous FEIR conclusions for the previously approved project, compliance with existing stormwater control regulations would ensure that the proposed project would not conflict with or obstruct implementation of the Groundwater Management Plan for the Santa Clara subbasin.

In conclusion, the proposed project's impacts related to conflict with a Groundwater Management Plan or Water Quality Control Plan would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any significant impacts related to Hydrology and Water Quality, as found in the previous FEIR. No new impacts are found and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XI. Land Use and Planning *Would the project:*					
a) Physically divide an established community?	No impact	No	No	No	None
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Less than significant impact	No	No	No	None

Discussion

a) Division of an Established Community

Previous FEIR Conclusions

The previous FEIR concluded that the previously approved project would have no impacts related to physically dividing an established community. The previous FEIR indicated that the previously approved project is located within an urban area on an existing industrial development site. The previous FEIR concluded that since construction would consist of a new creative industrial building in an area zoned M2 for heavy industrial use, the previously approved project would not physically divide an established community and no impact would occur.

Proposed Project Analysis and Conclusion

As previously discussed, the proposed project would construct a warehouse building with office space on the same site as the approved project. As described in the previous FEIR, the project site remains surrounded by similar industrial and office uses. In addition, consistent with the approved project, the proposed project would not construct any roadways or infrastructure that would physically divide the surrounding land uses. For the above reasons, consistent with the previous FEIR conclusions, the

proposed project would not physically divide an established community and no impact would occur. The proposed project would not result in a new more severe impact that was not identified in the previous FEIR.

b) Conflict with Applicable Land Use Plans, Policies, or Regulations

Previous FEIR Conclusions

The previous FEIR concluded that because the proposed project does not substantially conflict with the intent of the City's General Plan or zoning regulations, it would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and this impact would be less than significant. As such, the previous FEIR concluded impacts related to conflicts with applicable land use plans, policies, or regulations would be less than significant

Proposed Project Analysis and Conclusion

Similar to the previously approved project, and as evaluated in the previous FEIR, the proposed project would demolish all existing on-site buildings would develop a warehouse with office space including truck docks, trailer parking, passenger vehicle parking, backup generator, landscaping, and stormwater facilities. Such use would be consistent with the General Plan designation of MFG and M2 zoning both of which are intended for uses such as office, research, general manufacturing, warehousing, and distribution.

The proposed project's FAR of 0.38 would be the same as the previous project's FAR (see Table 1). As such, the proposed project would continue to be below the 1.0 FAR allowed by the MFG designation as well as the 1.0 FAR allowed by the M2 zoning. The proposed project would also be consistent with M2 zoning development standards such as front, side, street, and rear yard setbacks and maximum building height. The proposed building would be 46.5 feet tall at the top of the parapet wall. The City of Milpitas' industrial zone general development standards (XI-10.7.03) requires a determination for any structure proposed in the M2 zone that exceeds 35 feet that it would not be detrimental to the light, air, or privacy of any other structure or use currently existing or anticipated. Because of the distance to adjacent structures and their general commercial uses, no new land use impacts related to the increase in height are expected. Therefore, because the proposed project would not substantially conflict with the intent of the City's General Plan or zoning regulations, it would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and this impact would be less than significant. As such, the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any significant impacts related to Land Use and Planning, as found in the previous FEIR. No new impacts are found and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XII. Mineral Resources *Would the project:*					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	No impact	No	No	No	None
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No impact	No	No	No	None

Existing Conditions

Mineral resources of significance found and extracted in Santa Clara County include construction aggregate deposits and, to a lesser extent, salts derived from evaporation ponds at the edge of San Francisco Bay, as described in the General Plan EIR. The Milpitas Planning Area includes four areas identified by the State Geologist as containing Regionally Significant Construction Aggregate Resources. These areas contain sandstone deposits and are located within the foothills outside the City limits. Three of the sites are located west of the Ed Levin Park along Tularcitos and Loa Caches creeks (approximately 2.5 miles east of the project site), and the fourth site is located along Scott Creek at the County line, more than 3 miles north of the site.

The California Office of Mine Reclamation periodically publishes a list of qualified permitted aggregate mines regulated under the Surface Mining and Reclamation Act of 1975 (SMARA), as described in the General Plan EIR. There are five aggregate mines in Santa Clara County that are regulated under

SMARA. The five mines are located within hillsides and none of the mines are located within the Milpitas Planning Area. The nearest active mine is the Curtner Quarry, approximately 3.25 miles northeast of the project site.

The Milpitas Planning Area does not contain sites designated as locally important mineral resource recovery sites by the General Plan. The Santa Clara County General Plan identifies important mineral resources within its Planning Area, which includes the hillside areas within the Milpitas Sphere of Influence.

Discussion

a, b) Loss of Minerals Resources of Statewide or Local Importance

Previous FEIR Conclusions

The previous FEIR concluded there would be no impacts related to loss of mineral resources of statewide or local importance. The project site is not in or adjacent to any important mineral resources. The project site is within a developed industrial area and does not contain any known or designated mineral resources. The previous FEIR concluded that the four mineral resource areas within the Milpitas Planning Area are located in the foothills, outside City limits. Therefore, it was determined that development of the previously approved project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State and there would be no impact related to the availability of mineral resources.

Proposed Analysis and Conclusion

The proposed project is on the same site as the previously approved project and there have been no changes in identification of mineral resources since the previous FEIR was certified. The project site remains located approximately 2.5 miles from the nearest mineral resource of regional significance, which is located outside city limits. Based on the General Plan EIR, the Milpitas Planning Area (including the project site) does not contain sites with aggregate mines regulated under SMARA or a locally important mineral resource recovery site delineated by the General Plan. The site is not located within or adjacent to a Milpitas Sphere of Influence (SOI) hillside area that contains mineral resources designated by the Santa Clara County General Plan.

Therefore, consistent with the previous FEIR conclusions, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to residents of the region or State or a locally important mineral resource recovery site delineated in a local general plan or specific plan. As such, no impact would occur and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any impacts related to Mineral Resources, as found in the previous FEIR. No new impacts are found and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XIII. Noise *Would the project:*					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than significant impact	No	No	No	None
b) Generation of excessive groundborne vibration or groundborne noise levels?	Less than significant impact	No	No	No	None
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or	Less than significant impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
working in the project area to excessive noise levels?					

Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Previous FEIR Conclusions

The previous FEIR concluded that construction would last less than one year, and although construction noise would exceed ambient levels by more than 5 dBA L_{eq}, the impact would be less than significant. No mitigation was required, though standard construction best management practices were recommended.

Regarding operational stationary sources, the previous FEIR concluded that noise levels from rooftop mechanical equipment would be up to 35 dBA at the nearest residential receptor, which is well below existing ambient noise levels. Truck deliveries and truck trips were also found to increase local roadway noise levels by less than 1 dBA. As a result, stationary source and truck delivery noise impacts were determined to be less than significant, and no mitigation was required.

The previous FEIR concluded that implementation of the project would not increase traffic noise levels by more than 3 dB on any roadway segment in the project vicinity. Therefore, traffic noise impacts were determined to be less than significant, and no mitigation was required.

Proposed Project Analysis and Conclusion

Construction Noise Impacts

The proposed project would involve the same general construction activities as the previously approved project but would have a slightly smaller building footprint and larger impervious surface footprint. Construction duration is expected to be equal to or shorter than what was previously analyzed, and the types of equipment and proximity to nearby sensitive receptors would remain the same or slightly improved based on the building's reduced footprint. Given that construction duration would remain under one year and equipment usage and receptor distances are consistent with prior

modeling, construction noise impacts would be the same or less than those disclosed in the previous FEIR. Therefore, impacts would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR. The construction activities for the proposed project remain the same as those analyzed in the previous FEIR and would not result in any new or substantially more severe impacts.

Operational Stationary Noise Impacts

Mechanical Equipment Operations

The proposed project would result in the same types and a similar or reduced amount of rooftop mechanical equipment as analyzed in the previous FEIR. In addition, based on the proposed site plan, none of the proposed mechanical equipment systems would be located any closer to off-site receptors than what was previously analyzed as the reasonable worst-case scenario for the previously approved project. As such, operational noise levels from stationary sources would be comparable to or less than those analyzed in the previous FEIR. Therefore, mechanical equipment operational noise impacts would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Truck Delivery Operations

The proposed project would result in 2 projected peak hour truck trips,[46] compared to the 13 peak hour truck trips analyzed in the previous FEIR.[47] In addition, based on the proposed site plan, none of the proposed truck loading/unloading areas would be located any closer to off-site receptors than what was identified in the previous FEIR. As such, operational noise levels from truck delivery noise sources would be comparable to or less than those analyzed in the previous FEIR. Therefore, truck delivery operational noise impacts would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Operational Traffic Noise Impacts

The updated traffic study for the proposed project estimates approximately 3,812 daily vehicle trips, including 260 AM peak hour trips and 245 PM peak hour trips.[48] These volumes are similar to those evaluated in the previous FEIR, which estimated 3,680 daily trips, 359 AM peak hour trips, and 101 PM peak hour trips. In addition, under existing conditions without the project there are 167 AM and 142 PM peak hour trips on Gibraltar Drive adjacent to the project site, and 916 AM and 1,271 PM trips on South Milpitas Boulevard adjacent to the project site. Typically, a doubling of the traffic volumes on a roadway segment is required in order to result in an increase of 3 dBA in traffic noise levels, which is the lowest change that can be perceptible to the human ear in outdoor environments. Although the proposed project's average daily trips and the PM peak hour trips would be slightly higher than the trips analyzed in the previous FEIR, the overall trip generation would not double the existing traffic volumes along South Milpitas Boulevard and Gibraltar Drive. Therefore, traffic volume increases with implementation of the proposed project would not result in a perceptible increase in traffic noise

[46] NV5. 2025. Local Transportation Analysis for 1000 Gibraltar Drive Delivery Center, July 9.

[47] Fehr & Peers. 2020. Local Transportation Analysis Report 1000 Gibraltar Industrial Project. October.

[48] NV5. 2025. Local Transportation Analysis for 1000 Gibraltar Drive Delivery Center, July 9.

levels. Traffic-related noise impacts would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Previous FEIR Conclusions

The previous FEIR concluded that construction vibration levels would not exceed the applicable threshold of 0.3 in/sec peak particle velocity (PPV) at the nearest structures. As a result, construction vibration impacts were determined to be less than significant, and no mitigation was required.

Proposed Project Analysis and Conclusion

The proposed project would involve similar construction activities as those evaluated in the previous FEIR and would occur at the same location with a slightly smaller development footprint. Overall, the proposed project's site plan is substantially similar to the previously approved project's site plan in terms of building and infrastructure location. As such, the types of equipment used and the distance to the nearest structures would be comparable. Construction-generated vibration levels would not be expected to exceed the previously applied threshold of 0.3 in/sec PPV at the nearest structures. Therefore, construction vibration impacts would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Previous FEIR Conclusions

The San José Mineta International Airport is a public-use airport located approximately 4 miles southwest of the project site. The previous FEIR concluded that the project site is well outside the projected 60 dBA CNEL noise contour of the San José Mineta International Airport, based on data from the City's Airport Master Plan EIR. Therefore, the proposed project would not be exposed to significant aircraft-related noise. This impact would be less than significant and no mitigation was required.

Proposed Project Analysis and Conclusion

The proposed project would occupy the same site as the previously approved project. As such, its location relative to the San José Mineta International Airport remains unchanged and it would continue to be located well outside the 60 dBA CNEL noise contour. As such, exposure to aircraft-related noise would be the same as previously evaluated. Therefore, consistent with the previous FEIR, impacts would remain less than significant, and no mitigation would be required. Airport-related noise impacts would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Mitigation Measures

None required.

Conclusion

The proposed project would not result in any significant impacts related to Noise, similar to what was identified in the previous FEIR. No new impacts are found, and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XIV. Population and Housing *Would the project:*					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less than significant impact	No	No	No	None
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact	No	No	No	None

Existing Conditions

According to the California Department of Finance, as of May 2025 the City of Milpitas had a population of 81,725. The average number of persons per household was 3.21 and there were approximately 25,183 housing units.[49] As of March 2025, the City of Milpitas had approximately 40,800 jobs and 39,600 employed residents.[50]

[49] California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020–2025. Website: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2025/. Accessed April 23, 2025.

[50] City of Milpitas. Demographics. Website: https://www.milpitas.gov/1007/Demographics. Accessed April 23, 2025.

Discussion

a) Population Growth

Previous FEIR Conclusions

The previous FEIR concluded there would be a less than significant impact related to population growth in the City, based on the conclusions in the previous FEIR. The previous FEIR concluded that the previously approved project would not induce substantial population growth in the area, either directly or indirectly. The previous FEIR also concluded that the previously approved project would be consistent with the industrial uses allowed under the existing M2 zoning and that its approximately 330 jobs (based on an employee density of 0.67 employees per thousand square feet) would not substantially alter the jobs per employed resident ratio. Therefore, it was concluded that impacts would be less than significant.

Proposed Project Analysis and Conclusion

The proposed project would develop similar uses on the same site as those evaluated in the previous FEIR. As shown in Table 1, the proposed project is similar to the approved project but would result in an additional 33 employees compared to the previously approved project. There have been no changes with respect to zoning or to existing uses on-site since certification of the previous FEIR. Therefore, similar to the previously approved project, the proposed project would not be expected to substantially alter the jobs per employed resident ratio. The proposed project does not include housing nor would it remove any housing. It would not extend roadways or other infrastructure that could induce population growth.

The proposed project is consistent with the uses allowed under the General Plan MFG land use designation. Based on the General Plan FEIR, at full buildout, the General Plan could yield a total of up to 33,401 housing units; a population of 113,530 people; 47,807,536 square feet of nonresidential building square footage; and 84,333 jobs within the Milpitas Planning Area. Given that the proposed project is consistent with the site's General Plan land use assumptions and is a small portion of expected jobs within the Milpitas Planning Area (0.4 percent),[51] the proposed project would not exceed the General Plan's job growth projections for the site. For the above reasons, the proposed project would not induce substantial population growth in an area, either directly or indirectly. Therefore, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Displacement of People or Housing

Previous FEIR Conclusions

The previous FEIR concluded there would be no impact related to the displacement of substantial numbers of existing people or housing based on the conclusions in the previous FEIR. The previous

[51] The proposed project's 363 employees would represent 0.43 percent of the expected jobs within the Milpitas Planning Area, whereas the previously approved project's 330 employees would have represented 0.39 percent, a minor difference.

FEIR indicated that the project site contains vacant office buildings and is within an M2 Zoning District (i.e., within an area zoned for industrial purposes) and would not cause any housing to be demolished. Therefore, the previously approved project would not displace existing housing, necessitating the construction of replacement housing elsewhere, nor would it displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. As such, it was concluded there would be no impact related to the displacement of people and housing.

Proposed Project Analysis and Conclusion

The project site consists of vacant office buildings and no employees or residents occupy the site. There is no housing on or directly adjacent to the site. As described in the previous FEIR, the project site is zoned for industrial uses. For these reasons, the proposed project would have no impact related to the displacement of people or housing and would not necessitate construction of housing elsewhere. As such, the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any significant impacts related to Population and Housing, as found in the previous FEIR. No new impacts are found and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous FEIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XV. Public Services *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*					
a) Fire protection?	Less than significant impact	No	No	No	None
b) Police protection?	Less than significant impact	No	No	No	None
c) Schools?	Less than significant impact	No	No	No	None
d) Parks?	Less than significant impact	No	No	No	None
e) Other public facilities?	Less than significant impact	No	No	No	None

Existing Conditions

The City's existing public services have not substantially changed since the preparation of the previous FEIR. The below existing setting includes a discussion of the current number of personnel, response times, and services information pertaining to the Milpitas Fire Department (Fire Department) and Police Department. The existing setting also includes updated information regarding the number of parks and recreational facilities and notes the number of trails within the City. An updated reference to the Milpitas Unified School District boundary map and the distance of the nearest library has also been included in the discussion below.

The City of Milpitas Fire Department provides fire protection services to the project area, as described in the previous FEIR. The Fire Department is also responsible for emergency medical services, rescue services, hazardous and toxic materials emergency response, enforcement of fire and life

safety codes, coordination of citywide disaster response efforts, and enforcement of State and federal hazardous materials regulations.[52] The Fire Department has approximately 82 full time personnel [53] and operates four stations within its service area. As indicated in the previous FEIR, the nearest fire station to the site is Fire Station No. 1 located at 777 South Main Street, approximately 0.6 miles west of the site. The Fire Department's response time goal for fire and emergency medical services is four minutes or less for all urban service areas. The site is located within the City's urban service area.

Police services are provided by the City of Milpitas Police Department. As described in the previous FEIR, police services in the City, including the project area, are provided from one central station located at 1275 North Milpitas Boulevard, which is approximately 2.25 miles northwest of the project site. The Police Department has approximately 128 employees, including 94-sworn and 34 non-sworn personnel. Police response times are typically measured from the time a police dispatcher receives a call to the time a police officer arrives at the incident location. The Police Department's response time goal for emergency calls is three minutes or less.[54]

The project site is located within the Milpitas Unified School District boundaries,[55] and the nearest library to the site is Santa Clara County Library District Milpitas Library located on 160 North Main Street, approximately 1.1 miles northwest of the site.

Parks, trails, and recreational facilities in the City are managed by the Recreation and Community Services Department and maintained by the Public Works Department. The City owns 34 public parks, which is a total of approximately 190 acres, that include amenities such as softball fields, tennis, basketball, handball, bocce ball, and volleyball courts, horseshoe pits, par courses, and barbecue areas. The previous FEIR indicated the nearest park was Creighton Park, approximately 0.5 miles. The nearest City-owned park is currently Bob McGuire Park, located at 791 Garden Street, approximately 785 feet south of the site.[56,57]

The City also owns six recreational facilities, including Alviso Adobe, Higuero Adobe, Milpitas Community Center, Barbara Lee Senior center, Sal Cracolice Recreational Facility, and Milpitas

[52] City of Milpitas. About the Fire Department. Website: https://www.milpitas.gov/329/About-the-Fire-Department. Accessed May 7, 2025.

[53] City of Milpitas Fire Department. Organizational Structure. Website: https://www.milpitas.gov/DocumentCenter/View/3296/Fire-Organization-Chart-Fiscal-Year-23-24-pdf. Accessed May 7, 2025.

[54] City of Milpitas Police Department. Crime and Incident Data: Response Times. Accessed May 7, 2025. https://www.milpitas.gov/1107/Crime-and-Incident-Data#:~:text=Response%20Times&text=The%20City%20of%20Milpitas%20has%20committed%20to%20responding%20to,within%203%20minutes%20or%20less.

[55] Milpitas Unified School District. District Boundary Map. Website: https://www.musd.org/district-boundary-map.html. Accessed May 7, 2025.

[56] City of Milpitas. Facilities. Website: https://www.milpitas.gov/Facilities?clear=False. Accessed May 8, 2025.

[57] City of Milpitas. Parks, Trees & Landscape Maintenance. Website: https://www.milpitas.gov/635/Parks-Trees-Landscape-Maintenance. Accessed May 8, 2025.

Sports Center. The nearest recreational facility is Sal Cracolice Recreational Facility, which is located at Bob McGuire Park.

In addition, the City includes one regional trail, Coyote Creek Trail, and two City trails, Berryessa Creek Trail and Penitencia Creek Trail; these trails provide access to City parks and link neighborhoods with employment centers, shopping districts, schools, and transit facilities. The nearest trail is Berryessa Creek Trail, approximately 400 feet east of the site.

Discussion

a) Need for New or Altered Fire Protection Facilities

Previous FEIR Conclusions

The previous FEIR concluded impacts related to fire protection facilities and services would be less than significant. Given that the previously approved project would not permanently increase the existing residential population in the City, the previous FEIR concluded that the previously approved project would not result in a long-term increase in the demand for public services or require construction of new governmental facilities. The previous FEIR indicated that the Fire Department would continue providing services to the project site and construction of a new or expanded fire station would not be required as a result of the previously approved project. As such, the previous FEIR concluded the previously approved project would not result in a significant impact on the physical environment due to the incremental increase in demand for fire protection and life safety services, and the potential increase in demand for services is not expected to adversely affect existing responses times to the site or within the City. Therefore, the impact was concluded as less than significant.

Proposed Project Analysis and Conclusion

The proposed project does not include residential uses; as such, the proposed project would not result in the permanent increase in the population of residents. Similar to the previously approved project, the proposed project would consist of a warehouse/office building which would add employees to the site, albeit with a slight increase of 33 employees (see Table 1). Similar to the previously approved project, the proposed project would result in an incremental increase in demand for fire protection services due to on-site operations. However, as indicated in the previous FEIR, this type of project on this site would not result in the need for the construction of a new or expanded fire station. In addition, consistent with General Plan Action SA-4b, the City's Public Works Department and Fire Department are required to review the project's site plans to ensure that the proposed project facilitates adequate fire services, access, and fire prevention measures. As such, consistent with the previous FEIR, impacts related to fire protection facilities and services would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Need for New or Altered Police Protection Facilities

Previous FEIR Conclusions

The previous FEIR concluded that impacts related to police protection services would be less than significant. The previous FEIR indicated that the previously approved project would not permanently increase the existing residential population in the City, the project would not result in a long-term increase in the demand for public services or require construction of new Police Department facilities. Development of the previously approved project would increase daytime and nighttime population on the project site and therefore incrementally increase demand for emergency police services to the project site. However, the previous FEIR concluded that the Police Department would continue to provide services to the project site and construction of new or expanded police facilities would not be required. As such, the impacts related to fire protection facilities and services were concluded to be less than significant.

Proposed Project Analysis and Conclusion

As illustrated in Table 1 and described under the response to Impact XV(a), the proposed project would add approximately 363 employees to the site, a slight increase from the previously approved project's expected 330 employees. Similar to the previously approved project, the proposed project would result in an incremental increase in demand for police protection services due to on-site operations. However, as indicated in the previous FEIR, this type of project on this site would not result in the need for the construction of a new or expanded fire station. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact related to police protection services and facilities that were not identified in the previous FEIR.

c) Need for New or Altered School Facilities

Previous EIR Conclusions

The previous FEIR concluded impacts related to school services and facilities would be less than significant. The previous FEIR indicated that, given the previously approved project would not permanently increase the population of residents in the City, the previously approved project would not result in a long-term increase in the demand for public services or require construction of new governmental facilities (including school facilities). The previous FEIR also concluded that, as a nonresidential development, the previously approved project would not create additional demand for school services. Therefore, it was concluded there would be a less than significant impact related to the need for new or altered school facilities.

Proposed Project Analysis and Conclusion

Consistent with the previously approved project, the proposed project would include warehouse and office uses and no residences are proposed. As such, the proposed project would not create additional demand for school services or facilities. The proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

d) Parks

Previous EIR Conclusions

The previous FEIR concluded impacts related to park services would be less than significant. It indicated that, given the previously approved project would not permanently increase the existing population of residents in the City, the project would not result in a long-term create additional demand for park services. Therefore, the previous FEIR concluded that construction and operation of the previously approved project would have a less than significant impact related to parks.

Proposed Project Analysis and Conclusions

Similar to the previously approved project, the proposed project would include warehouse and office uses, and no residences are proposed as a part of the proposed project. As such, the proposed project would not create a significant demand for park and recreational facilities. Furthermore, an increase in the employee population, from the implementation of the proposed project, would not result in a substantial increase in usage of local parks or recreational facilities. Although future employees may use nearby parks, recreational facilities, or trails, employees would not result in the substantial physical alteration of these facilities. Therefore, the project's impacts related to park and recreational facilities would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

e) Other Public Facilities

Previous EIR Conclusions

The previous FEIR concluded impacts related to other public facilities would be less than significant. It indicated that, given the previously approved project would not permanently increase the existing residential population in the City, the project would not result in a long-term increase in the demand for public services or require construction of new governmental facilities (including library facilities). The previous FEIR concluded that as a nonresidential development, the previously approved project would not create additional incremental demand for other public facilities, such as libraries. Therefore, the previous FEIR concluded that the construction and operation of the previously approved project would have a less than significant impact on library services or facilities (i.e., other public facilities).

Proposed Project Analysis and Conclusions

Similar to the previously approved project, the proposed project consists of a warehouse and office building. As such, the proposed project would not create a significant demand for other public facilities, such as libraries. Furthermore, an increase in the employee population from the implementation of the proposed project would not result in a substantial increase in usage of other public facilities such as libraires. Although future employees may use nearby public facilities, employees would not result in the substantial physical alteration of these facilities. Therefore, similar to the previously proposed project, the proposed project would have less than significant impacts public facilities such as libraries and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any significant impacts related to Public Services, as found in the previous FEIR. No new impacts are found, and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XVI. Recreation *Would the project:*					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No impact	No	No	No	None
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	No impact	No	No	No	None

Existing Conditions

The City owns 34 public parks, totaling approximately 190 acres, as well as six recreational facilities and various trails, as described in Section 15, Public Services.

Note that in the previous FEIR, the City evaluated potential effects on parks under both the Recreation and Public Services sections, consistent with the CEQA Guidelines. While both sections reference parks, they apply different impact thresholds and evaluate distinct types of environmental effects. The Public Services section concluded that the project would not create a need for new or expanded public park facilities to maintain acceptable service levels, and therefore impacts were

determined to be less than significant. By contrast, the Recreation section evaluated whether the project would lead to physical deterioration of existing parks requiring the development of new recreational amenities as a direct environmental effect. Since the City found that the project would not increase park use to a level that would result in substantial wear or degradation of facilities, the EIR identified no impact under the Recreation threshold. Considered together, the findings provide a complete assessment of potential park-related impacts through both lenses.

Discussion

a, b) Effects of Increased Use of Parks and Effects from Provision of Parks or Recreational Facilities

Previous EIR Conclusions

The previous FEIR concluded that the previously approved project would result in no impacts related to the increase in the use of existing parks or recreational facilities or construction/expansion of recreational facilities. It indicated that the previously approved project's industrial use would not generate population growth that would result in an increase in the use existing neighborhood and regional parks or other recreational facilities. The previous FEIR concluded that the previously approved project would not require the expansion of existing recreational facilities or construction of additional recreational facilities elsewhere. Therefore, the previous FEIR concluded that no impacts to parks or recreational facilities would occur as a result of the previously approved project.

Proposed Project Analysis and Conclusion

The proposed project would construct a warehouse and office building and would not include residential uses. Similar to the previously approved project, the proposed project's employees could use nearby neighborhood parks, trails, and recreational facilities on weekdays. However, such increased use would be minimal and would not result in the substantial physical deterioration of these facilities. Therefore, consistent with the previous FEIR, the proposed project would result in no impacts pertaining to the substantial physical deterioration of parks or other recreational facilities.

Given that the proposed project would not increase the population of residents within the City, it would not require the construction or expansion of recreational facilities to achieve the City's adopted standard for park space acreage at 5 acres for every 1,000 residents.[58] The proposed warehouse and office building does not include recreational facilities. Therefore, the proposed project would result in no impact related to the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. As such, no impacts would occur and the proposed

[58] The City's General Plan Policy PROS-1.3 requires the City to "achieve and maintain a minimum overall citywide ratio of 5 acres of park land for every 1,000 residents outside of the Midtown Specific Plan Area and Transit Area Specific Plan Area. Within these Specific Plan Areas, achieve and maintain the parks standards and ratios specified in the specific plan, with an emphasis on publicly accessible spaces and facilities." The project site is outside the aforementioned Specific Plan areas.

project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any impacts related to Recreation, as found in the previous FEIR. No new impacts are found and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XVII. Transportation *Would the project:*					
a) Conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less than significant impact	No	No	No	None
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Significant and unavoidable impact	No	No	No	MM TRANS-1
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less than significant impact	No	No	No	None
d) Result in inadequate emergency access?	Less than significant impact	No	No	No	None

The following section is based on the information provided in the Local Transportation Analysis (LTA) (July 9, 2025), and the Vehicle Miles Traveled (VMT) Analysis (July 17, 2025) prepared for the proposed project by NV5 Engineers and Consultants.[59,60]

Discussion

a) Conflict with a program plan, ordinance or policy of the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Previous FEIR Conclusions

According to the previous FEIR, the project was expected to generate a total of approximately 3,303 new daily vehicle trips. However, the previous FEIR found that vehicle trips generated by the project would not cause conflicts with the relevant planning documents addressing the local and regional circulation system, including the City of Milpitas General Plan, the VTA's planning documents, and the Metropolitan Transportation Commission's Plan Bay Area 2040. The project was also expected to generate demand for bus and Bay Area Rapid Transit (BART) trips in the project vicinity. According to the previous FEIR, employees working on the project site who use BART may choose to walk or bike to the site or take the bus. As described in the previous FEIR, there is a continuous sidewalk connection and continuous bicycle lanes between the Milpitas BART station and the project site. Additionally, bus stops are located on South Milpitas Boulevard at Ames Avenue (north of the intersection in the northbound direction, and south of Ames Avenue in the southbound direction). Thus, the previous FEIR determined that there was adequate pedestrian, bicycle and transit infrastructure and service in place to serve trips by these modes to and from the project site. According to the previous FEIR, the project also did not propose any off-site infrastructure changes which would cause conflicts with programs, plans, policies, or ordinances addressing off-site transit, roadway, bicycle, or pedestrian facilities. Based on this assessment, the previous FEIR found this impact to be less than significant with no mitigation required.

Proposed Project Analysis and Conclusion

Vehicle Circulation

The proposed project would result in similar changes to circulation as those considered in the previous FEIR, including additional employee and truck traffic trips. Note that the proposed project includes four driveways whereas the previous project included five.

According to the LTA prepared for the proposed project, the proposed project would be expected to generate approximately 3,812 net new daily trips compared to the previously approved project's 3,303 net new daily trips. This equates to an increase of 509 daily trips (Table 16). Note that while the

[59] NV5 Engineers & Consultants. 2025. Local Transportation Analysis for 1000 Gibraltar Drive Delivery Center. July 9.

[60] NV5 Engineers & Consultants. 2025 Vehicle Miles Traveled (VMT) Analysis for 1000 Gibraltar Drive Delivery Center. July 17.

proposed project's daily trips are more than the previously approved project, the trips consist of significantly fewer truck trips due to the facility's status as a last-mile delivery operation.

Table 16: Difference in Trip Generation from the Previously Approved Project

Project	AM Peak-hour Trips	PM Peak-hour Trips	Net New Daily Trips
Previously Approved Project	348	88	3,303
Proposed Project	260	245	3,812
Difference	**-88**	**+157**	**+509**

The LTA prepared for the proposed project analyzed 12 intersections in the vicinity of the project site to determine the proposed project's effects on intersection delay, LOS and queueing. These intersections are listed below and fall under two categories; intersections designated under the Santa Clara VTA CMP and those that fall outside of the CMP network.

CMP Intersections:

- West Calaveras Boulevard and Abel Street
- E Calaveras Boulevard and Milpitas Boulevard
- Montague Expressway and South Milpitas Drive
- Great Mall Parkway/East Capitol Avenue and Montague Expressway
- Montague Expressway and McCandless Drive/Trade Center Boulevard
- Montague Expressway and South Main Street/Oakland Road

Non-CMP Intersections:

- South Milpitas Boulevard and Yosemite Drive
- South Milpitas Boulevard and Ames Avenue/Driveway 1
- South Milpitas Boulevard and Driveway 2
- South Milpitas Boulevard and Gibraltar Drive
- Gibraltar Drive and Driveway 3
- Gibraltar Drive and Driveway 4

Intersections were analyzed under Existing (2024), No-Build (2026), Build (2026), Future No Build (2040), Future Build (2040), and Future Build Conditions with Mitigation (2040) scenarios. According to the LTA prepared for the proposed project, traffic operations at intersections outside of the CMP operate acceptably under Existing conditions. All non-CMP intersections are anticipated to operate at LOS B or better under both the 2026 and 2040 scenarios, with the exception of the South Milpitas Boulevard and Yosemite Drive intersection, which is projected to operate at LOS E under both 2040 No-Build and Build PM conditions. However, according to the analysis, since there is no change in critical delay or volume-to-capacity ratio between scenarios, the proposed project would not result in

an adverse effect at this location, and no mitigation is warranted per CMP guidelines. No additional improvements were recommended as part of the LTA, and its results indicated that the surrounding transportation network would adequately accommodate the traffic generated by the proposed project. As such, like the previously approved project, the proposed project would not be expected to conflict with relevant planning documents addressing the local and regional circulation system, including the City of Milpitas General Plan, the VTA's planning documents, and the Metropolitan Transportation Commission's Plan Bay Area 2040. Therefore, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Bicycle Access and Circulation

Bicycle infrastructure exists in the immediate vicinity of the project site and remains as described under the previous FEIR. Bicycle facilities are categorized according to the California Department of Transportation (Caltrans) classification system, which defines the following four facility types:

- Class I–Shared-Use Path (Bike Path): A completely separated facility for the exclusive use of bicycles and pedestrians, located off-street within its own right-of-way.
- Class II–Bike Lane: A designated on-street lane for bicycle use, typically marked by striping and signage, located adjacent to vehicle travel lanes on priority corridors.
- Class III–Bike Route: A shared roadway facility identified by signage and/or pavement markings, where bicyclists and motor vehicles operate within the same travel lane.
- Class IV–Separated Bikeway (Protected Bike Lane or Cycle Track): An on-street bicycle facility physically separated from motor vehicle traffic by curbs, parked cars, posts, or other physical barriers.

There are no existing Class I or Class IV bike facilities within the vicinity of the project site. Class II bike facilities are available on Abel-Main Street south of Calaveras Boulevard, Great Mall Parkway, Capitol Avenue, South Milpitas Boulevard, Trade Zone Boulevard-McCandless Drive, and Yosemite Drive. There are also Class III bike facilities on Calaveras Boulevard and Abel Street north of Corning Avenue.

The proposed project does not include any modifications to existing bicycle facilities in the vicinity of the project site, consistent with the previously approved project, and would not include any off-site infrastructure changes that would conflict with existing or planned facilities. Additionally, as per General Plan Action CIR-4l which requires that developers promote multimodal transportation, the proposed project would provide 24 bicycle parking stalls adjacent to the proposed office space. Bicycle circulation on-site would be provided via on-site pedestrian sidewalks, which would provide access to the Class II bike facilities on South Milpitas Boulevard. The proposed project would not cause conflicts with programs, plans, policies, or ordinances addressing bicycle facilities, as existing facilities would remain unchanged and unobstructed, and bicycle parking would be provided on-site to support bicycle transportation on-site. As such, impacts would be less than significant and the

proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Pedestrian Access and Circulation

Existing pedestrian access on the project site and directly surrounding areas has not changed significantly since certification of the previous FEIR. Like the previously approved project, pedestrian paths of travel would be demarcated throughout the project site and would connect to the existing sidewalk along South Milpitas Boulevard and Gibraltar Drive. Unlike the previously approved project, the proposed project would also construct crosswalks and curb ramps at the northern and western leg of the South Milpitas Boulevard and Ames Avenue intersection, as well as connect existing pedestrian pathways along South Milpitas Boulevard to its internal network of sidewalks to provide adequate pedestrian access to the project site. While these project components were not analyzed in the previous FEIR, their construction and implementation have been considered throughout this Addendum. Such improvements would serve to enhance pedestrian access and circulation and be consistent with applicable plans, ordinances or policies. As such, the proposed project would support access to local pedestrian infrastructure and would not cause conflicts with programs, plans, policies, or ordinances addressing pedestrian facilities. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Transit Facilities

As analyzed in the previous FEIR, the proposed project would generate demand for bus and BART trips. The nearest BART station is located approximately 0.57 mile south of the project site. Additionally, there are bus stops servicing Alameda Contra-Costa Transit located on South Milpitas Boulevard at Ames Avenue (north of the intersection in the northbound direction, and south of Ames Avenue in the southbound direction), similar to the conditions considered in the previous FEIR. There are adequate pedestrian facilities available connecting the project site to these existing facilities, and the proposed project would not include any infrastructure that would obstruct or deny access to these existing facilities. As such, the proposed project would not cause conflicts with programs, plans, policies, or ordinances addressing transit facilities. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Previous FEIR Conclusions

To determine impacts related to VMT, the previous FEIR utilized procedures and metrics, and significance criteria consistent with the guidance provided by the Office of Land Use and Climate Innovation (LCI) (formerly the Office of Planning and Research [OPR]), the Santa Clara County VTA, and the City of Milpitas. According to the previous FEIR, the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) sets forth guidance regarding metrics that may be calculated to evaluate VMT impacts from three types of land uses: residential, office/employment,

and retail. The project use type was employment, therefore regarding metrics, the advisory recommends that home-based work vehicle trips and home-based work vehicle trips per employee would be appropriate metrics for employment uses. This captures the employee commute trips to and from the employment site. In addition, the project's effect on total regional VMT under cumulative conditions was also evaluated to assess whether regional total VMT would increase with the project. This metric captures the effects of land use interactions and was considered a more wholistic evaluation of the previously approved project's effect on regional VMT. According to the previous FEIR's analysis, the three-county region encompassing Santa Clara, Alameda, and San Mateo Counties was included, to ensure that the full effect of project vehicle and truck trip lengths was captured.

The previous FEIR analyzed four scenarios regarding VMT:

- Existing Conditions: Represents current home-based work VMT per employee.
- Existing with Project Conditions: Adds Project-generated VMT to Existing Conditions.
- Cumulative Conditions: Represents expected home-based work VMT per employee in 2040 assuming various foreseeable land use developments in the study area and planned/funded roadway improvements. It adds 2040 traffic forecasts for the study area developed using the VTA Travel Demand Model.
- Cumulative with Project Conditions: Adds Project-generated VMT to Cumulative Conditions.

The previous FEIR analyzed VMT impacts against two metrics: Project Home-based Work VMT per Employee, and Total Boundary VMT. The previous FEIR determined that the previously approved project would have a significant impact on Home-based Work VMT per employee. This is because the Existing with Project VMT per employee of 16.19 did not meet the significance criteria of 15 percent below the Santa Clara countywide average of 14.31 and exceeded the threshold by 13 percent. The previous FEIR implemented MM TRANS-1, which requires a Travel Demand Management (TDM) program, a VMT Strategy Report, and project monitoring, to reduce impacts associated with Home-based Work VMT per employee. However, even with mitigation incorporated, the previously approved project was found to have a significant and unavoidable impact related to Home-based Work VMT per employee.

The previous FEIR determined that Total Boundary VMT[61] for the three-county region would be 95,534,150 under the Existing with Project Scenario, as compared to the existing condition of 95,533,346. The previous FEIR, however, found that the project would have a less than significant impact on Total Boundary VMT, as even though the project was found to increase Total Boundary VMT within the three-county region, the effect is considered to be within the travel demand model

[61] The previous FEIR indicates that Total Boundary VMT is a metric measure for the total VMT for all trips within the region expected to be affected by project trips. With the previous FEIR, this region was defined as Santa Clara, Alameda, and San Mateo counties.

margin of error (0.0008 percent), and the Total Boundary VMT per service population is unchanged when calculated to two decimal places.

Proposed Project Analysis and Conclusion

According to the VMT Analysis prepared for the proposed project, the VMT for the delivery center can be viewed in three parts:

- On-site employees who commute to the site (Employee Commute VMT)
- Private carrier commuting to the site; drivers must use their own vehicles to make deliveries (Private Carrier VMT)
- VMT associated with the delivery of goods and packages to the customer (Delivery VMT).

The proposed project's VMT calculations can be seen in Table 16 below.

Table 17: Proposed Project VMT Calculations by Category

Category	VMT per Day	VMT per Person per Day
Employee Commute VMT	5,960	16.42
Private Carrier Commute VMT	8,358	16.42
Delivery VMT	-15,034	-0.79
Total	**-716**	**-0.52**

The VMT Analysis estimated the VMT for delivery vehicles by finding the distance from the site to the furthest point within the delivery zone and multiplying by the number of vehicles bound for those zones. Additionally, some of the future customers that would be served by the proposed project are currently being served by an existing delivery center. The VMT Analysis accounted for the shifting of business from two other similar delivery centers, as well as an expanded service area. The Delivery VMT to and from the two existing delivery centers and the 46 zip codes they collectively serve is 49,185 per day. The estimated Delivery VMT to from the new delivery center in Milpitas (proposed project) and 118 zip codes (expanded service area) would be 34,151. Therefore, after locating a new delivery center closer to the user's customers, as well as serving an expanded geographic area, there would be 15,034 fewer VMT per day than there is currently. This explains the negative value in Table 18.

The City of Milpitas adopted a Transportation Analysis Policy in May 2021 that includes VMT Analysis for many discretionary development projects. Consistent with CEQA Guidelines Section 15064.7, Thresholds of Significance, the City of Milpitas adopted the Santa Clara CMP baseline average and thresholds set at 85 percent of the citywide baseline averages for determining whether a project's VMT would be significant. The citywide baseline average for VMT per employee is 17.54. The 85 percent (15 percent below) citywide baseline average is 14.91 VMT per employee per day. Projects

that exceed these thresholds may have a significant effect on the environment and may require project revisions and/or mitigation measures may be implemented to reduce the impact to less than significant.

Table 17 illustrates the VMT thresholds compared to the project's VMT. As shown, the proposed project's VMT is less than the targeted citywide VMT, resulting in a less than significant overall impact on VMT.

Table 18: VMT Significance

	Project VMT per Capita per Day	City of Milpitas Threshold	Compared to Threshold	Impact Significance
Commuter Trips	**16.42**	**14.91**	**10% higher**	**Potentially Significant**
Delivery Trips	-0.79	14.91	100% lower	Less than Significant
TOTAL	**-0.52**	**14.91**	**100% lower**	**Less than Significant**

While the overall VMT per day would be reduced, it is recognized that the proposed project' s VMT per person per day would be 16.42, which is slightly higher than the previously approved project's VMT per employee of 16.19.

The Employee Commute VMT and Private Carrier Commute VMT (shown as commuter trips in Table 17) for the proposed project is 16.42 per person per day. While, like the previously approved project, the number is higher than the citywide desired threshold of 14.91, it is still less than the citywide average VMT of 17.54. Nonetheless, consistent with the previous FEIR, the VMT Analysis recommends Transportation Demand Management Measures (TDMs) such as carpool matching programs, transit passes, and guaranteed rides home to reduce potential impacts. Therefore, like the previously approved project, the proposed project would be required to implement MM TRANS-1 to reduce potential impacts resulting from commuter VMT .According to the VMT Analysis, if 20 percent of daytime shift employees (6:00 a.m., 11:00 a.m., and 3:00 p.m. shifts) arrived by transit or carpooled, that would equate to a commuter VMT of 14.57 per day, which would be under the citywide significance level. With implementation of recommended TDM measures and MM TRANS-1, VMT impacts resulting from the proposed project would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Previous FEIR Conclusions

The previous FEIR determined that because the previously approved project would be subject to the City of Milpitas permitting process, which includes design review, there is no reason to expect that the site's proposed driveway designs would not conform to City requirements. Based on this assessment,

the previous FEIR found that the previously approved project would have a less than significant impact with respect to hazards due to a design feature or incompatible uses, and no mitigation was required.

Proposed Project Analysis and Conclusion

The proposed project would include four driveways (one less than the previously approved project) with widths ranging between 32 and 50 feet wide (whereas the previously approved project's driveways ranged from 30 to 50 feet wide). Unlike the previously approved project, the proposed project would include upgrades to existing infrastructure along South Milpitas Boulevard, including operational upgrades to traffic signals at intersections of Ames Avenue and Gibraltar Avenue. The proposed improvements would also include City-standard sidewalk additions along South Milpitas Boulevard and Gibraltar Drive, as well as replacement of existing curb ramps along South Milpitas Boulevard and Gibraltar Drive. While these project components were not analyzed in the previous FEIR, their construction and implementation have been considered throughout this Addendum. Such improvements would serve to enhance pedestrian access and circulation, be consistent with applicable plans, ordinances, or policies, and would not be expected to result in an increased hazard. On the contrary, these additional improvements would be designed for safe pedestrian and vehicular movement in the project vicinity. Similar to the previously approved project, the proposed project plans would be subject to the City of Milpitas permitting process, which includes design review; therefore, it is reasonable to assume that the site driveway and roadway improvement designs, as well as off-site circulation improvements, would conform to City requirements. As such, the proposed project would have a less than significant impact with respect to hazards due to a design feature or incompatible uses and would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

d) Result in inadequate emergency access?

Previous FEIR Conclusions

According to the previous FEIR, the project did not propose any off-site roadway network changes and therefore would not adversely affect emergency vehicle circulation on surrounding roadways. It was determined that the previously approved project's two driveways on South Milpitas Boulevard and three on Gibraltar Drive, emergency vehicle access to all sides of the project building would be accommodated. Based on this assessment, the previous FEIR determined that the previously approved project would not impede emergency vehicle circulation along the project frontages or access to and from the project's on-site buildings, and therefore, the project would have a less than significant impact on emergency access. No mitigation measures were required.

Proposed Project Analysis and Conclusion

The proposed project would provide four driveways, with two along South Milpitas Boulevard, and two along Gibraltar Drive. All project driveways would provide an adequate turning radius for emergency vehicles and internal roadways on the project site would accommodate emergency vehicle circulation on all sides of the project building. Similar to the previously approved project, the proposed project

would not include any off-site roadway network changes and therefore would not adversely affect emergency vehicle circulation on surrounding roadways. Furthermore, while the proposed project would include road construction on South Milpitas Boulevard and Gibraltar Drive, it would be temporary and would not be expected to impede emergency access to the site or surrounding areas. As such, like the previously approved project, the proposed project would have a less than significant impact on emergency vehicle access and would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR

Mitigation Measures

MM TRANS-1 The project applicant shall implement a travel demand management program for all employees with the goal of reducing the use of single-occupant vehicles for commuting. The measures most likely to be effective given the project's location and expected use type include the following (measures are identified with the California Air Pollution Control Officers (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* (August 2010) measure number and VMT reduction effectiveness range):

- Implement a commute trip reduction program with required implementation and monitoring (CAPCOA measure TRT-2, effectiveness range 4.2 percent–21.0 percent);
- Provide ride sharing programs (CAPCOA measure TRT-3, effectiveness range 1–15 percent);
- Implement subsidized or discounted transit program (CAPCOA measure TRT-4, effectiveness range 0.3 percent–20 percent);
- Provide end-of-trip facilities (CAPCOA measure TRT-5, effectiveness based on effectiveness of measures TRT-2 and TRT-3);
- Implement commute trip reduction marketing (CAPCOA measure TRT-7, effectiveness range 0.8 percent–4.0 percent);
- Implement car-sharing program (CAPCOA measure TRT-9, effectiveness range 0.4 percent–0.7 percent);
- Restripe Green Bike lanes along property frontage; and
- Bike locker subsidy.

(a) VMT Strategy Report

- Prior to the issuance of an occupancy permit (Tenant to provide after 90 days of occupation), the project applicant (or project site operator) shall prepare a VMT Strategy Report that includes the following items:
- Identification of a baseline project home-based work VMT per employee estimate, which shall be determined using project-specific information derived from location-based data services such as StreetLight data which can estimate the trip generation, trip lengths, and VMT for the site. This shall be supplemented/verified by driveway counts, employee commute mode surveys, and employee residence

data which can provide a second VMT estimate to verify the StreetLight estimate. Other methods may be approved by City staff if new data sources and methods become available by the time the project is occupied.

- Identification of the Santa Clara County regional home-based work VMT per employee, also derived from StreetLight data to provide an apples to apples comparison to the project-specific baseline.
- Identification of the percent reduction in VMT needed to achieve the target of 15 percent below the regional average.
- Identification of selected transportation demand management strategies per the above list, and others if appropriate.
- Demonstration of how the TDM strategies in the VMT Strategy Report would reduce the home-based work VMT per employee generated by the project to 15 percent below the countywide average home-based work VMT per employee.
- After implementing the transportation demand management strategies selected in the VMT Strategy Report upon occupancy of the project, the effectiveness of these measures relative to the performance target noted previously must be monitored, as follows.

(b) Project Site VMT Monitoring Approach Monitoring

- The project shall be monitored by the City or by the project application/operator on an annual basis to determine the efficacy of the selected transportation demand management strategies in achieving the performance target of 15 percent below the regional average. The monitoring shall include project-generated VMT estimates compatible with the methodology used to estimate project baseline VMT so that performance comparisons can be made. The methodology for setting the baseline VMT and measuring the annual performance shall be defined in the VMT Strategy Report.
- An annual monitoring memorandum shall be submitted to City staff. If the project site is found not to be in compliance with the mitigation measure, the project must incorporate additional transportation demand management strategies to meet the performance target. The project applicant/operator may propose new strategies that develop over time to further reduce project-generated VMT if substantial evidence is provided to support the efficacy of the strategy. If a 15 percent VMT reduction is achieved for 3 consecutive years, the project will no longer need to provide annual reporting.

(c) Alternative Monitoring Approach

- The City of Milpitas may develop a citywide VMT monitoring program to allow global monitoring of City VMT, which may provide cost efficiencies and be a more effective way to track VMT generation by various uses in the City. The monitoring program could make use of emerging technologies including location-based

services on cell phones and in vehicles to track trip lengths, along with traditional technologies such as driveway traffic counts. If such a program is developed, the project could participate in the monitoring and demonstrate performance relative to the project's VMT target.

Conclusion

As discussed above, all applicable mitigation measures from the previous FEIR would be required and implemented to ensure impacts are consistent with the previous FEIR.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XVIII. Utilities and Service Systems *Would the project:*					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less than significant impact	No	No	No	None
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Less than significant impact	No	No	No	None
c) Result in a determination by the wastewater treatment provider which serves or may serve the	Less than significant impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?					
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less than significant impact	No	No	No	None
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	Less than significant impact	No	No	No	None

Discussion

a) Construction of Expansion of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities

Previous EIR Conclusions

The previous FEIR concluded impacts related to the construction or expansion of new or expanded water, wastewater, stormwater, electric, natural gas, or telecommunications facilities would be less

than significant. The previous FEIR concluded that the previously approved project would be consistent with the site's zoning and would not substantially increase demand for water compared to the previous on-site uses and would therefore not exceed the capacity of existing water treatment facilities. Similarly, the previously approved project would not require the construction of new water treatment facilities, or the expansion of existing facilities, other than those already planned as part of the City's Water Master Plan. The previously approved project would include connections to the existing electrical and gas infrastructure in the vicinity of the project site and would not require any new infrastructure aside from project-specific tie-ins and lines to serve the previously approved project.

Proposed Project Analysis and Conclusion

No changes have occurred that would alter the conclusion of the previous FEIR. The proposed project would be consistent with the site's zoning and would result in a 3,476-square-foot reduction in total square footage as compared to the previously approved project. The similar proposed use type, along with the reduced square footage, would indicate that the proposed project's utility demands would be substantially similar to that of the previously approved project. Accordingly, the proposed project's demand for water, wastewater, or stormwater drainage utilities would be consistent with the previous FEIR and would not necessitate new or expanded facilities. Similarly, the proposed project would not result in increased demand for electric power, natural gas, or telecommunications facilities beyond that considered in the previous FEIR. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

b) Water Supply

Previous EIR Conclusions

The previous FEIR concluded impacts related to water supply would be less than significant. The City of Milpitas provides water to the project site. The project site is within the San Francisco Public Utilities Commission (SFPUC) wholesale distribution area. The SFPUC supply is predominantly snowmelt from the Sierra Nevadas, delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by SFPUC from its local watersheds and facilities in Alameda County. Historically, the SFPUC has met demand in its service areas during all year types from its watersheds. The previously approved project was consistent with the site's zoning. Accordingly, the previous FEIR concluded that the City would have sufficient water supply to support the previously approved project and its implementation would not require new or expanded entitlements for water supplies and, therefore, the impacts related to water supply would be less than significant.

Proposed Project Analysis and Conclusion

No changes have occurred that would alter the conclusion of the previous FEIR. As previously mentioned, the proposed project would be consistent with the existing zoning and would represent a reduction in total building square footage as compared to the previously approved project. Due to the similar on-site use as compared to the previously approved project, the proposed project's demand for water resources would be similar or slightly reduced as a result of reduced square footage. As

such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

c) Wastewater Capacity

Previous EIR Conclusions

The previous FEIR concluded impacts related to wastewater capacity would be less than significant. The City of Milpitas owns and operates its municipal wastewater collection system containing 179 miles of gravity pipe and 5 miles of force main. The system also includes two pump stations: the Venus Station, which lifts wastewater from the low-lying Pines neighborhood, and the Main Sewer Pump Station, which pumps all City sewage through dual 2.5 mile force mains to the San José/Santa Clara Water Pollution Control Plant (WPCP) located in San José at 700 Los Esteros Road for treatment. The WPCP treats an average of 110 million gallons of wastewater per day (mgd), about 65 percent of its 167 mgd capacity, which includes service to the project site. The previously approved project would generate domestic wastewater, treated by the WPCP. It was concluded that the previously approved project was consistent with the site's zoning and the City has sufficient capacity to serve the proposed project. Furthermore, the previous FEIR states, the City requires the completion of sewer system modeling to demonstrate adequate conveyance capacity based on the current discharge allocation. Therefore, wastewater generated from the proposed project would not cause the WPCP to violate any wastewater treatment requirements and this impact would be less than significant.

Proposed Project Analysis and Conclusion

Like the previously approved project, and consistent with the analysis in the previous FEIR, the proposed project is consistent with the site's zoning and General Plan designation. Furthermore, the proposed project would have a slightly smaller footprint than the previously approved project (see Table 1). The similar proposed use type, along with the reduced square footage and similar employee numbers (which drives wastewater production), would indicate that the proposed project's utility demands would be substantially similar to that of the previously approved project. As a result, anticipated wastewater generation is expected to be comparable to or less than the volume generated under the previously approved project. Finally, as indicated by the previous FEIR, the proposed project would be required to complete sewer system modeling to demonstrate adequate conveyance capacity based on the current discharge allocation. Overall, no changes have occurred that would alter the conclusion of the previous FEIR in regard to wastewater. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

d) Solid Waste Capacity

Previous FEIR Conclusions

The previous FEIR concluded impacts related to solid waste capacity would be less than significant. Solid waste and recycling pickup and disposal in the City of Milpitas is provided by Republic Services. The solid waste is disposed of at the Newby Island Landfill and recycling facility located

approximately 3.2 miles northwest of the project site on Dixon Landing Road. The Newby Island Landfill has a capacity of 57.5 million cubic yards and a remaining capacity of 21.2 million cubic yards, and can accept 4,000 tons per day. The previous FEIR concluded that the Newby Island Landfill has adequate capacity to serve the previously approved project. Furthermore, solid waste generated during the demolition, construction, and operational phase of the would be recycled to maximum extent feasible. As such, it was concluded that the previously approved project would be served by a landfill with sufficient capacity to accommodate the project's waste disposal needs and impacts associated with the disposition of solid waste would be less than significant.

Proposed Project Analysis and Conclusion

Like the previously approved project, the proposed project is consistent with the site's zoning and General Plan designation. Furthermore, the proposed project's footprint would be slightly smaller than the previously approved project (see Table 1). The similar proposed use type, along with the reduced square footage, would indicate that the proposed project's utility demands would be substantially similar to that of the previously approved project. As a result, anticipated solid waste generation is expected to be comparable to or less than the volume generated under the previously approved project. Finally, as indicated by the previous FEIR, the proposed project would be required to recycle solid waste generated during the demolition, construction, and operational phase to maximum extent feasible. No changes have occurred that would alter the conclusion of the previous FEIR. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Solid Waste Reduction Goals and Regulations Consistency

Previous EIR Conclusions

The previous FEIR concluded impacts related to solid waste reduction goals and regulations consistency would be less than significant. Solid waste generated during the demolition, construction, and operational phase of the project would be properly disposed of or recycled in a nearby landfill or approved disposal facility with capacity to receive the waste. Any materials used during demolition and construction would be properly disposed of in accordance with federal, State, and local regulations. Therefore, it was concluded that impacts related to solid waste facilities, statutes, and regulations would be less than significant.

Proposed Project Analysis

No changes have occurred that would alter the conclusion of the previous FEIR. The proposed project would be required to comply with applicable solid waste disposal and recycling regulations. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any significant impacts related to Utilities and Services Systems, as found in the previous FEIR. No new impacts are found and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XIX. Wildfire *If located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, would the project:*					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than significant impact	No	No	No	None
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less than significant impact	No	No	No	None
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or	Less than significant impact	No	No	No	None

Environmental Issue Area	Conclusion in Previous EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
ongoing impacts to the environment?					
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less than significant impact	No	No	No	None

Discussion

a) Emergency Response/Evacuation Plan Consistency

Previous FEIR Conclusions

The previous FEIR concluded impacts related to emergency response and evacuation plan consistency would be less than significant. The project site is flat, outside the Wildland Urban Interface, and is not located in a High Severity Zone for wildfire. The City of Milpitas Fire Department Office of Emergency Services coordinates the City's preparedness efforts to mitigate, plan for, respond to, and recover from natural and technological disasters. In addition, the County of Santa Clara Office of Emergency Services coordinates countywide emergency response efforts including the preparation and implementation of the County of Santa Clara EOP. It was concluded that development of the previously approved project would not impair the implementation of, or physically interfere with, an adopted emergency response plan and would thus have a less than significant impact.

Proposed Project Analysis and Conclusion

Consistent with the analysis in the previous FEIR, the project site continues to be located outside the Wildland Urban Interface and is not located in a High Severity Zone for wildfire.[62,63] Like the previously approved project, it would be served by the Milpitas Fire Department and subject to the County of Santa Clara EOP. The proposed project is located on the same site as the previously approved project and does not alter the site's physical characteristics or its relationship to surrounding areas susceptible to wildfire hazards. As such, the potential for wildfire risk based on factors including proximity to wildland areas, prevailing climatic conditions, and emergency response accessibility remains unchanged from the analysis in the previous FEIR. Because of the substantial similarities in project size as compared to the previously approved project as well as the proposed project's consistency with zoning, it would not be expected to substantially impair an adopted emergency response plan or emergency evacuation plan. No changes have occurred that would alter the conclusion of the previous FEIR and. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

b) Expose Project Occupants to Pollutant Concentrations from Wildfire

Previous FEIR Conclusions

The previous FEIR concluded impacts related to the exposure of project occupants to pollutant concentrations from wildfire would be less than significant. The project site is flat and is bound by existing development on all sides. The project site is outside the Wildland Urban Interface and is not considered a High Severity Zone for wildfire. Therefore, it was concluded the previously approved project would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and this impact would be less than significant.

Proposed Project Analysis and Conclusion

The proposed project is located on the same site as evaluated in the previous FEIR, and there have been no changes with respect to land designation. The site continues to be outside the Wildland Urban Interface and is not designated as a High Severity Zone for wildfire. The project site is not located in an area containing slope, prevailing winds, or other factures (such as significant vegetation) that would exacerbate wildfire risks and related pollutant exposure. Overall, no changes have occurred that would alter the conclusion of the previous FEIR. As such, impacts would be less than

[62] California Department of Forestry and Fire Protection (CAL FIRE). 2024. Fire Hazard Severity Zones in State Responsibility Area. Website: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008. Accessed July 22, 2025.

[63] California Department of Forestry and Fire Protection (CAL FIRE). Compare Old (2007-2011) with New (2025) Recommended FHSZ in LRA. 2025. Website: https://experience.arcgis.com/experience/5065c998b4b0462f9ec3c6c226c610a9/page/Compare-old-and-new-LRA-FHSZ#data_s=id%3Awidget_114_output_config_default_geocode_0_0%3A. Accessed July 22, 2025.

significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

c) Infrastructure that Exacerbates Fire Risk

Previous FEIR Conclusions

The previous FEIR concluded impacts related to infrastructure that would exacerbate wildfire risk would be less than significant. The project site is outside the Wildland Urban Interface and is not considered a High Severity Zone for wildfire. Therefore, it was concluded that the previously approved project would not require the installation or maintenance of associated infrastructure and this impact would be less than significant.

Proposed Project Analysis and Conclusion

As discussed above, the proposed project is not located within a very high fire hazard severity zone. As with the approved project, the proposed project does not include or require the installation or maintenance of for the purposes of wildfire safety. Installation and maintenance of infrastructure such as utility lines, would occur primarily on-site or within the roadway rights-of-way directly adjacent where the risk of wildfire is minimal. Therefore, the proposed project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or may result in a temporary or ongoing impact to the environment and impacts would be less than significant. As such, the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

d) Flooding and Landslide Hazards Due To Post-fire Slope Instability/Drainage Changes

Previous FEIR Conclusions

The previous FEIR concluded impacts related to flooding and landslide hazards due to post-fire instability and drainage changes would be less than significant. The project site is flat and is not located within very high fire hazard severity zone. Therefore, it was concluded the previously approved project would not expose people or structures to significant risks as a result of post-fire slope instability or drainage and runoff changes.

Proposed Project Analysis and Conclusion

The proposed project is located on the same site as the approved project. Conditions at the project site have not changed related to lack of significant slope or potential for flooding. No changes have occurred that would alter the conclusion of the previous FEIR. As such, impacts would be less than significant and the proposed project would not result in a new or more severe adverse impact that was not previously identified in the previous FEIR.

Mitigation Measures

No mitigation is required.

Conclusion

The proposed project would not result in any significant impacts related to Wildfire, as found in the previous FEIR. No new impacts are found and no mitigation is required.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

Further environmental analysis is not required because:

1. No substantial changes are proposed in the project which will require major revisions of the previous FEIR.
2. No substantial changes have occurred with respect to the circumstances under which the project is undertaken that will require major revisions of the previous FEIR.
3. No new information of substantial importance has been identified which results in a significant effect not discussed in the previous FEIR or an impact which is more severe than shown in the previous FEIR.
4. No new mitigation measures are necessary.

Environmental Issue Area	Conclusion in Previous EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
XX. Mandatory Findings of Significance					
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	Less than significant with mitigation incorporated	No	No	No	MM BIO-1, MM CULT-1, MM CULT-2
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the	Significant and unavoidable	No	No	No	MM TRANS-1

Environmental Issue Area	Conclusion in Previous EIR	Do the Proposed Changes Involve New or More Severe Impacts?	New Circumstances Involving New or More Severe Impacts?	New Information Requiring New Analysis or Verification?	Mitigation Measures
incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?					
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	Potentially significant impact	No	No	No	None

Discussion

a) Potential Environmental Degradation

Previous FEIR Conclusions

The previous FEIR concluded that the incorporation of biological and cultural mitigation measures would reduce related potential impacts to less than significant.

Proposed Project Analysis and Conclusion

As previously discussed herein, the proposed project would have the potential to disturb active nests if trees or vegetation are removed during nesting season and therefore would have the potential to threaten to eliminate a plant or animal community. However, as indicated, with the implementation of MM BIO-1 from the previous FEIR, the proposed project's impacts would be reduced to less than significant.

Also previously discussed herein, the proposed project would have the potential to result in inadvertent discovery of archaeological resources or burial sites during construction and therefore would have the potential to eliminate important examples of the major periods of California history or prehistory. However, as indicated, with the implementation of MM CULT-1 and -2 from the previous FEIR, the proposed project's impacts would be reduced to less than significant.

Therefore, impacts would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

b) Cumulatively Considerable Impacts

Previous FEIR Conclusions

Air Quality

The previous FEIR concluded that the previously approved project could contribute to cumulative environmental impacts when combined with the effects of past, present and future projects related to regional air quality (criteria pollutants). Implementation of MM AIR-1 would reduce criteria pollutant impacts but was deemed difficult to enforce and therefore it was concluded that significant impacts on regional air quality would be significant and unavoidable. Therefore, the project's contribution would be cumulatively considerable.

Greenhouse Gas Emissions

The previous FEIR concluded that the previously approved project could contribute to cumulative environmental impacts when combined with the effects of past, present and future projects related to the generation of greenhouse gases. Implementation of MM GHG-1 would reduce greenhouse gas emissions to the maximum extent feasible and would have likely reduced the previously approved project's emissions to below the applicable threshold with the purchase of carbon credits. However, the full implementation of MM GHG-1 hinges on the availability of carbon credits. Therefore, due to the uncertainty of carbon credit opportunities, successful implementation of MM GHG-1 was considered speculative and impacts were conservatively considered significant and unavoidable. Accordingly, it was concluded that the previously approved project would have cumulatively considerable impacts related to greenhouse gas emissions.

Transportation

The previous FEIR concluded that the previously approved project could contribute to cumulative environmental impacts when combined with the effects of past, present and future projects related to conflicts with CEQA Guidelines Section 15064.3, subdivision (b) (VMT). The previously approved project would have resulted in a VMT per employee exceeding the applicable significance threshold.

Implementation of MM TRANS-1 would require the implementation of a TDM program. However, it was recognized that the effectiveness of the MM could not be assured and, as such, it was concluded that impacts related to VMT would be significant and unavoidable. Therefore, the previously approved project's contribution would be cumulatively considerable.

Proposed Project Analysis and Conclusion

The project changes identified in Table 1 do not contribute to new cumulative environmental impacts. The proposed uses are consistent with local zoning and general plan policies and do not materially alter the regional cumulative scenario considered in the previous FEIR. Project design features, mitigation measures and compliance with regulatory requirements continue to address cumulative concerns related to air quality, greenhouse gases, and transportation.

Air Quality

As previously discussed herein, the proposed project would not result in construction or operation impacts related to criteria pollutants. In comparison to the conclusions in the previous FEIR, the proposed project would result in similar construction impacts but would result in less operation impacts (due to a significant reduction in project truck trips). As such, the proposed project's criteria pollutant impacts would be less than significant, would not require mitigation and would not be cumulatively considerable. Therefore, the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Greenhouse Gas Emissions

As previously discussed herein, unlike the previously approved project, the proposed project would result in a less than significant impact related to GHG emissions as a result of 2022 CAP consistency. Therefore, no mitigation is necessary and impacts would not be cumulatively considerable and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Transportation

As discussed herein, the proposed project would be consistent with the analysis in the previous FEIR and, like the previously approved project, would exceed the applicable VMT per employee threshold. As such, implementation of previous MM TRANS-1 would be required. Like the previously approved project, because the effectiveness of the MM cannot be assured, impacts would remain significant and unavoidable and cumulatively considerable. Therefore, the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

c) Adverse Effects on Human Beings

Previous FEIR Conclusions

The previous FEIR concluded that the proposed project could cause adverse effects on human beings, either directly or indirectly. Because the previous FEIR concluded that there would be significant unavoidable impacts, and because those impacts related to air quality and greenhouse gas emissions could directly and indirectly impact human beings, impacts would be significant and unavoidable in this regard.

Proposed Project Analysis and Conclusion

Based on the information provided throughout this Addendum, the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly, because, unlike the previously approved project, the project's potential impacts would be mitigated to a less than significant level including those related to air quality and greenhouse gas emissions. Emergency access, noise conditions, and public service and utility demands remain within the scope originally analyzed. Therefore, impacts would be less than significant, and the proposed project would not result in a new or more severe adverse impact that was not identified in the previous FEIR.

Mitigation Measures

Implement MM AIR-3, MM BIO-1, MM CULT-1, MM CULT-2, and MM TRANS-1.

Conclusion

Consistent with the previous FEIR, the proposed project would result in significant impacts related to Mandatory Findings with respect to VMT. However, no new impacts are found.

The proposed project is consistent with the development evaluated in the previous FEIR and would not result in any new impacts or increase the severity of any previously identified impacts as compared to what was already identified and disclosed, either individually or cumulatively.

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EXHIBIT 3

MITIGATION MONITORING & REPORTING PROGRAM (MMRP) FOR THE ADDENDUM TO THE 1000 GIBRALTAR DRIVE FEIR

This Mitigation Monitoring and Reporting Program (MMRP) is formulated based upon the findings of the 15164 Addendum to the 1000 Gibraltar Drive Environmental Impact Report (SCH# 2020069024) available for public review and inspection at the City's website prepared for the 1000 Gibraltar Drive Project (project). The MMRP, which is found in Table 1, lists mitigation measures recommended in the Addendum prepared for the proposed project and identifies mitigation monitoring requirements. The Final MMRP must be adopted when the City of Milpitas (City) makes a final decision on the project.

This MMRP has been prepared to comply with the requirements of State law (Public Resources Code Section 21081.6). State law requires the Lead Agency to adopt an MMRP when mitigation measures are required to avoid significant impacts. The MMRP is intended to ensure compliance with the mitigation measures identified in the Addendum during implementation of the project.

The MMRP is organized in a matrix format. The first two columns identify the potential impacts and corresponding mitigation measures. The third column, entitled "Timeframe for Implementation", refers to when monitoring will occur to ensure that the mitigating action is completed. The fourth column, entitled "Responsibility for Implementation", refers to the party responsible for implementing the mitigation measure. The fifth column, entitled, "Oversight of Implementation", refers to the party responsible for oversight or ensuring that the mitigation measure is implemented.

FCS
An ADEC Innovation

Mitigation Monitoring and Reporting Program for the 15164 Addendum to the 1000 Gibraltar Drive Final Environmental Impact Report (State Clearinghouse No. 2020069024)

City of Milpitas, Santa Clara County, California

PREPARED FOR:

City of Milpitas
455 East Calaveras Boulevard
Milpitas, CA 95035
408.586.3274

Contact: Kristina Phung, Senior Planner

PREPARED BY:

FirstCarbon Solutions
2999 Oak Road, Suite 250
Walnut Creek, CA 94597
925.357.2562

Contact: Janna Waligorski, Project Director
Brittany Perez, Project Manager

August 22, 2025

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PREFACE

Consistent with Section 21081.6 of the California Environmental Quality Act (CEQA) and CEQA Guidelines Section 15097 a Mitigation Monitoring and Reporting Program (MMRP) was adopted in conjunction with the certification of the 1000 Gibraltar Drive Final Environmental Impact Report (previous FEIR, State Clearinghouse No. 2020069024) to implement the certified previous FEIR and to monitor the implementation of the mitigation measures that were adopted by the Lead Agency. As discussed in the Addendum, the MMRP has been updated herein to identify the relevant mitigation measures applicable to the 1000 Gibraltar Drive project evaluated in this Addendum.

The Addendum prepared for previous FEIR concluded that implementation of the proposed project could result in potentially significant effects on the environment, similar to those identified in the previous FEIR. As such, the previously approved mitigation measures were incorporated into the proposed project or are required as a condition of project approval that reduce these potential impacts to a less than significant level. This MMRP documents how and when the mitigation measures adopted by the Lead Agency's previous FEIR will be implemented for the proposed project and confirms that potential environmental impacts are reduced to less than significant levels as identified in the Addendum to the previous FEIR.

This document does not discuss those subjects that the environmental analysis demonstrates would result in less than significant impacts and for which no mitigation was proposed or necessary. This MMRP identifies those mitigation measures from the previous FEIR that remain applicable to the proposed project. No new mitigation is necessary or required.

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Table 1: 1000 Gibraltar Warehouse Addendum Section 15164 Project Mitigation Monitoring and Reporting Program

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
III. Air Quality					
MM AIR-3: Fugitive Dust Control during Project Construction During Project construction, the contractor shall implement a dust control program that includes the following measures recommended by the Bay Area Air Quality Management District (Bay Area Air District): • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area	Include in contract specifications; periodic site inspection; submittal of inspection logs; review and approval of monitoring report, an independent construction monitor shall issue a letter report to the City of Milpitas Building Division documenting the inspection results.	During construction (City shall verify a minimum of four (4) documented inspections)	City of Milpitas Planning Department		

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
Air District phone number shall also be visible to ensure compliance with applicable regulations. The above measures shall be included in contract specifications. In addition, an independent construction monitor shall conduct periodic site inspections, but in no event less than four total inspections, during the course of construction to ensure these mitigation measures are implemented and shall issue a letter report to the City of Milpitas Building Division documenting the inspection results. Reports indicating noncompliance with construction mitigation measures shall be cause to issue a stop work order until such time as compliance is achieved.					
IV. Biological Resources					
MM BIO-1: Nesting Birds and Roosting Bats If feasible, all vegetation removal shall be conducted during the non-breading season (i.e., September 1 to January 31) to avoid the direct impacts to nesting birds. If such work is scheduled during the breeding season, a qualified Biologist or ornithologist shall conduct a pre-construction survey to determine if any birds are nesting within the project site. The pre-construction survey shall be conducted within 15 days prior to the start of work from March through May (since there is a higher potential for birds to initiate nesting during this period), and within 30 days prior to the start of work from June through August. If active nests are found during the survey, the Biologist or ornithologist shall determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have	Project applicant or contractor shall submit the Biologist's resume or curriculum vitae (CV) demonstrating relevant education, certifications, and field experience to the City; project applicant shall also submit a copy of executed contract with the Biologist, showing scope of work and timeline to City; confirmation that pre-construction surveys were conducted by qualified Biologist	15 days prior to the start of construction from March through May, and 30 days prior to the start of construction from June through August	City of Milpitas Planning Department		

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
successfully fledged. The size of the buffer shall be determined by the Biologist or ornithologist in consultation with the California Department of Fish and Wildlife (CDFW), and would be based on the nesting species, its sensitivity to disturbance, and the expected types of disturbance. In order to avoid impacts to roosting bats, a pre-construction habitat assessment and survey(s) for bat roosts shall be conducted in any large trees (dbh >24 inches) within 100 feet of any planned work areas and in any buildings planned for demolition. This effort shall occur prior to the start of work to evaluate whether potential roost habitat occurs and to determine the type (i.e., maternity or nonmaternity) and status (i.e., active or inactive) of the roost. If an active maternity or special-status bat roost is found, removal of maternity roost trees or building shall be avoided during the maternity roosting season or until a qualified Biologist determines the roost has been vacated. Felled trees without maternity or special status roosts shall be allowed to lay on the ground for one night to allow any undetected roosting bats to leave the tree before it is chipped or taken off-site.					
V. Cultural Resources and Tribal Cultural Resources					
MM CULT-1: Unanticipated Discovery Protocol for Archaeological Resources If indigenous or historic-era archaeological resources are encountered during proposed Project development or operation, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. The City and a	Inclusion on project plans; Project applicant or contractor shall submit the qualified Archaeologist's resume or curriculum vitae (CV) demonstrating relevant	In the event of resource discovery during development or operation	City of Milpitas Planning Department		

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
qualified Archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, shall be immediately informed of the discovery. The qualified Archaeologist shall inspect the find within 24 hours of discovery and notify the City of their initial assessment. If the resource is indigenous, the City shall also contact relevant California Native American Tribes to assist in determining if the resource may qualify as a Tribal Cultural Resource. If the City determines, based on recommendations from the qualified Archaeologist and, if the resource is indigenous, relevant California Native American Tribes, that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines § 15064.5), or a Tribal Cultural Resource (as defined in Public Resources Code § 21074), the resource shall be avoided if feasible. Avoidance means that no activities associated with the proposed Project that may affect cultural resources shall occur within the boundaries of the resource or any defined buffer zones. If avoidance is not feasible, the City shall consult with appropriate Native American Tribes (if the resource is indigenous), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to Public Resources Code § 21083.2 and CEQA Guidelines § 15126.4. This shall include documentation of the resource and may include data recovery or other measures. Treatment for most resources would consist of (but would not be limited to) sample excavation, artifact collection, site	education, certifications, and field experience to the City; project applicant shall also submit a copy of executed contract with the Archaeologist, showing scope of work and timeline to the City; submittal of the professional-level technical report to the City; the City Planning Department and qualified Archaeologist shall be immediately notified of any discovery.				

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource. The resource and treatment method shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System. Work in the area may commence upon completion of approved treatment and under the direction of the qualified Archaeologist.					
MM CULT-2: Unanticipated Discovery Protocol for Human Remains If human remains are uncovered during proposed Project construction, all work shall immediately halt within 100 feet of the find and the Santa Clara County Coroner shall be contacted to evaluate the remains and follow the procedures and protocols set forth in CEQA Guidelines § 15064.5(e)(1). If the county coroner determines that the remains are Native American, the City shall contact the Native American Heritage Commission (NAHC), in accordance with Health and Safety Code § 7050.5(c) and Public Resources Code § 5097.98. As required by Public Resources Code § 5097.98, the City shall ensure that further development activity avoids damage or disturbance in the immediate vicinity of the Native American human remains, according to generally accepted cultural or archaeological standards or practices, until the City has conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.	Inclusion on project plans; confirm construction activities have ceased, and the County Coroner has been contacted as recorded in daily construction logs; confirm contact with MLD and compliance with Public Resources Section 5097.98 via written or email correspondence	In the event of discovery of remains during project construction	City of Milpitas Planning Department		

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
VII. Geology and Soils					
MM GEO-1: Paleontological Resources Sensitivity Prior to conducting ground disturbing activities, the applicant shall inform its contractor(s) of the sensitivity of the project area for paleontological resources and shall include the following directive in the appropriate contract documents. The City shall verify that the following directive is included in the appropriate contract documents: The subsurface of the construction site may be sensitive for paleontological resources. The contractor shall provide information to construction crews on how to recognize paleontological resources. If paleontological resources are encountered during project subsurface construction, all ground disturbing activities within 25 feet of the find shall be redirected and the City and a qualified paleontologist contacted. Project personnel shall not collect or move any paleontological materials. Paleontological resources include fossil plants and animals, and such trace fossil evidence of past life as animal tracks." The City and a qualified Paleontologist shall make recommendations for the treatment of the discovery. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, preparation of a technical report, and providing the fossil material and technical report to a paleontological repository, such as the University of California Museum of Paleontology (UCMP). Public	Inclusion in project contract documents; confirm construction operations and activities are halted and redirected to a qualified paleontologist as recorded in daily construction log; Review and approval of a paleontological resources impact mitigation plan that is incorporated into project plans	Prior to ground disturbing activities In the event of discovery of resources	City of Milpitas Planning Department City of Milpitas Planning Department		

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the City for review.					
IX. Hazards and Hazardous Materials					
MM HAZ-1: Soil Management Plan A Soil Management Plan (SMP) shall be prepared by a qualified environmental professional to outline soil management protocols that would be implemented during project construction to ensure that construction workers, the public, future site occupants, and the environment would not be exposed to hazardous materials (e.g., arsenic) that may be present in soil at the project site. The SMP shall be submitted to the City for review and approval prior to issuance of demolition or grading permits. The SMP shall include, but not be limited to the following: • Procedures for soil management including identification and testing of contaminants, soil stockpiling procedures, soil reuse guidelines, and soil disposal methods. • Requirements for notification to the City and any applicable regulatory agency(ies) of previously unknown hazardous materials found in soil during development. • Guidelines for controlling dust during excavation and grading. All recommendations included in the SMP shall be implemented during the demolition, grading, and construction phase of the project. Prior to the City's approval of building occupancy, the applicant shall provide	Review and approval of SMP by the City; Confirmation of implementation of al recommendations included in the SMP Submittal of soils report for review and approval by the City	Prior to issuance of demolition or grading permits During demolition, grading, and construction Prior to approval of building occupancy	City of Milpitas Planning Department City of Milpitas Planning Department City of Milpitas Planning Department		

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
the City with a report prepared by a qualified environmental professional documenting that soils on the project site were managed in accordance with the SMP during demolition, grading, and construction, and that appropriate safeguards (e.g., capping of remaining arsenic impacted soil with clean fill or hardscape materials) have been incorporated into the project design, as necessary, to ensure that the public, future site occupants, and the environment would not be exposed to unacceptable health risks from residual hazardous materials in the subsurface of the project site.					
XVII. Transportation					
MM TRANS-1: Travel Demand Management Program The Project applicant shall implement a travel demand management program for all employees with the goal of reducing the use of single-occupant vehicles for commuting. The measures most likely to be effective given the Project's location and expected use type include the following (measures are identified with the California Air Pollution Control Officers (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* (August 2010) measure number and VMT reduction effectiveness range): • Implement a commute trip reduction program with required implementation and monitoring (CAPCOA measure TRT-2, effectiveness range 4.2 percent–21.0 percent); • Provide ride-sharing programs (CAPCOA measure TRT-3, effectiveness range 1–15 percent);	Review and approval of VMT Strategy Report by the City Submission to the City of annual monitoring memorandum.	Prior to the issuance of an occupancy permit Prior to December 31, annually.	City of Milpitas		

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
• Implement subsidized or discounted transit program (CAPCOA measure TRT-4, effectiveness range 0.3 percent–20 percent); • Provide end-of-trip facilities (CAPCOA measure TRT-5, effectiveness based on effectiveness of measures TRT-2 and TRT-3); • Implement commute trip reduction marketing (CAPCOA measure TRT-7, effectiveness range 0.8 percent–4.0 percent); • Implement car-sharing program (CAPCOA measure TRT-9, effectiveness range 0.4 percent–0.7 percent); • Restripe Green Bike lanes along property frontage; and • Bike locker subsidy. ***(a) VMT Strategy Report*** • Prior to the issuance of an occupancy permit (Tenant to provide after 90 days of occupation), the Project Applicant (or Project site operator) shall prepare a VMT Strategy Report that includes the following items: • Identification of a baseline Project home-based work VMT per employee estimate, which shall be determined using project-specific information derived from location-based data services such as StreetLight data which can estimate the trip generation, trip lengths, and VMT for the site. This shall be supplemented/verified by driveway counts, employee commute mode surveys, and employee residence data which can provide a second VMT estimate to verify the StreetLight estimate. Other methods may be approved by City staff if new data					

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
sources and methods become available by the time of the Project is occupied • Identification of the Santa Clara County regional home-based work VMT per employee, also derived from StreetLight data to provide an apples to apples comparison to the Project-specific baseline. • Identification of the percent reduction in VMT needed to achieve the target of 15 percent below the regional average. • Identification of selected transportation demand management strategies per the above list, and others if appropriate. • Demonstration of how the TDM strategies in the VMT Strategy Report would reduce the home-based work VMT per employee generated by the Project to 15 percent below the countywide average home-based work VMT per employee. • After implementing the transportation demand management strategies selected in the VMT Strategy Report upon occupancy of the Project, the effectiveness of these measures relative to the performance target noted previously must be monitored, as follows. ***(b) Project Site VMT Monitoring Approach Monitoring*** • The Project shall be monitored by the City or by the Project application/operator on an annual basis to determine the efficacy of the selected transportation demand management strategies in achieving the performance target of 15 percent below the regional					

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
average. The monitoring shall include Project-generated VMT estimates compatible with the methodology used to estimate project baseline VMT so that performance comparisons can be made. The methodology for setting the baseline VMT and measuring the annual performance shall be defined in the VMT Strategy Report. • An annual monitoring memorandum shall be submitted to City staff. If the Project site is found not to be in compliance with the mitigation measure, the Project must incorporate additional transportation demand management strategies to meet the performance target. The Project applicant/operator may propose new strategies that develop over time to further reduce Project-generated VMT if substantial evidence is provided to support the efficacy of the strategy. If a 15 percent VMT reduction is achieved for three consecutive years, the project will no longer need to provide annual reporting. ***(c) Alternative Monitoring Approach*** • The City of Milpitas may develop a citywide VMT monitoring program to allow global monitoring of City VMT, which may provide cost efficiencies and be a more effective way to track VMT generation by various uses in the City. The monitoring program could make use of emerging technologies including location-based services on cell phones and in vehicles to track trip lengths, along with traditional technologies such as driveway traffic counts. If such a program is developed, the Project could					

Requirements	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
participate in the monitoring and demonstrate performance relative to the Project's VMT target.					
XX. Mandatory Findings of Significance					
Implement MM AIR-3, MM BIO-1, MM CULT-1, MM CULT-2 and MM TRANS-1.					

Economic Development

City of Milpitas

408.586.3000
455 E. Calaveras Blvd.
Milpitas, CA 95035

www.milpitas.gov

August 28, 2025

Planning Commission
City of Milpitas

Re: 1000 Gibraltar Drive Site Development Permit Application

Dear Chair Gupta and Planning Commissioners,

On behalf of the Office of Economic Development, I am writing to express our strong support for the proposed Site Development Permit for a last mile distribution facility located at 1000 Gibraltar Drive.

This facility will serve as a sub-Same Day hub and is only the second of its kind in the South Bay. The facility will focus on traditional delivery service and will expand access and convenience for Milpitas residents and the surrounding communities.

The applicant's $120 million acquisition of 1000 Gibraltar Drive will be magnified by an anticipated $80 million in capital improvements and represents a significant investment in the Milpitas economy. These investments will significantly increase the property's assessed value, generating additional property tax revenue for the City.

The project will meaningfully contribute to local employment opportunities in Milpitas by creating approximately 363 jobs, furthering the job creation goals of City Council. Distribution drivers are not included in this job count. The Office of Economic Development is also working closely with the applicant and our sales tax consultant, HdL, to explore the potential for capturing local sales tax revenue generated by the facility.

This project aligns with the City's economic development goals by fostering job creation, increasing tax revenues, and strengthening Milpitas' position in Silicon Valley's commerce landscape. We respectfully urge the Planning Commission to approve the Site Development Permit and support this important investment in our community.

Thank you for your consideration.

Sincerely,

Alex Andrade

Alex Andrade
Director of Economic Development and Strategic Initiatives

Appendix A:

Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information

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Appendix A: Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information
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1000 Gibraltar Warehouse Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	1000 Gibraltar Warehouse
Construction Start Date	9/1/2025
Operational Year	2026
Lead Agency	City of Milpitas
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	31.0
Location	37.419106378943, -121.89216244474264
County	Santa Clara
City	Milpitas
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1999
EDFZ	1
Electric Utility	Silicon Valley Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Unrefrigerated Warehouse-Rail	484	1000sqft	14.6	484,284	146,661	57,230	—	Unrefrigerated portion of warehouse, includes lot acreage of the entire warehouse, and total landscaping, and total bioretention
Refrigerated Warehouse-Rail	3.28	1000sqft	0.00	3,280	0.00	0.00	—	Refrigerated portion of warehouse
Parking Lot	12.2	Acre	12.2	0.00	0.00	0.00	—	All hardscape
User Defined Industrial	488	User Defined Unit	0.00	0.00	0.00	0.00	—	Dummy land use for passenger trips

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.99	1.92	39.2	27.8	0.16	0.86	22.2	23.1	0.70	4.04	4.74	—	23,479	23,479	1.87	3.35	46.6	24,571
2026	1.78	1.48	9.48	16.1	0.03	0.27	2.26	2.52	0.25	0.55	0.80	—	5,004	5,004	0.20	0.39	11.4	5,135
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.96	2.53	40.6	27.8	0.16	1.04	22.2	23.1	0.96	4.04	4.74	—	23,474	23,474	1.86	3.36	1.21	24,523
2026	350	350	9.77	15.0	0.04	0.27	2.26	2.52	0.25	0.55	0.80	—	5,498	5,498	0.41	0.78	0.30	5,740

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.66	0.43	5.46	5.14	0.02	0.15	2.20	2.35	0.13	0.45	0.58	—	2,723	2,723	0.19	0.33	2.32	2,829
2026	15.5	15.3	6.13	9.28	0.02	0.17	1.34	1.51	0.15	0.33	0.48	—	3,068	3,068	0.13	0.25	3.03	3,148
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.12	0.08	1.00	0.94	< 0.005	0.03	0.40	0.43	0.02	0.08	0.11	—	451	451	0.03	0.05	0.38	468
2026	2.83	2.79	1.12	1.69	< 0.005	0.03	0.25	0.28	0.03	0.06	0.09	—	508	508	0.02	0.04	0.50	521

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.8	11.5	13.5	136	0.34	0.23	29.8	30.0	0.21	7.55	7.76	—	34,362	34,362	1.27	1.56	117	34,977
Area	15.7	15.4	0.18	21.2	< 0.005	0.04	—	0.04	0.03	—	0.03	—	87.2	87.2	< 0.005	< 0.005	—	87.5
Energy	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	852	852	0.07	< 0.005	—	854
Water	—	—	—	—	—	—	—	—	—	—	—	216	4.75	221	22.2	0.53	—	932
Waste	—	—	—	—	—	—	—	—	—	—	—	247	0.00	247	24.7	0.00	—	864
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.4	87.4
Stationary	0.08	0.17	0.16	1.46	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	294	294	0.01	< 0.005	0.00	295
User-Defined	0.20	0.17	1.03	0.16	< 0.005	0.03	—	0.03	1.02	—	1.02	—	235	235	—	—	—	235
Total	28.8	27.3	15.5	160	0.35	0.35	29.8	30.1	1.32	7.55	8.87	463	35,835	36,298	48.2	2.09	205	38,332
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.3	11.0	15.9	119	0.31	0.23	29.8	30.0	0.21	7.55	7.76	—	32,221	32,221	1.41	1.70	3.04	32,766
Area	11.9	11.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	852	852	0.07	< 0.005	—	854

Water	—	—	—	—	—	—	—	—	—	—	—	216	4.75	221	22.2	0.53	—	932
Waste	—	—	—	—	—	—	—	—	—	—	—	247	0.00	247	24.7	0.00	—	864
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.4	87.4
Stationary	0.08	0.17	0.16	1.46	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	294	294	0.01	< 0.005	0.00	295
User-Defined	0.20	0.17	1.03	0.16	< 0.005	0.03	—	0.03	1.02	—	1.02	—	235	235	—	—	—	235
Total	24.6	23.3	17.7	121	0.32	0.31	29.8	30.1	1.30	7.55	8.84	463	33,607	34,070	48.3	2.23	90.5	36,033
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.1	10.9	14.9	117	0.32	0.23	29.2	29.4	0.21	7.40	7.61	—	32,516	32,516	1.35	1.64	50.6	33,090
Area	13.8	13.6	0.09	10.5	< 0.005	0.02	—	0.02	0.01	—	0.01	—	43.0	43.0	< 0.005	< 0.005	—	43.2
Energy	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	852	852	0.07	< 0.005	—	854
Water	—	—	—	—	—	—	—	—	—	—	—	216	4.75	221	22.2	0.53	—	932
Waste	—	—	—	—	—	—	—	—	—	—	—	247	0.00	247	24.7	0.00	—	864
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.4	87.4
Stationary	0.01	0.01	0.01	0.10	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	20.1	20.1	< 0.005	< 0.005	0.00	20.2
User-Defined	0.20	0.17	1.03	0.16	< 0.005	0.03	—	0.03	0.02	—	0.02	—	235	235	—	—	—	235
Total	26.2	24.7	16.7	128	0.32	0.32	29.2	29.5	0.30	7.40	7.70	463	33,671	34,134	48.3	2.17	138	36,126
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.22	1.98	2.72	21.3	0.06	0.04	5.33	5.37	0.04	1.35	1.39	—	5,383	5,383	0.22	0.27	8.39	5,478
Area	2.51	2.49	0.02	1.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.12	7.12	< 0.005	< 0.005	—	7.15
Energy	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	141	141	0.01	< 0.005	—	141
Water	—	—	—	—	—	—	—	—	—	—	—	35.8	0.79	36.6	3.67	0.09	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.5	14.5
Stationary	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	3.33	3.33	< 0.005	< 0.005	0.00	3.34

User-Defined	0.04	0.03	0.19	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.9	38.9	—	—	—	38.9
Total	4.78	4.51	3.05	23.4	0.06	0.06	5.33	5.39	0.05	1.35	1.41	76.7	5,575	5,651	7.99	0.36	22.9	5,981

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.68	1.40	12.8	14.1	0.02	0.47	—	0.47	0.44	—	0.44	—	2,193	2,193	0.09	0.02	—	2,200
Demolition	—	—	—	—	—	—	16.6	16.6	—	2.51	2.51	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.68	1.40	12.8	14.1	0.02	0.47	—	0.47	0.44	—	0.44	—	2,193	2,193	0.09	0.02	—	2,200
Demolition	—	—	—	—	—	—	16.6	16.6	—	2.51	2.51	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.14	0.12	1.05	1.16	< 0.005	0.04	—	0.04	0.04	—	0.04	—	180	180	0.01	< 0.005	—	181
Demoliti on	—	—	—	—	—	—	1.36	1.36	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.03	0.02	0.19	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.8	29.8	< 0.005	< 0.005	—	29.9
Demoliti on	—	—	—	—	—	—	0.25	0.25	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.82	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	171	171	< 0.005	0.01	0.68	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	2.24	0.45	26.4	12.9	0.14	0.39	5.47	5.86	0.26	1.50	1.76	—	21,115	21,115	1.77	3.33	45.9	22,196
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.70	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	159	159	< 0.005	0.01	0.02	161
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	2.22	0.43	27.8	13.0	0.14	0.39	5.47	5.86	0.26	1.50	1.76	—	21,123	21,123	1.77	3.33	1.19	22,162
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.2	13.2	< 0.005	< 0.005	0.02	13.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.18	0.04	2.24	1.06	0.01	0.03	0.44	0.47	0.02	0.12	0.14	—	1,736	1,736	0.15	0.27	1.63	1,822

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.18	2.18	< 0.005	< 0.005	< 0.005	2.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	0.01	0.41	0.19	< 0.005	0.01	0.08	0.09	< 0.005	0.02	0.03	—	287	287	0.02	0.05	0.27	302

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.93	2.46	23.0	21.7	0.03	1.04	—	1.04	0.96	—	0.96	—	3,785	3,785	0.15	0.03	—	3,798
Dust From Material Movement	—	—	—	—	—	—	5.29	5.29	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.15	5.15	< 0.005	< 0.005	—	5.17
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.70	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	159	159	< 0.005	0.01	0.02	161
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.32	1.32	< 0.005	< 0.005	< 0.005	1.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.28	1.91	17.1	20.6	0.03	0.78	—	0.78	0.72	—	0.72	—	3,223	3,223	0.13	0.03	—	3,234
Dust From Material Movement	—	—	—	—	—	—	1.69	1.69	—	0.67	0.67	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.84	1.02	< 0.005	0.04	—	0.04	0.04	—	0.04	—	159	159	0.01	< 0.005	—	159
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.15	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.08	0.96	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	218	218	0.01	0.01	0.02	221
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.20	0.04	2.56	1.20	0.01	0.04	0.50	0.54	0.02	0.14	0.16	—	1,950	1,950	0.16	0.31	0.11	2,046
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.02	11.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	96.2	96.2	0.01	0.02	0.09	101
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.80	1.80	< 0.005	< 0.005	< 0.005	1.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.9	15.9	< 0.005	< 0.005	0.01	16.7

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.80	6.65	7.08	0.01	0.26	—	0.26	0.24	—	0.24	—	1,163	1,163	0.05	0.01	—	1,167
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.66	0.71	< 0.005	0.03	—	0.03	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	117
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.67	0.66	0.63	7.17	0.00	0.00	1.69	1.69	0.00	0.40	0.40	—	1,626	1,626	0.04	0.07	0.18	1,648
Vendor	0.20	0.08	2.91	1.36	0.01	0.03	0.56	0.59	0.03	0.16	0.19	—	2,157	2,157	0.12	0.31	0.15	2,253
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.71	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	164	164	< 0.005	0.01	0.30	166
Vendor	0.02	0.01	0.29	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	215	215	0.01	0.03	0.25	225
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.2	27.2	< 0.005	< 0.005	0.05	27.5
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.6	35.6	< 0.005	0.01	0.04	37.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.92	0.77	6.42	7.05	0.01	0.24	—	0.24	0.22	—	0.22	—	1,163	1,163	0.05	0.01	—	1,167
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.92	0.77	6.42	7.05	0.01	0.24	—	0.24	0.22	—	0.22	—	1,163	1,163	0.05	0.01	—	1,167
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.45	3.76	4.12	0.01	0.14	—	0.14	0.13	—	0.13	—	681	681	0.03	0.01	—	683
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.69	0.75	< 0.005	0.03	—	0.03	0.02	—	0.02	—	113	113	< 0.005	< 0.005	—	113
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.66	0.65	0.43	7.81	0.00	0.00	1.69	1.69	0.00	0.40	0.40	—	1,722	1,722	0.03	0.07	6.28	1,749
Vendor	0.20	0.06	2.63	1.29	0.01	0.03	0.56	0.59	0.03	0.16	0.19	—	2,119	2,119	0.12	0.31	5.16	2,219
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.64	0.57	0.57	6.66	0.00	0.00	1.69	1.69	0.00	0.40	0.40	—	1,595	1,595	0.04	0.07	0.16	1,617
Vendor	0.20	0.06	2.78	1.31	0.01	0.03	0.56	0.59	0.03	0.16	0.19	—	2,120	2,120	0.12	0.31	0.13	2,215
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.29	3.85	0.00	0.00	0.97	0.97	0.00	0.23	0.23	—	944	944	0.02	0.04	1.59	957
Vendor	0.12	0.04	1.59	0.76	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,240	1,240	0.07	0.18	1.30	1,297
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.70	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	156	156	< 0.005	0.01	0.26	158
Vendor	0.02	0.01	0.29	0.14	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	205	205	0.01	0.03	0.22	215
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	0.33	3.13	4.37	0.01	0.14	—	0.14	0.13	—	0.13	—	665	665	0.03	0.01	—	667
Paving	3.19	3.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.2	18.2	< 0.005	< 0.005	—	18.3

Paving	0.09	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.01	3.01	< 0.005	< 0.005	—	3.03
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.4	58.4	< 0.005	< 0.005	0.01	59.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.48	0.10	6.19	2.91	0.03	0.06	1.26	1.32	0.06	0.35	0.41	—	4,775	4,775	0.38	0.77	0.26	5,013
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.64
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	131	131	0.01	0.02	0.12	137
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.7	21.7	< 0.005	< 0.005	0.02	22.8

3.13. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.60	5.59	6.85	0.01	0.11	—	0.11	0.10	—	0.10	—	977	977	0.04	0.01	—	980
Architectural Coatings	349	349	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.28	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	40.1	40.1	< 0.005	< 0.005	—	40.3
Architectural Coatings	14.3	14.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.65	6.65	< 0.005	< 0.005	—	6.67

Architectural	2.62	2.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.11	1.33	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	319	319	0.01	0.01	0.03	323
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.02	13.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.19	2.19	< 0.005	< 0.005	< 0.005	2.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	0.41	0.07	5.08	2.38	0.04	0.07	1.20	1.27	0.07	0.32	0.39	—	4,507	4,507	0.34	0.72	9.54	4,739
Refrigerated Warehouse-Rail	0.05	0.01	0.56	0.26	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	499	499	0.04	0.08	1.06	524
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	12.3	11.4	7.81	134	0.29	0.15	28.5	28.6	0.13	7.19	7.32	—	29,357	29,357	0.89	0.76	107	29,713
Total	12.8	11.5	13.5	136	0.34	0.23	29.8	30.0	0.21	7.55	7.76	—	34,362	34,362	1.27	1.56	117	34,977
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	0.41	0.06	5.36	2.39	0.04	0.07	1.20	1.27	0.07	0.32	0.39	—	4,508	4,508	0.34	0.72	0.25	4,731
Refrigerated Warehouse-Rail	0.05	0.01	0.59	0.26	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	499	499	0.04	0.08	0.03	524
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	11.8	10.9	9.91	116	0.27	0.15	28.5	28.6	0.13	7.19	7.32	—	27,215	27,215	1.04	0.90	2.77	27,511
Total	12.3	11.0	15.9	119	0.31	0.23	29.8	30.0	0.21	7.55	7.76	—	32,221	32,221	1.41	1.70	3.04	32,766
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-Rail	0.08	0.01	0.96	0.44	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	746	746	0.06	0.12	0.68	784
Refrigerated Warehouse-Rail	0.01	< 0.005	0.11	0.05	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	82.6	82.6	0.01	0.01	0.08	86.7
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	2.13	1.97	1.65	20.8	0.05	0.03	5.09	5.12	0.02	1.29	1.31	—	4,555	4,555	0.16	0.14	7.63	4,608
Total	2.22	1.98	2.72	21.3	0.06	0.04	5.33	5.37	0.04	1.35	1.39	—	5,383	5,383	0.22	0.27	8.39	5,478

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	31.1	31.1	0.00	0.00	—	31.1
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.49	0.49	0.00	0.00	—	0.49
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	2.98	2.98	0.00	0.00	—	2.98
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	34.6	34.6	0.00	0.00	—	34.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	31.1	31.1	0.00	0.00	—	31.1
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.49	0.49	0.00	0.00	—	0.49
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	2.98	2.98	0.00	0.00	—	2.98
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	34.6	34.6	0.00	0.00	—	34.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	5.15	5.15	0.00	0.00	—	5.15
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08	0.00	0.00	—	0.08
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.49	0.49	0.00	0.00	—	0.49
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	5.72	5.72	0.00	0.00	—	5.72

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	0.08	0.04	0.68	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	815	815	0.07	< 0.005	—	818
Refrigerated Warehouse-Rail	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.14	2.14	< 0.005	< 0.005	—	2.14
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	818	818	0.07	< 0.005	—	820
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	0.08	0.04	0.68	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	815	815	0.07	< 0.005	—	818
Refrigerated Warehouse-Rail	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.14	2.14	< 0.005	< 0.005	—	2.14
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.08	0.04	0.69	0.58	< 0.005	0.05	—	0.05	0.05	—	0.05	—	818	818	0.07	< 0.005	—	820
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-Rail	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	135	135	0.01	< 0.005	—	135
Refrigerated Warehouse-Rail	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.35	0.35	< 0.005	< 0.005	—	0.35
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	135	135	0.01	< 0.005	—	136

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	10.5	10.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.77	3.48	0.18	21.2	< 0.005	0.04	—	0.04	0.03	—	0.03	—	87.2	87.2	< 0.005	< 0.005	—	87.5
Total	15.7	15.4	0.18	21.2	< 0.005	0.04	—	0.04	0.03	—	0.03	—	87.2	87.2	< 0.005	< 0.005	—	87.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	10.5	10.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	1.43	1.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	11.9	11.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.91	1.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.34	0.31	0.02	1.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.12	7.12	< 0.005	< 0.005	—	7.15
Total	2.51	2.49	0.02	1.91	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.12	7.12	< 0.005	< 0.005	—	7.15

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	215	4.72	219	22.0	0.52	—	925
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.45	0.03	1.48	0.15	< 0.005	—	6.27
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	216	4.75	221	22.2	0.53	—	932
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	215	4.72	219	22.0	0.52	—	925
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.45	0.03	1.48	0.15	< 0.005	—	6.27
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	216	4.75	221	22.2	0.53	—	932
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	35.5	0.78	36.3	3.64	0.09	—	153

Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	0.24	0.01	0.25	0.02	< 0.005	—	1.04
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	35.8	0.79	36.6	3.67	0.09	—	154

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	245	0.00	245	24.5	0.00	—	858
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.66	0.00	1.66	0.17	0.00	—	5.81
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	247	0.00	247	24.7	0.00	—	864

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	245	0.00	245	24.5	0.00	—	858
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	1.66	0.00	1.66	0.17	0.00	—	5.81
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	247	0.00	247	24.7	0.00	—	864
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	40.6	0.00	40.6	4.06	0.00	—	142
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	0.28	0.00	0.28	0.03	0.00	—	0.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	40.9	0.00	40.9	4.09	0.00	—	143

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.4	87.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.4	87.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.4	87.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	87.4	87.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.5	14.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.5	14.5

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.08	0.17	0.16	1.46	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	294	294	0.01	< 0.005	0.00	295
Total	0.08	0.17	0.16	1.46	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	294	294	0.01	< 0.005	0.00	295
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.08	0.17	0.16	1.46	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	294	294	0.01	< 0.005	0.00	295
Total	0.08	0.17	0.16	1.46	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	294	294	0.01	< 0.005	0.00	295
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	3.33	3.33	< 0.005	< 0.005	0.00	3.34

Total	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	3.33	3.33	< 0.005	< 0.005	0.00	3.34

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3 TRUs (per Trip gen for cold storage)	0.20	0.17	1.03	0.16	< 0.005	0.03	—	0.03	1.02	—	1.02	—	235	235	—	—	—	235
Total	0.20	0.17	1.03	0.16	< 0.005	0.03	—	0.03	1.02	—	1.02	—	235	235	—	—	—	235
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3 TRUs (per Trip gen for cold storage)	0.20	0.17	1.03	0.16	< 0.005	0.03	—	0.03	1.02	—	1.02	—	235	235	—	—	—	235
Total	0.20	0.17	1.03	0.16	< 0.005	0.03	—	0.03	1.02	—	1.02	—	235	235	—	—	—	235
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3 TRUs (per Trip gen for cold storage)	0.04	0.03	0.19	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.9	38.9	—	—	—	38.9
Total	0.04	0.03	0.19	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.9	38.9	—	—	—	38.9

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/1/2025	10/10/2025	5.00	30.0	—
Site Preparation	Site Preparation	10/13/2025	10/15/2025	5.00	3.00	—
Grading	Grading	10/16/2025	11/10/2025	5.00	18.0	—
Building Construction	Building Construction	11/11/2025	10/26/2026	5.00	250	—
Paving	Paving	10/27/2026	11/9/2026	5.00	10.0	—
Architectural Coating	Architectural Coating	11/10/2026	11/30/2026	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	4.00	5.30	33.0	0.73
Demolition	Excavators	Diesel	Average	1.00	7.04	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	5.28	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.04	84.0	0.37
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	5.28	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	5.83	84.0	0.37
Site Preparation	Graders	Diesel	Average	3.00	2.97	148	0.41
Grading	Excavators	Diesel	Average	2.00	5.28	36.0	0.38
Grading	Graders	Diesel	Average	3.00	6.27	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	3.74	367	0.40

Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.59	84.0	0.37
Grading	Concrete/Industrial Saws	Diesel	Average	2.00	3.74	33.0	0.73
Building Construction	Cranes	Diesel	Average	1.00	1.32	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.05	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	4.00	6.05	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.29	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	3.85	46.0	0.45
Paving	Pavers	Diesel	Average	1.00	7.04	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	7.04	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.04	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	3.00	8.00	37.0	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	3.00	8.00	46.0	0.31

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	20.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	295	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	20.0	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	27.5	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	27.2	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	205	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	79.9	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	7.50	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	68.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	41.0	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	731,346	243,782	31,808

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	35,373	—
Site Preparation	0.00	0.00	4.64	0.00	—
Grading	3,913	0.00	25.4	0.00	—
Paving	0.00	0.00	0.00	0.00	12.2

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-Rail	0.00	0%
Refrigerated Warehouse-Rail	0.00	0%
Parking Lot	12.2	100%
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	2.34	0.00	0.00
2026	0.00	2.34	0.00	0.00

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-Rail	27.1	27.1	27.1	9,899	1,302	1,302	1,302	475,141
Refrigerated Warehouse-Rail	3.00	3.00	3.00	1,095	144	144	144	52,581
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	3,779	3,779	3,779	1,379,197	40,713	40,713	40,713	14,860,362

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	731,346	243,782	31,808

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-Rail	4,851,467	2.34	0.0000	0.0000	2,544,560
Refrigerated Warehouse-Rail	76,271	2.34	0.0000	0.0000	6,668
Parking Lot	464,390	2.34	0.0000	0.0000	0.00
User Defined Industrial	0.00	2.34	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-Rail	111,990,675	2,315,641
Refrigerated Warehouse-Rail	758,500	0.00
Parking Lot	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-Rail	455	—
Refrigerated Warehouse-Rail	3.08	—

Parking Lot	0.00	—
User Defined Industrial	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	2.00	50.0	175	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
3 TRUs (per Trip gen for cold storage)	Diesel

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	In Milpitas, California, the electricity provider is Silicon Valley Clean Energy (SVCE), while PG&E handles the delivery and billing.
Land Use	Land uses are based on project specific site plan.
Construction: Construction Phases	Schedule is based on applicant provided information
Construction: Off-Road Equipment	Adjusted per applicant provided info
Construction: Trips and VMT	Added 68 daily haul trips to the paving phase to account for pavement material
Operations: Vehicle Data	Truck trip length calculated based on origins from traffic study. Truck and passenger car trip gen from traffic study.
Operations: Fleet Mix	Truck fleet mix - assigned 100% to HHDT to be conservative. Passenger vehicle fleet mix - assumes 50% of passenger trips to be LDT1 (light duty trucks) to account for 3PL delivery, the proportion of LDA, LDT2, and MDV is based on county average.
Operations: Generators + Pumps EF	Updated Emission factors to Tier 4 to comply with BAAQMD BACT for emergency diesel engines.

1000 Gibraltar Warehouse
Demolition Debris Calculations

Description	Area [1] (square feet)	height/depth (ft)	Volume (ft3)	Demolition Waste Fraction	Demolition Volume[1] (ft^3)	Demolition Waste Density (tons/cy)	Demolition Weight (tons)
Buildings	284,762	10	2,847,620	0.25	711,905	0.50	13,183
Pavement	591,723	0.5	295,862	1	295,862	2.025	22,190
					Totals		**35,373**

Notes:

Building demolition estimates are based on methods used in CalEEMod (CAPCOA, 2022), based on 1 story building , assume 10 ft per floor where 1 square ft floor area = 10 cubic ft (ft^3) of building volume, and 1 ft^3 of building volume = 0.25 ft^3 of waste. This approach can be used to estimate demolition for multiple story buildings. It also assumes 1 cubic yard (cy) building waste = 0.5 ton weight

1 cubic yard of asphalt = 2.025 tons or 4050 lbs.

[1] Source:

1. Assumptions: Building demolition estimates are based on methods used in CalEEMod (CAPCOA, 2022), based on 1 story building , assume 10 ft per floor where 1 square ft floor area = 10 cubic ft (ft^3) of building volume, and 1 ft^3 of building volume = 0.25 ft^3 of waste. This approach can be used to estimate demolition for multiple story buildings. It also assumes 1 cubic yard (cy) building waste = 0.5 ton weight
2. Assumptions: 1 cubic yard of asphalt = 2.025 tons or 4050 lbs.
3. Source: ICF in collaboration with Sacramento Metropolitan Air Quality Management District, Fehr & Peers, STI and Ramboll. 2022. CalEEMod Appendix C Emission Calculation Details for

1000 Gibraltar Warehouse
TRU emission inventory

Model Output: Off-Road Web Query (v1.1.1) Emissions Inventory
Region Type: County
Region: Santa Clara
Calendar Year: 2026
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: Off-Road Web Query Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower	Fuel	HC_tpd	ROG_tpd	TOG_tpd	CO_tpd	NOx_tpd	CO2_tpd	PM10_tpd	PM2.5_tpd	SOx_tpd	NH3_tpd	Fuel Consur	Total_Activity_hpy	Total_Pop
Santa Clara	2026	Transport Refrigeration Unit - Instate Trailer	Aggregate	Aggregate	Diesel	0.02616222	0.031666	0.037685	0.029067	0.192847	43.91327	0.004862	0.0044727	0.000416	9.84587E-07	1428356.9 0.7109137 gal/hr	2009184.64	1120.34

per unit	HC	ROG	TOG	CO	NOx	CO2	PM10	PM2.5	SOx	NH3
tpd per unit	2.3352E-05	2.83E-05	3.36E-05	2.59E-05	0.000172	0.039196	4.34E-06	3.992E-06	3.72E-07	8.78829E-10
ppd per unit	0.04670407	0.056529	0.067273	0.05189	0.344265	78.39276	0.008679	0.0079846	0.000743	1.75766E-06
ton per year	0.00852349	0.010316	0.012277	0.00947	0.062828	14.30668	0.001584	0.0014572	0.000136	3.20773E-07

1000 Gibraltar Warehouse
AERMOD DPM Sources

Source ID	Modeled Source	Location Description	Source Type	Size		Source Release Parameters (m) Release Height	Initial Lateral Dimension	Initial Vertical Dimension	Emissions[4] (lb/hr)	AERMOD Source Emission Rate	
SITE1_UM	Site - Off-Road Equipment Diesel Exhaust[1]	Project Site - Construction Area	Area	117035.6	m2	5	—	1.4	0.0363	3.911E-08	g/m2-sec
ROAD1_DPM	Haul Road - On-Road Diesel Exhaust[2,3]	Truck Route - South Milpitas Boulevard	Line-Volume	1117.6	meters	3.40	12.56	3.16	4.07E-04	5.1E-05	g/s

1 Construction exhaust modeled as an area source. Release parameters for construction equipment DPM exhaust modeling from SCAQMD (2008) for gaseous exhaust from construction equipment.

2 Emissions for On-Road Mobile Sources (Vendor and Haul Diesel Exhaust) modeled only for roadways within 1,000 feet of the site within the modeling domain.

3 Parameters calculated as per US EPA Haul Road Workgroup Final Report released on March 2, 2012 which suggests the use of Adjacent Volume Sources to represent the haul road.

4 Emissions from CalEEModeling for Construction modeled during construction hours as included in Attachment A. See Note 2 above regarding roadway emission portion modeled.

Variable Emission Factors: ALL Sources

Monday - Friday						
1-6	0	0	0	0	0	0
7-12	0	0	1	1	1	1
13-18	0	1	1	1	1	0
19-24	0	0	0	0	0	0
Saturday						
1-6	0	0	0	0	0	0
7-12	0	0	0	0	0	0
13-18	0	0	0	0	0	0
19-24	0	0	0	0	0	0
Sunday						
1-6	0	0	0	0	0	0
7-12	0	0	0	0	0	0
13-18	0	0	0	0	0	0
19-24	0	0	0	0	0	0

1000 Gibraltar Warehouse
DPM Emissions

Net Work Days	326
Net Construction Years	1.25
Total Working Hours	2,608

Construction Year	Construction Activity	On-site DPM (lbs)	Off-Site DPM (lbs)	Off-Site DPM(lbs)		
				Worker	Vendor	Haul
2025	Demolition	14.21	11.70	0	0	11.70
2025	Site Preparation	3.12	0.00	0	0	0
2025	Grading	14.07	0.65	0	0	0.65
2025	Building Construction	9.60	1.08	0	1.08	0
2026	Building Construction	50.71	6.32	0	6.32	0
2026	Paving	1.41	0.60	0	0	0.60
2026	Architectural Coating	1.62	0.00	0	0	0
Total PM Exhaust (On-site)		**94.74**	**20.35**	-	7.40	12.95

Note: PM10E = PM10 Exhaust which is a surrogate for Diesel Exhaust, particulate matter

	Worker	Vendor	Haul
CalEEMod Distance (miles)	11.7	8.4	20
Roadways Included within 1,000 ft	0.69	0.69	0.69
Roadway Emissions included	6%	8%	3%

	On-site Construction DPM	Off-site Roadway DPM	Off-Site Diesel PM (lbs) within 1,000 ft Roadways		
			Worker	Vendor	Haul
Modeled Emissions (lbs)	**94.74**	**1.061**	-	0.61	0.45

Source	acres/miles	% of Source Type	lbs	lb/hr
Site Emissions	28.92	100%	94.74	0.036
Roadway Emissions	0.69	100%	1.061	4.07E-04

1000 Gibraltar Warehouse
AERMOD PM2.5 Sources

Source ID	Modeled Source	Location Description	Source Type	Size		Source Release Parameters (m) Release Height	Initial Lateral Dimension	Initial Vertical Dimension	Emissions[4] (lb/hr)	AERMOD Source Emission Rate	
SITE1_UM	Site - Off-Road Equipment PM2.5[1]	Project Site - Construction Area	Area	117035.6	m2	5	—	1.4	0.082	0.00E+00	g/m2-sec
ROAD1_PM25	Haul Road - On-Road PM2.5 [2,3]	Truck Route - South Milpitas Boulevard	Line-Volume	1117.6	meters	3.40	12.56	3.16	0.0049	0.00E+00	g/s

1 Construction exhaust modeled as an area source. Release parameters for construction equipment DPM exhaust modeling from SCAQMD (2008) for gaseous exhaust from construction equipment.

2 Emissions for On-Road Mobile Sources (Vendor and Haul Diesel Exhaust) modeled only for roadways within 1,000 feet of the site within the modeling domain.

3 Parameters calculated as per US EPA Haul Road Workgroup Final Report released on March 2, 2012 which suggests the use of Adjacent Volume Sources to represent the haul road.

4 Emissions from CalEEModeling for Construction modeled during construction hours as included in Attachment A. See Note 2 above regarding roadway emission portion modeled.

5 Construction exhaust modeled as an area source. Modeled as per BAAQMD 2022 CEQA Guidelines which permits PM2.5 Dust to be modeled along with PM2.5Exhaust.

Variable Emission Factors: ALL Sources

Monday - Friday						
1-6	0	0	0	0	0	0
7-12	0	0	1	1	1	1
13-18	0	1	1	1	1	0
19-24	0	0	0	0	0	0
Saturday						
1-6	0	0	0	0	0	0
7-12	0	0	0	0	0	0
13-18	0	0	0	0	0	0
19-24	0	0	0	0	0	0
Sunday						
1-6	0	0	0	0	0	0
7-12	0	0	0	0	0	0
13-18	0	0	0	0	0	0
19-24	0	0	0	0	0	0

1000 Gibraltar Warehouse
PM2.5 Emissions

Net Work Days	260
Net Construction Years	1.00
Total Working Hours	2,080

Construction Year*	Construction Activity	% Included in Max Year	On-site PM2.5T (lbs)	Off-Site PM2.5T (lbs)	Off-Site PM2.5T (lbs)		
					Worker	Vendor	Haul
2025	Demolition	100%	88.30	53.21	1.14	-	52.07
2025	Site Preparation	100%	10.75	0.11	0.11	-	0.00
2025	Grading	100%	24.95	3.82	0.94	-	2.88
2025	Building Construction	100%	8.83	20.81	14.15	6.66	0.00
2026	Building Construction	81.7%	46.66	121.98	82.94	39.04	-
		Total PM2.5	179.48	199.93	99.28	45.70	54.95
		Max Year PM2.5	**170.94**	**177.60**	**84.09**	**38.55**	**54.95**

Note: PM2.5T = PM2.5 Total including PM2.5 Exhaust (on and off-road), Fugitive Dust from Demolition, Site Preparation and Grading, as well as brake wear, tire wear and re-entrained road dust.

***PM2.5 Emissions are modeled for the maximum annual emissions which is 9/1/2025 to 9/1/2026.**

	Worker	Vendor	Haul
CalEEMod Distance (miles)	11.7	8.4	20
Roadways Included within 1,000 ft	0.69	0.69	0.69
Roadway Emissions included	6%	8%	3%

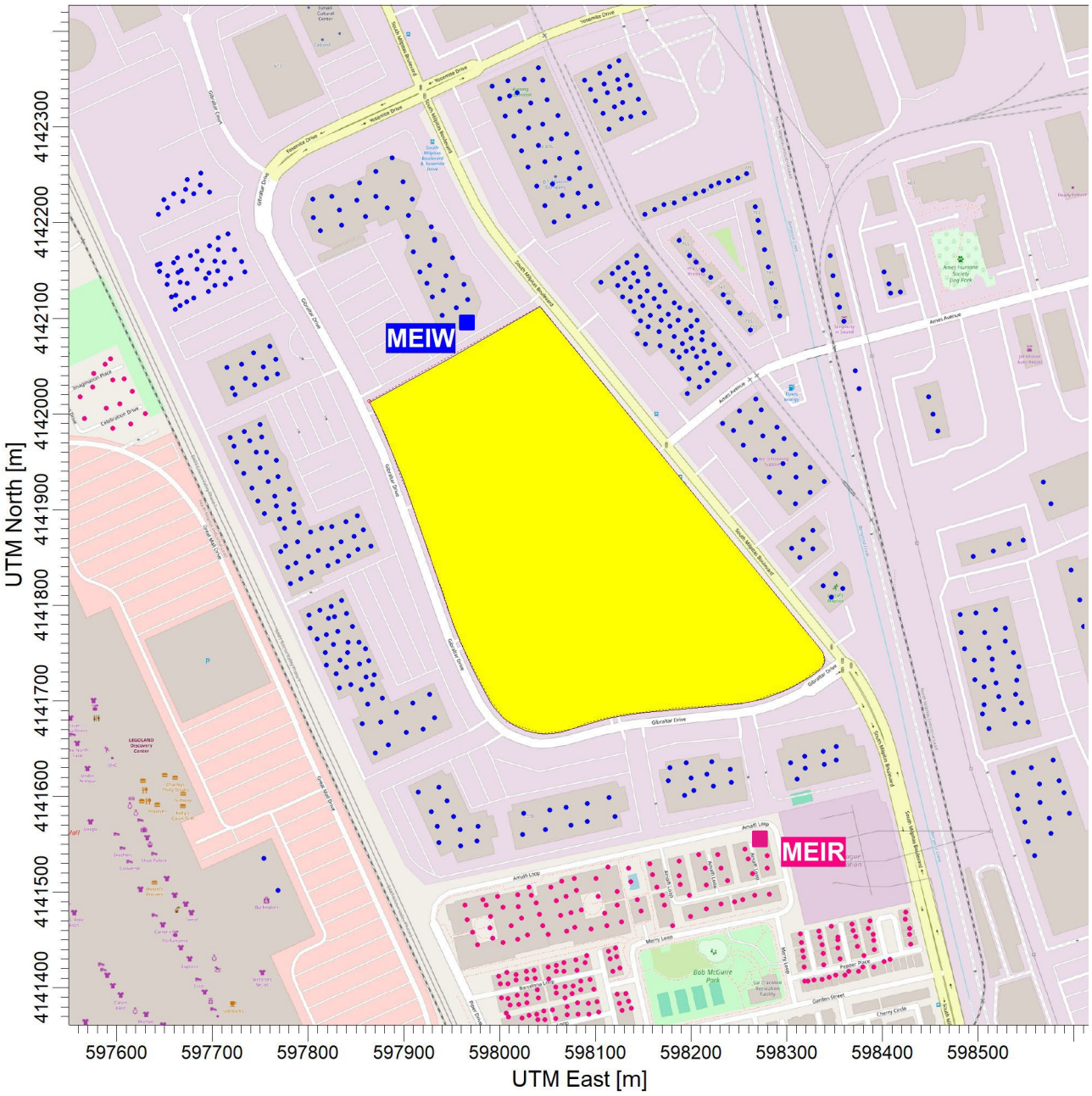
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	On-site Construction PM2.5T	Off-site Roadway PM2.5T	Off-Site PM2.5 (lbs) within 1,000 ft Roadways		
			Haul	Vendor	Worker
Modeled Emissions (lbs)	**170.94**	**10.089**	4.99	3.19	1.91

Source	acres/miles	% of Source Type	lbs	lb/hr
Site Emissions	28.92	100%	170.94	0.082
Roadway 1 Emissions	0.69	100%	10.089	4.85E-03

PROJECT TITLE:

1000 Gibraltar Warehouse
DPM Construction HRA



Project Legend:	**Receptor Legend:**	SCALE:
Site	Residential Receptor Non-Residential Receptor Maximally Exposed Individual Resident (MEIR) Maximally Exposed Individual Worker (MEIW)	1:6,707 0 — 0.2 km

FCS
An ADEC Innovation

AERMOD View - Lakes Environmental Software

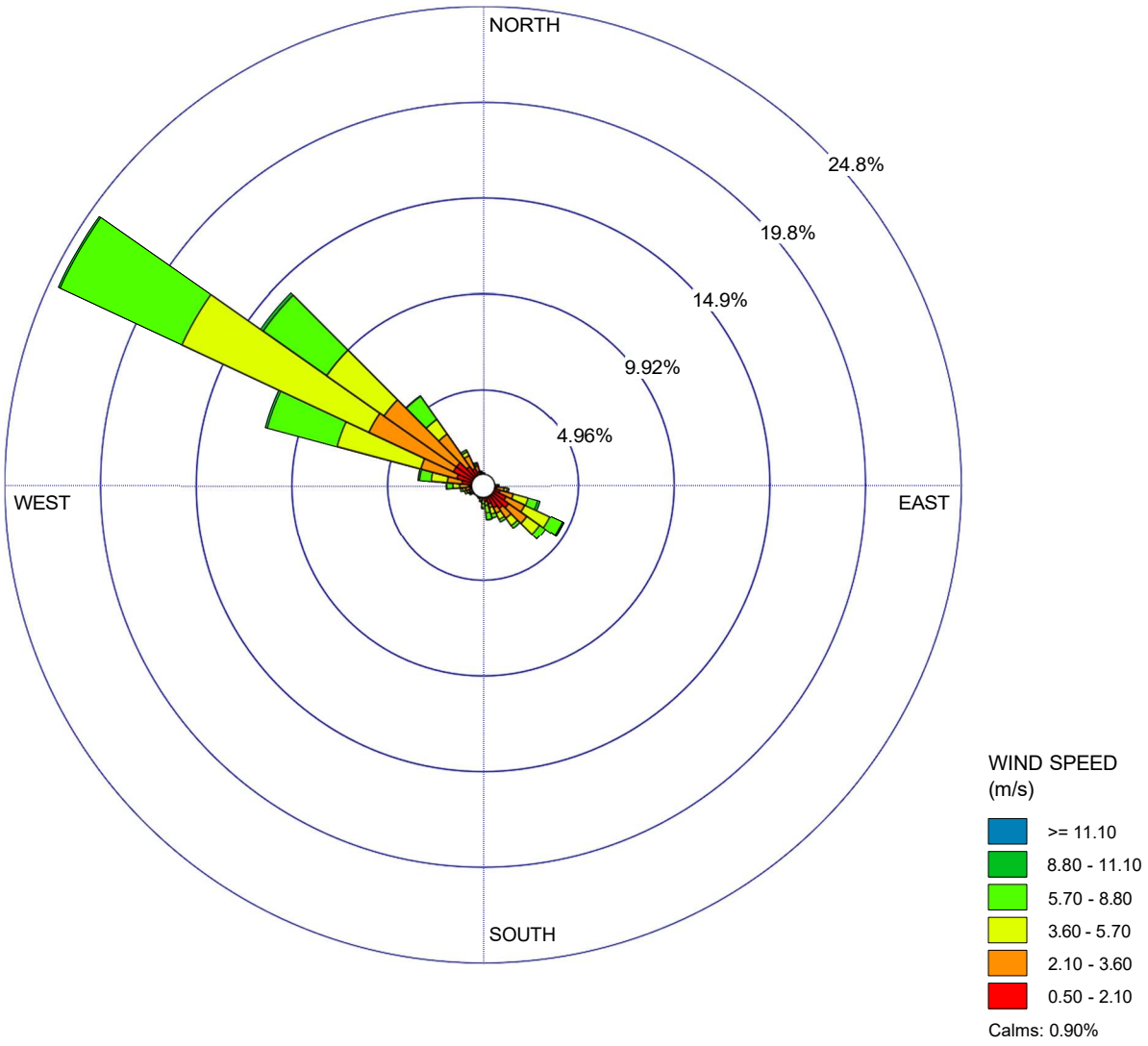
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WIND ROSE PLOT:

San Jose International Airport - KSJC
Wind Direction during Construction Hours

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

Wind Rose is generated just for the hours with emissions when construction would occur or from 8 AM – 5 PM. This corresponds to the modeling hours in AERMOD.

DATA PERIOD:

Start Date: 1/1/2013 - 08:00
End Date: 12/31/2017 - 17:00

CALM WINDS:

0.90%

AVG. WIND SPEED:

3.77 m/s

How to Read a Wind Rose Diagram

The wind rose above shows the general wind direction and speed for the meteorological data set used in the AERMOD modeling for the project.'

The circular format of the wind rose shows the direction the winds blew from and the length of each "spoke" around the circle shows how often the wind blew from that direction.

Control Pathway

AERMOD

Dispersion Options

Titles

1000 Gibraltar Warehouse
DPM Construction HRA

Dispersion Options

☐ Regulatory Default ☒ Non-Default Options

☒ Flat & Elevated Terrain
☐ No Stack-Tip Downwash (NOSTD)
☐ Run in Screening Mode
☐ Conversion of NOx to NO2 (OLM or PVMRM)
☐ No Checks for Non-Sequential Met Data
☐ Fast All Sources (FASTALL)
☐ Fast Area Sources (FASTAREA)
☐ Optimized Area Source Plume Depletion
☐ Gas Deposition

BETA Options:

☐ Capped and Horizontal Stack Releases
☐ Adjusted Friction Velocity (u*) in AERMET (ADJ_U*)
☐ Low Wind Options

☐ SCIM (Sampled Chronological Input Model)
☐ Ignore Urban Night / Daytime Transition (NOURBTRAN)

Dispersion Coefficient

Urban
Population:
Name (Optional):
Roughness Length:

Output Type

☒ Concentration
☐ Total Deposition (Dry & Wet)
☐ Dry Deposition
☐ Wet Deposition

Plume Depletion

☐ Dry Removal
☐ Wet Removal

Output Warnings

☐ No Output Warnings
☐ Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type

PM10

Averaging Time Options

Hours ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 6 ☐ 8 ☐ 12 ☐ 24

☐ Month ☒ Period ☐ Annual

Exponential Decay

☐ Yes ☒ No

Terrain Height Options

☐ Flat ☒ Elevated

SO: Meters
RE: Meters
TG: Meters

Flagpole Receptors

☐ Yes ☒ No

Default Height = 0.00 m

Control Pathway

Optional Files

☐ Re-Start File ☐ Init File ☐ Multi-Year Analyses ☐ Event Input File ☑ Error Listing File

Detailed Error Listing File

Filename: ConHRA2.err

Source Pathway - Source Inputs

Polygon Area Sources

Source Type: AREA POLY

Source: SITE_DPM (SITE_DPM)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
11.13	5.00	3.91E-8	1.40	42	597864.00	4142013.26
		3.91E-8			598042.15	4142112.63
		3.91E-8			598337.90	4141750.44
		3.91E-8			598339.07	4141742.80
		3.91E-8			598336.13	4141733.98
		3.91E-8			598326.73	4141728.68
		3.91E-8			598317.91	4141722.22
		3.91E-8			598308.50	4141716.34
		3.91E-8			598295.56	4141710.46
		3.91E-8			598280.87	4141705.75
		3.91E-8			598266.75	4141699.87
		3.91E-8			598255.58	4141697.52
		3.91E-8			598243.24	4141696.93
		3.91E-8			598230.30	4141696.93
		3.91E-8			598219.72	4141695.17
		3.91E-8			598204.43	4141693.99
		3.91E-8			598185.62	4141692.82
		3.91E-8			598167.98	4141690.47
		3.91E-8			598149.16	4141688.11
		3.91E-8			598132.11	4141686.35
		3.91E-8			598112.71	4141682.23
		3.91E-8			598092.13	4141677.53
		3.91E-8			598075.67	4141670.48
		3.91E-8			598059.79	4141667.54
		3.91E-8			598045.09	4141665.77
		3.91E-8			598026.28	4141671.65
		3.91E-8			598007.46	4141678.12
		3.91E-8			597990.41	4141700.46
		3.91E-8			597973.95	4141731.04
		3.91E-8			597961.60	4141756.91

Source Pathway - Source Inputs

Source Type: AREA POLY
Source: SITE_DPM (SITE_DPM)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
		3.91E-8			597952.78	4141777.49
		3.91E-8			597945.73	4141795.71
		3.91E-8			597941.61	4141811.59
		3.91E-8			597932.20	4141836.28
		3.91E-8			597924.56	4141860.39
		3.91E-8			597918.68	4141876.26
		3.91E-8			597911.62	4141895.67
		3.91E-8			597903.39	4141918.60
		3.91E-8			597896.34	4141935.65
		3.91E-8			597888.10	4141957.99
		3.91E-8			597881.64	4141976.22
		3.91E-8			597870.47	4141997.97

Source Pathway - Source Inputs

AERMOD

Source Type: AREA POLY
Source: SITE_PM25 (SITE_PM25)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
11.13	5.00	8.83E-8	1.40	42	597864.00	4142013.26
		8.83E-8			598042.15	4142112.63
		8.83E-8			598337.90	4141750.44
		8.83E-8			598339.07	4141742.80
		8.83E-8			598336.13	4141733.98
		8.83E-8			598326.73	4141728.68
		8.83E-8			598317.91	4141722.22
		8.83E-8			598308.50	4141716.34
		8.83E-8			598295.56	4141710.46
		8.83E-8			598280.87	4141705.75
		8.83E-8			598266.75	4141699.87
		8.83E-8			598255.58	4141697.52
		8.83E-8			598243.24	4141696.93
		8.83E-8			598230.30	4141696.93
		8.83E-8			598219.72	4141695.17
		8.83E-8			598204.43	4141693.99
		8.83E-8			598185.62	4141692.82
		8.83E-8			598167.98	4141690.47
		8.83E-8			598149.16	4141688.11
		8.83E-8			598132.11	4141686.35
		8.83E-8			598112.71	4141682.23
		8.83E-8			598092.13	4141677.53
		8.83E-8			598075.67	4141670.48
		8.83E-8			598059.79	4141667.54
		8.83E-8			598045.09	4141665.77
		8.83E-8			598026.28	4141671.65
		8.83E-8			598007.46	4141678.12
		8.83E-8			597990.41	4141700.46
		8.83E-8			597973.95	4141731.04
		8.83E-8			597961.60	4141756.91
		8.83E-8			597952.78	4141777.49

Source Pathway - Source Inputs

AERMOD

Source Type: AREA POLY

Source: SITE_PM25 (SITE_PM25)

Base Elevation (Optional)	Release Height [m]	Emission Rate [g/ (s-m^2)]	Initial Vertical Dim. [m]	Number of Vertices (or sides)	X Coordinate for Vertices [m]	Y Coordinate for Vertices [m]
11.13	5.00	8.83E-8	1.40	42	597945.73	4141795.71
		8.83E-8			597941.61	4141811.59
		8.83E-8			597932.20	4141836.28
		8.83E-8			597924.56	4141860.39
		8.83E-8			597918.68	4141876.26
		8.83E-8			597911.62	4141895.67
		8.83E-8			597903.39	4141918.60
		8.83E-8			597896.34	4141935.65
		8.83E-8			597888.10	4141957.99
		8.83E-8			597881.64	4141976.22
		8.83E-8			597870.47	4141997.97

Source Pathway - Source Inputs

AERMOD

Line Volume Sources

Source Type: LINE VOLUME
Source: ROAD_DPM (ROAD_DPM)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
27.00	0.00005		597902.14	4142378.77	9.53	3.40
			597924.15	4142325.58	9.88	3.40
			597973.67	4142224.71	10.84	3.40
			598360.68	4141740.49	16.30	3.40
			598395.52	4141679.97	16.66	3.40
			598415.70	4141619.44	17.02	3.40
			598428.54	4141549.74	17.31	3.40
			598454.22	4141448.86	17.75	3.40
			598454.22	4141459.87	17.68	3.40
			598457.89	4141452.53	17.66	3.40

Source Type: LINE VOLUME
Source: ROAD_PM25 (ROAD_PM25)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
27.00	0.00061		597902.14	4142378.77	9.53	3.40
			597924.15	4142325.58	9.88	3.40
			597973.67	4142224.71	10.84	3.40
			598360.68	4141740.49	16.30	3.40
			598395.52	4141679.97	16.66	3.40
			598415.70	4141619.44	17.02	3.40
			598428.54	4141549.74	17.31	3.40
			598454.22	4141448.86	17.75	3.40
			598454.22	4141459.87	17.68	3.40
			598457.89	4141452.53	17.66	3.40

Source Pathway - Source Inputs

AERMOD

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROAD_DPM	L0000165	597907.30	4142366.30	9.61	3.40	1.25E-6	27.00		12.56	3.16
	L0000166	597917.63	4142341.35	9.78	3.40	1.25E-6	27.00		12.56	3.16
	L0000167	597928.53	4142316.66	9.96	3.40	1.25E-6	27.00		12.56	3.16
	L0000168	597940.43	4142292.43	10.20	3.40	1.25E-6	27.00		12.56	3.16
	L0000169	597952.32	4142268.19	10.43	3.40	1.25E-6	27.00		12.56	3.16
	L0000170	597964.22	4142243.95	10.66	3.40	1.25E-6	27.00		12.56	3.16
	L0000171	597977.14	4142220.36	10.89	3.40	1.25E-6	27.00		12.56	3.16
	L0000172	597994.00	4142199.27	11.13	3.40	1.25E-6	27.00		12.56	3.16
	L0000173	598010.86	4142178.18	11.36	3.40	1.25E-6	27.00		12.56	3.16
	L0000174	598027.71	4142157.09	11.60	3.40	1.25E-6	27.00		12.56	3.16
	L0000175	598044.57	4142136.00	11.84	3.40	1.25E-6	27.00		12.56	3.16
	L0000176	598061.43	4142114.91	12.08	3.40	1.25E-6	27.00		12.56	3.16
	L0000177	598078.28	4142093.82	12.32	3.40	1.25E-6	27.00		12.56	3.16
	L0000178	598095.14	4142072.73	12.55	3.40	1.25E-6	27.00		12.56	3.16
	L0000179	598112.00	4142051.63	12.79	3.40	1.25E-6	27.00		12.56	3.16
	L0000180	598128.85	4142030.54	13.03	3.40	1.25E-6	27.00		12.56	3.16
	L0000181	598145.71	4142009.45	13.27	3.40	1.25E-6	27.00		12.56	3.16
	L0000182	598162.57	4141988.36	13.51	3.40	1.25E-6	27.00		12.56	3.16
	L0000183	598179.43	4141967.27	13.74	3.40	1.25E-6	27.00		12.56	3.16
	L0000184	598196.28	4141946.18	13.98	3.40	1.25E-6	27.00		12.56	3.16
	L0000185	598213.14	4141925.09	14.22	3.40	1.25E-6	27.00		12.56	3.16
	L0000186	598230.00	4141904.00	14.46	3.40	1.25E-6	27.00		12.56	3.16
	L0000187	598246.85	4141882.90	14.69	3.40	1.25E-6	27.00		12.56	3.16
	L0000188	598263.71	4141861.81	14.93	3.40	1.25E-6	27.00		12.56	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROAD_DPM	L0000189	598280.57	4141840.72	15.17	3.40	1.25E-6	27.00		12.56	3.16
	L0000190	598297.43	4141819.63	15.41	3.40	1.25E-6	27.00		12.56	3.16
	L0000191	598314.28	4141798.54	15.65	3.40	1.25E-6	27.00		12.56	3.16
	L0000192	598331.14	4141777.45	15.88	3.40	1.25E-6	27.00		12.56	3.16
	L0000193	598348.00	4141756.36	16.12	3.40	1.25E-6	27.00		12.56	3.16
	L0000194	598364.01	4141734.69	16.33	3.40	1.25E-6	27.00		12.56	3.16
	L0000195	598377.49	4141711.29	16.47	3.40	1.25E-6	27.00		12.56	3.16
	L0000196	598390.96	4141687.90	16.61	3.40	1.25E-6	27.00		12.56	3.16
	L0000197	598401.17	4141663.03	16.76	3.40	1.25E-6	27.00		12.56	3.16
	L0000198	598409.71	4141637.42	16.91	3.40	1.25E-6	27.00		12.56	3.16
	L0000199	598417.16	4141611.52	17.05	3.40	1.25E-6	27.00		12.56	3.16
	L0000200	598422.05	4141584.97	17.16	3.40	1.25E-6	27.00		12.56	3.16
	L0000201	598426.94	4141558.42	17.27	3.40	1.25E-6	27.00		12.56	3.16
	L0000202	598433.02	4141532.12	17.39	3.40	1.25E-6	27.00		12.56	3.16
	L0000203	598439.68	4141505.96	17.50	3.40	1.25E-6	27.00		12.56	3.16
	L0000204	598446.34	4141479.79	17.62	3.40	1.25E-6	27.00		12.56	3.16
	L0000205	598453.00	4141453.63	17.73	3.40	1.25E-6	27.00		12.56	3.16

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROAD_PM25	L0000206	597907.30	4142366.30	9.61	3.40	0.00001	27.00		12.56	3.16
	L0000207	597917.63	4142341.35	9.78	3.40	0.00001	27.00		12.56	3.16
	L0000208	597928.53	4142316.66	9.96	3.40	0.00001	27.00		12.56	3.16
	L0000209	597940.43	4142292.43	10.20	3.40	0.00001	27.00		12.56	3.16
	L0000210	597952.32	4142268.19	10.43	3.40	0.00001	27.00		12.56	3.16
	L0000211	597964.22	4142243.95	10.66	3.40	0.00001	27.00		12.56	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROAD_PM25	L0000212	597977.14	4142220.36	10.89	3.40	0.00001	27.00		12.56	3.16
	L0000213	597994.00	4142199.27	11.13	3.40	0.00001	27.00		12.56	3.16
	L0000214	598010.86	4142178.18	11.36	3.40	0.00001	27.00		12.56	3.16
	L0000215	598027.71	4142157.09	11.60	3.40	0.00001	27.00		12.56	3.16
	L0000216	598044.57	4142136.00	11.84	3.40	0.00001	27.00		12.56	3.16
	L0000217	598061.43	4142114.91	12.08	3.40	0.00001	27.00		12.56	3.16
	L0000218	598078.28	4142093.82	12.32	3.40	0.00001	27.00		12.56	3.16
	L0000219	598095.14	4142072.73	12.55	3.40	0.00001	27.00		12.56	3.16
	L0000220	598112.00	4142051.63	12.79	3.40	0.00001	27.00		12.56	3.16
	L0000221	598128.85	4142030.54	13.03	3.40	0.00001	27.00		12.56	3.16
	L0000222	598145.71	4142009.45	13.27	3.40	0.00001	27.00		12.56	3.16
	L0000223	598162.57	4141988.36	13.51	3.40	0.00001	27.00		12.56	3.16
	L0000224	598179.43	4141967.27	13.74	3.40	0.00001	27.00		12.56	3.16
	L0000225	598196.28	4141946.18	13.98	3.40	0.00001	27.00		12.56	3.16
	L0000226	598213.14	4141925.09	14.22	3.40	0.00001	27.00		12.56	3.16
	L0000227	598230.00	4141904.00	14.46	3.40	0.00001	27.00		12.56	3.16
	L0000228	598246.85	4141882.90	14.69	3.40	0.00001	27.00		12.56	3.16
	L0000229	598263.71	4141861.81	14.93	3.40	0.00001	27.00		12.56	3.16
	L0000230	598280.57	4141840.72	15.17	3.40	0.00001	27.00		12.56	3.16
	L0000231	598297.43	4141819.63	15.41	3.40	0.00001	27.00		12.56	3.16
	L0000232	598314.28	4141798.54	15.65	3.40	0.00001	27.00		12.56	3.16
	L0000233	598331.14	4141777.45	15.88	3.40	0.00001	27.00		12.56	3.16
	L0000234	598348.00	4141756.36	16.12	3.40	0.00001	27.00		12.56	3.16
	L0000235	598364.01	4141734.69	16.33	3.40	0.00001	27.00		12.56	3.16
	L0000236	598377.49	4141711.29	16.47	3.40	0.00001	27.00		12.56	3.16

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m[	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
ROAD_PM25	L0000237	598390.96	4141687.90	16.61	3.40	0.00001	27.00		12.56	3.16
	L0000238	598401.17	4141663.03	16.76	3.40	0.00001	27.00		12.56	3.16
	L0000239	598409.71	4141637.42	16.91	3.40	0.00001	27.00		12.56	3.16
	L0000240	598417.16	4141611.52	17.05	3.40	0.00001	27.00		12.56	3.16
	L0000241	598422.05	4141584.97	17.16	3.40	0.00001	27.00		12.56	3.16
	L0000242	598426.94	4141558.42	17.27	3.40	0.00001	27.00		12.56	3.16
	L0000243	598433.02	4141532.12	17.39	3.40	0.00001	27.00		12.56	3.16
	L0000244	598439.68	4141505.96	17.50	3.40	0.00001	27.00		12.56	3.16
	L0000245	598446.34	4141479.79	17.62	3.40	0.00001	27.00		12.56	3.16
	L0000246	598453.00	4141453.63	17.73	3.40	0.00001	27.00		12.56	3.16

Source Pathway

Building Downwash Information

Option not in use

Emission Rate Units for Output

For Concentration

Unit Factor:	1E6
Emission Unit Label:	GRAMS/SEC
Concentration Unit Label:	MICROGRAMS/M**3

Source Groups

Source Group ID: **PM25**	List of Sources in Group (Source Range or Single Sources)
	SITE_PM25 ROAD_PM25

Source Group ID: **DPM**	List of Sources in Group (Source Range or Single Sources)
	SITE_DPM ROAD_DPM

Source Group ID: **ALL**	List of Sources in Group (Source Range or Single Sources)
	All Sources Included

Variable Emissions

Hour-of-Day / Day-of-Week Emission Rate Variation

Scenario: Scenario 1

Source ID:	**SITE_DPM**							
Weekdays								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	1.00	1.00	1.00	1.00	0.00
	13 - 18	1.00	1.00	1.00	1.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Source ID:	**SITE_PM25**							
Weekdays								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	1.00	1.00	1.00	1.00	0.00
	13 - 18	1.00	1.00	1.00	1.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Source ID:	**ROAD_DPM**							
Weekdays								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	1.00	1.00	1.00	1.00	0.00
	13 - 18	1.00	1.00	1.00	1.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Source ID:	**ROAD_PM25**							
Weekdays								
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	1.00	1.00	1.00	1.00	0.00
	13 - 18	1.00	1.00	1.00	1.00	0.00	0.00

Source Pathway

Scenario: Scenario 1

Source ID: ROAD_PM25

	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Saturday							
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00
Sunday							
Hour of Day	1 - 6	0.00	0.00	0.00	0.00	0.00	0.00
	7 - 12	0.00	0.00	0.00	0.00	0.00	0.00
	13 - 18	0.00	0.00	0.00	0.00	0.00	0.00
	19 - 24	0.00	0.00	0.00	0.00	0.00	0.00

Receptor Pathway

Receptor Networks

Note: Terrain Elavations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	597455.95	4141311.75	21	21	65.34	55.46

Discrete Receptors

Discrete Cartesian Receptors

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	598056.86	4142200.88	Workers	12.02	
2	598071.50	4142207.15	Workers	11.91	
3	598088.75	4142216.56	Workers	11.68	
4	598101.83	4142220.22	Workers	11.60	
5	598095.03	4142238.52	Workers	11.18	
6	598081.96	4142230.68	Workers	11.41	
7	598065.23	4142228.59	Workers	11.32	
8	598047.45	4142217.61	Workers	11.47	
9	598038.56	4142238.52	Workers	10.86	
10	598055.29	4142240.62	Workers	10.87	
11	598073.07	4142246.37	Workers	10.92	
12	598083.53	4142256.83	Workers	10.84	
13	598080.91	4142273.56	Workers	10.91	
14	598062.61	4142267.28	Workers	11.02	
15	598047.45	4142263.62	Workers	11.18	
16	598029.67	4142258.39	Workers	11.45	
17	598022.87	4142275.13	Workers	11.84	
18	598040.65	4142280.88	Workers	11.57	
19	598054.24	4142287.68	Workers	11.35	
20	598069.93	4142292.90	Workers	11.10	
21	598061.04	4142312.25	Workers	10.98	
22	598044.83	4142302.84	Workers	11.13	
23	598030.19	4142299.18	Workers	11.13	
24	598015.03	4142290.29	Workers	11.26	
25	598005.62	4142311.73	Workers	10.86	
26	598021.30	4142316.43	Workers	10.88	

27	598032.81	4142325.32	Workers	10.90
28	598049.54	4142328.46	Workers	10.91
29	598044.83	4142348.85	Workers	11.20
30	598018.17	4142335.78	Workers	11.20
31	598010.32	4142332.64	Workers	11.20
32	598000.39	4142329.51	Workers	11.23
33	597992.02	4142342.58	Workers	11.88
34	598008.75	4142348.33	Workers	11.67
35	598025.49	4142350.42	Workers	11.54
36	598040.65	4142361.92	Workers	11.50
37	598088.75	4142348.85	Workers	12.01
38	598104.44	4142356.17	Workers	12.35
39	598114.90	4142363.49	Workers	12.54
40	598124.31	4142369.24	Workers	12.56
41	598133.20	4142354.08	Workers	12.50
42	598123.26	4142349.38	Workers	12.34
43	598109.15	4142345.19	Workers	12.13
44	598095.03	4142339.44	Workers	11.83
45	598100.26	4142327.41	Workers	11.68
46	598112.81	4142335.78	Workers	11.96
47	598124.83	4142339.96	Workers	12.19
48	598136.34	4142344.15	Workers	12.40
49	598145.23	4142328.98	Workers	12.53
50	598128.49	4142325.85	Workers	12.23
51	598120.13	4142321.14	Workers	12.07
52	598108.10	4142314.34	Workers	11.80
53	598114.38	4142298.13	Workers	12.00
54	598127.45	4142308.59	Workers	12.39
55	598136.86	4142311.21	Workers	12.61
56	598151.50	4142314.87	Workers	12.39
57	598201.49	4142068.57	Workers	13.11
58	598105.71	4142137.88	Workers	13.46
59	598117.71	4142146.76	Workers	13.24
60	598123.93	4142152.99	Workers	13.14
61	598133.27	4142158.32	Workers	12.98
62	598143.49	4142165.43	Workers	12.76
63	598152.82	4142152.99	Workers	12.40
64	598139.94	4142147.65	Workers	12.58

65	598131.05	4142140.99	Workers	12.68
66	598123.49	4142134.32	Workers	12.71
67	598128.38	4142122.32	Workers	12.39
68	598137.27	4142132.54	Workers	12.39
69	598144.38	4142139.21	Workers	12.38
70	598155.05	4142146.32	Workers	12.34
71	598167.94	4142134.76	Workers	12.36
72	598154.16	4142128.99	Workers	12.34
73	598146.60	4142122.76	Workers	12.33
74	598136.38	4142117.87	Workers	12.36
75	598140.38	4142107.21	Workers	12.54
76	598149.71	4142113.43	Workers	12.57
77	598161.27	4142120.54	Workers	12.55
78	598172.83	4142128.10	Workers	12.51
79	598182.60	4142116.10	Workers	13.11
80	598166.60	4142112.10	Workers	13.10
81	598157.71	4142103.21	Workers	13.34
82	598147.05	4142097.43	Workers	13.36
83	598143.94	4142084.10	Workers	13.56
84	598155.05	4142091.21	Workers	13.54
85	598168.83	4142098.32	Workers	13.51
86	598175.94	4142104.10	Workers	13.42
87	598187.94	4142111.21	Workers	13.39
88	598199.49	4142108.10	Workers	13.59
89	598186.16	4142098.32	Workers	13.31
90	598177.71	4142092.10	Workers	13.30
91	598166.60	4142085.87	Workers	13.47
92	598152.38	4142072.98	Workers	13.54
93	598167.49	4142071.65	Workers	13.09
94	598182.60	4142080.98	Workers	12.97
95	598195.05	4142087.65	Workers	13.34
96	598199.94	4142091.65	Workers	13.51
97	598206.60	4142098.32	Workers	13.75
98	598211.94	4142085.43	Workers	13.66
99	598199.94	4142079.21	Workers	13.31
100	598191.05	4142073.43	Workers	13.01
101	598180.83	4142065.87	Workers	12.67
102	598187.49	4142059.65	Workers	12.68

103	598195.05	4142065.43	Workers	12.93
104	598211.49	4142077.87	Workers	13.49
105	598223.94	4142072.54	Workers	13.70
106	598213.72	4142065.87	Workers	13.35
107	598205.72	4142060.09	Workers	13.08
108	598190.60	4142047.65	Workers	12.58
109	598197.72	4142036.54	Workers	13.10
110	598209.72	4142048.09	Workers	13.24
111	598217.27	4142053.43	Workers	13.43
112	598230.16	4142063.21	Workers	13.80
113	598239.49	4142051.65	Workers	14.01
114	598224.38	4142042.76	Workers	13.55
115	598217.27	4142034.76	Workers	13.52
116	598208.38	4142028.09	Workers	13.49
117	598195.94	4142021.43	Workers	13.49
118	598261.72	4142087.65	Workers	14.39
119	598251.05	4142105.43	Workers	14.34
120	598239.05	4142116.54	Workers	14.32
121	598233.72	4142124.54	Workers	14.33
122	598220.38	4142142.76	Workers	14.06
123	598212.83	4142150.32	Workers	13.82
124	598205.27	4142158.77	Workers	13.78
125	598198.60	4142165.88	Workers	13.77
126	598187.49	4142181.43	Workers	13.72
127	598151.94	4142208.99	Workers	13.09
128	598162.16	4142213.88	Workers	13.44
129	598171.49	4142218.77	Workers	13.33
130	598182.60	4142220.99	Workers	13.35
131	598193.27	4142225.43	Workers	13.34
132	598204.38	4142230.32	Workers	13.34
133	598213.27	4142233.43	Workers	13.39
134	598220.83	4142238.32	Workers	13.38
135	598228.83	4142241.88	Workers	13.49
136	598239.05	4142244.10	Workers	13.51
137	598248.83	4142246.77	Workers	13.58
138	598258.16	4142251.21	Workers	13.55
139	598267.05	4142216.55	Workers	14.21
140	598270.16	4142202.74	Workers	14.28

141	598271.05	4142189.88	Workers	14.34
142	598280.51	4142153.46	Workers	14.45
143	598276.73	4142171.83	Workers	14.36
144	598284.39	4142136.80	Workers	14.49
145	598288.68	4142117.33	Workers	14.53
146	598292.83	4142102.76	Workers	14.41
147	598262.29	4141991.31	Workers	15.83
148	598244.24	4141982.54	Workers	15.92
149	598275.14	4141976.96	Workers	15.66
150	598254.44	4141967.43	Workers	16.11
151	598285.71	4141961.09	Workers	15.54
152	598267.29	4141951.94	Workers	15.99
153	598295.83	4141947.95	Workers	15.16
154	598281.64	4141934.18	Workers	15.07
155	598309.43	4141933.97	Workers	15.34
156	598292.60	4141918.32	Workers	15.23
157	598324.68	4141917.85	Workers	16.19
158	598308.85	4141906.23	Workers	16.00
159	598345.64	4142165.74	Workers	15.21
160	598348.21	4142144.54	Workers	15.37
161	598353.03	4142124.63	Workers	15.43
162	598355.28	4142111.47	Workers	15.41
163	598359.77	4142096.69	Workers	15.74
164	598408.59	4142126.24	Workers	15.33
165	598418.54	4142127.52	Workers	15.35
166	598406.98	4142135.87	Workers	15.37
167	598401.52	4142148.72	Workers	15.45
168	598481.34	4141790.44	Workers	19.12
169	598497.52	4141792.15	Workers	19.41
170	598517.96	4141795.55	Workers	19.48
171	598528.18	4141775.97	Workers	18.77
172	598506.89	4141771.71	Workers	18.67
173	598482.19	4141771.71	Workers	18.60
174	598485.60	4141754.68	Workers	18.47
175	598511.14	4141755.53	Workers	18.63
176	598528.18	4141762.34	Workers	18.76
177	598536.69	4141750.42	Workers	19.01
178	598514.55	4141743.61	Workers	18.75

179	598495.82	4141742.76	Workers	18.51
180	598496.67	4141722.32	Workers	18.75
181	598514.55	4141732.54	Workers	19.09
182	598542.65	4141735.94	Workers	19.77
183	598540.10	4141721.47	Workers	19.21
184	598518.81	4141718.91	Workers	19.01
185	598506.03	4141714.65	Workers	18.80
186	598506.03	4141695.92	Workers	18.67
187	598521.36	4141704.44	Workers	18.70
188	598539.25	4141706.99	Workers	18.74
189	598545.21	4141697.62	Workers	18.80
190	598526.47	4141690.81	Workers	18.81
191	598504.33	4141686.55	Workers	18.75
192	598511.14	4141671.23	Workers	19.20
193	598538.39	4141676.34	Workers	19.35
194	598552.02	4141678.04	Workers	19.57
195	598578.42	4141638.02	Workers	18.96
196	598555.42	4141630.35	Workers	19.37
197	598536.69	4141625.24	Workers	19.60
198	598540.95	4141601.40	Workers	19.45
199	598563.94	4141613.32	Workers	19.02
200	598584.38	4141616.73	Workers	18.65
201	598589.49	4141603.95	Workers	18.66
202	598564.79	4141593.74	Workers	19.12
203	598541.80	4141586.92	Workers	19.52
204	598548.61	4141573.30	Workers	19.41
205	598574.16	4141577.56	Workers	19.00
206	598595.45	4141582.67	Workers	18.64
207	598575.86	4141561.38	Workers	19.11
208	598552.02	4141552.86	Workers	19.52
209	598558.83	4141538.39	Workers	19.44
210	598351.91	4141652.49	Workers	16.80
211	598351.91	4141638.02	Workers	16.85
212	598338.28	4141647.38	Workers	16.86
213	598339.13	4141633.76	Workers	16.89
214	598318.70	4141642.27	Workers	16.95
215	598319.55	4141629.50	Workers	16.98
216	598304.22	4141635.46	Workers	17.06

217	598311.03	4141618.43	Workers	16.96
218	598178.19	4141630.35	Workers	15.70
219	598195.22	4141635.46	Workers	15.68
220	598221.62	4141636.31	Workers	15.80
221	598176.49	4141616.73	Workers	15.68
222	598200.33	4141619.28	Workers	15.67
223	598216.51	4141623.54	Workers	15.75
224	598241.21	4141628.65	Workers	15.75
225	598242.06	4141615.02	Workers	15.91
226	598223.32	4141610.77	Workers	15.75
227	598202.89	4141606.51	Workers	15.65
228	598193.52	4141601.40	Workers	15.64
229	598114.33	4141598.85	Workers	14.46
230	598091.33	4141592.88	Workers	14.47
231	598069.19	4141588.63	Workers	14.46
232	598052.16	4141586.07	Workers	14.49
233	598024.91	4141582.67	Workers	14.47
234	598024.06	4141560.53	Workers	14.57
235	598047.91	4141565.63	Workers	14.58
236	598074.30	4141569.89	Workers	14.53
237	598091.33	4141574.15	Workers	14.54
238	598120.29	4141579.26	Workers	14.14
239	597977.23	4141569.04	Workers	13.61
240	597976.38	4141553.71	Workers	13.62
241	597958.49	4141565.63	Workers	13.59
242	597959.35	4141548.60	Workers	13.60
243	597936.35	4141552.01	Workers	13.54
244	597934.65	4141569.04	Workers	13.62
245	597951.68	4141579.26	Workers	13.57
246	597928.69	4141584.37	Workers	13.63
247	597944.87	4141595.44	Workers	13.58
248	597936.35	4141609.92	Workers	13.61
249	597915.06	4141604.81	Workers	13.60
250	597926.99	4141706.99	Workers	11.85
251	597932.10	4141682.30	Workers	11.78
252	597909.10	4141697.62	Workers	11.86
253	597920.17	4141670.37	Workers	11.78
254	597892.07	4141688.26	Workers	11.81

255	597902.29	4141666.97	Workers	11.80
256	597875.89	4141678.04	Workers	11.76
257	597883.56	4141654.20	Workers	11.81
258	597869.93	4141645.68	Workers	11.79
259	598338.28	4141820.25	Workers	16.76
260	598351.05	4141833.02	Workers	16.75
261	598346.35	4141808.18	Workers	16.75
262	598358.72	4141817.69	Workers	16.74
263	598313.59	4141850.05	Workers	16.30
264	598327.42	4141859.27	Workers	16.35
265	598305.01	4141859.75	Workers	16.34
266	598317.20	4141868.40	Workers	16.42
267	598327.21	4141878.15	Workers	16.38
268	597856.31	4141676.34	Workers	11.38
269	597877.60	4141702.73	Workers	11.50
270	597862.27	4141696.77	Workers	10.94
271	597855.46	4141712.10	Workers	11.28
272	597867.38	4141717.21	Workers	11.54
273	597869.08	4141727.43	Workers	11.68
274	597860.57	4141724.87	Workers	11.57
275	597844.39	4141717.21	Workers	11.41
276	597832.47	4141713.80	Workers	11.48
277	597829.06	4141728.28	Workers	11.69
278	597840.13	4141735.09	Workers	11.72
279	597853.75	4141738.50	Workers	11.70
280	597863.12	4141741.90	Workers	11.70
281	597859.71	4141754.68	Workers	11.68
282	597840.98	4141750.42	Workers	11.72
283	597833.32	4141742.76	Workers	11.73
284	597818.84	4141737.65	Workers	11.72
285	597817.99	4141750.42	Workers	11.73
286	597826.50	4141758.93	Workers	11.72
287	597841.83	4141761.49	Workers	11.71
288	597852.90	4141761.49	Workers	11.70
289	597846.09	4141777.67	Workers	11.67
290	597830.76	4141772.56	Workers	11.69
291	597818.84	4141769.15	Workers	11.71
292	597809.47	4141764.90	Workers	11.71

293	597801.81	4141775.97	Workers	11.70
294	597821.40	4141786.18	Workers	11.75
295	597827.36	4141787.89	Workers	11.75
296	597840.13	4141791.29	Workers	11.72
297	597835.02	4141804.92	Workers	11.75
298	597823.95	4141798.96	Workers	11.77
299	597812.03	4141794.70	Workers	11.74
300	597800.96	4141789.59	Workers	11.67
301	597851.20	4141893.48	Workers	10.91
302	597857.62	4141878.71	Workers	10.91
303	597865.68	4141861.97	Workers	10.90
304	597852.05	4141858.57	Workers	10.88
305	597847.79	4141872.19	Workers	10.93
306	597839.28	4141887.52	Workers	10.98
307	597824.80	4141882.41	Workers	10.91
308	597834.17	4141866.23	Workers	10.92
309	597842.09	4141851.41	Workers	10.90
310	597830.76	4141845.79	Workers	10.86
311	597824.80	4141859.42	Workers	10.89
312	597813.73	4141880.71	Workers	10.90
313	597802.59	4141876.32	Workers	10.84
314	597810.24	4141857.54	Workers	10.98
315	597820.54	4141841.53	Workers	10.92
316	597803.51	4141834.72	Workers	11.17
317	597800.11	4141850.90	Workers	10.85
318	597789.04	4141866.23	Workers	10.41
319	597776.26	4141861.97	Workers	10.14
320	597787.25	4141844.29	Workers	10.79
321	597792.07	4141827.84	Workers	11.28
322	597781.37	4141822.80	Workers	11.11
323	597778.82	4141839.83	Workers	10.90
324	597771.15	4141856.01	Workers	10.37
325	597775.41	4141880.71	Workers	9.98
326	597790.46	4141886.49	Workers	10.51
327	597784.78	4141897.74	Workers	10.59
328	597770.30	4141890.07	Workers	10.24
329	597754.12	4141896.03	Workers	10.56
330	597766.90	4141903.70	Workers	10.58

331	597784.78	4141905.40	Workers	10.68
332	597780.52	4141921.58	Workers	10.74
333	597765.19	4141913.92	Workers	10.74
334	597747.31	4141908.81	Workers	10.83
335	597741.35	4141922.43	Workers	10.87
336	597758.38	4141929.24	Workers	10.85
337	597768.60	4141934.35	Workers	10.84
338	597766.90	4141951.38	Workers	10.88
339	597749.87	4141943.72	Workers	10.88
340	597732.83	4141937.76	Workers	10.88
341	597725.17	4141949.68	Workers	10.85
342	597745.61	4141959.90	Workers	10.85
343	597756.68	4141959.90	Workers	10.87
344	597751.57	4141976.08	Workers	10.83
345	597738.80	4141971.82	Workers	10.83
346	597722.28	4141966.53	Workers	10.83
347	597718.55	4141975.16	Workers	10.82
348	597733.18	4141981.87	Workers	10.82
349	597749.87	4141988.85	Workers	10.78
350	597767.75	4142041.65	Workers	10.45
351	597756.68	4142037.39	Workers	10.46
352	597743.91	4142030.58	Workers	10.50
353	597723.47	4142020.36	Workers	10.52
354	597720.91	4142027.17	Workers	10.54
355	597734.54	4142037.39	Workers	10.52
356	597753.27	4142049.31	Workers	10.48
357	597766.05	4142056.97	Workers	10.47
358	597760.08	4142070.60	Workers	10.50
359	597743.05	4142063.79	Workers	10.52
360	597730.28	4142051.87	Workers	10.51
361	597714.95	4142048.46	Workers	10.50
362	597887.76	4142267.78	Workers	11.41
363	597733.95	4142148.42	Workers	9.41
364	597730.26	4142159.50	Workers	9.44
365	597722.87	4142171.80	Workers	9.44
366	597716.11	4142188.41	Workers	9.46
367	597706.26	4142184.10	Workers	9.49
368	597706.26	4142171.80	Workers	9.49

369	597712.42	4142158.88	Workers	9.49
370	597719.18	4142141.65	Workers	9.47
371	597713.65	4142135.50	Workers	9.48
372	597705.65	4142149.65	Workers	9.49
373	597702.57	4142160.11	Workers	9.49
374	597697.03	4142176.11	Workers	9.49
375	597684.11	4142169.95	Workers	9.52
376	597689.04	4142160.73	Workers	9.51
377	597696.42	4142147.19	Workers	9.52
378	597702.57	4142134.27	Workers	9.51
379	597695.80	4142128.12	Workers	9.49
380	597692.73	4142141.65	Workers	9.54
381	597684.11	4142151.50	Workers	9.54
382	597677.35	4142165.65	Workers	9.55
383	597663.20	4142163.19	Workers	9.26
384	597667.50	4142150.27	Workers	9.14
385	597673.66	4142136.73	Workers	9.16
386	597680.42	4142121.35	Workers	9.29
387	597673.04	4142117.66	Workers	9.24
388	597666.27	4142137.96	Workers	8.88
389	597663.81	4142147.81	Workers	8.95
390	597659.50	4142158.26	Workers	9.06
391	597645.35	4142157.03	Workers	9.19
392	597653.35	4142144.73	Workers	8.60
393	597661.97	4142124.43	Workers	8.84
394	597666.27	4142113.35	Workers	9.37
395	597661.35	4142109.66	Workers	9.39
396	597657.04	4142122.58	Workers	8.94
397	597652.74	4142135.50	Workers	8.39
398	597644.74	4142149.04	Workers	8.95
399	597642.28	4142155.80	Workers	9.31
400	597697.03	4142232.09	Workers	8.84
401	597680.42	4142230.25	Workers	8.89
402	597669.35	4142222.25	Workers	8.88
403	597653.35	4142215.48	Workers	8.88
404	597643.51	4142208.71	Workers	8.84
405	597649.05	4142224.10	Workers	8.89
406	597659.50	4142230.25	Workers	8.91

407	597671.81	4142235.17	Workers	8.89
408	597687.19	4142239.48	Workers	8.91
409	597687.81	4142251.78	Workers	8.90
410	597673.66	4142245.01	Workers	8.90
411	598448.19	4142017.94	Workers	16.68
412	598452.96	4141999.74	Workers	16.60
413	598457.62	4141982.43	Workers	16.34
414	597965.95	4142098.36	Workers	10.91
415	597939.91	4142103.37	Workers	10.88
416	597954.93	4142111.39	Workers	10.88
417	597966.96	4142119.40	Workers	10.89
418	597962.95	4142135.43	Workers	10.97
419	597940.91	4142129.42	Workers	10.94
420	597929.89	4142122.41	Workers	10.89
421	597923.88	4142136.43	Workers	10.93
422	597943.91	4142144.45	Workers	11.00
423	597950.93	4142163.48	Workers	10.92
424	597926.88	4142155.47	Workers	10.88
425	597916.86	4142148.46	Workers	10.86
426	597909.85	4142169.49	Workers	10.94
427	597931.89	4142181.52	Workers	11.15
428	597928.89	4142195.54	Workers	10.92
429	597903.84	4142185.52	Workers	10.92
430	597904.84	4142207.57	Workers	10.98
431	597908.85	4142224.60	Workers	11.26
432	597882.80	4142215.58	Workers	11.03
433	597859.76	4142206.56	Workers	10.38
434	597834.71	4142197.55	Workers	11.05
435	597812.67	4142191.54	Workers	11.30
436	597805.66	4142205.56	Workers	11.23
437	597832.71	4142213.58	Workers	11.25
438	597850.74	4142223.59	Workers	10.82
439	597870.78	4142227.60	Workers	11.15
440	597898.83	4142242.63	Workers	11.41
441	597870.78	4142253.65	Workers	11.51
442	597853.75	4142241.63	Workers	11.07
443	597824.69	4142227.60	Workers	11.46
444	597804.66	4142224.60	Workers	11.29

445	598494.93	4141850.91	Workers	18.28
446	598515.97	4141856.92	Workers	18.32
447	598532.00	4141863.93	Workers	18.40
448	598547.03	4141867.94	Workers	18.74
449	598576.08	4141906.01	Workers	19.17
450	598568.07	4141929.05	Workers	19.31
451	598597.12	4141836.88	Workers	20.21
452	598606.14	4141805.82	Workers	19.77
453	598610.15	4141777.77	Workers	19.71
454	598619.16	4141755.73	Workers	19.78
455	598627.18	4141726.68	Workers	19.67
456	598638.20	4141768.75	Workers	20.14
457	598629.18	4141804.82	Workers	20.08
458	598619.16	4141835.88	Workers	20.32
459	597931.95	4142182.87	Workers	11.13
460	597630.21	4142000.18	Resident	8.52
461	597614.89	4141989.57	Resident	9.71
462	597596.03	4141984.86	Resident	9.70
463	597616.07	4142023.75	Resident	9.09
464	597603.10	4142010.79	Resident	9.79
465	597588.96	4142006.08	Resident	9.76
466	597566.57	4141995.47	Resident	9.64
467	597561.85	4142017.86	Resident	9.72
468	597574.82	4142028.47	Resident	9.73
469	597596.03	4142035.54	Resident	9.75
470	597607.82	4142036.72	Resident	9.49
471	597593.68	4142057.94	Resident	9.65
472	597587.78	4142052.04	Resident	9.75
473	597576.00	4142042.61	Resident	9.71
474	598274.94	4141551.11	Resident	15.20
475	598279.65	4141538.15	Resident	15.29
476	598279.65	4141525.18	Resident	15.31
477	598264.33	4141519.29	Resident	15.43
478	598259.62	4141534.61	Resident	15.37
479	598256.08	4141545.22	Resident	15.37
480	598227.79	4141539.33	Resident	15.28
481	598231.33	4141525.18	Resident	15.35
482	598238.40	4141512.22	Resident	15.46

483	598216.01	4141507.50	Resident	15.30
484	598214.83	4141525.18	Resident	15.18
485	598207.75	4141539.33	Resident	15.16
486	598187.72	4141532.26	Resident	15.27
487	598187.72	4141516.93	Resident	15.24
488	598198.33	4141496.90	Resident	15.43
489	598164.14	4141505.15	Resident	15.15
490	598157.07	4141529.90	Resident	14.96
491	598170.04	4141496.90	Resident	15.23
492	598172.39	4141486.29	Resident	15.33
493	598180.65	4141465.07	Resident	15.25
494	598199.50	4141474.50	Resident	15.70
495	598216.01	4141482.75	Resident	15.76
496	598231.33	4141487.47	Resident	15.69
497	598245.47	4141489.82	Resident	15.85
498	598266.69	4141496.90	Resident	15.89
499	598282.01	4141498.07	Resident	15.90
500	598134.68	4141525.18	Resident	14.86
501	598137.04	4141511.04	Resident	14.87
502	598144.11	4141492.18	Resident	14.96
503	598147.64	4141480.39	Resident	15.02
504	598127.61	4141468.61	Resident	14.77
505	598122.89	4141486.29	Resident	14.76
506	598122.89	4141500.43	Resident	14.68
507	598113.46	4141526.36	Resident	14.53
508	598100.50	4141514.58	Resident	14.58
509	598102.85	4141495.72	Resident	14.62
510	598109.93	4141478.04	Resident	14.72
511	598112.28	4141465.07	Resident	14.71
512	598095.78	4141461.54	Resident	14.71
513	598085.17	4141481.57	Resident	14.63
514	598080.46	4141501.61	Resident	14.55
515	598078.10	4141514.58	Resident	14.45
516	598053.35	4141505.15	Resident	14.70
517	598059.24	4141491.00	Resident	14.71
518	598063.96	4141475.68	Resident	14.69
519	598069.85	4141459.18	Resident	14.59
520	598050.99	4141455.64	Resident	14.81

521	598041.56	4141476.86	Resident	14.77
522	598033.31	4141496.90	Resident	14.65
523	598030.96	4141505.15	Resident	14.61
524	597997.95	4141495.72	Resident	14.65
525	598003.85	4141483.93	Resident	14.59
526	598012.10	4141465.07	Resident	14.60
527	598019.17	4141450.93	Resident	14.56
528	598003.85	4141447.39	Resident	14.61
529	597989.70	4141462.72	Resident	14.62
530	597986.17	4141486.29	Resident	14.60
531	597982.63	4141492.18	Resident	14.53
532	597963.77	4141486.29	Resident	14.58
533	597966.13	4141470.97	Resident	14.75
534	597972.02	4141458.00	Resident	14.63
535	597976.74	4141445.04	Resident	14.68
536	598121.06	4141441.43	Resident	15.04
537	598113.51	4141438.32	Resident	14.89
538	598115.28	4141430.32	Resident	14.86
539	598122.40	4141432.54	Resident	15.00
540	598125.51	4141420.54	Resident	15.06
541	598118.40	4141416.98	Resident	14.93
542	598122.84	4141393.42	Resident	14.94
543	598132.18	4141393.87	Resident	15.05
544	598134.84	4141385.87	Resident	15.03
545	598125.06	4141383.64	Resident	14.90
546	598127.73	4141376.53	Resident	14.92
547	598137.51	4141378.31	Resident	15.02
548	598091.28	4141433.43	Resident	14.66
549	598089.50	4141426.32	Resident	14.59
550	598079.72	4141428.99	Resident	14.59
551	598080.61	4141418.32	Resident	14.52
552	598067.27	4141426.32	Resident	14.56
553	598067.27	4141416.98	Resident	14.48
554	598059.27	4141423.65	Resident	14.54
555	598059.27	4141416.98	Resident	14.46
556	598050.83	4141421.87	Resident	14.52
557	598051.27	4141409.43	Resident	14.38
558	598035.71	4141418.32	Resident	14.36

559	598037.05	4141409.87	Resident	14.28
560	598028.15	4141417.43	Resident	14.33
561	598028.60	4141408.98	Resident	14.25
562	598017.04	4141413.87	Resident	14.29
563	598017.49	4141408.09	Resident	14.24
564	598007.71	4141416.10	Resident	14.33
565	598008.59	4141404.09	Resident	14.18
566	597998.81	4141412.09	Resident	14.29
567	598000.59	4141404.09	Resident	14.17
568	598001.93	4141389.42	Resident	14.33
569	598006.82	4141373.42	Resident	14.42
570	598008.59	4141388.53	Resident	14.36
571	598010.82	4141381.87	Resident	14.45
572	598018.37	4141392.09	Resident	14.36
573	598020.15	4141382.76	Resident	14.45
574	598028.15	4141392.98	Resident	14.40
575	598028.60	4141384.53	Resident	14.46
576	598039.27	4141397.87	Resident	14.42
577	598040.60	4141389.42	Resident	14.52
578	598058.83	4141400.54	Resident	14.59
579	598059.27	4141394.31	Resident	14.67
580	598068.16	4141401.43	Resident	14.63
581	598068.16	4141389.42	Resident	14.74
582	598076.61	4141401.87	Resident	14.68
583	598075.72	4141393.87	Resident	14.73
584	598085.06	4141406.76	Resident	14.66
585	598085.06	4141397.87	Resident	14.74
586	598094.39	4141408.54	Resident	14.70
587	598098.39	4141398.31	Resident	14.81
588	598101.95	4141385.42	Resident	14.75
589	598103.28	4141374.75	Resident	14.71
590	598092.61	4141383.64	Resident	14.71
591	598093.06	4141372.53	Resident	14.65
592	598081.50	4141384.53	Resident	14.71
593	598081.94	4141372.09	Resident	14.59
594	598070.39	4141380.09	Resident	14.68
595	598070.83	4141371.64	Resident	14.55
596	598055.27	4141376.98	Resident	14.59

597	598058.83	4141367.64	Resident	14.52
598	598046.38	4141375.64	Resident	14.49
599	598047.27	4141366.75	Resident	14.43
600	598038.82	4141372.53	Resident	14.43
601	598039.71	4141366.75	Resident	14.39
602	598030.82	4141371.20	Resident	14.42
603	598023.71	4141368.53	Resident	14.39
604	598009.48	4141369.42	Resident	14.42
605	598313.99	4141456.55	Resident	17.37
606	598315.33	4141447.21	Resident	17.41
607	598316.22	4141438.77	Resident	17.35
608	598317.55	4141432.10	Resident	17.29
609	598318.44	4141421.87	Resident	17.13
610	598338.89	4141424.10	Resident	17.29
611	598338.00	4141436.10	Resident	17.39
612	598336.66	4141444.99	Resident	17.49
613	598334.44	4141452.99	Resident	17.51
614	598333.55	4141459.22	Resident	17.47
615	598346.44	4141464.11	Resident	17.73
616	598353.56	4141452.99	Resident	17.62
617	598353.11	4141449.88	Resident	17.61
618	598353.56	4141441.88	Resident	17.56
619	598355.78	4141430.32	Resident	17.48
620	598380.67	4141433.43	Resident	17.56
621	598374.01	4141443.21	Resident	17.62
622	598372.23	4141453.44	Resident	17.66
623	598369.56	4141459.66	Resident	17.67
624	598368.23	4141466.33	Resident	17.71
625	598386.90	4141469.88	Resident	17.92
626	598385.12	4141461.88	Resident	17.89
627	598390.45	4141456.10	Resident	17.82
628	598390.90	4141449.44	Resident	17.76
629	598391.34	4141439.66	Resident	17.66
630	598429.57	4141445.88	Resident	17.85
631	598428.24	4141456.10	Resident	17.97
632	598428.24	4141462.33	Resident	17.98
633	598423.79	4141471.66	Resident	18.04
634	598424.24	4141479.22	Resident	18.04

635	598318.88	4141406.76	Resident	17.09
636	598322.44	4141406.76	Resident	17.15
637	598328.66	4141408.09	Resident	17.19
638	598336.66	4141408.54	Resident	17.26
639	598344.22	4141411.21	Resident	17.36
640	598351.33	4141412.98	Resident	17.42
641	598360.67	4141413.43	Resident	17.47
642	598364.67	4141417.43	Resident	17.48
643	598374.89	4141417.43	Resident	17.52
644	598379.78	4141421.87	Resident	17.54
645	598390.90	4141421.87	Resident	17.61
646	598401.57	4141427.65	Resident	17.66
647	598407.79	4141429.88	Resident	17.74
648	598018.82	4141497.45	Resident	14.60
649	598019.26	4141485.00	Resident	14.61
650	598022.82	4141473.00	Resident	14.67
651	598029.04	4141455.21	Resident	14.70
652	598045.05	4141464.99	Resident	14.84
653	598038.38	4141488.56	Resident	14.70
654	597990.37	4141474.33	Resident	14.64
655	597993.04	4141452.10	Resident	14.62
656	598159.74	4141518.34	Resident	15.10
657	598188.63	4141508.12	Resident	15.27
658	598253.98	4141492.11	Resident	15.90
659	598078.83	4141463.22	Resident	14.61
660	598074.83	4141478.33	Resident	14.65
661	598069.50	4141495.67	Resident	14.67
662	598065.05	4141511.23	Resident	14.64
663	598232.76	4141990.39	Workers	15.86
664	598267.43	4142015.66	Workers	15.69
665	598273.31	4142004.50	Workers	15.45
666	598289.77	4141986.28	Workers	15.27
667	598297.41	4141974.52	Workers	15.28
668	598309.16	4141958.07	Workers	15.19
669	598324.44	4141943.97	Workers	15.42
670	598339.13	4141929.27	Workers	15.93
671	598250.84	4142003.35	Workers	16.13
672	597753.57	4141535.07	Workers	10.40

673	597768.25	4141502.05	Workers	10.44	
674	598371.38	4142045.30	Workers	16.36	
675	598375.50	4142026.48	Workers	16.37	

Plant Boundary Receptors

Receptor Groups

Record Number	Group ID	Group Description
1	Workers	Workers
2	Resident	Residents

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: ..\MET data\SANJOSE13_17.SFC

Format Type: Default AERMET format

Profile Met Data

Filename: ..\MET data\SANJOSE13_17.PFL

Format Type: Default AERMET format

Wind Speed

☐ Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 15.50 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface Upper Air		2013 2013			OAKLAND/WSO AP

Data Period

Data Period to Process

Start Date: 1/1/2013 Start Hour: 1 End Date: 12/31/2017 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Output Pathway

Tabular Printed Outputs

Short Term Averaging Period	RECTABLE Highest Values Table										MAXTABLE Maximum Values Table	DAYTABLE Daily Values Table
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
1	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐		No

Contour Plot Files (PLOTFILE)

Path for PLOTFILES: ConHRA2.AD

Averaging Period	Source Group ID	High Value	File Name
Period	DPM		DPM_PE.PLT
Period	PM25		PM25_PE.PLT

Results Summary

1000 Gibraltar Warehouse
DPM Construction HRA

PM10 - Concentration - Source Group: DPM

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.01599	ug/m^3	597965.95	4142098.36	10.91	0.00	10.91	

PM10 - Concentration - Source Group: PM25

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		0.03698	ug/m^3	597965.95	4142098.36	10.91	0.00	10.91	

HEALTH RISK ASSESSMENT CALCULATIONS

1000 Gibraltar Warehouse Project

The health risk assessment (HRA) was conducted utilizing the American Meteorological Society/United States Environmental Protection Agency (EPA) Regulatory Model (AERMOD) (Version 24142 and ARB's Hot Spots Analysis and Reporting Program Version 2 (HARP2) Version 2 (22188 dated April 28, 2022) to automatically calculate risks for the projects using OEHHA promulgated cancer potency and reference exposure levels (RELs). HARP2 is the recommended model for calculating and presenting HRA results because it follows the district's risk assessment guidance methodology and is consistent with the Bay Area Air Quality Management District (Bay Area Air District)'s Regulation 2-5. Since AERMOD was run with project emission rates to directly calculate potential DPM and PM2.5 concentrations, the Health Risk Assessment Standalone Tool (RAST) version of HARP2 was used.

The HRA follows the Bay Area Air District's CEQA Guidelines based on OEHHA 2015 AB2588 Hot Spots Guidance. This risk assessment intake methodology addresses children's greater sensitivity and health impacts from early exposure to carcinogenic compounds. The chemical intake or dose describing the frequency and duration of the exposure is estimated using receptor's breathing rates, exposure duration, and exposure frequency. The calculations include the use of age-specific weighting factors, breathing rates, fraction of time at home, and reduced exposure durations.

The dispersion and exposure modeling is described below, including a summary of the HARP2 HRA inputs and cancer and noncancer risk results for selected for each receptor group (i.e., resident, off-site worker, and student).

AERMOD Inputs — The AERMOD software was utilized to predict the ground level concentrations resulting from the emissions of Diesel Particulate Matter (DPM) (represented as PM_{10} exhaust) and total $PM_{2.5}$ from associated with construction activities. The modeling utilized Urban dispersion coefficients and Bay Area Air District-provided meteorological data from the San José Mineta International Airport meteorological station (KSJC) from 2013 – 2017. The modeling included both emissions generated at the project site and those generated along the anticipated haul roads within approximately 1,000 feet of the site boundary. Diesel particulate emissions are characterized by an area source with a height of 5 meters to account for the height of the construction exhaust from the off-road equipment. Roadway emissions were modeled as line-volume sources or adjacent volume sources. $PM_{2.5}$ emissions were modeled similarly, per the Bay Area Air District guidance which permits $PM_{2.5}$ Dust to be modeled along with $PM_{2.5}$ Exhaust.

Emissions were modeled only during the hours of 8 AM – 5 PM (with a one-hour break for lunch) Monday to Friday. DPM Emission rates were obtained from CalEEMod using emissions from PM_{10} exhaust from diesel vehicles and off-road construction equipment exhaust. $PM_{2.5}$ emissions were calculated for the maximum annual period (first year of construction) and includes $PM_{2.5}$ from off-road construction equipment exhaust, material handling as well as on-road exhaust, brake and tire wear, and re-entrained road dust.

Age Sensitivity Factors – Studies have shown that young animals are more sensitive than adult animals to exposure to many carcinogens.[1] Therefore, OEHHA developed age sensitivity factors (ASFs) to account for the increased sensitivity to carcinogens during early-in-life exposures. Accordingly, the cancer risk methodology applies different ASFs by age groups. The ASFs utilized a 10-fold multiplier in sensitivity for the third trimester and infants less than age 2, a 3-fold increase in sensitivity for children ages 2 to 16 years old, and a sensitivity factor of 1 for ages 16 and older.

Daily breathing rates (age-specific daily air intake) – For residential receptors, the HRA utilizes the 95th percentile breathing rates for the most sensitive age groups (less than 2 years of age) and 80th percentile for all other age groups. This approach jointly developed by ARB and CAPCOA[2] and adopted by theBay Area Air District [3] is referred to as the "Risk Management Policy" and was developed to consider the new science in risk assessment while providing a reasonable estimate of potential cancer risk for risk management decisions. and used in this HRA. The HRA uses 95th percentile 8-hour breathing rates for moderate intensity activities for worker and student exposure.[4]

Time at home – The time at home applies only applies to residential receptors. Residents are assumed to be at home 350 days per year, which assumes individuals are away for approximately 2 weeks of vacation. The fraction of time at home refers to the estimated amount of time residents stay at home during these 350 days. The HRA uses the OEHHA and BAAQMD recommended values of 73 percent time at home for 16-year-olds and above based on based on population and activity statistics. The HRA also assumes 100 percent time at home for receptors under age 16 to address exposures at local schools close to emitting sources. Even though infants and children may not be at their residence all the time, they are likely to remain in the neighborhood (at schools or neighbors) and would be exposed to similar levels of the pollutants.

Exposure Duration - OEHHA 2015 guidelines specify a 30-year residential exposure duration for estimating cancer risk at the maximum exposed individual resident (MEIR). This is based on studies showing that 30 years is a reasonable estimate of the 90th to 95th percentile of residency duration in the population. A 25-year standard exposure duration is the default to estimate cancer risk for off-site workers. However, risk assessors can use other exposure durations with proper justification and documentation. For example, short-term projects (e.g., construction projects) can now be evaluated for as short a duration as 6 months. The risks for the proposed project were assessed for the construction

[1] Office of Environmental Health Hazard Assessment (OEHHA). 2009. Technical Support Document for Cancer Potency Factors 200 . June 2009, http://www.oehha.ca.gov/air/hot_spots/tsd052909.html) Accessed August 1, 2025

[2] California Air Resources Board (ARB) and California Air Pollution Control Officers Association (CAPCOA). 2015. Risk Management Guidance for Stationary Sources of Air Toxics. July 23. Website: https://ww2.arb.ca.gov/sites/default/files/classic/toxics/rma/rmgssat.pdf. Accessed April 8, 2025.

[3] Bay Area Air Quality Management District (BAAQMD). 2022. California Environmental Quality Act – Air Quality Guidelines Appendix E: Recommended Methods for Screening and Modeling Local Risks and Hazards. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards_final-pdf.pdf?rev=b8917a27345a4a629fc18fc8650951e4&sc_lang=en. Accessed April 8, 2025.

[4] Office of Environmental Health Hazard Assessment (OEHHA). 2015. The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed April 8, 2025.

period from September 2025 to November 2026 over a construction schedule of 326 working days or 1.25 calendar years.

Residential Cancer Risk

Cancer risk for individual resident receptors exposed to DPM were calculated utilizing the "Risk Management Policy" option for inhalation, specifying that residents spend 100 percent time at home for ages less than 16 years old. Consistent with OEHHA guidance, the start of residential exposure was assumed to occur in the third trimester (-0.25 years) to accommodate the increased susceptibility of exposures in early life. As per OHEHHA and the Bay Area Air District guidelines, the residential exposure starts with the unborn child at the third trimester or –0.25 years (when construction begins) and continues until the child is 1 years of age. Because there are no significant sources of TAC emissions during operations, the exposure assessment is limited to the duration of the proposed project construction or 1.25 years.

Residential receptors included the nearest residences to the project site in all directions within the 1,000-foot zone from the project site.

Worker Cancer Risk

Cancer risk was calculated for the maximum impacted off-site worker based on the maximum DPM concentration at identified off-site receptors. HARP utilizes 8-hour breathing rates for moderate intensity activities of 240 L/kg-8 hrs (applicable to 16–30-year adults) to calculate the daily dose via the inhalation route to the worker. The analysis assumes a start age of 16 years and an exposure duration equivalent to the construction duration of 1.25 years.

The WAF is used to adjust the AERMOD estimated long-term concentration such that it is based only on the hours when the worker is present. For this project, assuming the emitting source and worker's schedules are the same, the adjustment factor is 4.2 = (24 hours per day/8 hours per shift) x (7 days in a week/5 days in a work week).

Noncancer Chronic Health Risks

The potential non-cancer health impacts resulting from exposure to toxic substances usually lasting from one year to a lifetime. The total hazard index includes the sum of hazard indices for pollutants with non-cancer health effects that have the same or similar adverse health effects (endpoints). A chronic hazard index is calculated by dividing the annual average concentration of a toxic pollutant by the chronic reference exposure level for that pollutant.[5] Accordingly, the chronic non-cancer health index is derived by dividing the DPM concentration by the chronic REL of 5µg/m^3.[6]

HARP2 Inputs and Results

[5] California Air Resources Board. 2025. Emission Inventory and Risk Glossary. Website: https://ww2.arb.ca.gov/emission-inventory-and-risk-glossary-0. Accessed August 4, 2025.

[6] Office of Environmental Health Hazard Assessment (OEHHA). 2025. Chemicals – Diesel Exhaust Particulate. Website: https://oehha.ca.gov/chemicals/diesel-exhaust-particulate. Accessed August 4, 2025.

HARP2 Output files are included to document the HRA exposure parameters and risk results.

HARP2 inputs and results are included for the following receptor/exposure scenarios for the Unmitigated emissions:

- Residential Cancer Risk – Maximum Exposed Individual Resident (MEIR)
- Worker Cancer Risk – Maximum Exposed Individual Worker (MEIW)

1000 Gibraltar Warehouse Project

Health Risk Summary of HARP2 Results

Resident Risks - DPM

Maximum Risk	RISK_SUM	Cancer Risk/million	MAXHI NonCancer Chronic	MAXHI Acute
	8.64E-07	0.86433	0.000972	0

Maximally Exposed Individual Receptor

	X	Y
MEI UTM	598274.94	4141551.11

HARP File Name

*HARP - HRACalc v22118 7/16/2025 2:09:51 PM - Cancer Risk - Input File: F:\Jobs\18980015\ConHRA2\HARP2\MEIRHRAInput.hra

RECEPTOR	X	Y	CONC	RISK_SUM	SCENARIO	CHRONIC HI
1	598274.94	4141551.11	0.00486	8.64E-07	1YrCancerDerived_Inh_FAH16to70	0.000972

HARP2 - HRACalc (dated 22118) 7/16/2025 2:09:51 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk saved to: F:\Jobs\18980015\ConHRA2\HARP2\MEIRCancerRisk.csv
HRA ran successfully

1000 Gibraltar Warehouse Project

Health Risk Summary of HARP2 Results

Worker Risks - DPM

Maximum Risk	RISK_SUM	Cancer Risk/million	MAXHI NonCancer Chronic	MAXHI Acute
	2.17E-07	0.21685	0.003198	0

Maximally Exposed Individual Receptor

	X	Y
MEI UTM	597965.95	4142098.36

HARP File Name

*HARP - HRACalc v22118 7/16/2025 2:19:09 PM - Cancer Risk - Input File: F:\Jobs\18980015\ConHRA2\HARP2\MEIWHRAInput.hra

RECEPTOR	X	Y	CONC	RISK_SUM	SCENARIO	CHRONIC HI
1	597965.95	4142098.36	0.01599	2.17E-07	1.25YrCancerHighEnd_Inh	0.003198

HARP2 - HRACalc (dated 22118) 7/16/2025 2:19:09 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: Cancer
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 1.25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 1.25
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES
GLC adjustment factor: 4.2
Exposure frequency: 250

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
TIER 2 SETTINGS

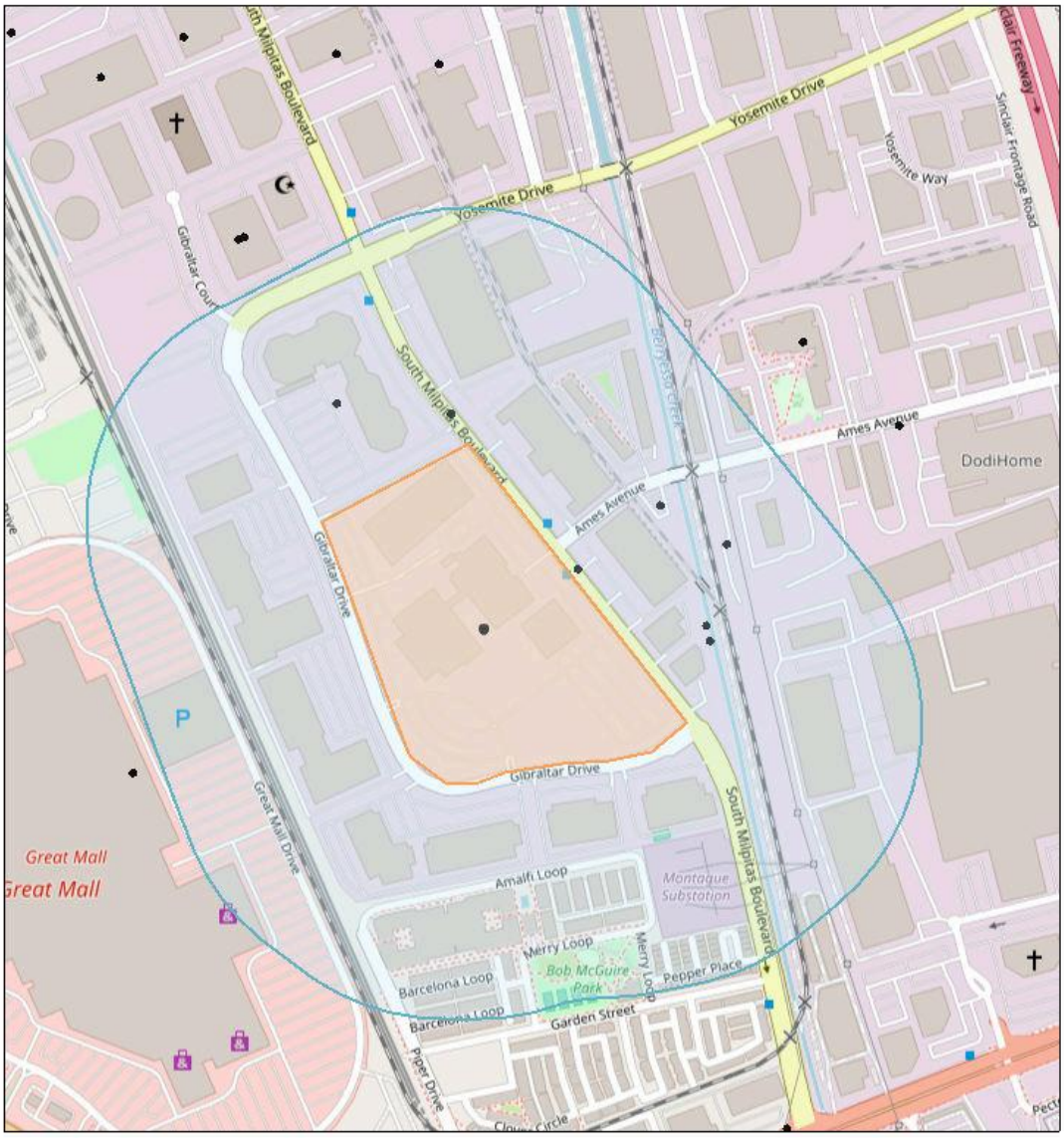
Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk saved to: F:\Jobs\18980015\ConHRA2\HARP2\MEIWCancerRisk.csv
HRA ran successfully

Screening Report

Area of Interest (AOI) Information

Area : 8,932,752.8 ft²

Jul 18 2025 11:47:37 Pacific Daylight Time



Permitted Stationary Sources

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Map data © OpenStreetMap contributors, CC-BY-SA

Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	7	N/A	N/A

Permitted Stationary Sources

#	Address	Cancer_Ris	Chronic_Ha	City	County
1	847 Gibraltar Drive	1.03	0.00	Milpitas	Santa Clara
2	963 Ames Avenue	0.00	0.01	Milpitas	Santa Clara
3	960 Ames Avenue	0.00	0.01	Milpitas	Santa Clara
4	954 So Milpitas Blvd	0.02	0.00	Milpitas	Santa Clara
5	1010 So Milpitas Blvd	0.00	0.00	Milpitas	Santa Clara
6	930 Ames Ave	0.06	0.00	Milpitas	Santa Clara
7	800 Ames Ave	2.31	0.01	Milpitas	Santa Clara

#	Details	Facility_I	Facility_N	Latitude	Longitude
1	*No Data*	7441	Flex	37.42	-121.89
2	*No Data*	3156	Quality Transformer & Electronics	37.42	-121.89
3	*No Data*	18388	Evoqua Water Technologies	37.42	-121.89
4	*No Data*	19840	Universal Industrial Finishing	37.42	-121.89
5	*No Data*	21180	Eco Office Inc	37.42	-121.89
6	Gas Dispensing Facility	109668-1	Balch Petroleum	37.42	-121.89
7	Gas Dispensing Facility	110788-1	Flyers #401	37.42	-121.89

#	NAICS	NAICS_Indu	NAICS_Sect	NAICS_Subs	PM25
1	334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	Manufacturing	Computer and Electronic Product Manufacturing	0.02
2	335311	Power, Distribution, and Specialty Transformer Manufacturing	Manufacturing	Electrical Equipment, Appliance, and Component Manufacturing	0.00
3	312229	Other Tobacco Product Manufacturing	Manufacturing	Beverage and Tobacco Product Manufacturing	0.12
4	332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	Manufacturing	Fabricated Metal Product Manufacturing	0.00
5	811420	Reupholstery and Furniture Repair	Other Services (except Public Administration)	Repair and Maintenance	0.00
6	447110	Gasoline Stations with Convenience Stores	Retail Trade	Gasoline Stations	0.00
7	424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	Wholesale Trade	Merchant Wholesalers, Nondurable Goods	0.00

#	State	Zip	Count
1	CA	95035	1
2	CA	95035	1
3	CA	95035	1
4	CA	95035	1
5	CA	95035	1
6	CA	95035	1
7	CA	95035	1

NOTE: A larger buffer than 1,000 may be warranted depending on proximity to significant sources.

1000 Gibraltar Warehouse
Cumulative Health Risks from Roads and Rails

UTMX	UTMY	Road Cancer Risk	Road Chronic HI	Road PM2.5	Rail Cancer Risk
597966	4142098	5.724932671	0.017351089	0.121391229	0.340768605

Data Provided By: BAAQMD as raster file (.tif) datasets
Roadway Screening Tool - Cancer Risk Last Updated December 8 2022
Roadway Screening Tool - Chronic Hazard Last Updated December 8 2022
Roadway Screening Tool - PM2.5 Last Updated December 8 2022
Rail Screening Tool - Cancer Risk Last Updated January 30 2023
Rail Screening Tool - Chronic Hazard Last Updated January 30 2023
Rail Screening Tool - PM2.5 Last Updated January 30 2023

Rail Chronic HI	Rail PM2.5
9.15E-05	0.000430136

Climate Action Plan Consistency Review Checklist

Introduction

The City of Milpitas (City) adopted a Climate Action Plan Update (CAP Update) in 2022. The CAP Update outlines strategies and measures that the City will undertake to achieve its proportional share of State greenhouse gas (GHG) emissions reduction targets. The purpose of the CAP Consistency Checklist (Checklist), in conjunction with the CAP Update, is to provide a streamlined review process for all proposed development projects that are subject to discretionary review and/or trigger environmental review pursuant to the California Environmental Quality Act (CEQA).

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The City's CAP Update is a qualified GHG emissions reduction plan in accordance with State CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP Update.

The purpose of this Checklist is to implement GHG reduction measures from the CAP Update that apply to new discretionary development projects. New development that demonstrates consistency with relevant CAP Update strategies and the City's General Plan 2040 and would not conflict with the City's ability to achieve the identified GHG reduction targets through implementation of applicable measures. Projects that are consistent with the CAP Update, as determined through the use of this Checklist, may rely on the CAP Update and its associated CEQA documentation for the cumulative impact analysis of GHG emissions. Projects that are not consistent with the CAP Update must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Projects that are unable to meet the requirements of this Checklist should look to alternative compliance approaches to GHG analyses using the Bay Area Air Quality Management District's CEQA Guidelines. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP Update.

This Checklist may be updated periodically to incorporate new GHG reduction techniques or to comply with later amendments to the CAP Update or local, State, or federal law. Comprehensive updates to this Checklist will be coordinated with each subsequent CAP update. Administrative updates to the Checklist may occur regularly, as necessary for the purpose of keeping the Checklist up-to-date and implementable.

Applicability and Procedures

This Checklist is required only for discretionary projects[1] that are subject to and not exempt from CEQA. Projects that are exempt from CEQA are deemed to be consistent with the City's CAP Update, and no further review is necessary, with the exception of a Class 32 "In-Fill Development Projects" categorical exemption (State CEQA Guidelines Section 15332), for which projects are required to demonstrate consistency with the CAP Update through this Checklist.

General procedures for Checklist compliance and review are described below. Specific guidance is also provided under each of the questions in the Checklist.

- Project applicant completes the Checklist and submits to the City's Planning Department as part of the project's conditions of approval. Refer to the City's Development Review Handbook for details on the development review process.
- The City's Planning Department, Building Safety & Housing Department, and Public Works Department review the Checklist and make determinations regarding environmental review requirements under CEQA.
- The specific applicable requirements outlined in the Checklist shall be required as conditions of project approval.
- The project applicant must provide written documentation and supporting evidence that demonstrate how the proposed project would implement each applicable Checklist requirement described herein to the satisfaction of the Planning Department, Building Safety & Housing Department, and Public Works Department.
- If a measure is deemed not applicable for reasons other than those outlined in each question or if an exemption does not apply, supporting evidence will need to be provided by the project applicant and would be subject to Planning Department approval. A project may be determined to be inconsistent with the CAP Update if lack of compliance is deemed to be not supported by credible evidence.
- Development projects requiring discretionary review that cannot demonstrate consistency with the CAP Update using this Checklist shall prepare a separate, project-level GHG analysis as part of the CEQA document prepared for the project.

[1] In this context, a project is any action that meets the definition of a "Project" in Section 15378 of the State CEQA Guidelines.

Application Information

Contact Information

Project Name: SSD-SSJ1 - Milpitas

Property Address and APN: 1000 Gibraltar Dr. Milpitas, CA 95035 (APN: 086-42-33)

Applicant Name and Co.: CDP Development, Inc. - Todd Chandler

Contact Phone: 916-379-3105 Contact Email: tchandler@panattoni.com

Was a consultant retained to complete this checklist? ☐ Yes ☑ No

If Yes, complete the following:

Consultant Name: _____ Contact Phone: _____

Company Name: _____ Contact Email: _____

Project Information

1. What is the size of the project site (gross acres)? 1,261,301 sq.ft.

2. What are the existing General Plan/zoning designation(s) for the project site (as stated in the Milpitas General Plan 2040)? General Plan: MFG - Manufacturing Zone: M2 - Heavy Industrial District

2. Identify all applicable proposed land uses:

- ☐ Residential (indicate # of single-family dwelling units): _____
- ☐ Residential (indicate # of multi-family dwelling units): _____
- ☐ Commercial (indicate total square footage): _____
- ☑ Industrial (indicate total square footage): 1,261,301 sq.ft.
- ☐ Other (describe): _____

3. Provide a description of the project proposed. This description should match the basic project description used for the CEQA document. The description may be attached to the Checklist if there are space constraints.

The proposed project would involve an addendum to the certified EIR for a 491,040-square foot warehouse on 1000 Gibraltar Drive in Milpitas, CA to develop a 487,564 square foot same-day fulfillment center and 7,844 quare foot office at the same project site.

General Plan Land Use Consistency

The first step in determining CAP Update consistency for a discretionary development project is to assess the project's consistency with the land use assumptions in the Milpitas General Plan 2040 and zoning designations, which were used to calculate the future GHG emissions forecasts and targets for the CAP Update. If the proposed project is consistent with applicable General Plan and zoning designations, the proposed project may be determined to be within the scope of emissions covered under the CAP Update.

If the project is not consistent with the Milpitas General Plan 2040 and zoning designations, it is possible that the land use changes required for the project could still be consistent with the growth projections used in the CAP Update depending upon the level of proposed changes. The questions below must be completed, as applicable, to determine whether the project is consistent with the City's General Plan 2040 and zoning designations and related GHG emissions forecasts and targets.

General Plan Land Use Consistency			
Checklist Item (Check the appropriate box and provide an explanation and supporting documentation for your answer)		**Yes**	**No**
1.	Are the proposed land uses in the project consistent with the Milpitas General Plan 2040 land use and zoning designations? If **"Yes"** is selected, please skip to the CAP Measures Consistency section of the checklist. If **"No"** is selected, please proceed to question 2.	☑	☐
2.	Is a General Plan amendment and/or rezoning required for the project? If **"No"** is selected, please skip to the CAP Measures Consistency section of the checklist. If **"Yes"** is selected, please proceed to question 3.	☐	☑
3.	If the proposed project is not consistent with the General Plan land use or zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations? If **"Yes"** is selected, please attach to this checklist the estimate project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the	☐	☐

General Plan Land Use Consistency		
Checklist Item (Check the appropriate box and provide an explanation and supporting documentation for your answer)	**Yes**	**No**
maximum buildout of the proposed designation. If the proposed project is determined to result in an equivalent or less GHG-intensive project when compared to the existing designations, proceed to the CAP Measures Consistency section of the checklist. If **"No"** is selected, the applicant must conduct a full GHG impact analysis for the project as part of the CEQA process. The project shall incorporate each of the applicable measures identified in the CAP Measures Consistency section of the checklist to mitigate cumulative GHG emissions impacts.		

CAP Measures Consistency

The goal of the CAP consistency review process is to evaluate a project's consistency with the applicable strategies and measures of the CAP Update and General Plan 2040. Each Checklist item is associated with a specific GHG reduction measure in the City's CAP Update. "N/A" should only be checked based on the direction provided in each Checklist Item question. All projects for which the measure is applicable must demonstrate that they would implement measures consistent with the Checklist item, or fully substantiate how the item would be infeasible for project implementation. "N/A" responses are subject to Planning Department review and approval. If "No" is provided as a response to a question, the project would be determined to be inconsistent with the CAP Update and General Plan 2040 and result in a significant GHG impact.

CAP Measures Consistency		
Checklist Item (Check the appropriate box and provide an explanation and supporting documentation for your answer)	**Yes**	**No**
1. All-Electric New Buildings (CAP Measure BE-2.1) a) Will the project use electricity as the source of energy for: ▪ space heating, ▪ water heating, ▪ fireplaces, ▪ electric vehicle charging ▪ cooking appliances, and ▪ clothes drying appliances?	☑	☐
b) Will the project install natural gas infrastructure? If **"No"** is selected in question 1(a), please skip to question 2(a).	☑	☐
c) If the requirements above in questions 1(a)-(b) cannot be met, will the project comply with 2022 Building Energy Efficiency Standards and install electrical conduit and wiring sufficient to operate electrical appliances?	☐	☐

CAP Measures Consistency		
Checklist Item (Check the appropriate box and provide an explanation and supporting documentation for your answer)	**Yes**	**No**
2. Clean Energy (CAP Measure BE-1.1) a) Will the project install onsite renewable energy and storage systems capable of meeting anticipated building energy consumption? If **"Yes"** was selected in question 2(a), no further answers are required.	☑	☐
b) If **"No"** was selected in question 2(a), will the project require residents/tenants/occupants to participate in a group-buy solar and storage program or opt in to Silicon Valley Clean Energy's carbon-free electricity option?	☐	☐
c) Will the project include a parking structure? If **"No"** was selected in question 2(c), no further answers are required.	☐	☐
d) If **"Yes"** was selected in question 2(c), will the project install solar photovoltaics on the parking structure if the structure is above ground?	☐	☐
e) Will the project include heated swimming pools? If **"No"** was selected in question 2(e), no further answers are required.	☐	☐
f) If **"Yes"** was selected in question 2(e), will the pool heaters be solar powered?	☐	☐
g) If the requirements above in questions 2(b), (d), and/or (f) cannot be met, do one of the following exceptions apply?	☐	☐
▪ Practical challenges to make satisfaction of the requirements infeasible.	☐	☐
▪ Alternate on-site renewable source used to satisfy measure.	☐	☐
▪ Procurement of renewable electricity.	☐	☐
▪ Ground mounted solar installations as voluntary alternative.	☐	☐
▪ Excludes value of aesthetic exterior alterations from permit valuation.	☐	☐

CAP Measures Consistency		
Checklist Item (Check the appropriate box and provide an explanation and supporting documentation for your answer)	**Yes**	**No**
Please substantiate answer selections for question 2: The roof top PV and exterior battery in compliance with California Energy Code requirements will be installed		
3. Sustainable Transportation and Land Use Planning (CAP Measure TR-1.1) a) Will the project achieve a 15 percent reduction in per capita vehicle miles traveled (VMT) compared to the baseline conditions as defined in the City's SB 743 guidelines?	☑	☐
Please substantiate answer selections for question 3: The proposed project would locate a new delivery center closer to the user's customers, resulting in a reduction of 15,034 VMT per day in comparison to existing conditons. The reduction in overall delivery VMT would outweigh the new VMT generated by commuter trips and line-haul truck trips, resulting in a Total VMT per Capita that is below the City threshold of 14.91 for employment-generating projects. To mitigate impacts to commuter VMT, which currently are above City threshold at 16.42 per person, the proposed project would implement TDM strategies to reduce these impacts below City thresholds.		
4. Electric Vehicle Infrastructure (CAP Measure TR-2.1) a) Will the project install electric vehicle (EV) charging infrastructure consistent with Chapter 19 of the City's Municipal Code (Green Buildings Standard Code)?	☑	☐

CAP Measures Consistency		
Checklist Item (Check the appropriate box and provide an explanation and supporting documentation for your answer)	**Yes**	**No**
Please substantiate answer selections for question 4: _____ _____ _____ _____ _____ _____		
5. Reduce Vehicle Idling (CAP Measure TR-2.3) a) Will the project include loading docks? If **"No"** was selected in question 5(a), no further answers are required.	☑	☐
b) If **"Yes"** was selected in question 5(a), will there be sufficient electrical power sufficient to support delivery trucks and associated equipment to reduce vehicle idling when making deliveries?	☑	☐
Please substantiate answer selections for question 5: _____ _____ _____ _____ _____ _____		
6. Active Transportation Options (CAP Measure TR-3.3) a) Does the project include land uses other than single-family residential? If **"No"** was selected in question 6(a), no further answers are required.	☑	☐
b) If **"Yes"** was selected in question 6(a), will short-term and long-term bicycle parking facilities be provided that comply with the City's standards for bicycle parking facilities?	☑	☐
c) If the project included nonresidential development, will the project provide "end-of-trip" facilities for	☑	☐

CAP Measures Consistency		
Checklist Item (Check the appropriate box and provide an explanation and supporting documentation for your answer)	**Yes**	**No**
bicyclists, including showers, secure bicycle lockers, and changing spaces?		
d) Will the project have e-bike and e-scooter infrastructure and options?	☐	☑

Please substantiate answer selections for question 6:

Question 6c: Project provides bicycle locker for long-term requirements per California Green Building Standards Code

7. Waste Reduction (CAP Measure SW-1.1) Will the project meet the requirements of SB 1383?	☑	☐

Please substantiate answer selections for question 7:

8. Construction Demolition (CAP Measure SW-1.4) a) Will the project reach a 75 percent diversion rate for construction and demolition waste?	☑	☐

Please substantiate answer selections for question 8:

9. Landscape Equipment (CAP Measure OT-1.1) a) Will the project install sufficient exterior electrical outlets to charge electric-powered landscaping equipment?	☐	☑

Please substantiate answer selections for question 9:

_____

_____

_____

_____

_____

_____

10. Water Conservation (CAP Measure WA-1.1) a) Will the project install ultra-low-flow water fixtures?	☑	☐

Please substantiate answer selections for question 10:

Yes, ultra low-flow water fixtures will be installed for this project. New plumbing fixtures and fittings shall not exceed the maximum allowable flow rate specified in Table 5.303.2.2 (CALGREEN 5.303.2)

11. Landscaping (CAP Measure WA-1.2) a) Will the project use drought-tolerant, water-conserving, and/or native landscaping?	☑	☐

Please substantiate answer selections for question 11:

All plants are designated low water use per WUCOLS and/or native drought tolerant.

12. Recycled Water (CAP Measure WA-1.3) a) If the project is located along the city's recycled water system (i.e., within the Transit Area Specific Plan planning area), will the project use recycled water for landscape irrigation?	☑	☐

b) Will the project include a separate piping system for recycled water (i.e., "purple pipes") for irrigation and outdoor water use?	☑	☐

Please substantiate answer selections for question 12:

Landscape irrigation utilizes recycled/reclaimed water on a designated purple pipe system

13. Heat Island Effect (CAP Measure CS-1.2) a) Will the project install cool pavements?	☐	☐
b) Will the project plant low-maintenance and drought-tolerant landscaping?	☑	☐
c) Will the project plant shade trees?	☑	☐
d) Will the project include surface parking lot(s)? If **"No"** was selected in question 13(d), no further answers are required.	☑	☐
e) If **"Yes"** was selected in question 13(d), will the project reduce heat gain from surface parking lot(s) by a minimum of 50% of the project site's hardscape?	☐	☑

Please substantiate answer selections for question 13:

Low maintenance, drought tolerant landscape specified for project. Shade trees with mature canopy widths fourty feet and greater have been added in all landscape islands of parking and around the perimeter of the parking area to provide shade and reduce Heat Island Effect. To meet a minimum of 50% requirement, we need to increase parking islands in the parking lot.

14. Energy and Telecommunications Infrastructure (CAP Adaptation Measure 2.5) a) Will the project include new power and telecommunications lines and/or transformers? If **"No"** was selected in question 14(a), no further answers are required.	☑	☐

b) If **"Yes"** was selected in question 14(a), will the project underground power and telecommunications lines and/or transformers?	☑	☐

Please substantiate answer selections for question 14:

Yes, the project will have transformers located on the east side of the building, and the routing will be underground, going towards South Milpitas Boulevard.

15. Flooding Impacts (CAP Adaptation Measure 3.2) a) Is the project located near San Francisco Bay or at flooding risk from local waterways which discharge to San Francisco Bay?	☑	☐

Please substantiate answer selections for question 15:

The project site is approximately 6.75 miles southeast of San Francisco Bay, South. The nearest receiving water body is Coyote Creek, which is approximately 1.8 miles west of the project site. This site is located in a Flood Zone "X-Shaded" area, which indicates areas with moderate-to-low flood risk.

1000 Gibraltar Warehouse

Construction Equipment - Unmitigated

18.5 gal/bhp-hr 0.054 bhphr/gal

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor	Days	bhp-hr	gallons
Demolition	Concrete/Industrial Saws	Diesel	Average	4	5.3	33	0.73	30	15321	827
Demolition	Excavators	Diesel	Average	1	7.04	36	0.38	30	2889	156
Demolition	Rubber Tired Dozers	Diesel	Average	1	5.28	367	0.4	30	23253	1256
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2	7.04	84	0.37	30	13128	709
Site Preparation	Rubber Tired Dozers	Diesel	Average	3	5.28	367	0.4	3	6976	377
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	2	5.83	84	0.37	3	1087	59
Site Preparation	Graders	Diesel	Average	3	2.97	148	0.41	3	1622	88
Grading	Excavators	Diesel	Average	2	5.28	36	0.38	18	2600	140
Grading	Graders	Diesel	Average	3	6.27	148	0.41	18	20545	1109
Grading	Rubber Tired Dozers	Diesel	Average	1	3.74	367	0.4	18	9883	534
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3	7.59	84	0.37	18	12738	688
Grading	Concrete/Industrial Saws	Diesel	Average	2	3.74	33	0.73	18	3243	175
Building Construction	Cranes	Diesel	Average	1	1.32	367	0.29	250	35122	1897
Building Construction	Forklifts	Diesel	Average	2	6.05	82	0.2	250	49610	2679
Building Construction	Generator Sets	Diesel	Average	4	6.05	14	0.74	250	62678	3385
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1	4.29	84	0.37	250	33333	1800
Building Construction	Welders	Diesel	Average	3	3.85	46	0.45	250	59771	3228
Paving	Pavers	Diesel	Average	1	7.04	81	0.42	10	2395	129
Paving	Paving Equipment	Diesel	Average	1	7.04	89	0.36	10	2256	122
Paving	Rollers	Diesel	Average	1	7.04	36	0.38	10	963	52
Architectural Coating	Air Compressors	Diesel	Average	3	8	37	0.48	15	6394	345
Architectural Coating	Aerial Lifts	Diesel	Average	3	8	46	0.31	15	5134	277

1000 Gibraltar Warehouse

5.3. Construction Vehicles

5.3.1 Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Days	VMT	Vehicle Mix
Demolition	Worker	20	11.7	30	7020	LDA,LDT1,LDT2
Demolition	Vendor		8.4			HHDT,MHDT
Demolition	Hauling	295	20	30	176880	HHDT
Demolition	Onsite truck					HHDT
Site Preparation	Worker	20	11.7	3	702	LDA,LDT1,LDT2
Site Preparation	Vendor		8.4			HHDT,MHDT
Site Preparation	Hauling	0	20	3	0	HHDT
Site Preparation	Onsite truck					HHDT
Grading	Worker	28	11.7	18	5792	LDA,LDT1,LDT2
Grading	Vendor		8.4			HHDT,MHDT
Grading	Hauling	27	20	18	9800	HHDT
Grading	Onsite truck					HHDT
Building Construction	Worker	205	11.7	250	598972	LDA,LDT1,LDT2
Building Construction	Vendor	80	8.4	250	167815	HHDT,MHDT
Building Construction	Hauling	0	20	250	0	HHDT
Building Construction	Onsite truck					HHDT
Paving	Worker	8	11.7	10	878	LDA,LDT1,LDT2
Paving	Vendor		8.4			HHDT,MHDT
Paving	Hauling	68	20	10	13600	HHDT
Paving	Onsite truck					HHDT
Architectural Coating	Worker	41	11.7	15	7188	LDA,LDT1,LDT2
Architectural Coating	Vendor		8.4			HHDT,MHDT
Architectural Coating	Hauling	0	20	15	0	HHDT
Architectural Coating	Onsite truck					HHDT

mpg	gal/mile	EMFAC Vehicle Category
30.86	0.032	LDA
25.82	0.039	LDT1
25.06	0.040	LDT2
8.5	0.118	MHDT
5.94	0.168	HHDT

(County-Specific Fuel Efficiency)
Gasoline for Light Duty and Diesel for Heavy Duty - Consistent with CalEEMod Assumptions

Vehicle Cat/MT TOTALS	
LDA,LDT1,LI	620551
HHDT,MHD	167815
MHDT	0
HHDT	200280

Vehicle Category	Santa Clara Fuel Efficiency (MPG)	2025 Fuel (gallons)
LDA,LDT1,LDT2	26.89	23077
HHDT,MHDT	7.22	23243
MHDT	8.50	0
HHDT	5.94	33717
		80,038

1000 Gibraltar Warehouse

5.9. Operational Mobile Sources

5.9.1 Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-Rail	27	27	27	9,899	1,302	1,302	1,302	475,141
Refrigerated Warehouse-Rail	3	3	3	1,095	144	144	144	52,581
Parking Lot	-	-	-	-	-	-	-	-
User Defined Industrial	3,779	3,779	3,779	1,379,197	40,713	40,713	40,713	14,860,362

1000 Gibraltar Warehouse

Energy Calculations - Operations Fuel Use from Mobile Sources

Region Santa Clara
OpYear 2026

Fuel Consumption by Vehicle Category - Annual Usage (gallons ; KWh-hr for Electicity)

Units	All vehicles	HHDT	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Gasoline	**528,631**	24	124026	280647	74394				49540					
Diesel	**79,948**	78821	212	109	201				604					
Natural Gas	**8,990**	8990												
Electricity	**199,262**	10925	159790	14779	6701				7067					

EMFAC Default Mix- County Popuation	VMT	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Santa Clara County Population	**1304260.777**	9,844	685,224	51,163	302,950	30,581	7,605	28,797	169,652	3,274	12,361	1,382	893	535
Vehicle Mix Default	**1**	0.8%	52.5%	3.9%	23.2%	2.3%	0.6%	2.2%	13.0%	0.3%	0.9%	0.1%	0.1%	0.0%

Vehicle Types /Mix in CalEEMod	VMT	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Unrefrigerated Warehouse-Rail	475141	1	1	1	1	1	1	1	1	1	1	1	1	1
Refrigerated Warehouse-Rail	52581	1	1	1	1	1	1	1	1	1	1	1	1	1
Parking Lot	0	1	1	1	1	1	1	1	1	1	1	1	1	1
User Defined Industrial	14860362	1	1	1	1	1	1	1	1	1	1	1	1	1
0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
0	0	1	1	1	1	1	1	1	1	1	1	1	1	1

Vehicle Percentages Modeled	VMT	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Unrefrigerated Warehouse-Rail	475141	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Refrigerated Warehouse-Rail	52581	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Parking Lot	0	0.8%	52.5%	3.9%	23.2%	2.3%	0.6%	2.2%	13.0%	0.3%	0.9%	0.1%	0.1%	0.0%
User Defined Industrial	14860362	0.0%	29.6%	50.0%	13.1%	0.0%	0.0%	0.0%	7.3%	0.0%	0.0%	0%0	0.0%	0.0%
0	0	0.8%	52.5%	3.9%	23.2%	2.3%	0.6%	2.2%	13.0%	0.3%	0.9%	0.1%	0.1%	0.0%
Null	0	0.8%	52.5%	3.9%	23.2%	2.3%	0.6%	2.2%	13.0%	0.3%	0.9%	0.1%	0.1%	0.0%

Unrefrigerated Warehouse-Rail **Fuel Consumption by Vehicle Category**

Fuel Consumption for CVMT	Units	HHDT	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Gasoline	**gal**	22												
Diesel	**gal**	70967												
Natural Gas	**gal**	8095												
Electricity	**gal**													
Plug-in Hybrid (Gasoline)	**gal**													
Fuel Consumption for EVMT	**Units**	**HHDT**	**LDA**	**LDT1**	**LDT2**	**LHD1**	**LHD2**	**MCY**	**MDV**	**MH**	**MHDT**	**OBUS**	**SBUS**	**UBUS**
Gasoline	**kwhr**													
Diesel	**kwhr**													
Natural Gas	**kwhr**													
Electricity	**kwhr**	9837												
Plug-in Hybrid (Electricity)	**kwhr**													

Refrigerated Warehouse-Rail **Fuel Consumption by Vehicle Category**

Fuel Consumption for CVMT	Units	HHDT	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Gasoline	**gal**	2												
Diesel	**gal**	7854												
Natural Gas	**gal**	896												
Electricity	**gal**													
Plug-in Hybrid (Gasoline)	**gal**													
Fuel Consumption for EVMT	**Units**	**HHDT**	**LDA**	**LDT1**	**LDT2**	**LHD1**	**LHD2**	**MCY**	**MDV**	**MH**	**MHDT**	**OBUS**	**SBUS**	**UBUS**
Gasoline	**kwhr**													
Diesel	**kwhr**													
Natural Gas	**kwhr**													
Electricity	**kwhr**	1089												
Plug-in Hybrid (Electricity)	**kwhr**													

Parking Lot **Fuel Consumption by Vehicle Category**

Fuel Consumption for CVMT	Units	HHDT	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Gasoline	**gal**													
Diesel	**gal**													
Natural Gas	**gal**													
Electricity	**gal**													
Plug-in Hybrid (Gasoline)	**gal**													
Fuel Consumption for EVMT	**Units**	**HHDT**	**LDA**	**LDT1**	**LDT2**	**LHD1**	**LHD2**	**MCY**	**MDV**	**MH**	**MHDT**	**OBUS**	**SBUS**	**UBUS**
Gasoline	**kwhr**													
Diesel	**kwhr**													
Natural Gas	**kwhr**													
Electricity	**kwhr**													
Plug-in Hybrid (Electricity)	**kwhr**													

User Defined Industrial **Fuel Consumption by Vehicle Category**

Fuel Consumption for CVMT	Units	HHDT	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Gasoline	**gal**		121913	280371	74099				49357					
Diesel	**gal**		212	109	201				604					
Natural Gas	**gal**													
Electricity	**gal**													
Plug-in Hybrid (Gasoline)	**gal**		2114	276	294				183					
Fuel Consumption for EVMT	**Units**	**HHDT**	**LDA**	**LDT1**	**LDT2**	**LHD1**	**LHD2**	**MCY**	**MDV**	**MH**	**MHDT**	**OBUS**	**SBUS**	**UBUS**
Gasoline	**kwhr**													
Diesel	**kwhr**													
Natural Gas	**kwhr**													
Electricity	**kwhr**		159790	14779	6701				7067					
Plug-in Hybrid (Electricity)	**kwhr**		20695	3287	3194				1927					

Fuel Consumption by Vehicle Category

Fuel Consumption for CVMT	Units	HHDT	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Gasoline	**gal**													
Diesel	**gal**													
Natural Gas	**gal**													
Electricity	**gal**													
Plug-in Hybrid (Gasoline)	**gal**													
Fuel Consumption for EVMT	**Units**	**HHDT**	**LDA**	**LDT1**	**LDT2**	**LHD1**	**LHD2**	**MCY**	**MDV**	**MH**	**MHDT**	**OBUS**	**SBUS**	**UBUS**
Gasoline	**kwhr**													
Diesel	**kwhr**													
Natural Gas	**kwhr**													
Electricity	**kwhr**													
Plug-in Hybrid (Electricity)	**kwhr**													

Null **Fuel Consumption by Vehicle Category**

Fuel Consumption for CVMT	Units	HHDT	LDA	LDT1	LDT2	LHD1	LHD2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
Gasoline	**gal**													
Diesel	**gal**													
Natural Gas	**gal**													
Electricity	**gal**													
Plug-in Hybrid (Gasoline)	**gal**													
Fuel Consumption for EVMT	**Units**	**HHDT**	**LDA**	**LDT1**	**LDT2**	**LHD1**	**LHD2**	**MCY**	**MDV**	**MH**	**MHDT**	**OBUS**	**SBUS**	**UBUS**
Gasoline	**kwhr**													
Diesel	**kwhr**													
Natural Gas	**kwhr**													
Electricity	**kwhr**													
Plug-in Hybrid (Electricity)	**kwhr**													

County and Year Specific - Fuel Efficiency

	Fuel Consumption Factors	Units	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
127	Gasoline	gal/mi	0.238	0.032	0.038	0.039	0.099	0.112	0.024	0.047	0.226	0.204	0.203	0.100	0.108
	Diesel	gal/mi	0.166	0.022	0.041	0.029	0.062	0.074	-	0.039	0.107	0.117	0.125	0.121	0.109
	Natural Gas	gal/mi	0.194	-	-	-	-	-	-	-	-	0.139	0.127	0.180	0.168
	Electricity	gal/mi	-	-	-	-	-	-	-	-	-	-	-	-	-
	Plug-in Hybrid	gal/mi	-	0.034	0.034	0.034	-	-	-	0.035	-	-	-	-	-
	Fuel Consumption Factors	Units	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
135	Gasoline	kwhr/mi	-	-	-	-	-	-	-	-	-	-	-	-	-
	Diesel	kwhr/mi	-	-	-	-	-	-	-	-	-	-	-	-	-
	Natural Gas	kwhr/mi	-	-	-	-	-	-	-	-	-	-	-	-	-
	Electricity	kwhr/mi	1.844	0.386	0.386	0.386	0.655	0.645	-	0.386	-	1.095	1.108	1.053	1.743
	Plug-in Hybrid	kwhr/mi	-	0.302	0.302	0.302	-	-	-	0.302	-	-	-	-	-

Total VMT Fraction by Fuel and Vehicle Category - Default EMFAC

	Fuel	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
144	Gasoline	0%	87%	99%	98%	64%	33%	100%	96%	69%	11%	30%	21%	9%
	Diesel	90%	0.2%	0.0%	0.4%	34.8%	65.7%	0.0%	1.4%	30.9%	86.4%	68.7%	75.6%	74.2%
	Natural Gas	9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.7%	2.9%	11.8%
	Electricity	1%	9.4%	0.5%	0.9%	1.2%	1.3%	0.0%	1.7%	0.0%	1.4%	0.3%	0.9%	5.4%
	Plug-in Hybrid	0%	3.0%	0.3%	1.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	totals	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

CVMT/Total VMT by EMFAC Vehicle Type

	Fuel	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
153	Gasoline	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Diesel	100%	100%	100%	100%	100%	100%	0%	100%	100%	100%	100%	100%	100%
	Natural Gas	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%
	Electricity	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Plug-in Hybrid	0%	48%	43%	45%	0%	0%	0%	45%	0%	0%	0%	0%	0%

EVMT/Total VMT by EMFAC Vehicle Type

	Fuel	HHDT	LDA	LDT1	LDT2	LHDT1	LHDT2	MCY	MDV	MH	MHDT	OBUS	SBUS	UBUS
161	Gasoline	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Diesel	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Natural Gas	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Electricity	100%	100%	100%	100%	100%	100%	0%	100%	0%	100%	100%	100%	100%
	Plug-in Hybrid	0%	52.39%	57.34%	55.19%	0.00%	0.00%	0.00%	54.79%	0.00%	0.00%	0.00%	0.00%	0.00%

1000 Gibraltar Warehouse

5.11. Operational Energy Consumption

5.11.1 Unmitigated

Land Use	Electricity (kWh/yr)	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-Rail	4851467	2544560
Refrigerated Warehouse-Rail	76271	6668
Parking Lot	464390	0
User Defined Industrial	0	0
	5,392,128	2551228

Appendix B:

Biological Resources Supporting Information

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B.1 - Database Search Results

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Newark (3712251) OR Niles (3712158) OR La Costa Valley (3712157) OR Mountain View (3712241) OR Milpitas (3712148) OR Calaveras Reservoir (3712147) OR Cupertino (3712231) OR San Jose West (3712138) OR San Jose East (3712137))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Accipiter striatus sharp-shinned hawk	ABNKC12020	None	None	G5	S4	WL
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	SSC
Actinemys marmorata northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
Adela oplerella Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Aneides niger Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S2S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
Atriplex minuscula lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Bombus occidentalis western bumble bee	IIHYM24252	None	Candidate Endangered	G3	S1	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T2	S2	1B.1
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
Chorizanthe robusta var. robusta robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Cirsium fontinale var. campylon Mt. Hamilton thistle	PDAST2E163	None	None	G2T2	S2	1B.2
Clarkia concinna ssp. automixa Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Collinsia multicolor San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S2	SSC
Danaus plexippus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	Proposed Threatened	None	G4T1T2Q	S2	
Delphinium californicum ssp. interius Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
Dicamptodon ensatus California giant salamander	AAAAH01020	None	None	G2G3	S2S3	SSC
Dipodomys heermanni berkeleyensis Berkeley kangaroo rat	AMAFD03061	None	None	G4T1	S2	
Dipodomys heermanni goldmani Salinas kangaroo rat	AMAFD03065	None	None	G4T2T3	S2S3	
Dipodomys venustus venustus Santa Cruz kangaroo rat	AMAFD03042	None	None	G4T1	S1	
Dirca occidentalis western leatherwood	PDTHY03010	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Dudleya abramsii ssp. setchellii Santa Clara Valley dudleya	PDCRA040Z0	Endangered	None	G4T2	S2	1B.1
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Eryngium aristulatum var. hooveri Hoover's button-celery	PDAPI0Z043	None	None	G5T1	S1	1B.1
Euphydryas editha bayensis Bay checkerspot butterfly	IILEPK4055	Threatened	None	G4G5T1	S3	
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S2	
Hoita strobilina Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
Lasiurus cinereus hoary bat	AMACC05032	None	None	G3G4	S4	
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S2	FP
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S3	
Lessingia micradenia var. glabrata smooth lessingia	PDAST5S062	None	None	G2T2	S2	1B.2
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Malacothamnus arcuatus var. arcuatus arcuate bushmallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
Malacothamnus hallii Hall's bushmallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
Masticophis lateralis euryxanthus Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Melospiza melodia pusillula Alameda song sparrow	ABPBXA301S	None	None	G5T2T3	S2	SSC
Microcina homi Hom's micro-blind harvestman	ILARA47020	None	None	G1	S2	
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
Myotis evotis long-eared myotis	AMACC01070	None	None	G5	S3	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
Northern Coastal Salt Marsh Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T3Q	S3	SSC
Plagiobothrys glaber hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
Puccinellia simplex California alkali grass	PMPOA53110	None	None	G2	S2	1B.2
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S2	FP
Rana boylii pop. 4 foothill yellow-legged frog - central coast DPS	AAABH01054	Threatened	Endangered	G3T2	S2	
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Ravenella exigua chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S3	FP
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	
Rynchops niger black skimmer	ABNNM14010	None	None	G5	S2	SSC
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	1B.2
Sidalcea malachroides maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
Sorex vagrans halicoetes salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Spergularia macrotheca var. longistyla long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2
Spirinchus thaleichthys pop. 2 longfin smelt - San Francisco Bay-Delta DPS	AFCHB03040	Endangered	Threatened	G5TNRQ	S1	
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Streptanthus albidus ssp. albidus Metcalf Canyon jewelflower	PDBRA2G011	Endangered	None	G2T1	S1	1B.1
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
Stuckenia filiformis ssp. alpina northern slender pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
Suaeda californica California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
Sycamore Alluvial Woodland Sycamore Alluvial Woodland	CTT62100CA	None	None	G1	S1.1	
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 92

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

53 matches found. Click on scientific name for details

Search Criteria: , Quad is one of [3712251:3712158:3712157:3712241:3712148:3712147:3712231:3712138:3712137]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	BLOOMING PERIOD	FED LIST	STATE LIST	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED
Acanthomintha lanceolata	Santa Clara thorn-mint	Lamiaceae	Mar-Jun	None	None	S4	4.2	Yes	1974-01-01
Androsace elongata ssp. *acuta*	California androsace	Primulaceae	Mar-Jun	None	None	S3S4	4.2		1994-01-01
Astragalus tener var. *tener*	alkali milk-vetch	Fabaceae	Mar-Jun	None	None	S1	1B.2	Yes	1994-01-01
Atriplex depressa	brittlescale	Chenopodiaceae	Apr-Oct	None	None	S2	1B.2	Yes	1994-01-01
Atriplex minuscula	lesser saltscale	Chenopodiaceae	May-Oct	None	None	S2	1B.1	Yes	1994-01-01
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	Mar-Jun	None	None	S2	1B.2	Yes	1974-01-01
Calandrinia breweri	Brewer's calandrinia	Montiaceae	(Jan)Mar-Jun	None	None	S4	4.2		1994-01-01
Centromadia parryi ssp. *congdonii*	Congdon's tarplant	Asteraceae	(Apr)May-Oct(Nov)	None	None	S2	1B.1	Yes	1994-01-01

Chloropyron maritimum ssp. *palustre*	Point Reyes salty bird's-beak	Orobanchaceae	Jun-Oct	None	None	S2	1B.2		1974-01-01
Chorizanthe robusta var. *robusta*	robust spineflower	Polygonaceae	Apr-Sep	FE	None	S1	1B.1	Yes	1980-01-01
Cirsium fontinale var. *campylon*	Mt. Hamilton thistle	Asteraceae	(Feb)Apr-Oct	None	None	S2	1B.2	Yes	1974-01-01
Clarkia concinna ssp. *automixa*	Santa Clara red ribbons	Onagraceae	(Apr)May-Jun(Jul)	None	None	S3	4.3	Yes	1994-01-01
Clarkia lewisii	Lewis' clarkia	Onagraceae	(Feb)May-Jul	None	None	S4	4.3	Yes	1980-01-01
Collinsia multicolor	San Francisco collinsia	Plantaginaceae	(Feb)Mar-May	None	None	S2	1B.2	Yes	1974-01-01
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	Mar-Jul	None	None	S4	4.2		1994-01-01
Cypripedium fasciculatum	clustered lady's-slipper	Orchidaceae	Mar-Aug	None	None	S4	4.2		1980-01-01
Delphinium californicum ssp. *interius*	Hospital Canyon larkspur	Ranunculaceae	Apr-Jun	None	None	S3	1B.2	Yes	1984-01-01
Dirca occidentalis	western leatherwood	Thymelaeaceae	Jan-Mar(Apr)	None	None	S2	1B.2	Yes	1974-01-01
Dudleya abramsii ssp. *setchellii*	Santa Clara Valley dudleya	Crassulaceae	Apr-Oct	FE	None	S2	1B.1	Yes	1988-01-01
Eleocharis parvula	small spikerush	Cyperaceae	(Apr)Jun-Aug(Sep)	None	None	S3	4.3		1980-01-01
Eriogonum argillosum	clay buckwheat	Polygonaceae	Mar-Jun	None	None	S3S4	4.3	Yes	1974-01-01

Eriogonum umbellatum var. *bahiiforme*	bay buckwheat	Polygonaceae	Jul-Sep	None	None	S3	4.2	Yes	2001-01-01
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	Apr-Jun	None	None	S3	4.3	Yes	1974-01-01
Eryngium aristulatum var. *hooveri*	Hoover's button-celery	Apiaceae	(Jun)Jul(Aug)	None	None	S1	1B.1	Yes	1984-01-01
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	Apr-Oct	None	None	S2	1B.2	Yes	1988-01-01
Fritillaria agrestis	stinkbells	Liliaceae	Mar-Jun	None	None	S3	4.2	Yes	1980-01-01
Fritillaria liliacea	fragrant fritillary	Liliaceae	Feb-Apr	None	None	S2	1B.2	Yes	1974-01-01
Galium andrewsii ssp. *gatense*	phlox-leaf serpentine bedstraw	Rubiaceae	Apr-Jul	None	None	S3	4.2	Yes	1994-01-01
Hoita strobilina	Loma Prieta hoita	Fabaceae	May-Jul(Aug-Oct)	None	None	S2?	1B.1	Yes	2001-01-01
Iris longipetala	coast iris	Iridaceae	Mar-May(Jun)	None	None	S3	4.2	Yes	2006-10-12
Isocoma menziesii var. *diabolica*	Satan's goldenbush	Asteraceae	Aug-Oct	None	None	S3	4.2	Yes	1994-01-01
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	Mar-Jun	FE	None	S1	1B.1	Yes	1974-01-01
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	Mar-Jun	None	None	S4	4.2	Yes	1994-01-01
Leptosiphon grandiflorus	large-flowered leptosiphon	Polemoniaceae	Apr-Aug	None	None	S3S4	4.2	Yes	1994-01-01
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	Jun-Oct	None	None	S2S3	3	Yes	1994-01-01

Lessingia micradenia var. *glabrata*	smooth lessingia	Asteraceae	(Apr-Jun)Jul-Nov	None	None	S2	1B.2	Yes	1994-01-01
Lessingia tenuis	spring lessingia	Asteraceae	May-Jul	None	None	S4	4.3	Yes	1974-01-01
Malacothamnus arcuatus var. *arcuatus*	arcuate bushmallow	Malvaceae	Apr-Sep	None	None	S2	1B.2	Yes	1974-01-01
Malacothamnus hallii	Hall's bushmallow	Malvaceae	(Apr)May-Sep(Oct)	None	None	S2	1B.2	Yes	1974-01-01
Mielichhoferia elongata	elongate copper moss	Mielichhoferiaceae		None	None	S3S4	4.3		2001-01-01
Monolopia gracilens	woodland woollythreads	Asteraceae	(Feb)Mar-Jul	None	None	S3	1B.2	Yes	2010-04-06
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	Apr-Jul	None	None	S2	1B.2	Yes	2001-01-01
Plagiobothrys glaber	hairless popcornflower	Boraginaceae	Mar-May	None	None	SX	1A	Yes	1974-01-01
Puccinellia simplex	California alkali grass	Poaceae	Mar-May	None	None	S2	1B.2		2015-10-15
Ravenella exigua	chaparral harebell	Campanulaceae	May-Jun	None	None	S2	1B.2	Yes	1974-01-01
Senecio aphanactis	chaparral ragwort	Asteraceae	Jan-Apr(May)	None	None	S2	1B.2		1994-01-01
Sidalcea malachroides	maple-leaved checkerbloom	Malvaceae	(Mar)Apr-Aug	None	None	S3	4.2		1994-01-01
Spergularia macrotheca var. *longistyla*	long-styled sand-spurrey	Caryophyllaceae	Feb-May	None	None	S2	1B.2	Yes	2017-06-16
Streptanthus albidus ssp. *albidus*	Metcalf Canyon jewelflower	Brassicaceae	Apr-Jul	FE	None	S1	1B.1	Yes	1974-01-01

Streptanthus albidus ssp. *peramoenus*	most beautiful jewelflower	Brassicaceae	(Mar)Apr-Sep(Oct)	None	None	S2	1B.2	Yes	1988-01-01
Stuckenia filiformis ssp. *alpina*	northern slender pondweed	Potamogetonaceae	May-Jul	None	None	S2S3	2B.2		1994-01-01
Suaeda californica	California seablite	Chenopodiaceae	Jul-Oct	FE	None	S1	1B.1	Yes	1988-01-01
Trifolium hydrophilum	saline clover	Fabaceae	Apr-Jun	None	None	S2	1B.2	Yes	2001-01-01

Showing 1 to 53 of 53 entries

Go to top

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2025. Rare Plant Inventory (online edition, v9.5.1). Website https://www.rareplants.cnps.org [accessed 6 June 2025].
}

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Santa Clara County, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NOT FOR CONSULTATION

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse Reithrodontomys raviventris Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered
San Joaquin Kit Fox Vulpes macrotis mutica Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Condor Gymnogyps californianus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern Sternula antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
California Ridgway's Rail Rallus obsoletus obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

NOT FOR CONSULTATION

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) Masticophis lateralis euryxanthus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5524	Threatened
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened
Foothill Yellow-legged Frog Rana boylii There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5133	Threatened
Western Spadefoot Spea hammondii No critical habitat has been designated for this species.	Proposed Threatened

Insects

NAME	STATUS

NOT FOR CONSULTATION

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp Branchinecta conservatio Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Tadpole Shrimp Lepidurus packardi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Contra Costa Goldfields Lasthenia conjugens Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7058	Endangered
Robust Spineflower Chorizanthe robusta var. robusta Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9287	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

NOT FOR CONSULTATION

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete

NOT FOR CONSULTATION

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs
The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

NOT FOR CONSULTATION

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

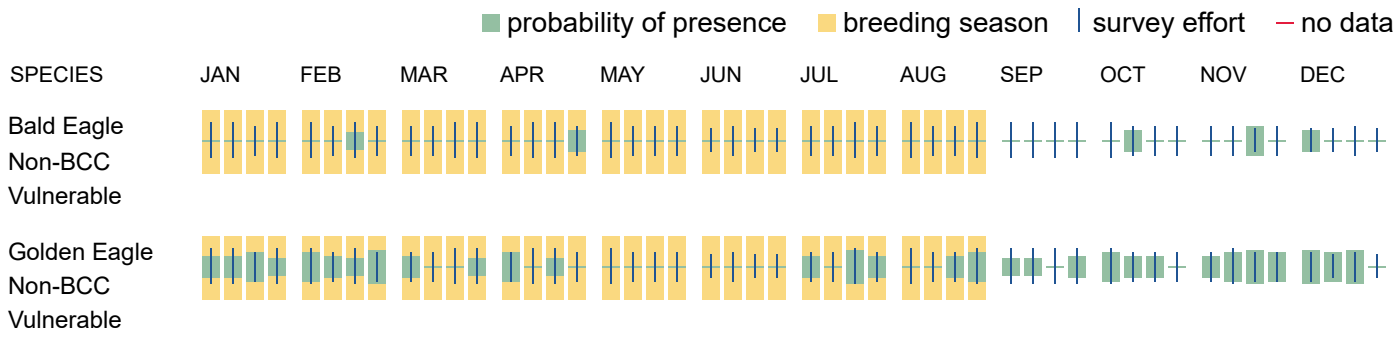
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



NOT FOR CONSULTATION

Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report
On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

NOT FOR CONSULTATION

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NOT FOR CONSULTATION

NAME	BREEDING SEASON
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black Oystercatcher Haematopus bachmani This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15

Black Tern Chlidonias niger surinamenisis — Breeds May 15 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3093

Black Turnstone Arenaria melanocephala — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Brandt's Cormorant Urile penicillatus — Breeds Apr 15 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

California Gull Larus californicus — Breeds Mar 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Elegant Tern Thalasseus elegans — Breeds Apr 5 to Aug 5

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8561

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Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Spinus lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Marbled Godwit Limosa fedoa — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Northern Harrier Circus hudsonius — Breeds Apr 1 to Sep 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8350

Nuttall's Woodpecker Dryobates nuttallii — Breeds Apr 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Red Knot Calidris canutus roselaari — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8880

NOT FOR CONSULTATION

Santa Barbara Song Sparrow Melospiza melodia graminea This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5513	Breeds Mar 1 to Sep 5
Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Western Grebe aechmophorus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Western Gull Larus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 21 to Aug 25
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

NOT FOR CONSULTATION

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental

Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

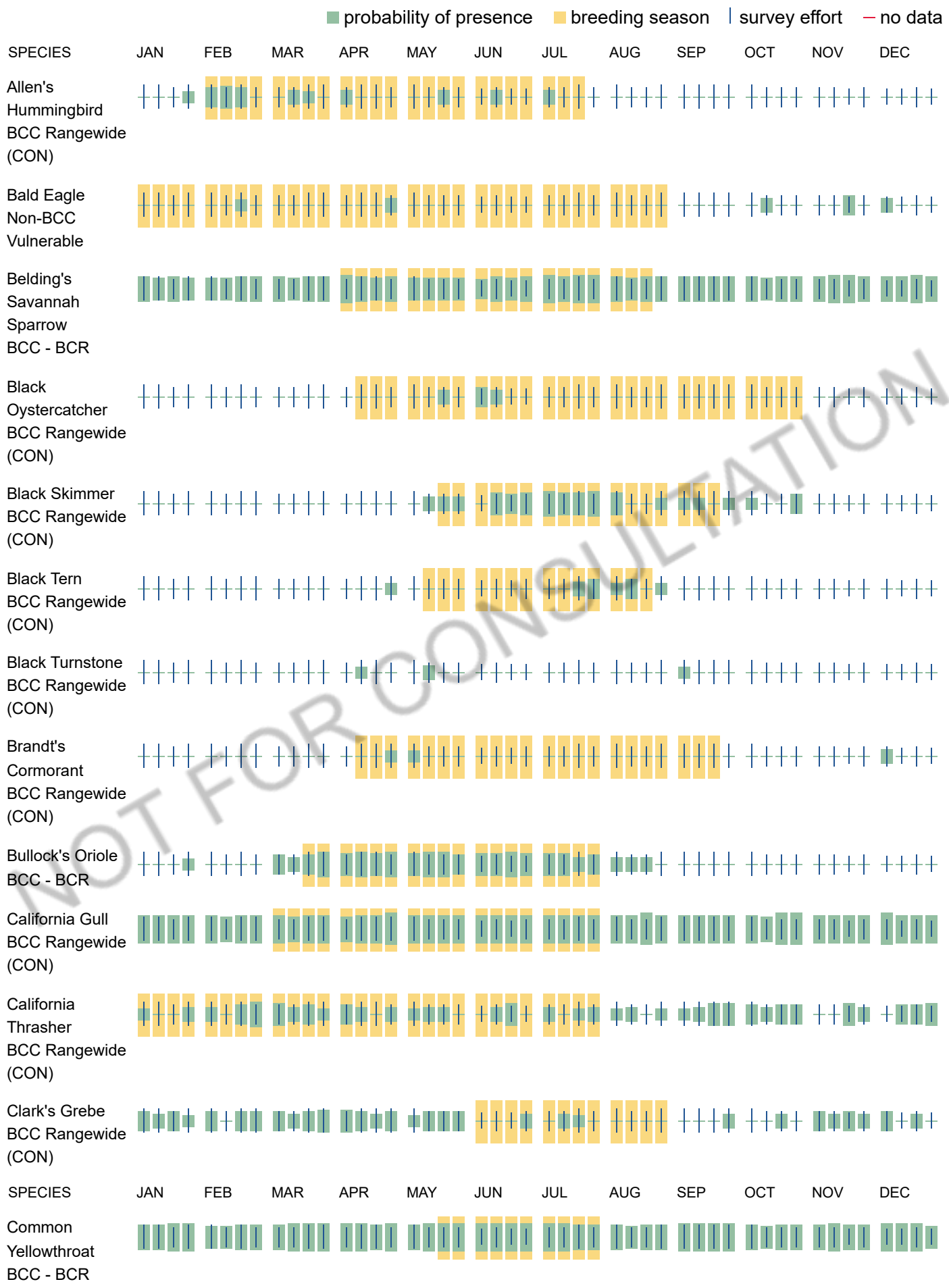
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

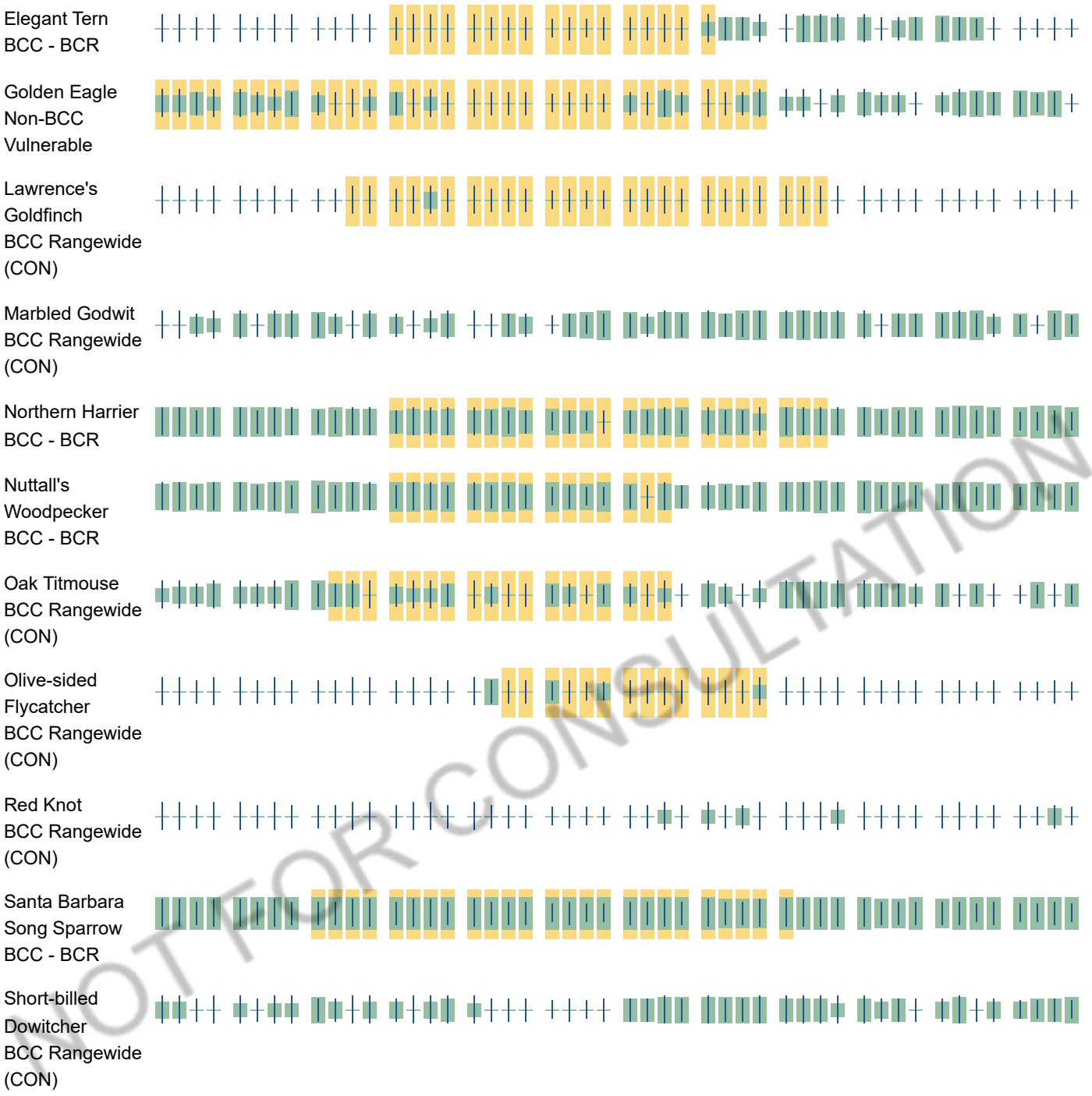
No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

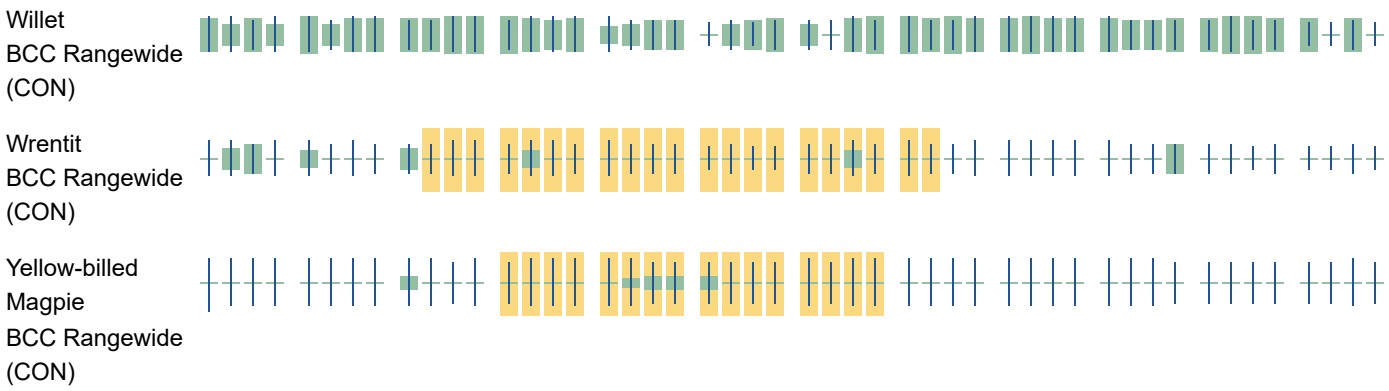
NOT FOR CONSULTATION



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NOT FOR CONSULTATION



Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

NOT FOR CONSULTATION

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Bald and Golden Eagle Protection Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ “Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds”.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Proper interpretation and use of your migratory bird report

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The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

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The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

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B.2 - Tree Survey

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HELIX Environmental Planning, Inc.
11 Natoma Street
Folsom, CA 95630
916.365.8714 tel
619.462.0552 fax
www.**helixepi**.com

April 1, 2019

Michael Johnson
Vice President - Development
Overton-Moore Properties
19300 South Hamilton Ave, Suite 200
Gardena, CA 90248

Subject: Tree Survey at 1001 Gibraltar Drive, City of Milpitas, California

Dear Mr. Johnson:

At your request, HELIX Environmental Planning, Inc. (HELIX) conducted a tree survey of the property at 1001 Gibraltar Drive in the City of Milpitas, California. The property consists of Santa Clara County Assessor's Parcel Number 08642033 and is approximately 30 acres in size. Under Section 4.02 of the City of Milpitas Code of Ordinances (code), it is unlawful for any person other than City personnel in the performance of their duty to remove a protected tree or street tree without applying for a permit issued by the Public Works Department. Chapter 201.5 of the code defines protected trees on commercial/industrial properties as "all trees which have a 37-inch or greater circumference of any trunk measured 4.5 feet from the ground." The code defines street trees as those "located in the public right-of-way between the curb and the sidewalk." The purpose of our work was to inventory and conduct a rapid visual inspection of protected trees on the property. Trees rooted on the street side of the sidewalk on the sides of the property bordering Gibraltar Drive and South Milpitas Boulevard were included in the survey and noted as possible street trees.

METHODS

The tree inventory/assessment was conducted by HELIX Biologist and International Society of Arboriculture Certified Arborist George Aldridge (ISA Certification No. WE-11778A). All trees on the site with a trunk circumference of at least 37 inches at 4.5-feet above grade were located and assessed. Trees with a circumference between 36 and 37 inches were included in the survey and are reported separately in this letter, as they may reach the threshold to qualify as protected under the City code in the next 12 – 18 months.

The health assessment consisted of a rapid visual inspection of the trees from the ground based on the observed conditions at the time of the survey and did not include an in-depth health

inspection of the crown or roots. All trees on the property were identified with numbered aluminum tree tags placed during previous tree inventories.

An EOS Systems Arrow 100 Global Navigation Satellite System (GNSS) receiver was used to record the location of each tree assessed for the survey. The circumference of each tree was measured at approximately 4.5 feet above grade using a U.S. Tape Company forester's tape measure. For multi-trunked trees with at least one trunk of 37 inches circumference at 4.5 feet, the circumference of each trunk was measured. The drip line and the height of each tree were visually estimated. The drip line is defined as "an area of the ground delineated by the vertical projection of the outside periphery of the crown area of a tree down to the ground surface." Each tree's drip line was determined by estimating the distance from the trunk to the outermost extent of the canopy. Each tree was evaluated for health and structure and assigned a rating of 0 (dead), 1 (severe decline), 2 (declining), 3 (fair), 4 (good), or 5 (excellent). Notes such as irregularities, scars, or other growth characteristics or vigor indicators were recorded for all trees rated 3 or less.

RESULTS

The property is currently developed with a vacant corporate campus including office buildings and research/development facilities. The entire property is landscaped with a large number and variety of ornamental trees, most of which are smaller than 37 inches in circumference. Trees observed during the survey include valley oak, olive, paloverde, pittosporum, coast redwood, coast live oak, queen palm, spruce, crape myrtle, zelkova, strawberry tree, plum/cherry, yellow birch, Chinese pistache, London plane tree, sweetgum, Chinese fringe tree, and shamel ash. Most trees on the property were leafless at the time of the survey and were identified by characteristics of fruit, bark, and growth form.

A total of 183 protected trees were inventoried and assessed (Table 1). These trees are identified by red dots on the Tree Location Map in **Attachment A**; non-protected trees are identified by green dots on the map. Survey data for all trees inventoried are tabulated in **Attachment B**. Representative photos of the property are provided in **Attachment C**.

Of the 183 protected trees, 82 are large shamel ashes and another 26 are large sweetgums located along the edges of the property next to Gibraltar Drive and South Milpitas Boulevard. Most of the remaining 75 protected trees are Chinese fringe trees, Chinese pistache trees, and London plane trees planted around the office buildings and in the parking lots.

Because the sidewalks along the edges of the property meander in a wide grassy strip, there is no clear public right-of-way between the curb and the sidewalk, and trees equidistant from the street may be on one side of the sidewalk or the other arbitrarily. Consequently, it is unclear if trees rooted on the street side of the sidewalk qualify as street trees while those rooted on the property side do not. Trees rooted on the street side of the sidewalk are included in the data as

possible street trees. All 29 possible street trees are also protected trees; these include 27 shamel ash, 1 sweetgum, and 1 valley oak (indicated by shading in **Attachment B**).

Table 1. Summary of Protected Trees on the Property at 1001 Gibraltar Drive

Common Name	Scientific Name	Count	Total Circ. (in.)
Chinese fringe tree	*Chionanthus retusus*	14	622.5
Chinese pistache	*Pistacia chinensis*	16	652.5
Coast live oak	*Quercus agrifolia*	3	*351.0
Coast redwood	*Sequoia sempervirens*	4	223.0
Japanese zelkova	*Zelkova serrata*	6	274.0
London plane tree	*Platanus* x *acerifolia*	14	722.5
Plum/cherry	*Prunus cerasifera*	1	*69.5
Queen palm	*Syagrus romanzoffiana*	1	41.0
Shamel ash	*Fraxinus uhdei*	82	6,722.5
Spruce	*Picea* sp.	6	338.0
Strawberry tree	*Arbutus unedo*	8	395.0
Sweetgum	*Liquidambar styraciflua*	26	1,334.0
Valley oak	*Quercus lobata*	1	181.5
Yellow birch	*Betula alleghaniensis*	1	57.5
	Total	**183**	**11,984.5**

*Includes trees with multiple trunks at 4.5 feet above ground, at least 1 of which was 37 inches or greater circumference; total is the sum of all trunks at 4.5 feet above ground.

Trees on the property were mostly in good health (168 trees [92%] rated Good for health); however, structural issues are common (68 trees [37%] rated Fair or Poor for structure). Criteria for rating the health and structure of trees are summarized in **Attachment D**. The most common structural issue was lean and 1-sided canopy development caused by shading from neighboring trees. No protected trees were rated 0 (dead) or 1 (severe decline); five trees were rated 2 (declining): 1 plum/cherry, 1 sweetgum, and 3 shamel ashes (Table 2). The remaining 178 protected trees were rated 3 (Fair; 35), 4 (Good; 142), or 5 (Excellent; 1).

Table 2. Trees Rated in Declining Condition

Tree #	Common Name	Circ. (in.)
287	Shamel ash	85
291	Shamel ash	44.5
603	Plum/cherry	43, 26.5
624	Shamel ash	107
710	Sweetgum	52
	Total	**358.0**

Nine trees had measured circumference between 36 and 37 inches and so were within one inch of the size threshold for protected trees (Table 3). These trees are included in this report as they may reach the threshold size in the next 12 – 18 months.

Table 3. Trees within 1 inch of the threshold for protected status

Tree #	Common Name	Circ. (in.)
120	Chinese pistache	36.5
248	Chinese pistache	36.5
690	Sweetgum	36.0
722	Sweetgum	36.0
724	Sweetgum	36.0
736	Chinese pistache	36.5
756	Chinese pistache	36.0
759	Chinese pistache	36.0
1012	Yellow birch	36.5
	Total	**326.0**

SUMMARY/RECOMMENDATIONS

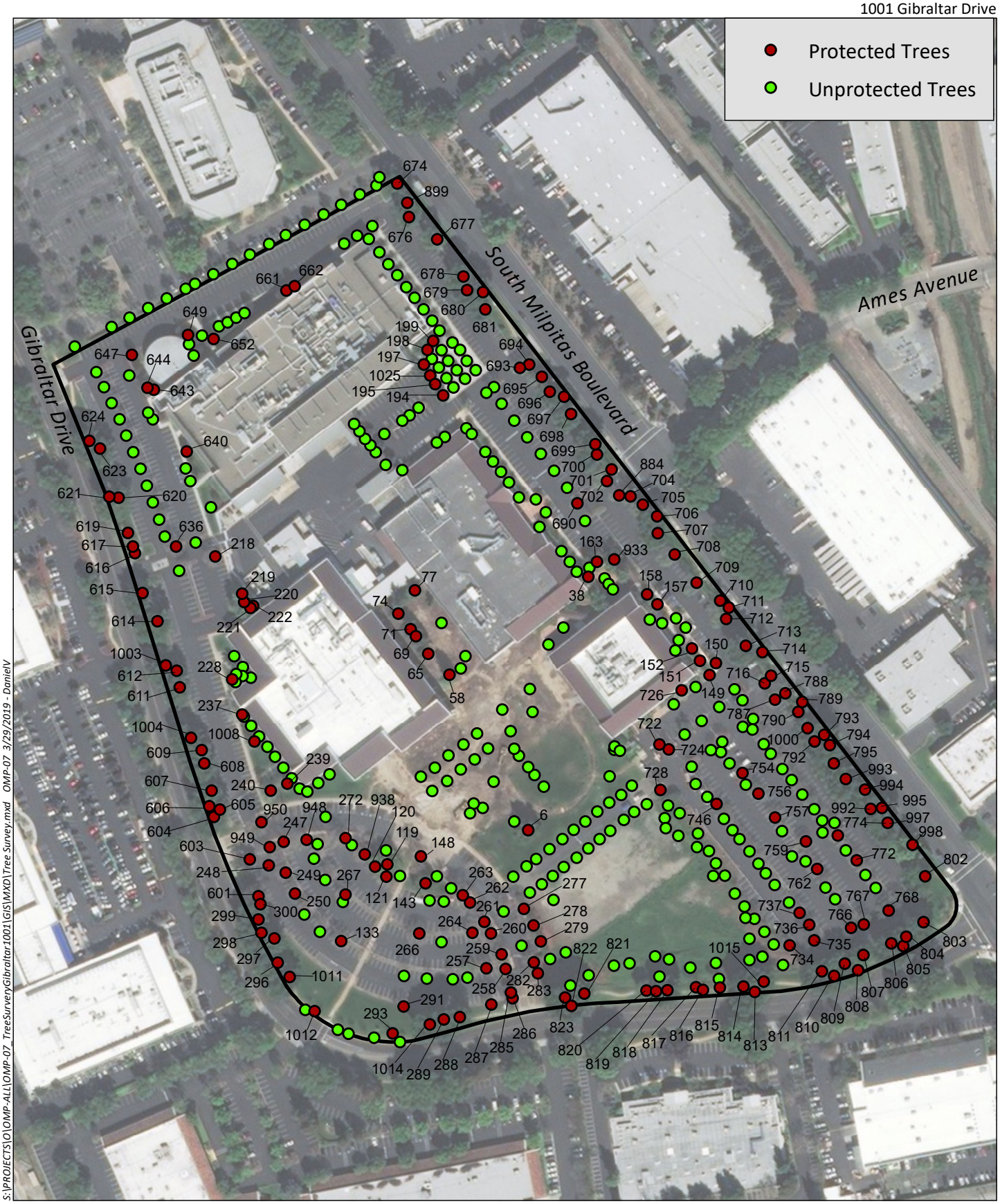
HELIX conducted an inventory of trees located at 1001 Gibraltar Drive that are protected by the City of Milpitas Code of Ordinances. A total of 183 trees on the property of sufficient size to quality as protected trees were inventoried and assessed. This tree inventory and assessment is based on conditions at the time of the survey; site conditions and tree conditions are subject to change. A proposed site plan for the property was not available at the time of the survey; therefore, it is unknown which, if any, trees will be retained or removed. No trees on the property were judged to be a hazard to existing development. General recommendations for protection of trees during and after construction are provided in **Attachment E**. Please contact me at (916) 365-8700 x 102 or StephenS@helixepi.com should you have any questions or would like any further assistance with this project.

Sincerely,



Stephen Stringer, M.S.
Senior Biologist, Certified Arborist

Attachment A. Tree Location Map
Attachment B. Arborist Survey Data
Attachment C. Site Photos
Attachment D. Health and Structure Rating Criteria
Attachment E. General Recommendations for Tree Protection



S:\PROJECTS\O\OMP-ALL\OMP-07_TreeSurveyGibraltar1001\GIS\MXD\Tree Survey.mxd OMP-07 3/29/2019 - DanielV

0 225 Feet

Source: Base Map Layers (Esri, USDA, USGS) Data: HELIX Field Data 2019, Kier & Wright

HELIX Environmental Planning

Arborist Survey

Figure 1

Table B-1. Tree Inventory Data

Tag #	Species	Circ. (in.)	Dripline (ft.)	Height (ft.)	Health[1]	Struct[1]	Rating[2]	Notes[3]
6	Coast live oak	80	18	45	G	G	5	
38	Chinese fringe tree	43	20	30	G	G	4	
58	Spruce	58	10	40	G	F	4	
65	Coast redwood	47	10	35	F	G	3	SC
69	Coast redwood	58	10	50	F	G	3	SC
71	Coast redwood	60	10	50	F	G	3	SC
74	Coast redwood	58	10	50	F	G	3	SC
77	Spruce	51	12	50	G	G	4	
119	Coast live oak	54, 57	20	30	G	G	4	
120	Chinese pistache	36.5	10	25	G	G	4	
121	Chinese pistache	37	10	25	G	G	4	
133	Chinese pistache	42	16	25	G	F	4	EG; IB
143	Coast live oak	81, 51, 28	21	30	G	G	4	
148	London plane tree	60	18	30	G	G	4	
149	Chinese fringe tree	45	12	30	G	G	4	
150	Chinese fringe tree	42	12	30	G	G	4	
151	Chinese fringe tree	41	8	30	G	F	3	topping cuts
152	Chinese fringe tree	38.5	8	30	G	F	3	topping cuts
157	Chinese fringe tree	60	15	35	G	G	4	
158	Chinese fringe tree	40	10	30	G	F	4	topping cuts
163	Strawberry tree	45	20	20	G	F	4	overloaded limb
194	Strawberry tree	50	10	20	G	F	4	leans
195	Strawberry tree	43	10	20	G	G	4	
197	Strawberry tree	53.5	12	25	G	G	4	
198	Strawberry tree	48.5	15	30	G	G	4	
199	Strawberry tree	56	12	30	G	G	4	
218	Chinese fringe tree	44.5	12	15	G	G	4	
219	Spruce	54	15	50	G	G	4	
220	Spruce	60	15	50	G	F	3	leans
221	Spruce	56	15	50	G	G	4	
222	Spruce	59	15	50	G	G	4	
228	Queen palm	41	12	50	G	G	4	
237	Chinese fringe tree	41.5	16	25	G	F	3	leans
239	Chinese fringe tree	53	18	30	G	F	4	topping cuts
240	Chinese fringe tree	55.5	15	30	G	F	4	topping cuts
247	London plane tree	44.5	12	30	G	G	4	
248	Chinese pistache	36.5	14	20	F	F	3	EG; 1-sided
249	Chinese pistache	38	12	25	G	G	4	
250	Chinese pistache	42	15	25	G	G	4	
257	Chinese pistache	39	18	20	G	F	4	

Tag #	Species	Circ. (in.)	Dripline (ft.)	Height (ft.)	Health[1]	Struct[1]	Rating[2]	Notes[3]
258	London plane tree	47	12	30	G	G	4	
259	London plane tree	49	12	30	G	G	4	
260	London plane tree	51	15	30	G	G	4	
261	London plane tree	52.5	10	30	G	G	4	
262	London plane tree	45	18	40	G	F	3	leans; 1-sided
263	London plane tree	56.5	18	40	G	G	4	
264	Chinese pistache	38	12	20	G	G	4	
266	Chinese pistache	49	18	25	G	G	4	
267	Chinese pistache	42.5	12	15	G	G	4	
272	London plane tree	53	20	40	G	G	4	
277	Shamel ash	65	15	30	G	G	4	
278	Shamel ash	58	10	35	G	G	4	
279	Shamel ash	45.5	10	30	G	G	4	
282	London plane tree	43.5	12	35	G	G	4	
283	London plane tree	48.5	20	35	G	F	3	leans; overloaded limbs
287	Shamel ash	85	20	50	F	P	2	topping cuts; EG
288	Shamel ash	99.5	25	50	G	F	4	leans; 1-sided; IB
289	Shamel ash	87.5	25	55	G	G	4	
291	Shamel ash	44.5	12	20	F	P	2	topped; bent leaders
293	Yellow birch	57.5	10	12	G	P	3	crossing CDLs; MD @ base
296	Shamel ash	88	25	50	G	G	4	
297	Shamel ash	89	25	60	G	F	4	1-sided
298	Shamel ash	80.5	30	55	G	F	4	leans; 1-sided
299	Shamel ash	78	20	60	G	F	4	1-sided
300	Shamel ash	91	20	55	G	F	4	CL
601	Shamel ash	75	25	60	F	P	3	leans; 1-sided
603	Plum	43, 26.5	15	30	F	F	2	dead main branches; EG; IB
604	Shamel ash	86.5	25	50	G	F	4	leans
605	Shamel ash	81.5	25	50	G	P	3	crossing CDLs; fused bark; ESR; IB
606	Shamel ash	82	25	50	G	G	4	slight lean
607	Shamel ash	73	25	50	G	F	4	crossing CDLs w/ fused bark
608	Shamel ash	81	25	50	G	F	3	leans; crossing CDLs w/ fused bark
609	Shamel ash	77	25	50	G	F	4	leans
611	Shamel ash	95	30	40	F	G	3	SC; dieback
612	Shamel ash	59	30	40	G	G	4	
614	Shamel ash	130	30	50	G	F	4	
615	Shamel ash	87	30	50	G	G	4	slight lean
616	Sweetgum	47.5	12	25	G	F	4	1-sided
617	Sweetgum	46	15	25	G	G	4	

Tag #	Species	Circ. (in.)	Dripline (ft.)	Height (ft.)	Health[1]	Struct[1]	Rating[2]	Notes[3]
619	Sweetgum	52	15	35	G	P	3	leans; 1-sided; bend in trunk
620	Shamel ash	113	35	50	G	P	3	leans; 1-sided; overloaded limb
621	Shamel ash	72	25	45	F	G	3	SC; dieback; fungal fruiting bodies at roots
623	Shamel ash	80.5	25	50	G	G	4	
624	Shamel ash	107	30	50	F	F	2	CL; IB; SC; dieback
636	Chinese fringe tree	39.5	15	20	G	G	4	
640	Zelkova	42	9	20	G	G	4	
643	Zelkova	41	10	20	G	G	4	
644	Zelkova	48	10	20	G	G	4	
649	Zelkova	49	10	30	G	G	4	
652	Zelkova	53	10	30	G	G	4	
661	Zelkova	41	10	35	G	G	4	
674	Shamel ash	68.5	18	40	G	F	4	leans
676	Shamel ash	77	25	40	G	F	4	slight lean; ESR
677	Shamel ash	66	25	40	G	G	4	
678	Shamel ash	89.5	30	50	G	G	4	
679	Shamel ash	73	30	50	G	F	4	1-sided
680	Shamel ash	80.5	30	50	G	F	4	slight lean; 1-sided
681	Shamel ash	81.5	20	50	G	G	4	
690	Sweetgum	36	12	30	G	G	4	
693	Sweetgum	39.5	10	35	G	G	4	
694	Sweetgum	55.5	12	40	G	G	4	
695	Sweetgum	55	9	40	G	G	4	
696	Shamel ash	66.5	15	40	G	G	4	
697	Shamel ash	66.5	15	40	G	G	4	
698	Shamel ash	83	20	45	G	G	4	
699	Shamel ash	95	25	45	G	G	4	cabled
700	Shamel ash	78	20	45	G	F	3	leans; 1-sided
701	Sweetgum	49	12	45	G	G	4	
702	Sweetgum	45	12	40	G	G	4	
704	Sweetgum	41.5	10	35	F	G	3	SC; dieback
705	Sweetgum	53	15	40	G	G	4	
706	Shamel ash	89	25	50	G	G	4	
707	Shamel ash	80.5	16	50	G	F	3	leans; 1-sided; overloaded limb; CDL
708	Sweetgum	55	20	45	G	G	4	
709	Sweetgum	57	12	40	G	G	4	
710	Sweetgum	52	8	25	P	F	2	overloaded limb; OPC; dieback; SC
711	Sweetgum	65	12	30	G	G	4	
712	Sweetgum	63.5	20	30	G	F	3	leans; 1-sided; OPC

Tag #	Species	Circ. (in.)	Dripline (ft.)	Height (ft.)	Health[1]	Struct[1]	Rating[2]	Notes[3]
713	Shamel ash	111	25	50	G	G	4	
714	Shamel ash	70	24	35	G	F	3	1-sided; suppressed
715	Sweetgum	60	15	35	G	G	4	
716	Sweetgum	51	12	40	G	G	4	
722	Sweetgum	36	10	30	G	G	4	
724	Sweetgum	36	12	28	G	G	4	
726	Chinese fringe tree	37	12	35	G	G	4	
728	Sweetgum	54	15	40	G	G	4	
734	Shamel ash	49.5	15	35	G	G	4	
735	Shamel ash	64	15	30	G	G	4	
736	Chinese pistache	36.5	9	15	G	G	4	
737	Chinese pistache	44.5	10	15	G	G	4	
746	Chinese pistache	39	10	12	G	G	3	dieback
754	Chinese pistache	41	12	25	G	G	4	
756	Chinese pistache	36	18	25	G	F	3	overloaded limbs
757	Chinese pistache	37.5	18	25	G	F	4	overloaded limb
759	Chinese pistache	36	15	25	G	G	4	
762	Chinese pistache	37	18	25	G	G	4	
766	Shamel ash	53	15	30	G	G	4	
767	Shamel ash	42	10	20	G	G	4	
768	Shamel ash	45	10	25	G	G	4	
772	Chinese pistache	38.5	15	25	G	G	4	
774	Chinese pistache	46	20	30	G	G	4	
787	Sweetgum	37	15	20	G	F	3	leans; 1-sided; overloaded limb
788	Sweetgum	50.5	15	35	G	G	4	
789	Sweetgum	48.5	18	35	G	F	3	overloaded limbs
790	Sweetgum	46.5	15	35	G	G	4	1-sided
792	Shamel ash	50	15	30	G	F	3	1-sided
793	Shamel ash	85	20	40	G	G	4	
794	Shamel ash	83.5	25	40	G	F	4	1-sided
795	Shamel ash	82	25	40	G	F	3	leans; overloaded limbs
802	Shamel ash	115.5	20	40	G	G	4	
803	Shamel ash	100	20	50	G	G	4	slight lean
804	Shamel ash	77	25	55	G	G	4	
805	Shamel ash	87	30	55	G	G	4	slight lean
806	Shamel ash	89	20	50	G	G	4	IB
807	Shamel ash	77.5	20	50	G	G	4	
808	Shamel ash	90	20	50	G	G	4	
809	Shamel ash	67	20	50	G	G	4	
810	Shamel ash	79	30	50	G	P	3	severe lean; 1-sided
811	Shamel ash	123	20	50	G	G	4	slight lean
813	Shamel ash	107.5	30	50	G	F	4	1-sided

Tag #	Species	Circ. (in.)	Dripline (ft.)	Height (ft.)	Health[1]	Struct[1]	Rating[2]	Notes[3]
814	Shamel ash	90	18	45	G	G	4	
815	Sweetgum	58	15	30	G	G	4	
816	Sweetgum	50	15	30	G	F	3	leans; 1-sided; DBF
817	Sweetgum	58	12	30	F	G	3	large decayed wound in trunk
818	Shamel ash	97	20	45	G	G	4	
819	Shamel ash	63	15	40	G	G	4	
820	Shamel ash	52	15	40	F	F	3	IB; 1-sided, dieback; SC
821	Shamel ash	92	25	50	G	F	4	leans; 1-sided; overloaded limb
822	Shamel ash	108	25	55	G	F	4	leans; CL; IB
823	Shamel ash	83	18	50	G	F	4	leans
884	Sweetgum	44	10	40	G	G	4	
899	Shamel ash	73	40	40	G	F	3	leans; 1-sided; overloaded limb
933	Strawberry tree	49	15	20	G	G	4	
938	Chinese pistache	41.5	10	25	G	G	4	
948	London plane tree	42.5	20	30	G	F	4	leans; overloaded limbs
949	London plane tree	69	20	30	G	F	3	leans; overloaded limbs
950	London plane tree	60.5	15	35	G	F	4	bend in trunk
992	Shamel ash	70	20	40	G	G	4	slight lean
993	Shamel ash	106	20	40	G	G	4	
994	Shamel ash	86.5	25	40	G	F	3	leans; 1-sided
995	Shamel ash	95	20	45	G	G	4	
997	Shamel ash	97	18	40	G	F	4	overloaded limb
998	Valley oak	181.5	25	40	G	F	4	cabled; overloaded limb; OPC
1000	Shamel ash	74	18	40	G	G	4	slight lean
1003	Shamel ash	82	35	40	G	G	4	leans; 1-sided
1004	Shamel ash	89	30	50	G	F	4	
1008	Chinese fringe tree	42	12	20	G	F	4	CL w/ fused bark; multiple CDL
1011	Shamel ash	111.5	30	50	G	F	4	leans; 1-sided
1012	Yellow birch	36.5	8	12	G	F	3	MD to main trunk; multiple CDL
1014	Shamel ash	93.5	25	50	G	G	4	
1015	Shamel ash	107	20	50	G	F	4	1-sided
1025	Strawberry tree	50	12	25	G	G	4	

Shaded lines are trees rooted on the street side of the sidewalk = possible street trees
Gray font indicates trees less than, but within 1 inch of, 37 inches circumference
[1]G=Good; F=Fair; P=Poor
[2]2=declining – may die within 5 years; 3=fair – health or structural issues but likely to survive more than 5 years; 4=good; 5=excellent
[3]CDL=co-dominant leaders; CL=crossing limbs; DBF=decayed branch failures; EG=epicormic growth; ESR=exposed structural roots; IB=included bark; MD=mechanical damage; OPC=old pruning cuts; SC=sparse canopy; 1-sided=asymmetrical canopy development



Photo 1: Shamel ashes along Gibraltar Drive.



Photo 2: Chinese pistache trees in the parking lot at Gibraltar and South Milpitas.



Photo 3: Japanese zelkovas at the north end of the property.



Photo 4: Crape myrtles on the east side of the northern building.



Photo 5: Shamel ashes and a large valley oak at the southeast corner of the property.



Photo 6: Sweetgums and shamel ashes along South Milpitas Blvd near Ames Avenue.



Photo 7: Small olive and paloverde trees in the interior of the property.



Photo 8: Spruces and coast redwoods in the interior of the property.

The following tables provide summaries of the criteria used for rating the health and structure of trees in the survey. Overall tree ratings were based on the individual ratings for health and structure.

Health

Health is an indication of the overall vigor and vitality of the tree expressed as a rating of Good, Fair, or Poor. Ratings for health were based on the criteria in Table D-1.

Table D-1. Criteria for Rating Tree Health

Good	**Little or no Evidence of Stress, Disease, Infestation, or Nutrient Deficiency.** Foliage (if present on deciduous species) is of average or better density, size, and color for the species; foliage in the canopy is evenly distributed; twig elongation and bud density are normal for the species; there is no evidence of dieback; there is little or no epicormic growth (water sprouts); there are not excessive numbers of galls or excessive evidence of herbivory; callusing, if present, is vigorous; bark is healthy and intact; there are no signs of senescence.
Fair	**Moderate Evidence of Stress, Disease, Infestation, or Nutrient Deficiency.** Foliage is below average density, size, or color for the species; foliage density may be lower in some parts of the canopy; twig elongation and bud density may be moderately reduced; some evidence of dieback may be present; some epicormic growth may be present; gall or herbivore load is higher than average for the species; callusing of old wounds is not well-developed; there may be evidence of small areas of infection such as bark swelling or sloughing; the tree may be over-mature or beginning to senesce.
Poor	**Abundant Evidence of Stress, Disease, Infestation, or Nutrient Deficiency.** Foliage and/or buds are sparse; leaves are reduced in size or of unhealthy color; the canopy is sparse and underdeveloped; there is widespread evidence of dieback; twig elongation is severely reduced; there is abundant epicormic growth; gall load, insect exit holes, or evidence of herbivory is severe; old wounds are not callused; there is widespread evidence of bark swelling, splitting, or sloughing in the root crown, trunk, or major limbs; the tree is senescent.

Structure

Structure is an indication of the structural stability and failure potential of the tree expressed as a rating of Good, Fair, or Poor. Ratings for structure were based on the criteria in Table D-2.

Table D-2. Criteria for Rating Tree Structure

Good	**Low Potential for Failure.** No wounds, cavities, decay, or indications of hollowness evident in the root crown, trunk, or major limbs; no exposed anchor roots or circling roots; no codominant branching or multiple trunk attachments; no

	crossing limbs; little or no included bark at branch attachments; no dead major limbs; no major limb failures; no overburdened limbs; no excessive or unnatural lean; proper development of trunk taper; structure is more or less symmetrical.
Fair	**Moderate Potential for Failure.** Small to moderate wounds, cavities, decay, or indications of hollowness may be present in the root crown, trunk, or major limbs; minor exposure of anchor roots; no circling roots; codominant trunks or multiple trunk attachments are present but included bark is absent or not well-developed; no large crossing limbs are present; small or medium-sized dead limbs may be present in the canopy; no large limb failures; limbs may be slightly overburdened; natural or only minor lean is evident with well-developed reaction wood; canopy development may be slightly to moderately asymmetrical.
Poor	**High Potential for Failure.** Significant wounds, cavities, decay, or indications of hollowness evident in the root crown, trunk, or major limbs; anchor roots are exposed or the tree has lost anchorage; circling roots are present; codominant branching or multiple trunk attachments are present; large crossing limbs are present; significant amounts of included bark are present at trunk and branch attachments; large dead limbs are present in the canopy; evidence of past large limb failures; overburdened limbs; poor trunk taper; excessive or unnatural lean or drastically unbalanced canopy development.

General Protection Guidelines for Trees Planned for Preservation

To prevent soil compaction:

- 6-8 inches of wood chips should be spread inside the dripline of trees where temporary construction traffic or staging would occur. Chips should be removed after project completion, or the depth reduced to no more than 4 inches. Alternatively, bridging root areas with steel plates would reduce damage to roots within construction traffic areas.
    - A circle with a radius measurement from the trunk of the tree to the tip of its longest limb, plus one foot, constitutes the critical root zone protection area of each protected tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of each protected tree. Removing limbs that make up the dripline does not change the protected area.

To reduce damage due to raising the existing grade:

- Grading within the protected zone of a protected tree should be minimized. Cuts within the protected zone should be maintained at less than 20% of the critical root zone area. Grade cuts should be monitored by the project Arborist. Any damaged roots encountered should be root pruned and properly treated as deemed necessary by the Project Arborist.
- Construct an open-joint wall of shell, brick, rock or masonry in a circle around the tree trunk, with at least 1 to 2 feet between the wall and trunk. This wall should be as high as the top of the new grade. This opening is commonly referred to as a tree well.
- If fills exceed 1 foot in depth up to 20% of the critical root zone area, aeration systems may serve to mitigate the presence of the fill materials as determined by the Project Arborist.
- Construct an aeration system using 4-inch agricultural clay tile or 4-inch perforated plastic pipe arranged in five to six horizontal lines radiating from the tree well like spokes in a wheel to a point beyond the branch spread. Allow excess moisture to drain away by installing the radial lines so they slope away from the trunk. Connect the outer ends of the radiating system with a circle of tile or perforated plastic pipe.
- To provide vents, place 4- or 6-inch plastic pipe or bell tile upright over the junction of the radial lines with the circle. They should extend to the surface of the planned grade level. Extend the lower end of the aeration system to a curb or storm drain to carry excess moisture away from the root system.
- Cover the exposed soil and tile system with rock or coarse gravel to a depth of 6 to 18 inches, depending on the amount of fill. Follow this with a covering layer of gravel. Place a thin layer of straw, woven plastic or other porous material over the gravel to prevent soil from filtering into the gravel and stone. Fill with good topsoil to the desired grade.

- When fill materials are deemed necessary on two or three sides of a tree it is critical to provide for drainage away from the critical root zone area of the tree (particularly when considering heavy winter rainfalls). Overland releases and subterranean drains dug outside the critical root zone area and tied directly to the main storm drain system are two options.
- The construction of impervious surfaces within the dripline of a protected tree should be minimized. When necessary, a piped aeration system should be installed under the direct supervision of the Project Arborist.
- Preservation devices such as aeration systems, tree wells, drains, special paving and cabling systems must be installed in conformance with approved plans and certified by the Project Arborist.
- To discourage rodents, fill the tree well with enough coarse gravel to cover the ends of the lines opening into the well. Also fill the upright bell tile and cover with a screen or grill.
- Minor roots less than one inch in diameter encountered during approved excavation and/or grading activities may be cut, but damaged roots should be traced back and cleanly cut behind any split, cracked or damaged area as deemed necessary by the Project Arborist.
- Major roots greater than one inch in diameter encountered during approved excavation and/or grading activities may not be cut without approval of the Project Arborist. Depending upon the type of improvement being proposed, bridging techniques or a new site design may need to be employed to protect the roots and the tree.
- Cut faces, which will be exposed for more than 2-3 days, should be covered with dense burlap fabric and watered to maintain soil moisture at least on a daily basis (or possibly more frequently during summer months). If any native ground surface fabric within the protected zone must be removed for any reason, it should be replaced within 48 hours.
- In cases where a permit has been approved for construction of a retaining wall(s) within the protected zone of a protected tree the applicant will be required to provide for immediate protection of exposed roots from moisture loss during the time prior to completion of the wall. The retaining wall within the protected zone of the protected tree should be constructed within 72 hours after completion of grading within the root protection zone.

General Construction Site Recommendations:

- A minimum 4-foot tall, brightly colored, synthetic fence should be installed around the limits of the work area or around outermost edge of the protected zone of trees that are designated for retention on-site. Encroachment into the fenced areas should be restricted to the minimum amount feasible and fencing should remain in place until all construction activities have ceased. The protected zone is defined as the “dripline” (which is an imaginary line that is drawn on the ground around the tree at the

outermost limit of the canopy) or in cases where construction is encroaching on the dripline of a retained tree, the protected zone is the portion of the tree's dripline that is being protected. Fencing should be installed in accordance with an approved fencing plan prior to the commencement of any grading operations or such other time as determined by the review body.

- Signs should be installed on the protective fence in four equidistant locations around each individual tree. The size of the sign should be a minimum of two by two feet and contain the following language "Warning: This Fence Shall Not Be Removed or Relocated Without Written Authorization From **insert governing body**". Protective fencing should remain in place throughout the entire construction period and should not be removed, relocated, taken down or otherwise modified without prior written authorization.
- All portions of permanent fencing that will encroach into the protected zone of a protected tree should be constructed using posts set no closer than ten feet on center. Posts should be spaced in such a manner as to maximize the separation between the tree trunks and the posts in order to reduce impacts to the trees(s).
- The fenced area should be kept clear of building materials, waste, and excess soil.
- No digging, trenching, compaction, or other soil disturbance should be allowed in the fenced area.
- The storage of construction equipment or hazardous materials such as gasoline, oil, or other toxic chemicals should not be allowed in or adjacent to the fenced area.
- Storage areas for equipment, soil, and construction materials as well as burn sites (if permitted), cement washout pits, and construction work zones should be kept away from protected trees and outside the fenced in area.
- Cable, chain, rope or signage should not be attached to retained trees.
- Designated roads and parking areas should be established. All construction personnel should be restricted to driving and parking in designated areas. Discharge of exhaust from construction vehicles and equipment should not be allowed near the protected zone of trees.
- Grade changes should be avoided near fenced areas to the maximum extent possible.
- No sprinkler or irrigation system should be installed in such a manner that sprays water or required trenching within the dripline of a protected tree. An above ground drip irrigation system is recommended. An independent low-flow drip irrigation system may be used for establishing drought tolerant plants within the protected zone of a protected tree. Irrigation should be gradually reduced and discontinued after a 2-year period.
- Landscaping beneath native oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. Planting live material under protected native oak trees is generally discouraged and is not recommended within 6 feet of the trunk of a native oak tree with a diameter at breast height (DBH) of 18 inches or less, or within 10

feet of the trunk of a native oak tree with DBH of more than 18 inches. The only plant species which should be planted with the dripline of native oak trees are those which are tolerant of the natural, semi-arid environs of the tree(s).

Recommendations for Construction Activities in the Vicinity of Retained Trees:

- Any protected trees on site which require pruning should be pruned by an ISA Certified Arborist prior to the start of construction work. All pruning should be in accordance with the American National Standards Institute (ANSI) A300 pruning standards, ANSI Standard 2133.1-2000 regarding safety practices, and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines" and Best Management Practices.
- Trenching within the dripline of retained trees should be avoided to the maximum extent practicable and kept a minimum distance of 10 times the diameter of the tree away from its trunk. If necessary, this trenching should be conducted using hand excavation or compressed air to reduce impacts to tree roots. Machine trenching should not be allowed within the dripline of retained trees. Trenching inside the dripline should be monitored by a certified arborist who may direct the construction crew to use hand tools rather than heavy equipment. Hand saws, pass-through pruners, shovels and trowels, burlap cloth, and water should be available at all times during trenching inside the dripline. If pipes must be installed closer to the tree than a distance of 10 times the diameter of the tree away from its trunk, they should be bored beneath the tree a minimum of 3 feet below the ground surface to reduce impacts to roots.
- Excavation should also be minimized within the dripline of retained trees. Construction within the dripline of retained trees should be conducted in a manner that minimizes excavation and provides for the best preservation of roots as determined by the Project Arborist.
- If tree roots are severed outside of the fenced area, they should be severed cleanly and kept moist. All exposed roots outside of fenced areas should be covered with protective material during construction such as mulch or plywood sheets to reduce soil compaction. Protective material should be removed upon completion of construction activities.
- Construction activities involving soil disturbance should be avoided during hot, dry, weather and trees should be watered before, during, and after trenching and excavation within the dripline of retained trees to offset water loss due to cut roots.
- Grading within the driplines of retained trees should be avoided wherever feasible.
- Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected tree should be done under the direct supervision of the Project Arborist.
- No sign, ropes, cables (except those which may be installed by an ISA Certified Arborist to provide limb support) or any other items should be attached to the protected trees. Small metallic numbering tags for the purpose of identification in preparing tree reports and inventories should be allowed.

- No vehicles, construction equipment, mobile homes/office, supplies, materials or facilities should be driven, parked, stockpiled or located within driplines of protected trees.
- Drainage patterns on the site should not be modified so that water collects, stands or is diverted across the dripline of any protected tree.
- No trenching should be allowed within the driplines of protected trees, except as specifically approved by the Planning Department as set forth in the project's Conditions of Approval and/or approved tree permit. If it is absolutely necessary to install underground utilities within the dripline of a protected tree the utilizing hand tools to avoid root injury under the direct supervision of the Project Arborist.

Recommendations for Protection of Trees Post-Construction:

- Post-construction inspections of the trees should be conducted by a Certified Arborist or Certified Tree Worker to determine if retained trees are stressed (e.g., water stress, nutrient stress) or damaged (e.g., broken branches, trunk damage). Appropriate corrective actions should be implemented as necessary. Such corrective actions may include remediation of severe soil compaction through vertical mulching or a similar technique, remedial pruning to repair damaged or broken limbs, application of mulch, application of root stimulant to encourage new root growth in trees that have a significant portion of their roots lost due to cutting or soil compaction, etc.
- Aeration of soil by vertical mulching or similar technique should be implemented around retained trees to offset the impacts of soil compaction that has already occurred due to construction activities and other site uses.
- All trees that will be preserved following project construction should be periodically monitored by a qualified tree care professional for the life of the project. The project (*i.e*., homeowners association/property owner) should be responsible for providing for monitoring and ongoing care and maintenance of all preserved trees on the site.

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B.3 - Tree Survey Report Addendum

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June 6, 2025

Todd Chandler | Development Manager
Panattoni Development Company, Inc.
400 Capitol Mall, Suite 2040 | Sacramento, CA 95814
Office: 916.379.3105 |
TChandler@panattoni.com

Subject: Arborist Report Addendum for 1001 Gibraltar Drive, City of Milpitas, CA.

Mr. Chandler:

Stringer Biological Consulting, Inc. (SBC) conducted an arborist survey and prepared this Arborist Report Addendum for the property located at 1001 Gibraltar Drive in the City of Milpitas, California. An arborist report was previously prepared for the property by HELIX Environmental Planning, Inc. (HELIX) in 2019, under the supervision of SBC Principal Biologist/Arborist Stephen Stringer who was employed at HELIX at the time. The purpose of the arborist report addendum is to provide an updated inventory of trees on the property protected by the City of Milpitas.

Existing Conditions

Project Location and Site Description

The property is located at 1001 Gibraltar Drive in the City of Milpitas, California. The property consists of Santa Clara County Assessor's Parcel Number 08642033 and is approximately 30 acres in size. The approximate center of the property is at latitude 37°25'05.08" N and longitude 121°53'28.73" W (NAD 83) at an elevation of 45 feet above mean sea level.

The property contains a vacant corporate campus including office buildings and research/development facilities. The entire property was previously landscaped with a large number and variety of ornamental trees, the majority of which were smaller than 37 inches in circumference (HELIX 2019). Many of the ornamental trees in the landscaped areas around the buildings were no longer present at the time of the survey conducted in in May 2025 in support of this addendum report (See Results Section).

Regulatory Background and Arborist Report History

Under Section 4.02 of the City of Milpitas Code of Ordinances (code), it is unlawful for any person other than City personnel in the performance of their duty to remove a protected tree or street tree without applying for a permit issued by the Public Works Department. Chapter 201.5 of the code defines protected trees on commercial/industrial properties as "all trees which have a 37-inch or greater circumference of any trunk measured 4.5 feet from the ground." The code defines street trees as those "located in the public right-of-way between the curb and the sidewalk."

An arborist report was prepared for the property by HELIX Environmental Planning, Inc., dated April 1, 2019 (HELIX 2019). HELIX (2019) identified roughly 500 trees on the property including a total of 183

protected trees as defined by City code with a total circumference of 11,984.5 inches. Nine additional trees were identified that were within 1 inch of protected status.

Methods and Surveyor Qualifications

In support of this report, an arborist survey was conducted at the property on May 22-23, by SBC Principal Biologist/Arborist Stephen Stringer, M.S. with assistance from an SBC biological technician. During the site visit, all of the trees on and overhanging the property were measured as well as assessed for health and structure and given an overall condition rating following the methodology described in HELIX 2019. All of the existing trees in Attachment B (Table B-1) of the HELIX report (HELIX 2019) were assessed. The tree inventory map from HELIX (2019) was used to locate trees on the property and numbered aluminum tree tags placed on the trees during the HELIX arborist survey were used for identification of each tree. The health assessment consisted of a rapid visual inspection of the trees from the ground based on the observed conditions at the time of the survey and did not include an in-depth health inspection of the crown or roots. As such, the health assessment is a general assessment of the health of each tree and is not intended to constitute a thorough analysis of the health/condition of the trees.

The circumference of each tree was measured at approximately 4.5 feet above grade using a U.S. Tape Company forester's tape measure. For multi-trunked trees, the circumference of each trunk was measured and added. The drip line of each tree was measured with a tape measure and the height of each tree was visually estimated. The drip line is defined as "an area of the ground delineated by the vertical projection of the outside periphery of the crown area of a tree down to the ground surface." Each tree's drip line was determined by measuring the distance from the trunk to the outermost extent of the canopy. Each tree was then evaluated for health and structure and assigned a rating of 0 (dead), 1 (severe decline), 2 (declining), 3 (fair), 4 (good), or 5 (excellent). Notes such as irregularities, scars, or other growth characteristics or vigor indicators were recorded for all trees rated 3 or less.

Mr. Stringer is an International Society of Arboriculture (ISA) Certified Arborist (WE-7129A) and holds a B.S. and M.S. Degree in Biology from California State University, Sacramento. Mr. Stringer has been a Certified Arborist since 2004 and has worked as a consulting arborist on hundreds of projects throughout California. He conducts arborist inventories, tree impact assessments, develops tree preservation and avoidance measures, and monitors work around trees during construction in compliance with project permits.

Results:

Current data for all of the protected trees remaining on and overhanging the site is included as a table in **Attachment A**, with previously inventoried trees that are no longer present noted as "removed" in the comments. A total of 98 trees large enough to qualify as protected trees according to the City of Milpitas code were present on or overhanging the property at the time of our survey in May 2025 and were alive. Six of the protected trees are sweetgum trees (*Liquidambar styraciflua*) along the northern property line that are large enough to qualify as protected trees that were not identified as protected trees in 2019. These six sweetgum trees are numbered 2000 to 2005 in **Attachment A**. Seven additional protected trees were present but dead. None of the other protected trees previously inventoried on the property were present at the time of our survey. Additionally, no trees were present with a circumference between 36 and 37 inches that may grow to become protected trees in the next 12-18 months. Representative photos are included in **Attachment B**.

A summary of the live protected trees on the property is included as **Table 1**. The majority of the protected trees are Shamel ash (71) and sweetgum (20), as well as 1 valley oak, 5 London plane trees, and 1 Chinese pistache.

Table 1: Summary of live protected trees

Common Name	Scientific Name	Count	Total Circ. (in.)
Chinese pistache	*Pistacia chinensis*	1	44
London plane tree	*Platanus x acerifolia*	5	251
Shamel ash	*Fraxinus uhdei*	71	6,009
Sweetgum	*Liquidambar styraciflua*	20	1,016.5
Valley oak	*Quercus lobata*	1	187
Totals		**98**	**7,507.5**

*Includes trees with multiple trunks at 4.5 feet above ground, at least 1 of which was 37 inches or greater circumference; total is the sum of all trunks at 4.5 feet above ground. Dead trees are not included in this table.

The majority of the trees have declined since the survey in 2019, with the majority of the trees in fair condition versus the majority of the trees being in good condition in 2019 (HELIX 2019). No trees were rated as 5 ("Excellent"). A total of 16 trees were rated as 4 ("Good"), 54 trees were rated as 3 ("Fair"), 20 trees were rated as 2 ("Declining"), and 8 rated as 1 ("Severe Decline"). Criteria for rating the health and structure of trees are summarized in **Attachment C**. Many of the trees exhibited moderate to severe crown dieback, sparse canopy, and broken limbs. The most common structural issue was lean and 1-sided canopy development caused by shading from neighboring trees. Table 2 is a summary of trees rated as 2 (Declining) or 1 (Severe Decline).

Table 2: Trees rated as 2 (Declining) or 1 (Severe Decline)

Tree #	Condition	Common Name	Circ. (in.)
291	1	Shamel ash	48
611	1	Shamel ash	94
621	1	Shamel ash	73
680	1	Shamel ash	81
618	1	Sweetgum	37
701	1	Sweetgum	51
712	1	Sweetgum	50
715	1	Sweetgum	58
258	2	London plane tree	49
259	2	London plane tree	50
260	2	London plane tree	52
282	2	London plane tree	48
283	2	London plane tree	52
300	2	Shamel ash	91
601	2	Shamel ash	77
606	2	Shamel ash	82
620	2	Shamel ash	116

Tree #	Condition	Common Name	Circ. (in.)
624	2	Shamel ash	110
698	2	Shamel ash	84
797	2	Shamel ash	51
807	2	Shamel ash	80.5
809	2	Shamel ash	67
821	2	Shamel ash	93
617	2	Sweetgum	47
708	2	Sweetgum	56
716	2	Sweetgum	52
816	2	Sweetgum	50
817	2	Sweetgum	58
		Total	***1,857.5***

Summary and Recommendations:

SBC conducted an inventory of trees located at 1001 Gibraltar Drive that are protected by the City of Milpitas Code of Ordinances. A total of 98 trees on the property of sufficient size to quality as protected trees were inventoried and assessed. Seven additional protected trees were present but dead. This tree inventory and assessment is based on conditions at the time of the survey; site conditions and tree conditions are subject to change. Trees rated as 2 (Declining) or 1 (Severe Decline) are generally not suitable for retention on the property and could pose a hazard when the site is redeveloped due to the potential for trunk or limb failure. General recommendations for protection of trees during and after construction are provided in **Attachment D**.

Thank you for the opportunity to work on this project. If you need further information, please contact me at (916) 996-9374 or StringerBiological@outlook.com to discuss the results of this report.

Sincerely,

Stephen Stringer, M.S.
Principal Biologist/ISA Certified Arborist WE-7129A

Attachments:

Attachment A – Arborist Survey Data

Attachment B – Representative Site Photos

Attachment C – Health and Structure Rating Criteria (From HELIX 2019)

Attachment D – General Recommendations for Tree Protection (From HELIX 2019)

Project Name: 1001 Gibraltar Drive, Milpitas, CA

Arborist Name: Stephen Stringer (WE-7129A)

Survey Date: May 22-23, 2025

Tag #	Species	Circ. (in)	Dripline (ft)	Height (ft)	Health[1]	Struct.[1]	Rating[2]	Notes[3]
6	Coast live oak	80						Removed
38	Chinese fringetree	42						Removed
58	Spruce	58						Removed
65	Coast redwood	47						Removed
69	Coast redwood	58						Removed
71	Coast redwood	60						Removed
74	Coast redwood	58						Removed
77	Spruce	51						Removed
119	Coast live oak	54, 57						Removed
120	Chinese pistache	36.5						Removed
121	Chinese pistache	37						Removed
133	Chinese pistache	42						Removed
143	Coast live oak	81, 51,						Removed
148	London plane tree	60						Removed
149	Chinese fringetree	45						Removed
150	Chinese fringetree	42						Removed
151	Chinese fringetree	41						Removed
152	Chinese fringetree	38.5						Removed
157	Chinese fringetree	60						Removed
158	Chinese fringetree	40						Removed
163	Strawberry tree	45						Removed
194	Strawberry tree	50						Removed
195	Strawberry tree	43						Removed
197	Strawberry tree	53.5						Removed
198	Strawberry tree	48.5						Removed
199	Strawberry tree	56						Removed
218	Chinese fringetree	44.5						Removed
219	Spruce	54						Removed

Tag #	Species	Circ. (in)	Dripline (ft)	Height (ft)	Health[1]	Struct.[1]	Rating[2]	Notes[3]
220	Spruce	60						Removed
221	Spruce	56						Removed
222	Spruce	59						Removed
228	Queen palm	41						Removed
237	Chinese fringetree	41.5						Removed
239	Chinese fringetree	53						Removed
240	Chinese fringetree	55.5						Removed
247	London plane tree	44.5						Removed
248	Chinese pistache	36.5						Removed
249	Chinese pistache	38						Removed
250	Chinese pistache	42						Removed
257	Chinese pistache	39						Removed
258	London plane tree	49	12	30	F-P	F-P	2	Severe dieback
259	London plane tree	50	12	30	F-P	F-P	2	Severe dieback
260	London plane tree	52	15	30	F-P	F-P	2	Severe dieback
261	London plane tree	52.5						Removed
262	London plane tree	45						Removed
263	London plane tree	56.5						Removed
264	Chinese pistache	38						Removed
266	Chinese pistache	49						Removed
267	Chinese pistache	42.5						Removed
272	London plane tree	53						Removed
277	Shamel ash	65						Removed
278	Shamel ash	58						Removed
279	Shamel ash	45.5						Removed
282	London plane tree	48	12	35	F-P	F-P	2	Severe dieback
283	London plane tree	52	20	35	F-P	F-P	2	Leans; overloaded limbs; dieback
287	Shamel ash	85						Removed
288	Shamel ash	99.5						Removed
289	Shamel ash	90	25	55	F	F	3	CDLs with included bark
291	Shamel ash	48	12	20	P	P	1	Topped; bent leaders; crown dieback

Tag #	Species	Circ. (in)	Dripline (ft)	Height (ft)	Health[1]	Struct.[1]	Rating[2]	Notes[3]
293	Yellow birch	57.5						Removed
296	Shamel ash	94	25	50	F	F	3	CDLs; dieback
297	Shamel ash	91.5	25	60	F	F	3	1-sided; CDLs; BF
298	Shamel ash	81	30	55	F	F	3	Leans; 1-sided; SC; dieback
299	Shamel ash	79	20	60	F	F	3	1-sided; CDLs
300	Shamel ash	91	20	55	F-P	P	2	CL; SC; dieback
601	Shamel ash	77	25	60	F-P	P	2	Leans; 1-sided; SC; dieback
603	Plum	43, 26.5						Removed
604	Shamel ash	87	25	50	F	F	3	Leans; CDLs with included bark
605	Shamel ash	82.5	25	50	F	P	3	Crossing CDLs; fused bark; ESR; IB
606	Shamel ash	82	25	50	F	P	2	Light lean; CDLs with included bark; SC
607	Shamel ash	75	25	50	F	F	3	Crossing CDLs with fused bark; SC
608	Shamel ash	82	25	50	F	F	3	Leans; crossing CDLs with fused bark
609	Shamel ash	78	25	50	F	F	3	Leans; roots crowded by sidewalk
611	Shamel ash	94	30	40	P	P	1	SC; severe dieback; broken limbs
612	Shamel ash	62.5	30	40	F	F	3	SC; epicormic roots crowded by sidewalk
614	Shamel ash	139	30	50	F-G	F	4	Trunk wound with decay
615	Shamel ash	89	30	50	F	F	3	Slight lean; SC
616	Sweetgum	49	12	25	F	F	3	Slight lean; SC
617	Sweetgum	47	15	25	F-P	F	2	Moderate to severe dieback
618	Sweetgum	37	12	15	P	P	1	Prior failure
619	Sweetgum	57	15	35	F	P	3	Leans; 1-sided; bend in trunk; dieback
620	Shamel ash	116	35	50	F-P	P	2	Leans; 1-sided; overloaded limb; severe dieback

Tag #	Species	Circ. (in)	Dripline (ft)	Height (ft)	Health[1]	Struct.[1]	Rating[2]	Notes[3]
621	Shamel ash	73	25	45	P	P	1	SC; dieback; fungal fruiting bodies at roots
623	Shamel ash	84	25	50	F	F	3	Broken limbs
624	Shamel ash	110	30	50	F-P	F	2	CL; IB; SC; dieback
636	Chinese fringetree	39.5						Removed
640	Zelkova	42						Removed
643	Zelkova	42						Removed
644	Zelkova	48						Removed
649	Zelkova	49						Removed
652	Zelkova	53						Removed
661	Zelkova	41						Removed
674	Shamel ash	68.5						Removed
676	Shamel ash	77						Removed
677	Shamel ash	68	25	40	F	F	3	SC; dieback
678	Shamel ash	90	30	50	F	F	3	IB
679	Shamel ash	76	30	50	F	F	3	1-sided; dieback
680	Shamel ash	81	30	50	F-P	P	1	Slight lean; 1-sided; dieback; SC; epicormics
681	Shamel ash	84	20	50	F	F	3	SC
690	Sweetgum	36						Removed
693	Sweetgum	39.5					0	Dead
694	Sweetgum	55.5						Removed
695	Sweetgum	55						Removed
696	Shamel ash	68	15	40	F	F	3	SC; dieback
697	Shamel ash	66.5						Removed
698	Shamel ash	84	20	45	F-P	P	2	DBF; dieback
699	Shamel ash	97	25	45	G	G	4	Cabled; SC; dieback; BF; DBF; CDLs; fused bark
700	Shamel ash	79.5	20	45	F	F	3	IB; leans; 1-sided
701	Sweetgum	51	12	45	P	P	1	Severe dieback
702	Sweetgum	45					0	Dead
704	Sweetgum	41.5					0	Dead

Tag #	Species	Circ. (in)	Dripline (ft)	Height (ft)	Health[1]	Struct.[1]	Rating[2]	Notes[3]
705	Sweetgum	53					0	Dead
706	Shamel ash	89	25	50	G	F	4	IB
707	Shamel ash	82	16	50	F	F	3	Leans; 1-sided; overloaded limb; CDL; BF
708	Sweetgum	56	20	45	F-P	P	2	Severe crown dieback
709	Sweetgum	59	12	40	F	P	3	SC; DBF; dieback
710	Sweetgum							Removed
711	Sweetgum	65					0	Dead
712	Sweetgum	63.5	20	30	P	P	1	Leans; 1-sided; OPC; DBF; severe dieback, nearly dead
713	Shamel ash	113	25	50	F	F	3	Dieback; CDLs with IB; decay
714	Shamel ash	70						Removed
715	Sweetgum	63	15	35	P	P	1	IB; severe dieback
716	Sweetgum	52	12	40	P	P	2	DBF; severe dieback
722	Sweetgum	36						Removed
724	Sweetgum	36						Removed
726	Chinese fringetree	37						Removed
728	Sweetgum	54						Removed
734	Shamel ash	49.5						Removed
735	Shamel ash	74	15	30	F	F	3	Dieback
736	Chinese pistache	36.5						Removed
737	Chinese pistache	44.5						Removed
746	Chinese pistache	39						Removed
754	Chinese pistache	41						Removed
756	Chinese pistache	36						Removed
757	Chinese pistache	37.5						Removed
759	Chinese pistache	36						Removed
762	Chinese pistache	37						Removed
766	Shamel ash	61	15	30	F	F	3	CDL with IB
767	Shamel ash	48	10	20	F	F	3	Dieback; SC
768	Shamel ash	52	10	25	G	G	4	

Tag #	Species	Circ. (in)	Dripline (ft)	Height (ft)	Health[1]	Struct.[1]	Rating[2]	Notes[3]
769	Shamel ash	39	16	25	F	F	3	Dieback
772	Chinese pistache	38.5						Removed
774	Chinese pistache	46						Removed
787	Chinese pistache	44	15	20	F	F	3	Leans; 1-sided; overloaded limb; dieback
788	Chinese pistache	50.5					0	Dead
789	Sweetgum	48.5					0	Dead
790	Shamel ash	48	15	35	F	F	3	1-sided; SC
792	Shamel ash	51	15	30	F-P	P	2	1-sided, dieback
793	Shamel ash	87	20	40	F-G	F	4	Several pruning cuts
794	Shamel ash	85.5	25	40	F	F	4	1-sided; SC; CL
795	Shamel ash	82	25	40	F	F	3	Leans; overloaded limbs; SC; dieback
802	Shamel ash	118	20	40	G	G	4	OPC; epicormics
803	Shamel ash	104	20	50	F	P	3	Slight lean; split limbs; DBF
804	Shamel ash	78	25	55	F	F	3	Dieback; MD to roots
805	Shamel ash	89	30	55	F	F	3	Slight lean; DBF; epicormics
806	Shamel ash	91	20	50	F	F	3	IB; SC
807	Shamel ash	80.5	20	50	F	P	2	Dieback
808	Shamel ash	95	20	50	F	F	3	SC; dieback
809	Shamel ash	67	20	50	F-P	F	2	SC; dieback
810	Shamel ash	81	30	50	F	P	3	Severe lean; 1-sided; SC
811	Shamel ash	124	20	50	F	F	3	Slight lean; CDLs with fused bark; BF; SC
813	Shamel ash	107.5						Removed
814	Shamel ash							Removed
815	Sweetgum	61	15	30	F	F	3	Dieback
816	Sweetgum	50	15	30	F-P	P	2	Leans; 1-sided; DBF; dieback
817	Sweetgum	58	12	30	F	P	2	Large decayed wound in trunk

Tag #	Species	Circ. (in)	Dripline (ft)	Height (ft)	Health[1]	Struct.[1]	Rating[2]	Notes[3]
818	Shamel ash	98.5	20	45	G	F	4	IB
819	Shamel ash	64	15	40	F	F	3	Dieback; BF
820	Shamel ash	53.5	15	40	F	F	3	IB; one-sided; dieback; SC
821	Shamel ash	93	25	50	F	P	2	Leans; 1-sided; overloaded limb; BF
822	Shamel ash	111.5	25	55	G	F	4	Leans; IB; CL
823	Shamel ash	86	18	50	F	P	3	Leans; CDLs with IB
884	Sweetgum	46.5	10	40	F	F	3	SC
899	Shamel ash	73						Removed
933	Strawberry tree	49						Removed
938	Chinese pistache	41.5						Removed
948	London plane tree	42.5						Removed
949	London plane tree	69						Removed
950	London plane tree	60.5						Removed
992	Shamel ash	71	20	40	F-G	F	4	Slight lean; epicormics
993	Shamel ash	109	20	40	F-G	F	4	Several old pruning
994	Shamel ash	86.5	25	40	F	F	3	Leans; 1-sided; SC
995	Shamel ash	97	20	45	G	G	4	
997	Shamel ash	99.5	18	40	F-G	F	4	Overloaded limb; IB
998	Valley oak	187	25	40	F	F	3	Cabled; overloaded limb; OPC; dieback
1000	Shamel ash	75	18	40	F-G	F	3	Slight lean; SC
1003	Shamel ash	83	35	40	F	F	3	Leans; 1-sided; SC; dieback
1004	Shamel ash	91	30	50	F	F	3	SC; lean
1008	Chinese fringetree	42						Removed
1011	Shamel ash	113.5	30	50	F	P	4	Leans; 1-sided; decay
1012	Yellow birch	36.5						Removed
1014	Shamel ash	95	25	50	F	P	3	Pruning cuts; epicormics
1015	Shamel ash	110	20	50	F	F	3	1-sided; MD; IB
1025	Strawberry tree	50						Removed
2000	Sweetgum	52.5	17	60	F-G	G	4	

Tag #	Species	Circ. (in)	Dripline (ft)	Height (ft)	Health[1]	Struct.[1]	Rating[2]	Notes[3]
2001	Sweetgum	43	15	50	F-G	G	4	
2002	Sweetgum	43	15	50	F	F	3	SC
2003	Sweetgum	41	15	50	F	F	3	SC
2004	Sweetgum	46	15	50	F	F	3	SC
2005	Sweetgum	41	10	50	F	F	3	SC

Shaded lines are trees rooted on the street side of the sidewalk = possible street trees
Gray font indicates trees less than, but within 1 inch of, 37 inches circumference
[1]G=Good; F-G =Fair to Good; F=Fair; F-P=Fair to Poor; P=Poor
[2]0=dead; 1=severely declining; 2=declining – may die within 5 years; 3=fair – health or structural issues but likely to survive more than 5 years; 4=good; 5=excellent
[3]BF=branch failures; CDL=co-dominant leaders; CL=crossing limbs; DBF=decayed branch failures; EG=epicormic growth; ESR=exposed structural roots; IB=included bark; MD=mechanical damage; OPC=old pruning cuts; SC=sparse canopy; 1-sided=asymmetrical canopy development

Attachment B. Site Photos



Photo 1. View of buildings and parking areas in the northeast portion of the site. Some trees have been removed from parking lot islands and around the vacant buildings.



Photo 2. View from the east side of the property looking north along South Milpitas Blvd. showing a dead tree (693) that was previously considered to be a protected tree and a row of Shamel Ash (678-681).



Photo 3. View of landscaped areas in the southern portion of the property where some protected trees inventoried in 2019 (58, 65, 69, 71, 74, and 77) are no longer present.



Photo 4. View of parking areas in the southeast portion of the site. Some trees have been removed from parking lot islands, while some remain.



Photo 5. View of trees remaining in landscaping within the parking areas in the southern portion of the site.



Photo 6. View along Gibraltar Drive in the southern portion of the site showing a row of Shamel ash and sweetgum trees (815-823) along Gibraltar Drive and smaller trees within the parking areas.

The following tables provide summaries of the criteria used for rating the health and structure of trees in the survey. Overall tree ratings were based on the individual ratings for health and structure.

Health

Health is an indication of the overall vigor and vitality of the tree expressed as a rating of Good, Fair, or Poor. Ratings for health were based on the criteria in Table C-1.

Table C-1. Criteria for Rating Tree Health

Good	**Little or no Evidence of Stress, Disease, Infestation, or Nutrient Deficiency.** Foliage (if present on deciduous species) is of average or better density, size, and color for the species; foliage in the canopy is evenly distributed; twig elongation and bud density are normal for the species; there is no evidence of dieback; there is little or no epicormic growth (water sprouts); there are not excessive numbers of galls or excessive evidence of herbivory; callusing, if present, is vigorous; bark is healthy and intact; there are no signs of senescence.
Fair	**Moderate Evidence of Stress, Disease, Infestation, or Nutrient Deficiency.** Foliage is below average density, size, or color for the species; foliage density may be lower in some parts of the canopy; twig elongation and bud density may be moderately reduced; some evidence of dieback may be present; some epicormic growth may be present; gall or herbivore load is higher than average for the species; callusing of old wounds is not well-developed; there may be evidence of small areas of infection such as bark swelling or sloughing; the tree may be over-mature or beginning to senesce.
Poor	**Abundant Evidence of Stress, Disease, Infestation, or Nutrient Deficiency.** Foliage and/or buds are sparse; leaves are reduced in size or of unhealthy color; the canopy is sparse and underdeveloped; there is widespread evidence of dieback; twig elongation is severely reduced; there is abundant epicormic growth; gall load, insect exit holes, or evidence of herbivory is severe; old wounds are not callused; there is widespread evidence of bark swelling, splitting, or sloughing in the root crown, trunk, or major limbs; the tree is senescent.

Structure

Structure is an indication of the structural stability and failure potential of the tree expressed as a rating of Good, Fair, or Poor. Ratings for structure were based on the criteria in Table C-2.

Table C-2. Criteria for Rating Tree Structure

Good	**Low Potential for Failure.** No wounds, cavities, decay, or indications of hollowness evident in the root crown, trunk, or major limbs; no exposed anchor roots or circling roots; no codominant branching or multiple trunk attachments; no

	crossing limbs; little or no included bark at branch attachments; no dead major limbs; no major limb failures; no overburdened limbs; no excessive or unnatural lean; proper development of trunk taper; structure is more or less symmetrical.
Fair	**Moderate Potential for Failure.** Small to moderate wounds, cavities, decay, or indications of hollowness may be present in the root crown, trunk, or major limbs; minor exposure of anchor roots; no circling roots; codominant trunks or multiple trunk attachments are present but included bark is absent or not well-developed; no large crossing limbs are present; small or medium-sized dead limbs may be present in the canopy; no large limb failures; limbs may be slightly overburdened; natural or only minor lean is evident with well-developed reaction wood; canopy development may be slightly to moderately asymmetrical.
Poor	**High Potential for Failure.** Significant wounds, cavities, decay, or indications of hollowness evident in the root crown, trunk, or major limbs; anchor roots are exposed or the tree has lost anchorage; circling roots are present; codominant branching or multiple trunk attachments are present; large crossing limbs are present; significant amounts of included bark are present at trunk and branch attachments; large dead limbs are present in the canopy; evidence of past large limb failures; overburdened limbs; poor trunk taper; excessive or unnatural lean or drastically unbalanced canopy development.

General Protection Guidelines for Trees Planned for Preservation

To prevent soil compaction:

- 6-8 inches of wood chips should be spread inside the dripline of trees where temporary construction traffic or staging would occur. Chips should be removed after project completion, or the depth reduced to no more than 4 inches. Alternatively, bridging root areas with steel plates would reduce damage to roots within construction traffic areas.
    - A circle with a radius measurement from the trunk of the tree to the tip of its longest limb, plus one foot, constitutes the critical root zone protection area of each protected tree. Limbs must not be cut back in order to change the dripline. The area beneath the dripline is a critical portion of the root zone and defines the minimum protected area of each protected tree. Removing limbs that make up the dripline does not change the protected area.

To reduce damage due to raising the existing grade:

- Grading within the protected zone of a protected tree should be minimized. Cuts within the protected zone should be maintained at less than 20% of the critical root zone area. Grade cuts should be monitored by the project Arborist. Any damaged roots encountered should be root pruned and properly treated as deemed necessary by the Project Arborist.
- Construct an open-joint wall of shell, brick, rock or masonry in a circle around the tree trunk, with at least 1 to 2 feet between the wall and trunk. This wall should be as high as the top of the new grade. This opening is commonly referred to as a tree well.
- If fills exceed 1 foot in depth up to 20% of the critical root zone area, aeration systems may serve to mitigate the presence of the fill materials as determined by the Project Arborist.
- Construct an aeration system using 4-inch agricultural clay tile or 4-inch perforated plastic pipe arranged in five to six horizontal lines radiating from the tree well like spokes in a wheel to a point beyond the branch spread. Allow excess moisture to drain away by installing the radial lines so they slope away from the trunk. Connect the outer ends of the radiating system with a circle of tile or perforated plastic pipe.
- To provide vents, place 4- or 6-inch plastic pipe or bell tile upright over the junction of the radial lines with the circle. They should extend to the surface of the planned grade level. Extend the lower end of the aeration system to a curb or storm drain to carry excess moisture away from the root system.
- Cover the exposed soil and tile system with rock or coarse gravel to a depth of 6 to 18 inches, depending on the amount of fill. Follow this with a covering layer of gravel. Place a thin layer of straw, woven plastic or other porous material over the gravel to prevent soil from filtering into the gravel and stone. Fill with good topsoil to the desired grade.

- When fill materials are deemed necessary on two or three sides of a tree it is critical to provide for drainage away from the critical root zone area of the tree (particularly when considering heavy winter rainfalls). Overland releases and subterranean drains dug outside the critical root zone area and tied directly to the main storm drain system are two options.
- The construction of impervious surfaces within the dripline of a protected tree should be minimized. When necessary, a piped aeration system should be installed under the direct supervision of the Project Arborist.
- Preservation devices such as aeration systems, tree wells, drains, special paving and cabling systems must be installed in conformance with approved plans and certified by the Project Arborist.
- To discourage rodents, fill the tree well with enough coarse gravel to cover the ends of the lines opening into the well. Also fill the upright bell tile and cover with a screen or grill.
- Minor roots less than one inch in diameter encountered during approved excavation and/or grading activities may be cut, but damaged roots should be traced back and cleanly cut behind any split, cracked or damaged area as deemed necessary by the Project Arborist.
- Major roots greater than one inch in diameter encountered during approved excavation and/or grading activities may not be cut without approval of the Project Arborist. Depending upon the type of improvement being proposed, bridging techniques or a new site design may need to be employed to protect the roots and the tree.
- Cut faces, which will be exposed for more than 2-3 days, should be covered with dense burlap fabric and watered to maintain soil moisture at least on a daily basis (or possibly more frequently during summer months). If any native ground surface fabric within the protected zone must be removed for any reason, it should be replaced within 48 hours.
- In cases where a permit has been approved for construction of a retaining wall(s) within the protected zone of a protected tree the applicant will be required to provide for immediate protection of exposed roots from moisture loss during the time prior to completion of the wall. The retaining wall within the protected zone of the protected tree should be constructed within 72 hours after completion of grading within the root protection zone.

General Construction Site Recommendations:

- A minimum 4-foot tall, brightly colored, synthetic fence should be installed around the limits of the work area or around outermost edge of the protected zone of trees that are designated for retention on-site. Encroachment into the fenced areas should be restricted to the minimum amount feasible and fencing should remain in place until all construction activities have ceased. The protected zone is defined as the “dripline” (which is an imaginary line that is drawn on the ground around the tree at the

outermost limit of the canopy) or in cases where construction is encroaching on the dripline of a retained tree, the protected zone is the portion of the tree's dripline that is being protected. Fencing should be installed in accordance with an approved fencing plan prior to the commencement of any grading operations or such other time as determined by the review body.

- Signs should be installed on the protective fence in four equidistant locations around each individual tree. The size of the sign should be a minimum of two by two feet and contain the following language "Warning: This Fence Shall Not Be Removed or Relocated Without Written Authorization From **insert governing body**". Protective fencing should remain in place throughout the entire construction period and should not be removed, relocated, taken down or otherwise modified without prior written authorization.
- All portions of permanent fencing that will encroach into the protected zone of a protected tree should be constructed using posts set no closer than ten feet on center. Posts should be spaced in such a manner as to maximize the separation between the tree trunks and the posts in order to reduce impacts to the trees(s).
- The fenced area should be kept clear of building materials, waste, and excess soil.
- No digging, trenching, compaction, or other soil disturbance should be allowed in the fenced area.
- The storage of construction equipment or hazardous materials such as gasoline, oil, or other toxic chemicals should not be allowed in or adjacent to the fenced area.
- Storage areas for equipment, soil, and construction materials as well as burn sites (if permitted), cement washout pits, and construction work zones should be kept away from protected trees and outside the fenced in area.
- Cable, chain, rope or signage should not be attached to retained trees.
- Designated roads and parking areas should be established. All construction personnel should be restricted to driving and parking in designated areas. Discharge of exhaust from construction vehicles and equipment should not be allowed near the protected zone of trees.
- Grade changes should be avoided near fenced areas to the maximum extent possible.
- No sprinkler or irrigation system should be installed in such a manner that sprays water or required trenching within the dripline of a protected tree. An above ground drip irrigation system is recommended. An independent low-flow drip irrigation system may be used for establishing drought tolerant plants within the protected zone of a protected tree. Irrigation should be gradually reduced and discontinued after a 2-year period.
- Landscaping beneath native oak trees may include non-plant materials such as bark mulch, wood chips, boulders, etc. Planting live material under protected native oak trees is generally discouraged and is not recommended within 6 feet of the trunk of a native oak tree with a diameter at breast height (DBH) of 18 inches or less, or within 10

feet of the trunk of a native oak tree with DBH of more than 18 inches. The only plant species which should be planted with the dripline of native oak trees are those which are tolerant of the natural, semi-arid environs of the tree(s).

Recommendations for Construction Activities in the Vicinity of Retained Trees:

- Any protected trees on site which require pruning should be pruned by an ISA Certified Arborist prior to the start of construction work. All pruning should be in accordance with the American National Standards Institute (ANSI) A300 pruning standards, ANSI Standard 2133.1-2000 regarding safety practices, and the International Society of Arboriculture (ISA) "Tree Pruning Guidelines" and Best Management Practices.
- Trenching within the dripline of retained trees should be avoided to the maximum extent practicable and kept a minimum distance of 10 times the diameter of the tree away from its trunk. If necessary, this trenching should be conducted using hand excavation or compressed air to reduce impacts to tree roots. Machine trenching should not be allowed within the dripline of retained trees. Trenching inside the dripline should be monitored by a certified arborist who may direct the construction crew to use hand tools rather than heavy equipment. Hand saws, pass-through pruners, shovels and trowels, burlap cloth, and water should be available at all times during trenching inside the dripline. If pipes must be installed closer to the tree than a distance of 10 times the diameter of the tree away from its trunk, they should be bored beneath the tree a minimum of 3 feet below the ground surface to reduce impacts to roots.
- Excavation should also be minimized within the dripline of retained trees. Construction within the dripline of retained trees should be conducted in a manner that minimizes excavation and provides for the best preservation of roots as determined by the Project Arborist.
- If tree roots are severed outside of the fenced area, they should be severed cleanly and kept moist. All exposed roots outside of fenced areas should be covered with protective material during construction such as mulch or plywood sheets to reduce soil compaction. Protective material should be removed upon completion of construction activities.
- Construction activities involving soil disturbance should be avoided during hot, dry, weather and trees should be watered before, during, and after trenching and excavation within the dripline of retained trees to offset water loss due to cut roots.
- Grading within the driplines of retained trees should be avoided wherever feasible.
- Any removal of paving or structures (i.e. demolition) that occurs within the dripline of a protected tree should be done under the direct supervision of the Project Arborist.
- No sign, ropes, cables (except those which may be installed by an ISA Certified Arborist to provide limb support) or any other items should be attached to the protected trees. Small metallic numbering tags for the purpose of identification in preparing tree reports and inventories should be allowed.

- No vehicles, construction equipment, mobile homes/office, supplies, materials or facilities should be driven, parked, stockpiled or located within driplines of protected trees.
- Drainage patterns on the site should not be modified so that water collects, stands or is diverted across the dripline of any protected tree.
- No trenching should be allowed within the driplines of protected trees, except as specifically approved by the Planning Department as set forth in the project's Conditions of Approval and/or approved tree permit. If it is absolutely necessary to install underground utilities within the dripline of a protected tree the utilizing hand tools to avoid root injury under the direct supervision of the Project Arborist.

Recommendations for Protection of Trees Post-Construction:

- Post-construction inspections of the trees should be conducted by a Certified Arborist or Certified Tree Worker to determine if retained trees are stressed (e.g., water stress, nutrient stress) or damaged (e.g., broken branches, trunk damage). Appropriate corrective actions should be implemented as necessary. Such corrective actions may include remediation of severe soil compaction through vertical mulching or a similar technique, remedial pruning to repair damaged or broken limbs, application of mulch, application of root stimulant to encourage new root growth in trees that have a significant portion of their roots lost due to cutting or soil compaction, etc.
- Aeration of soil by vertical mulching or similar technique should be implemented around retained trees to offset the impacts of soil compaction that has already occurred due to construction activities and other site uses.
- All trees that will be preserved following project construction should be periodically monitored by a qualified tree care professional for the life of the project. The project (*i.e*., homeowners association/property owner) should be responsible for providing for monitoring and ongoing care and maintenance of all preserved trees on the site.

Appendix C:

Cultural Resources Supporting Information

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Photograph 1: Overview of the project site from the northwest corner. View East.



Photograph 2: Overview of the project site from the northwest corner. View Southeast.



Photograph 3: Overview of the project site from the northwest corner. View South.



Photograph 4: Overview of the project site from the northeast corner. View south.



Photograph 5: Overview of the project site from the northeast corner. View west.



Photograph 6: Overview of east façade of property. View West.



Photograph 7: Overview of the project site from the southeast corner. View north.



Photograph 8: Overview of the project site from the Southeast corner. View west.



Photograph 9: Overview of the project site from the southwest corner. View north.



Photograph 10: Overview of the project site from the southwest corner. View east.



Photograph 11: Overview of the project site from the southwest corner. View West.



Photograph 12: Overview of southern façade of “East” building. View North.



Photograph 13: Overview of Southwest façade of “East” building. View North.



Photograph 14: Overview of Northwest Façade of “East” building. View East



Photograph 15: Overview of East façade of “East” building. View West.



Photograph 16: Overview of North Façade of “East” building. View Southeast



Photograph 17: Overview of West façade of “South” building. View East.



Photograph 18: Overview of North Façade of “South” building. View Southeast



Photograph 19: Overview of South façade of “South” building. View Northwest.



Photograph 20: Overview of East Façade of “South” building. View Southwest



Photograph 21: Overview of South façade of “West” building. View North.



Photograph 22: Overview of Southeast Façade of “West” building. View Southwest



Photograph 23: Overview of Northeast façade of “West” building. View Southwest.



Photograph 24: Overview of North Façade of “West” building. View Southeast



Photograph 25: Overview of West façade of “West” building. View East.



Photograph 26: Overview of South Façade of “North” building. View Northwest



Photograph 27: Overview of East façade of “North” building. View North.



Photograph 28: Overview of Northeast Façade of “North” building. View Southeast



Photograph 29: Overview of North façade of “North” building. View Southwest.



Photograph 30: Overview of circular storage building attached to Northwest Façade of “North” building. View Northeast



Photograph 31: Grass field with Disc Golf course on Southeast corner of the Project Area



Photograph 32: Overview of Volleyball court with amphitheater and a gas firepit, Southeast of “West” Building, View West

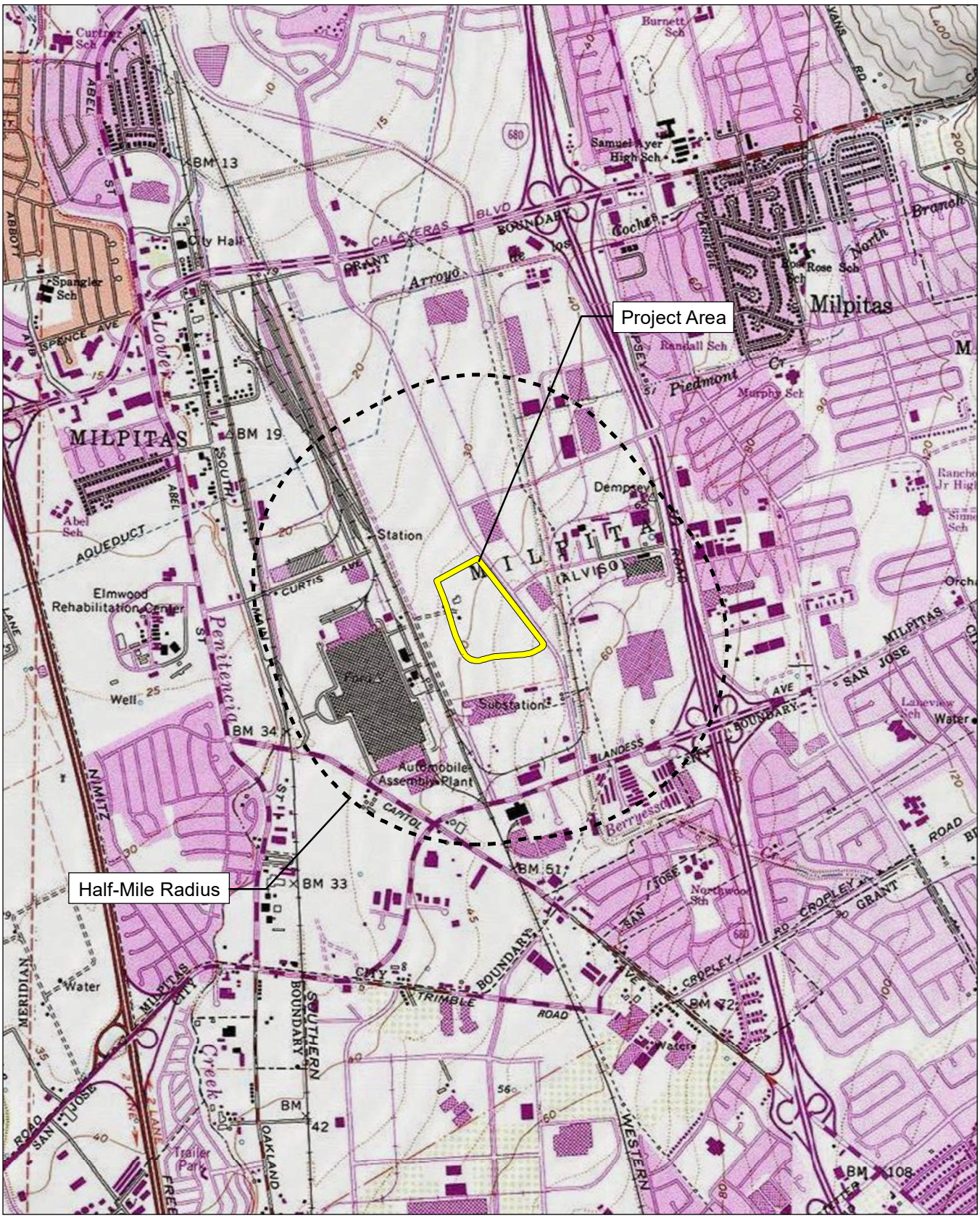


Photograph 33: Overview of horseshoe court between the “West” and “South” Buildings. Viewing North



Photograph 34: Overview of concrete Cornhole boards, Southwest of “East” building. View North.

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Radius Source: USGS Milpitas 7.5' Quadrangle / T06S R01E Sec 7, 8, 17, 18
Project Site Source: USGS Milpitas 7.5' Quadrangle / T06S R01E Sec 8, 17

2,000 1,000 0 2,000
Feet

Record Search Map

Resource Detail: P-43-000588

Identifying information

Primary No.: P-43-000588
Trinomial: CA-SCL-000593
Name: Berryessa Creek Site
Other IDs:

Type	*Name*
Resource Name	Berryessa Creek Site
Other	Ca-SCL-593
OTIS Resource Num	597935

Cross-refs:

Attributes

Resource type: Site
Age: Prehistoric
Information base: Survey, Excavation
Attribute codes: AP09 (Burials); AP15 (Habitation debris)
Disclosure: Not for publication
Collections: Yes
Accession no(s): Berryessa Site
Facility: ARM

General notes

Recording events

	Date	*Recorder(s)*	*Affiliation*	*Notes*
a	4/3/1986	R. Stradford, R. Cartier	US Army Corps; Archaeological Resource Management	From S-8115
b	11/7/2017	Tim Spillane	Cogstone Resource Management	Update with boundary change. From S-54585.

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
S-008115	1986	Burial Recovery at Berryessa Creek in the City of Milpitas, County of Santa Clara.	Archeological Resource Management
S-014230	1992	Evaluation of Archaeological Resources for the San Jose/Santa Clara Nonpotable Water Reclamation Project	Archaeological Resource Management
S-015929	1993	Cultural Resource Evaluation of the Milpitas Boulevard Overcrossing Project Located in the City of Milpitas, County of Santa Clara	Archaeological Resource Management
S-015947	1994	Archaeological Testing, Milpitas Boulevard Overcrossing Project, Located in the City of Milpitas, County of Santa Clara	Archaeological Resource Management
S-016394	1994	Recorded Archaeological Resources in Santa Clara County, California (Plotted on the BARCLAY 1993 LoCaide Atlas)	Basin Research Associates, Inc.
S-023105	1999	Historic Properties Affected or Potentially Affected by the South Bay Water Recycling Program "Package 1" Segments SC 1, SC 3, SC 5, M 2, M 3, M 4, M 5 & SJ/C 1, Cities of Milpitas, San Jose, Santa Clara, and Sunnyvale, Santa Clara County (letter report)	Basin Research Associates, Inc.
S-049780	2017	San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4	California Department of Transportation, District 4
S-053849	2010	Historic Properties Survey Report and Finding of Effect, Berryessa Creek Project, Cities of San Jose and Milpitas, Santa Clara County, California, Contract No.: W912PL-07-D-0048, Task Order No.: CM08	Basin Research Associates, Inc.

Resource Detail: P-43-000588

	S-054585	2017	Burial Recovery and Archaeological Monitoring Compliance Report for the Upper Berryessa Flood Channel Imrpovements Project, Milpitas, Santa Clara County, California	Cogstone

Location information

County: Santa Clara
USGS quad(s): Milpitas
Address:
PLSS:
UTMs: Zone 10 598600mE 4141350mN NAD27 (4/3/1986)

Management status

OTIS ID	*Prop. ID*	*OHP Unit*	*Unit Activity ID*	*Status*	*Criteria*	*Evaluator*	*Date*
597935		Review and Com	SCL-000593	2S2		Dwight Du	1/25/2012

Database record metadata

	Date	*User*	
Entered:	4/1/2005	icrds	
Last modified:	3/6/2024	YanagiG	
IC actions:	*Date*	*User*	*Action taken*
	2/5/2024	hercherj	processed DPR Record update (Spillane 11/7/2017)
	4/1/2005	jay	Appended records from discontinued ICRDS.
	2/28/2024	hercherj	Updated Spillane GIS boundary change GIS: JH_Batch_04
	3/6/2024	YanagiG	Verified.
	2/27/2024	YanagiG	Previous GIS by FEMA; verification by unknown person, unknown date. Spillane update requires boundary change. Record status = Database Complete.

Record status: Verified

Resource Detail: P-43-001816

Identifying information

Primary No.: P-43-001816
Trinomial: CA-
Name: Great Mall of the Bay Area Building
Other IDs:

Type	*Name*
Other	Old Ford Motor Assembly Plant
OHP Property Numb	161552
OHP PRN	FCC060215F
Resource Name	Great Mall of the Bay Area Building

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey, Analysis, Other
Attribute codes: HP06 (1-3 story commercial building)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/1/2006	Dana E. Supernowicz	Historic Resource Associates	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
S-031212	2006	Collocation ("CO") Submission Packet, FCC Form 621, Great Mall, SF-15051	Archaeological Resources Technology

Location information

County: Santa Clara
USGS quad(s): Milpitas
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
459 Great Mall Drive	Milpitas	086-24-055	95035

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	11/16/2006	liz	
Last modified:	12/18/2024	willoughbyl	
IC actions:	*Date*	*User*	*Action taken*
	9/13/2010	jordanl	completed filling in information
	8/30/2016	paganob	updated other identifiers
	5/11/2020	hagell	edited resource name

Record status: Verified

Resource Detail: P-43-002654

Identifying information

Primary No.: P-43-002654
Trinomial: CA-SCL-000945H
Name: Western Pacific Railroad
Other IDs:

Type	*Name*
Other	Western Pacific Railroad San Jose Branch - Warm Springs Yard to Santa Clara Street
Other	BC-T1; Union Pacific RR Trestle at Berryessa Creek
Other	Map Reference #01-07
Resource Name	Western Pacific Railroad

Cross-refs: Physically overlaps or intersects 43-001010
Extends into another county as 01-002190

Attributes

Resource type: Structure, Site
Age: Historic
Information base: Survey
Attribute codes: AH07 (Roads/trails/railroad grades); HP11 (Engineering structure); HP19 (Bridge)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

	Date	*Recorder(s)*	*Affiliation*	*Notes*
a	7/23/2002	C. McMorris, A. Blosser	JRP	
b	9/18/2013	Jerry Fuentes	US Army Corps of Engineers	
c	2/7/2014	Dean M. Duryea Jr.	Satistical Research, Inc	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
S-038390	2011	Cultural Resources Inventory of the Silicon Valley Berryessa Extension, Gas and Electric Distribution Relocation Project, Santa Clara County, California	Far Western Anthropological Research Group, Inc.
S-057394	2022	Historic Property Survey Report for the San Jose Bikeways Projet, 4-SCC, STPL 5005 (169), City of San Jose	Anthropological Studies Center; JRP Historical Consulting, LLC.

Location information

County: Santa Clara
USGS quad(s): Milpitas, San Jose East, San Jose West
Address:
PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	6/14/2012	hagell	
Last modified:	5/11/2020	hagell	
IC actions:	*Date*	*User*	*Action taken*
	2/15/2016	neala	added trinomial

Record status: Verified

Resource Detail: P-43-003005

Identifying information

Primary No.: P-43-003005
Trinomial: CA-SCL-000928
Name: Milpitas Great Mall Site
Other IDs:

Type	*Name*
Resource Name	Milpitas Great Mall Site

Cross-refs:

Attributes

Resource type: Site
Age: Prehistoric
Information base: Excavation, Other
Attribute codes: AP09 (Burials)
Disclosure: Not for publication
Collections: Yes
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/28/2014	Phil Kaijankoski	FWARG	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
S-049780	2017	San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4	California Department of Transportation, District 4

Location information

County: Santa Clara
USGS quad(s): Milpitas
Address:
PLSS:
UTMs: Zone 10 597863mE 4141496mN NAD83

Management status

Database record metadata

	Date	*User*
Entered:	3/14/2014	grahams
Last modified:	12/12/2019	hagell
IC actions:		
Record status:	Verified	

Resource Detail: P-43-003493

Identifying information

Primary No.: P-43-003493
Trinomial: CA-
Name: 512 Capitol Ave.
Other IDs:

Type	*Name*
Resource Name	512 Capitol Ave.
OHP Property Numb	072041
OHP PRN	UMTA891122A
OHP PRN	DOE-43-91-0002-0000

Cross-refs:

Attributes

Resource type: Building
Age: Historic
Information base: Survey
Attribute codes: HP02 (Single family property)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
3/1/1991	Mark Brack	Archaeological/Historical Consultants	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
S-012294	1990	Archaeological Survey Report, Tasman Corridor Project, Santa Clara County, California	Archaeological/Historical Consultants

Location information

County: Santa Clara
USGS quad(s): Milpitas
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
512 Capitol Ave.	Sunnyvale	086-037-004	

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*	
Entered:	5/9/2016	paganob	
Last modified:	12/18/2024	willoughbyl	
IC actions:	*Date*	*User*	*Action taken*
	5/9/2016	paganob	Assigned primary number using import tool.

Record status: Verified

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-000848	Agency Nbr - Contract AA550-CT6-52	1976	David A. Fredrickson	A Summary of Knowledge of the Central and Northern California Coastal Zone and Offshore Areas, Vol. III, Socioeconomic Conditions, Chapter 7: Historical & Archaeological Resources	The Anthropology Laboratory, Sonoma State College; Winzler & Kelly Consulting Engineers	
S-003453	Voided - E-165 MNT	1950	Roy Meadows, Roy Martin, and Ann Fisher	Notes on the Carmel Indians (notes taken from Roy Meadows and Roy Martin on March 4th, 1950); and Southern Costanoan-Esselen Notes (notes taken from Ann Fisher on March 4th, 1950)		
S-004259	Voided - E-120 SCL	1976	Stephen A. Dietz	A records search and archaeological reconnaissance for the proposed Sinclair Frontage Road reconstruction in Milpitas, California (letter report)		
S-004296	Voided - E-159 SCL	1975		Report of the Archaeological Reconnaissance of the Proposed South Bay Industrial Center, Santa Clara County, California	Archaeological Consulting and Research Services, Inc.	
S-004428	Voided - E-300 SCL	1975		HUD Community Development Block Grant: Cultural Resources	Archaeological Consulting & Research Services, Inc.	43-000346, 43-001468
S-004754	Voided - E-643 SCL	1973	Thomas M. King and Linda King	Visual Inventory of Historic and Archaeological Sites, San Jose, California	Santa Clara County Archaeological Society	
S-004772	Voided - E-661 SCL	1973	Thomas L. Jackson, Miley P. Holman, and Stephen A. Dietz	An Archaeological Reconnaissance of the Santa Clara County Flood Control and Water District East Zone Flood Control Project	Adan E. Treganza Anthropology Museum, California State University, San Francisco	43-000022, 43-000056, 43-000057, 43-000068, 43-000072, 43-000080
S-005259	Voided - E-733 SCL	1979	Ann Hines, Pauline Pace, and Gail Woolley	Santa Clara County Heritage Resource Inventory	Santa Clara County Historical Heritage Commission	
S-005260	Voided - E-734 SCL	1978	Joseph C. Winter	Tamien - 6000 Years in an American City		43-000141
S-005272	Voided - E-747 SCL	1932	Jan Otto Marius Broek	The Santa Clara Valley, California: A Study in Landscape Changes		
S-006164	IC Record Search Nbr - 6080-1582-J; Voided - S-6165	1983		Cultural Resource Evaluation of the Lands of Lincoln Property Company on Milpitas Blvd. in the City of Milpitas, Santa Clara County, CA	Archeological Resource Management	
S-006164a		1983		Subsurface Archaeological Testing of the Lands of Lincoln Property Company on Milpitas Blvd in the City of Milpitas, Santa Clara County, CA.	Archeological Resource Management	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-006512		1984	Miley Paul Holman	Cali-Hunco (McCandless) Project Area, Milpitas, Archaeological Reconnaissance (letter report)	Holman & Associates	
S-006525		1984	Robert Cartier	Cultural Resource Evaluation of the Lincoln Property Company Development on Landess Avenue and Dempsey Road in Milpitas, County of Santa Clara	Archeological Resource Management	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-007483		1985	Albert B. Elsasser, R. L. Anastasio, J. C. Bard, C. I. Busby, D. M. Garaventa, S. A. Guedon, E. L. Moore, K. M. Nissen, and M. E. Tannam	Revised Data Recovery Plan, Part I: Review of the Prehistory of the Santa Clara Valley Region as Part of the Guadalupe Transportation Corridor Compliance with 36 CFR Part 800	Basin Research Associates, Inc.	35-000013, 35-000025, 35-000026, 35-000036, 41-000080, 43-000019, 43-000021, 43-000022, 43-000023, 43-000026, 43-000051, 43-000052, 43-000057, 43-000058, 43-000061, 43-000062, 43-000064, 43-000067, 43-000071, 43-000072, 43-000073, 43-000074, 43-000075, 43-000080, 43-000081, 43-000082, 43-000083, 43-000084, 43-000085, 43-000086, 43-000087, 43-000089, 43-000092, 43-000096, 43-000097, 43-000098, 43-000120, 43-000124, 43-000132, 43-000133, 43-000138, 43-000139, 43-000140, 43-000141, 43-000142, 43-000143, 43-000145, 43-000146, 43-000147, 43-000148, 43-000149, 43-000153, 43-000159, 43-000175, 43-000189, 43-000201, 43-000205, 43-000207, 43-000214, 43-000215, 43-000217, 43-000220, 43-000221, 43-000222, 43-000223, 43-000225, 43-000226, 43-000227, 43-000228, 43-000229, 43-000230, 43-000232, 43-000233, 43-000234, 43-000237, 43-000239, 43-000240, 43-000242, 43-000244, 43-000246, 43-000247, 43-000249, 43-000251, 43-000252, 43-000255, 43-000256, 43-000257, 43-000258, 43-000259, 43-000266, 43-000267, 43-000276, 43-000277, 43-000281, 43-000284, 43-000294, 43-000295, 43-000300, 43-000302, 43-000303, 43-000304, 43-000308, 43-000310, 43-000317, 43-000319, 43-000320, 43-000321, 43-000325, 43-000346, 43-000349, 43-000360, 43-000369, 43-000370, 43-000377, 43-000378, 43-000379, 43-000410, 43-000411, 43-000414, 43-000422, 43-000423, 43-000448, 43-000451, 43-000458, 43-000459, 43-000460, 43-000465, 43-000485, 43-000502, 43-000504, 43-000965, 43-001002, 43-001008, 43-001015

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-008115		1986	Robert Cartier, Lorna Pierce, Francoise Sweeney, and Glory Anne Laffey	Burial Recovery at Berryessa Creek in the City of Milpitas, County of Santa Clara.	Archeological Resource Management	43-000588
S-008585	Voided - E-1086 SCL	1974	Thomas King, Gary Berg, Patricia Hickman, Richard Hastings, Chester D. King, Katherine Flynn, and William Roop	Archaeological Element, Environmental Impact Report on the San Felipe Water Distribution System	Archaeological Resource Service	
S-009462		1977	Teresa Ann Miller	Identification and Recording of Prehistoric Petroglyphs in Marin and Related Bay Area Counties	San Francisco State University	07-000323, 21-000087, 21-000376, 21-000378, 21-000379, 21-000380, 21-000381, 21-000382, 21-000383, 21-000384, 21-000386, 21-000387, 21-000388, 21-000389, 21-000390, 21-000391, 21-000392, 21-000393, 21-000394, 21-000395, 21-000396, 21-000397, 21-000398, 21-000399, 21-000400, 21-000401, 21-000402, 21-000546, 23-000434, 23-000789, 23-000790, 49-000629, 49-000785, 49-000787
S-009583		1978	David W. Mayfield	Ecology of the Pre-Spanish San Francisco Bay Area	San Francisco State University	
S-009718	Other - Santa Clara Calley Water District #6080-87-462	1988	Robert Cartier	Cultural Resource Evaluation of the Proposed Milpitas Pipeline Alignment in the Cities of San Jose and Milpitas, County of Santa Clara	Archeological Resource Management	
S-010200		1988	David Chavez, Sally B. Woodbridge, and Jan M. Hupman	Cultural Resources Evaluation for the Fremont-South Bay Corridor Study: Alternatives Analysis, Alameda and Santa Clara Counties, California	David Chavez & Associates	01-000117, 43-000030, 43-000032, 43-000040, 43-000046, 43-000047, 43-000048, 43-000049, 43-000057, 43-000139, 43-000369, 43-000421, 43-000473
S-010574		1989		Cultural Resource Evaluation of Reach 3 of the Proposed Milpitas Pipeline Alignment in the City of Milpitas, County of Santa Clara	Archaeological Resource Management	
S-011360	Caltrans - 04216-113650; Voided - S-11361	1989	Glory Anne Laffey	Historic Architectural Survey Report for Tasman Drive Extension/Interchange Project, 4-SCL-880 21.3/22.3 04 216-113650	Archaeological Resource Management	43-000057, 43-000623, 43-000624, 43-003504, 43-003537, 43-003538, 43-003548, 43-003723, 43-003724

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-011360a		1985	Kathryn Gualtieri and Bruce E. Cannon	I-880 - Tasman Drive Interchange	California Office of Historic Preservation; U.S. Department of Transportation, Federal Highway Administration	
S-011360b		1989	Robert Cartier	Extended Phase I and Phase II Archaeological Report for Tasman Drive Extension/Interchange Project, 4-SCL-880 21.3/22.3 04 216-113650	Archaeological Resource Management	
S-011360c		1985		Historic Properties Survey Report, 04-SCI-880, 21.3/22.3, 04216-113650, Proposed Tasman Drive Connection to Route 880 (Formerly 17), Santa Clara County	California Department of Transportation	
S-011360d		1984	J.A. McManus	Archaeological Survey Report for a Proposed Widening Project, 4-SCI-17, P.M. 21.3/22.3, 04216-113650	California Department of Transportation	
S-011360e		1985	Margaret L. Buss	Negative Archaeological Survey Report, 04-SCI-880, P.M. 21.3/22.3, 4216-113650, Adddendum #1	California Department of Transportation	
S-011396		1989		Technical Report of Cultural Resources Studies for the Proposed WTG-WEST, Inc., Los Angeles to San Francisco and Sacramento, California: Fiber Optic Cable Project	BioSystems Analysis, Inc.	27-000819, 27-001444, 27-001445, 27-001446, 27-003235, 27-003236, 35-000036, 35-000053, 35-000151, 35-000152, 35-000153, 35-000154, 35-000167, 35-000168, 41-000009, 41-000105, 41-000169, 41-000172, 41-000230, 41-000231, 41-000410, 43-000024, 43-000028, 43-000042, 43-000050, 43-000178, 43-000179, 43-000180, 43-000181, 43-000182, 43-000183, 43-000184, 43-000189, 43-000245, 43-000247, 43-000248, 43-000388, 43-000449, 43-000456, 43-000595, 43-000619, 43-001001, 43-001010, 43-001059

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-012294	OHP PRN - UMTA890407A; OHP PRN - UMTA891122A; Voided - S-12468; Voided - S-12803; Voided - S-14070; Voided - S-32340	1990	Suzanne Baker and Laurence H. Shoup	Archaeological Survey Report, Tasman Corridor Project, Santa Clara County, California	Archaeological/Historical Consultants	43-000030, 43-000032, 43-000040, 43-000046, 43-000047, 43-000048, 43-000049, 43-000057, 43-000421, 43-000623, 43-000706, 43-000707, 43-000708, 43-000710, 43-000711, 43-000712, 43-000713, 43-000714, 43-000715, 43-000716, 43-000717, 43-003443, 43-003444, 43-003445, 43-003446, 43-003447, 43-003448, 43-003449, 43-003450, 43-003451, 43-003452, 43-003453, 43-003454, 43-003455, 43-003456, 43-003457, 43-003458, 43-003459, 43-003460, 43-003461, 43-003462, 43-003463, 43-003464, 43-003465, 43-003466, 43-003467, 43-003468, 43-003469, 43-003470, 43-003471, 43-003472, 43-003473, 43-003474, 43-003475, 43-003476, 43-003477, 43-003478, 43-003479, 43-003480, 43-003481, 43-003482, 43-003483, 43-003484, 43-003485, 43-003486, 43-003487, 43-003488, 43-003489, 43-003490, 43-003491, 43-003492, 43-003493, 43-003494, 43-003495, 43-003496, 43-003497, 43-003498, 43-003499, 43-003500, 43-003501, 43-003502, 43-003503, 43-003504, 43-003505
S-012294a		1991	Suzanne Baker and Laurence H. Shoup	Final Report, Archaeological Survey Report, Tasman Corridor Project, Santa Clara County, California	Archaeological/Historical Consultants	
S-012294b		1991	Mark Brack, Laurence H. Shoup, and Suzanne Baker	Historic Architectural Survey Report, Tasman Corridor Project, Santa Clara County, California	Archaeological/Historical Consultants	
S-012294c		1991	Suzanne Baker	Final Report, Addendum to Archaeological Survey Report, Tasman Corridor Project, Santa Clara County, California: Archaeological Testing at CA-SCL-20	Archaeological/Historical Consultants	
S-012294d		1992		Finding of Effect for the Tasman Corridor Light Rail Project	Archaeological/Historical Consultants; Woodward-Clyde Consultants	

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S-012294e		1991	Kathryn Gualtieri, Steade R. Craigo, Daniel Abeyta, and Roy Molseed	UMTA891122A; UMTA890407A; Tasman Corridor, Santa Clara County; Santa Clara Valley Transportation Authority	California Office of Historic Preservation; Santa Clara Valley Transportation Authority	
S-012438		1990	David Chavez and Jan M. Hupman	Cultural Resources Evaluation for the Proposed Santa Clara County BART Extension Corridor	David Chavez and Associates	43-000369, 43-000473, 43-001010
S-013200		1991	Donna M. Garaventa, Colin I. Busby, Sondra A. Jarvis, and David G. Brittin	Cultural Resources Assessment for the Santa Clara County Transportation Plan - T2010 EIR	Basin Research Associates, Inc.	43-000019, 43-000024, 43-000025, 43-000026, 43-000030, 43-000031, 43-000032, 43-000040, 43-000046, 43-000047, 43-000048, 43-000049, 43-000058, 43-000085, 43-000106, 43-000137, 43-000139, 43-000141, 43-000149, 43-000175, 43-000178, 43-000179, 43-000180, 43-000181, 43-000182, 43-000183, 43-000184, 43-000189, 43-000192, 43-000210, 43-000211, 43-000245, 43-000246, 43-000247, 43-000248, 43-000259, 43-000260, 43-000303, 43-000334, 43-000338, 43-000341, 43-000345, 43-000354, 43-000361, 43-000365, 43-000369, 43-000382, 43-000391, 43-000395, 43-000398, 43-000404, 43-000412, 43-000415, 43-000418, 43-000421, 43-000444, 43-000449, 43-000455, 43-000462, 43-000468, 43-000472, 43-000474, 43-000476, 43-000483, 43-000555, 43-000558, 43-000565, 43-000566, 43-000573, 43-000601, 43-000614, 43-000624, 43-000626, 43-001001, 43-001010, 43-001013, 43-001071, 43-001077, 43-001078, 43-001084
S-014230	IC Record Search Nbr - 60800-92-62	1992	Robert Cartier, Allika Ruby, Jason Bass, and Mike Kelley	Evaluation of Archaeological Resources for the San Jose/Santa Clara Nonpotable Water Reclamation Project	Archaeological Resource Management	43-000026, 43-000027, 43-000057, 43-000058, 43-000318, 43-000349, 43-000423, 43-000448, 43-000451, 43-000473, 43-000529, 43-000554, 43-000561, 43-000564, 43-000576, 43-000588, 43-000614, 43-000623

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S-015228		1993	Donna M. Garaventa, Stuart A. Guedon, and Colin I. Busby	Cultural Resources Review for the City of San Jose 2020 General Plan Update, Santa Clara County, California	Basin Research Associates, Inc.	43-000022, 43-000077, 43-000078, 43-000079, 43-000086, 43-000090, 43-000120, 43-000141, 43-000147, 43-000150, 43-000151, 43-000153, 43-000154, 43-000155, 43-000156, 43-000157, 43-000158, 43-000164, 43-000165, 43-000166, 43-000185, 43-000186, 43-000187, 43-000188, 43-000189, 43-000208, 43-000211, 43-000220, 43-000221, 43-000222, 43-000223, 43-000225, 43-000249, 43-000303, 43-000324, 43-000354, 43-000362, 43-000416, 43-000424, 43-000459, 43-000479, 43-000566, 43-000568, 43-000569, 43-000623, 43-001022, 43-001058
S-015529		1993	Robert L. Gearhart II, Clell L. Bond, Steven D. Hoyt, James H. Cleland, James Anderson, Pandora Snethcamp, Gary Wesson, Jack Neville, Kim Marcus, Andrew York, and Jerry Wilson	California, Oregon, and Washington: Archaeological Resource Study	Espey, Huston & Associates, Inc.; Dames & Moore	01-000033, 01-000034, 01-000084, 01-000086, 01-000104, 07-000133, 07-000173, 07-000175, 07-000177, 17-000072, 17-000392, 21-000048, 21-001915, 23-001704, 27-000100, 27-000236, 27-000335, 27-000356, 27-000386, 27-000485, 38-000028, 38-000072, 38-000085, 38-000098, 41-000080, 41-000265, 44-000179
S-015929		1993		Cultural Resource Evaluation of the Milpitas Boulevard Overcrossing Project Located in the City of Milpitas, County of Santa Clara	Archaeological Resource Management	43-000588
S-015947		1994		Archaeological Testing, Milpitas Boulevard Overcrossing Project, Located in the City of Milpitas, County of Santa Clara	Archaeological Resource Management	43-000588

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S-016394	Voided - S-18290; Voided - S-19068; Voided - S-21166	1994	Colin I. Busby, Donna M. Garaventa, Stuart A. Guedon, and Melody E. Tannam	Recorded Archaeological Resources in Santa Clara County, California (Plotted on the BARCLAY 1993 LoCaide Atlas)	Basin Research Associates, Inc.	43-000005, 43-000006, 43-000007, 43-000009, 43-000010, 43-000011, 43-000012, 43-000013, 43-000014, 43-000015, 43-000016, 43-000019, 43-000021, 43-000023, 43-000025, 43-000026, 43-000027, 43-000028, 43-000029, 43-000030, 43-000031, 43-000032, 43-000033, 43-000034, 43-000035, 43-000036, 43-000037, 43-000038, 43-000039, 43-000040, 43-000041, 43-000042, 43-000043, 43-000044, 43-000045, 43-000046, 43-000047, 43-000048, 43-000049, 43-000055, 43-000056, 43-000057, 43-000068, 43-000139, 43-000141, 43-000167, 43-000168, 43-000169, 43-000218, 43-000244, 43-000277, 43-000285, 43-000296, 43-000308, 43-000310, 43-000317, 43-000318, 43-000322, 43-000335, 43-000336, 43-000337, 43-000346, 43-000349, 43-000365, 43-000386, 43-000387, 43-000388, 43-000389, 43-000393, 43-000397, 43-000413, 43-000418, 43-000421, 43-000423, 43-000432, 43-000441, 43-000448, 43-000451, 43-000452, 43-000454, 43-000461, 43-000463, 43-000465, 43-000473, 43-000486, 43-000493, 43-000529, 43-000551, 43-000552, 43-000554, 43-000556, 43-000557, 43-000561, 43-000564, 43-000567, 43-000576, 43-000577, 43-000578, 43-000579, 43-000580, 43-000581, 43-000586, 43-000587, 43-000588, 43-000591, 43-000592, 43-000593, 43-000594, 43-000595, 43-000596, 43-000604, 43-000605, 43-000606, 43-000608, 43-000609, 43-000610, 43-000611, 43-000612, 43-000614, 43-000616, 43-000617, 43-000619, 43-000621, 43-000623, 43-000624, 43-000627, 43-000634, 43-000635, 43-000643, 43-000649, 43-000650, 43-000651, 43-000652, 43-000653, 43-000654, 43-000655, 43-000656, 43-000657,

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						43-000658, 43-000659, 43-000660, 43-000661, 43-000672, 43-000673, 43-000675, 43-000968, 43-000969, 43-001106
S-016394a		1995	Colin I. Busby, Donna M. Garaventa, Stuart A Guedon, and Melody E. Tannam	First Supplement, Recorded Archaeological Resources in Santa Clara County, California	Basin Research Associates, Inc.	
S-016394b		1996	Colin I. Busby, Donna M. Garaventa, Stuart A. Guedon, and Melody E. Tannam	Second Supplement, Recorded Archaeological Resources in Santa Clara County, California	Basin Research Associates, Inc.	
S-016394c		1997	Colin I. Busby, Donna M. Garaventa, Stuart A. Guedon, and Melody E. Tannam	Third Supplement, Recorded Archaeological Resources in Santa Clara County, California	Basin Research Associates, Inc.	
S-016828		1994	Colin I. Busby	Closure Report No. 1, Monitoring of Storm and Water Pipelines, Tasman Drive/Capitol Avenue Extension, City of Milpitas, Santa Clara County (letter report)	Basin Research Associates, Inc.	
S-017852		1995	Jacquelin Jensen Kehl and Linda Yamane	Ethnohistoric Genealogy Study, Tasman Corridor Light Rail Project, Santa Clara County, California	Woodward-Clyde Consultants	43-000032
S-018217		1996	Glenn Gmoser	Cultural Resource Evaluations for the Caltrans District 04 Phase 2 Seismic Retrofit Program, Status Report	California Department of Transportation	01-000014, 01-000023, 01-000227, 07-000108, 07-000119, 38-000002, 38-000004, 41-000273, 43-000106, 43-000297, 43-000624, 43-001078, 44-000010, 44-000201, 44-000300, 49-000195
S-019072	Voided - S-18541; Voided - S-23080	1996	Colin I. Busby, Donna M. Garaventa, Melody E. Tannam, and Stuart A. Guedon	Historic Properties Treatment Plan, South Bay Water Recycling Program.	Basin Research Associates, Inc.	43-000024, 43-000057, 43-000217, 43-000423, 43-000529, 43-000966
S-019072a		1996	Colin I. Busby, Donna M. Garaventa, Melody E. Tannam, and Stuart A. Guedon	Supplemental Report: Historic Properties Affected or Potentially Affected by the South Bay Water Recycling Program	Basin Research Associates, Inc.	
S-019072b		1999	Colin I. Busby	South Bay Water Recycling Program - Cultural Resources Program, Subcontract No. 728106.3024, Monitoring Closure Report - Phase 1 (letter report)	Basin Research Associates, Inc.	

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-020395		1998	Donna L. Gillette	PCNs of the Coast Ranges of California: Religious Expression or the Result of Quarrying?	California State University, Hayward	07-000094, 07-000323, 12-000050, 17-000071, 17-001315, 21-000087, 21-000376, 21-000378, 21-000379, 21-000381, 21-000382, 21-000383, 21-000384, 21-000386, 21-000387, 21-000388, 21-000389, 21-000390, 21-000391, 21-000392, 21-000393, 21-000394, 21-000395, 21-000396, 21-000397, 21-000398, 21-000399, 21-000400, 21-000401, 21-000402, 21-000419, 21-000433, 21-000546, 21-000620, 21-000621, 21-000624, 21-000661, 23-000434, 23-000809, 23-000810, 23-001698, 23-001725, 23-001792, 23-001798, 23-001799, 23-001803, 23-001804, 23-001930, 23-001942, 23-001950, 23-001963, 35-000013, 43-000067, 43-000080, 43-000287, 43-000289, 43-000504, 49-000046, 49-000240, 49-000533, 49-000550, 49-000629, 49-000785, 49-000787, 49-000868, 49-000960, 49-000975, 49-001004, 49-001087, 49-001239, 49-002121
S-020536		1998	Barry A. Price	Cultural Resources Assessment, Pacific Bell Mobile Services Facility SF-561-06, Milpitas, Santa Clara County, California (letter report)	Applied EarthWorks Inc.	
S-022820	Submitter - Project Number 27101	2000	Wendy J. Nelson, Tammara Norton, Larry Chiea, and Eugenia Mitsanis	Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project, Segment WS07: Oakland to San Jose	Far Western Anthropological Research Group, Inc.	01-000027, 01-000040, 01-000086, 01-000091, 43-001268
S-023105		1999	Colin I. Busby	Historic Properties Affected or Potentially Affected by the South Bay Water Recycling Program "Package 1" Segments SC 1, SC 3, SC 5, M 2, M 3, M 4, M 5 & SJ/C 1, Cities of Milpitas, San Jose, Santa Clara, and Sunnyvale, Santa Clara County (letter report)	Basin Research Associates, Inc.	43-000050, 43-000226, 43-000228, 43-000240, 43-000348, 43-000381, 43-000474, 43-000529, 43-000588, 43-000921, 43-000966, 43-001010, 43-001014, 43-001123, 43-001124
S-023356		1999	Ward Hill	Historic Property Survey Report, Montague Expressway Project, Cities of Santa Clara, San Jose and Milpitas, Santa Clara County, California	Basin Research Associates, Inc.	43-000365

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S-023356a		1999		Archaeological Survey Report (Positive), Montague Expressway Improvements Project, Cities of Santa Clara, San Jose and Milpitas, Santa Clara County, California	Basin Research Associates, Inc.	
S-023356b		1999	Ward Hill	Historic Architectural Survey Report (Abbreviated), Montague Expressway Improvement Project, Cities of Santa Clara, San Jose and Milpitas, Santa Clara County, California Department of Transportation District 4		
S-023382		2000		Cultural Resources Assessment, Historic Properties Affected or Potentially Affected by the South Bay Water Recycling Program Phase 2 Facilities, Modifications to Exisiting Segments SJ-1, SJ-2, SC-2, SC-5, M-1 and New Segments SJ-3, SJ-4, SJ-5, SJ-6, SJ-7, M-2, M-5, Cities of San Jose and Milpitas, Santa Clara County	Basin Research Associates, Inc.	43-000087, 43-000325, 43-000348, 43-000966, 43-001010, 43-001042

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S-026045		2000	Richard Carrico, Theodore Cooley, and William Eckhardt	Cultural Resources Reconnaissance Survey and Inventory Report for the Metromedia Fiberoptic Cable Project, San Francisco Bay Area and Los Angeles Basin Networks	Mooney & Associates	01-000038, 01-000040, 01-000042, 01-000068, 01-000072, 01-000091, 01-000092, 01-000108, 01-000120, 01-000233, 01-000239, 01-000240, 01-000241, 01-010527, 01-010528, 01-010529, 01-010530, 01-010531, 01-010532, 01-010533, 01-010534, 01-010535, 07-000719, 21-000034, 21-000097, 21-000529, 21-000536, 21-000563, 38-000015, 41-000009, 41-000044, 41-000077, 41-000095, 41-000105, 41-000152, 41-000169, 41-000172, 41-000174, 41-000187, 41-000230, 41-000231, 41-000232, 41-000281, 41-000302, 41-000310, 41-000311, 41-000312, 41-000315, 41-000318, 41-000640, 43-000021, 43-000024, 43-000028, 43-000042, 43-000050, 43-000058, 43-000141, 43-000338, 43-000369, 43-000382, 43-000383, 43-000388, 43-000396, 43-000398, 43-000418, 43-000424, 43-000444, 43-000462, 43-000467, 43-000472, 43-000551, 43-000565, 43-000595, 43-000617, 43-000619, 43-000621, 43-000669, 43-001010, 43-001071, 43-001083, 43-001084
S-030204		2003	Donna L. Gillette	The Distribution and Antiquity of the California Pecked Curvilinear Nucleated (PCN) Rock Art Tradition.	University of California, Berkeley	01-002148, 21-000384, 23-000810
S-031212	Submitter - SF-15051	2006	Carolyn Losee	Collocation ("CO") Submission Packet, FCC Form 621, Great Mall, SF-15051	Archaeological Resources Technology	43-001816
S-032596	Caltrans - EA No. 447600; Other - Contract #04A2098	2006	Randall Milliken, Jerome King, and Patricia Mikkelsen	The Central California Ethnographic Community Distribution Model, Version 2.0, with Special Attention to the San Francisco Bay Area, Cultural Resources Inventory of Caltrans District 4 Rural Conventional Highways	Consulting in the Past; Far Western Anthropological Research Group, Inc.	

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S-033600	Agency Nbr - Contract No. 04A2098; Caltrans - EA No. 447600	2007	Jack Meyer and Jeff Rosenthal	Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4	Far Western Anthropological Research Group, Inc.	01-000001, 01-000002, 01-000014, 01-000063, 01-000064, 01-000067, 01-000080, 01-000124, 01-000139, 01-000140, 01-001795, 01-002110, 01-002160, 01-002162, 01-002245, 07-000019, 07-000024, 07-000037, 07-000047, 07-000075, 07-000079, 07-000088, 07-000089, 07-000108, 07-000182, 07-000185, 07-000186, 07-000217, 07-000239, 07-000401, 07-000721, 21-000010, 21-000048, 21-002615, 28-000009, 28-000028, 28-000301, 28-000967, 38-000006, 38-000028, 38-000101, 38-000102, 38-000119, 41-000080, 41-000284, 43-000016, 43-000189, 43-000296, 43-000308, 43-000310, 43-000423, 43-000424, 43-000448, 43-000451, 43-000485, 43-000561, 43-000604, 43-000608, 43-000614, 43-000623, 43-001015, 43-001058, 43-001080, 43-001163, 43-001194, 43-001576, 48-000007, 48-000157
S-034214		1995		Final Report: Archaeological Collections Project for the Redevelopment Agency of the City of San Jose	Basin Research Associates, Inc.	43-000058, 43-000141, 43-000383, 43-000467, 43-001202, 43-001911
S-034869		2008	Jeffrey Rosenthal and Charlene Duval	Archaeological Survey and Geoarchaeological Trenching for the Freight Railroad Relocation and Lower Berryessa Creek Project in the Cities of Fremont and Milpitas, California	Far Western Anthropological Research Group, Inc.	
S-037092	Other - BUR 100401 A; Other - BUR 2013 0118 001	2010		Historic Property Survey Report/Finding of Effect South Bay Water Recycling (SBWR) Stimulus Projects, Milpitas Light Rail Median, City of Milpitas, Santa Clara County, BUR100401A	Basin Research Associates, Inc.	
S-037092a		2010		Historic Properties Survey Report/ Finding of Effect, South Bay Water Recycling (SBWR) Stimulus Projects, San Jose Perimeter Road, City of San Jose, Santa Clara County	Basin Research Associates	

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S-038390		2011	Jennifer Thomas	Cultural Resources Inventory of the Silicon Valley Berryessa Extension, Gas and Electric Distribution Relocation Project, Santa Clara County, California	Far Western Anthropological Research Group, Inc.	01-001783, 01-002190, 35-000334, 43-000928, 43-001010, 43-002654
S-045495	Caltrans - EA 04-4G0500; Caltrans - Project ID 0412000437	2013	Laura Leach-Palm and Chandra Miller	Historic Property Survey Report Including Historical Resources Evaluation Report, Archaeological Survey Report, and Environmentally Sensitive Area (ESA) and Archaeological Monitoring Area (AMA) Action Plan, for the Interstate-680 Northbound HOV/Express Lane Project, SR 237 to SR 84, Santa Clara and Alameda Counties, California; SCL-680 PM M6.5/M9.9, ALA-680 PM M0.0/R12.4, EA 04-4G0500, Project ID 0412000437	Far Western Anthropological Research Group, Inc.; JRP Historical Consulting, LLC	01-002162, 01-010820, 01-011546, 01-011547, 01-011548
S-045495a		2013	Chandra Miller	Historical Resource Evaluation Report for the Interstate 680 Northbound Express Lane Project, SR 237 to SR 84; SCL-680 PM M6.5/M9.9, ALA-680 PM M0.0/R12.4, EA 04-4G0500, Project ID 0412000437	JRP Historical Consulting, LLC	
S-045495b		2013	Laura Leach-Palm	Archaeological Survey Report for the Interstate 680 Northbound HOV/Express Lane Project, SR 237 to SR 84; SCL-680 PM M6.5/M9.9, ALA-680 PM M0.0/R12.4, EA 04-4G0500, Project ID 0412000437	Far Western Anthropological Research Group, Inc.	
S-045495c		2013	Laura Leach-Palm	Environmentally Sensitive Area (ESA) and Archaeological Monitoring Area (AMA) Action Plan for Site P-01-002162/CA-ALA-576, for the Interstate 680 Northbound HOV/Express Lane Project, SR 237 to SR 84; Caltrans District 4, SCL-680 PM M6.5/M9.9, ALA-680 PM M0.0/R12.4, EA 04-4G0500, Project ID 0412000437	Far Western Anthropological Research Group, Inc.	
S-045793		2014	Heidi Koenig	Cultural Resources Constraints Analysis for the South Bay Water Recycling Storage Tank Sites (letter report)	Environmental Science Associates	
S-045939		2015	Leigh Jordan and Sunshine Psota	Results of an archaeological literature search for 14-127 VTA I-680 Corridor Project, Santa Clara County, California (letter report)	Holman & Associates	
S-046375		2012		County of Santa Clara Historic Context Statement	Archives and Architecture, LLC.	

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S-047736		2016	Philip Kaijankoski and Naomi Scher	Archaeological Survey and Extended Phase I Testing Report for the Montague Expressway Pedestrian Overcrossing Project, Milpitas, California	Far Western Anthropological Research Group	
S-048927		1997	Donald Scott Crull	The Economy and Archaeology of European-made Glass Beads and Manufactured Goods Used in First Contact Situations in Oregon, California and Washington	University of Sheffield, England	
S-049626	OHP PRN - FTA 040219A; OHP PRN - FTA030325A; OHP PRN - FTA040217A; Voided - S-37032	2010	Brian F. Byrd, Rebecca Allen, Jack Meyer, Jeffrey Rosenthal, Adie Whitaker, and Charlene Duval	Archaeological Research Design and Treatment Plan for the Berryessa Extension Project, Fremont, Milpitas, and San Jose, California	Far Western Anthropological Research Group, Inc.; Past Forward, Inc.	01-010542, 01-011456, 01-012006, 01-012007, 01-012008, 01-012009, 01-012010, 43-000050, 43-000369, 43-001010, 43-001240, 43-001241, 43-001244, 43-001327, 43-001377, 43-001381, 43-001382, 43-001383, 43-001384, 43-001385, 43-001386, 43-001387, 43-001388, 43-001389, 43-001397, 43-001398, 43-001399, 43-001400, 43-001401, 43-001402, 43-001403, 43-001404, 43-001405, 43-001406, 43-001407, 43-001491, 43-001621, 43-001629, 43-001630, 43-001631, 43-001632, 43-002873, 43-003033, 43-003154, 43-003534, 43-003900, 43-003901, 43-003902, 43-003903, 43-003904, 43-003905, 43-003906, 43-003907, 43-003908, 43-003909, 43-003910, 43-003911, 43-003912, 43-003913, 43-003914, 43-003915, 43-003916, 43-003917, 43-003918, 43-003919, 43-003920, 43-003921, 43-003922, 43-003923, 43-003924, 43-003925, 43-003926, 43-003927, 43-003928, 43-003929, 43-003930, 43-003931, 43-003932, 43-003933, 43-003934, 43-003935, 43-003936
S-049626a		2010		Programmatic Agreement Between the Federal Transit Administration and the California State Historic Preservation Officer Regarding the Berryessa Extension Project Alternative of the Silicon Valley Rapid Transit Corridor Project in Alameda and Santa Clara Counties		

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S-049626b		2010	Edward Carranza and Michael T. Burns	Silicon Valley Rapid Transit Corridor: Volume I, Final Environmental Impact Statement and 4(f) Evaluation	Federal Transit Administration U.S. Department of Transportation; Santa Clara Valley Transportation Authority	
S-049626c		2010		Silicon Valley Rapid Transit Corridor: Volume II, Final Environmental Impact Statement and 4(f) Evaluation	U.S. Department of Transportation Federal Transit Administration; Santa Clara Valley Transportation Authority	
S-049626d		2010	Meta Bunse	Historic Architectural Resources Section 106 compliance update for the Silicon Valley Rapid Transit Corridor, extension of San Francisco Bay Area Rapid Transit (BART)	JRP Historical Consulting, LLC	
S-049626e		2010	Allika Ruby, Sharon Waechter, Charlene Duval, and Jeffrey Rosenthal	Santa Clara Valley Transportation Authority (VTA) Silicon Valley Rapid Transit Corridor EIS/SEIR, Technical Memorandum, Archaeological Survey and Sensitivity Report for SVRTC EIS/SEIR Alternative	Far Western Anthropological Research Group, Inc.	
S-049626f		2008		Santa Clara Valley Transportation Authority (VTA) Silicon Valley Rapid Transit Corridor EIS/SEIR, Technical Memorandum, Historical Resources Inventory and Evaluation Report for SVRTC EIS	JRP Historical Consulting, LLC	
S-049626g		2008	Thomas W. Fitzwater, Milford Wayne Donaldson, Stephen D. Mikesell, and Gloria Sciara	FTA04217A, Silicon Valley Rapid Transit Corridor Project	Santa Clara Valley Transportation Authority; California Office of Historic Preservation; San Jose Historic Landmarks Commission	
S-049626h		2003	Knox Mellon, Meta Bunse, Thomas W. Fitzwater, and Leslie T. Rogers	FTA030325A; Silicon Valley Rapid Transit Corridor Project, San Jose, Santa Clara County	California Office of Historic Preservation; Valley Transportation Authority; U.S. Department of Transportation	
S-049626i		2013	Thomas W. Fitzwater	Invitation to participate in the Environmental Review Process for the BART Silicon Valley Sanata Clara Extension (SVSX) Project, which is Phase II of the BART Silicon Valley Program	Santa Clara Valley Transportation Authority	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-049626j		2009	Thomas W. Fitzwater	Silicon Valley Rapid Transit Corridor Project, FTA A040219A	Santa Clara Valley Transportation Authority	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-049780	OTIS Report Number - FHWA_2016_0615_001	2017	Brian F. Byrd, Adrian R. Whitaker, Patricia J. Mikkelsen, and Jeffrey S. Rosenthal	San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4	California Department of Transportation, District 4	01-000001, 01-000002, 01-000014, 01-000015, 01-000022, 01-000033, 01-000034, 01-000038, 01-000062, 01-000066, 01-000080, 01-000084, 01-000086, 01-000087, 01-000089, 01-000104, 01-000105, 01-000106, 01-000107, 01-000116, 01-000117, 01-000139, 01-000152, 01-000175, 01-000197, 01-000201, 01-000202, 01-000234, 01-000237, 01-001795, 01-002120, 01-002160, 01-002162, 01-002245, 01-002280, 01-010509, 01-010610, 01-011556, 07-000019, 07-000021, 07-000029, 07-000033, 07-000037, 07-000047, 07-000066, 07-000070, 07-000079, 07-000080, 07-000089, 07-000093, 07-000098, 07-000105, 07-000117, 07-000118, 07-000147, 07-000148, 07-000149, 07-000150, 07-000154, 07-000168, 07-000173, 07-000174, 07-000175, 07-000176, 07-000185, 07-000186, 07-000189, 07-000197, 07-000217, 07-000227, 07-000230, 07-000238, 07-000239, 07-000242, 07-000309, 07-000359, 07-000365, 07-000366, 07-000400, 07-000401, 07-000440, 07-000441, 07-000459, 07-000461, 07-000462, 07-000721, 07-000724, 07-000790, 07-000792, 07-002570, 07-002592, 07-002650, 07-004537, 21-000002, 21-000036, 21-000043, 21-000045, 21-000048, 21-000051, 21-000057, 21-000058, 21-000066, 21-000070, 21-000072, 21-000073, 21-000074, 21-000075, 21-000097, 21-000106, 21-000109, 21-000142, 21-000143, 21-000152, 21-000163, 21-000164, 21-000165, 21-000166, 21-000167, 21-000175, 21-000177, 21-000193, 21-000195, 21-000196, 21-000199, 21-000200, 21-000217, 21-000218, 21-000219, 21-000220, 21-000221, 21-000222, 21-000256, 21-000295, 21-000305, 21-000306, 21-000327, 21-000332, 21-000337,

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
						21-000346, 21-000369, 21-000423, 21-000459, 21-000462, 21-000528, 21-000541, 21-000544, 21-000552, 21-000664, 21-000675, 21-002625, 27-000613, 28-000028, 28-000029, 28-000175, 28-000176, 28-000667, 28-000874, 38-000004, 38-000006, 38-000007, 38-000017, 38-000021, 38-000022, 38-000026, 38-000028, 38-000029, 38-000030, 38-000031, 38-000101, 38-000102, 38-000119, 38-000162, 38-000172, 38-004265, 38-004318, 38-004319, 38-004326, 38-004329, 38-004352, 38-004638, 38-004882, 38-005131, 38-005503, 41-000001, 41-000009, 41-000011, 41-000027, 41-000028, 41-000037, 41-000044, 41-000075, 41-000080, 41-000081, 41-000086, 41-000087, 41-000103, 41-000117, 41-000127, 41-000136, 41-000141, 41-000142, 41-000149, 41-000152, 41-000160, 41-000204, 41-000244, 41-000252, 41-000259, 41-000263, 41-000265, 41-000284, 41-000308, 41-000315, 41-002076, 43-000016, 43-000019, 43-000021, 43-000024, 43-000026, 43-000027, 43-000032, 43-000050, 43-000057, 43-000082, 43-000085, 43-000087, 43-000137, 43-000141, 43-000167, 43-000277, 43-000285, 43-000295, 43-000302, 43-000308, 43-000310, 43-000321, 43-000324, 43-000334, 43-000349, 43-000360, 43-000423, 43-000465, 43-000479, 43-000485, 43-000549, 43-000576, 43-000578, 43-000579, 43-000581, 43-000586, 43-000587, 43-000588, 43-000595, 43-000604, 43-000608, 43-000614, 43-000618, 43-000624, 43-000662, 43-000989, 43-000990, 43-001058, 43-001060, 43-001071, 43-001163, 43-001164, 43-001172, 43-001194, 43-001279, 43-001531, 43-001594, 43-001768, 43-001838, 43-001871, 43-002704, 43-003005,

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Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
						48-000007, 48-000019, 48-000033, 48-000075, 48-000083, 48-000150, 48-000175, 48-000176, 48-000188, 48-000898, 49-000199, 49-001011, 49-001862
S-049780a		2016	Julianne Polanco	FHWA_2016_0615_001, Caltrans District 4 Archaeological Context	California Office of Historic Preservation	
S-050902		2017	Philip Kaijankoski	Prehistoric Archaeological Sensitivity Assessment of 26 Transit-oriented Development Parcels in Santa Clara County, California	Far Western Anthropological Research Group, Inc.	43-000149, 43-000285
S-050902a		2018	Philip Kaijankoski	Prehistoric Archaeological Sensitivity Assessment of 26 Transit-Oriented Development Locations in Santa Clara County, California	Far Western Anthropological Research Group, Inc.	
S-053849	Agency Nbr - Contract No.: W912PL-07-D-0048; Agency Nbr - Task Order No.: CM08	2010		Historic Properties Survey Report and Finding of Effect, Berryessa Creek Project, Cities of San Jose and Milpitas, Santa Clara County, California, Contract No.: W912PL-07-D-0048, Task Order No.: CM08	Basin Research Associates, Inc.	43-000168, 43-000169, 43-000588
S-056662		2022	Kyle Palazzolo	Dressed for Success: Assessing and Contextualizing Flower-Pot Mortars	California State University, Chico	01-000001, 01-000002, 01-000015, 01-000034, 01-000086, 01-000104, 01-000105, 01-002280, 01-010610, 01-011986, 07-000032, 07-000033, 07-000037, 07-000047, 07-000080, 07-000105, 07-000117, 07-000118, 07-000123, 07-000131, 07-000173, 07-000174, 07-000185, 07-000309, 07-000365, 21-000017, 21-000070, 21-000097, 21-000106, 21-000218, 21-000242, 21-000252, 21-000262, 21-000295, 21-000332, 21-000346, 21-000640, 28-000015, 28-000061, 38-000004, 41-000044, 43-000021, 43-000057, 43-000360, 43-001279, 43-001843, 48-000083, 48-000150, 49-000362, 49-000915

NATIVE AMERICAN HERITAGE COMMISSION

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nahc@nahc.ca.gov

February 24, 2025

Dana DePietro
FCS

Via Email to: ddpietro@fcs-intl.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, 1000 Gibraltar Warehouse Project, Santa Clara County

To Whom It May Concern:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

  All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of the Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Mathew.Lin@nahc.ca.gov

Sincerely,

Mathew Lin

Mathew Lin, MPP
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Santa Clara County
2/24/2025

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Santa Clara	Amah Mutsun Tribal Band	N	Valentin Lopez, Chairperson	P.O. Box 5272 Galt, CA, 95632	(916) 743-5833		vjltestingcenter@aol.com	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Monterey,San Benito,San Francisco,San Joaquin,San	7/20/2023
	Amah Mutsun Tribal Band	N	Ed Ketchum, Vice-Chairperson		(530) 578-3864		aerieways@aol.com	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Monte	7/20/2023
	Amah Mutsun Tribal Band of Mission San Juan Bautista	N	Christopher Zimmer, Senior Cultural Monitor & Consultant, Councilman	PO Box 214211, 2929 Fulton Ave Unit 19 Sacramento, CA, 95821	(650) 520-8418		cdzimmer93@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Amah Mutsun Tribal Band of Mission San Juan Bautista	N	Michelle Zimmer, Senior Cultural Monitor & Consultant	PO Box 214211, 2929 Fulton Ave Unit 19 Sacramento, CA, 95821	(916) 730-9468		michellezimmer1966@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Amah Mutsun Tribal Band of Mission San Juan Bautista	N	Shelby Brown, Senior Cultural Monitor & Consultant, Councilwoman	2451 Tyrolean Way Sacramento, CA, 95821	(916) 276-8380		shelbyzimmer1997@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Amah Mutsun Tribal Band of Mission San Juan Bautista	N	Garry Zimmer, Senior Cultural Monitor & Consultant	PO Box 214211, 2929 Fulton Ave Unit 19 Sacramento, CA, 95821	(408) 771-8901		garryzimmer@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Amah MutsunTribal Band of Mission San Juan Bautista	N	Irenne Zwierlein, Chairperson	3030 Soda Bay Road Lakeport, CA, 95453	(916) 730-9468		amahmutsuntribalcommunications@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	10/8/2024
	Confederated Villages of Lisjan Nation	N	Corrina Gould, Chairperson	10926 Edes Avenue Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
	Confederated Villages of Lisjan Nation	N	Deja Gould, Language Program Manager	10926 Edes Ave Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
	Confederated Villages of Lisjan Nation	N	Cheyenne Gould, Tribal Cultural Resource Manager	10926 Edes Ave Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
	Costanoan Rumsen Carmel Tribe	N	Henry Muñoz, Cultural Resource Officer	108 South Acacia Rialto, CA, 92376	(909) 254-1610		crct.crd@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	7/17/2024
	Costanoan Rumsen Carmel Tribe	N	Samuel Rodriguez, Cultural Resource Officer	29539 Oakbridge Dr Menifee, CA, 92586	(760) 681-6860		crct.crd@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	7/17/2024
	Costanoan Rumsen Carmel Tribe	N	Carla Munoz, Tribal Council		(415) 690-3110		crct.crd@gmail.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa	7/17/2024
	Indian Canyon Mutsun Band of Costanoan	N	Kanyon Sayers-Roods, MLD Contact	1615 Pearson Court San Jose, CA, 95122	(408) 673-0626		kanyon@kanyonkonsulting.com	Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	3/15/2024
	Indian Canyon Mutsun Band of Costanoan	N	Ann Marie Sayers, Chairperson	P.O. Box 28 Hollister, CA, 95024	(831) 637-4238			Costanoan	Alameda,Contra Costa,Merced,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz,Stanislaus	3/15/2024
	Muwekma Ohlone Tribe of the SF Bay Area	N	Charlene Nijmeh, Chairperson	1169 S. Main Street, Ste. 336 Manteca, CA, 95377	(408) 464-2892		cnijmeh@muwekma.org	Costanoan	Alameda,Contra Costa,Marin,Merced,Napa,Sacramento,San Francisco,San Joaquin,San Mateo,Santa	3/28/2024
	Muwekma Ohlone Tribe of the SF Bay Area	N	Richard Massiatt, Councilmember/MLD Tribal Rep.	1169 S. Main Street, Ste. 336 Manteca, CA, 95377	(209) 321-0372		rmassiatt@muwekma.org	Costanoan	Alameda,Contra Costa,Marin,Merced,Napa,Sacramento,San Francisco,San Joaquin,San Mateo,Santa	3/28/2024
	Northern Valley Yokut / Ohlone Tribe	N	Timothy Perez, Tribal Compliance Officer	P.O. Box 717 Linden, CA, 95236	(209) 662-2788		huskanam@gmail.com	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Sacramento,San Benito,San Joaquin,Santa	11/21/2023
	Northern Valley Yokut / Ohlone Tribe	N	Katherine Perez, Chairperson	P.O. Box 717 Linden, CA, 95236	(209) 649-8972		canutes@verizon.net	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Sacramento,San Benito,San Joaquin,Santa	4/30/2024
	Tamien Nation	N	Lillian Camarena, Secretary	336 Percy Street Madera, CA, 93638	(559) 363-5914		Lcamarena@tamien.org	Costanoan	Alameda,San Mateo,Santa Clara,Stanislaus	4/11/2023
	Tamien Nation	N	Johnathan Wasaka Costillas, THPO	10721 Pingree Road Clearlake Oaks, CA, 94523	(925) 336-5359		thpo@tamien.org	Costanoan	Alameda,San Mateo,Santa Clara,Stanislaus	4/11/2023
	Tamien Nation	N	Quirina Luna Geary, Chairperson	PO Box 8053 San Jose, CA, 95155	(707) 295-4011		qgeary@tamien.org	Costanoan	Alameda,San Mateo,Santa Clara,Stanislaus	4/11/2023
	The Ohlone Indian Tribe	N	Desiree Vigil, THPO	259 Winwood Avenue Pacifica, CA, 94044	(650) 290-0245		dirwin0368@yahoo.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	11/30/2023
	The Ohlone Indian Tribe	N	Andrew Galvan, Chairperson	P.O. Box 3388 Fremont, CA, 94539	Phone: (510) 882-0527	(510) 687-9393	chochenyo@AOL.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	7/24/2023
	The Ohlone Indian Tribe	N	Vincent Medina, Cultural Leader	17365 Via Del Rey San Lorenzo, CA, 94580	(510) 610-7587		vincent.d.medina@gmail.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	7/24/2023
	Wuksachi Indian Tribe/Eshom Valley Band	N	Kenneth Woodrow, Chairperson	1179 Rock Haven Ct. Salinas, CA, 93906	(831) 443-9702		kwood8934@aol.com	Foothill Yokut Mono	Alameda,Calaveras,Contra Costa,Fresno,Inyo,Kings,Madera,Marin,Mariposa,Merced,Mono,Monterey,San Benito,San	6/19/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed 1000 Gibraltar Warehouse Project, Santa Clara County.

Record: PROJ-2025-001019
Report Type: AB52 GIS
Counties: Santa Clara
NAHC Group: All

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Appendix D:

Transportation Supporting Information

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D.1 - Local Transportation Analysis

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LOCAL TRANSPORTATION ANALYSIS FOR

1000 Gibraltar Drive Delivery Center

DATE:
July 9, 2025

LOCATION:
1000 Gibraltar Drive
Milpitas, CA 95035

PREPARED FOR:
City of Milpitas

PREPARED BY:
NV5 Engineers & Consultants
15092 Avenue of Science, Suite 200
San Diego, CA 92128

NV5

nv5.com

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Figure 32: Horizon (2040) No-Build Traffic Volumes 3 70

Figure 33: Horizon (2040) Build Traffic Volumes 1

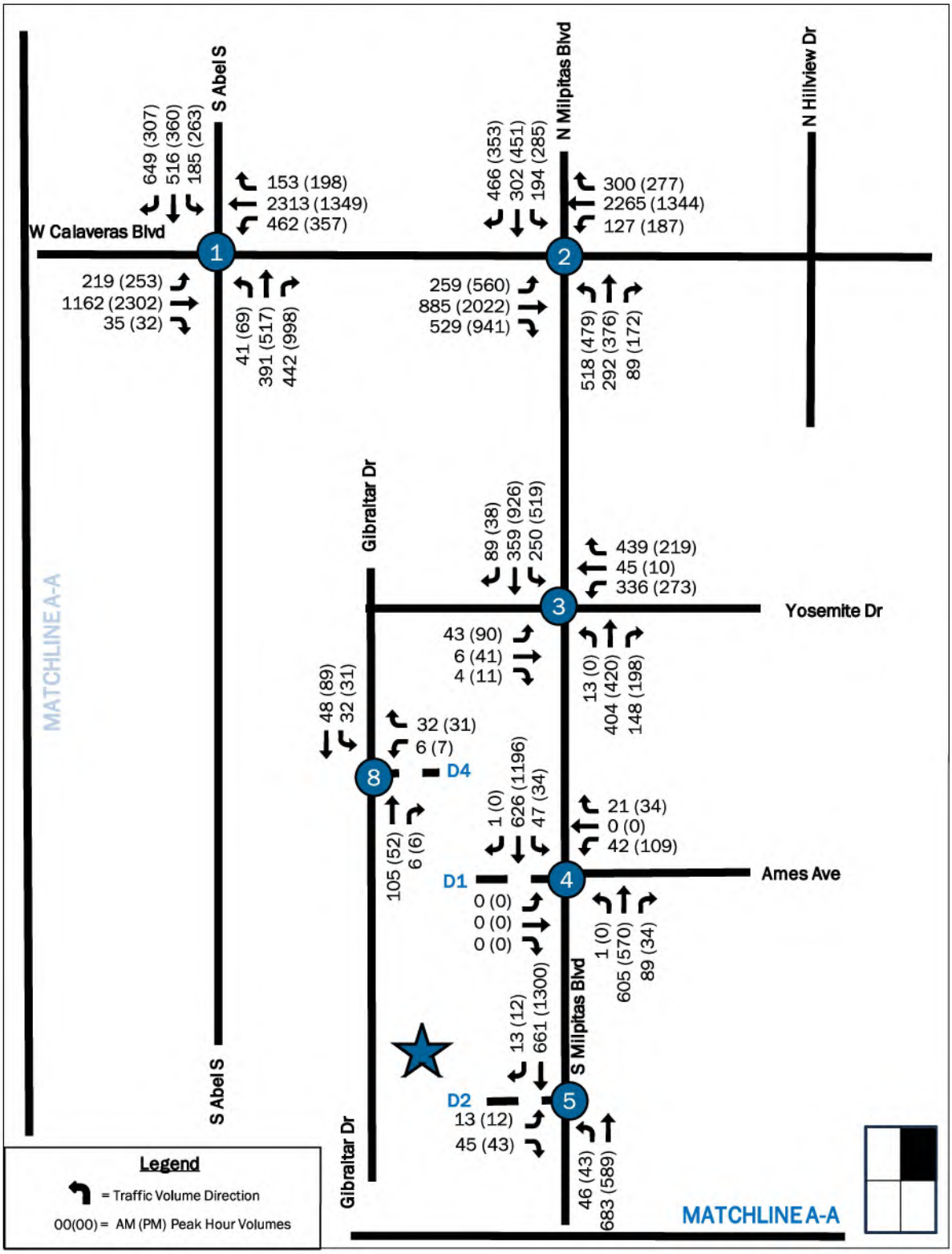


Figure 34: Horizon (2040) Build Traffic Volumes 2 79
Figure 35: Horizon (2040) Build Traffic Volumes 3 80

Executive Summary

A new distribution center will be built at 1000 Gibraltar Drive in Milpitas, California. The 487,564 square-foot (SF) building is intended to be used as a last-mile, e-commerce delivery center. The project is anticipated to generate approximately 3,812 net new daily trips, including 260 trips during the AM peak hour (131 inbound, 129 outbound) and 245 trips during the PM peak hour (122 inbound, 123 outbound).

Traffic operations at intersections outside of the Congestion Management Program (CMP) operate acceptably under Existing conditions. All non-CMP intersections are anticipated to operate at LOS B or better under both the 2026 and 2040 scenarios, with the exception of the South Milpitas Boulevard & Yosemite Drive intersection, which is projected to operate at LOS E under both 2040 No-Build and Build PM conditions. However, since there is no change in critical delay or volume-to-capacity (V/C) ratio between scenarios, the project does not result in an adverse effect at this location, and no mitigation is warranted per City of Milpitas guidelines.

No additional improvements are recommended as part of this analysis. The results indicate that the surrounding transportation network can adequately accommodate the traffic generated by the proposed delivery center.

A. Introduction

This Local Transportation Analysis (LTA) has been performed to identify the transportation impacts associated with the operation of a delivery center. The site is located at 1000 Gibraltar Drive in Milpitas, CA. Figure 1 shows the location of the project site.

NV5 was retained to prepare this Local Traffic Assessment (LTA) to evaluate the potential traffic impacts of the proposed development on the surrounding roadway network and to identify any improvements that may be necessary to mitigate those impacts. To conduct this assessment, NV5 performed the following tasks:

- Collected data on existing traffic conditions by conducting turning movement counts at key intersections in the vicinity of the proposed project during the weekday morning and evening peak hours.
- Calculated site generated traffic by using the provided trip generation from the site. These trips were then assigned to the surrounding roadway network based on existing travel patterns and the nature of the proposed use.
- Performed capacity analyses for Existing (2024), No-Build (2026), Build (2026), Future No-Build (2040), Future Build (2040), and Future Build Conditions with Mitigation (2040) scenarios within the study area.

This report summarizes NV5's findings and recommendations regarding the anticipated traffic impacts of the proposed development. A detailed project scoping memorandum is included in Appendix E.

A.1. Relevant Regulatory Agencies and Plans

This section outlines the key transportation regulatory agencies and relevant planning documents that guide land use and transportation decisions for the Project. These agencies operate at the regional and local levels, with authority or influence over planning initiatives affecting the City of Milpitas, which is located within Santa Clara County and the broader San Francisco Bay Area.

The plans summarized below provide important policy direction and regulatory context relevant to transportation infrastructure, congestion management, and sustainable land use development within Milpitas and its surrounding region.

Plan Bay Area 2040

Plan Bay Area 2040 is a long-range regional transportation and land use strategy jointly developed and administered by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). It fulfills the requirements of California Senate Bill 375, serving as the region's Sustainable Communities Strategy (SCS) and the Regional Transportation Plan (RTP).

Originally adopted in July 2013 and updated in July 2017, Plan Bay Area 2040 promotes coordinated growth to reduce greenhouse gas emissions by encouraging transit-oriented development in Priority Development Areas (PDAs). These areas are typically located near public transit to support higher-density housing, reduce auto dependency, and accommodate future population growth. Major transportation initiatives in the Plan include:

- BART extension to San José and Santa Clara,
- Caltrain electrification,
- Upgrades to the Amtrak Capitol Corridor, and
- Enhanced local and express bus service.

These projects are aligned with state goals for reducing vehicle miles traveled (VMT) and promoting multimodal transportation.

Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP)

As the designated Congestion Management Agency for Santa Clara County, the Santa Clara Valley Transportation Authority (VTA) administers the Congestion Management Program (CMP). The CMP is a collaborative planning framework aimed at improving mobility, supporting sustainable land use decisions, and addressing air quality through coordinated transportation investments.

Key elements of the CMP include:

- Technical guidelines for evaluating land development impacts,
- A Complete Streets policy promoting multimodal access,
- Bicycle and pedestrian planning components, and
- Regional travel demand modeling and level of service (LOS) standards.

The CMP ensures consistency across jurisdictions in managing congestion and aligning development with transportation capacity.

Valley Transportation Plan (VTP) 2040

The Valley Transportation Plan (VTP) 2040 is Santa Clara County's long-range transportation plan, also developed by VTA. It serves as the county's input to the regional Plan Bay Area and outlines a vision for multimodal transportation investments through 2040. Adopted by the VTA Board in September 2014, VTP 2040 addresses:

- Roadway and highway system improvements,
- Public transit expansion and modernization,
- Intelligent Transportation Systems (ITS) and system operations,
- Bicycle and pedestrian facility planning, and

- Integration of land use and transportation strategies.

VTP 2040 identifies priority transportation projects and funding strategies that support the county's economic vitality, environmental sustainability, and equitable access to mobility.

A.2. Relevant City Plans

The City of Milpitas has primary jurisdiction over its local transportation infrastructure, including the city street network, traffic signals under municipal control, and policies governing land use and zoning. In support of its planning and development goals, the City has adopted a range of plans that provide strategic guidance for managing and enhancing its transportation systems. The following documents are particularly relevant to the Project:

City of Milpitas General Plan

The Milpitas General Plan is the City's foundational policy document, outlining a long-term vision for growth, development, and quality of life. It includes goals, policies, and implementation strategies intended to guide decision-making across a broad range of topics, including land use, housing, mobility, and environmental stewardship.

The Circulation Element of the General Plan establishes a framework for developing a safe, efficient, and accessible multimodal transportation system that serves the needs of residents, employees, and visitors. It emphasizes the integration of transportation demand management (TDM) strategies, encourages the use of public transit and non-motorized travel modes (e.g., walking and bicycling), and supports regional coordination with agencies such as VTA and MTC.

Key objectives include:

- Reducing reliance on single-occupancy vehicles,
- Promoting active transportation,
- Ensuring connectivity between land uses and mobility options, and
- Aligning local actions with regional sustainability initiatives.

The last comprehensive update to the General Plan occurred in 1994. A major update process is currently underway to modernize the Plan and align it with current environmental, equity, and mobility goals.

Milpitas Transit Area Specific Plan

The Milpitas Transit Area Specific Plan (TASP) was adopted in June 2008 and amended in December 2011. It establishes a detailed land use and transportation strategy for a 437-acre redevelopment area in the southern portion of the City, centered around the Milpitas BART station and VTA Light Rail.

The Plan envisions the area as a compact, mixed-use, transit-oriented community that reduces vehicle dependence and supports sustainable growth.

The current land use program under the Plan includes:

- 7,109 residential dwelling units,
- Approximately 994,000 square feet of office space
- 340 hotel rooms, and
- Roughly 287,000 square feet of commercial retail space.

The Specific Plan includes street design standards, pedestrian and bicycle infrastructure requirements, and policies aimed at enhancing connectivity and urban design. Although the Project site itself lies outside the TASP boundaries, some study intersections fall within its area of influence. Therefore, the applicable level of service (LOS) standards and transportation performance metrics established in the TASP are used in this Project's analysis.

City of Milpitas Bikeway Master Plan

The Bikeway Master Plan, originally adopted on December 8, 2003, and updated in 2009, outlines the City's strategy for creating a comprehensive and connected bicycle transportation network. The plan is currently undergoing another update to reflect new regional and state policies, emerging mobility trends, and community feedback.

The Plan identifies:

- The City's existing and planned bikeway infrastructure,
- Gaps and opportunities for connectivity,
- Design guidelines for bikeway types (Class I, II, and III),
- Safety and wayfinding improvements, and
- Implementation strategies to increase bicycle ridership as a viable transportation mode.

The Plan supports the City's goals for active transportation, environmental sustainability, and health by promoting bicycle use as an alternative to automobile travel, particularly for short trips and first/last mile connections to transit.

A.3. Project Overview

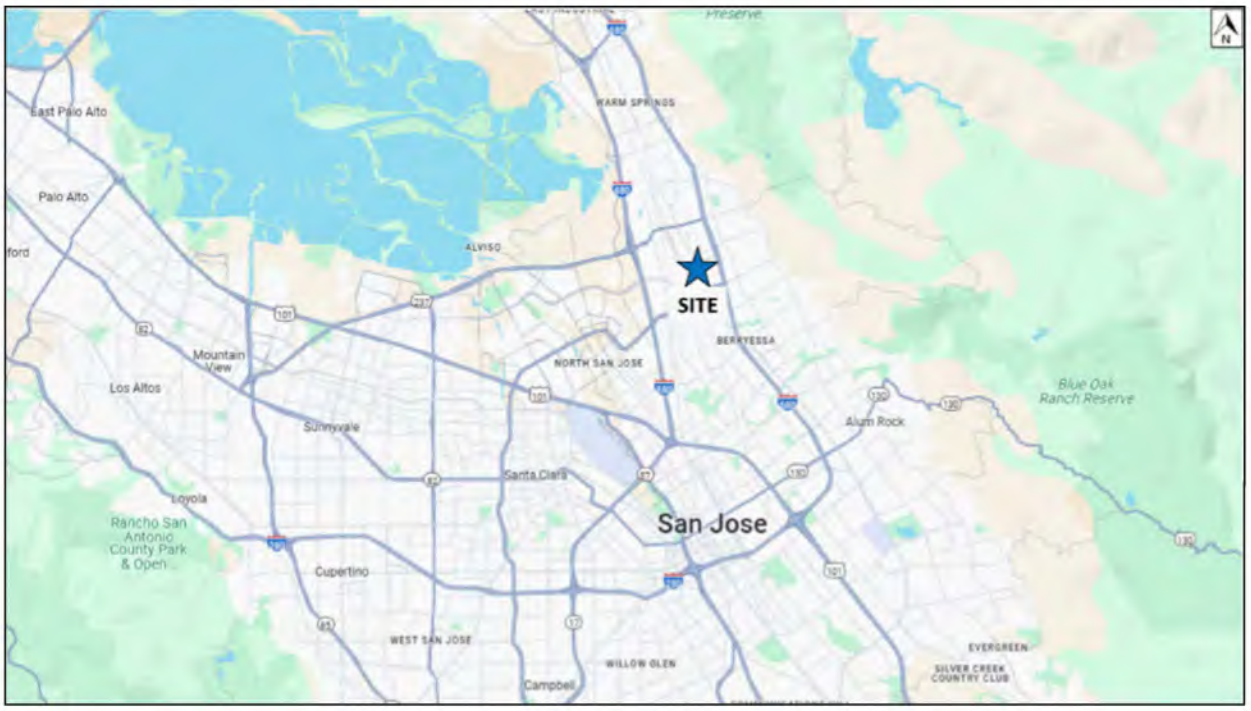
The project includes the demolition of all existing on-site structures and the construction of a modern, 487,564-square-foot distribution center. The parcel is currently occupied by a vacant LifeScan facility, formerly operated by Johnson & Johnson. The planned facility will serve as a hub for the delivery of eCommerce goods. The target build date is 2026.

The Local Transportation Analysis (LTA) is prepared in accordance with the City of Milpitas' requirements and the scoping document, see Attachment E. This LTA is intended to replace the previously approved Local Transportation Analysis Report (2020). The LTA assesses the potential impacts of the proposed project on the key intersections in the project vicinity during the typical weekday AM (7-9 AM) and PM (4-6 PM) commute periods. This study includes performance measures such as intersection delay, Level of Service (LOS) and queuing, and provide a high-level evaluation of impacts to transit, bike, and pedestrian circulations.

A.4. Site Location & Study Area

The project site is in the south-central portion of the City of Milpitas, situated along Gibraltar Drive—a short local roadway that fully encircles the proposed development. Gibraltar Drive intersects Milpitas Boulevard at two points, forming the west leg of each intersection. Milpitas Boulevard serves as a primary north-south corridor, providing access to both the Montague Expressway and State Route (SR) 237. SR 237 and the Montague Expressway connect to Interstate 680 (I-680) and Interstate 880 (I-880). The surrounding area is characterized primarily by light industrial and commercial land uses. The site's location is shown in Figure 1.

Figure 1: Vicinity Map



The study includes analysis of the Existing and Future Conditions of the following intersections:

1. West Calaveras Boulevard & Abel Street
2. E Calaveras Boulevard & Milpitas Boulevard
3. South Milpitas Boulevard & Yosemite Drive
4. South Milpitas Boulevard & Ames Avenue / Driveway 1
5. South Milpitas Boulevard & Driveway 2
6. South Milpitas Boulevard & Gibraltar Drive
7. Gibraltar Drive & Driveway 3
8. Gibraltar Drive & Driveway 4
9. Montague Expressway & South Milpitas Drive
10. Great Mall Parkway / East Capitol Avenue & Montague Expressway
11. Montague Expressway & McCandless Drive / Trade Center Boulevard
12. Montague Expressway & South Main Street / Oakland Road

The study area includes both CMP-designated and non-CMP intersections. The following study locations are designated CMP intersections:

- West Calaveras Boulevard & South Abel Street
- East Calaveras Boulevard & Milpitas Boulevard
- South Milpitas Drive & Montague Expressway
- Great Mall Parkway/East Capitol Avenue & Montague Expressway
- Montague Expressway & McCandless Drive/Trade Center Boulevard
- Montague Expressway & South Main Street/Oakland Road

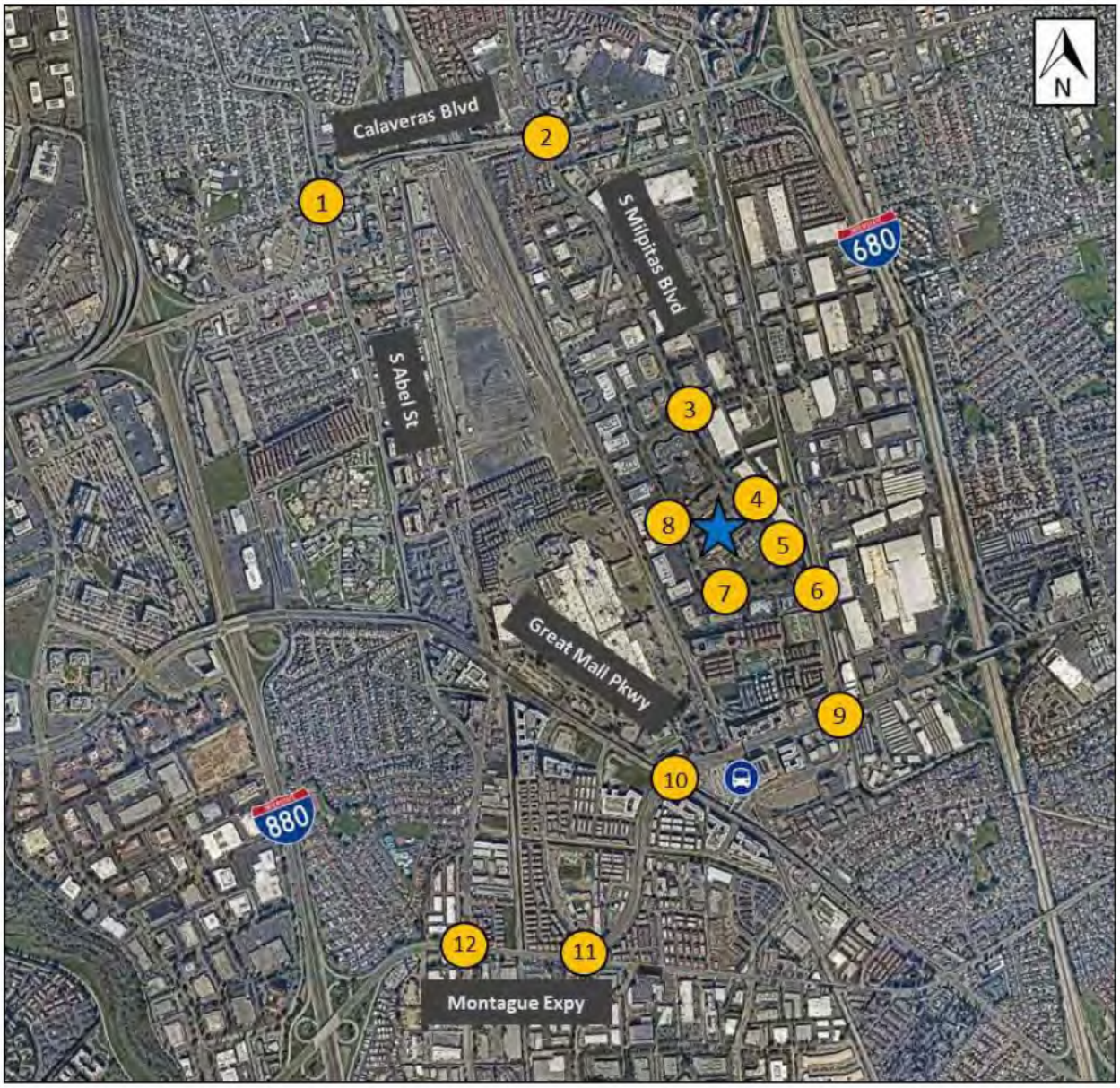
These intersections were included in the study area to reflect realistic traffic conditions. However, consistent with CMP guidelines, no project-specific mitigations were applied at these locations, regardless of queuing or capacity analysis findings.

The following study locations are not part of the CMP network:

- South Milpitas Boulevard & Yosemite Drive
- South Milpitas Boulevard & Ames Avenue/Driveway 1
- South Milpitas Boulevard & Driveway 2
- South Milpitas Boulevard & Gibraltar Drive
- Gibraltar Drive & Driveway 3
- Gibraltar Drive & Driveway 4

Figure 2 illustrates the previously listed study intersections superimposed on existing aerial imagery.

Figure 2: Site Location Aerial



A.5. Development Site Description

Site access will be provided via four (4) driveways located along South Milpitas Boulevard and Gibraltar Drive. Two existing driveways will accommodate truck ingress and egress, while two new driveways will be constructed for passenger vehicle access. A total of 785 parking stalls will be provided, including 408 for associates, 18 accessible stalls, 24 compact stalls, 90 EV-ready spaces, 23 electric vehicle charging stations (EVCS), and 335 flex stalls. The distribution center will be served by D1 and D2 along Milpitas Boulevard and D3 and D4 along Gibraltar Drive. Figure 3 below shows a schematic of the site with driveways accentuation. A site plan is attached in Appendix A.

Figure 3: Site Plan



All line-haul truck traffic will enter the site via Driveway 1 (D1) on Milpitas Boulevard and exit via Driveway 4 (D4) on Gibraltar Drive. Driveways 2 (D2) and 3 (D3), located on Milpitas Boulevard and Gibraltar Drive respectively, will serve passenger vehicles only and provide access to the parking area on the west side of the site. Separating truck and passenger vehicle access enhances site circulation by minimizing vehicle conflicts, optimizing on-site queuing, and ensuring adequate parking accommodations.

B. Existing Conditions

B.1. Existing Transportation Network

Abel Street is a four-lane principle arterial with a 35 MPH posted speed limit with a turn lane throughout the corridor. Traversing the central portion of the City of Milpitas, it provides direct access to key civic and commercial destinations, including the Milpitas Library, City Hall, and the Great Mall. The corridor is characterized by a mix of residential and commercial land uses and is well-served by local public transit. It lies within walking distance of the Milpitas Transit Center, a regional transportation hub offering connections to BART, VTA bus routes, and light rail services.

Ames Avenue is an east–west local roadway that provides direct access to the project site as well as to nearby commercial, office, and light industrial uses located east of the site. The roadway consists of a single travel lane in each direction and has a posted speed limit of 35 miles per hour. On-street parking is permitted east of the Union Pacific Railroad tracks. Pedestrian facilities are limited, with discontinuous sidewalks present on both sides of the street. There are no dedicated bicycle facilities along Ames Avenue, limiting multimodal connectivity in this portion of the study area.

Calaveras Boulevard is a six-lane, median-divided roadway with a posted speed limit of 40 miles per hour in the vicinity of the study area. Functioning as an east–west principal arterial, it provides regional connectivity between I- 880 and I- 680 and forms part of SR 237. Sidewalks are provided on both sides of the street, except between Milpitas Boulevard and Abel Street where a sidewalk is provided only on the north side. Bicycle facilities are not provided.

Gibraltar Drive is a local roadway that primarily runs north–south but includes an east–west segment near the project site. The roadway provides direct access to the project site and serves adjacent industrial and office developments located to the west. Gibraltar Drive consists of one travel lane in each direction. Along the east–west segment, a two-way left-turn lane is provided to facilitate access to driveways and cross streets. The posted speed limit is 30 MPH. On-street parking is prohibited throughout the corridor. Sidewalks are present on both sides of the roadway, offering pedestrian connectivity; however, no dedicated bicycle facilities are provided, and limiting bicycle access along this corridor.

Great Mall Parkway–Capitol Avenue is a major northwest-southeast oriented arterial roadway that serves as a key corridor for regional mobility in the southwestern portion of the city. It provides access to a mix of surrounding land uses, including residential neighborhoods, commercial centers, and office developments. The roadway consists of three travel lanes in each direction, separated by the Valley Transportation Authority (VTA) light rail tracks, which run within a raised median. The posted speed limit is 40 miles per hour. On-street parking is prohibited, and the corridor is designed to support multimodal travel with sidewalks and striped bicycle lanes provided along both sides of the roadway.

South Milpitas Boulevard is a four-lane, median-divided arterial with a posted speed limit of 40 miles per hour. It extends north from the southern city limits near the Montague Expressway. The corridor is also planned for infrastructure improvement projects, including a proposed bridge crossing over the Penitencia East Channel.

Yosemite Drive is an east–west oriented local roadway located northeast of the project site. It functions as a connector within the local street network, providing direct access to surrounding offices, and industrial, and commercial land uses in the study area. The roadway is divided, with two travel lanes in each direction, and has a posted speed limit of 40 miles per hour. On-street parking is prohibited along the corridor. Pedestrian and bicycle infrastructure includes sidewalks and striped bike lanes on both sides of the street, supporting multimodal travel in the area.

Montague Expressway is an east-west oriented expressway located south of the Project site and serves as a major regional arterial in the area. The roadway is divided by a raised center median and is designed to accommodate high traffic volumes with limited access. Between Montague Court and Great Mall Parkway, the expressway provides three general-purpose lanes and one eastbound high-occupancy vehicle (HOV) lane, which operates on weekdays from 6:00 AM to 9:00 AM. West of Great Mall Parkway, the facility transitions to three general-purpose lanes in each direction. The posted speed limit is 45 miles per hour. On-street parking is prohibited. Pedestrian infrastructure is limited, with discontinuous sidewalks along both sides of the corridor, and dedicated bicycle facilities are not present, limiting non-motorized travel options along this segment.

South Milpitas Boulevard is a north-south collector roadway that provides direct vehicular access to the Project site and serves as a key connector for surrounding office, industrial, and commercial developments. The roadway features two travel lanes in each direction. Between Los Coches Street and Gibraltar Drive, a continuous two-way left-turn lane facilitates access to driveways serving adjacent land uses. Outside of this segment, a raised center median is present. The posted speed limit is 40 MPH. On-street parking is not permitted. Sidewalks are provided on both sides of the roadway; however, pedestrian continuity is occasionally interrupted by landscaped building frontages that lack defined pathways. Designated striped bicycle lanes are present on both sides of the street, supporting multimodal travel.

Trade Zone Boulevard is a collector roadway that consists of two travel lanes in each direction and is divided by a raised center median. The posted speed limit is 35 MPH. On-street parking is prohibited along the entire corridor. Sidewalks and designated bicycle facilities are provided on both sides of the roadway, supporting pedestrian and cyclist mobility in the area. The corridor transitions in orientation at Montague Expressway: Trade Zone Boulevard, located south of Montague Expressway, runs east-west, while McCandless Drive, located north of the expressway, runs north-south.

B.2. Existing Bicycle Facilities

Bicycle infrastructure exists in the immediate vicinity of the project site. Bicycle facilities are categorized according to the California Department of Transportation (Caltrans) classification system, which defines the following four facility types:

Class I – Shared-Use Path (Bike Path): A completely separated facility for the exclusive use of bicycles and pedestrians, located off-street within its own right-of-way. Existing Class I bike facilities are not present within the vicinity of the site.

Class II – Bike Lane: A designated on-street lane for bicycle use, typically marked by striping and signage, located adjacent to vehicle travel lanes on priority corridors. Within the Project vicinity, existing Class II Bikeways are provided on:

- Abel-Main Street south of Calaveras Boulevard
- Great Mall Parkway
- Capitol Avenue
- South Milpitas Boulevard
- Trade Zone Boulevard-McCandless Drive
- Yosemite Drive

Class III – Bike Route: A shared roadway facility identified by signage and/or pavement markings, where bicyclists and motor vehicles operate within the same travel lane. Bikeway facilities of this class are limited to the project area. Within the Project vicinity, Class III Bikeways are provided on:

- Calaveras Boulevard
- Abel Street north of Corning Avenue

Class IV – Separated Bikeway (Protected Bike Lane or Cycle Track): An on-street bicycle facility physically separated from motor vehicle traffic by curbs, parked cars, posts, or other physical barriers. Existing Class IV bike facilities are not present within the vicinity of the site.

B.3. Existing Pedestrian Facilities

Pedestrian infrastructure within the Project vicinity includes a comprehensive network of sidewalks, crosswalks, curb ramps, and pedestrian signals. Sidewalks are generally present on at least one side of all surface streets within the study area, supporting pedestrian connectivity throughout the corridor.

At all signalized intersections within the study area, pedestrian accommodation includes marked crosswalks, accessible curb ramps, and pedestrian signal heads with pushbutton actuators to facilitate safe crossing movements. Crosswalks are also present at select unsignalized intersections, enhancing pedestrian access across lower-volume streets.

Curb ramps compliant with Americans with Disabilities Act (ADA) standards are provided at all study intersections, supporting accessibility for all users, including individuals with mobility impairments. The availability of these pedestrian amenities contributes to a walkable environment that supports multimodal access to surrounding land uses.

B.4. Existing Transit Facilities

The study area is served by a robust network of public transit options provided by the Santa Clara Valley Transportation Authority (VTA), Alameda-Contra Costa Transit District (AC Transit), and Bay Area Rapid Transit (BART). These agencies offer a range of services that include local and regional bus routes, light rail transit (LRT), and intercity rail service.

The Project site is directly served by AC Transit Route 217, which provides east-west service between the Fremont BART Station and the Great Mall/Main Transit Center in Milpitas. Bus stops for Route 217 are located along South Milpitas Boulevard, with one stop situated just south of Ames Avenue (west side) and another just north of Ames Avenue (east side), offering convenient access to the Project site. VTA operates multiple transit services in the area, including:

- Local bus routes: 44, 47, and 71;
- Frequent service routes (higher frequency during peak periods): 60, 66, 70, and 77;
- Express route: 104, which offers limited-stop service for commuters.
- Light Rail Transit (LRT): The Orange Line, providing a service from Mountain View to Alum Rock, traverses the study area and connects with the Milpitas Transit Center.

BART service was extended to the City of Milpitas with the opening of the Milpitas BART Station on June 13, 2020. The station provides regional connectivity to destinations throughout the Bay Area, including San Francisco, Oakland, and the East Bay, and is co-located with VTA's Milpitas Transit Center, creating a multimodal hub.

B.5. Traffic Counts

Studies of comparable developments across North America indicate that traffic generation is typically correlated with a measurable unit of site activity (e.g., number of fueling positions, gross floor area, or number of service bays). Given the variability of site traffic throughout the day and year, it is essential to identify an appropriate peak hourly volume to inform the design of the external roadway network and site access points. For this analysis, a common AM and PM peak hour was determined by evaluating the peak hours at each study intersection and selecting the time periods most consistently represented across the study area.

Intersection turning movement counts (TMCs) at the twelve study intersections were collected on Monday, November 19, 2024, while schools were in session. A comprehensive analysis of the study network was conducted to identify consistent peak hours across all intersections. Most intersections

exhibited a common AM peak between 7:45 AM and 8:45 AM, and a common PM peak between 5:00 PM and 6:00 PM. To ensure consistency in the analysis, these time periods were selected as the representative AM and PM peak hours. Supporting intersection traffic data is provided in Appendix C.

B.6. Existing Traffic Analysis

The capacity analysis and queuing analysis in each of the scenarios were performed using the traffic analysis software Synchro® 12. Average vehicular delays are calculated and reported as Levels of Service (LOS) as defined by the Highway Capacity Manual, 7th Edition (HCM 7), where LOS A is best, and LOS F is worst. LOS A through LOS D is considered acceptable LOS and LOS E and LOS F are considered unacceptable LOS and may require mitigation. Site driveways are not shown in Existing and No-Build Conditions as they are currently not in use. Due to the operational limitations of the LOS methodology in the HCM, U-turn movements were included with left-turn volumes in the analysis. This adjustment reflects the fact that U-turning vehicles utilize the same lane as left-turning vehicles and contribute to overall delay experienced in the left-turn lane and the overall intersection capacity. In addition to LOS, queue lengths were evaluated. Movements where queue lengths exceed available storage space are identified below each table. When this condition occurs, it indicates that vehicle queues may extend beyond the designated turn lane, potentially interfering with adjacent movements and degrading overall intersection performance. Capacity worksheets are included in Appendix D. The results of Existing capacity analyses are shown in Table 1 and include analysis of the volumes shown in Figures 4 - 6.

Figure 4: Existing Traffic Volumes 1

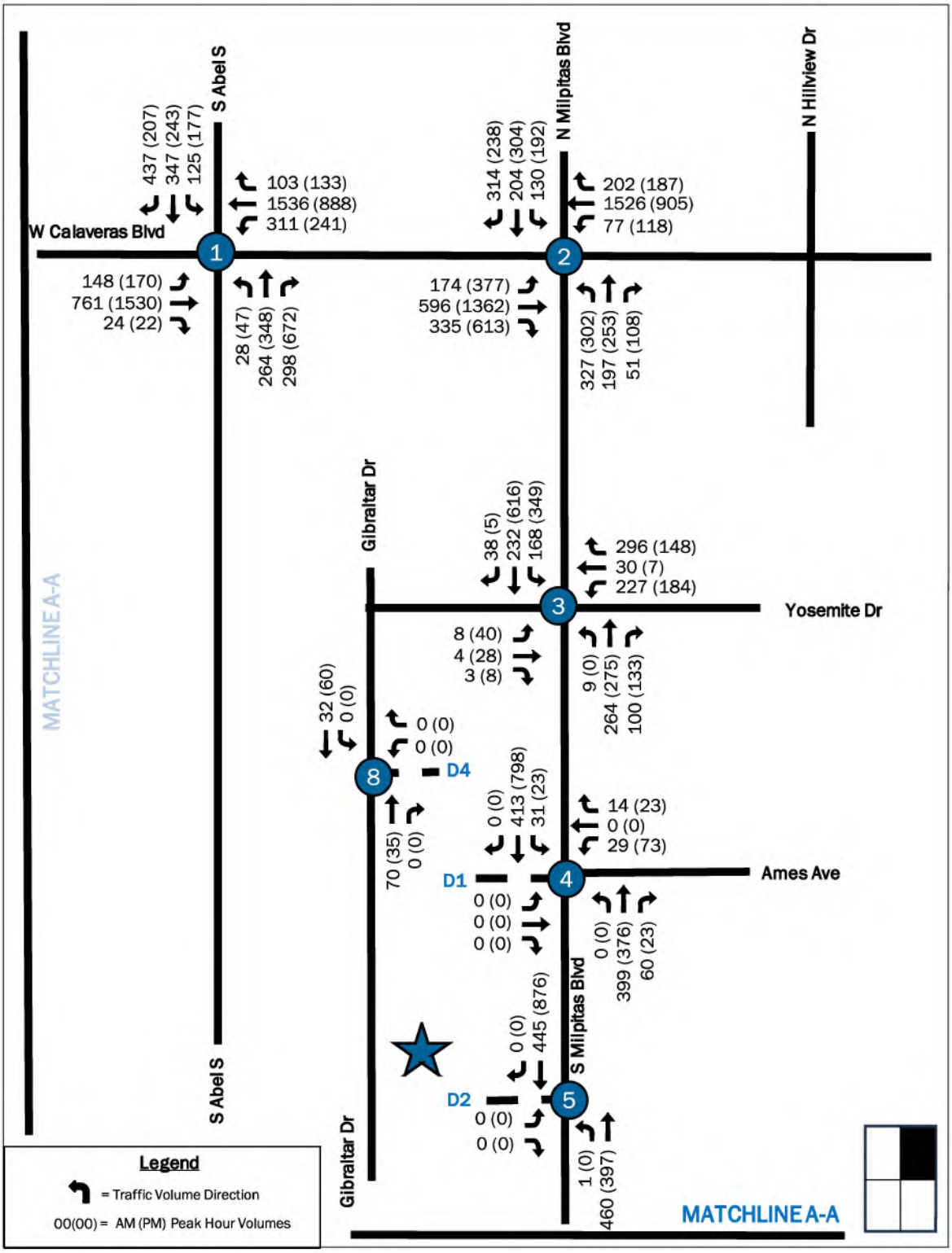


Figure 5: Existing Traffic Volumes 2

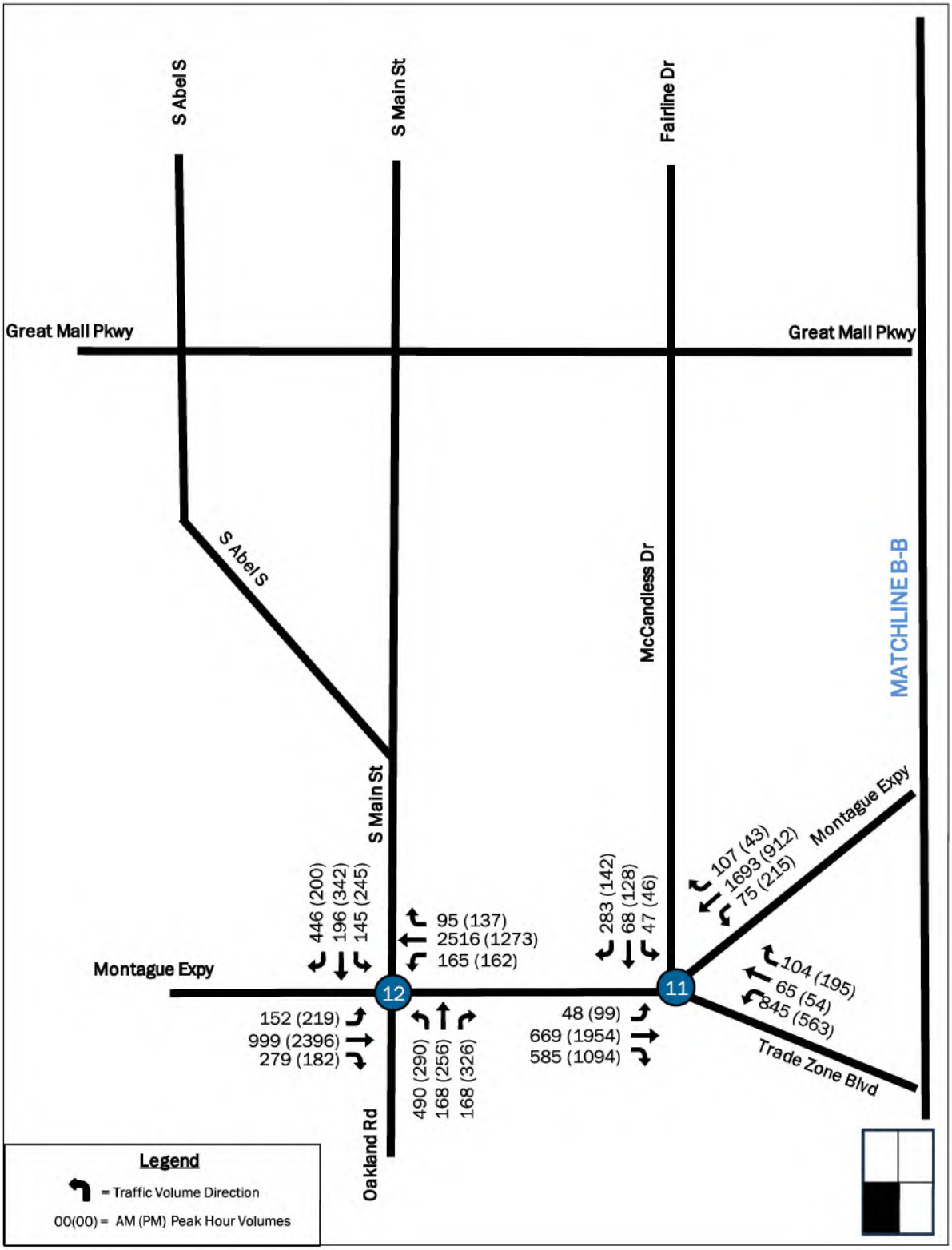


Figure 6: Figure 5: Existing Traffic Volumes 3

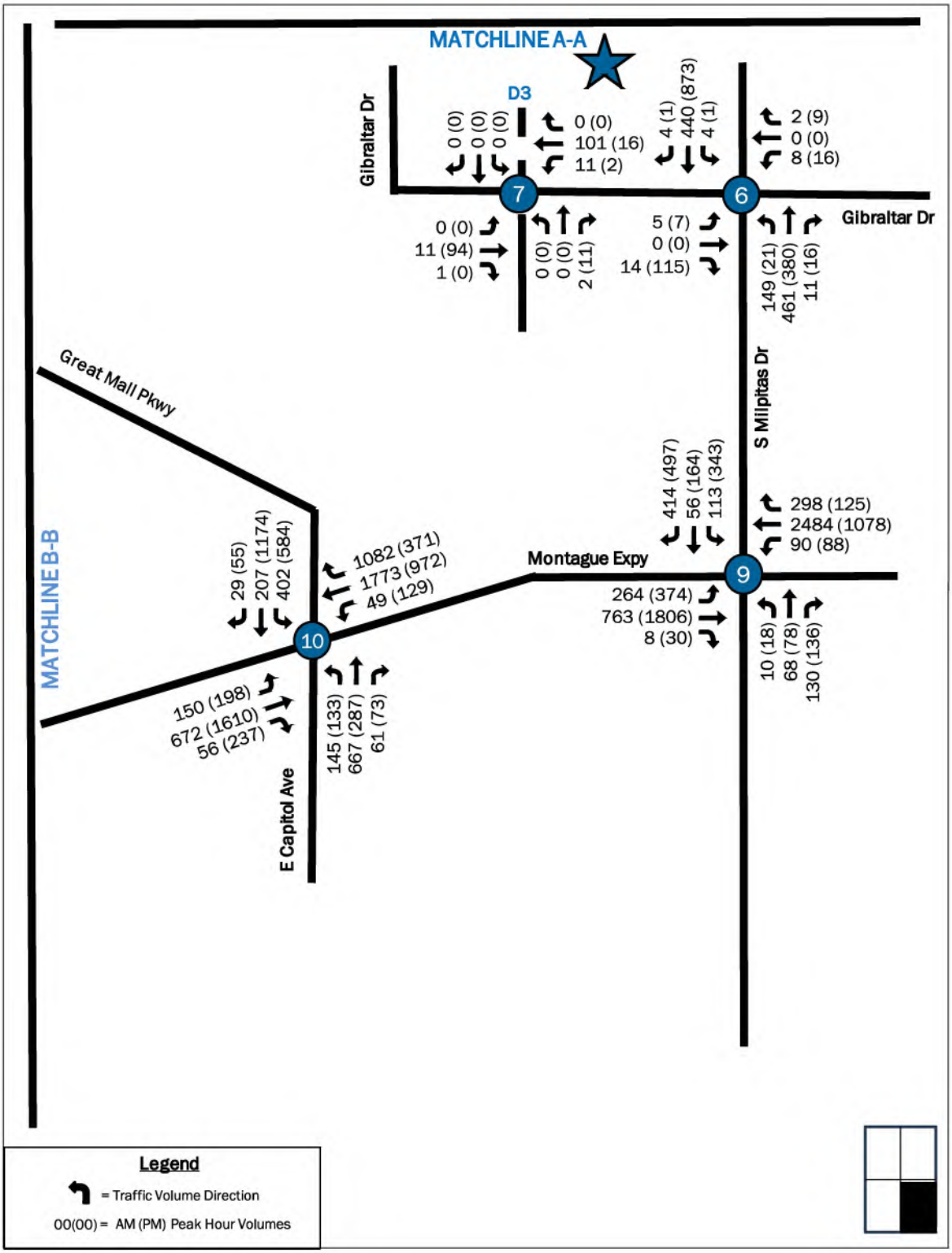


Table 1: Existing (2024) Intersection Capacity Analysis

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	West Calaveras Boulevard & South Abel Street	Signal	**Overall**	**D**	**49.3**	**F**	**108.9**
			EB	D	37.5	D	39.1
			WB	D	39.2	C	34.2
			NB	E	61.0	F	324.6
			SB	E	73.9	E	65.8
2	East Calaveras Boulevard & Milpitas Boulevard	Signal	**Overall**	**D**	**37.6**	**D**	**39.3**
			EB	C	31.9	D	38.8
			WB	D	38.7	D	37.7
			NB	D	40.6	D	40.7
			SB	D	40.4	D	42.3
3	South Milpitas Boulevard & Yosemite Drive	Signal	**Overall**	**C**	**33.1**	**C**	**30.8**
			EB	C	35.0	D	43.4
			WB	D	46.9	D	48.3
			NB	B	19.6	B	18.2
			SB	C	27.2	C	28.9
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	**Overall**	**A**	**5.7**	**A**	**6.6**
			WB	D	45.0	D	42.4
			NB	A	2.8	A	3.7
			SB	A	4.9	A	3.8
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	A	8.4	A	0.0
			EB	A	0.0	A	0.0
6	South Milpitas Boulevard & Gibraltar Drive	Signal	**Overall**	**B**	**14.8**	**A**	**7.0**
			WB	F	113.1	F	110.1
			NB	B	18.6	A	6.6
			SB	A	7.2	A	4.2
7	Gibraltar Drive & Driveway 3	Stop-Control	NB	A	8.4	A	8.9
			WBL	A	7.3	A	7.5
9	South Milpitas Drive & Montague Expressway	Signal	**Overall**	**E**	**79.5**	**E**	**79.7**
			EB	E	56.1	E	56.6
			WB	E	77.8	E	55.9
			NB	E	66.8	E	67.4
			SB	F	134.5	F	164.1
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	**Overall**	**F**	**92.3**	**E**	**72.3**
			EB	D	44.1	D	45.9
			WB	F	93.1	D	45.3
			NB	F	122.1	F	118.0
			SB	F	112.8	F	111.0

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	**Overall**	**D**	**49.4**	**E**	**71.3**
			EB	B	16.6	F	86.8
			WB	B	16.1	C	26.1
			NB	F	160.8	E	75.6
			SB	E	68.5	E	67.3
12	Montague Expressway & South Main Street/Oakland Road	Signal	**Overall**	**E**	**67.5**	**D**	**49.4**
			EB	D	35.9	D	42.0
			WB	E	56.4	C	34.0
			NB	F	160.4	F	87.1
			SB	F	83.1	F	85.4

Based on the 2024 analysis results, the following intersections exhibit an overall LOS E or worse during the AM and/or PM peak hours.

- West Calaveras Boulevard and South Abel Street (CMP)
- South Milpitas Drive and Montague Expressway (CMP)
- Great Mall Parkway/East Capitol Avenue and Montague Expressway (CMP)
- Montague Expressway and McCandless Drive/Trade Center Boulevard (CMP)
- Montague Expressway and South Main Street/Oakland Road (CMP)

Additionally, South Milpitas Boulevard and Gibraltar Drive exhibits an LOS F on the westbound approach during both the AM and PM peak hour. Additionally, the westbound approach at the South Milpitas Boulevard and Gibraltar Drive intersection operates at LOS F during both the AM and PM peak hours.

Table 2: Existing (2024) Queuing Analysis

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
1	West Calaveras Boulevard & South Abel Street	Signal	EBL	245	184	195
			EBT	-	239	559
			EBR	-	0	0
			WBL	250	391	265
			WBT	-	552	256
			WBR	-	24	43
			NBL	230	53	74
			NBT	-	144	170
			NBR	285	75	506
			SBL	285	215	303
			SBT	-	184	122
			SBR	285	95	62
2	East Calaveras Boulevard & Milpitas Boulevard	Signal	EBL	460	102	187
			EBT	-	167	483
			EBR	200	65	288
			WBL	215	105	144
			WBT	-	549	288
			WBR	270	80	57
			NBL	215	163	150
			NBT	-	104	128
			NBR	185	0	34
			SBL	215	73	101
			SBT	-	110	156
			SBR	-	80	68
3	South Milpitas Boulevard & Yosemite Drive	Signal	EBL	-	16	49
			EBT	-	15	48
			WBL	-	253	214
			WBT	-	105	63
			NBL	170	24	0
			NBT	-	121	131
			SBL	250	174	302
			SBT	-	73	104
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	WBT	-	17	60
			NBT	-	68	68
			SBL	140	46	37
			SBT	-	28	81

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	-	0	0
			NBT	-	0	0
			EBL	-	0	0
			SBT	-	0	0
6	South Milpitas Boulevard & Gibraltar Drive	Signal	EBL	100	19	22
			EBR	-	0	61
			WBT	-	0	0
			NBL	130	203	48
			NBT	-	101	92
			SBL	75	17	7
			SBT	-	343	741
			SBR	-	0	0
7	Gibraltar Drive & Driveway 3	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	0	0
			WBT	-	0	0
			NBL	-	0	0
			SBL	-	0	0
			SBT	-	0	0
8	South Milpitas Drive & Montague Expressway	Stop-Control	WBL	-	0	0
			NBT	-	0	0
			SBL	-	0	0
			SBL	-	0	0
9	South Milpitas Drive & Montague Expressway	Signal	EBL	600	269	359
			EBT	-	254	676
			WBL	300	110	107
			WBT	-	1323	410
			WBR	200	343	86
			NBL	185	21	28
			NBT	-	83	89
			SBL	215	128	395
			SBT	-	60	145
			SBR	215	179	325

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	EBL	680	191	237
			EBT	-	227	656
			EBR	385	6	123
			WBL	400	78	167
			WBT	-	759	379
			WBR	240	2234	236
			NBL	350	187	170
			NBT	-	490	208
			NBR	385	0	4
			SBL	365	444	626
			SBT	-	138	775
			SBR	-	0	9
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	EBL	190	86	148
			EBT	-	187	786
			EBR	230	76	1212
			WBL	250	120	270
			WBT	-	560	233
			WBR	-	42	0
			NBL	175	313	225
			NBT	-	369	270
			NBR	-	49	71
			SBL	170	56	62
			SBT	-	88	164
			SBR	165	81	63
12	Montague Expressway & South Main Street/Oakland Road	Signal	EBL	190	144	186
			EBT	-	347	1110
			EBR	230	53	120
			WBL	250	155	146
			WBT	-	1400	449
			WBR	-	46	61
			NBL	175	534	240
			NBT	-	145	210
			NBR	-	76	265
			SBL	170	141	205
			SBT	-	173	276
			SBR	165	716	83

Queuing at the following intersections, highlighted in red in Table 2, has exceeded the storage length provided. The non-CMP intersections are bolded for reference.

- West Calaveras Boulevard & South Abel Street: The westbound left, northbound right, and southbound left have exceeded the storage length provided during the AM and/or PM peak hour.
- E Calaveras Boulevard & Milpitas Boulevard: The eastbound right has exceeded the storage length provided during the PM peak hour.
- **S Milpitas Boulevard & Yosemite Drive**: The southbound left has exceeded the storage length provided during the PM peak hour.
- **South Milpitas Boulevard & Gibraltar Drive**: The northbound left has exceeded the storage length provided during the AM peak hour.
- South Milpitas Drive & Montague Expressway: The westbound right and southbound left have exceeded the storage length provided during the AM and/or PM peak hour.
- Montague Expressway & McCandless Drive/Trade Center Boulevard: The eastbound right, westbound left, and northbound left have exceeded the storage length provided during the AM and/or PM peak hour.
- Montague Expressway & South Main Street/Oakland Road: The northbound left, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour.

C. Development Site Traffic

C.1. Trip Generation

The delivery center is a specialized warehouse that stores a wide range of everyday consumer goods, enabling same-day delivery. They serve as the critical last-mile link between a tenant's delivery operations and their customers. Packages are dispatched to residential developments within a four-hour delivery window, using private carrier vehicles. Deliveries begin as early as 3:00 AM and continue throughout the day, with intentional pauses during peak AM and PM Peak traffic hours to minimize impacts to local roadways and avoid congestion.

At the proposed delivery center, up to 15 line-haul trucks are expected to deliver packages to the delivery center each day. The line-haul trucks will arrive at the site between the hours of 10:00 PM and 8:00 AM. Trucks enter the site via South Milpitas Boulevard on the east side of the building and exit the site on Gibraltar Drive. Once trucks are unloaded, the trucks continue to the next center and do not return to the site. The customer shipments are sorted by address groupings, assigned to the delivery routes, placed onto movable racks, and staged for dispatch. Table 3 summarizes the types of trips.

Table 3: Project Trip Generation - Traffic Volume by Vehicle Type

Traffic	Number of Vehicles	Daily Trips
Auto - Employees	1,891	3,782
Line-Haul Trucks	15	30
Total	**1,906**	**3,812**

The 2026 Build Traffic Scenario accounts for the addition of the project site as a delivery center with a building footprint of 487,564 square feet. To estimate site-generated traffic volumes, CESO utilized trip generation data provided by the prospective tenant. These estimates were developed using inputs such as building size, land use, and site design, drawing from multiple sources including national operational data, industry standards, and professional engineering judgment.

The resulting trip generation, summarized in Table 4, reflects a more conservative estimate than that derived from ITE Land Use Code 150 (Warehousing) as published in the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition. Trip volumes are categorized by vehicle type to reflect operational characteristics of the proposed facility.

Table 4: Project Trip Generation – Peak Hour Traffic Volume (User Specified Land Use Code)

Land Use		Total	Inbound	Outbound
Delivery Center (Vehicle Trips)	Daily	3,782	1,891	1,891
	AM	258	129	129
	PM	244	122	122
Delivery Center (Truck Trips)	Daily	30	15	15
	AM	2	2	0
	PM	1	0	1
Delivery Center (Total Net Trips)	Daily	3,812	1,906	1,906
	AM	260	131	129
	PM	245	122	123

C.2. Adjustments to Trip Generation Rates

Due to the nature of the development, no adjustments for pass-by or internal capture were considered for trips generated by the Project.

C.3. Trip Generation and Assignment

The proposed distribution center at 1000 Gibraltar Drive will receive merchandise from regional delivery and sortation centers located in Oakland and Tracy for last-mile delivery to customers within the Milpitas metropolitan area. Vehicle trip distribution for the site varies by mode, with passenger vehicles and delivery trucks following distinct travel patterns based on the anticipated trip schedules and designated routing.

As illustrated in Figures 7-14 general trip distribution percentages were derived from the previously approved 2020 Draft Local Transportation Analysis (LTA) for the 1000 Gibraltar Industrial Project and refined to reflect updated driveway usage and delivery destinations. According to Figure 7, delivery trucks will access the site exclusively via Intersection 4 (Project Driveway 1) and exit through Intersection 8 (Project Driveway 4), utilizing South Milpitas Boulevard for both ingress and egress.

Truck trip distribution is projected as follows:

- 50% via the south along S. Milpitas Boulevard to I-680
- 20% via the north along S. Milpitas Boulevard and Calaveras Boulevard
- 30% via the west along Montague Expressway toward I-880

Passenger vehicles will enter and exit through Intersections 5 (Driveway 2), 7 (Driveway 3), and 8 (Driveway 4). Car trip distribution is anticipated as follows:

- 30% from the south along S. Milpitas Boulevard toward I-680

- 30% from the north via S. Milpitas Boulevard and Calaveras Boulevard
- 40% from the west via Montague Expressway toward I-880

The net project development trips from the new trips expected from the anticipated trip distribution is depicted in Figures 15 – 23.

Figure 7: Trip Distribution Map (Trucks)



Figure 8: Trip Distribution Map (Cars)

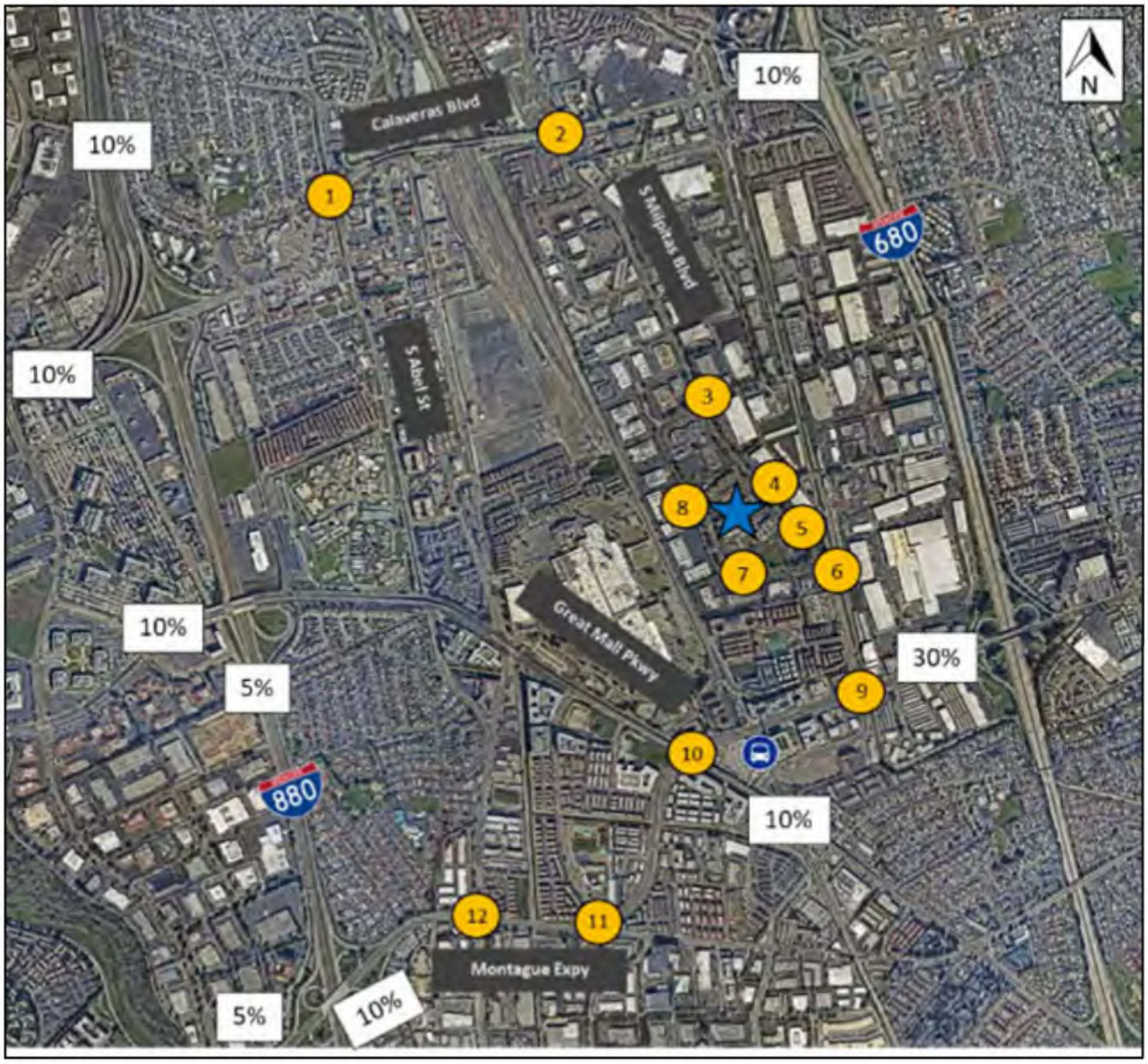


Figure 9: Trip Distribution Cars 1

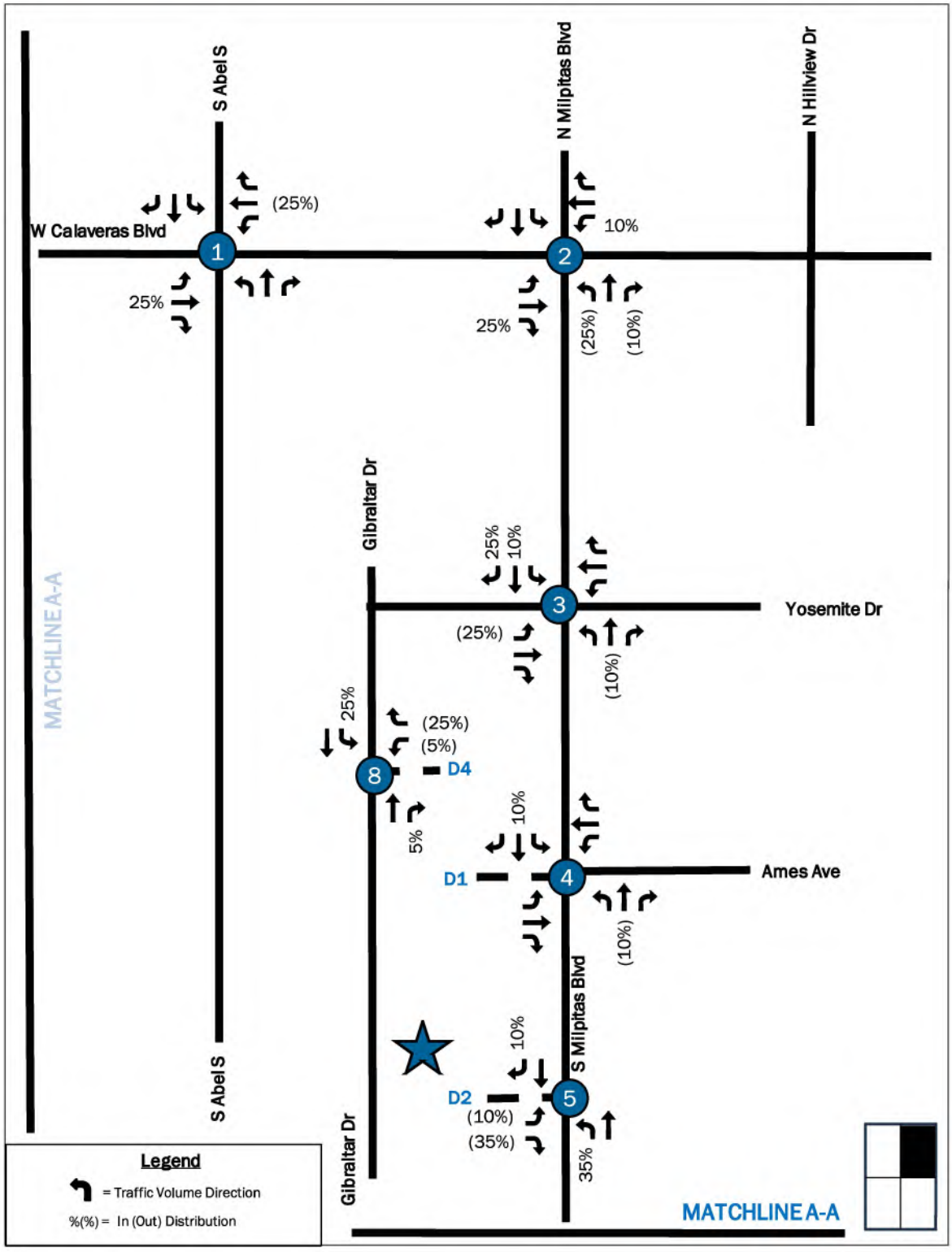


Figure 10: Trip Distribution Cars 2

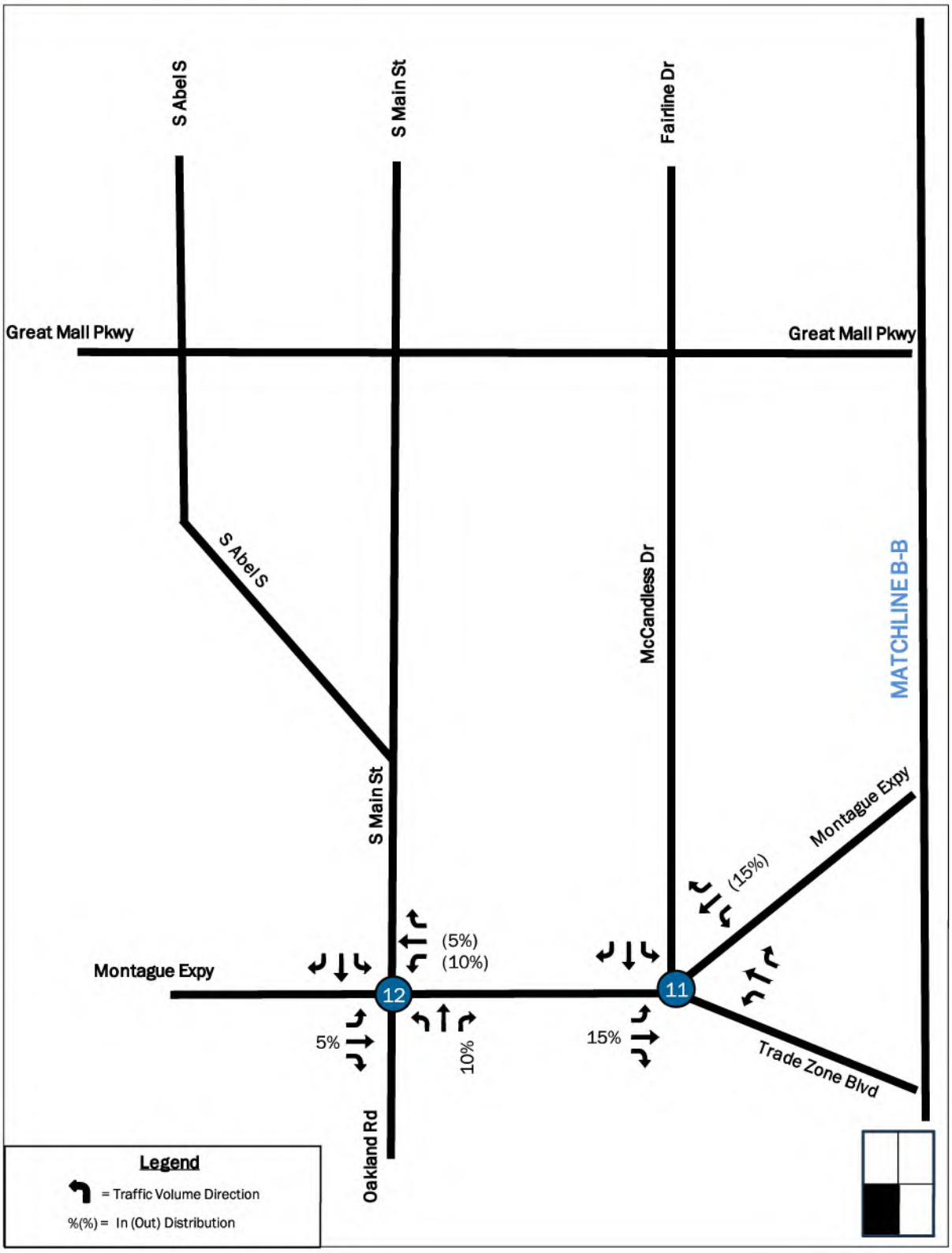


Figure 11: Trip Distribution Cars 3

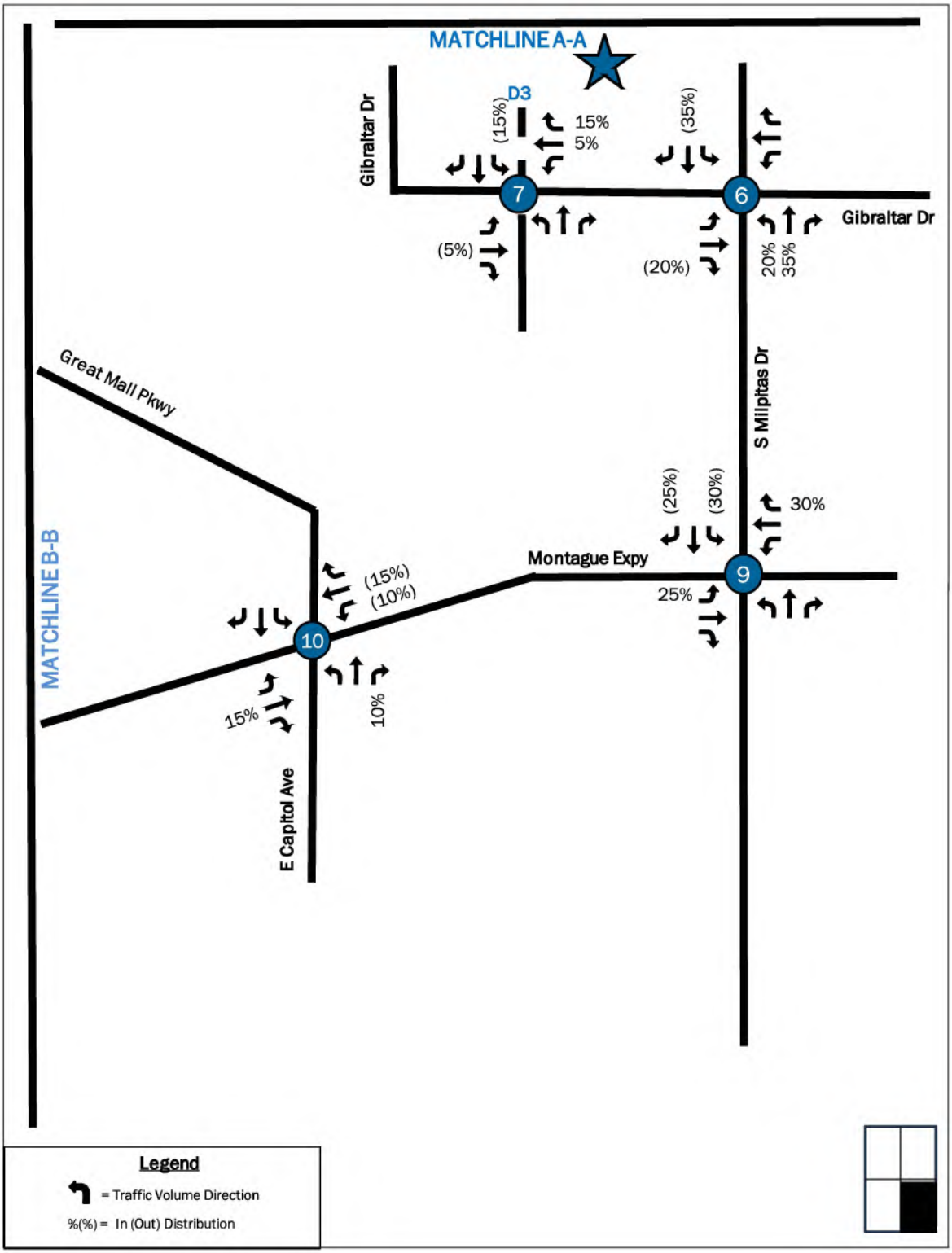


Figure 12: Trip Distribution Trucks 1

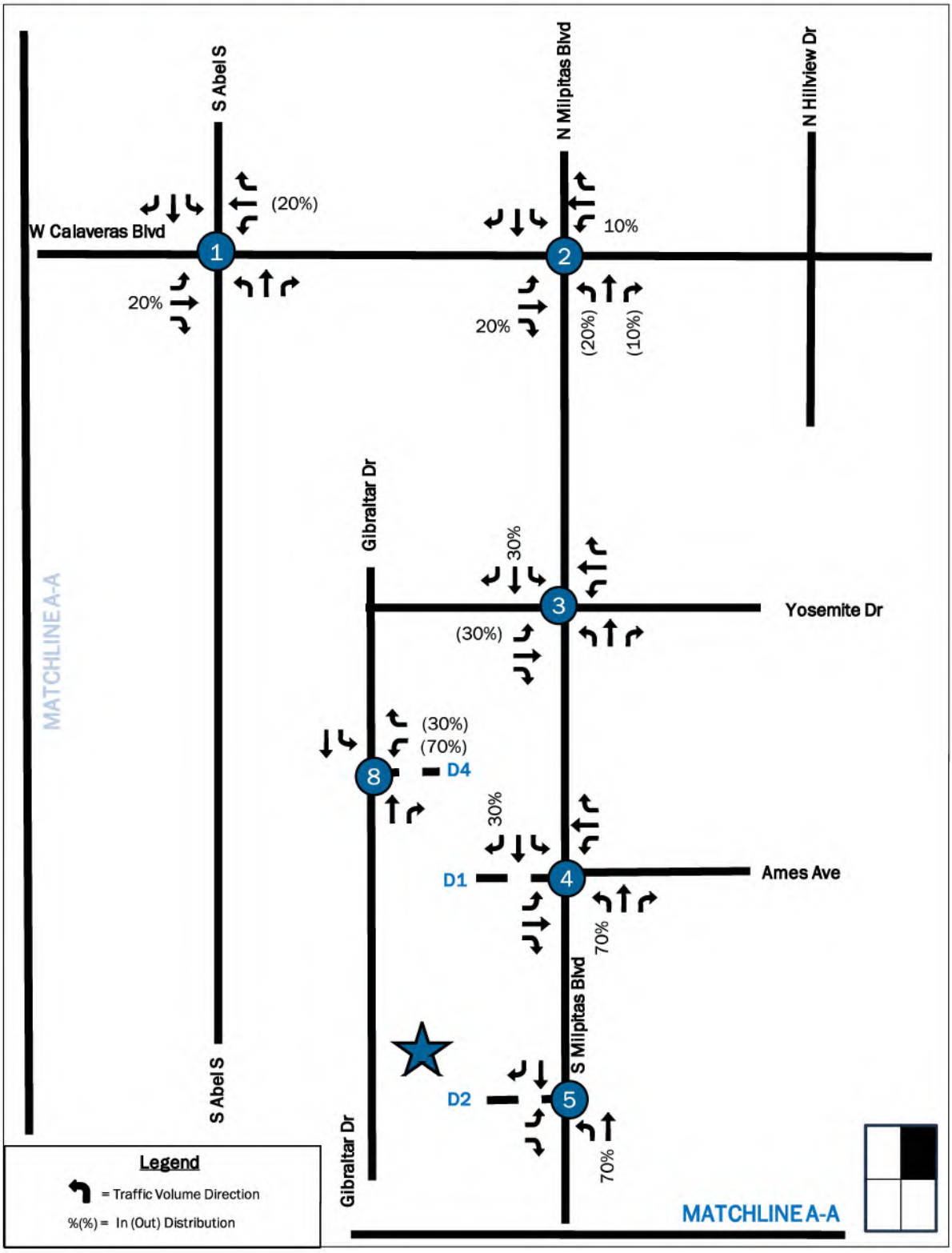


Figure 13: Trip Distribution Trucks 2

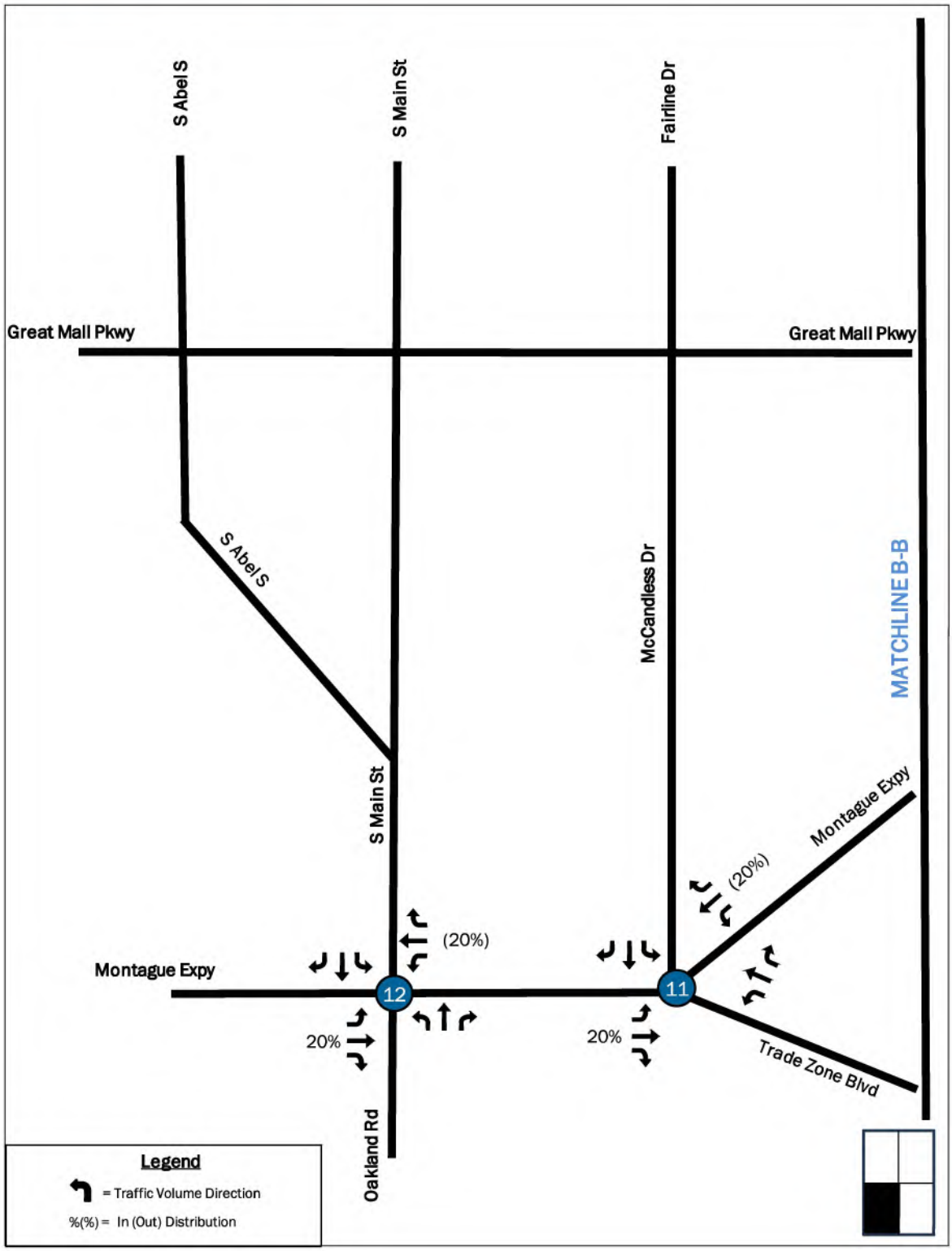


Figure 14: Trip Distribution Trucks 3

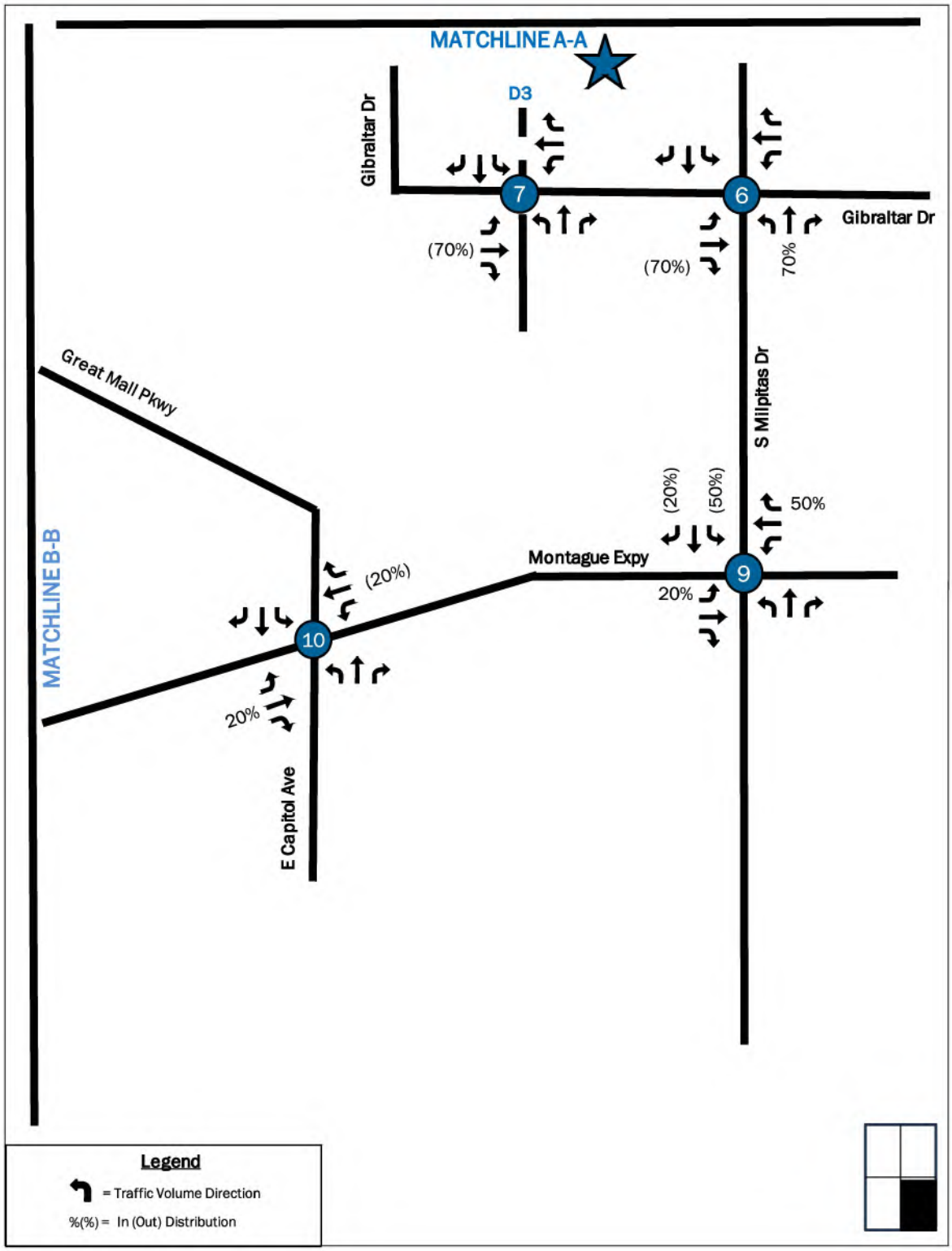


Figure 15: Project Site Trips (Cars) 1

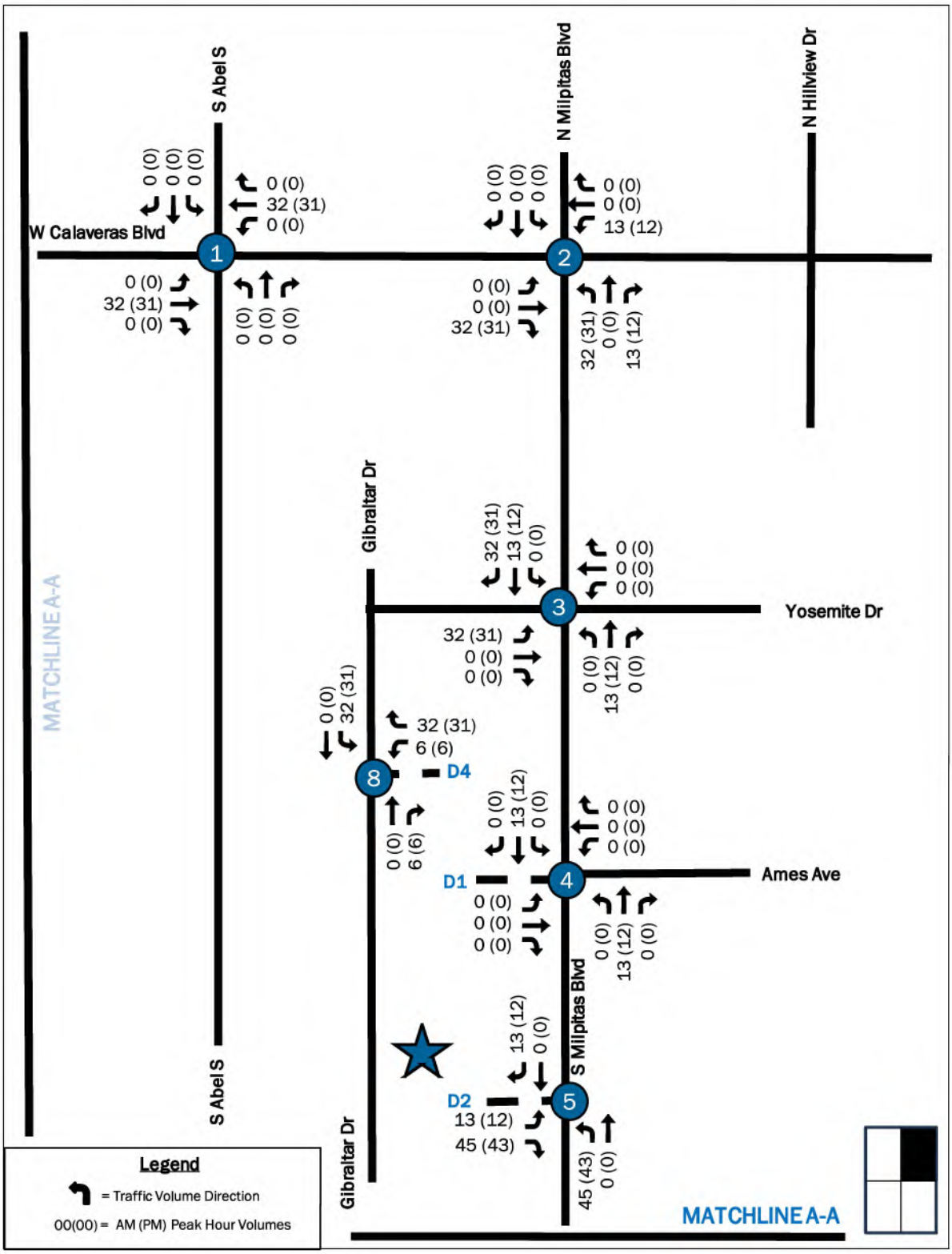


Figure 16: Project Site Trips (Cars) 2

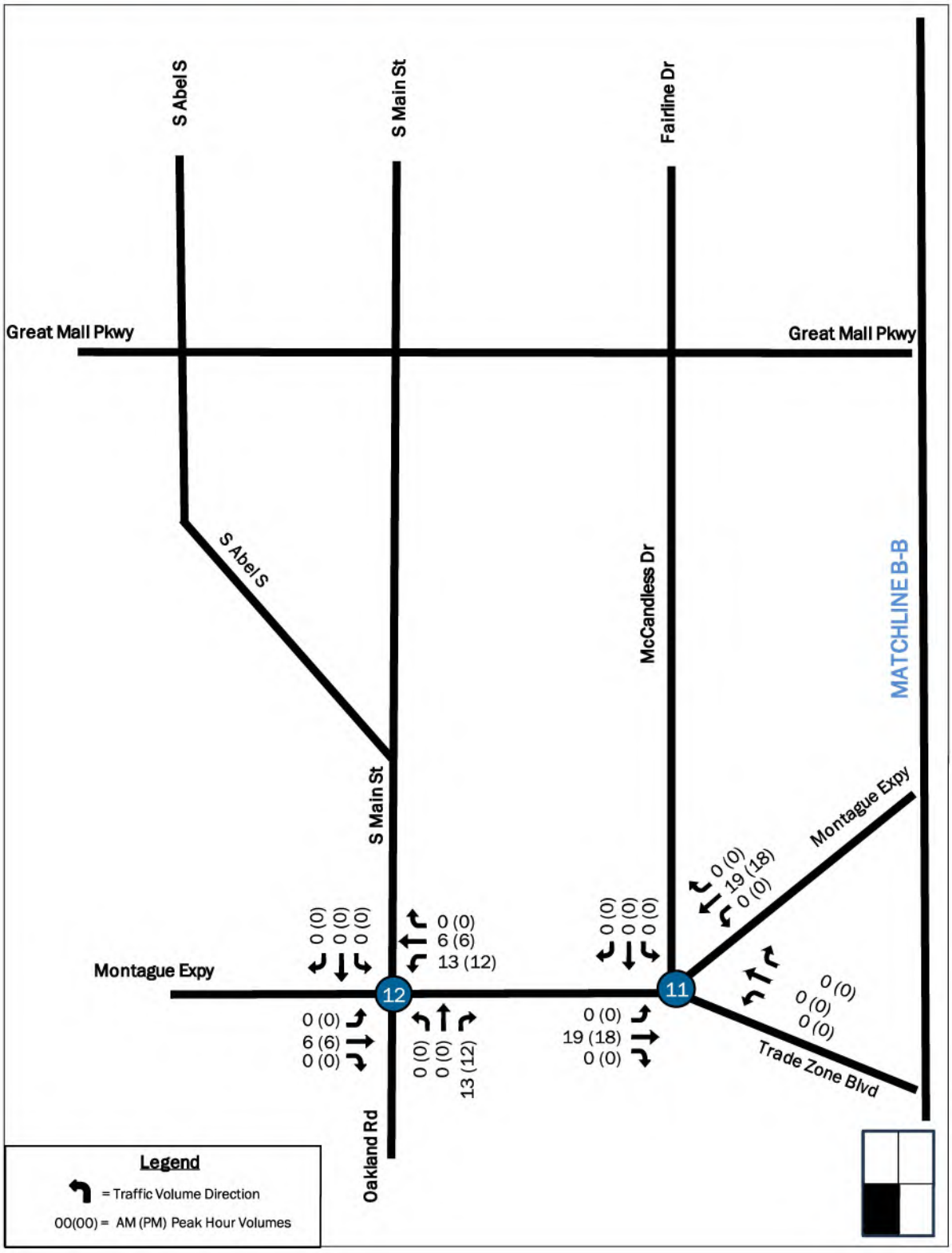


Figure 17: Project Site Trips (Cars) 3

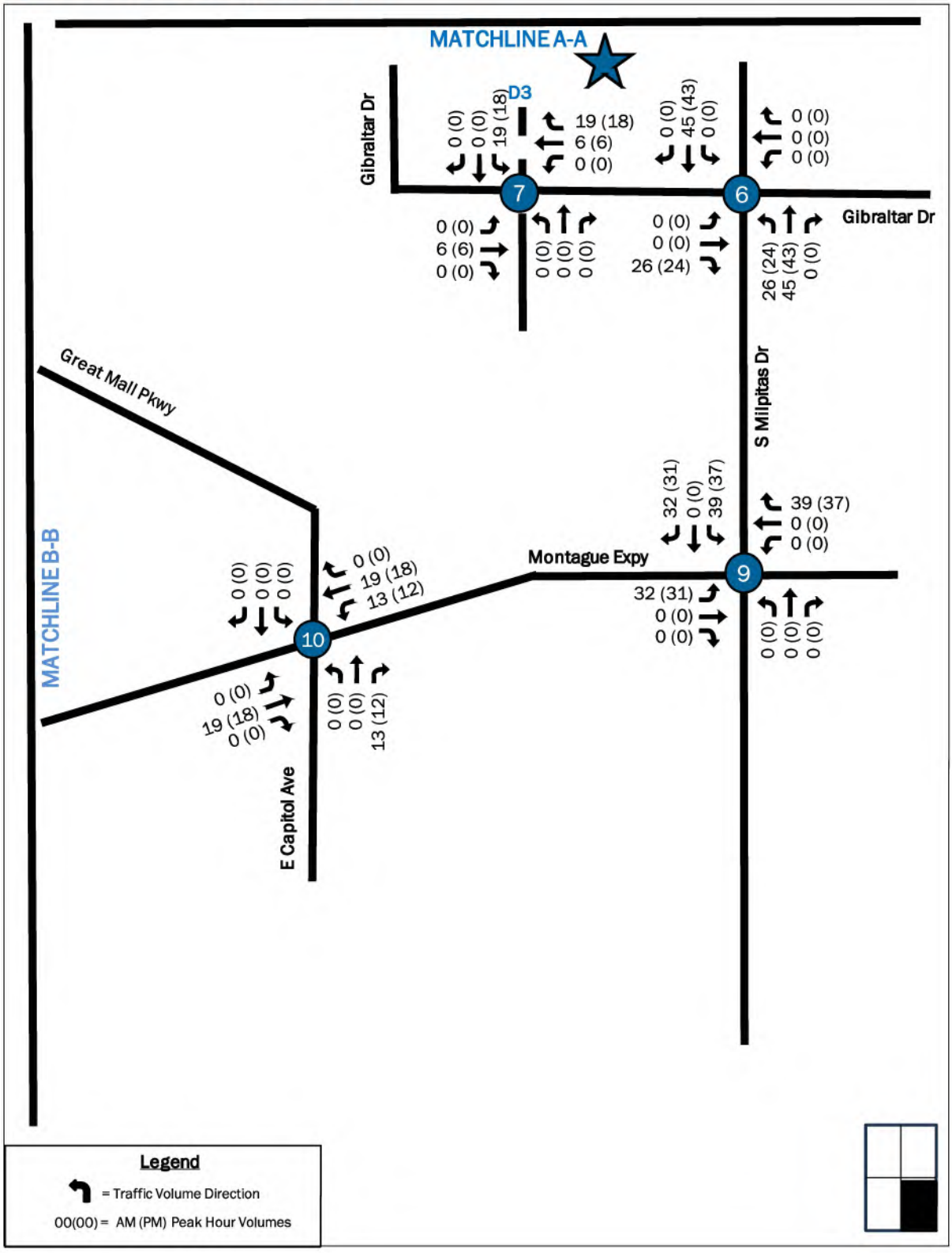


Figure 18: Project Site Trips (Trucks) 1

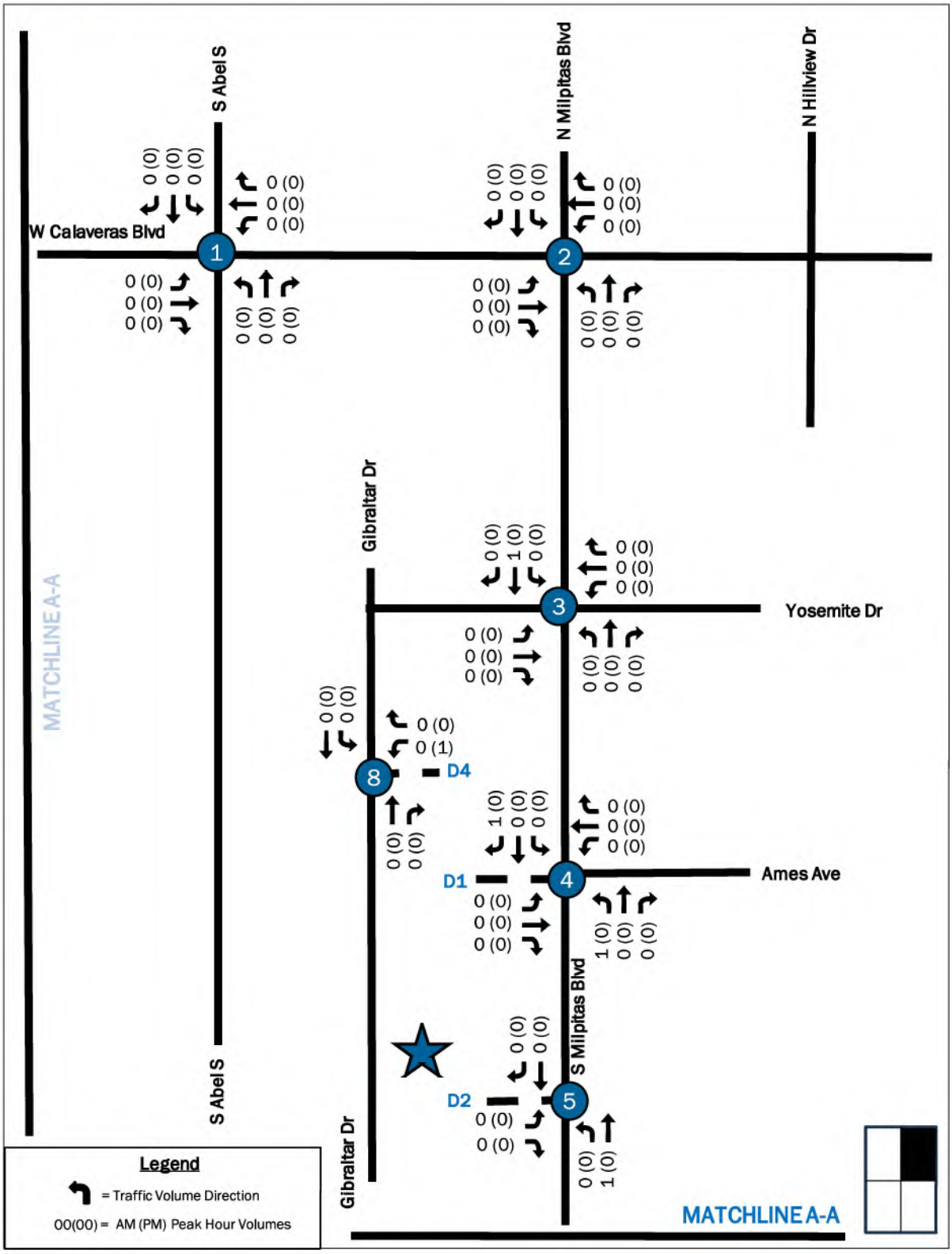


Figure 19: Project Site Trips (Trucks) 2

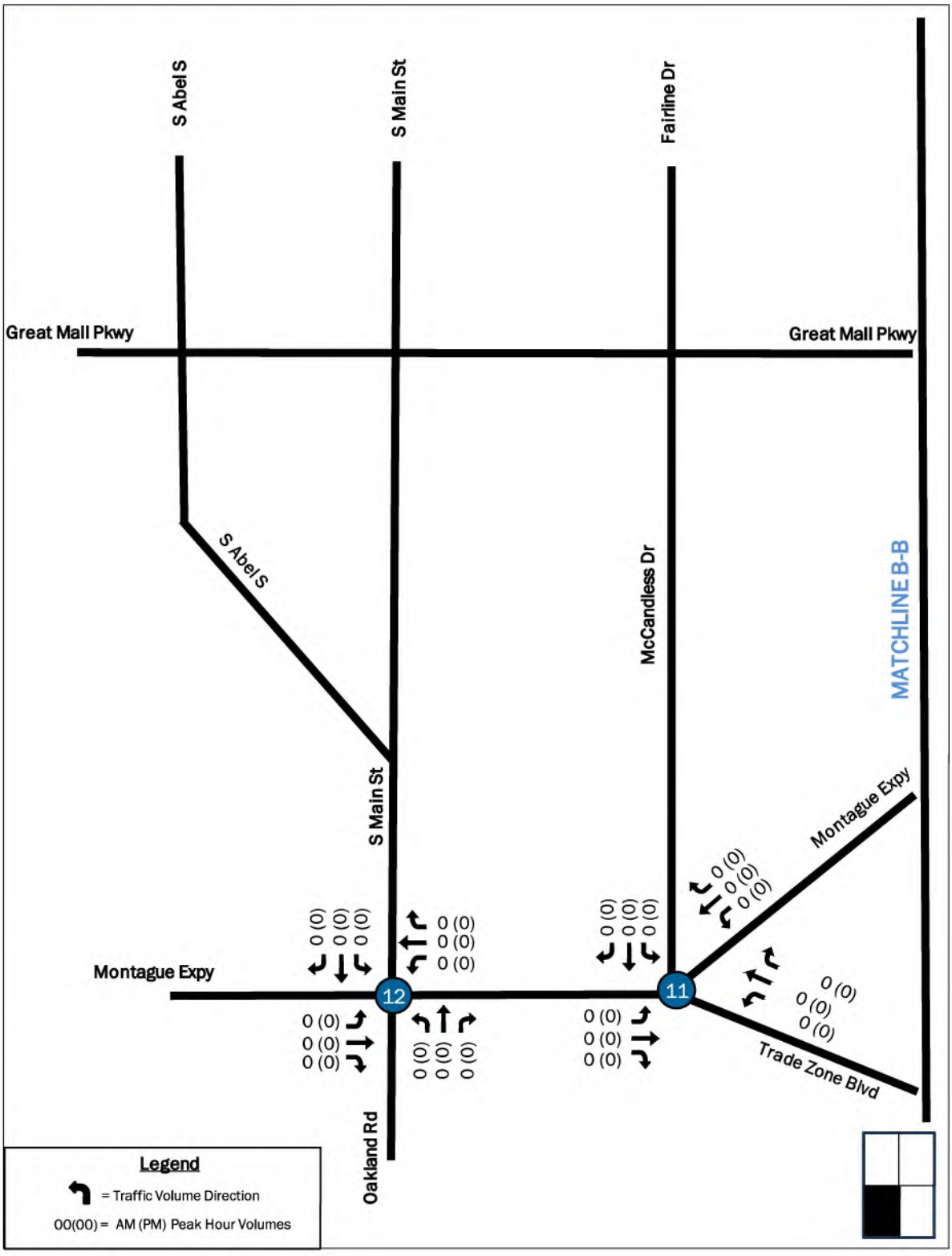


Figure 20: Project Site Trips (Trucks) 3

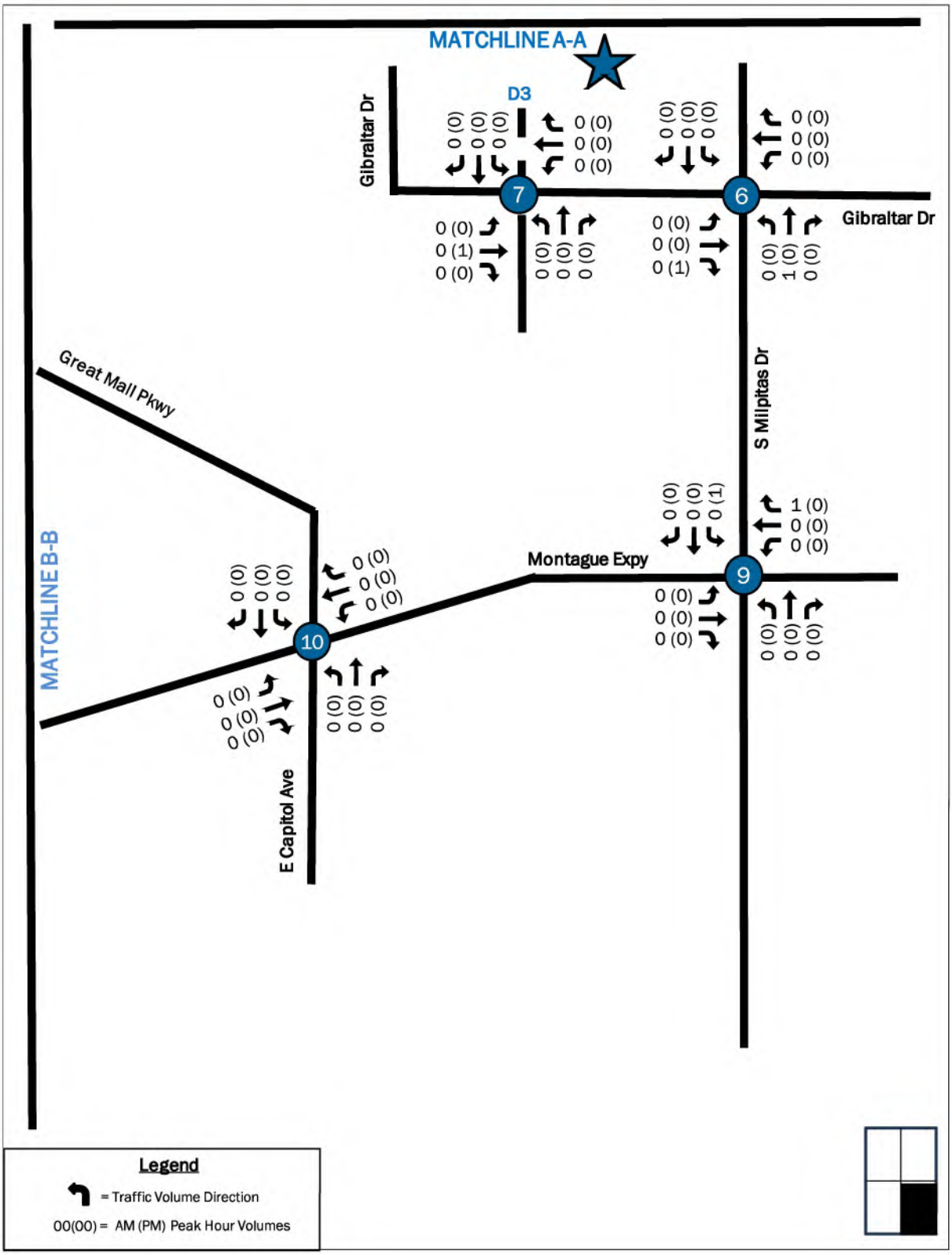


Figure 21: Project Site Trips (Cars & Trucks) 1

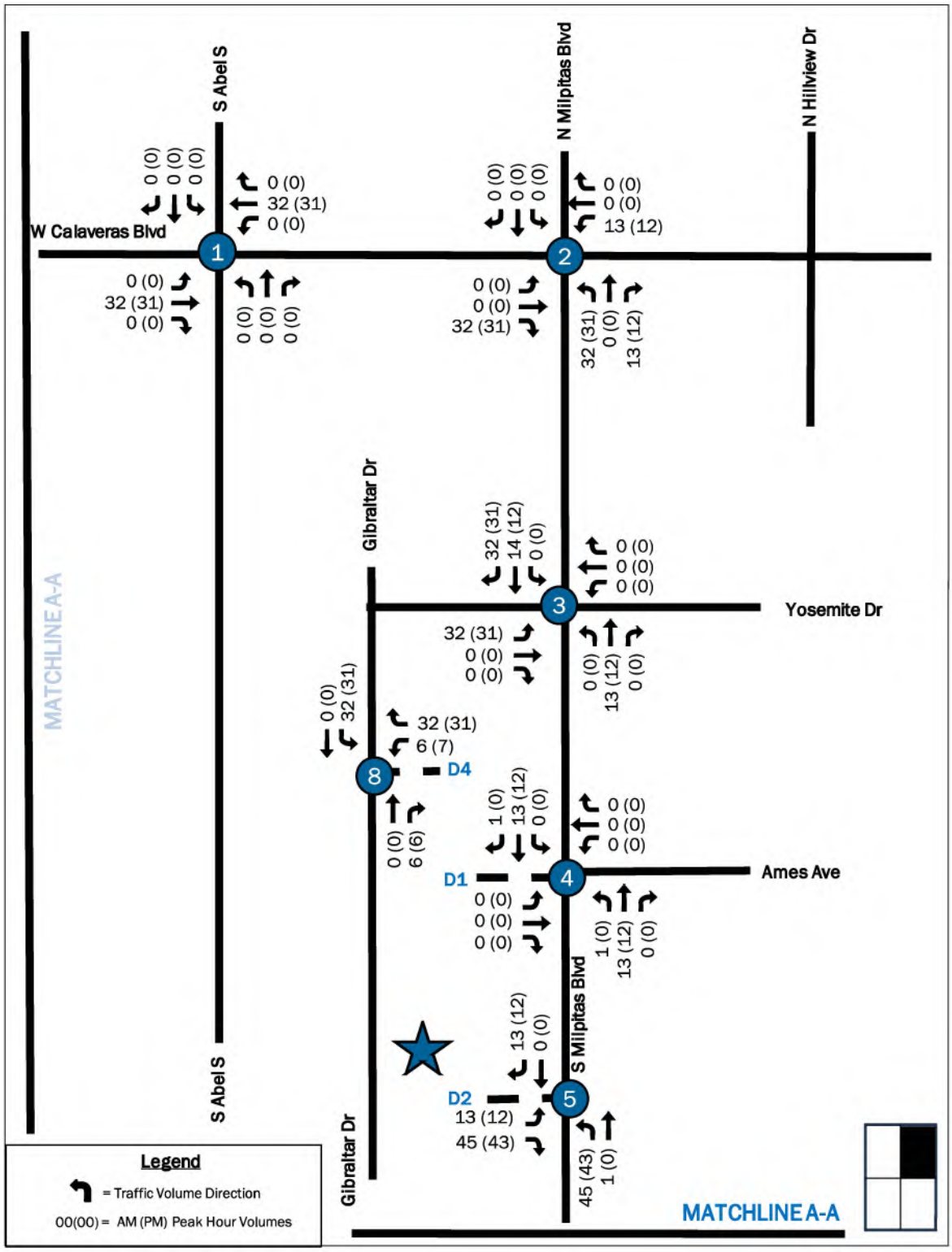


Figure 22: Project Site Trips (Cars & Trucks) 2

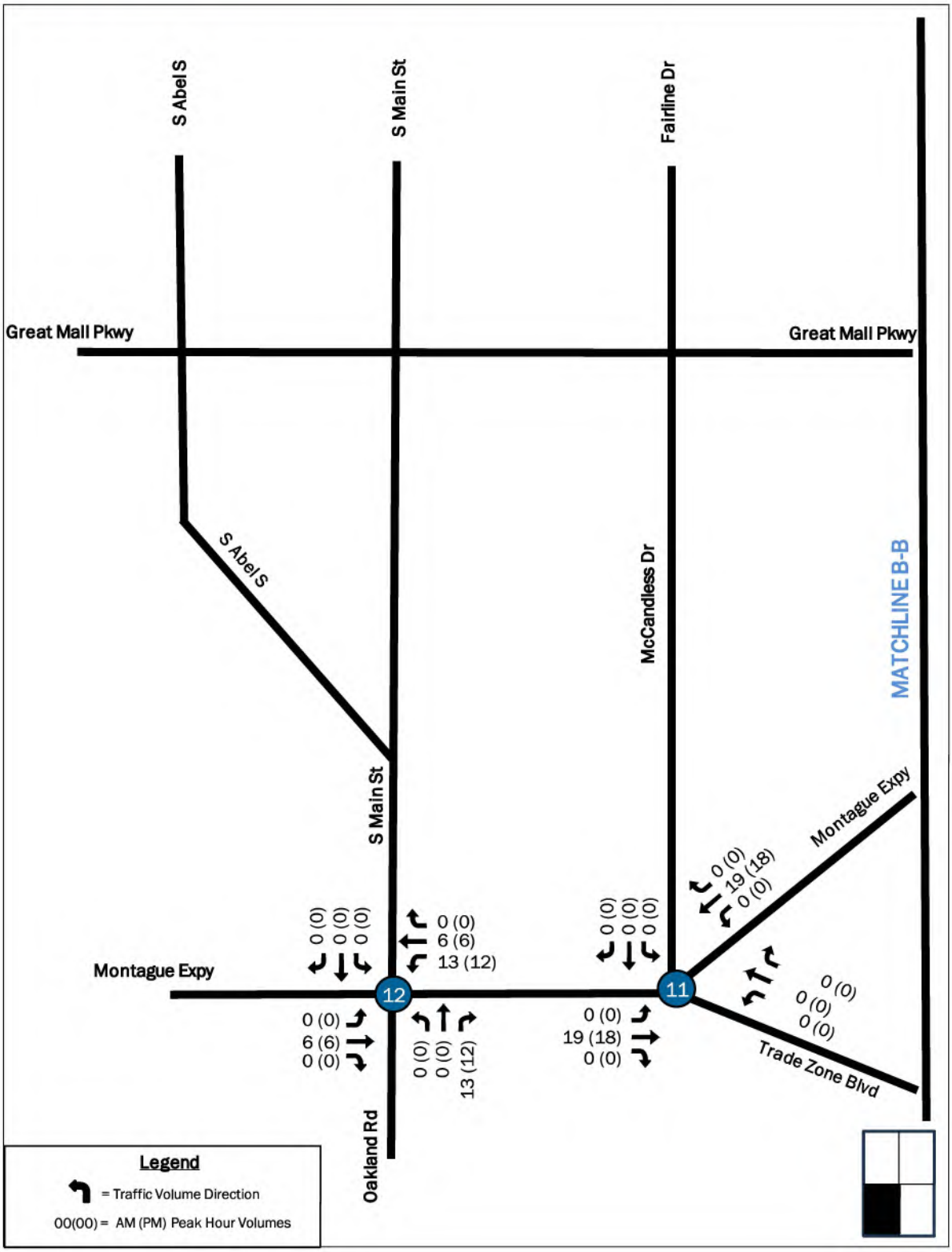
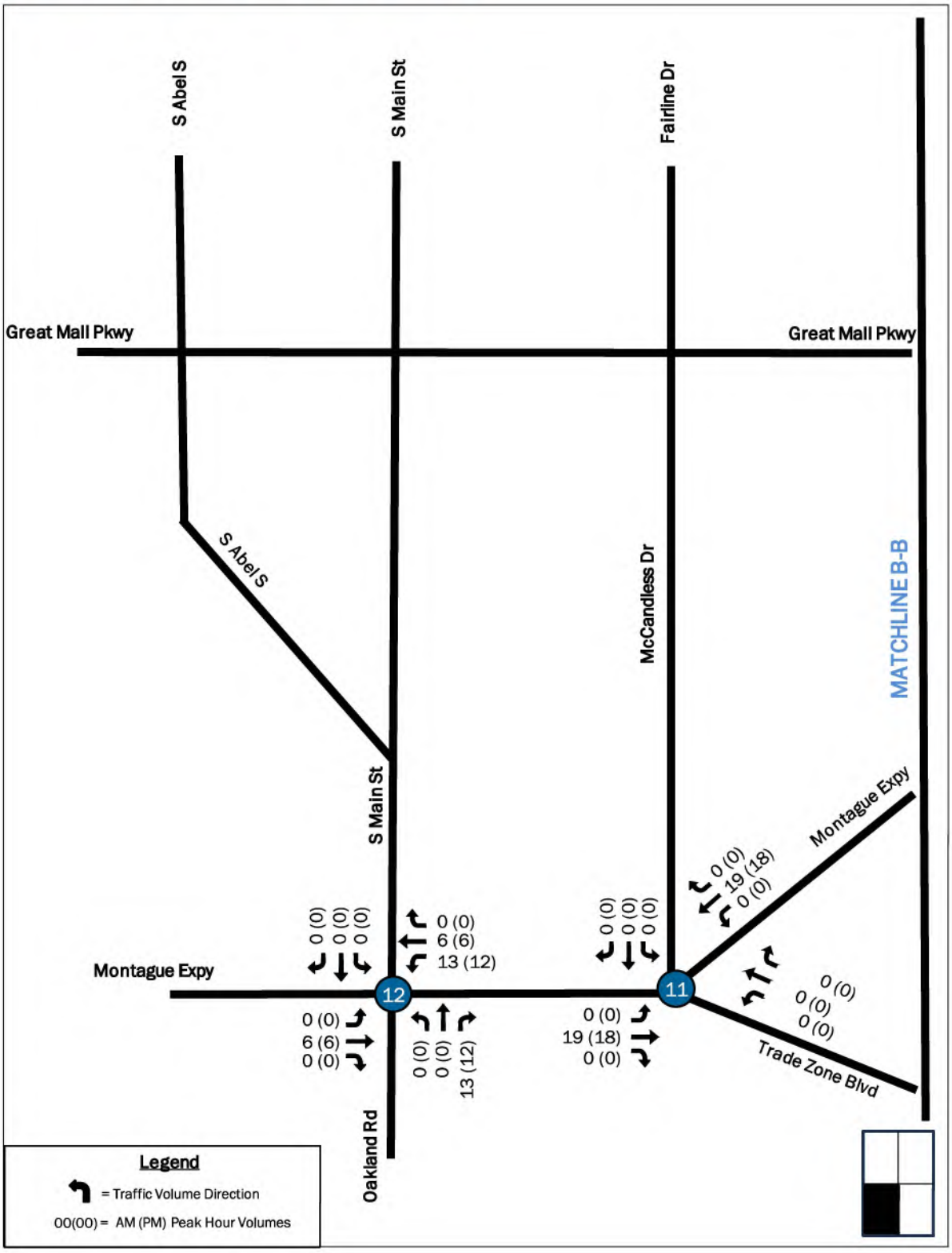


Figure 23: Project Site Trips (Cars & Trucks) 3



D. Future Traffic Conditions

D.1. Background Growth

Analysis of the area's historic development pattern, changes in nearby traffic volumes, and the anticipated completion of the Project was used to determine a growth rate for the study area's traffic. Project build-out is anticipated no later than 2026. The study uses a growth rate of 3.0% per year from Existing Year 2024 to the Horizon Year 2040. The growth rate was derived from a Project scoping memorandum based on the traffic growth patterns for the Project vicinity area. Growth rate calculations are included in Appendix B.

D.2. No Build Traffic Analysis Results

The results of the 2026 No-Build traffic capacity analysis are shown in Table 5 and represent volumes as shown in Figures 18 - 20. Future No-Build traffic volumes are demonstrated before any trips generated by the Project have been added. The City of Santa Milpitas considers LOS D as the performance standard for intersections (maintain LOS D or better). LOS E is coded as orange, and LOS F is coded as red in the Tables provided.

Figure 24: No Build (2026) Volumes 1

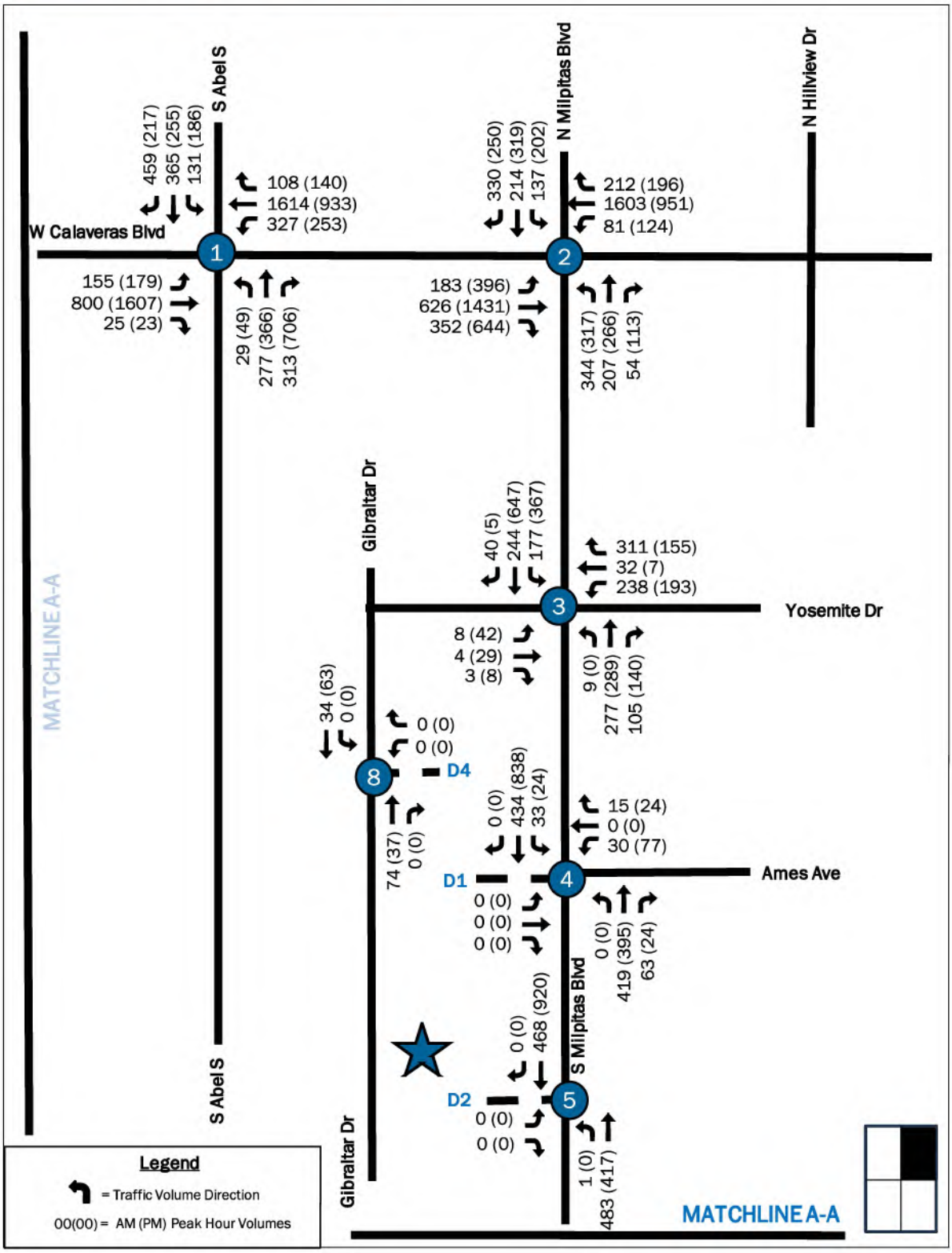


Figure 25: No Build (2026) Volumes 2

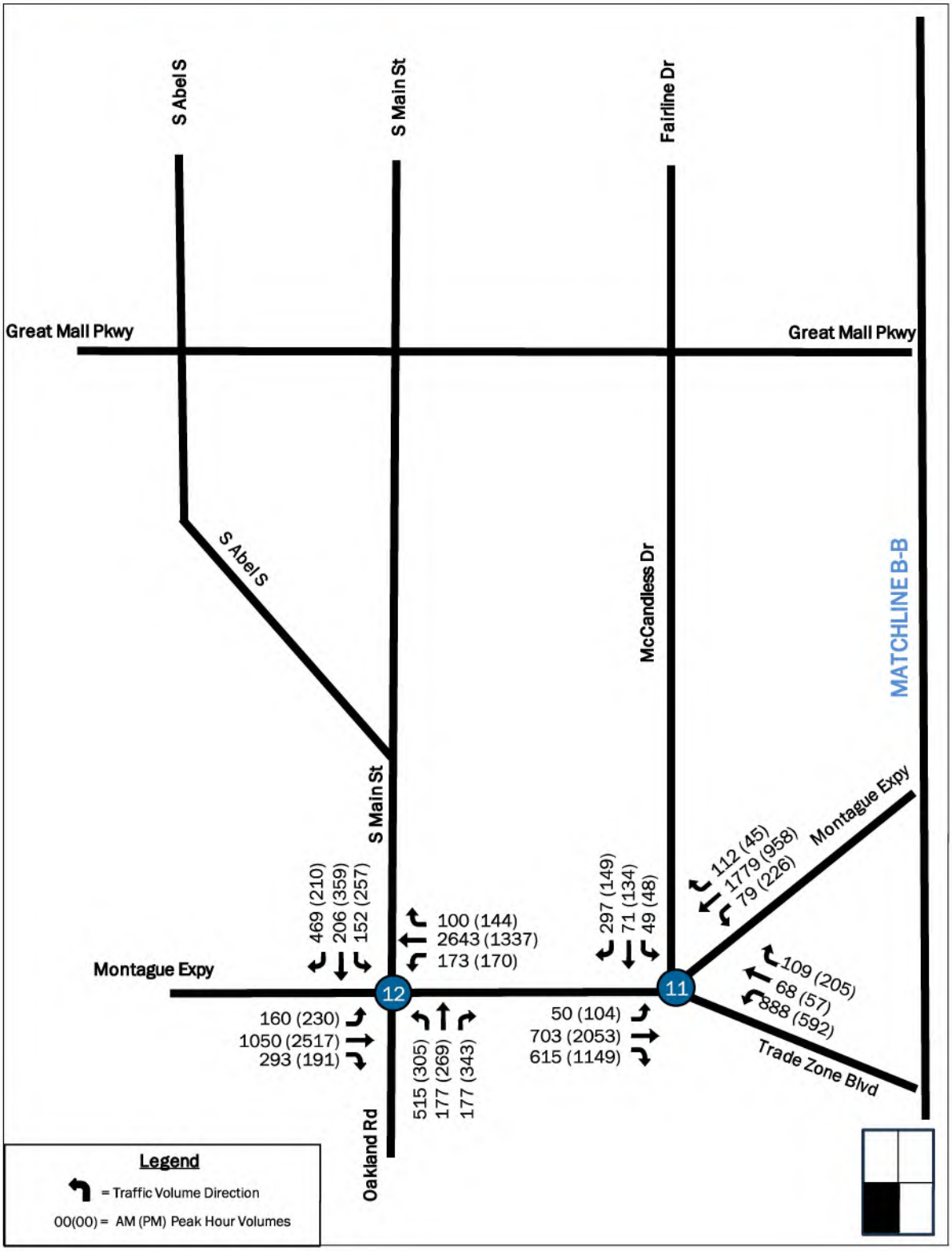


Figure 26: No Build (2026) Volumes 3

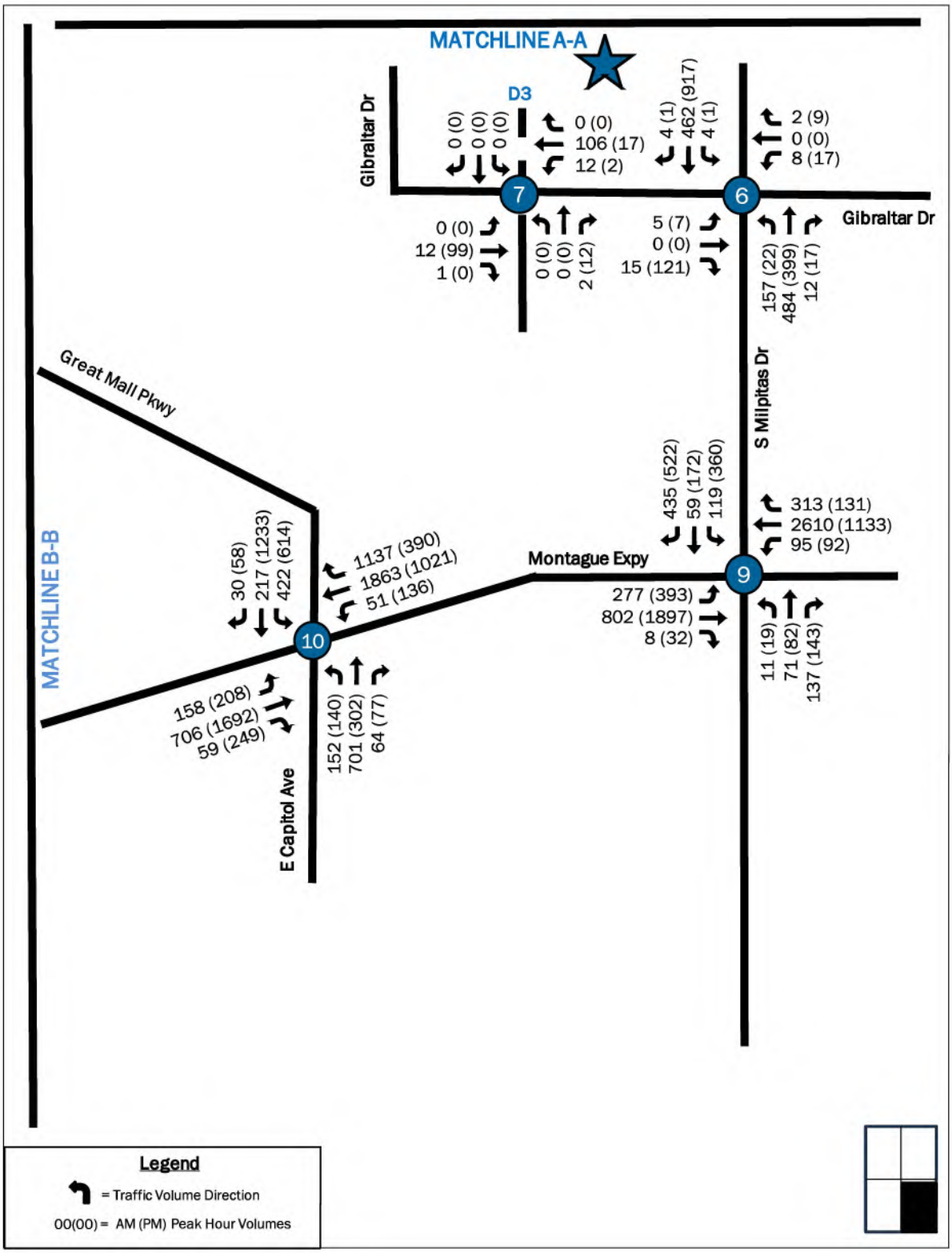


Table 5: No Build (2026) Capacity Analysis

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	West Calaveras Boulevard & South Abel Street	Signal	**Overall**	**D**	**52.8**	**F**	**117.3**
			EB	D	38.9	D	41.8
			WB	D	41.7	D	35.1
			NB	E	66.4	F	351.8
			SB	F	80.3	E	70.8
2	E Calaveras Boulevard & Milpitas Boulevard	Signal	**Overall**	**D**	**39.3**	**D**	**40.4**
			EB	C	32.1	D	40.5
			WB	D	42.0	D	38.8
			NB	D	40.9	D	41.0
			SB	D	40.6	D	42.6
3	S Milpitas Boulevard & Yosemite Drive	Signal	**Overall**	**C**	**33.7**	**C**	**33.3**
			EB	C	34.2	D	42.9
			WB	D	41.5	D	48.4
			NB	C	20.7	B	18.8
			SB	C	27.4	C	33.3
4	S Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	**Overall**	**A**	**5.8**	**A**	**6.7**
			WB	D	44.9	D	42.2
			NB	A	2.9	A	3.9
			SB	A	4.9	A	3.9
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	A	8.5	A	0.0
			EB	A	0.0	A	0.0
6	South Milpitas Boulevard & Gibraltar Drive	Signal	**Overall**	**B**	**15.0**	**A**	**7.1**
			WB	F	113.1	F	108.1
			NB	B	18.8	A	6.6
			SB	A	7.6	A	4.6
7	Gibraltar Drive & Driveway 3	Stop-Control	NB	A	8.4	A	9.0
			WBL	A	7.3	A	7.5
9	South Milpitas Drive & Montague Expressway	Signal	**Overall**	**F**	**90.6**	**F**	**84.2**
			EB	D	56.6	E	57.7
			WB	F	92.9	E	57.3
			NB	E	67.2	E	67.8
			SB	F	148.1	F	180.9
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	**Overall**	**F**	**103.6**	**E**	**73.8**
			EB	D	46.3	D	48.6
			WB	F	112.9	D	48.0
			NB	F	122.2	F	117.3
			SB	F	112.2	F	111.0

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	**Overall**	**D**	**55.2**	**F**	**83.2**
			EB	B	17.3	F	103.9
			WB	B	16.3	C	26.9
			NB	F	185.3	F	85.0
			SB	E	68.2	E	67.0
12	Montague Expressway & South Main Street/Oakland Road	Signal	**Overall**	**E**	**78.0**	**D**	**51.9**
			EB	C	36.4	D	46
			WB	E	70.2	D	35.2
			NB	F	179.4	F	87.8
			SB	F	83.2	F	85.9

Based on the 2026 No Build analysis results; the following intersections exhibit an overall LOS of E or worse during the AM and/or PM peak hours:

- West Calaveras Boulevard & South Abel Street (CMP)
- South Milpitas Drive & Montague Expressway (CMP)
- Great Mall Parkway/East Capitol Avenue & Montague Expressway (CMP)
- Montague Expressway & McCandless Drive/Trade Center Boulevard (CMP)
- Montague Expressway & South Main Street/Oakland Road (CMP)

Additionally South Milpitas Boulevard and Gibraltar Drive displayed an LOS F for the westbound approach to the intersection.

Table 6 summarizes the projected queue lengths for each movement within the study area under 2026 No-Build Conditions. Queueing conditions remain consistent with existing conditions in terms of available storage and impacts on adjacent movements, with one exception: the eastbound left-turn movement at Montague Expressway & South Main Street/Oakland Road during the PM peak is projected to slightly exceed the available turn lane storage.

Table 6: No Build (2026) Queuing Analysis

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
1	West Calaveras Boulevard & South Abel Street	Signal	EBL	245	191	203
			EBT	-	252	606
			EBR	-	0	0
			WBL	250	441	279
			WBT	-	630	273
			WBR	-	29	46
			NBL	230	56	77
			NBT	-	147	178
			NBR	285	78	568
			SBL	285	227	321
			SBT	-	190	128
			SBR	285	96	63
2	East Calaveras Boulevard & Milpitas Boulevard	Signal	EBL	460	106	195
			EBT	-	177	530
			EBR	200	68	387
			WBL	215	108	150
			WBT	-	600	307
			WBR	270	89	59
			NBL	215	171	157
			NBT	-	108	135
			NBR	185	0	38
			SBL	215	76	106
			SBT	-	115	164
			SBR	-	83	71
3	South Milpitas Boulevard & Yosemite Drive	Signal	EBL	-	16	51
			EBT	-	15	49
			WBL	-	272	229
			WBT	-	109	64
			NBL	170	24	0
			NBT	-	130	142
			SBL	250	180	317
			SBT	-	78	111
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	WBT	-	19	63
			NBT	-	72	72
			SBL	140	47	38
			SBT	-	30	89

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	-	0	0
			NBT	-	0	0
			EBL	-	0	0
			SBT	-	0	0
6	South Milpitas Boulevard & Gibraltar Drive	Signal	EBL	100	19	22
			EBR	-	0	62
			WBT	-	0	0
			NBL	130	210	50
			NBT	-	106	97
			SBL	75	17	7
			SBT	-	371	825
			SBR	-	0	0
7	Gibraltar Drive & Driveway 3	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	0	0
			WBT	-	0	0
			NBL	-	0	3
			SBL	-	0	0
			SBT	-	0	0
8	South Milpitas Drive & Montague Expressway	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	0	0
			SBL	-	0	0
9	South Milpitas Drive & Montague Expressway	Signal	EBL	600	280	377
			EBT	-	270	725
			WBL	300	116	110
			WBT	-	1451	433
			WBR	200	370	93
			NBL	185	22	29
			NBT	-	86	93
			SBL	215	134	424
			SBT	-	63	152
			SBR	215	223	390

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	EBL	680	200	247
			EBT	-	247	725
			EBR	385	9	146
			WBL	400	80	173
			WBT	-	839	415
			WBR	240	2465	279
			NBL	350	194	178
			NBT	-	511	214
			NBR	385	0	13
			SBL	365	462	683
			SBT	-	141	807
			SBR	-	0	14
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	EBL	190	90	153
			EBT	-	199	887
			EBR	230	79	1352
			WBL	250	124	282
			WBT	-	605	290
			WBR	-	46	0
			NBL	175	331	234
			NBT	-	390	280
			NBR	-	50	71
			SBL	170	61	64
			SBT	-	91	168
			SBR	165	82	64
12	Montague Expressway & South Main Street/Oakland Road	Signal	EBL	190	150	195
			EBT	-	371	1277
			EBR	230	63	129
			WBL	250	161	152
			WBT	-	1530	482
			WBR	-	51	68
			NBL	175	571	252
			NBT	-	151	221
			NBR	-	76	321
			SBL	170	144	213
			SBT	-	180	290
			SBR	165	784	83

Queuing at the following intersections, highlighted in red in Table 6 above, have exceeded the storage length provided during the AM and/or PM peak hour. The non-CMP intersections are bolded for reference.

- West Calaveras Boulevard & South Abel Street: The westbound left, northbound right, and southbound left movements exceeded the storage length provided during the AM and/or PM peak hours.
- East Calaveras Boulevard & Milpitas Boulevard: The eastbound right movement has exceeded the storage length provided during the PM peak hour.
- **South Milpitas Boulevard & Yosemite Drive**: The southbound left has exceeded the storage length provided during the PM peak hour.
- **South Milpitas Boulevard & Gibraltar Drive**: The northbound left has exceeded the storage length provided during the AM peak hour.
- South Milpitas Drive & Montague Expressway: The westbound right, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour.
- Great Mall Parkway/East Capitol Avenue & Montague Expressway: The westbound right and southbound left have exceeded the storage during both the AM and PM peak hour.
- Montague Expressway & McCandless Drive/Trade Center Boulevard: The eastbound left, eastbound right, westbound left, and northbound left have exceeded the storage length provided during the AM and/or PM peak hour.
- Montague Expressway & South Main Street/Oakland Road: The eastbound left, northbound left, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour.

D.3. Future Traffic with Proposed Development

Peak hour site traffic volumes were distributed to study area roadways based on the trip distribution percentages discussed in Section C.3. These volumes were added to No-Build (2026) volumes to determine operating conditions in the Build scenario.

D.4. Build 2026 Traffic Analysis Results

The results of the Build (2026) traffic capacity are shown in Table 7. Figure 21 – 23 illustrates the Build traffic volumes. All the intersections continue to operate at the same LOS. With the addition of site traffic, intersections in the study area are anticipated to operate similarly to the No-Build condition, without significant impacts on traffic operations during peak hours except for the two intersections listed above. Intersections with inadequate LOS show some increase in delay with increased volume.

Table 7: Build (2026) Intersection Capacity Analysis

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	West Calaveras Boulevard & South Abel Street	Signal	**Overall**	**D**	**52.9**	F	**116.5**
			EB	D	39.1	D	42.6
			WB	D	42.2	D	35.1
			NB	E	66.4	F	351.8
			SB	F	80.3	E	70.9
2	East Calaveras Boulevard & Milpitas Boulevard	Signal	**Overall**	**D**	**39.7**	**D**	**41.0**
			EB	C	32.6	D	41.4
			WB	D	42.1	D	39.0
			NB	D	41.6	D	41.6
			SB	D	40.6	D	42.6
3	South Milpitas Boulevard & Yosemite Drive	Signal	**Overall**	**C**	**33.4**	**C**	**32.9**
			EB	C	32.4	D	41.0
			WB	D	46.5	D	47.1
			NB	C	22.5	B	20.0
			SB	C	27.1	C	32.7
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	**Overall**	**A**	**6.2**	A	**6.7**
			WB	D	44.9	D	42.2
			NB	A	3.2	A	3.9
			SB	A	5.7	A	3.9
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	A	8.7	B	10.4
			EB	B	11.5	B	14.8
6	South Milpitas Boulevard & Gibraltar Drive	Signal	**Overall**	**B**	**16.1**	**A**	**8.7**
			WB	F	118.7	F	108.1
			NB	B	19.7	A	9.2
			SB	A	9.0	A	5.9
7	Gibraltar Drive & Driveway 3	Stop-Control	NB	A	8.5	A	9.0
			WBL	A	7.3	A	7.5
			SB	B	10.0	A	9.8
8	Gibraltar Drive & Driveway 4	Stop-Control	WB	A	9.0	A	9.1
			SBL	A	7.5	A	7.4
9	South Milpitas Drive & Montague Expressway	Signal	**Overall**	F	**99.7**	F	**92.1**
			EB	E	58.1	E	58.7
			WB	F	101.6	E	58.6
			NB	E	67.2	E	67.8
			SB	E	169.2	F	208.9

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	**Overall**	F	**103.3**	E	**74.1**
			EB	D	46.4	D	49.8
			WB	F	112.6	D	48.5
			NB	F	122.2	F	117.3
			SB	F	112.2	F	111.0
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	**Overall**	D	**54.9**	F	**82.8**
			EB	B	17.3	F	103.5
			WB	B	16.8	C	26.8
			NB	F	185.3	F	85.0
			SB	E	68.2	E	67.0
12	Montague Expressway & South Main Street/Oakland Road	Signal	**Overall**	E	**78.4**	D	**52.5**
			EB	D	36.8	D	46.9
			WB	E	70.9	D	35.6
			NB	F	179.4	F	87.6
			SB	F	83.2	F	85.9

Based on the 2026 Build analysis results, the following intersections exhibit on overall LOS of E or worse during the AM and/or PM peak hours:

- West Calaveras Boulevard & South Abel Street (CMP)
- South Milpitas Drive & Montague Expressway (CMP)
- Great Mall Parkway/East Capitol Avenue & Montague Expressway (CMP)
- Montague Expressway & McCandless Drive/Trade Center Boulevard (CMP)
- Montague Expressway & South Main Street/Oakland Road (CMP)

Additionally, South Milpitas Boulevard and Gibraltar Drive exhibits an LOS F on the westbound approach during both the AM and PM peak hour.

Table 8 summarizes the corresponding queue lengths for every movement in the study area for 2026 Build Conditions. All queues remain consistent with 2026 No-Build conditions on whether there is sufficient space without impacting neighboring movements.

Table 8: Build (2026) Queuing Analysis

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
1	West Calaveras Boulevard & South Abel Street	Signal	EBL	245	191	203
			EBT	-	264	624
			EBR	-	0	0
			WBL	250	441	279
			WBT	-	651	283
			WBR	-	29	46
			NBL	230	56	77
			NBT	-	147	178
			NBR	285	78	568
			SBL	285	227	321
			SBT	-	190	128
			SBR	285	96	63
2	East Calaveras Boulevard & Milpitas Boulevard	Signal	EBL	460	106	195
			EBT	-	180	542
			EBR	200	72	418
			WBL	215	122	161
			WBT	-	600	307
			WBR	270	89	59
			NBL	215	187	171
			NBT	-	108	135
			NBR	185	0	48
			SBL	215	76	106
			SBT	-	115	164
			SBR	-	83	71
3	South Milpitas Boulevard & Yosemite Drive	Signal	EBL	-	46	77
			EBT	-	15	49
			WBL	-	270	178
			WBT	-	109	64
			NBL	170	24	0
			NBT	-	137	147
			SBL	250	180	317
			SBT	-	87	118
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	WBT	-	19	63
			NBT	-	75	75
			SBL	140	47	38
			SBT	-	59	91

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	-	3	5
			NBT	-	0	0
			EBL	-	8	13
			SBT	-	0	0
6	South Milpitas Boulevard & Gibraltar Drive	Signal	EBL	100	20	22
			EBR	-	0	67
			WBT	-	0	0
			NBL	130	249	82
			NBT	-	116	110
			SBL	75	17	1
			SBT	-	450	1074
			SBR	-	0	0
7	Gibraltar Drive & Driveway 3	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	0	0
			WBT	-	0	0
			NBL	-	0	3
			SBL	-	3	3
			SBT	-	0	0
8	South Milpitas Drive & Montague Expressway	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	5	5
			SBL	-	3	3
9	South Milpitas Drive & Montague Expressway	Signal	EBL	600	307	418
			EBT	-	270	725
			WBL	300	116	110
			WBT	-	1482	433
			WBR	200	443	125
			NBL	185	22	29
			NBT	-	86	93
			SBL	215	172	489
			SBT	-	63	152
			SBR	215	294	465

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	EBL	680	200	247
			EBT	-	256	740
			EBR	385	9	149
			WBL	400	95	186
			WBT	-	850	423
			WBR	240	2474	287
			NBL	350	194	178
			NBT	-	511	214
			NBR	385	16	34
			SBL	365	462	683
			SBT	-	141	807
			SBR	-	0	14
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	EBL	190	90	153
			EBT	-	205	899
			EBR	230	79	1352
			WBL	250	124	282
			WBT	-	615	260
			WBR	-	46	0
			NBL	175	331	234
			NBT	-	390	280
			NBR	-	50	71
			SBL	170	61	64
			SBT	-	91	168
			SBR	165	82	64
12	Montague Expressway & South Main Street/Oakland Road	Signal	EBL	190	150	195
			EBT	-	378	1292
			EBR	230	65	131
			WBL	250	171	160
			WBT	-	1534	485
			WBR	-	51	69
			NBL	175	571	252
			NBT	-	151	221
			NBR	-	80	360
			SBL	170	144	213
			SBT	-	180	290
			SBR	165	784	83

Queuing at the following intersections, highlighted in red in Table 8 above, have exceeded the storage length provided during the AM and/or PM peak hour. Non-CMP intersections are shown in bold for reference.

- West Calaveras Boulevard & South Abel Street: The westbound left, northbound right, and southbound left have exceeded the storage length provided during the AM and/or PM peak hour. Eastbound left and southbound right movements have surpassed available queuing space in this scenario when compared to 2026 No-Build conditions.
- East Calaveras Boulevard & Milpitas Boulevard: The eastbound right has exceeded the storage length provided during the PM peak hour. The northbound right movement has surpassed available queuing space in this scenario when compared to 2026 No-Build conditions.
- **South Milpitas Boulevard & Yosemite Drive**: The southbound left has exceeded the storage length provided during the PM peak hour.
- **South Milpitas Boulevard & Gibraltar Drive**: The northbound left has exceeded the storage length provided during the AM peak hour.
- South Milpitas Drive & Montague Expressway: The westbound right, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour. The eastbound left movement has surpassed available queuing space in this scenario when compared to 2026 No-Build conditions.
- Great Mall Parkway/East Capitol Avenue & Montague Expressway: The westbound right and the southbound left have exceeded the storage length provided during the AM and PM peak hour.
- Montague Expressway & McCandless Drive/Trade Center Boulevard: The eastbound right, westbound left, and northbound left have exceeded the storage length provided during the AM and/or PM peak hour. The southbound right movement has surpassed available queuing space in this scenario when compared to 2026 No-Build conditions.
- Montague Expressway & South Main Street/Oakland Road: The northbound left, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour.

Figure 27: Build (2026) Traffic Volumes 1

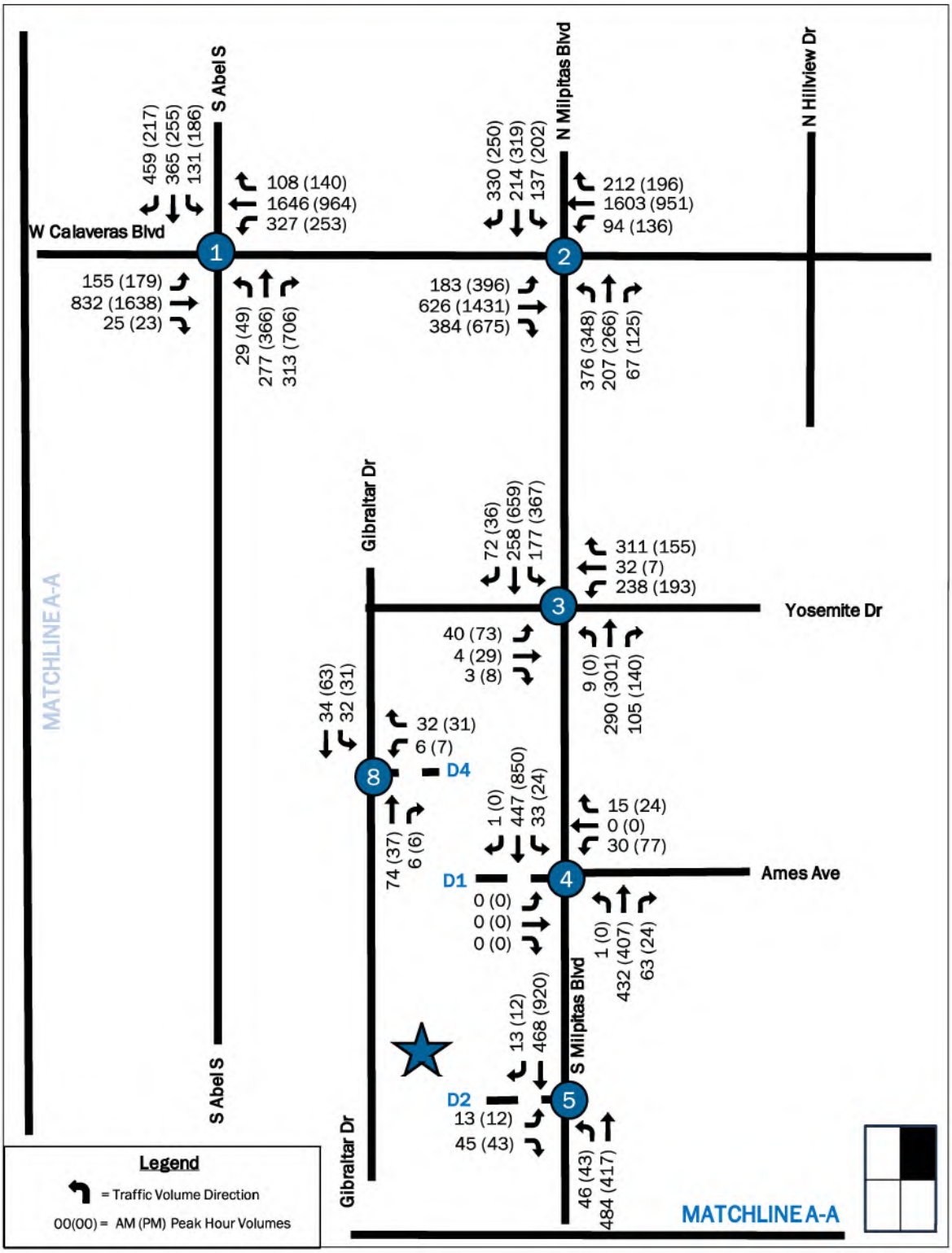


Figure 28: Build (2026) Traffic Volumes 2

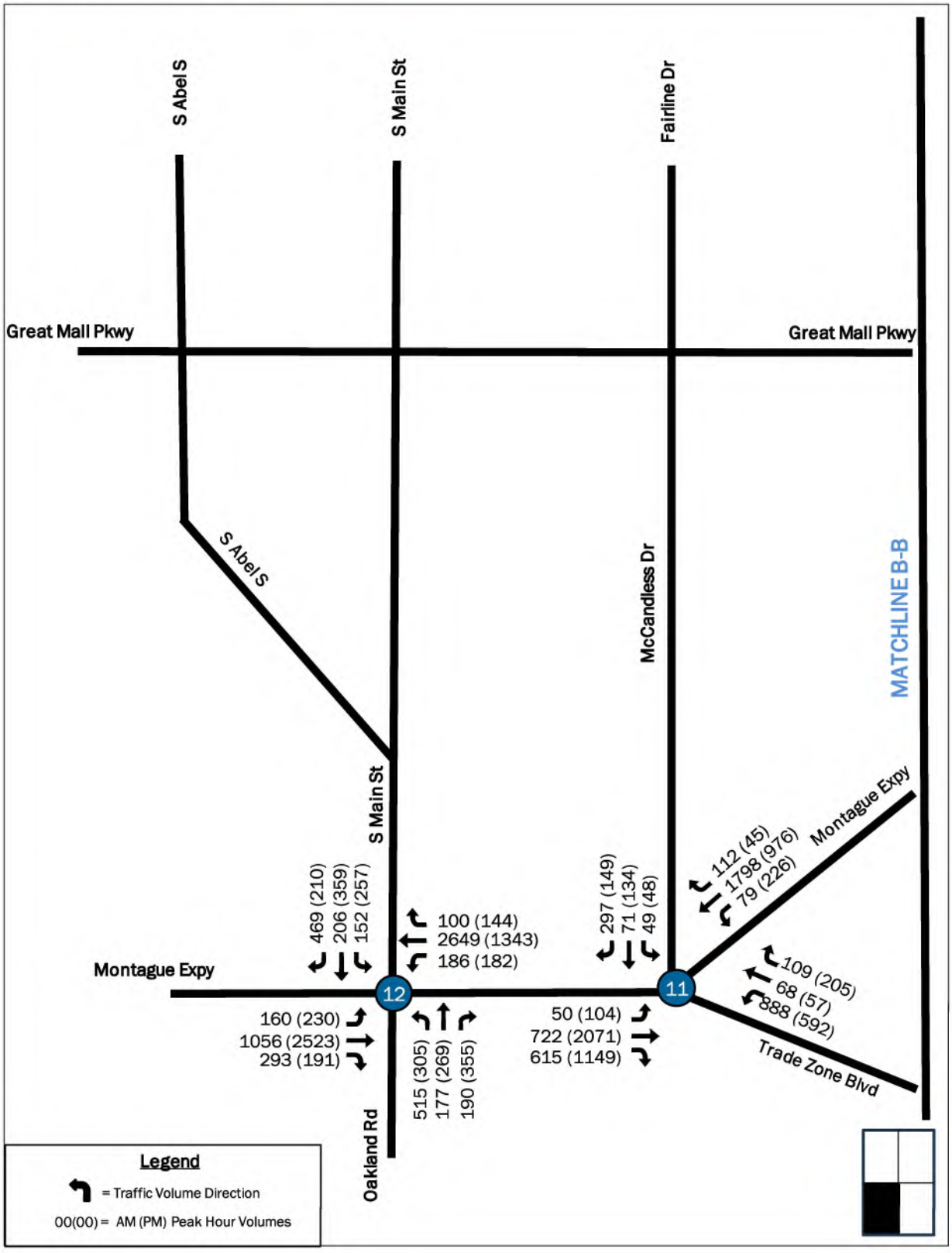
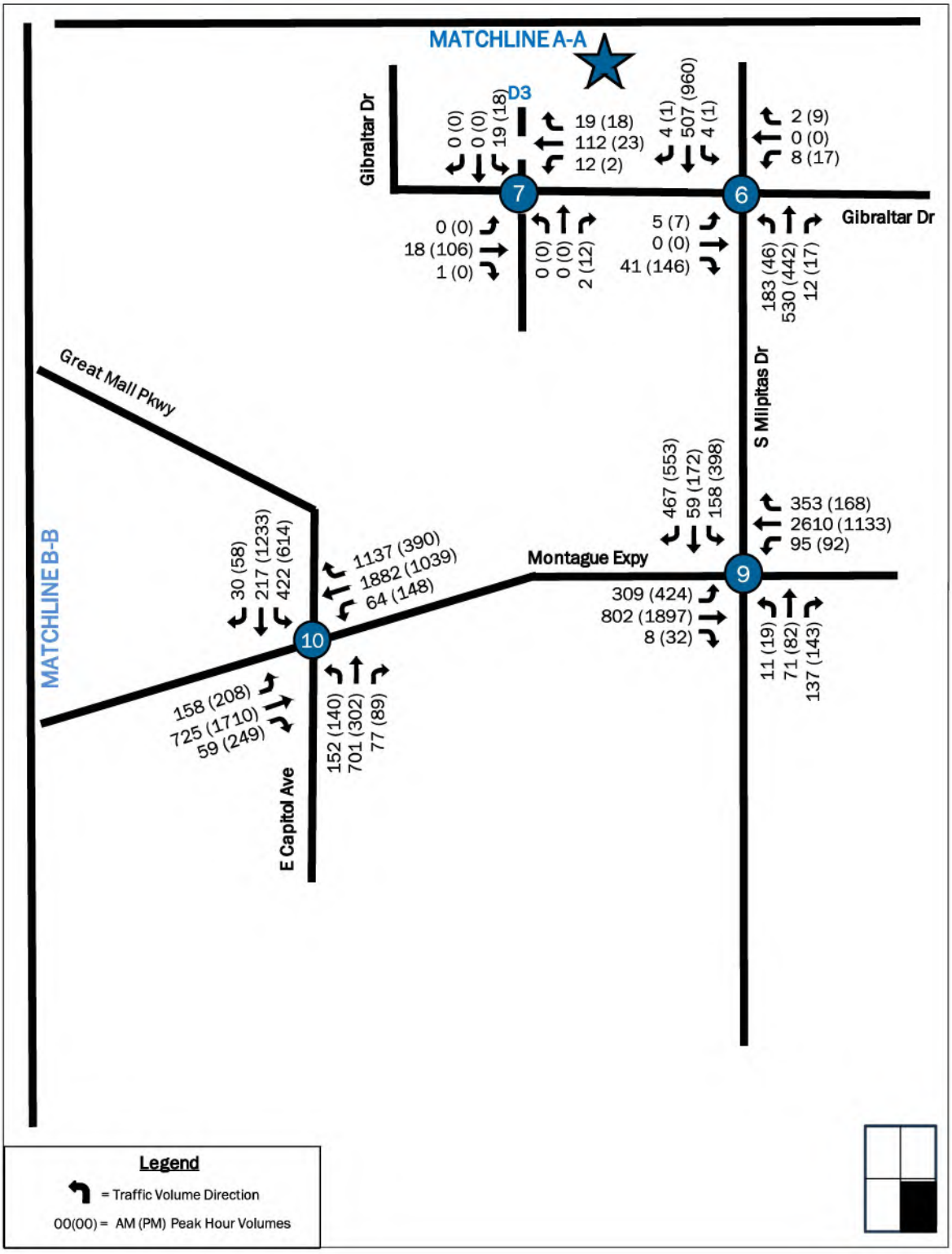


Figure 29: Build (2026) Traffic Volumes 3



D.5. Horizon Year (2040) Capacity Analysis

The results of 2040 existing plus background traffic capacity analyses are shown in Table 6 and include the analysis of the volumes shown in Figure 24 – 26.

D.6. Horizon Year (2040) No-Build Traffic Analysis Results

As shown in Table 9, most study intersections are projected to experience increased delay per approach and a decline in overall Level of Service (LOS) by the Horizon Year (2040) No-Build scenario, relative to the 2026 No-Build capacity conditions. The intersection of East Calaveras and Milpitas Boulevard operations degraded from LOS D to LOS E between the 2026 and 2040 No-Build conditions. South Milpitas Boulevard at Yosemite Drive degraded from LOS D to LOS E between scenarios.

Table 9: Horizon Year (2040) No-Build Capacity Analysis

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	West Calaveras Boulevard & South Abel Street	Signal	**Overall**	**F**	**146.0**	**F**	**248.3**
			EB	D	43.1	F	212.4
			WB	F	175.2	D	43.9
			NB	F	141.7	F	592.9
			SB	F	192.3	F	127.1
2	East Calaveras Boulevard & Milpitas Boulevard	Signal	**Overall**	**F**	**115.8**	**F**	**96.0**
			EB	C	34.8	F	136.6
			WB	F	195.6	F	84.2
			NB	D	44.8	D	44.5
			SB	D	42.4	D	46.5
3	South Milpitas Boulevard & Yosemite Drive	Signal	**Overall**	**D**	**50.1**	**E**	**65.4**
			EB	C	31.5	D	38.7
			WB	E	77.8	D	50.0
			NB	C	30.3	C	24.7
			SB	C	32.8	F	89.9
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	**Overall**	**A**	**6.6**	**A**	**8.1**
			WB	D	44.0	D	40.6
			NB	A	4.0	A	5.5
			SB	A	5.6	A	5.5
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	A	9.1	A	0.0
			EB	A	0.0	A	0.0

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
6	South Milpitas Boulevard & Gibraltar Drive	Signal	**Overall**	**B**	**18.2**	**B**	**12.1**
			WB	F	112.9	F	93.2
			NB	C	20.6	A	6.6
			SB	B	12.9	B	12.4
7	Gibraltar Drive & Driveway 3	Stop-Control	NB	A	8.5	A	9.3
			WBL	A	7.3	A	7.6
9	South Milpitas Drive & Montague Expressway	Signal	**Overall**	**F**	**241.5**	**F**	**132.1**
			EB	E	60.7	E	77.6
			WB	F	309.6	E	66.4
			NB	E	70.5	E	71.0
			SB	F	288.3	F	351.3
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	**Overall**	**F**	**223.3**	**F**	**93.1**
			EB	E	58.4	E	68.2
			WB	F	316.3	E	66.8
			NB	F	142.7	F	101.3
			SB	F	110.1	F	149.4
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	**Overall**	**F**	**111.5**	**F**	**263.0**
			EB	C	31.3	F	368.9
			WB	C	23.3	C	33.3
			NB	F	409.5	F	201.6
			SB	F	66.2	E	64.3
12	Montague Expressway & South Main Street/Oakland Road	Signal	**Overall**	**F**	**213.8**	**F**	**139.6**
			EB	D	42.4	F	206.3
			WB	F	270.4	D	47.2
			NB	F	349.4	F	104.4
			SB	F	84.7	F	100.7

Based on the 2040 No Build analysis results; the following intersections exhibit on overall LOS of E or worse during the AM and/or PM peak hours:

- West Calaveras Boulevard & South Abel Street (CMP)
- East Calaveras Boulevard & Milpitas Boulevard (CMP)
- South Milpitas Boulevard & Yosemite Drive (non-CMP)
- South Milpitas Drive & Montague Expressway (CMP)
- Great Mall Parkway/East Capitol Avenue & Montague Expressway (CMP)
- Montague Expressway & McCandless Drive/Trade Center Boulevard (CMP)
- Montague Expressway & South Main Street/Oakland Road (CMP)

Additionally, South Milpitas Boulevard and Gibraltar Drive exhibits an LOS F on the westbound approach during both the AM and PM peak hour.

Table 10 summarizes the corresponding queue lengths for every movement in the study area for 2040 No-Build Conditions. Most queues remain consistent with 2026 No-Build conditions on whether there is sufficient space without impacting neighboring movements. Additional movements that experience insufficient queuing space are noted.

Table 10: Horizon Year (2040) No-Build Queuing Analysis

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
1	West Calaveras Boulevard & South Abel Street	Signal	EBL	245	249	266
			EBT	-	378	1003
			EBR	-	0	0
			WBL	250	715	467
			WBT	-	1140	488
			WBR	-	70	72
			NBL	230	72	99
			NBT	-	204	254
			NBR	285	153	1086
			SBL	285	343	467
			SBT	-	272	180
			SBR	285	399	75
2	E Calaveras Boulevard & Milpitas Boulevard	Signal	EBL	460	138	273
			EBT	-	68	903
			EBR	200	87	851
			WBL	215	140	199
			WBT	-	1032	568
			WBR	270	179	89
			NBL	215	243	220
			NBT	-	149	188
			NBR	185	7	57
			SBL	215	102	145
			SBT	-	157	231
			SBR	-	289	97
3	S Milpitas Boulevard & Yosemite Drive	Signal	EBL	-	17	64
			EBT	-	17	61
			WBL	-	433	346
			WBT	-	132	76
			NBL	170	29	0
			NBT	-	225	236
			SBL	250	241	488

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
			SBT	-	127	180
4	S Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	WBT	-	35	94
			NBT	-	122	122
			SBL	140	61	47
			SBT	-	51	178
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	-	0	0
			NBT	-	0	0
			EBL	-	0	0
			SBT	-	0	0
6	South Milpitas Boulevard & Gibraltar Drive	Signal	EBL	100	23	30
			EBR	-	0	73
			WBT	-	0	0
			NBL	130	275	63
			NBT	-	161	148
			SBL	75	21	7
			SBT	-	699	1725
			SBR	-	0	0
7	Gibraltar Drive & Driveway 3	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	0	0
			WBT	-	0	0
			NBL	-	0	3
			SBL	-	0	0
			SBT	-	0	0
8	Gibraltar Drive & Driveway 4	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	0	0
			SBL	-	0	0
9	South Milpitas Drive & Montague Expressway	Signal	EBL	600	390	643
			EBT	-	408	1298
			WBL	300	152	147
			WBT	-	2471	656
			WBR	200	623	167
			NBL	185	28	39
			NBT	-	112	131
			SBL	215	182	678
			SBT	-	83	207
			SBR	215	763	1127

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	EBL	680	269	332
			EBT	-	381	1209
			EBR	385	41	322
			WBL	400	105	232
			WBT	-	1595	654
			WBR	240	4322	660
			NBL	350	266	240
			NBT	-	812	282
			NBR	385	40	65
			SBL	365	686	402
			SBT	-	190	1399
			SBR	-	0	53
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	EBL	190	115	200
			EBT	-	306	1571
			EBR	230	615	2483
			WBL	250	163	448
			WBT	-	1155	459
			WBR	-	84	12
			NBL	175	655	308
			NBT	-	778	370
			NBR	-	93	78
			SBL	170	77	75
			SBT	-	121	210
			SBR	165	173	68
12	Montague Expressway & South Main Street/Oakland Road	Signal	EBL	190	199	260
			EBT	-	606	2287
			EBR	230	212	221
			WBL	250	216	201
			WBT	-	2636	832
			WBR	-	94	134
			NBL	175	880	411
			NBT	-	214	334
			NBR	-	142	784
			SBL	170	191	290
			SBT	-	249	452
			SBR	165	1342	245

Queuing at the following intersections, highlighted in red in Table 10 above, have exceeded the storage length provided during the AM and/or PM peak hour. Non-CMP intersections are shown in bold for reference.

- West Calaveras Boulevard & South Abel Street: The eastbound left, westbound left, northbound right, and southbound left have exceeded the storage length provided during the AM and/or PM peak hour. Eastbound left and southbound right movements have surpassed available queuing space in this scenario when compared to 2026 No-Build conditions.
- E Calaveras Boulevard & Milpitas Boulevard: The eastbound right and northbound left have exceeded the storage length provided during the AM and/or PM peak hour. The northbound right movement has surpassed available queuing space in this scenario when compared to 2026 No-Build conditions.
- **South Milpitas Boulevard & Yosemite Drive**: The southbound left has exceeded the storage length provided during the PM peak hour.
- **South Milpitas Boulevard & Gibraltar Drive**: The northbound left has exceeded the storage length provided during the AM peak hour.
- South Milpitas Drive & Montague Expressway: The eastbound left, westbound right, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour. The eastbound left movement has surpassed available queuing space in this scenario when compared to 2026 No-Build conditions.
- Great Mall Parkway/East Capitol Avenue & Montague Expressway: The westbound right and the southbound left have exceeded the storage length provided during the AM and PM peak hour.
- Montague Expressway & McCandless Drive/Trade Center Boulevard: The eastbound right, westbound left, northbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour. The southbound right movement has surpassed available queuing space in this scenario when compared to 2026 No-Build conditions.
- Montague Expressway & South Main Street/Oakland Road: The eastbound left, northbound left, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour.

Figure 30: Horizon (2040) No-Build Traffic Volumes 1

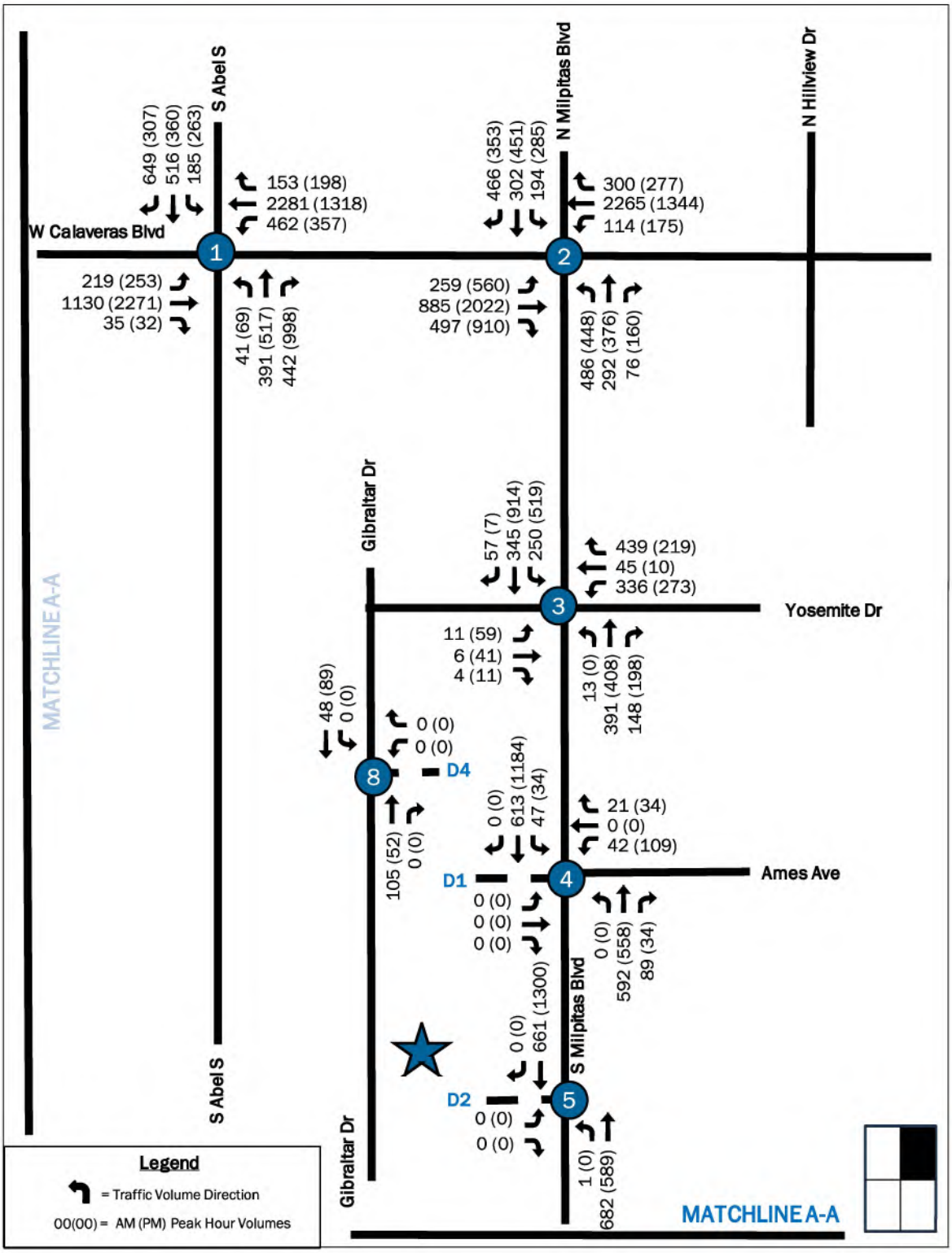


Figure 31: Horizon (2040) No-Build Traffic Volumes 2

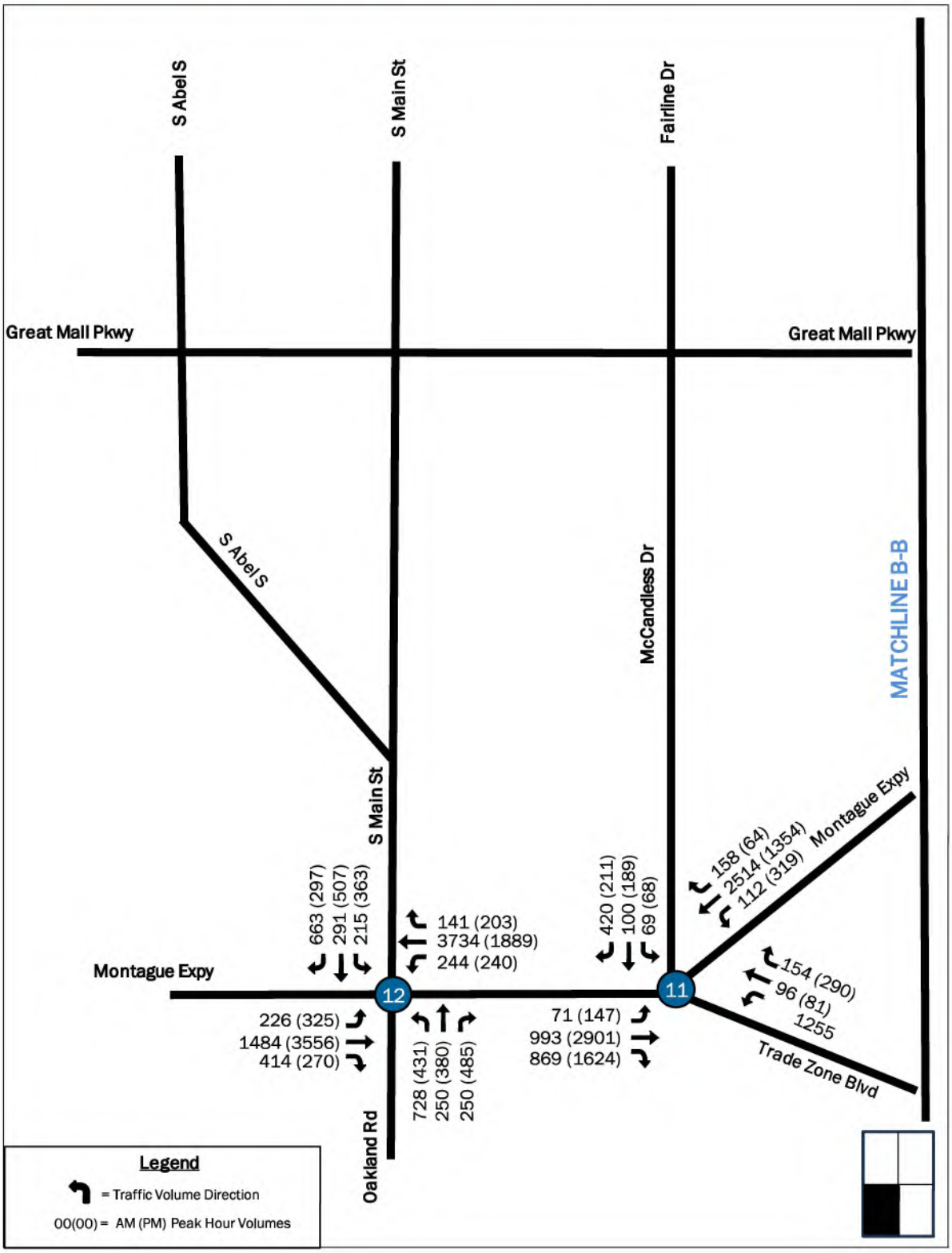
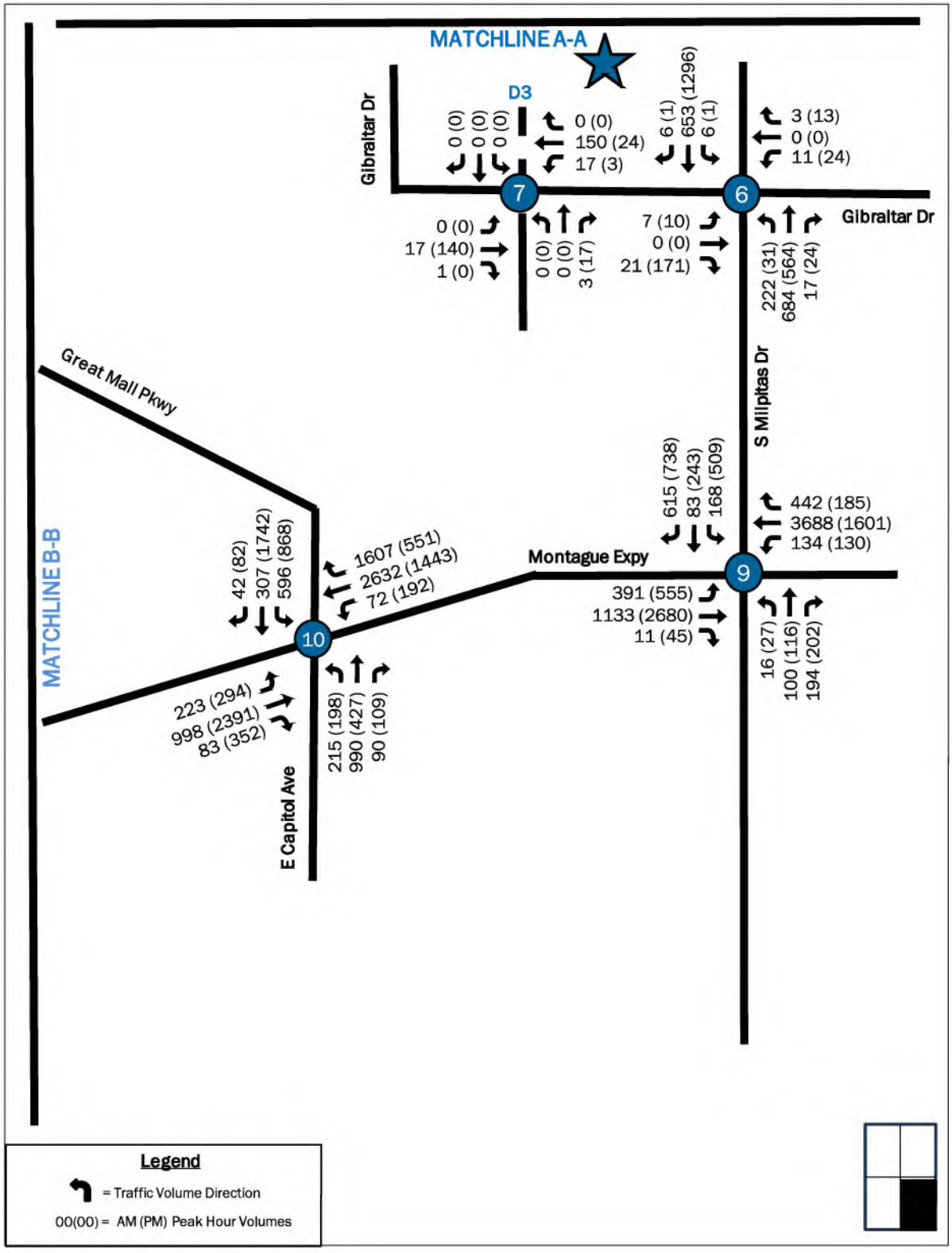


Figure 32: Horizon (2040) No-Build Traffic Volumes 3



D.7. Horizon Year 2040 Traffic Volumes with Proposed Development

The results of the 2035 capacity analyses for existing conditions with background and site-generated traffic are summarized in Table 11 and include an analysis of the traffic volumes shown in Figure 27 – 29.

D.8. Horizon Year (2040) Build Capacity Analysis Results

As shown in Table 11, most study intersections are projected to experience increased delay per approach and a decline in overall Level of Service (LOS) by the Horizon Year (2040) Build scenario, relative to the 2026 Build capacity conditions.

Table 11: Horizon Year (2040) Build Capacity Analysis

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	West Calaveras Boulevard & South Abel Street	Signal	**Overall**	**F**	**148.6**	F	**250.3**
			EB	D	43.6	F	220.4
			WB	F	181.8	D	44.1
			NB	F	141.7	F	592.9
			SB	F	192.3	F	127.1
2	E Calaveras Boulevard & Milpitas Boulevard	Signal	**Overall**	**F**	**115.4**	**F**	**100.1**
			EB	D	35.4	F	146.5
			WB	F	194.8	F	84.2
			NB	D	46.0	D	45.4
			SB	D	42.4	D	46.5
3	S Milpitas Boulevard & Yosemite Drive	Signal	**Overall**	**D**	**49.6**	**E**	**64.2**
			EB	C	30.8	D	36.7
			WB	E	76.6	D	47.0
			NB	C	32.9	C	26.5
			SB	C	32.8	F	88.4
4	S Milpitas Boulevard & Ames Avenue/Driveway 1	Stop-Control	**Overall**	**A**	**7.1**	**A**	**8.1**
			WB	D	44.0	D	40.6
			NB	A	4.2	A	5.6
			SB	A	6.6	A	5.5
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	A	9.4	B	12.9
			EB	B	13.2	C	20.5
6	South Milpitas Boulevard & Gibraltar Drive	Signal	**Overall**	**C**	**22.2**	**B**	**15.9**
			WB	E	72.9	F	93.2
			NB	C	22.9	A	8.4
			SB	B	19.3	B	17.6

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
7	Gibraltar Drive & Driveway 3	Stop-Control	NB	A	8.5	A	9.3
			WBL	A	7.3	A	7.6
			SB	B	10.6	B	10.4
8	Gibraltar Drive & Driveway 4	Stop-Control	WB	A	9.2	A	9.3
			SBL	A	7.6	A	7.5
9	South Milpitas Drive & Montague Expressway	Signal	**Overall**	F	**253.4**	F	**143.4**
			EB	E	62.9	F	82.1
			WB	F	323.6	E	66.3
			NB	E	70.5	E	71.0
			SB	F	309.9	F	386.2
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	**Overall**	F	**222.8**	F	**109.5**
			EB	E	58.7	E	69.1
			WB	F	315.3	E	67.2
			NB	F	142.7	F	113.9
			SB	F	110.1	F	186.1
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	**Overall**	F	**111.0**	F	**263.9**
			EB	C	30.9	F	370.7
			WB	C	23.4	C	33.3
			NB	F	409.5	F	201.6
			SB	E	66.2	E	64.3
12	Montague Expressway & South Main Street/Oakland Road	Signal	**Overall**	F	**214.2**	F	**142.3**
			EB	D	42.9	F	211.8
			WB	F	270.9	D	47.6
			NB	F	349.4	F	104.4
			SB	F	84.7	F	100.7

Based on the 2040 No Build analysis results; the following intersections exhibit on overall LOS of E or worse during the AM and/or PM peak hours.

- West Calaveras Boulevard & South Abel Street (CMP)
- East Calaveras Boulevard & Milpitas Boulevard (CMP)
- South Milpitas Boulevard & Yosemite Drive (non-CMP)
- South Milpitas Drive & Montague Expressway (CMP)
- Great Mall Parkway/East Capitol Avenue & Montague Expressway (CMP)
- Montague Expressway & McCandless Drive/Trade Center Boulevard (CMP)
- Montague Expressway & South Main Street/Oakland Road (CMP)

Table 12 summarizes the corresponding queue lengths for every movement in the study area for 2040 Build Conditions. All queues remain consistent with 2040 No-Build conditions on whether there is sufficient space without impacting neighboring movements.

Table 12: Horizon Year (2040) Build Queuing Analysis

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
1	West Calaveras Boulevard & South Abel Street	Signal	EBL	245	249	266
			EBT	-	391	1021
			EBR	-	0	0
			WBL	250	715	467
			WBT	-	1160	507
			WBR	-	70	75
			NBL	230	72	99
			NBT	-	204	254
			NBR	285	153	1086
			SBL	285	343	467
			SBT	-	272	180
			SBR	285	399	75
2	East Calaveras Boulevard & Milpitas Boulevard	Signal	EBL	460	138	273
			EBT	-	272	903
			EBR	200	110	913
			WBL	215	153	213
			WBT	-	1032	568
			WBR	270	179	89
			NBL	215	260	236
			NBT	-	149	188
			NBR	185	18	58
			SBL	215	102	145
			SBT	-	157	231
			SBR	-	293	99
3	South Milpitas Boulevard & Yosemite Drive	Signal	EBL	-	44	90
			EBT	-	17	61
			WBL	-	432	345
			WBT	-	132	76
			NBL	170	29	0
			NBT	-	233	244
			SBL	250	242	488
			SBT	-	141	191
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	Signal	WBT	-	35	94
			NBT	-	125	125
			SBL	140	61	47
			SBT	-	93	180

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
5	South Milpitas Boulevard & Driveway 2	Stop-Control	NBL	-	5	8
			NBT	-	0	0
			EBL	-	10	18
			SBT	-	0	0
6	South Milpitas Boulevard & Gibraltar Drive	Signal	EBL	100	23	30
			EBR	-	10	75
			WBT	-	0	0
			NBL	130	302	94
			NBT	-	182	163
			SBL	75	21	7
			SBT	-	883	1853
			SBR	-	0	0
7	Gibraltar Drive & Driveway 3	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	0	0
			WBT	-	0	0
			NBL	-	0	3
			SBL	-	3	3
			SBT	-	0	0
8	Gibraltar Drive & Driveway 4	Stop-Control	EBL	-	0	0
			EBT	-	0	0
			WBL	-	5	5
			SBL	-	3	3
9	South Milpitas Drive & Montague Expressway	Signal	EBL	600	447	695
			EBT	-	408	1298
			WBL	300	152	147
			WBT	-	2471	656
			WBR	200	707	212
			NBL	185	28	39
			NBT	-	112	131
			SBL	215	221	744
			SBT	-	83	207
			SBR	215	871	1226

ID	Intersection	Control	Movement	Storage Length	95th % Queue Length (FT)	
					AM	PM
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	Signal	EBL	680	269	332
			EBT	-	392	1223
			EBR	385	41	325
			WBL	400	121	245
			WBT	-	1615	664
			WBR	240	4322	666
			NBL	350	266	240
			NBT	-	812	298
			NBR	385	63	73
			SBL	365	686	1176
			SBT	-	190	1399
			SBR	-	0	53
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	Signal	EBL	190	115	200
			EBT	-	313	1583
			EBR	230	615	2483
			WBL	250	163	448
			WBT	-	1167	467
			WBR	-	84	12
			NBL	175	655	308
			NBT	-	778	370
			NBR	-	93	78
			SBL	170	77	75
			SBT	-	121	210
			SBR	165	173	68
12	Montague Expressway & South Main Street/Oakland Road	Signal	EBL	190	199	260
			EBT	-	609	2301
			EBR	230	213	222
			WBL	250	227	210
			WBT	-	2643	835
			WBR	-	94	135
			NBL	175	880	411
			NBT	-	214	334
			NBR	-	165	815
			SBL	170	191	290
			SBT	-	249	452
			SBR	165	1342	245

Queuing at the following intersections, highlighted in red in Table 12 above, have exceeded the storage length provided during the AM and/or PM peak hour. The non-CMP intersections are bolded for reference

- West Calaveras Boulevard & South Abel Street: The eastbound left, westbound left, northbound right, and southbound left have exceeded the storage length provided during the AM and/or PM peak hour.
- East Calaveras Boulevard & Milpitas Boulevard: The eastbound right and northbound left have exceeded the storage length provided during the AM and/or PM peak hour.
- **South Milpitas Boulevard & Yosemite Drive**: The southbound left has exceeded the storage length provided during the PM peak hour.
- **South Milpitas Boulevard & Gibraltar Drive**: The northbound left has exceeded the storage length provided during the AM peak hour.
- South Milpitas Drive & Montague Expressway: The eastbound left, westbound right, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour.
- Great Mall Parkway/East Capitol Avenue & Montague Expressway: The westbound right and southbound left have exceeded the storage length provided during the AM and PM peak hour.
- Montague Expressway & McCandless Drive/Trade Center Boulevard: The northbound left and southbound right have exceeded the storage length provided during the AM and/or PM peak hour.
- Montague Expressway & South Main Street/Oakland Road: The eastbound left, northbound left, southbound left, and southbound right have exceeded the storage length provided during the AM and/or PM peak hour.

Figure 33: Horizon (2040) Build Traffic Volumes 1

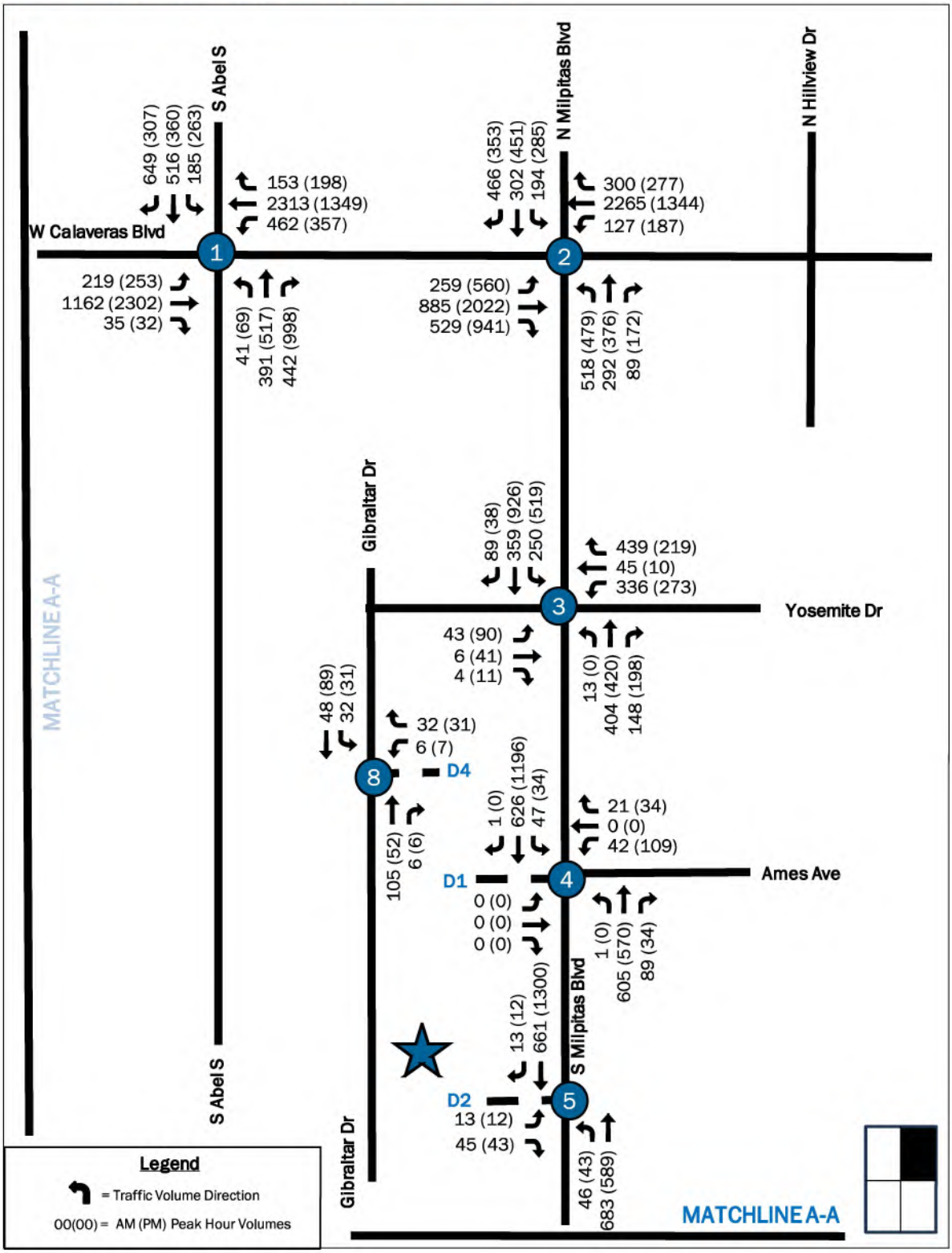


Figure 34: Horizon (2040) Build Traffic Volumes 2

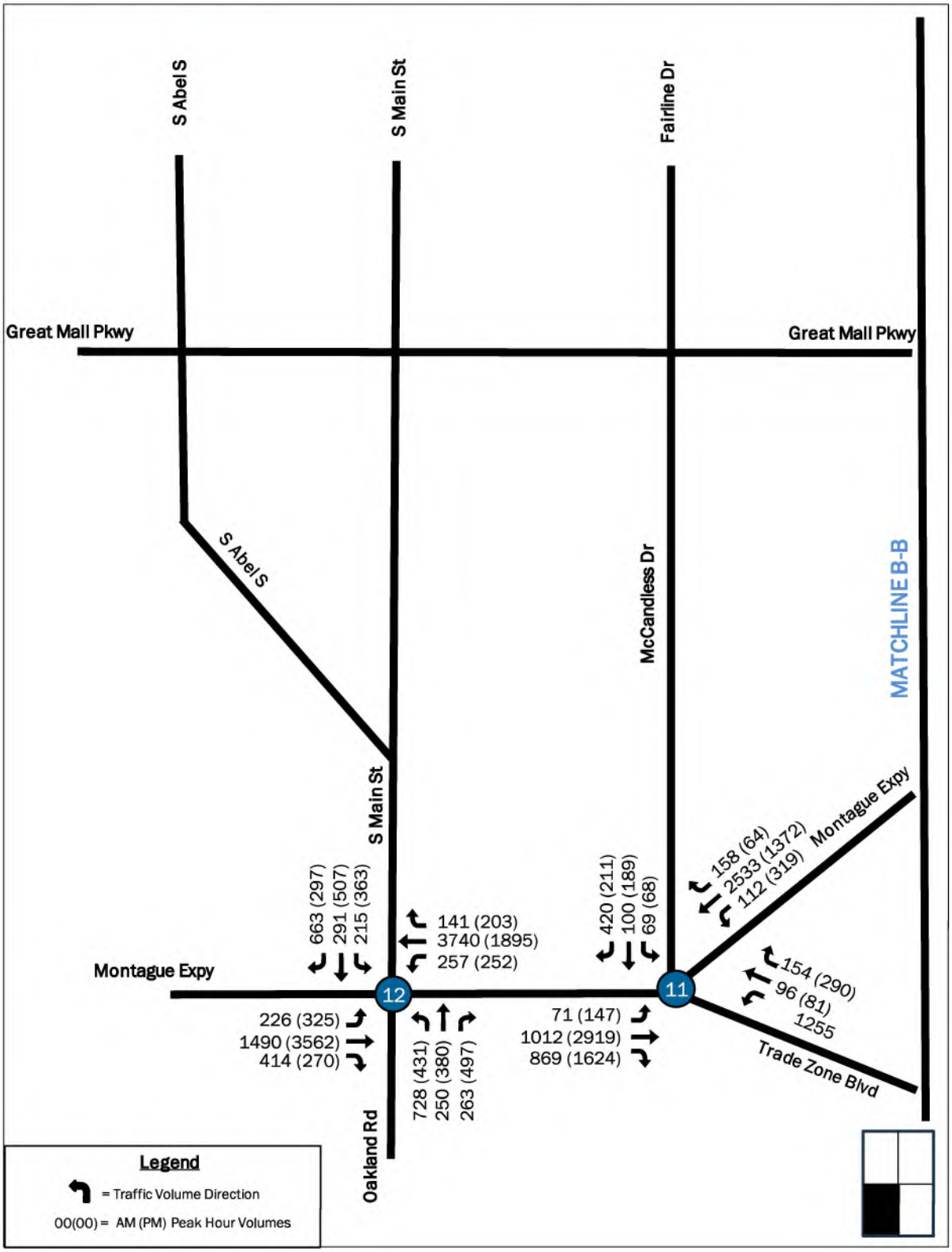
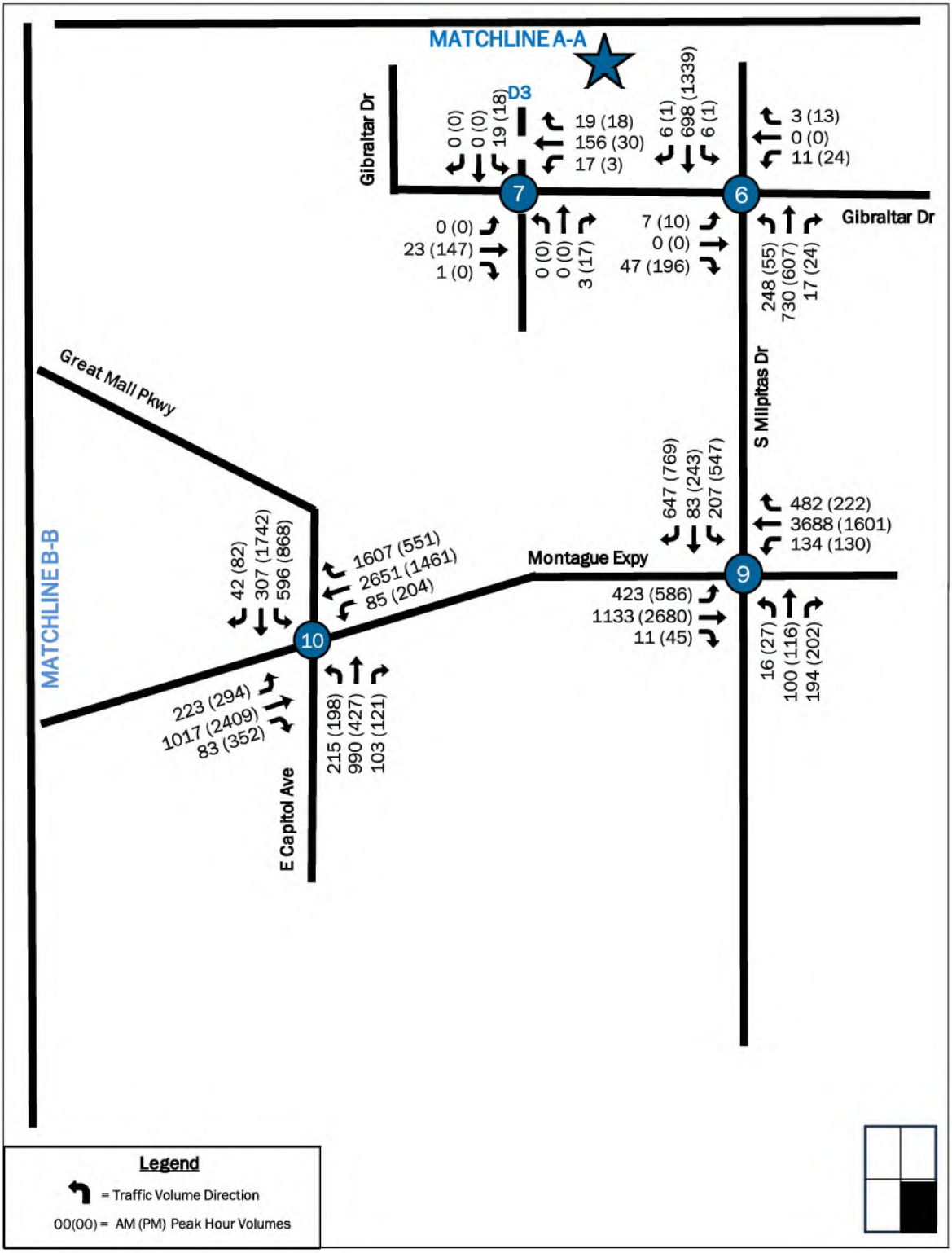


Figure 35: Horizon (2040) Build Traffic Volumes 3



D.9. Horizon Year (2040) Build with Mitigation Capacity Analysis

Mitigation measures may be considered at these non-CMP intersections. Under 2040 Horizon Year Build conditions, the intersection of South Milpitas Boulevard and Yosemite Drive is projected to operate at an overall unacceptable LOS E during the PM peak hour. However, the volume-to-capacity (v/c) ratio remained below 1.0, indicating that the unacceptable LOS is not due to a capacity constraint, but rather to the existing signal timing parameters. To address this, the signal timing was optimized by implementing a 90-second cycle length with adjusted phase splits. As a result, the intersection's LOS improved from LOS E to LOS C during the PM peak hour.

At South Milpitas Boulevard and Gibraltar Drive, the westbound approach is projected to operate at LOS E in the AM and LOS F in the PM peak hour during the 2040 Horizon year. However, since the intersection's overall LOS remains acceptable, no signal timing modifications are recommended at this time.

E. Conclusion

A new delivery center is planned for development along Gibraltar Drive in Milpitas, California. The proposed industrial building will encompass approximately 487,564 square feet and is designed to function as a last-mile distribution center. The site is expected to generate a net total of 3,812 daily trips with 260 occurring during the AM peak hour (131 inbound, 129 outbound) and 245 occurring during the PM peak hour (122 inbound, 123 outbound).

The study area includes both CMP-designated and non-CMP intersections. The following study locations are designated CMP intersections:

- West Calaveras Boulevard & South Abel Street
- East Calaveras Boulevard & Milpitas Boulevard
- South Milpitas Drive & Montague Expressway
- Great Mall Parkway/East Capitol Avenue & Montague Expressway
- Montague Expressway & McCandless Drive/Trade Center Boulevard
- Montague Expressway & South Main Street/Oakland Road

These intersections were included in the study area to reflect realistic traffic conditions. However, consistent with CMP guidelines, no project-specific mitigations were applied at these locations, regardless of queuing or capacity analysis findings.

The following study locations are not part of the CMP network:

- South Milpitas Boulevard & Yosemite Drive
- South Milpitas Boulevard & Ames Avenue/Driveway 1
- South Milpitas Boulevard & Driveway 2
- South Milpitas Boulevard & Gibraltar Drive
- Gibraltar Drive & Driveway 3
- Gibraltar Drive & Driveway 4

Adverse Effect Criteria

Per the City of Milpitas Transportation Analysis Guidelines, an adverse effect on intersection operations is identified when the addition of project-related traffic causes the operating standard to fall below LOS D, comparing baseline (No Build) to Build conditions.

For intersections already operating at LOS E or F under baseline conditions, an adverse effect is defined as either of the following:

- An increase in average critical delay of 4.0 seconds or more and an increase in the critical volume-to-capacity (V/C) ratio of 0.010 or more, or

- A decrease in average critical delay and an increase in the critical V/C ratio of 0.010 or more.

Intersections meeting either criterion are considered to experience adverse effects and should be evaluated for mitigation.

Intersection Analysis Results

A comparison of 2026 No Build to 2026 Build conditions indicates that the following CMP intersections are projected to operate at LOS E or F, with an increase in critical delay of at least 4.0 seconds and an increase in V/C ratio of 0.010 or more during the AM and/or PM peak periods:

- South Milpitas Drive & Montague Expressway
- Montague Expressway & South Main Street / Oakland Road

Under 2040 No Build vs. 2040 Build conditions, the following CMP intersections meet the same adverse effect criteria:

- East Calaveras Boulevard & Milpitas Boulevard
- South Milpitas Drive & Montague Expressway
- Montague Expressway & McCandless Drive / Trade Center Boulevard
- Montague Expressway & South Main Street / Oakland Road

Although mitigation for CMP intersections is not within the scope of this analysis, it is recommended that the City consider evaluating these locations further due to the identified operational impacts.

Non-CMP Intersections

All non-CMP intersections are projected to operate at LOS B or better under both 2026 and 2040 scenarios, with one exception. The intersection of South Milpitas Boulevard & Yosemite Drive is projected to operate at LOS E in both the 2040 No-Build and Build conditions. However, the critical delay and V/C ratio remained unchanged, and thus, no adverse effect is identified. Accordingly, no mitigation is recommended.

Summary of Findings and Recommendations

Based on the findings, the surrounding transportation network is expected to accommodate the project-generated traffic under both near-term and long-range conditions. No mitigation measures are required for non-CMP intersections, and while CMP intersections exhibit adverse effects, any potential improvements should be considered by the City in coordination with the appropriate CMP agency. A detailed capacity comparison of both the 2026 and 2040 No-Build and Build conditions is shown in Table 13 and Table 14.

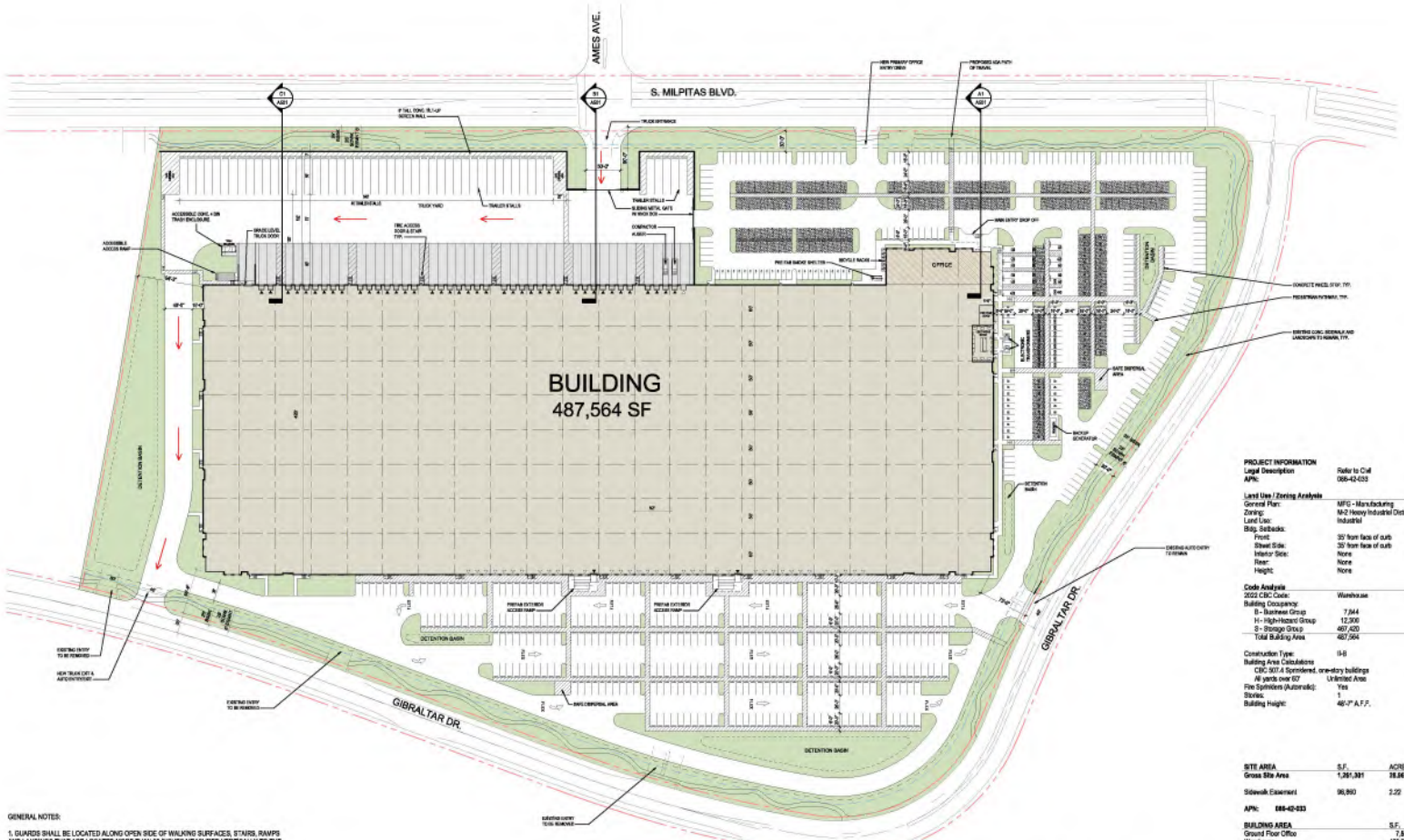
Table 13: 2026 No-Build vs Build Capacity Comparison

ID	Intersection	Peak	2026 No-Build			2026 Build			Δ 2026 Delay	Δ 2026 v/c
			Overall LOS	Critical Delay	Critical v/c	Overall LOS	Critical Delay	Critical v/c		
1	West Calaveras Boulevard & South Abel Street	AM	D	89.0	1.10	D	115.3	1.10	26.3	0.00
		PM	F	532.0	2.06	F	532.0	1.12	0.0	-0.94
2	East Calaveras Boulevard & Milpitas Boulevard	AM	D	60.6	0.90	D	60.4	0.90	-0.2	0.00
		PM	D	59.6	0.83	D	59.3	0.83	-0.3	0.00
3	South Milpitas Boulevard & Yosemite Drive	AM	C	66.0	0.91	C	66.0	0.91	0.0	0.00
		PM	C	81.8	0.98	C	81.8	0.98	0.0	0.00
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	AM	A	44.9	0.84	A	134.4	0.63	89.5	-0.21
		PM	A	52.9	0.80	A	52.9	0.54	0.0	-0.26
5	South Milpitas Boulevard & Driveway 2	AM	A	8.5	0.00	B	11.5	0.10	3.0	0.10
		PM	A	0.0	-	B	14.8	0.14	14.8	N/A
6	South Milpitas Boulevard & Gibraltar Drive	AM	B	73.8	0.87	B	136.2	0.88	62.4	0.01
		PM	A	235.6	0.79	A	235.6	0.76	0.0	-0.03
7	Gibraltar Drive & Driveway 3	AM	A	8.4	0.01	B	10.0	0.03	1.6	0.02
		PM	A	9.0	0.02	A	9.8	0.02	0.8	0.00
8	Gibraltar Drive & Driveway 4	AM	A	0.0	-	A	9.5	0.05	9.5	N/A
		PM	A	0.0	-	A	9.1	0.07	9.1	N/A
9	South Milpitas Drive & Montague Expressway	AM	F	173.0	1.14	F	205.3	1.22	32.3	0.08
		PM	F	238.1	1.30	F	270.1	1.38	32.0	0.08
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	AM	F	232.4	1.38	F	232.4	1.38	0.0	0.00
		PM	E	137.5	0.96	E	135.2	0.96	-2.3	0.00
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	AM	E	185.3	1.26	D	185.3	1.26	0.0	0.00
		PM	F	240.3	1.45	F	240.1	1.45	-0.2	0.00
12	Montague Expressway & South Main Street/Oakland Road	AM	E	219.8	1.27	E	219.8	1.27	0.0	0.01
		PM	D	100.1	0.88	D	100.1	0.90	0.0	0.02

Table 14: 2040 No-Build vs Build Capacity Comparison

ID	Intersection	Peak	2040 No-Build			2040 Build			Δ 2040 Delay	Δ 2040 v/c
			Overall LOS	Critical Delay	Critical v/c	Overall LOS	Critical Delay	Critical v/c		
1	West Calaveras Boulevard & South Abel Street	AM	F	316.8	1.580	F	316.8	1.580	0.0	0.000
		PM	F	912.9	2.910	F	912.9	2.910	0.0	0.000
2	East Calaveras Boulevard & Milpitas Boulevard	AM	F	202.3	1.360	F	202.3	1.360	0.0	0.000
		PM	F	159.2	1.260	F	171.8	1.290	12.6	0.030
3	South Milpitas Boulevard & Yosemite Drive	AM	D	63.3	1.100	D	107.5	1.099	44.2	0.000
		PM	E	232.8	1.393	E	232.8	1.390	0.0	0.000
4	South Milpitas Boulevard & Ames Avenue/Driveway 1	AM	A	56.6	0.730	A	134.4	0.730	77.8	0.000
		PM	A	52.8	0.610	A	52.8	0.610	0.0	0.000
5	South Milpitas Boulevard & Driveway 2	AM	A	9.1	-	B	13.2	0.122	4.1	N/A
		PM	A	0.0	-	C	20.5	0.198	20.5	N/A
6	South Milpitas Boulevard & Gibraltar Drive	AM	B	120.6	0.910	C	120.6	0.920	0.0	0.010
		PM	B	235.6	0.860	B	235.6	0.910	0.0	0.050
7	Gibraltar Drive & Driveway 3	AM	A	8.5	0.013	B	10.6	0.035	2.1	0.022
		PM	A	9.3	0.025	B	10.4	0.033	1.1	0.008
8	Gibraltar Drive & Driveway 4	AM	A	0.0	-	A	9.2	0.052	9.2	N/A
		PM	A	0.0	-	A	9.3	0.070	9.3	N/A
9	South Milpitas Drive & Montague Expressway	AM	F	369.4	1.610	F	406.5	1.690	37.1	0.080
		PM	F	472.5	1.840	F	507.2	1.920	34.7	0.080
10	Great Mall Parkway/East Capitol Avenue & Montague Expressway	AM	F	717.7	2.430	F	717.7	2.430	0.0	0.000
		PM	F	154.0	1.120	F	250.6	1.290	96.6	0.170
11	Montague Expressway & McCandless Drive/Trade Center Boulevard	AM	F	409.5	0.970	F	409.5	1.770	0.0	0.800
		PM	F	694.1	2.450	F	694.1	2.450	0.0	0.000
12	Montague Expressway & South Main Street/Oakland Road	AM	F	446.5	1.790	F	446.5	1.787	0.0	-0.003
		PM	F	216.5	1.370	F	222.5	1.390	6.0	0.020

Appendix A
Site Plan



PROJECT INFORMATION

Legal Description	Refer to Civil
APN:	086-42-033

Land Use / Zoning Analysis

General Plan:	MFG - Manufacturing
Zoning:	M-2 Heavy Industrial District
Land Use:	Industrial
Bldg. Setbacks:	
Front:	35' from face of curb
Street Side:	35' from face of curb
Interior Side:	None
Rear:	None
Height:	None

Code Analysis

2022 CBC Code:	Warehouse
Building Occupancy:	
B - Business Group	7,844
H - High-Hazard Group	12,300
S - Storage Group	467,420
Total Building Area	487,564
Construction Type:	II-B
Building Area Calculations	
CBC 507.4 Sprinklered, one-story buildings	
All yards over 60'	Unlimited Area
Fire Sprinklers (Automatic):	Yes
Stories:	1
Building Height:	46'-7" A.F.F.

SITE AREA	**S.F.**	**ACRES**
Gross Site Area	**1,281,301**	**29.66**
Sidewalk Easement	96,860	2.22

APN: 086-42-033

BUILDING AREA		**S.F.**
Ground Floor Office		7,844
Warehouse		479,720
Total Building Footprint		487,564
Mezzanine		0
TOTAL BUILDING AREA		**487,564**
COVERAGE		38.1%
Gross FAR (40% Max)		38.1%

PARKING REQUIRED		
Office	1/350	23
Warehouse/Distribution	1/1500	320
TOTAL PARKING REQUIRED		**343**

PARKING PROVIDED		
Associate Parking (9'x18')	52%	408
Accessible Parking (9'x18')	2%	16
Compact Stalls (7.5'x15')	3%	24
EV Ready Stalls (20% of total)	80	-
EVCS (25% of EV)	23	-
Flex Parking (12'x20')	43%	335
TOTAL PARKING PROVIDED	**100%**	**785**
PARKING RATIO		**1.61/1000**

Dock Doors (9'x10')		41
Knock Out Panels (9'x10')		34
Grade Level Doors (12'x14')		1
Trailer Stalls (12'x55')		58
Bicycle Stalls Short Term	2.5%	12
Bicycle Stalls Long Term	2.5%	12

LANDSCAPE Required front yard area and street side yard areas shall be landscaped

LEGEND

DOCK DOORS 9' x 10'

KNOCK-OUT PANELS

PROPERTY LINE

BUILDING SETBACK

SIDEWALK EASE

PEDESTRIAN CIRCULATION

PERMEABLE PAVEMENT

TRUCK TRAFFIC FLOW

ACCESSIBLE PATH OF TRAVEL

REFER TO SHEET A103 FOR FIRE ACCESS PLAN

PROJECT NORTH

TRUE NORTH

GENERAL NOTES:

1. GUARDS SHALL BE LOCATED ALONG OPEN SIDE OF WALKING SURFACES, STAIRS, RAMPS AND LANDINGS THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE. GUARDS ARE NOT REQUIRED ON THE LOADING SIDE OF LOADING DOCKS (CBC 1013.2)
2. THE RUNNING SLOPE OF WALKING SURFACE SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF WALKING SURFACE SHALL NOT BE STEEPER THAN 1:48 (2.083%).
3. THE CLEAR WIDTH FOR SIDEWALKS AND WALKWAYS SHALL BE 48 INCHES MINIMUM.
4. THE WASTE STORAGE AREA SHALL BE GRADED SO THAT STORAGE CONTAINERS REMAIN AT REST WITHOUT AUXILIARY RESTRAINING DEVICES.

A1 / A101 **SITE PLAN**
1" = 60'-0"

Stantec
Stantec Architecture Inc.
Suite 300, 1900 Camden Ave
Los Angeles, CA 90401-3007
Tel: (310) 579-9171 www.stantec.com

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Consultant

No.	Revision Remarks	Date
1	ISSUED FOR PLANNING REVIEW	07/28/2023

Permit/Seal

HEA2 A003

Tenant
SSD - SSJ1 MILPITAS
1900 Gladbrook Dr
Milpitas, CA 95035

Project No.: 201403000

Sheet Date: 07.28.23

Title
SITE PLAN

Scale: 1" = 60'-0"
Revision:
Drawing No.
A101

Appendix B
Growth Rate Data

P_{2040} Projected volume

P_{2024}= Current Volume

e= Constant

r= Growth Rate=

t= Time=16yrs

$P_{2040}=P_{2024}e^{rt}$

Average AM and PM Peak = USE 2.5% Growth

												Average AM Peak
r= Growth Rate=	1.14%	1.43%	1.83%	2.38%	3.01%	4.64%	4.82%	1.91%	1.99%	2.29%	3.16%	**2.60%**
t= Time=16yrs	16	16	16	16	16	16	16	16	16	16	16	

	1	2	3	4	5	6	7	8	9	10	11	
	I-880 SB Ramp/Calaveras Blvd	I-880 NB Ramp/Calaveras Blvd	Abel St/Calaveras Blvd	Milpitas Blvd/Calaveras Blvd	Hillview Dr/Calaveras Blvd	Milpitas Blvd/Yosemite Dr	Milpitas Blvd/Ames Ave	Main St/Montague Expy	Trade Zone Blvd/Montague Expy	Great Mall Pkwy/Montague Expy	Milpitas Blvd/Montague Expy	
2040	4,860	5,390	5,930	6,200	5,810	2,950	2,070	7,900	6,310	7,640	7,780	vpd
2024	4,049	4,288	4,422	4,237	3,592	1,405	958	5,819	4,589	5,293	4,689	vpd

Approach

1	330	1150	660	630	140	220	80	220	270	30	420
2	190	450	770	250	270	810	960	300	90	940	430
3	1100	440	170	190	580	170	30	160	60	440	340
4	3240	3350	80	220	590	550	120	120	20	1090	220
5			2130	2200	2350	70	20	3710	2570	2130	3940
6			780	140	240	70	50	170	170	310	470
7			580	70	100	110	120	230	110	130	300
8			330	400	200	600	560	350	40	960	550
9			30	480	40	20	20	710	1210	420	160
10			90	590	70	70	50	360	940	190	180
11			110	850	1140	70	30	1380	790	800	690
12			200	180	90	190	30	190	40	200	80

Average AM and PM Peak = USE 2.5% Growth

P_{2040} Projected volume

P_{2024}= Current Volume

e= Constant

r= Growth Rate=

t= Time=16yrs

$P_{2040}=P_{2024}e^{rt}$

												Average PM Peak
r=	1.04%	0.96%	3.33%	2.81%	2.20%	3.20%	4.49%	1.80%	0.77%	2.42%	2.51%	**2.32%**
t=	16	16	16	16	16	16	16	16	16	16	16	

	1	2	3	4	5	6	7	8	9	10	11	
	I-880 SB Ramp/Calaveras Blvd	I-880 NB Ramp/Calaveras Blvd	Abel St/Calaveras Blvd	Milpitas Blvd/Calaveras Blvd	Hillview Dr/Calaveras Blvd	Milpitas Blvd/Yosemite Dr	Milpitas Blvd/Ames Ave	Main St/Montague Expy	Trade Zone Blvd/Montague Expy	Great Mall Pkwy/Montague Expy	Milpitas Blvd/Montague Expy	
2040	5,140	5,720	8,000	7,780	5,600	2,990	2,700	8,120	6,160	8,570	7,100	vpd
2024	4,350	4,906	4,693	4,963	3,937	1,793	1,316	6,087	5,445	5,823	4,748	vpd

Approach											
1	190	2670	220	370	120	120	20	300	110	80	190
2	450	860	290	470	210	490	1040	910	190	1550	730
3	2840	450	180	390	320	460	120	250	60	760	200
4	1660	1740	190	260	310	200	70	180	90	470	20
5			1320	1410	1560	70	40	1220	900	1240	1590
6			490	210	270	310	140	290	250	380	190
7			1130	230	300	150	100	310	200	200	310
8			840	520	330	600	1070	360	90	680	360
9			90	700	40	20	20	250	640	310	40
10			70	790	100	310	30	590	1470	400	50
11			2660	1940	1860	70	30	3120	2060	2290	3270
12			520	490	180	190	20	340	100	210	150

Appendix C
Traffic Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Abel St/S Abel St & SR 237/W Calaveras Blvd/Calaveras Blvd/Carlo St
City: Milpitas
Control: Signalized

Project ID: 24-080364-003
Date: 11/19/2024

Data - Total

NS/EW Streets:	N Abel St/S Abel St				N Abel St/S Abel St				SR 237/W Calaveras Blvd/Calaveras Blvd/Carlo St				SR 237/W Calaveras Blvd/Calaveras Blvd/Carlo St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	1	1	0	1	2.5	0.5	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	8	20	0	14	22	56	0	22	132	4	1	24	404	8	0	715
7:15 AM	2	31	36	0	25	26	101	0	25	139	7	3	19	471	16	0	901
7:30 AM	2	59	60	0	28	52	108	0	39	216	5	0	33	413	14	0	1029
7:45 AM	9	64	100	0	20	73	108	0	39	177	5	3	65	334	11	0	1008
8:00 AM	2	97	78	0	28	72	118	0	30	182	6	2	86	422	19	0	1142
8:15 AM	5	82	70	0	37	108	108	0	38	222	7	2	73	410	45	0	1207
8:30 AM	12	21	50	0	40	94	103	0	32	180	6	2	87	370	28	0	1025
8:45 AM	4	29	87	0	58	82	110	0	33	204	5	3	94	310	29	0	1048
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	36	391	501	0	250	529	812	0	258	1452	45	16	481	3134	170	0	8075
APPROACH %'s :	3.88%	42.13%	53.99%	0.00%	15.71%	33.25%	51.04%	0.00%	14.57%	81.99%	2.54%	0.90%	12.71%	82.80%	4.49%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	23	229	285	0	163	356	439	0	133	788	24	9	340	1512	121	0	4422
PEAK HR FACTOR :	0.479	0.590	0.819	0.000	0.703	0.824	0.930	0.000	0.875	0.887	0.857	0.750	0.904	0.896	0.672	0.000	0.916
	0.758				0.947				0.887				0.934				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	1	1	0	1	2.5	0.5	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	12	55	130	0	40	44	64	1	51	368	4	0	58	208	22	0	1057
4:15 PM	19	46	122	0	36	38	58	0	48	422	9	0	62	243	23	0	1126
4:30 PM	8	53	134	0	38	68	56	0	43	417	7	2	58	247	22	0	1153
4:45 PM	13	75	156	0	42	46	56	0	34	433	6	1	53	212	31	0	1158
5:00 PM	7	93	192	0	48	46	47	0	50	336	8	0	60	224	35	0	1146
5:15 PM	10	92	185	0	55	60	43	0	43	344	1	0	72	249	40	0	1194
5:30 PM	16	89	155	0	42	73	59	0	39	442	5	0	51	192	32	0	1195
5:45 PM	14	74	140	0	32	64	58	0	38	408	8	0	58	223	26	0	1143
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	99	577	1214	0	333	439	441	1	346	3170	48	3	472	1798	231	0	9172
APPROACH %'s :	5.24%	30.53%	64.23%	0.00%	27.43%	36.16%	36.33%	0.08%	9.70%	88.87%	1.35%	0.08%	18.87%	71.89%	9.24%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	46	349	688	0	187	225	205	0	166	1555	20	1	236	877	138	0	4693
PEAK HR FACTOR :	0.719	0.938	0.896	0.000	0.850	0.771	0.869	0.000	0.830	0.880	0.625	0.250	0.819	0.881	0.863	0.000	0.982
	0.927				0.886				0.896				0.866				

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Milpitas Blvd/S Milpitas Blvd & SR 237/E Calaveras Blvd/Calaveras Blvd
City: Milpitas
Control: Signalized

Project ID: 24-080364-004
Date: 11/19/2024

Data - Total

NS/EW Streets:	N Milpitas Blvd/S Milpitas Blvd				N Milpitas Blvd/S Milpitas Blvd				SR 237/E Calaveras Blvd/Calaveras Blvd				SR 237/E Calaveras Blvd/Calaveras Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	1	0	2	2	1	0	2	3	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	64	17	9	0	9	19	43	0	22	83	54	1	6	355	20	2	704
7:15 AM	55	18	10	0	8	18	68	0	22	100	53	1	12	430	29	4	828
7:30 AM	44	21	12	0	15	29	70	0	30	182	76	0	12	347	28	2	868
7:45 AM	66	32	9	0	22	40	47	0	38	142	94	0	12	382	38	7	929
8:00 AM	99	51	10	1	35	54	77	0	39	149	75	0	16	360	63	7	1036
8:15 AM	86	70	12	0	37	52	88	0	53	159	110	1	8	396	51	10	1133
8:30 AM	75	44	20	0	35	58	102	1	43	146	56	0	13	388	50	4	1035
8:45 AM	83	27	30	1	34	43	75	0	43	197	97	0	20	331	48	4	1033
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	572	280	112	2	195	313	570	1	290	1158	615	3	99	2989	327	40	7566
APPROACH %'s :	59.21%	28.99%	11.59%	0.21%	18.07%	29.01%	52.83%	0.09%	14.04%	56.05%	29.77%	0.15%	2.87%	86.51%	9.46%	1.16%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	343	192	72	2	141	207	342	1	178	651	338	1	57	1475	212	25	4237
PEAK HR FACTOR :	0.866	0.686	0.600	0.500	0.953	0.892	0.838	0.250	0.840	0.826	0.768	0.250	0.713	0.931	0.841	0.625	0.935
	0.906				0.881				0.866				0.951				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	1	0	2	2	1	0	2	3	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	87	59	23	1	55	60	68	1	101	327	110	2	20	201	45	9	1169
4:15 PM	72	42	18	0	33	54	70	3	99	366	121	4	14	234	39	6	1175
4:30 PM	112	52	31	0	37	57	64	2	94	359	126	1	25	198	39	4	1201
4:45 PM	85	65	28	0	34	56	66	0	77	387	139	0	22	193	47	5	1204
5:00 PM	90	66	38	0	53	61	73	1	96	332	160	2	28	221	42	2	1265
5:15 PM	87	61	30	0	35	69	56	2	80	334	139	0	24	236	38	2	1193
5:30 PM	73	72	18	1	44	98	53	0	96	382	150	3	36	214	60	1	1301
5:45 PM	51	54	22	0	56	76	56	1	98	314	164	2	23	234	47	2	1200
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	657	471	208	2	347	531	506	10	741	2801	1109	14	192	1731	357	31	9708
APPROACH %'s :	49.10%	35.20%	15.55%	0.15%	24.89%	38.09%	36.30%	0.72%	15.88%	60.04%	23.77%	0.30%	8.31%	74.90%	15.45%	1.34%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	335	264	114	1	166	284	248	3	349	1435	588	5	110	864	187	10	4963
PEAK HR FACTOR :	0.931	0.917	0.750	0.250	0.783	0.724	0.849	0.375	0.909	0.927	0.919	0.417	0.764	0.915	0.779	0.500	0.954
	0.920				0.899				0.942				0.941				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Milpitas Blvd & Yosemite Dr
City: Milpitas
Control: Signalized

Project ID: 24-080364-006
Date: 11/19/2024

Data - Total

NS/EW Streets:	S Milpitas Blvd				S Milpitas Blvd				Yosemite Dr				Yosemite Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	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	2	49	14	0	22	40	5	0	1	1	0	0	36	4	33	0	207
7:15 AM	0	39	8	0	16	44	10	0	2	0	0	0	37	5	27	0	188
7:30 AM	1	42	16	0	33	63	7	0	1	1	0	0	48	6	37	0	255
7:45 AM	3	58	26	0	34	56	8	0	1	0	2	0	61	3	57	0	309
8:00 AM	0	72	28	0	49	47	6	0	4	2	0	0	61	9	97	0	375
8:15 AM	3	71	23	0	59	62	13	0	1	0	0	0	58	8	77	0	375
8:30 AM	3	63	23	0	26	67	11	0	2	2	1	0	47	10	65	0	320
8:45 AM	1	84	23	0	36	64	13	0	2	2	2	0	39	6	63	0	335
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	13	478	161	0	275	443	73	0	14	8	5	0	387	51	456	0	2364
APPROACH %'s :	1.99%	73.31%	24.69%	0.00%	34.77%	56.01%	9.23%	0.00%	51.85%	29.63%	18.52%	0.00%	43.29%	5.70%	51.01%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	7	290	97	0	170	240	43	0	9	6	3	0	205	33	302	0	1405
PEAK HR FACTOR :	0.583	0.863	0.866	0.000	0.720	0.896	0.827	0.000	0.563	0.750	0.375	0.000	0.840	0.825	0.778	0.000	0.937
		0.912				0.845				0.750				0.808			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	68	22	0	81	108	4	0	13	3	3	0	37	1	35	0	375
4:15 PM	0	47	27	0	76	109	1	0	6	1	1	0	36	0	39	0	343
4:30 PM	1	90	29	0	75	105	5	0	18	11	7	0	32	0	34	0	407
4:45 PM	1	86	29	0	77	109	2	0	10	11	2	0	37	3	44	0	411
5:00 PM	0	55	29	0	85	156	2	0	12	10	3	0	40	5	44	0	441
5:15 PM	0	95	44	0	82	139	1	0	10	7	2	0	40	0	36	0	456
5:30 PM	0	65	29	0	84	163	1	0	9	5	2	0	51	1	33	0	443
5:45 PM	0	60	31	0	98	158	1	0	9	6	1	0	52	1	35	1	453
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	566	240	0	658	1047	17	0	87	54	21	0	325	11	300	1	3329
APPROACH %'s :	0.25%	70.05%	29.70%	0.00%	38.21%	60.80%	0.99%	0.00%	53.70%	33.33%	12.96%	0.00%	51.02%	1.73%	47.10%	0.16%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	275	133	0	349	616	5	0	40	28	8	0	183	7	148	1	1793
PEAK HR FACTOR :	0.000	0.724	0.756	0.000	0.890	0.945	0.625	0.000	0.833	0.700	0.667	0.000	0.880	0.350	0.841	0.250	0.983
		0.734				0.944				0.760				0.952			

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Milpitas Blvd & Gibraltar Dr/ABC Printing Dwy
City: Milpitas
Control: Signalized

Project ID: 24-080364-010
Date: 11/19/2024

Data - Total

NS/EW Streets:	S Milpitas Blvd				S Milpitas Blvd				Gibraltar Dr/ABC Printing Dwy				Gibraltar Dr/ABC Printing Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	0	1	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	35	76	4	8	2	67	0	0	1	0	6	0	2	0	3	0	204
7:15 AM	27	67	3	9	1	76	7	0	0	0	4	0	8	0	2	0	204
7:30 AM	39	69	0	15	0	109	2	0	0	0	4	0	0	0	4	0	242
7:45 AM	49	112	0	2	0	126	1	0	2	0	3	0	0	0	0	0	295
8:00 AM	28	125	0	3	0	104	0	0	1	0	2	0	0	0	0	0	263
8:15 AM	32	117	10	0	3	110	1	0	1	0	2	0	8	0	1	0	285
8:30 AM	35	107	1	0	1	100	2	0	1	0	7	0	0	0	1	0	255
8:45 AM	29	131	0	1	0	90	2	0	1	0	4	0	0	0	0	0	258
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	274	804	18	38	7	782	15	0	7	0	32	0	18	0	11	0	2006
APPROACH %'s :	24.16%	70.90%	1.59%	3.35%	0.87%	97.26%	1.87%	0.00%	17.95%	0.00%	82.05%	0.00%	62.07%	0.00%	37.93%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	144	461	11	5	4	440	4	0	5	0	14	0	8	0	2	0	1098
PEAK HR FACTOR :	0.735	0.922	0.275	0.417	0.333	0.873	0.500	0.000	0.625	0.000	0.500	0.000	0.250	0.000	0.500	0.000	0.931
	0.952				0.882				0.594				0.278				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	0	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	87	3	1	3	159	1	0	1	0	21	0	0	0	1	0	280
4:15 PM	3	77	10	0	10	159	0	0	0	0	17	0	2	0	0	0	278
4:30 PM	5	96	1	0	0	170	1	0	8	0	60	0	1	0	2	0	344
4:45 PM	10	113	1	0	1	175	0	0	5	0	31	0	1	0	1	0	338
5:00 PM	8	87	2	0	0	215	1	0	3	0	34	0	0	0	1	0	351
5:15 PM	4	123	3	0	0	210	0	0	1	0	32	0	0	0	2	0	375
5:30 PM	4	85	8	1	1	230	0	0	2	0	34	0	10	0	5	0	380
5:45 PM	3	85	3	1	0	218	0	0	1	0	15	0	6	0	1	0	333
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	40	753	31	3	15	1536	3	0	21	0	244	0	20	0	13	0	2679
APPROACH %'s :	4.84%	91.05%	3.75%	0.36%	0.97%	98.84%	0.19%	0.00%	7.92%	0.00%	92.08%	0.00%	60.61%	0.00%	39.39%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	26	408	14	1	2	830	1	0	11	0	131	0	11	0	9	0	1444
PEAK HR FACTOR :	0.650	0.829	0.438	0.250	0.500	0.902	0.250	0.000	0.550	0.000	0.963	0.000	0.275	0.000	0.450	0.000	0.950
	0.863				0.902				0.959				0.333				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Milpitas Blvd & CR G4/Montague Expy
City: Milpitas
Control: Signalized

Project ID: 24-080364-013
Date: 11/19/2024

Data - Total

NS/EW Streets:	S Milpitas Blvd				S Milpitas Blvd				CR G4/Montague Expy				CR G4/Montague Expy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	0	0	2	1	1	0	2	3.5	0.5	0	2	4	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	6	12	0	16	9	61	0	34	96	0	4	5	460	65	3	773
7:15 AM	1	14	21	0	25	6	62	0	43	96	2	3	7	538	48	3	869
7:30 AM	4	8	18	0	23	10	95	0	38	130	0	0	9	717	66	3	1121
7:45 AM	2	19	34	0	25	19	103	0	57	182	3	9	21	684	81	2	1241
8:00 AM	2	19	27	0	34	12	93	0	67	229	2	5	18	599	65	6	1178
8:15 AM	3	22	42	0	26	15	116	0	50	171	1	3	13	590	70	3	1125
8:30 AM	3	8	27	0	28	10	102	0	64	181	2	9	22	611	82	5	1154
8:45 AM	5	24	21	0	34	12	61	0	71	178	1	14	15	489	90	12	1027
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	22	120	202	0	211	93	693	0	424	1263	11	47	110	4688	567	37	8488
APPROACH %'s :	6.40%	34.88%	58.72%	0.00%	21.16%	9.33%	69.51%	0.00%	24.30%	72.38%	0.63%	2.69%	2.04%	86.78%	10.50%	0.68%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	10	68	130	0	113	56	414	0	238	763	8	26	74	2484	298	16	4698
PEAK HR FACTOR :	0.833	0.773	0.774	0.000	0.831	0.737	0.892	0.000	0.888	0.833	0.667	0.722	0.841	0.908	0.909	0.667	0.946
		0.776				0.928				0.854				0.911			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	0	0	2	1	1	0	2	3.5	0.5	0	2	4	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	12	26	0	58	17	104	0	58	407	3	11	25	245	27	2	996
4:15 PM	1	13	24	0	71	24	95	0	65	394	5	15	20	284	25	2	1038
4:30 PM	2	22	31	0	98	23	137	0	78	443	2	21	22	288	33	2	1202
4:45 PM	7	22	36	0	67	27	105	0	60	458	6	11	22	307	33	0	1161
5:00 PM	1	20	32	0	114	31	118	0	65	454	6	22	13	270	29	2	1177
5:15 PM	5	23	40	0	85	54	112	0	84	464	12	32	15	240	40	2	1208
5:30 PM	10	19	35	0	67	24	141	0	77	462	7	30	24	274	23	4	1197
5:45 PM	2	16	29	0	77	55	126	0	50	426	5	14	26	294	33	2	1155
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	29	147	253	0	637	255	938	0	537	3508	46	156	167	2202	243	16	9134
APPROACH %'s :	6.76%	34.27%	58.97%	0.00%	34.81%	13.93%	51.26%	0.00%	12.64%	82.60%	1.08%	3.67%	6.35%	83.79%	9.25%	0.61%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	15	87	139	0	364	135	472	0	287	1819	26	86	72	1105	135	6	4748
PEAK HR FACTOR :	0.536	0.946	0.869	0.000	0.798	0.625	0.861	0.000	0.854	0.980	0.542	0.672	0.818	0.900	0.844	0.750	0.983
		0.886				0.923				0.937				0.910			

National Data & Surveying Services

Intersection Turning Movement Count

Location: E Capitol Ave/Great Mall Pkwy & CR G4/Montague Expy
City: Milpitas
Control: Signalized

Project ID: 24-080364-014
Date: 11/19/2024

Data - Total

NS/EW Streets:	E Capitol Ave/Great Mall Pkwy				E Capitol Ave/Great Mall Pkwy				CR G4/Montague Expy				CR G4/Montague Expy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	1	0	2	4	1	0	2	4	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	51	58	11	1	33	19	6	0	5	109	8	5	2	394	91	3	796
7:15 AM	48	74	13	0	49	27	4	0	17	110	21	14	2	473	176	2	1030
7:30 AM	35	133	13	0	71	24	10	1	21	114	12	8	3	529	255	6	1235
7:45 AM	44	150	14	0	99	38	5	0	31	169	12	9	4	446	270	4	1295
8:00 AM	44	178	10	0	107	72	9	0	28	191	11	5	2	448	270	2	1377
8:15 AM	38	155	20	0	102	50	9	1	27	165	21	10	6	451	275	13	1343
8:30 AM	19	184	17	0	93	47	6	0	26	147	12	14	14	428	267	4	1278
8:45 AM	33	152	22	1	98	58	7	0	26	142	16	11	16	281	224	5	1092
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	312	1084	120	2	652	335	56	2	181	1147	113	76	49	3450	1828	39	9446
APPROACH %'s :	20.55%	71.41%	7.91%	0.13%	62.39%	32.06%	5.36%	0.19%	11.93%	75.61%	7.45%	5.01%	0.91%	64.29%	34.07%	0.73%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	145	667	61	0	401	207	29	1	112	672	56	38	26	1773	1082	23	5293
PEAK HR FACTOR :	0.824	0.906	0.763	0.000	0.937	0.719	0.806	0.250	0.903	0.880	0.667	0.679	0.464	0.983	0.984	0.442	0.961
		0.941				0.848				0.934				0.974			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	1	0	2	4	1	0	2	4	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	32	84	15	1	146	220	15	0	34	330	57	9	17	218	75	3	1256
4:15 PM	26	66	21	0	150	290	9	0	35	316	69	11	28	206	87	4	1318
4:30 PM	32	66	19	1	141	260	22	0	33	390	72	10	32	259	104	4	1445
4:45 PM	29	85	22	0	143	291	19	0	41	421	66	8	14	223	104	3	1469
5:00 PM	26	77	17	1	151	298	17	0	36	362	45	16	36	227	88	5	1402
5:15 PM	45	62	21	1	143	266	14	0	47	443	69	9	20	253	88	6	1487
5:30 PM	29	81	13	1	138	296	10	0	32	399	73	12	31	243	90	6	1454
5:45 PM	30	67	22	0	151	314	14	1	28	406	50	18	19	249	105	6	1480
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	249	588	150	5	1163	2235	120	1	286	3067	501	93	197	1878	741	37	11311
APPROACH %'s :	25.10%	59.27%	15.12%	0.50%	33.05%	63.51%	3.41%	0.03%	7.25%	77.70%	12.69%	2.36%	6.91%	65.83%	25.97%	1.30%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	130	287	73	3	583	1174	55	1	143	1610	237	55	106	972	371	23	5823
PEAK HR FACTOR :	0.722	0.886	0.830	0.750	0.965	0.935	0.809	0.250	0.761	0.909	0.812	0.764	0.736	0.960	0.883	0.958	0.979
		0.955				0.944				0.900				0.971			

National Data & Surveying Services

Intersection Turning Movement Count

Location: McCandless Dr/Trade Zone Blvd & CR G4/Montague Expy
City: Milpitas
Control: Signalized

Project ID: 24-080364-015
Date: 11/19/2024

Data - Total

NS/EW Streets:	McCandless Dr/Trade Zone Blvd				McCandless Dr/Trade Zone Blvd				CR G4/Montague Expy				CR G4/Montague Expy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2.5	0.5	1	0	1.5	0.5	1	0	1	3	1	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	160	2	15	0	3	3	28	0	8	110	109	0	13	478	4	2	935
7:15 AM	128	4	15	0	3	7	37	0	6	141	120	1	11	484	9	0	966
7:30 AM	205	5	17	0	5	8	42	0	4	122	150	0	21	487	10	4	1080
7:45 AM	218	9	37	0	6	13	52	0	11	158	170	0	17	452	6	3	1152
8:00 AM	199	12	26	0	8	21	65	0	10	200	170	0	14	446	12	5	1188
8:15 AM	185	14	21	0	11	19	83	0	13	177	112	1	14	416	33	2	1101
8:30 AM	243	30	20	0	22	15	83	0	13	134	133	0	17	379	56	3	1148
8:45 AM	215	6	19	0	17	27	109	0	6	117	149	1	18	367	12	6	1069
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1553	82	170	0	75	113	499	0	71	1159	1113	3	125	3509	142	25	8639
APPROACH %'s :	86.04%	4.54%	9.42%	0.00%	10.92%	16.45%	72.63%	0.00%	3.03%	49.40%	47.44%	0.13%	3.29%	92.32%	3.74%	0.66%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	845	65	104	0	47	68	283	0	47	669	585	1	62	1693	107	13	4589
PEAK HR FACTOR :	0.869	0.542	0.703	0.000	0.534	0.810	0.852	0.000	0.904	0.836	0.860	0.250	0.912	0.936	0.478	0.650	0.966
	0.865				0.829				0.857				0.981				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2.5	0.5	1	0	1.5	0.5	1	0	1	3	1	0	1	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	105	10	41	0	8	31	41	0	25	414	293	5	45	246	5	12	1281
4:15 PM	121	16	45	0	6	27	28	0	25	432	296	2	37	208	6	5	1254
4:30 PM	163	18	40	0	9	27	25	0	28	401	286	3	39	255	13	13	1320
4:45 PM	113	23	49	0	5	30	28	0	36	495	309	0	45	192	7	4	1336
5:00 PM	138	18	49	0	12	28	43	0	22	539	248	1	40	227	8	5	1378
5:15 PM	150	13	59	0	13	33	33	0	15	478	259	0	53	238	15	3	1362
5:30 PM	145	10	40	0	11	39	33	0	24	455	278	1	53	214	7	5	1315
5:45 PM	130	13	47	0	10	28	33	0	33	482	309	3	53	233	13	3	1390
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1065	121	370	0	74	243	264	0	208	3696	2278	15	365	1813	74	50	10636
APPROACH %'s :	68.44%	7.78%	23.78%	0.00%	12.74%	41.82%	45.44%	0.00%	3.36%	59.64%	36.76%	0.24%	15.86%	78.76%	3.21%	2.17%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	563	54	195	0	46	128	142	0	94	1954	1094	5	199	912	43	16	5445
PEAK HR FACTOR :	0.938	0.750	0.826	0.000	0.885	0.821	0.826	0.000	0.712	0.906	0.885	0.417	0.939	0.958	0.717	0.800	0.979
	0.914				0.952				0.951				0.947				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Main St/Oakland Rd & CR G4/Montague Expy
City: Milpitas
Control: Signalized

Project ID: 24-080364-016
Date: 11/19/2024

Data - Total

NS/EW Streets:	S Main St/Oakland Rd				S Main St/Oakland Rd				CR G4/Montague Expy				CR G4/Montague Expy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	1	0	2	2	1	0	2	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	68	33	25	0	26	19	62	2	13	172	47	10	29	593	12	2	1113
7:15 AM	78	12	17	0	15	18	62	0	18	233	62	11	32	607	17	3	1185
7:30 AM	100	33	25	0	25	25	90	1	15	229	52	12	36	647	11	2	1303
7:45 AM	130	38	49	0	39	44	112	1	25	246	67	13	45	627	14	2	1452
8:00 AM	129	45	49	0	40	37	103	2	28	295	72	9	31	682	21	1	1544
8:15 AM	109	55	41	0	26	56	125	2	26	230	62	12	33	636	24	4	1441
8:30 AM	122	30	29	0	34	59	106	1	29	228	78	10	42	571	36	7	1382
8:45 AM	123	40	29	0	42	66	141	3	23	180	101	7	56	613	19	3	1446
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	859	286	264	0	247	324	801	12	177	1813	541	84	304	4976	154	24	10866
APPROACH %'s :	60.97%	20.30%	18.74%	0.00%	17.85%	23.41%	57.88%	0.87%	6.77%	69.33%	20.69%	3.21%	5.57%	91.17%	2.82%	0.44%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	490	168	168	0	139	196	446	6	108	999	279	44	151	2516	95	14	5819
PEAK HR FACTOR :	0.942	0.764	0.857	0.000	0.869	0.831	0.892	0.750	0.931	0.847	0.894	0.846	0.839	0.922	0.660	0.500	0.942
	0.926				0.941				0.885				0.944				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	1	0	2	2	1	0	2	3	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	78	46	64	0	62	44	64	2	40	598	49	7	25	298	21	0	1398
4:15 PM	67	63	53	0	40	77	60	2	53	629	70	11	45	332	39	0	1541
4:30 PM	81	56	73	0	53	76	45	1	56	602	43	14	43	296	45	2	1486
4:45 PM	80	53	61	0	62	87	67	1	42	644	54	10	32	304	27	0	1524
5:00 PM	82	52	91	0	64	63	49	1	43	601	36	8	39	375	30	2	1536
5:15 PM	70	67	71	0	45	90	48	4	54	627	54	8	45	305	38	1	1527
5:30 PM	66	72	83	0	63	94	52	2	49	580	38	6	37	282	32	0	1456
5:45 PM	72	65	81	0	66	95	51	0	43	588	54	8	36	311	37	2	1509
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	596	474	577	0	455	626	436	13	380	4869	398	72	302	2503	269	7	11977
APPROACH %'s :	36.19%	28.78%	35.03%	0.00%	29.74%	40.92%	28.50%	0.85%	6.64%	85.14%	6.96%	1.26%	9.80%	81.24%	8.73%	0.23%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	310	224	278	0	219	303	221	5	194	2476	203	43	159	1307	141	4	6087
PEAK HR FACTOR :	0.945	0.889	0.764	0.000	0.855	0.871	0.825	0.625	0.866	0.961	0.725	0.768	0.883	0.871	0.783	0.500	0.988
	0.902				0.862				0.955				0.903				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Milpitas Blvd & Ames Ave/East Project Center Dwy
City: Milpitas
Control: Signalized

Project ID: 24-080364-008
Date: 11/19/2024

Data - Total

NS/EW Streets:	S Milpitas Blvd				S Milpitas Blvd				Ames Ave/East Project Center Dwy				Ames Ave/East Project Center Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	0	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	0	73	12	0	10	57	0	0	0	0	0	0	12	0	6	0	170
7:15 AM	0	49	17	0	9	76	0	0	0	0	0	0	10	0	9	0	170
7:30 AM	0	55	19	0	7	104	0	0	0	0	0	0	11	0	4	0	200
7:45 AM	0	97	16	0	4	112	0	0	0	0	0	0	10	0	4	0	243
8:00 AM	0	105	11	0	7	100	0	0	0	0	0	0	4	0	5	0	232
8:15 AM	0	106	18	0	11	104	0	0	0	0	0	0	10	0	3	0	252
8:30 AM	0	91	15	0	9	97	0	0	0	0	0	0	5	0	2	0	219
8:45 AM	0	115	18	0	18	87	0	0	0	0	0	0	7	0	10	0	255
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	691	126	0	75	737	0	0	0	0	0	0	69	0	43	0	1741
APPROACH %'s :	0.00%	84.58%	15.42%	0.00%	9.24%	90.76%	0.00%	0.00%					61.61%	0.00%	38.39%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	417	62	0	45	388	0	0	0	0	0	0	26	0	20	0	958
PEAK HR FACTOR :	0.000	0.907	0.861	0.000	0.625	0.933	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.000	0.500	0.000	0.939
		0.900				0.941								0.676			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	75	15	0	10	133	0	0	0	0	0	0	28	0	10	0	271
4:15 PM	0	62	9	0	11	139	0	0	0	0	0	0	30	0	8	0	259
4:30 PM	0	103	11	0	6	152	0	0	0	0	0	0	20	0	11	0	303
4:45 PM	0	111	4	0	7	154	0	0	0	0	0	0	25	0	3	0	304
5:00 PM	0	92	3	0	9	183	0	0	0	0	0	0	29	0	8	0	324
5:15 PM	0	107	11	0	5	192	0	0	0	0	0	0	17	0	9	0	341
5:30 PM	0	88	4	0	6	215	0	0	0	0	0	0	21	0	3	0	337
5:45 PM	0	89	5	0	3	208	0	0	0	0	0	0	6	0	3	0	314
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	727	62	0	57	1376	0	0	0	0	0	0	176	0	55	0	2453
APPROACH %'s :	0.00%	92.14%	7.86%	0.00%	3.98%	96.02%	0.00%	0.00%					76.19%	0.00%	23.81%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	376	23	0	23	798	0	0	0	0	0	0	73	0	23	0	1316
PEAK HR FACTOR :	0.000	0.879	0.523	0.000	0.639	0.928	0.000	0.000	0.000	0.000	0.000	0.000	0.629	0.000	0.639	0.000	0.965
		0.845				0.929								0.649			

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Milpitas Blvd & Ames Ave/Eco Office Dwy/East Project S Dwy
City: Milpitas
Control: No Control

Project ID: 24-080364-009
Date: 11/19/2024

Data - Total

NS/EW Streets:	S Milpitas Blvd				S Milpitas Blvd				Ames Ave/Eco Office Dwy/East Project S Dwy				Ames Ave/Eco Office Dwy/East Project S Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	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	0	79	1	0	0	68	0	0	0	0	0	0	0	0	0	0	148
7:15 AM	0	66	3	0	0	87	0	0	0	0	0	0	0	0	0	0	156
7:30 AM	0	72	0	0	0	111	0	0	0	0	1	0	0	0	2	0	186
7:45 AM	0	113	2	0	0	125	0	0	0	0	0	0	0	0	0	0	240
8:00 AM	1	119	3	0	0	104	0	0	0	0	0	0	0	0	0	0	227
8:15 AM	0	121	1	0	0	115	0	0	0	0	0	0	0	0	1	0	238
8:30 AM	0	107	1	0	1	101	0	0	0	0	0	0	0	0	0	0	210
8:45 AM	0	131	2	0	0	91	0	0	0	0	0	0	0	0	0	0	224
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	808	13	0	1	802	0	0	0	0	1	0	0	0	3	0	1629
APPROACH %'s :	0.12%	98.30%	1.58%	0.00%	0.12%	99.88%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	1	460	7	0	1	445	0	0	0	0	0	0	0	0	1	0	915
PEAK HR FACTOR :	0.250	0.950	0.583	0.000	0.250	0.890	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.953
		0.951				0.892								0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	90	1	0	0	159	0	1	0	0	0	0	3	0	2	0	256
4:15 PM	0	70	0	0	0	169	0	0	0	0	0	0	0	0	0	0	239
4:30 PM	0	113	0	0	0	172	0	0	0	0	0	0	0	0	0	0	285
4:45 PM	0	116	0	0	0	175	0	0	0	0	0	0	0	0	0	0	291
5:00 PM	0	93	0	0	0	217	0	0	0	0	0	0	0	0	0	0	310
5:15 PM	0	124	0	0	0	209	0	0	0	0	0	0	0	0	0	0	333
5:30 PM	0	89	1	0	0	235	0	0	0	0	0	0	0	0	0	0	325
5:45 PM	0	91	0	0	0	215	0	0	0	0	0	0	0	0	0	0	306
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	786	2	0	0	1551	0	1	0	0	0	0	3	0	2	0	2345
APPROACH %'s :	0.00%	99.75%	0.25%	0.00%	0.00%	99.94%	0.00%	0.06%					60.00%	0.00%	40.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	397	1	0	0	876	0	0	0	0	0	0	0	0	0	0	1274
PEAK HR FACTOR :	0.000	0.800	0.250	0.000	0.000	0.932	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.956
		0.802				0.932											

National Data & Surveying Services

Intersection Turning Movement Count

Location: Milpitas Town Center Dwy/1000 Gibraltar Dr Dwy/South Project Dwy & Gibraltar Dr
City: Milpitas
Control: 1-Way Stop(NB)

Project ID: 24-080364-011
Date: 11/19/2024

Data - Total

NS/EW Streets:	Milpitas Town Center Dwy/1000 Gibraltar Dr Dwy/South Project Dwy				Milpitas Town Center Dwy/1000 Gibraltar Dr Dwy/South Project Dwy				Gibraltar Dr				Gibraltar Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	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	0	0	4	0	0	0	0	0	0	4	1	0	11	16	0	0	36
7:15 AM	0	0	0	0	0	0	0	0	0	5	2	0	1	13	0	0	21
7:30 AM	0	0	1	0	0	0	0	0	0	4	0	0	3	16	0	0	24
7:45 AM	0	0	1	0	0	0	0	0	0	2	0	0	5	30	0	0	38
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	3	20	0	0	25
8:15 AM	0	0	1	0	0	0	0	0	0	1	1	0	2	24	0	0	29
8:30 AM	0	0	0	0	0	0	0	0	0	6	0	0	1	27	0	0	34
8:45 AM	0	0	1	0	0	0	0	0	0	4	0	0	1	24	0	0	30
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	8	0	0	0	0	0	0	28	4	0	27	170	0	0	237
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%					0.00%	87.50%	12.50%	0.00%	13.71%	86.29%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	2	0	0	0	0	0	0	11	1	0	11	101	0	0	126
PEAK HR FACTOR :	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.458	0.250	0.000	0.550	0.842	0.000	0.000	0.829
	0.500								0.500				0.800				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	4	0	0	0	0	0	0	16	0	0	0	5	0	0	25
4:15 PM	0	0	2	0	0	0	0	0	0	12	0	0	1	2	0	0	17
4:30 PM	0	0	4	0	0	0	0	0	0	40	0	0	0	5	0	0	49
4:45 PM	0	0	2	0	0	0	0	0	0	25	0	0	2	8	0	0	37
5:00 PM	0	0	6	0	0	0	0	0	0	22	0	0	1	7	0	0	36
5:15 PM	0	0	1	0	0	0	0	0	0	28	0	0	1	2	0	0	32
5:30 PM	0	0	2	0	0	0	0	0	0	29	0	0	0	4	0	0	35
5:45 PM	0	0	2	0	0	0	0	0	0	15	0	0	0	3	0	0	20
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	23	0	0	0	0	0	0	187	0	0	5	36	0	0	251
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%					0.00%	100.00%	0.00%	0.00%	12.20%	87.80%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	13	0	0	0	0	0	0	115	0	0	4	22	0	0	154
PEAK HR FACTOR :	0.000	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.719	0.000	0.000	0.500	0.688	0.000	0.000	0.786
	0.542								0.719				0.650				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Gibraltar Dr & 909 Bldg 4 Dwy/West Project North Dwy
City: Milpitas
Control: No Control

Project ID: 24-080364-012
Date: 11/21/2024

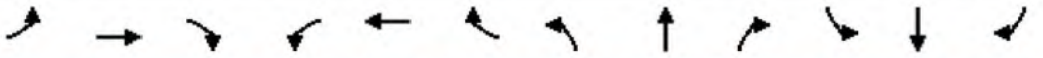
Data - Total

NS/EW Streets:	Gibraltar Dr				Gibraltar Dr				909 Bldg 4 Dwy/West Project North Dwy				909 Bldg 4 Dwy/West Project North Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	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	0	10	0	0	0	5	0	0	0	0	0	0	0	0	0	0	15
7:15 AM	0	6	0	0	0	7	0	0	0	0	0	0	0	0	0	0	13
7:30 AM	0	12	0	0	0	5	0	0	0	0	0	0	0	0	0	0	17
7:45 AM	0	22	0	0	0	10	0	0	0	0	0	0	0	0	0	0	32
8:00 AM	0	13	0	0	0	7	0	0	0	0	0	0	0	0	0	0	20
8:15 AM	0	17	0	0	0	7	0	0	0	0	0	0	0	0	0	0	24
8:30 AM	0	18	0	0	0	8	0	0	0	0	0	0	0	0	0	0	26
8:45 AM	0	16	0	0	0	9	0	0	0	0	0	0	0	0	0	0	25
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	114	0	0	0	58	0	0	0	0	0	0	0	0	0	0	172
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	70	0	0	0	32	0	0	0	0	0	0	0	0	0	0	102
PEAK HR FACTOR :	0.000	0.795	0.000	0.000	0.000	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.797
		0.795				0.800											

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	5	0	0	0	12	0	0	0	0	0	0	0	0	0	0	17
4:15 PM	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0	0	12
4:30 PM	0	14	0	0	0	38	0	0	0	0	0	0	0	0	0	0	52
4:45 PM	0	8	0	0	0	14	0	0	0	0	0	0	0	0	0	0	22
5:00 PM	0	10	0	0	0	14	0	0	0	0	0	0	0	0	0	0	24
5:15 PM	0	7	0	0	0	20	0	0	0	0	0	0	0	0	0	0	27
5:30 PM	0	13	0	0	0	23	0	0	0	0	0	0	0	0	0	0	36
5:45 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	67	0	0	0	131	0	0	0	0	0	0	0	0	0	0	198
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	39	0	0	0	86	0	0	0	0	0	0	0	0	0	0	125
PEAK HR FACTOR :	0.000	0.696	0.000	0.000	0.000	0.566	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.601
		0.696				0.566											

Appendix D
Synchro Reports

D1 – Existing Conditions 2024



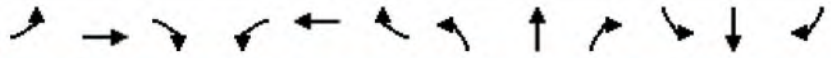
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	761	24	311	1536	103	28	264	298	125	347	437
Future Volume (veh/h)	148	761	24	311	1536	103	28	264	298	125	347	437
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	161	827	0	338	1670	0	30	287	324	136	377	475
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	192	1706		364	2177		47	775	346	162	1005	448
Arrive On Green	0.11	0.33	0.00	0.20	0.43	0.00	0.03	0.22	0.22	0.09	0.28	0.28
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	161	827	0	338	1670	0	30	287	324	136	377	475
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	10.6	15.4	0.0	22.4	33.5	0.0	2.0	8.2	24.1	9.0	10.2	33.9
Cycle Q Clear(g_c), s	10.6	15.4	0.0	22.4	33.5	0.0	2.0	8.2	24.1	9.0	10.2	33.9
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	192	1706		364	2177		47	775	346	162	1005	448
V/C Ratio(X)	0.84	0.48		0.93	0.77		0.64	0.37	0.94	0.84	0.38	1.06
Avail Cap(c_a), veh/h	465	1706		383	2177		197	779	347	168	1005	448
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	31.7	0.0	46.9	29.3	0.0	57.9	39.9	46.1	53.7	34.5	43.0
Incr Delay (d2), s/veh	9.2	1.0	0.0	28.0	2.7	0.0	13.6	0.3	32.4	29.2	0.2	59.3
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	5.2	6.4	0.0	12.5	13.6	0.0	1.1	3.6	12.5	5.3	4.4	20.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.7	32.7	0.0	74.9	32.0	0.0	71.4	40.2	78.5	82.9	34.8	102.4
LnGrp LOS	E	C		E	C		E	D	E	F	C	F
Approach Vol, veh/h		988			2008			641			988	
Approach Delay, s/veh		37.5			39.2			61.0			73.9	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.7	44.8	7.9	38.6	17.7	55.9	15.6	30.9
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	24.4	17.4	4.0	35.9	12.6	35.5	11.0	26.1
Green Ext Time (p_c), s	0.2	5.4	0.0	0.0	0.4	0.0	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	49.3
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



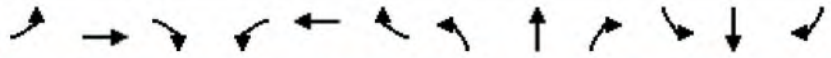
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	596	335	77	1526	202	327	197	51	130	204	314
Future Volume (veh/h)	174	596	335	77	1526	202	327	197	51	130	204	314
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	185	634	0	82	1623	0	348	210	54	138	217	0
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	257	1967		114	1913		721	742	331	661	680	
Arrive On Green	0.07	0.39	0.00	0.06	0.37	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	185	634	0	82	1623	0	348	210	54	138	217	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	6.0	9.9	0.0	5.1	33.2	0.0	10.1	5.7	3.2	3.8	6.0	0.0
Cycle Q Clear(g_c), s	6.0	9.9	0.0	5.1	33.2	0.0	10.1	5.7	3.2	3.8	6.0	0.0
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	257	1967		114	1913		721	742	331	661	680	
V/C Ratio(X)	0.72	0.32		0.72	0.85		0.48	0.28	0.16	0.21	0.32	
Avail Cap(c_a), veh/h	782	1967		325	1913		721	742	331	661	680	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.6	24.6	0.0	52.4	32.7	0.0	39.7	37.9	36.9	38.8	39.7	0.0
Incr Delay (d2), s/veh	3.8	0.4	0.0	8.3	4.9	0.0	2.3	1.0	1.1	0.7	1.2	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	2.7	4.0	0.0	2.5	13.9	0.0	4.4	2.5	1.3	1.7	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.4	25.0	0.0	60.7	37.6	0.0	42.0	38.9	38.0	39.6	40.9	0.0
LnGrp LOS	E	C		E	D		D	D	D	D	D	
Approach Vol, veh/h		819			1705			612			355	
Approach Delay, s/veh		31.9			38.7			40.6			40.4	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	48.5	28.0	26.0	12.7	47.3	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	20.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	7.7	11.9	12.1	8.0	8.0	35.2	5.8	7.7
Green Ext Time (p_c), s	0.1	3.9	0.9	1.0	0.5	0.0	0.3	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	37.6
HCM 7th LOS	D

Notes

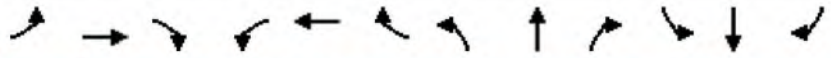
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	4	3	227	30	296	9	264	100	168	232	38
Future Volume (veh/h)	8	4	3	227	30	296	9	264	100	168	232	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	4	3	241	32	315	10	281	106	179	247	40
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	120	177	133	444	35	349	21	1125	415	213	1689	270
Arrive On Green	0.01	0.18	0.18	0.07	0.24	0.24	0.01	0.45	0.45	0.12	0.56	0.56
Sat Flow, veh/h	1753	977	732	1753	146	1436	1753	2501	922	1753	3020	482
Grp Volume(v), veh/h	9	0	7	241	0	347	10	194	193	179	142	145
Grp Sat Flow(s),veh/h/ln	1753	0	1709	1753	0	1582	1753	1749	1675	1753	1749	1754
Q Serve(g_s), s	0.4	0.0	0.3	7.5	0.0	21.9	0.6	7.1	7.4	10.3	4.0	4.1
Cycle Q Clear(g_c), s	0.4	0.0	0.3	7.5	0.0	21.9	0.6	7.1	7.4	10.3	4.0	4.1
Prop In Lane	1.00		0.43	1.00		0.91	1.00		0.55	1.00		0.28
Lane Grp Cap(c), veh/h	120	0	310	444	0	384	21	786	753	213	978	981
V/C Ratio(X)	0.07	0.00	0.02	0.54	0.00	0.90	0.47	0.25	0.26	0.84	0.14	0.15
Avail Cap(c_a), veh/h	228	0	506	444	0	469	272	786	753	374	978	981
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	34.7	32.5	0.0	37.8	50.6	17.5	17.6	44.3	10.9	10.9
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.4	0.0	18.2	15.4	0.8	0.8	8.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	1.6	0.0	10.1	0.3	2.9	2.9	4.9	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.2	0.0	34.7	33.9	0.0	56.0	66.0	18.3	18.4	52.8	11.2	11.2
LnGrp LOS	D		C	C		E	E	B	B	D	B	B
Approach Vol, veh/h		16			588			397			466	
Approach Delay, s/veh		35.0			46.9			19.6			27.2	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	51.3	12.0	23.2	5.2	62.6	5.6	29.5
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	12.5	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	11.3	9.4	9.5	2.3	2.6	6.1	2.4	23.9
Green Ext Time (p_c), s	0.3	1.9	0.0	0.0	0.0	1.5	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	33.1
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	29	0	14	0	399	60	31	413	0
Future Volume (veh/h)	0	0	0	29	0	14	0	399	60	31	413	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	0	0	0	31	0	15	0	424	64	33	439	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	69	0	104	0	18	2	2342	351	54	2946	0
Arrive On Green	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.78	0.78	0.03	0.86	0.00
Sat Flow, veh/h	0	1811	0	958	0	464	1725	3001	450	1725	3532	0
Grp Volume(v), veh/h	0	0	0	46	0	0	0	242	246	33	439	0
Grp Sat Flow(s),veh/h/ln	0	1811	0	1422	0	0	1725	1721	1730	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	2.9	0.0	0.0	0.0	3.2	3.3	1.7	1.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.9	0.0	0.0	0.0	3.2	3.3	1.7	1.9	0.0
Prop In Lane	0.00		0.00	0.67		0.33	1.00		0.26	1.00		0.00
Lane Grp Cap(c), veh/h	0	69	0	121	0	0	2	1343	1350	54	2946	0
V/C Ratio(X)	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.18	0.18	0.61	0.15	0.00
Avail Cap(c_a), veh/h	0	322	0	470	0	0	307	1343	1350	307	2946	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)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	43.0	0.0	0.0	0.0	2.5	2.5	43.1	1.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.3	0.3	10.8	0.1	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	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.7	0.7	0.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	45.0	0.0	0.0	0.0	2.8	2.8	53.8	1.2	0.0
LnGrp LOS				D				A	A	D	A	
Approach Vol, veh/h		0			46			488			472	
Approach Delay, s/veh		0.0			45.0			2.8			4.9	
Approach LOS					D			A			A	

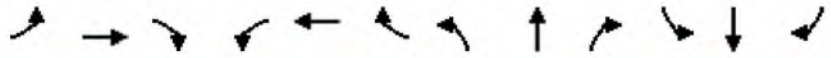
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.8	75.2		7.9	0.0	82.1		7.9
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	3.7	5.3		0.0	0.0	3.9		4.9
Green Ext Time (p_c), s	0.0	2.9		0.0	0.0	2.9		0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	5.7
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	14	8	0	2	149	461	11	4	440	4
Future Volume (veh/h)	5	0	14	8	0	2	149	461	11	4	440	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	0	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	6	0	17	10	0	2	180	555	13	5	530	5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	0	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	0	0	15	0	3	209	3029	71	9	1386	1175
Arrive On Green	0.00	0.00	0.00	0.01	0.00	0.01	0.12	0.88	0.88	0.01	0.77	0.77
Sat Flow, veh/h		0		1408	0	282	1725	3437	80	1725	1811	1535
Grp Volume(v), veh/h		0.0		12	0	0	180	278	290	5	530	5
Grp Sat Flow(s),veh/h/ln				1690	0	0	1725	1721	1797	1725	1811	1535
Q Serve(g_s), s				1.0	0.0	0.0	13.9	3.1	3.1	0.4	13.2	0.1
Cycle Q Clear(g_c), s				1.0	0.0	0.0	13.9	3.1	3.1	0.4	13.2	0.1
Prop In Lane				0.83		0.17	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h				18	0	0	209	1516	1583	9	1386	1175
V/C Ratio(X)				0.66	0.00	0.00	0.86	0.18	0.18	0.57	0.38	0.00
Avail Cap(c_a), veh/h				342	0	0	349	1516	1583	349	1386	1175
HCM Platoon Ratio				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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				67.0	0.0	0.0	58.6	1.1	1.1	67.5	5.3	3.8
Incr Delay (d2), s/veh				46.1	0.0	0.0	14.4	0.3	0.3	63.8	0.8	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
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.0	6.8	0.5	0.5	0.3	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				113.1	0.0	0.0	73.1	1.4	1.4	131.4	6.1	3.8
LnGrp LOS				F			E	A	A	F	A	A
Approach Vol, veh/h					12			748			540	
Approach Delay, s/veh					113.1			18.6			7.2	
Approach LOS					F			B			A	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	5.2	124.9		6.0	21.0	109.1
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0
Max Green Setting (Gmax), s	27.5	35.0		27.5	27.5	35.0
Max Q Clear Time (g_c+I1), s	2.4	5.1		3.0	15.9	15.2
Green Ext Time (p_c), s	0.0	8.7		0.0	0.6	7.3

Intersection Summary		
HCM 7th Control Delay, s/veh		14.8
HCM 7th LOS		B

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	11	1	11	101	0	0	0	2	0	0	0
Future Vol, veh/h	0	11	1	11	101	0	0	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	13	1	13	122	0	0	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	122	0	0	14	0	0	162	162	14	161	163	122
Stage 1	-	-	-	-	-	-	14	14	-	148	148	-
Stage 2	-	-	-	-	-	-	148	148	-	13	14	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.17	6.57	6.27	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.563	4.063	3.363	3.563	4.063	3.363
Pot Cap-1 Maneuver	1435	-	-	1572	-	-	792	721	1052	793	721	916
Stage 1	-	-	-	-	-	-	993	874	-	843	765	-
Stage 2	-	-	-	-	-	-	843	765	-	994	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1435	-	-	1572	-	-	785	715	1052	784	714	916
Mov Cap-2 Maneuver	-	-	-	-	-	-	785	715	-	784	714	-
Stage 1	-	-	-	-	-	-	993	874	-	835	758	-
Stage 2	-	-	-	-	-	-	835	758	-	992	874	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.72	8.43	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1052	1435	-	-	1572	-	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.008	-	-	-
HCM Ctrl Dly (s/v)	8.4	0	-	-	7.3	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	70	0	0	32
Future Vol, veh/h	0	0	70	0	0	32
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	0	0	88	0	0	40

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	128	44	0	0	88	0
Stage 1	88	-	-	-	-	-
Stage 2	40	-	-	-	-	-
Critical Hdwy	6.69	6.99	-	-	4.19	-
Critical Hdwy Stg 1	5.89	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.557	3.357	-	-	2.257	-
Pot Cap-1 Maneuver	850	1005	-	-	1480	-
Stage 1	916	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	850	1005	-	-	1480	-
Mov Cap-2 Maneuver	850	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	971	-	-	-	-	-

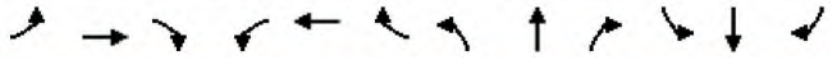
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1480	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	763	8	90	2484	298	10	68	130	113	56	414
Future Volume (veh/h)	264	763	8	90	2484	298	10	68	130	113	56	414
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1914	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	278	803	8	95	2615	314	11	72	137	119	59	436
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	315	3105	31	127	2662	682	432	490	437	358	903	403
Arrive On Green	0.09	0.48	0.48	0.04	0.42	0.42	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3401	6513	65	3401	6332	1622	3401	1749	1560	3401	3497	1560
Grp Volume(v), veh/h	278	585	226	95	2615	314	11	72	137	119	59	436
Grp Sat Flow(s),veh/h/ln	1700	1583	1829	1700	1583	1622	1700	1749	1560	1700	1749	1560
Q Serve(g_s), s	18.6	16.9	17.0	6.4	93.8	32.0	0.7	7.1	15.9	7.5	2.9	59.4
Cycle Q Clear(g_c), s	18.6	16.9	17.0	6.4	93.8	32.0	0.7	7.1	15.9	7.5	2.9	59.4
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	315	2264	872	127	2662	682	432	490	437	358	903	403
V/C Ratio(X)	0.88	0.26	0.26	0.75	0.98	0.46	0.03	0.15	0.31	0.33	0.07	1.08
Avail Cap(c_a), veh/h	500	2264	872	355	2662	682	432	490	437	358	903	403
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)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	103.1	35.9	35.9	109.7	65.8	47.9	87.9	62.2	65.4	95.4	64.4	85.3
Incr Delay (d2), s/veh	9.9	0.2	0.6	8.6	13.8	2.2	0.1	0.6	1.9	2.5	0.1	68.7
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	8.7	6.7	7.8	3.0	39.8	13.5	0.3	3.3	6.6	3.4	1.3	31.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	112.9	36.2	36.6	118.2	79.6	50.1	88.0	62.8	67.2	97.9	64.5	154.0
LnGrp LOS	F	D	D	F	E	D	F	E	E	F	E	F
Approach Vol, veh/h		1089			3024			220			614	
Approach Delay, s/veh		55.9			77.8			66.8			134.5	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.5	102.5	35.0	65.0	14.6	115.4	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	20.6	95.8	2.7	61.4	8.4	19.0	9.5	17.9
Green Ext Time (p_c), s	0.7	0.0	0.0	0.0	0.2	5.7	0.3	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	79.5
HCM 7th LOS	E



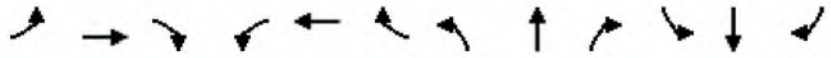
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	672	56	49	1773	1082	145	667	61	402	207	29
Future Volume (veh/h)	150	672	56	49	1773	1082	145	667	61	402	207	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	700	0	51	1847	1127	151	695	0	419	216	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	186	3791		75	3582	883	178	792		456	1198	
Arrive On Green	0.05	0.60	0.00	0.02	0.57	0.57	0.05	0.16	0.00	0.13	0.24	0.00
Sat Flow, veh/h	3401	6332	1560	3401	6332	1560	3401	5025	1560	3401	5025	1560
Grp Volume(v), veh/h	156	700	0	51	1847	1127	151	695	0	419	216	0
Grp Sat Flow(s),veh/h/ln	1700	1583	1560	1700	1583	1560	1700	1675	1560	1700	1675	1560
Q Serve(g_s), s	12.3	13.5	0.0	4.0	48.3	152.8	11.9	36.5	0.0	32.8	9.2	0.0
Cycle Q Clear(g_c), s	12.3	13.5	0.0	4.0	48.3	152.8	11.9	36.5	0.0	32.8	9.2	0.0
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	186	3791		75	3582	883	178	792		456	1198	
V/C Ratio(X)	0.84	0.18		0.68	0.52	1.28	0.85	0.88		0.92	0.18	
Avail Cap(c_a), veh/h	684	3791		307	3582	883	293	1011		674	1569	
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)	0.98	0.98	0.00	0.18	0.18	0.18	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	126.4	24.4	0.0	131.1	35.9	58.6	126.8	111.2	0.0	115.4	81.8	0.0
Incr Delay (d2), s/veh	9.4	0.1	0.0	1.9	0.1	126.3	11.4	7.4	0.0	13.3	0.1	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	5.7	5.2	0.0	1.8	18.9	90.4	5.6	16.6	0.0	15.6	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	135.8	24.5	0.0	133.0	36.0	184.9	138.2	118.5	0.0	128.7	81.9	0.0
LnGrp LOS	F	C		F	D	F	F	F		F	F	
Approach Vol, veh/h		856			3025			846			635	
Approach Delay, s/veh		44.8			93.1			122.1			112.8	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.5	158.6	42.7	48.2	11.6	167.5	20.9	70.1
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	14.8	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	14.3	154.8	34.8	38.5	6.0	15.5	13.9	11.2
Green Ext Time (p_c), s	0.5	0.0	1.4	4.0	0.1	5.1	0.3	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	92.3
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	669	585	75	1693	107	845	65	104	47	68	283
Future Volume (veh/h)	48	669	585	75	1693	107	845	65	104	47	68	283
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	49	690	603	77	1745	0	919	0	0	48	70	0
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	64	3192	991	98	3279		765	0		196	98	
Arrive On Green	0.04	0.64	0.64	0.06	0.65	0.00	0.10	0.00	0.00	0.04	0.05	0.00
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	5259	0	1560	1753	1841	1560
Grp Volume(v), veh/h	49	690	603	77	1745	0	919	0	0	48	70	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	0	1560	1753	1841	1560
Q Serve(g_s), s	3.9	8.1	32.2	6.1	25.9	0.0	14.6	0.0	0.0	3.6	5.2	0.0
Cycle Q Clear(g_c), s	3.9	8.1	32.2	6.1	25.9	0.0	14.6	0.0	0.0	3.6	5.2	0.0
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	64	3192	991	98	3279		765	0		196	98	
V/C Ratio(X)	0.77	0.22	0.61	0.79	0.53		1.20	0.00		0.24	0.71	
Avail Cap(c_a), veh/h	377	3192	991	381	3279		765	0		310	390	
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)	0.91	0.91	0.91	0.82	0.82	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.9	10.8	15.2	65.3	12.9	0.0	57.9	0.0	0.0	59.2	65.2	0.0
Incr Delay (d2), s/veh	16.2	0.1	2.5	10.8	0.5	0.0	102.9	0.0	0.0	0.6	9.2	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	2.0	2.9	12.0	3.0	9.0	0.0	9.3	0.0	0.0	1.6	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.0	10.9	17.7	76.1	13.5	0.0	160.8	0.0	0.0	59.8	74.4	0.0
LnGrp LOS	F	B	B	E	B		F			E	E	
Approach Vol, veh/h		1342			1822			919			118	
Approach Delay, s/veh		16.6			16.1			160.8			68.5	
Approach LOS		B			B			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	97.2	10.9	21.9	12.4	94.7	20.0	12.9
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.1	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	5.9	27.9	5.6	0.0	8.1	34.2	16.6	7.2
Green Ext Time (p_c), s	0.1	10.5	0.0	0.0	0.2	4.7	0.0	0.3

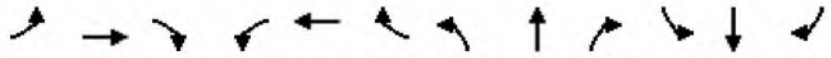
Intersection Summary	
HCM 7th Control Delay, s/veh	49.4
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	999	279	165	2516	95	490	168	168	145	196	446
Future Volume (veh/h)	152	999	279	165	2516	95	490	168	168	145	196	446
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	162	1063	0	176	2677	0	521	179	0	154	209	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	204	2692		217	2722		433	788		196	547	
Arrive On Green	0.06	0.53	0.00	0.06	0.54	0.00	0.13	0.22	0.00	0.06	0.16	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	162	1063	0	176	2677	0	521	179	0	154	209	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	8.9	23.6	0.0	9.6	98.5	0.0	24.0	7.9	0.0	8.4	10.1	0.0
Cycle Q Clear(g_c), s	8.9	23.6	0.0	9.6	98.5	0.0	24.0	7.9	0.0	8.4	10.1	0.0
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	204	2692		217	2722		433	788		196	547	
V/C Ratio(X)	0.79	0.39		0.81	0.98		1.20	0.23		0.79	0.38	
Avail Cap(c_a), veh/h	530	2692		433	2722		433	788		520	547	
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	0.68	0.68	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	88.2	26.4	0.0	87.9	43.1	0.0	83.0	60.4	0.0	88.4	72.1	0.0
Incr Delay (d2), s/veh	6.9	0.4	0.0	4.9	10.9	0.0	111.6	0.7	0.0	6.8	2.0	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	4.1	9.6	0.0	4.4	42.2	0.0	17.4	3.6	0.0	3.9	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	95.1	26.8	0.0	92.8	54.0	0.0	194.6	61.0	0.0	95.3	74.1	0.0
LnGrp LOS	F	C		F	D		F	E		F	E	
Approach Vol, veh/h		1225			2853			700			363	
Approach Delay, s/veh		35.9			56.4			160.4			83.1	
Approach LOS		D			E			F			F	

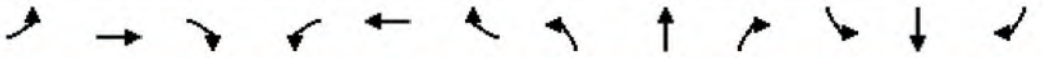
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	107.9	17.0	48.2	18.0	106.8	30.0	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	29.4	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	10.9	100.5	10.4	9.9	11.6	25.6	26.0	12.1
Green Ext Time (p_c), s	0.4	0.0	0.4	0.8	0.4	8.7	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	67.5
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



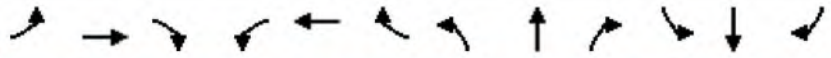
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	1530	22	241	888	133	47	348	672	177	243	207
Future Volume (veh/h)	170	1530	22	241	888	133	47	348	672	177	243	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	173	1561	0	246	906	0	48	355	686	181	248	211
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	205	1955		277	2140		62	785	350	169	998	445
Arrive On Green	0.11	0.38	0.00	0.15	0.42	0.00	0.03	0.22	0.22	0.09	0.28	0.28
Sat Flow, veh/h	1795	5147	1598	1795	5147	1598	1795	3582	1598	1795	3582	1598
Grp Volume(v), veh/h	173	1561	0	246	906	0	48	355	686	181	248	211
Grp Sat Flow(s),veh/h/ln	1795	1716	1598	1795	1716	1598	1795	1791	1598	1795	1791	1598
Q Serve(g_s), s	11.3	32.4	0.0	16.1	15.0	0.0	3.2	10.3	26.3	11.3	6.4	13.2
Cycle Q Clear(g_c), s	11.3	32.4	0.0	16.1	15.0	0.0	3.2	10.3	26.3	11.3	6.4	13.2
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	205	1955		277	2140		62	785	350	169	998	445
V/C Ratio(X)	0.84	0.80		0.89	0.42		0.77	0.45	1.96	1.07	0.25	0.47
Avail Cap(c_a), veh/h	468	1955		386	2140		199	785	350	169	998	445
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	33.1	0.0	49.7	24.9	0.0	57.4	40.6	46.8	54.3	33.5	36.0
Incr Delay (d2), s/veh	9.1	3.5	0.0	16.7	0.6	0.0	17.8	0.4	441.9	89.2	0.1	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(95%),veh/ln	9.4	19.8	0.0	13.1	10.1	0.0	3.1	8.1	83.8	14.6	5.1	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.2	36.6	0.0	66.4	25.5	0.0	75.2	41.0	488.7	143.6	33.7	36.8
LnGrp LOS	E	D		E	C		E	D	F	F	C	D
Approach Vol, veh/h		1734			1152			1089			640	
Approach Delay, s/veh		39.1			34.2			324.6			65.8	
Approach LOS		D			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.7	50.3	8.9	38.1	18.4	54.6	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	18.1	34.4	5.2	15.2	13.3	17.0	13.3	28.3
Green Ext Time (p_c), s	0.4	1.6	0.0	1.7	0.4	4.9	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	108.9
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



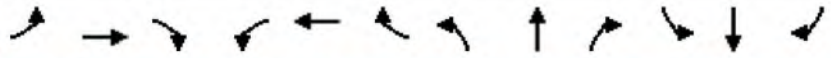
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	377	1362	613	118	905	187	302	253	108	192	304	238
Future Volume (veh/h)	377	1362	613	118	905	187	302	253	108	192	304	238
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	397	1434	0	124	953	0	318	266	114	202	320	0
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	480	1863		156	1602		727	748	334	666	685	
Arrive On Green	0.14	0.36	0.00	0.09	0.31	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3483	5147	1598	1795	5147	1598	3483	3582	1598	3483	3582	1598
Grp Volume(v), veh/h	397	1434	0	124	953	0	318	266	114	202	320	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1795	1716	1598	1742	1791	1598	1742	1791	1598
Q Serve(g_s), s	12.6	28.1	0.0	7.7	17.8	0.0	9.1	7.2	6.9	5.7	9.0	0.0
Cycle Q Clear(g_c), s	12.6	28.1	0.0	7.7	17.8	0.0	9.1	7.2	6.9	5.7	9.0	0.0
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	480	1863		156	1602		727	748	334	666	685	
V/C Ratio(X)	0.83	0.77		0.79	0.59		0.44	0.36	0.34	0.30	0.47	
Avail Cap(c_a), veh/h	788	1863		328	1602		727	748	334	666	685	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.8	32.2	0.0	51.0	33.2	0.0	39.3	38.5	38.4	39.6	40.9	0.0
Incr Delay (d2), s/veh	3.8	3.1	0.0	8.7	1.6	0.0	1.9	1.3	2.8	1.2	2.3	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(95%),veh/ln	9.5	17.3	0.0	6.8	11.9	0.0	7.2	5.9	0.5	4.5	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.6	35.3	0.0	59.8	34.8	0.0	41.2	39.9	41.2	40.8	43.2	0.0
LnGrp LOS	D	D		E	C		D	D	D	D	D	
Approach Vol, veh/h		1831			1077			698			522	
Approach Delay, s/veh		38.8			37.7			40.7			42.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	45.9	28.0	26.0	19.9	40.1	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	20.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	9.7	30.1	11.1	11.0	14.6	19.8	7.7	9.2
Green Ext Time (p_c), s	0.2	0.3	0.9	1.3	1.1	2.8	0.5	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	39.3
HCM 7th LOS	D

Notes

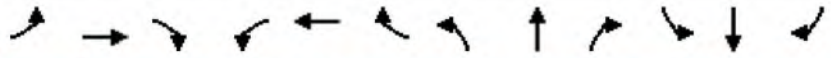
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	28	8	184	7	148	0	275	133	349	616	5
Future Volume (veh/h)	40	28	8	184	7	148	0	275	133	349	616	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	41	29	8	188	7	151	0	281	136	356	629	5
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	163	118	33	288	9	188	2	1066	503	380	2556	20
Arrive On Green	0.03	0.08	0.08	0.07	0.12	0.12	0.00	0.45	0.45	0.21	0.71	0.71
Sat Flow, veh/h	1781	1411	389	1781	71	1525	1781	2344	1105	1781	3613	29
Grp Volume(v), veh/h	41	0	37	188	0	158	0	211	206	356	309	325
Grp Sat Flow(s),veh/h/ln	1781	0	1800	1781	0	1596	1781	1777	1672	1781	1777	1865
Q Serve(g_s), s	2.1	0.0	2.0	7.5	0.0	9.9	0.0	7.6	7.9	20.2	6.4	6.4
Cycle Q Clear(g_c), s	2.1	0.0	2.0	7.5	0.0	9.9	0.0	7.6	7.9	20.2	6.4	6.4
Prop In Lane	1.00		0.22	1.00		0.96	1.00		0.66	1.00		0.02
Lane Grp Cap(c), veh/h	163	0	151	288	0	197	2	808	760	380	1257	1319
V/C Ratio(X)	0.25	0.00	0.24	0.65	0.00	0.80	0.00	0.26	0.27	0.94	0.25	0.25
Avail Cap(c_a), veh/h	233	0	533	288	0	473	277	808	760	380	1257	1319
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	44.1	40.5	0.0	43.9	0.0	17.4	17.4	39.8	5.3	5.3
Incr Delay (d2), s/veh	0.8	0.0	0.8	5.2	0.0	7.5	0.0	0.8	0.9	30.3	0.5	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(95%),veh/ln	1.7	0.0	1.6	8.6	0.0	7.6	0.0	5.6	5.5	17.3	3.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.0	0.0	45.0	45.7	0.0	51.4	0.0	18.1	18.3	70.1	5.8	5.8
LnGrp LOS	D		D	D		D		B	B	E	A	A
Approach Vol, veh/h		78			346			417			990	
Approach Delay, s/veh		43.4			48.3			18.2			28.9	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	51.9	12.0	13.1	0.0	77.9	8.0	17.2
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.0	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	22.2	9.9	9.5	4.0	0.0	8.4	4.1	11.9
Green Ext Time (p_c), s	0.0	2.0	0.0	0.1	0.0	3.6	0.0	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	30.8
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	73	0	23	0	376	23	23	798	0
Future Volume (veh/h)	0	0	0	73	0	23	0	376	23	23	798	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	75	0	24	0	388	24	24	823	0
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	0	159	0	162	2	30	2	2515	155	45	2876	0
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.74	0.74	0.03	0.81	0.00
Sat Flow, veh/h	0	1870	0	1083	24	354	1781	3400	210	1781	3647	0
Grp Volume(v), veh/h	0	0	0	99	0	0	0	202	210	24	823	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1461	0	0	1781	1777	1833	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	5.8	0.0	0.0	0.0	3.0	3.0	1.2	5.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.0	0.0	0.0	0.0	3.0	3.0	1.2	5.2	0.0
Prop In Lane	0.00		0.00	0.76		0.24	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	159	0	195	0	0	2	1315	1356	45	2876	0
V/C Ratio(X)	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.15	0.15	0.54	0.29	0.00
Avail Cap(c_a), veh/h	0	333	0	483	0	0	317	1315	1356	317	2876	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)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.4	0.0	0.0	0.0	3.4	3.4	43.4	2.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.2	0.2	9.7	0.3	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(95%),veh/ln	0.0	0.0	0.0	4.0	0.0	0.0	0.0	1.5	1.5	1.1	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	42.4	0.0	0.0	0.0	3.7	3.7	53.0	2.4	0.0
LnGrp LOS				D				A	A	D	A	
Approach Vol, veh/h		0			99			412			847	
Approach Delay, s/veh		0.0			42.4			3.7			3.8	
Approach LOS					D			A			A	

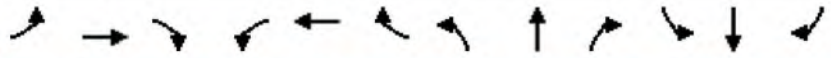
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	71.6		12.2	0.0	77.8		12.2
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	3.2	5.0		0.0	0.0	7.2		8.0
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	5.9		0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	6.6
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	115	16	0	9	21	380	16	1	873	1
Future Volume (veh/h)	7	0	115	16	0	9	21	380	16	1	873	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	0	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	7	0	121	17	0	9	22	400	17	1	919	1
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, %	1	0	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	0	0	0	21	0	11	30	3070	130	2	1624	1376
Arrive On Green	0.00	0.00	0.00	0.02	0.00	0.02	0.02	0.88	0.88	0.00	0.86	0.86
Sat Flow, veh/h		0		1126	0	596	1795	3501	148	1795	1885	1598
Grp Volume(v), veh/h		0.0		26	0	0	22	204	213	1	919	1
Grp Sat Flow(s),veh/h/ln				1722	0	0	1795	1791	1858	1795	1885	1598
Q Serve(g_s), s				2.0	0.0	0.0	1.7	2.2	2.2	0.1	17.9	0.0
Cycle Q Clear(g_c), s				2.0	0.0	0.0	1.7	2.2	2.2	0.1	17.9	0.0
Prop In Lane				0.65		0.35	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h				33	0	0	30	1570	1630	2	1624	1376
V/C Ratio(X)				0.79	0.00	0.00	0.74	0.13	0.13	0.51	0.57	0.00
Avail Cap(c_a), veh/h				348	0	0	363	1570	1630	363	1624	1376
HCM Platoon Ratio				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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				66.4	0.0	0.0	66.6	1.2	1.2	67.9	2.5	1.3
Incr Delay (d2), s/veh				43.7	0.0	0.0	39.3	0.2	0.2	167.8	1.4	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
%ile BackOfQ(95%),veh/ln				2.3	0.0	0.0	1.9	0.7	0.7	0.2	7.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				110.1	0.0	0.0	105.9	1.3	1.3	235.6	4.0	1.3
LnGrp LOS				F			F	A	A	F	A	A
Approach Vol, veh/h					26			439			921	
Approach Delay, s/veh					110.1			6.6			4.2	
Approach LOS					F			A			A	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	4.6	124.3		7.1	6.8	122.1
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0
Max Green Setting (Gmax), s	27.5	35.0		27.5	27.5	35.0
Max Q Clear Time (g_c+I1), s	2.1	4.2		4.0	3.7	19.9
Green Ext Time (p_c), s	0.0	6.2		0.1	0.0	10.8

Intersection Summary	
HCM 7th Control Delay, s/veh	7.0
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	94	0	2	16	0	0	0	11	0	0	0
Future Vol, veh/h	0	94	0	2	16	0	0	0	11	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	119	0	3	20	0	0	0	14	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	119	0	0	144	144	119	144	144	20
Stage 1	-	-	-	-	-	-	119	119	-	25	25	-
Stage 2	-	-	-	-	-	-	25	25	-	119	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1596	-	-	1469	-	-	825	747	933	825	747	1057
Stage 1	-	-	-	-	-	-	885	797	-	992	874	-
Stage 2	-	-	-	-	-	-	992	874	-	885	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1596	-	-	1469	-	-	823	746	933	811	746	1057
Mov Cap-2 Maneuver	-	-	-	-	-	-	823	746	-	811	746	-
Stage 1	-	-	-	-	-	-	885	797	-	991	873	-
Stage 2	-	-	-	-	-	-	991	873	-	872	797	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.83	8.92	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	933	1596	-	-	1469	-	-	-
HCM Lane V/C Ratio	0.015	-	-	-	0.002	-	-	-
HCM Ctrl Dly (s/v)	8.9	0	-	-	7.5	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	35	0	0	60
Future Vol, veh/h	0	0	35	0	0	60
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	58	0	0	100

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	158	29	0	0	58	0
Stage 1	58	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	825	1039	-	-	1545	-
Stage 1	958	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	825	1039	-	-	1545	-
Mov Cap-2 Maneuver	825	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	923	-	-	-	-	-

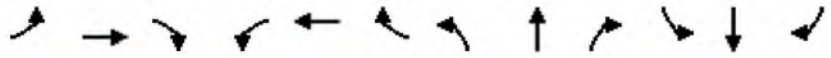
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1545	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	1806	30	88	1078	125	18	78	136	343	164	497
Future Volume (veh/h)	374	1806	30	88	1078	125	18	78	136	343	164	497
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	382	1843	31	90	1100	128	18	80	139	350	167	507
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	419	3142	53	122	2521	646	439	498	444	364	918	409
Arrive On Green	0.12	0.48	0.48	0.04	0.39	0.39	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3456	6566	110	3456	6434	1648	3456	1777	1585	3456	3554	1585
Grp Volume(v), veh/h	382	1355	519	90	1100	128	18	80	139	350	167	507
Grp Sat Flow(s),veh/h/ln	1728	1609	1850	1728	1609	1648	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	25.1	46.8	46.8	5.9	28.8	11.8	1.1	7.8	15.9	23.2	8.4	59.4
Cycle Q Clear(g_c), s	25.1	46.8	46.8	5.9	28.8	11.8	1.1	7.8	15.9	23.2	8.4	59.4
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	419	2309	886	122	2521	646	439	498	444	364	918	409
V/C Ratio(X)	0.91	0.59	0.59	0.74	0.44	0.20	0.04	0.16	0.31	0.96	0.18	1.24
Avail Cap(c_a), veh/h	508	2309	886	361	2521	646	439	498	444	364	918	409
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)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	99.9	43.5	43.5	109.9	51.3	46.1	88.1	62.4	65.3	102.4	66.4	85.3
Incr Delay (d2), s/veh	15.2	0.8	2.2	8.4	0.6	0.7	0.2	0.7	1.8	38.6	0.4	126.7
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(95%),veh/ln	17.2	25.1	28.8	5.1	17.4	8.7	0.9	6.6	11.0	18.2	7.0	55.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	115.0	44.3	45.7	118.2	51.9	46.8	88.3	63.1	67.2	141.1	66.8	212.0
LnGrp LOS	F	D	D	F	D	D	F	E	E	F	E	F
Approach Vol, veh/h		2256			1318			237			1024	
Approach Delay, s/veh		56.6			55.9			67.4			164.1	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.1	95.9	35.0	65.0	14.1	115.9	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	27.1	30.8	3.1	61.4	7.9	48.8	25.2	17.9
Green Ext Time (p_c), s	0.8	9.7	0.0	0.0	0.2	18.4	0.0	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	79.7
HCM 7th LOS	E



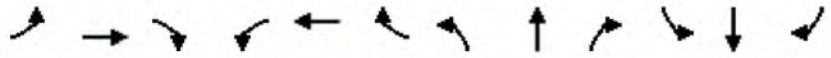
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	1610	237	129	972	371	133	287	73	584	1174	55
Future Volume (veh/h)	198	1610	237	129	972	371	133	287	73	584	1174	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	202	1643	0	132	992	379	136	293	0	596	1198	0
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	234	3564		160	3424	843	164	665		629	1349	
Arrive On Green	0.07	0.55	0.00	0.05	0.53	0.53	0.05	0.13	0.00	0.18	0.26	0.00
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	202	1643	0	132	992	379	136	293	0	596	1198	0
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	15.6	41.3	0.0	10.2	23.0	39.7	10.5	14.3	0.0	46.0	60.9	0.0
Cycle Q Clear(g_c), s	15.6	41.3	0.0	10.2	23.0	39.7	10.5	14.3	0.0	46.0	60.9	0.0
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	234	3564		160	3424	843	164	665		629	1349	
V/C Ratio(X)	0.86	0.46		0.83	0.29	0.45	0.83	0.44		0.95	0.89	
Avail Cap(c_a), veh/h	695	3564		312	3424	843	298	1027		685	1594	
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)	0.59	0.59	0.00	0.83	0.83	0.83	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	124.6	36.1	0.0	127.7	34.9	38.8	127.5	108.4	0.0	109.1	95.5	0.0
Incr Delay (d2), s/veh	5.6	0.3	0.0	8.6	0.2	1.4	10.2	0.5	0.0	21.4	5.8	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(95%),veh/ln	10.7	21.7	0.0	8.1	13.8	22.2	8.7	10.6	0.0	30.6	36.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	130.2	36.3	0.0	136.3	35.1	40.3	137.7	108.8	0.0	130.5	101.3	0.0
LnGrp LOS	F	D		F	D	D	F	F		F	F	
Approach Vol, veh/h		1845			1503			429			1794	
Approach Delay, s/veh		46.6			45.3			118.0			111.0	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	149.5	55.7	40.9	18.1	155.4	19.5	77.0
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	54.3	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	17.6	41.7	48.0	16.3	12.2	43.3	12.5	62.9
Green Ext Time (p_c), s	0.7	9.8	1.2	2.0	0.3	18.1	0.3	8.4

Intersection Summary	
HCM 7th Control Delay, s/veh	72.5
HCM 7th LOS	E

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	1954	1094	215	912	43	563	54	195	46	128	142
Future Volume (veh/h)	99	1954	1094	215	912	43	563	54	195	46	128	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	101	1994	1116	219	931	0	497	163	0	47	131	0
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	125	2649	822	246	2985		521	288		209	163	
Arrive On Green	0.07	0.52	0.52	0.14	0.58	0.00	0.10	0.15	0.00	0.04	0.09	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	101	1994	1116	219	931	0	497	163	0	47	131	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.8	43.2	72.6	16.9	13.0	0.0	14.6	11.3	0.0	3.3	9.6	0.0
Cycle Q Clear(g_c), s	7.8	43.2	72.6	16.9	13.0	0.0	14.6	11.3	0.0	3.3	9.6	0.0
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	2649	822	246	2985		521	288		209	163	
V/C Ratio(X)	0.81	0.75	1.36	0.89	0.31		0.95	0.57		0.22	0.80	
Avail Cap(c_a), veh/h	383	2649	822	387	2985		521	395		328	397	
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)	0.36	0.36	0.36	0.95	0.95	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.1	26.6	33.7	59.3	14.8	0.0	53.8	54.9	0.0	55.0	62.7	0.0
Incr Delay (d2), s/veh	4.5	0.7	163.7	14.0	0.3	0.0	28.1	1.7	0.0	0.5	8.8	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(95%),veh/ln	5.5	20.7	90.7	13.1	8.4	0.0	6.7	9.3	0.0	2.8	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	68.6	27.3	197.4	73.3	15.0	0.0	81.8	56.6	0.0	55.5	71.5	0.0
LnGrp LOS	E	C	F	E	B		F	E		E	E	
Approach Vol, veh/h		3211			1150			660			178	
Approach Delay, s/veh		87.7			26.1			75.6			67.3	
Approach LOS		F			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	87.6	10.7	27.0	23.9	78.4	20.0	17.6
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.1	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	9.8	15.0	5.3	13.3	18.9	74.6	16.6	11.6
Green Ext Time (p_c), s	0.2	6.7	0.0	0.7	0.4	0.0	0.0	0.6

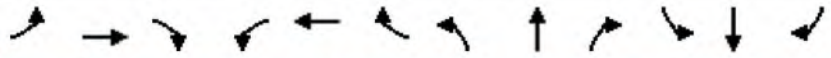
Intersection Summary	
HCM 7th Control Delay, s/veh	71.9
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	2396	182	162	1273	137	290	256	326	245	342	200
Future Volume (veh/h)	219	2396	182	162	1273	137	290	256	326	245	342	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	2420	0	164	1286	0	293	259	0	247	345	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	265	2884		205	2806		335	592		292	552	
Arrive On Green	0.08	0.56	0.00	0.06	0.55	0.00	0.10	0.17	0.00	0.08	0.16	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	221	2420	0	164	1286	0	293	259	0	247	345	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	12.0	74.5	0.0	8.9	28.8	0.0	15.9	12.4	0.0	13.4	17.3	0.0
Cycle Q Clear(g_c), s	12.0	74.5	0.0	8.9	28.8	0.0	15.9	12.4	0.0	13.4	17.3	0.0
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	265	2884		205	2806		335	592		292	552	
V/C Ratio(X)	0.83	0.84		0.80	0.46		0.87	0.44		0.85	0.63	
Avail Cap(c_a), veh/h	535	2884		437	2806		437	592		524	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	0.00	0.89	0.89	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	86.5	34.2	0.0	88.2	25.8	0.0	84.7	71.2	0.0	85.8	75.1	0.0
Incr Delay (d2), s/veh	6.7	3.1	0.0	6.3	0.5	0.0	14.5	2.3	0.0	6.7	5.3	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(95%),veh/ln	9.5	39.7	0.0	7.3	17.0	0.0	12.4	9.9	0.0	10.4	13.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	93.2	37.3	0.0	94.5	26.3	0.0	99.1	73.5	0.0	92.4	80.4	0.0
LnGrp LOS	F	D		F	C		F	E		F	F	
Approach Vol, veh/h		2641			1450			552			592	
Approach Delay, s/veh		42.0			34.0			87.1			85.4	
Approach LOS		D			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.2	110.2	22.3	37.4	17.3	113.1	24.4	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	24.6	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	14.0	30.8	15.4	14.4	10.9	76.5	17.9	19.3
Green Ext Time (p_c), s	0.6	11.5	0.7	1.0	0.4	11.0	0.5	1.5

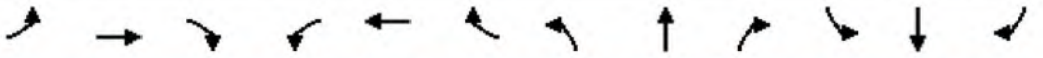
Intersection Summary	
HCM 7th Control Delay, s/veh	49.4
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

D2 – No-Build Conditions 2026



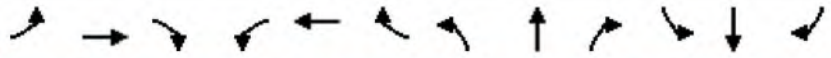
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	800	25	327	1614	108	29	277	313	131	365	459
Future Volume (veh/h)	155	800	25	327	1614	108	29	277	313	131	365	459
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	870	0	355	1754	0	32	301	340	142	397	499
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	200	1640		379	2134		49	779	347	168	1016	453
Arrive On Green	0.11	0.32	0.00	0.21	0.42	0.00	0.03	0.22	0.22	0.09	0.29	0.29
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	168	870	0	355	1754	0	32	301	340	142	397	499
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	11.1	16.7	0.0	23.5	36.5	0.0	2.1	8.7	25.6	9.4	10.8	34.3
Cycle Q Clear(g_c), s	11.1	16.7	0.0	23.5	36.5	0.0	2.1	8.7	25.6	9.4	10.8	34.3
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	200	1640		379	2134		49	779	347	168	1016	453
V/C Ratio(X)	0.84	0.53		0.94	0.82		0.66	0.39	0.98	0.85	0.39	1.10
Avail Cap(c_a), veh/h	465	1640		383	2134		197	779	347	168	1016	453
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	33.3	0.0	46.4	31.0	0.0	57.8	40.0	46.6	53.5	34.4	42.8
Incr Delay (d2), s/veh	9.2	1.2	0.0	30.1	3.7	0.0	14.0	0.3	42.4	31.0	0.2	72.5
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(95%),veh/ln	9.2	11.4	0.0	19.3	21.4	0.0	2.1	6.8	20.1	9.5	8.2	31.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.4	34.5	0.0	76.5	34.7	0.0	71.9	40.3	89.0	84.5	34.7	115.3
LnGrp LOS	E	C		E	C		E	D	F	F	C	F
Approach Vol, veh/h		1038			2109			673			1038	
Approach Delay, s/veh		38.9			41.7			66.4			80.3	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.7	43.3	8.0	39.0	18.1	54.9	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	25.5	18.7	4.1	36.3	13.1	38.5	11.4	27.6
Green Ext Time (p_c), s	0.0	5.6	0.0	0.0	0.4	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	52.8
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



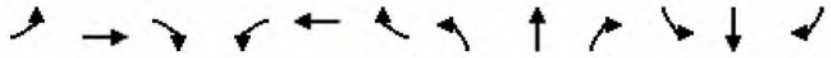
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	626	352	80	1603	212	344	207	54	137	214	330
Future Volume (veh/h)	183	626	352	80	1603	212	344	207	54	137	214	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	195	666	0	85	1705	0	366	220	57	146	228	0
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	268	1959		117	1897		721	742	331	661	680	
Arrive On Green	0.08	0.38	0.00	0.07	0.37	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	195	666	0	85	1705	0	366	220	57	146	228	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	6.3	10.5	0.0	5.3	35.9	0.0	10.7	6.0	3.4	4.1	6.3	0.0
Cycle Q Clear(g_c), s	6.3	10.5	0.0	5.3	35.9	0.0	10.7	6.0	3.4	4.1	6.3	0.0
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	268	1959		117	1897		721	742	331	661	680	
V/C Ratio(X)	0.73	0.34		0.73	0.90		0.51	0.30	0.17	0.22	0.34	
Avail Cap(c_a), veh/h	782	1959		325	1897		721	742	331	661	680	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.4	24.9	0.0	52.3	33.8	0.0	39.9	38.0	37.0	38.9	39.8	0.0
Incr Delay (d2), s/veh	3.8	0.5	0.0	8.3	7.3	0.0	2.5	1.0	1.1	0.8	1.3	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(95%),veh/ln	5.1	7.6	0.0	4.7	21.9	0.0	8.3	4.8	2.5	3.2	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.2	25.4	0.0	60.6	41.0	0.0	42.5	39.1	38.1	39.7	41.2	0.0
LnGrp LOS	E	C		E	D		D	D	D	D	D	
Approach Vol, veh/h		861			1790			643			374	
Approach Delay, s/veh		32.1			42.0			40.9			40.6	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	48.3	28.0	26.0	13.0	47.0	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	20.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	7.3	12.5	12.7	8.3	8.3	37.9	6.1	8.0
Green Ext Time (p_c), s	0.1	4.0	1.0	1.0	0.5	0.0	0.4	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	39.3
HCM 7th LOS	D

Notes

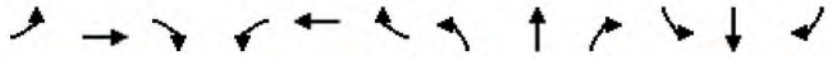
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	4	3	238	32	311	9	277	105	177	244	40
Future Volume (veh/h)	8	4	3	238	32	311	9	277	105	177	244	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	4	3	253	34	331	10	295	112	188	260	43
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	119	187	140	458	37	364	21	1083	402	222	1652	270
Arrive On Green	0.01	0.19	0.19	0.07	0.25	0.25	0.01	0.43	0.43	0.13	0.55	0.55
Sat Flow, veh/h	1753	977	732	1753	147	1435	1753	2495	927	1753	3010	491
Grp Volume(v), veh/h	9	0	7	253	0	365	10	205	202	188	150	153
Grp Sat Flow(s),veh/h/ln	1753	0	1709	1753	0	1582	1753	1749	1674	1753	1749	1752
Q Serve(g_s), s	0.4	0.0	0.3	7.5	0.0	23.1	0.6	7.7	8.0	10.8	4.3	4.5
Cycle Q Clear(g_c), s	0.4	0.0	0.3	7.5	0.0	23.1	0.6	7.7	8.0	10.8	4.3	4.5
Prop In Lane	1.00		0.43	1.00		0.91	1.00		0.55	1.00		0.28
Lane Grp Cap(c), veh/h	119	0	327	458	0	401	21	759	727	222	960	962
V/C Ratio(X)	0.08	0.00	0.02	0.55	0.00	0.91	0.47	0.27	0.28	0.85	0.16	0.16
Avail Cap(c_a), veh/h	227	0	506	458	0	469	272	759	727	374	960	962
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	0.0	33.8	31.9	0.0	37.3	50.6	18.7	18.8	44.0	11.5	11.5
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.4	0.0	20.0	15.4	0.9	1.0	8.6	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	0.3	3.4	0.0	16.2	0.6	5.7	5.7	8.8	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.6	0.0	33.8	33.4	0.0	57.3	66.0	19.6	19.7	52.6	11.8	11.8
LnGrp LOS	C		C	C		E	E	B	B	D	B	B
Approach Vol, veh/h		16			618			417			491	
Approach Delay, s/veh		34.2			47.5			20.7			27.4	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	49.7	12.0	24.2	5.2	61.5	5.6	30.6
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.0	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	12.3	10.0	9.5	2.3	2.6	6.5	2.4	25.1
Green Ext Time (p_c), s	0.3	1.9	0.0	0.0	0.0	1.6	0.0	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	33.7
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	30	0	15	0	419	63	33	434	0
Future Volume (veh/h)	0	0	0	30	0	15	0	419	63	33	434	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	0	0	0	32	0	16	0	446	67	35	462	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	73	0	105	0	19	2	2334	349	56	2940	0
Arrive On Green	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.78	0.78	0.03	0.85	0.00
Sat Flow, veh/h	0	1811	0	948	0	474	1725	3002	448	1725	3532	0
Grp Volume(v), veh/h	0	0	0	48	0	0	0	254	259	35	462	0
Grp Sat Flow(s),veh/h/ln	0	1811	0	1423	0	0	1725	1721	1730	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.5	3.5	1.8	2.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.5	3.5	1.8	2.0	0.0
Prop In Lane	0.00		0.00	0.67		0.33	1.00		0.26	1.00		0.00
Lane Grp Cap(c), veh/h	0	73	0	124	0	0	2	1338	1345	56	2940	0
V/C Ratio(X)	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.19	0.19	0.63	0.16	0.00
Avail Cap(c_a), veh/h	0	322	0	470	0	0	307	1338	1345	307	2940	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)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	42.9	0.0	0.0	0.0	2.6	2.6	43.0	1.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.3	0.3	11.0	0.1	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(95%),veh/ln	0.0	0.0	0.0	2.0	0.0	0.0	0.0	1.4	1.4	1.6	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	44.9	0.0	0.0	0.0	2.9	2.9	54.0	1.2	0.0
LnGrp LOS				D				A	A	D	A	
Approach Vol, veh/h		0			48			513			497	
Approach Delay, s/veh		0.0			44.9			2.9			4.9	
Approach LOS					D			A			A	

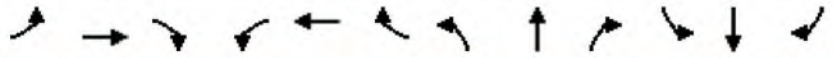
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	75.0		8.1	0.0	81.9		8.1
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	3.8	5.5		0.0	0.0	4.0		5.0
Green Ext Time (p_c), s	0.0	3.0		0.0	0.0	3.1		0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	5.8
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	15	8	0	2	156	484	12	4	462	4
Future Volume (veh/h)	5	0	15	8	0	2	156	484	12	4	462	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	0	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	6	0	18	10	0	2	188	583	14	5	557	5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	0	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	0	0	15	0	3	217	3027	73	9	1377	1167
Arrive On Green	0.00	0.00	0.00	0.01	0.00	0.01	0.13	0.88	0.88	0.01	0.76	0.76
Sat Flow, veh/h		0		1408	0	282	1725	3434	82	1725	1811	1535
Grp Volume(v), veh/h		0.0		12	0	0	188	292	305	5	557	5
Grp Sat Flow(s),veh/h/ln				1690	0	0	1725	1721	1796	1725	1811	1535
Q Serve(g_s), s				1.0	0.0	0.0	14.5	3.3	3.3	0.4	14.5	0.1
Cycle Q Clear(g_c), s				1.0	0.0	0.0	14.5	3.3	3.3	0.4	14.5	0.1
Prop In Lane				0.83		0.17	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h				18	0	0	217	1516	1583	9	1377	1167
V/C Ratio(X)				0.66	0.00	0.00	0.87	0.19	0.19	0.57	0.40	0.00
Avail Cap(c_a), veh/h				342	0	0	349	1516	1583	349	1377	1167
HCM Platoon Ratio				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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				67.0	0.0	0.0	58.3	1.2	1.2	67.5	5.6	3.9
Incr Delay (d2), s/veh				46.1	0.0	0.0	15.5	0.3	0.3	63.8	0.9	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
%ile BackOfQ(95%),veh/ln				1.2	0.0	0.0	11.6	0.9	1.0	0.6	8.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				113.1	0.0	0.0	73.8	1.4	1.4	131.4	6.5	3.9
LnGrp LOS				F			E	A	A	F	A	A
Approach Vol, veh/h					12			785			567	
Approach Delay, s/veh					113.1			18.8			7.6	
Approach LOS					F			B			A	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	5.2	124.9		6.0	21.6	108.4
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0
Max Green Setting (Gmax), s	27.5	35.0		27.5	27.5	35.0
Max Q Clear Time (g_c+I1), s	2.4	5.3		3.0	16.5	16.5
Green Ext Time (p_c), s	0.0	9.2		0.0	0.6	7.4

Intersection Summary		
HCM 7th Control Delay, s/veh		15.0
HCM 7th LOS		B

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	12	1	12	106	0	0	0	2	0	0	0
Future Vol, veh/h	0	12	1	12	106	0	0	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	14	1	14	128	0	0	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	128	0	0	16	0	0	172	172	15	171	172	128
Stage 1	-	-	-	-	-	-	15	15	-	157	157	-
Stage 2	-	-	-	-	-	-	157	157	-	14	16	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.17	6.57	6.27	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.563	4.063	3.363	3.563	4.063	3.363
Pot Cap-1 Maneuver	1428	-	-	1570	-	-	780	712	1050	781	712	909
Stage 1	-	-	-	-	-	-	992	873	-	834	759	-
Stage 2	-	-	-	-	-	-	834	759	-	993	872	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1428	-	-	1570	-	-	773	705	1050	772	705	909
Mov Cap-2 Maneuver	-	-	-	-	-	-	773	705	-	772	705	-
Stage 1	-	-	-	-	-	-	992	873	-	826	751	-
Stage 2	-	-	-	-	-	-	826	751	-	990	872	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.74	8.44	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1050	1428	-	-	1570	-	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.009	-	-	-
HCM Ctrl Dly (s/v)	8.4	0	-	-	7.3	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	74	0	0	34
Future Vol, veh/h	0	0	74	0	0	34
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	0	0	93	0	0	43

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	135	46	0	0	93	0
Stage 1	93	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.69	6.99	-	-	4.19	-
Critical Hdwy Stg 1	5.89	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.557	3.357	-	-	2.257	-
Pot Cap-1 Maneuver	841	1002	-	-	1474	-
Stage 1	910	-	-	-	-	-
Stage 2	969	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	841	1002	-	-	1474	-
Mov Cap-2 Maneuver	841	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	969	-	-	-	-	-

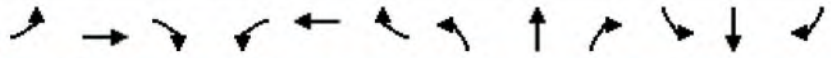
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1474	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	802	8	95	2610	313	11	71	137	119	59	435
Future Volume (veh/h)	277	802	8	95	2610	313	11	71	137	119	59	435
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1914	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	292	844	8	100	2747	329	12	75	144	125	62	458
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	329	3097	29	132	2635	675	432	490	437	358	903	403
Arrive On Green	0.10	0.48	0.48	0.04	0.42	0.42	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3401	6517	62	3401	6332	1622	3401	1749	1560	3401	3497	1560
Grp Volume(v), veh/h	292	615	237	100	2747	329	12	75	144	125	62	458
Grp Sat Flow(s),veh/h/ln	1700	1583	1830	1700	1583	1622	1700	1749	1560	1700	1749	1560
Q Serve(g_s), s	19.5	17.9	18.0	6.7	95.7	34.2	0.7	7.4	16.8	7.9	3.1	59.4
Cycle Q Clear(g_c), s	19.5	17.9	18.0	6.7	95.7	34.2	0.7	7.4	16.8	7.9	3.1	59.4
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	2257	869	132	2635	675	432	490	437	358	903	403
V/C Ratio(X)	0.89	0.27	0.27	0.76	1.04	0.49	0.03	0.15	0.33	0.35	0.07	1.14
Avail Cap(c_a), veh/h	500	2257	869	355	2635	675	432	490	437	358	903	403
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)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	102.6	36.4	36.4	109.5	67.1	49.2	88.0	62.3	65.7	95.6	64.4	85.3
Incr Delay (d2), s/veh	11.0	0.3	0.7	8.6	29.8	2.5	0.1	0.7	2.0	2.7	0.1	87.7
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(95%),veh/ln	13.9	11.3	12.8	5.6	56.1	20.7	0.6	6.2	11.4	6.5	2.5	46.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	113.6	36.7	37.1	118.1	96.9	51.7	88.1	63.0	67.7	98.3	64.6	173.0
LnGrp LOS	F	D	D	F	F	D	F	E	E	F	E	F
Approach Vol, veh/h		1144			3176			231			645	
Approach Delay, s/veh		56.4			92.9			67.2			148.1	
Approach LOS		E			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.5	101.5	35.0	65.0	14.9	115.1	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	21.5	97.7	2.7	61.4	8.7	20.0	9.9	18.8
Green Ext Time (p_c), s	0.8	0.0	0.0	0.0	0.2	6.0	0.3	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	90.6
HCM 7th LOS	F



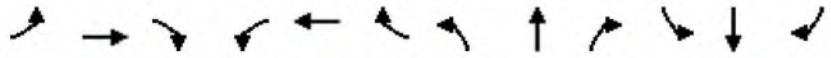
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	706	59	51	1863	1137	152	701	64	422	217	30
Future Volume (veh/h)	158	706	59	51	1863	1137	152	701	64	422	217	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	165	735	0	53	1941	1184	158	730	0	440	226	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	195	3705		78	3483	858	186	826		477	1253	
Arrive On Green	0.06	0.59	0.00	0.02	0.55	0.55	0.05	0.16	0.00	0.14	0.25	0.00
Sat Flow, veh/h	3401	6332	1560	3401	6332	1560	3401	5025	1560	3401	5025	1560
Grp Volume(v), veh/h	165	735	0	53	1941	1184	158	730	0	440	226	0
Grp Sat Flow(s),veh/h/ln	1700	1583	1560	1700	1583	1560	1700	1675	1560	1700	1675	1560
Q Serve(g_s), s	13.0	14.7	0.0	4.2	53.7	148.5	12.4	38.3	0.0	34.5	9.5	0.0
Cycle Q Clear(g_c), s	13.0	14.7	0.0	4.2	53.7	148.5	12.4	38.3	0.0	34.5	9.5	0.0
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	195	3705		78	3483	858	186	826		477	1253	
V/C Ratio(X)	0.84	0.20		0.68	0.56	1.38	0.85	0.88		0.92	0.18	
Avail Cap(c_a), veh/h	684	3705		307	3483	858	293	1011		674	1569	
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)	0.97	0.97	0.00	0.09	0.09	0.09	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	126.0	26.3	0.0	131.0	39.4	60.7	126.6	110.3	0.0	114.6	79.6	0.0
Incr Delay (d2), s/veh	9.2	0.1	0.0	1.0	0.1	171.6	12.9	8.1	0.0	14.3	0.1	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(95%),veh/ln	10.1	9.6	0.0	2.6	23.4	133.0	9.9	24.4	0.0	23.0	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	135.3	26.4	0.0	131.9	39.5	232.4	139.5	118.4	0.0	128.9	79.7	0.0
LnGrp LOS	F	C		F	D	F	F	F		F	E	
Approach Vol, veh/h		900			3178			888			666	
Approach Delay, s/veh		46.4			112.9			122.2			112.2	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	154.3	44.4	50.1	11.8	163.8	21.4	73.0
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	5.3	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	15.0	150.5	36.5	40.3	6.2	16.7	14.4	11.5
Green Ext Time (p_c), s	0.5	0.0	1.4	4.0	0.1	5.4	0.3	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	103.6
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	703	615	79	1779	112	888	68	109	49	71	297
Future Volume (veh/h)	50	703	615	79	1779	112	888	68	109	49	71	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	52	725	634	81	1834	0	965	0	0	51	73	0
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	67	3170	984	102	3259		766	0		201	101	
Arrive On Green	0.04	0.63	0.63	0.06	0.65	0.00	0.10	0.00	0.00	0.04	0.06	0.00
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	5259	0	1560	1753	1841	1560
Grp Volume(v), veh/h	52	725	634	81	1834	0	965	0	0	51	73	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	0	1560	1753	1841	1560
Q Serve(g_s), s	4.1	8.7	35.4	6.4	28.3	0.0	14.6	0.0	0.0	3.8	5.5	0.0
Cycle Q Clear(g_c), s	4.1	8.7	35.4	6.4	28.3	0.0	14.6	0.0	0.0	3.8	5.5	0.0
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	67	3170	984	102	3259		766	0		201	101	
V/C Ratio(X)	0.77	0.23	0.64	0.79	0.56		1.26	0.00		0.25	0.72	
Avail Cap(c_a), veh/h	377	3170	984	381	3259		766	0		312	390	
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)	0.89	0.89	0.89	0.77	0.77	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.7	11.2	16.1	65.1	13.6	0.0	57.7	0.0	0.0	58.8	65.1	0.0
Incr Delay (d2), s/veh	15.1	0.1	2.9	10.0	0.5	0.0	127.6	0.0	0.0	0.7	9.2	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(95%),veh/ln	3.8	5.6	18.9	5.6	14.4	0.0	18.0	0.0	0.0	3.1	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.8	11.3	19.0	75.0	14.2	0.0	185.3	0.0	0.0	59.5	74.3	0.0
LnGrp LOS	F	B	B	E	B		F			E	E	
Approach Vol, veh/h		1411			1915			965			124	
Approach Delay, s/veh		17.3			16.7			185.3			68.2	
Approach LOS		B			B			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	96.6	11.1	22.0	12.8	94.1	20.0	13.1
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.1	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	16.1	30.3	5.8	0.0	8.4	37.4	16.6	7.5
Green Ext Time (p_c), s	0.1	9.8	0.0	0.0	0.2	3.8	0.0	0.3

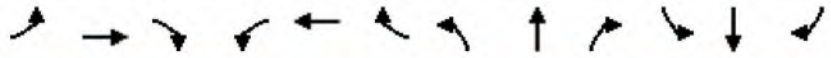
Intersection Summary	
HCM 7th Control Delay, s/veh	55.2
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	1050	293	174	2643	100	515	177	177	152	206	469
Future Volume (veh/h)	159	1050	293	174	2643	100	515	177	177	152	206	469
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	169	1117	0	185	2812	0	548	188	0	162	219	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	211	2678		226	2711		433	779		204	547	
Arrive On Green	0.06	0.53	0.00	0.07	0.54	0.00	0.13	0.22	0.00	0.06	0.16	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	169	1117	0	185	2812	0	548	188	0	162	219	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	9.2	25.3	0.0	10.1	101.7	0.0	24.0	8.3	0.0	8.9	10.6	0.0
Cycle Q Clear(g_c), s	9.2	25.3	0.0	10.1	101.7	0.0	24.0	8.3	0.0	8.9	10.6	0.0
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	211	2678		226	2711		433	779		204	547	
V/C Ratio(X)	0.80	0.42		0.82	1.04		1.27	0.24		0.79	0.40	
Avail Cap(c_a), veh/h	530	2678		433	2711		433	779		520	547	
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	0.63	0.63	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	88.0	27.1	0.0	87.6	44.2	0.0	83.0	60.9	0.0	88.2	72.3	0.0
Incr Delay (d2), s/veh	6.9	0.5	0.0	4.6	24.6	0.0	136.8	0.7	0.0	6.8	2.2	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(95%),veh/ln	7.7	15.6	0.0	7.4	57.7	0.0	28.7	6.9	0.0	7.5	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	94.9	27.5	0.0	92.2	68.8	0.0	219.8	61.6	0.0	95.0	74.5	0.0
LnGrp LOS	F	C		F	F		F	E		F	E	
Approach Vol, veh/h		1286			2997			736			381	
Approach Delay, s/veh		36.4			70.2			179.4			83.2	
Approach LOS		D			E			F			F	

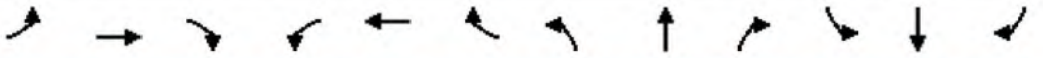
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	107.5	17.5	47.7	18.5	106.3	30.0	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	29.4	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	11.2	103.7	10.9	10.3	12.1	27.3	26.0	12.6
Green Ext Time (p_c), s	0.5	0.0	0.4	0.8	0.4	9.4	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	78.0
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



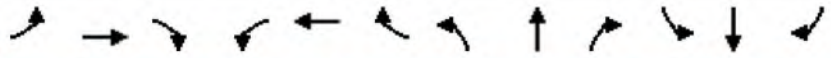
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1607	23	253	933	140	49	366	706	186	255	217
Future Volume (veh/h)	179	1607	23	253	933	140	49	366	706	186	255	217
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	183	1640	0	258	952	0	50	373	720	190	260	221
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	215	1921		289	2111		65	785	350	169	993	443
Arrive On Green	0.12	0.37	0.00	0.16	0.41	0.00	0.04	0.22	0.22	0.09	0.28	0.28
Sat Flow, veh/h	1795	5147	1598	1795	5147	1598	1795	3582	1598	1795	3582	1598
Grp Volume(v), veh/h	183	1640	0	258	952	0	50	373	720	190	260	221
Grp Sat Flow(s),veh/h/ln	1795	1716	1598	1795	1716	1598	1795	1791	1598	1795	1791	1598
Q Serve(g_s), s	12.0	35.2	0.0	16.9	16.1	0.0	3.3	10.9	26.3	11.3	6.8	13.9
Cycle Q Clear(g_c), s	12.0	35.2	0.0	16.9	16.1	0.0	3.3	10.9	26.3	11.3	6.8	13.9
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	215	1921		289	2111		65	785	350	169	993	443
V/C Ratio(X)	0.85	0.85		0.89	0.45		0.77	0.48	2.06	1.12	0.26	0.50
Avail Cap(c_a), veh/h	468	1921		386	2111		199	785	350	169	993	443
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	34.6	0.0	49.3	25.6	0.0	57.3	40.8	46.8	54.3	33.8	36.4
Incr Delay (d2), s/veh	9.0	5.1	0.0	18.2	0.7	0.0	17.1	0.4	485.1	106.3	0.1	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(95%),veh/ln	9.9	21.6	0.0	13.8	10.7	0.0	3.2	8.4	90.6	15.9	5.3	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.8	39.7	0.0	67.5	26.3	0.0	74.5	41.3	532.0	160.7	33.9	37.3
LnGrp LOS	E	D		E	C		E	D	F	F	C	D
Approach Vol, veh/h		1823			1210			1143			671	
Approach Delay, s/veh		41.8			35.1			351.8			70.9	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	49.5	9.0	38.0	19.1	53.9	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	18.9	37.2	5.3	15.9	14.0	18.1	13.3	28.3
Green Ext Time (p_c), s	0.4	0.0	0.0	1.7	0.4	4.9	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	117.3
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



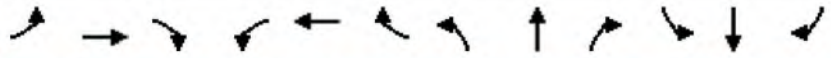
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	396	1431	644	124	951	196	317	266	113	202	319	250
Future Volume (veh/h)	396	1431	644	124	951	196	317	266	113	202	319	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	417	1506	0	131	1001	0	334	280	119	213	336	0
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	500	1843		163	1572		727	748	334	666	685	
Arrive On Green	0.14	0.36	0.00	0.09	0.31	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3483	5147	1598	1795	5147	1598	3483	3582	1598	3483	3582	1598
Grp Volume(v), veh/h	417	1506	0	131	1001	0	334	280	119	213	336	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1795	1716	1598	1742	1791	1598	1742	1791	1598
Q Serve(g_s), s	13.3	30.3	0.0	8.2	19.1	0.0	9.6	7.6	7.3	6.0	9.5	0.0
Cycle Q Clear(g_c), s	13.3	30.3	0.0	8.2	19.1	0.0	9.6	7.6	7.3	6.0	9.5	0.0
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	500	1843		163	1572		727	748	334	666	685	
V/C Ratio(X)	0.83	0.82		0.80	0.64		0.46	0.37	0.36	0.32	0.49	
Avail Cap(c_a), veh/h	788	1843		328	1572		727	748	334	666	685	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.5	33.2	0.0	50.8	34.1	0.0	39.5	38.7	38.6	39.7	41.1	0.0
Incr Delay (d2), s/veh	4.4	4.2	0.0	8.8	2.0	0.0	2.1	1.4	3.0	1.3	2.5	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(95%),veh/ln	9.9	18.6	0.0	7.2	12.7	0.0	7.6	6.2	5.5	4.8	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.9	37.3	0.0	59.6	36.1	0.0	41.6	40.1	41.5	41.0	43.6	0.0
LnGrp LOS	D	D		E	D		D	D	D	D	D	
Approach Vol, veh/h		1923			1132			733			549	
Approach Delay, s/veh		40.5			38.8			41.0			42.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	45.4	28.0	26.0	20.6	39.4	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	10.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	10.2	32.3	11.6	11.5	15.3	21.1	8.0	9.6
Green Ext Time (p_c), s	0.2	0.0	0.9	1.4	1.1	2.4	0.6	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	40.4
HCM 7th LOS	D

Notes

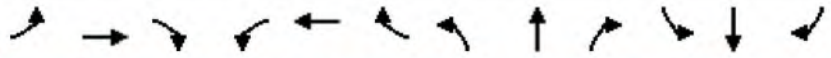
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	29	8	193	7	155	0	289	140	367	647	5
Future Volume (veh/h)	42	29	8	193	7	155	0	289	140	367	647	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	43	30	8	197	7	158	0	295	143	374	660	5
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	164	127	34	295	9	195	2	1052	498	380	2537	19
Arrive On Green	0.03	0.09	0.09	0.07	0.13	0.13	0.00	0.45	0.45	0.21	0.70	0.70
Sat Flow, veh/h	1781	1423	379	1781	68	1528	1781	2341	1107	1781	3615	27
Grp Volume(v), veh/h	43	0	38	197	0	165	0	222	216	374	324	341
Grp Sat Flow(s),veh/h/ln	1781	0	1802	1781	0	1595	1781	1777	1671	1781	1777	1865
Q Serve(g_s), s	2.2	0.0	2.0	7.5	0.0	10.4	0.0	8.1	8.4	21.5	6.9	6.9
Cycle Q Clear(g_c), s	2.2	0.0	2.0	7.5	0.0	10.4	0.0	8.1	8.4	21.5	6.9	6.9
Prop In Lane	1.00		0.21	1.00		0.96	1.00		0.66	1.00		0.01
Lane Grp Cap(c), veh/h	164	0	161	295	0	204	2	799	751	380	1247	1309
V/C Ratio(X)	0.26	0.00	0.24	0.67	0.00	0.81	0.00	0.28	0.29	0.98	0.26	0.26
Avail Cap(c_a), veh/h	233	0	534	295	0	472	277	799	751	380	1247	1309
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	0.0	43.6	40.4	0.0	43.7	0.0	17.8	17.9	40.3	5.6	5.6
Incr Delay (d2), s/veh	0.8	0.0	0.7	5.7	0.0	7.5	0.0	0.9	1.0	41.5	0.5	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(95%),veh/ln	1.8	0.0	1.6	2.7	0.0	7.8	0.0	6.0	5.9	19.5	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.6	0.0	44.4	46.1	0.0	51.2	0.0	18.7	18.9	81.8	6.1	6.1
LnGrp LOS	D		D	D		D		B	B	F	A	A
Approach Vol, veh/h		81			362			438			1039	
Approach Delay, s/veh		42.9			48.4			18.8			33.3	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	51.3	12.0	13.7	0.0	77.3	8.0	17.7
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.0	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	23.5	10.4	9.5	4.0	0.0	8.9	4.2	12.4
Green Ext Time (p_c), s	0.0	2.1	0.0	0.1	0.0	3.8	0.0	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	33.3
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	77	0	24	0	395	24	24	838	0
Future Volume (veh/h)	0	0	0	77	0	24	0	395	24	24	838	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	79	0	25	0	407	25	25	864	0
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	0	167	0	167	2	31	2	2500	153	46	2861	0
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.73	0.73	0.03	0.81	0.00
Sat Flow, veh/h	0	1870	0	1085	25	351	1781	3401	208	1781	3647	0
Grp Volume(v), veh/h	0	0	0	104	0	0	0	212	220	25	864	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1461	0	0	1781	1777	1833	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	6.1	0.0	0.0	0.0	3.2	3.3	1.2	5.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.3	0.0	0.0	0.0	3.2	3.3	1.2	5.6	0.0
Prop In Lane	0.00		0.00	0.76		0.24	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	167	0	201	0	0	2	1306	1347	46	2861	0
V/C Ratio(X)	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.16	0.16	0.54	0.30	0.00
Avail Cap(c_a), veh/h	0	333	0	483	0	0	317	1306	1347	317	2861	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)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.2	0.0	0.0	0.0	3.6	3.6	43.3	2.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.3	0.3	9.6	0.3	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(95%),veh/ln	0.0	0.0	0.0	4.2	0.0	0.0	0.0	1.6	1.6	1.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	42.2	0.0	0.0	0.0	3.9	3.9	52.9	2.5	0.0
LnGrp LOS				D				A	A	D	A	
Approach Vol, veh/h		0			104			432			889	
Approach Delay, s/veh		0.0			42.2			3.9			3.9	
Approach LOS					D			A			A	

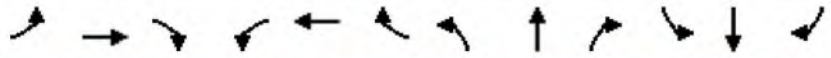
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	71.1		12.5	0.0	77.5		12.5
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	3.2	5.3		0.0	0.0	7.6		8.3
Green Ext Time (p_c), s	0.0	2.4		0.0	0.0	6.3		0.4

Intersection Summary		
HCM 7th Control Delay, s/veh	6.7	
HCM 7th LOS	A	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	121	17	0	9	22	399	17	1	917	1
Future Volume (veh/h)	7	0	121	17	0	9	22	399	17	1	917	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	0	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	7	0	127	18	0	9	23	420	18	1	965	1
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, %	1	0	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	0	0	0	23	0	11	31	3066	131	2	1621	1374
Arrive On Green	0.00	0.00	0.00	0.02	0.00	0.02	0.02	0.88	0.88	0.00	0.86	0.86
Sat Flow, veh/h		0		1149	0	575	1795	3500	150	1795	1885	1598
Grp Volume(v), veh/h		0.0		27	0	0	23	214	224	1	965	1
Grp Sat Flow(s),veh/h/ln				1724	0	0	1795	1791	1858	1795	1885	1598
Q Serve(g_s), s				2.1	0.0	0.0	1.7	2.3	2.3	0.1	20.0	0.0
Cycle Q Clear(g_c), s				2.1	0.0	0.0	1.7	2.3	2.3	0.1	20.0	0.0
Prop In Lane				0.67		0.33	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h				34	0	0	31	1569	1628	2	1621	1374
V/C Ratio(X)				0.79	0.00	0.00	0.75	0.14	0.14	0.51	0.60	0.00
Avail Cap(c_a), veh/h				349	0	0	363	1569	1628	363	1621	1374
HCM Platoon Ratio				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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				66.4	0.0	0.0	66.6	1.2	1.2	67.9	2.7	1.3
Incr Delay (d2), s/veh				41.7	0.0	0.0	40.0	0.2	0.2	167.8	1.6	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
%ile BackOfQ(95%),veh/ln				2.4	0.0	0.0	2.0	0.7	0.8	0.2	8.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				108.1	0.0	0.0	106.6	1.4	1.4	235.6	4.3	1.3
LnGrp LOS				F			F	A	A	F	A	A
Approach Vol, veh/h					27			461			967	
Approach Delay, s/veh					108.1			6.6			4.6	
Approach LOS					F			A			A	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	4.6	124.1		7.2	6.8	122.0
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0
Max Green Setting (Gmax), s	27.5	35.0		27.5	27.5	35.0
Max Q Clear Time (g_c+I1), s	12.1	4.3		4.1	3.7	22.0
Green Ext Time (p_c), s	0.0	6.5		0.1	0.0	10.0

Intersection Summary	
HCM 7th Control Delay, s/veh	7.1
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	99	0	2	17	0	0	0	12	0	0	0
Future Vol, veh/h	0	99	0	2	17	0	0	0	12	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	125	0	3	22	0	0	0	15	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	125	0	0	152	152	125	152	152	22
Stage 1	-	-	-	-	-	-	125	125	-	27	27	-
Stage 2	-	-	-	-	-	-	27	27	-	125	125	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1594	-	-	1461	-	-	815	740	925	815	740	1056
Stage 1	-	-	-	-	-	-	879	792	-	991	873	-
Stage 2	-	-	-	-	-	-	991	873	-	879	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1594	-	-	1461	-	-	814	738	925	801	738	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	814	738	-	801	738	-
Stage 1	-	-	-	-	-	-	879	792	-	989	871	-
Stage 2	-	-	-	-	-	-	989	871	-	864	792	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.79	8.96	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	925	1594	-	-	1461	-	-	-
HCM Lane V/C Ratio	0.016	-	-	-	0.002	-	-	-
HCM Ctrl Dly (s/v)	9	0	-	-	7.5	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	37	0	0	63
Future Vol, veh/h	0	0	37	0	0	63
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	62	0	0	105

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	167	31	0	0	62	0
Stage 1	62	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	816	1037	-	-	1540	-
Stage 1	954	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	816	1037	-	-	1540	-
Mov Cap-2 Maneuver	816	-	-	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	919	-	-	-	-	-

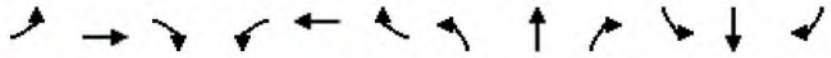
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1540	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	1897	32	93	1133	131	19	82	143	360	172	522
Future Volume (veh/h)	393	1897	32	93	1133	131	19	82	143	360	172	522
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	401	1936	33	95	1156	134	19	84	146	367	176	533
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	437	3132	53	127	2488	637	439	498	444	364	918	409
Arrive On Green	0.13	0.48	0.48	0.04	0.39	0.39	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3456	6564	112	3456	6434	1648	3456	1777	1585	3456	3554	1585
Grp Volume(v), veh/h	401	1423	546	95	1156	134	19	84	146	367	176	533
Grp Sat Flow(s),veh/h/ln	1728	1609	1850	1728	1609	1648	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	26.4	50.3	50.3	6.3	30.9	12.5	1.1	8.2	16.8	24.2	8.9	59.4
Cycle Q Clear(g_c), s	26.4	50.3	50.3	6.3	30.9	12.5	1.1	8.2	16.8	24.2	8.9	59.4
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	437	2302	883	127	2488	637	439	498	444	364	918	409
V/C Ratio(X)	0.92	0.62	0.62	0.75	0.46	0.21	0.04	0.17	0.33	1.01	0.19	1.30
Avail Cap(c_a), veh/h	508	2302	883	361	2488	637	439	498	444	364	918	409
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)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	99.3	44.6	44.6	109.7	52.7	47.1	88.1	62.6	65.7	102.9	66.6	85.3
Incr Delay (d2), s/veh	16.0	0.9	2.4	8.4	0.6	0.8	0.2	0.7	2.0	49.6	0.5	152.8
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(95%),veh/ln	17.9	26.6	30.6	5.4	18.5	9.2	0.9	6.9	11.5	19.5	7.4	60.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	115.2	45.5	47.0	118.1	53.4	47.8	88.3	63.3	67.6	152.5	67.0	238.1
LnGrp LOS	F	D	D	F	D	D	F	E	E	F	E	F
Approach Vol, veh/h		2370			1385			249			1076	
Approach Delay, s/veh		57.7			57.3			67.8			180.9	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.3	94.7	35.0	65.0	14.5	115.5	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	28.4	32.9	3.1	61.4	8.3	52.3	26.2	18.8
Green Ext Time (p_c), s	0.7	10.4	0.0	0.0	0.2	19.3	0.0	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	84.2
HCM 7th LOS	F



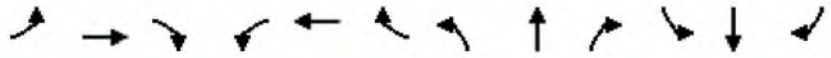
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	1692	249	135	1021	390	140	302	77	614	1233	58
Future Volume (veh/h)	208	1692	249	135	1021	390	140	302	77	614	1233	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	212	1727	0	138	1042	398	143	308	0	627	1258	0
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	244	3470		166	3322	818	171	691		656	1404	
Arrive On Green	0.07	0.54	0.00	0.05	0.52	0.52	0.05	0.14	0.00	0.19	0.27	0.00
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	212	1727	0	138	1042	398	143	308	0	627	1258	0
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	16.4	45.6	0.0	10.7	25.2	43.8	11.1	15.0	0.0	48.5	64.0	0.0
Cycle Q Clear(g_c), s	16.4	45.6	0.0	10.7	25.2	43.8	11.1	15.0	0.0	48.5	64.0	0.0
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	244	3470		166	3322	818	171	691		656	1404	
V/C Ratio(X)	0.87	0.50		0.83	0.31	0.49	0.84	0.45		0.96	0.90	
Avail Cap(c_a), veh/h	695	3470		312	3322	818	298	1027		685	1594	
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)	0.50	0.50	0.00	0.81	0.81	0.81	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	124.2	39.2	0.0	127.4	37.7	42.2	127.2	107.4	0.0	108.2	94.2	0.0
Incr Delay (d2), s/veh	4.8	0.3	0.0	8.4	0.2	1.7	10.2	0.5	0.0	23.5	6.5	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(95%),veh/ln	10.8	23.3	0.0	8.4	14.9	24.1	9.1	11.0	0.0	32.2	38.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	129.0	39.4	0.0	135.8	37.9	43.9	137.5	107.9	0.0	131.8	100.7	0.0
LnGrp LOS	F	D		F	D	D	F	F		F	F	
Approach Vol, veh/h		1939			1578			451			1885	
Approach Delay, s/veh		49.2			48.0			117.3			111.0	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	145.2	57.8	42.2	18.6	151.4	20.1	79.9
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	54.3	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	18.4	45.8	50.5	17.0	12.7	47.6	13.1	66.0
Green Ext Time (p_c), s	0.7	10.3	0.8	2.1	0.3	19.7	0.3	8.2

Intersection Summary	
HCM 7th Control Delay, s/veh	74.0
HCM 7th LOS	E

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	2053	1149	226	958	45	592	57	205	48	134	149
Future Volume (veh/h)	104	2053	1149	226	958	45	592	57	205	48	134	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	2095	1172	231	978	0	523	172	0	49	137	0
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	131	2598	806	258	2952		521	293		207	170	
Arrive On Green	0.07	0.51	0.51	0.14	0.58	0.00	0.10	0.16	0.00	0.04	0.09	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	106	2095	1172	231	978	0	523	172	0	49	137	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	8.2	47.9	71.2	17.8	14.0	0.0	14.6	12.0	0.0	3.4	10.1	0.0
Cycle Q Clear(g_c), s	8.2	47.9	71.2	17.8	14.0	0.0	14.6	12.0	0.0	3.4	10.1	0.0
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	131	2598	806	258	2952		521	293		207	170	
V/C Ratio(X)	0.81	0.81	1.45	0.90	0.33		1.00	0.59		0.24	0.81	
Avail Cap(c_a), veh/h	383	2598	806	387	2952		521	395		325	397	
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)	0.26	0.26	0.26	0.94	0.94	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.9	28.6	34.4	58.8	15.4	0.0	54.2	54.9	0.0	54.5	62.5	0.0
Incr Delay (d2), s/veh	3.2	0.7	205.9	15.5	0.3	0.0	40.1	1.9	0.0	0.6	8.8	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(95%),veh/ln	5.4	22.2	103.8	13.8	8.9	0.0	8.7	9.7	0.0	2.9	9.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	67.1	29.4	240.3	74.3	15.7	0.0	94.3	56.7	0.0	55.1	71.2	0.0
LnGrp LOS	E	C	F	E	B		F	E		E	E	
Approach Vol, veh/h		3373			1209			695			186	
Approach Delay, s/veh		103.9			26.9			85.0			67.0	
Approach LOS		F			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	86.7	10.8	27.3	24.9	77.0	20.0	18.1
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.3	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	10.2	16.0	5.4	14.0	19.8	73.2	16.6	12.1
Green Ext Time (p_c), s	0.2	7.0	0.0	0.7	0.4	0.0	0.0	0.6

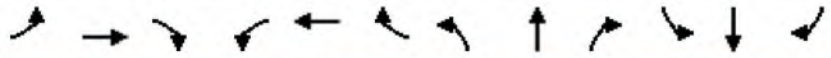
Intersection Summary	
HCM 7th Control Delay, s/veh	83.2
HCM 7th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	2517	191	170	1337	144	305	269	343	257	359	210
Future Volume (veh/h)	231	2517	191	170	1337	144	305	269	343	257	359	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	233	2542	0	172	1351	0	308	272	0	260	363	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	2850		213	2766		349	593		305	552	
Arrive On Green	0.08	0.56	0.00	0.06	0.54	0.00	0.10	0.17	0.00	0.09	0.16	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	233	2542	0	172	1351	0	308	272	0	260	363	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	12.6	83.2	0.0	9.3	31.3	0.0	16.7	13.1	0.0	14.1	18.3	0.0
Cycle Q Clear(g_c), s	12.6	83.2	0.0	9.3	31.3	0.0	16.7	13.1	0.0	14.1	18.3	0.0
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	278	2850		213	2766		349	593		305	552	
V/C Ratio(X)	0.84	0.89		0.81	0.49		0.88	0.46		0.85	0.66	
Avail Cap(c_a), veh/h	535	2850		437	2766		437	593		524	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	0.00	0.88	0.88	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	86.2	36.9	0.0	88.0	27.1	0.0	84.3	71.4	0.0	85.4	75.5	0.0
Incr Delay (d2), s/veh	6.7	4.7	0.0	6.2	0.5	0.0	15.9	2.5	0.0	6.7	6.0	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(95%),veh/ln	9.9	44.2	0.0	7.5	18.3	0.0	13.0	10.3	0.0	10.8	13.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	92.9	41.7	0.0	94.2	27.7	0.0	100.1	73.9	0.0	92.0	81.5	0.0
LnGrp LOS	F	D		F	C		F	E		F	F	
Approach Vol, veh/h		2775			1523			580			623	
Approach Delay, s/veh		46.0			35.2			87.8			85.9	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	108.7	23.0	37.4	17.7	111.9	25.2	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	29.4	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	14.6	33.3	16.1	15.1	11.3	85.2	18.7	20.3
Green Ext Time (p_c), s	0.6	12.3	0.7	1.0	0.4	3.7	0.5	1.5

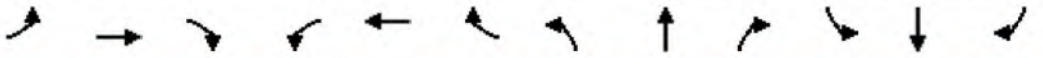
Intersection Summary	
HCM 7th Control Delay, s/veh	51.9
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

D3 – Build Conditions 2026



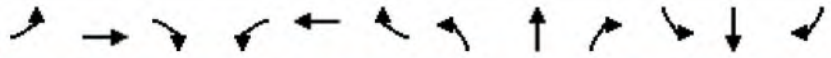
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	832	25	327	1646	108	29	277	313	131	365	459
Future Volume (veh/h)	155	832	25	327	1646	108	29	277	313	131	365	459
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	904	0	355	1789	0	32	301	340	142	397	499
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	200	1640		379	2134		49	779	347	168	1016	453
Arrive On Green	0.11	0.32	0.00	0.21	0.42	0.00	0.03	0.22	0.22	0.09	0.29	0.29
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	168	904	0	355	1789	0	32	301	340	142	397	499
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	11.1	17.5	0.0	23.5	37.7	0.0	2.1	8.7	25.6	9.4	10.8	34.3
Cycle Q Clear(g_c), s	11.1	17.5	0.0	23.5	37.7	0.0	2.1	8.7	25.6	9.4	10.8	34.3
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	200	1640		379	2134		49	779	347	168	1016	453
V/C Ratio(X)	0.84	0.55		0.94	0.84		0.66	0.39	0.98	0.85	0.39	1.10
Avail Cap(c_a), veh/h	465	1640		383	2134		197	779	347	168	1016	453
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	33.6	0.0	46.4	31.3	0.0	57.8	40.0	46.6	53.5	34.4	42.8
Incr Delay (d2), s/veh	9.2	1.3	0.0	30.1	4.1	0.0	14.0	0.3	42.4	31.0	0.2	72.5
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(95%),veh/ln	9.2	11.8	0.0	19.3	22.0	0.0	2.1	6.8	20.1	9.5	8.2	31.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.4	34.9	0.0	76.5	35.4	0.0	71.9	40.3	89.0	84.5	34.7	115.3
LnGrp LOS	E	C		E	D		E	D	F	F	C	F
Approach Vol, veh/h		1072			2144			673			1038	
Approach Delay, s/veh		39.1			42.2			66.4			80.3	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.7	43.3	8.0	39.0	18.1	54.9	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	25.5	19.5	4.1	36.3	13.1	39.7	11.4	27.6
Green Ext Time (p_c), s	0.0	5.7	0.0	0.0	0.4	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	52.9
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



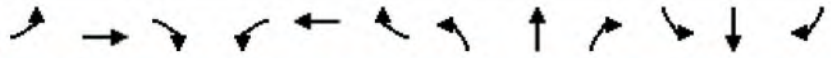
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	626	384	93	1603	212	376	207	67	137	214	330
Future Volume (veh/h)	183	626	384	93	1603	212	376	207	67	137	214	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	195	666	0	99	1705	0	400	220	71	146	228	0
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	268	1918		131	1897		721	742	331	661	680	
Arrive On Green	0.08	0.38	0.00	0.07	0.37	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	195	666	0	99	1705	0	400	220	71	146	228	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	6.3	10.7	0.0	6.2	35.9	0.0	11.8	6.0	4.2	4.1	6.3	0.0
Cycle Q Clear(g_c), s	6.3	10.7	0.0	6.2	35.9	0.0	11.8	6.0	4.2	4.1	6.3	0.0
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	268	1918		131	1897		721	742	331	661	680	
V/C Ratio(X)	0.73	0.35		0.76	0.90		0.55	0.30	0.21	0.22	0.34	
Avail Cap(c_a), veh/h	782	1918		325	1897		721	742	331	661	680	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.4	25.6	0.0	51.8	33.8	0.0	40.4	38.0	37.4	38.9	39.8	0.0
Incr Delay (d2), s/veh	3.8	0.5	0.0	8.6	7.3	0.0	3.1	1.0	1.5	0.8	1.3	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(95%),veh/ln	5.1	7.7	0.0	5.5	21.9	0.0	9.0	4.8	3.1	3.2	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.2	26.1	0.0	60.4	41.0	0.0	43.4	39.1	38.8	39.7	41.2	0.0
LnGrp LOS	E	C		E	D		D	D	D	D	D	
Approach Vol, veh/h		861			1804			691			374	
Approach Delay, s/veh		32.6			42.1			41.6			40.6	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	47.4	28.0	26.0	13.0	47.0	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	20.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	8.2	12.7	13.8	8.3	8.3	37.9	6.1	8.0
Green Ext Time (p_c), s	0.2	4.0	1.0	1.0	0.5	0.0	0.4	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	39.7
HCM 7th LOS	D

Notes

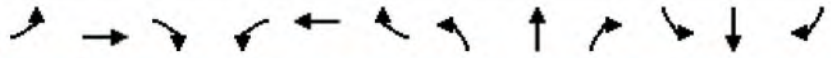
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	4	3	238	32	311	9	290	105	177	258	72
Future Volume (veh/h)	40	4	3	238	32	311	9	290	105	177	258	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	4	3	253	34	331	10	309	112	188	274	77
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	160	210	157	491	37	364	21	1039	369	222	1423	392
Arrive On Green	0.03	0.21	0.21	0.07	0.25	0.25	0.01	0.41	0.41	0.13	0.53	0.53
Sat Flow, veh/h	1753	977	732	1753	147	1435	1753	2529	899	1753	2709	747
Grp Volume(v), veh/h	43	0	7	253	0	365	10	212	209	188	175	176
Grp Sat Flow(s),veh/h/ln	1753	0	1709	1753	0	1582	1753	1749	1679	1753	1749	1706
Q Serve(g_s), s	1.9	0.0	0.3	7.5	0.0	23.1	0.6	8.4	8.6	10.8	5.4	5.6
Cycle Q Clear(g_c), s	1.9	0.0	0.3	7.5	0.0	23.1	0.6	8.4	8.6	10.8	5.4	5.6
Prop In Lane	1.00		0.43	1.00		0.91	1.00		0.54	1.00		0.44
Lane Grp Cap(c), veh/h	160	0	367	491	0	401	21	718	690	222	919	897
V/C Ratio(X)	0.27	0.00	0.02	0.52	0.00	0.91	0.47	0.29	0.30	0.85	0.19	0.20
Avail Cap(c_a), veh/h	227	0	506	491	0	469	272	718	690	374	919	897
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	0.0	31.9	30.1	0.0	37.3	50.6	20.3	20.4	44.0	12.9	12.9
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.9	0.0	20.0	15.4	1.0	1.1	8.6	0.5	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(95%),veh/ln	1.5	0.0	0.2	9.0	0.0	16.2	0.6	6.2	6.2	8.8	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.5	0.0	31.9	31.1	0.0	57.3	66.0	21.4	21.6	52.6	13.3	13.4
LnGrp LOS	C		C	C		E	E	C	C	D	B	B
Approach Vol, veh/h		50			618			431			539	
Approach Delay, s/veh		32.4			46.5			22.5			27.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	47.3	12.0	26.6	5.2	59.1	8.0	30.6
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.6	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	12.8	10.6	9.5	2.3	2.6	7.6	3.9	25.1
Green Ext Time (p_c), s	0.3	2.0	0.0	0.0	0.0	1.9	0.0	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	33.4
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	30	0	15	1	432	63	33	447	1
Future Volume (veh/h)	0	0	0	30	0	15	1	432	63	33	447	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	0	0	0	32	0	16	1	460	67	35	476	1
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	73	0	105	0	19	2	2345	340	56	2848	6
Arrive On Green	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.78	0.78	0.03	0.81	0.81
Sat Flow, veh/h	0	1811	0	948	0	474	1725	3016	437	1725	3523	7
Grp Volume(v), veh/h	0	0	0	48	0	0	1	261	266	35	232	245
Grp Sat Flow(s),veh/h/ln	0	1811	0	1423	0	0	1725	1721	1732	1725	1721	1810
Q Serve(g_s), s	0.0	0.0	0.0	3.0	0.0	0.0	0.1	3.6	3.6	1.8	2.7	2.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.0	0.0	0.0	0.1	3.6	3.6	1.8	2.7	2.7
Prop In Lane	0.00		0.00	0.67		0.33	1.00		0.25	1.00		0.00
Lane Grp Cap(c), veh/h	0	73	0	124	0	0	2	1338	1347	56	1391	1463
V/C Ratio(X)	0.00	0.00	0.00	0.39	0.00	0.00	0.42	0.20	0.20	0.63	0.17	0.17
Avail Cap(c_a), veh/h	0	322	0	470	0	0	307	1338	1347	307	1391	1463
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	42.9	0.0	0.0	44.9	2.6	2.6	43.0	1.9	1.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.0	0.0	0.0	89.5	0.3	0.3	11.0	0.3	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(95%),veh/ln	0.0	0.0	0.0	2.0	0.0	0.0	0.1	1.5	1.5	1.6	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	44.9	0.0	0.0	134.4	3.0	3.0	54.0	2.2	2.2
LnGrp LOS				D			F	A	A	D	A	A
Approach Vol, veh/h		0			48			528			512	
Approach Delay, s/veh		0.0			44.9			3.2			5.7	
Approach LOS					D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	75.0		8.1	4.1	77.8		8.1
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	3.8	5.6		0.0	2.1	4.7		5.0
Green Ext Time (p_c), s	0.0	3.1		0.0	0.0	2.7		0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	6.2
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

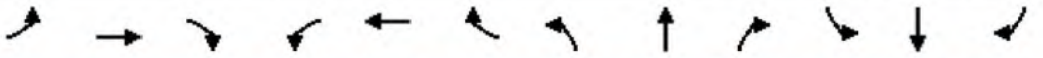
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	45	46	484	468	13
Future Vol, veh/h	13	45	46	484	468	13
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	14	47	48	509	493	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	851	253	506	0	-	0
Stage 1	499	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Critical Hdwy	6.92	7.02	4.22	-	-	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.36	2.26	-	-	-
Pot Cap-1 Maneuver	291	734	1027	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	275	734	1027	-	-	-
Mov Cap-2 Maneuver	394	-	-	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	672	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.5	1.12	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	312	-	615	-	-
HCM Lane V/C Ratio	0.047	-	0.099	-	-
HCM Ctrl Dly (s/v)	8.7	0.4	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	41	8	0	2	182	530	12	4	507	4
Future Volume (veh/h)	5	0	41	8	0	2	182	530	12	4	507	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	0	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	6	0	49	10	0	2	219	639	14	5	611	5
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	0	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	0	0	15	0	3	249	3054	67	9	1355	1148
Arrive On Green	0.00	0.00	0.00	0.01	0.00	0.01	0.14	0.89	0.89	0.01	0.75	0.75
Sat Flow, veh/h		0		1408	0	282	1725	3443	75	1725	1811	1535
Grp Volume(v), veh/h		0.0		12	0	0	219	319	334	5	611	5
Grp Sat Flow(s),veh/h/ln				1690	0	0	1725	1721	1798	1725	1811	1535
Q Serve(g_s), s				1.0	0.0	0.0	17.9	3.7	3.7	0.4	18.5	0.1
Cycle Q Clear(g_c), s				1.0	0.0	0.0	17.9	3.7	3.7	0.4	18.5	0.1
Prop In Lane				0.83		0.17	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h				18	0	0	249	1526	1595	9	1355	1148
V/C Ratio(X)				0.67	0.00	0.00	0.88	0.21	0.21	0.58	0.45	0.00
Avail Cap(c_a), veh/h				323	0	0	425	1526	1595	329	1355	1148
HCM Platoon Ratio				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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				71.0	0.0	0.0	60.4	1.1	1.1	71.5	6.9	4.6
Incr Delay (d2), s/veh				47.7	0.0	0.0	13.9	0.3	0.3	64.7	1.1	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
%ile BackOfQ(95%),veh/ln				1.2	0.0	0.0	13.6	1.1	1.1	0.6	10.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				118.7	0.0	0.0	74.3	1.4	1.4	136.2	8.0	4.6
LnGrp LOS				F			E	A	A	F	A	A
Approach Vol, veh/h					12			872			621	
Approach Delay, s/veh					118.7			19.7			9.0	
Approach LOS					F			B			A	

Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	5.2	132.8		6.0	25.3	112.7						
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0						
Max Green Setting (Gmax), s	27.5	35.0		27.5	35.5	35.0						
Max Q Clear Time (g_c+I1), s	2.4	5.7		3.0	19.9	20.5						
Green Ext Time (p_c), s	0.0	10.2		0.0	0.8	7.0						

Intersection Summary		
HCM 7th Control Delay, s/veh	16.1	
HCM 7th LOS	B	

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	18	1	12	112	19	0	0	2	19	0	0
Future Vol, veh/h	0	18	1	12	112	19	0	0	2	19	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	22	1	14	135	23	0	0	2	23	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	158	0	0	23	0	0	186	209	22	197	198	146
Stage 1	-	-	-	-	-	-	22	22	-	175	175	-
Stage 2	-	-	-	-	-	-	164	187	-	22	23	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.17	6.57	6.27	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.563	4.063	3.363	3.563	4.063	3.363
Pot Cap-1 Maneuver	1392	-	-	1560	-	-	764	679	1040	751	689	888
Stage 1	-	-	-	-	-	-	983	867	-	815	745	-
Stage 2	-	-	-	-	-	-	827	736	-	984	866	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1392	-	-	1560	-	-	756	672	1040	742	682	888
Mov Cap-2 Maneuver	-	-	-	-	-	-	756	672	-	742	682	-
Stage 1	-	-	-	-	-	-	983	867	-	807	737	-
Stage 2	-	-	-	-	-	-	818	729	-	982	866	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.61	8.47	10.01
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1040	1392	-	-	1560	-	-	742
HCM Lane V/C Ratio	0.002	-	-	-	0.009	-	-	0.031
HCM Ctrl Dly (s/v)	8.5	0	-	-	7.3	-	-	10
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	32	74	6	32	34
Future Vol, veh/h	6	32	74	6	32	34
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	8	40	93	8	40	43

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	219	50	0	0	100	0
Stage 1	96	-	-	-	-	-
Stage 2	123	-	-	-	-	-
Critical Hdwy	6.69	6.99	-	-	4.19	-
Critical Hdwy Stg 1	5.89	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.557	3.357	-	-	2.257	-
Pot Cap-1 Maneuver	749	996	-	-	1465	-
Stage 1	906	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	729	996	-	-	1465	-
Mov Cap-2 Maneuver	729	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	867	-	-	-	-	-

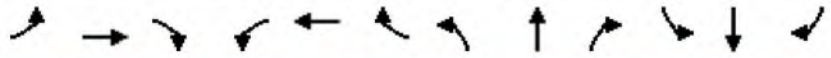
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.03	0	3.65
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	941	873	-
HCM Lane V/C Ratio	-	-	0.05	0.027	-
HCM Ctrl Dly (s/v)	-	-	9	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	802	8	95	2610	353	11	71	137	158	59	467
Future Volume (veh/h)	309	802	8	95	2610	353	11	71	137	158	59	467
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1914	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	325	844	8	100	2747	372	12	75	144	166	62	492
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	362	3097	29	132	2574	660	432	490	437	358	903	403
Arrive On Green	0.11	0.48	0.48	0.04	0.41	0.41	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3401	6517	62	3401	6332	1622	3401	1749	1560	3401	3497	1560
Grp Volume(v), veh/h	325	615	237	100	2747	372	12	75	144	166	62	492
Grp Sat Flow(s),veh/h/ln	1700	1583	1830	1700	1583	1622	1700	1749	1560	1700	1749	1560
Q Serve(g_s), s	21.7	17.9	18.0	6.7	93.5	40.6	0.7	7.4	16.8	10.6	3.1	59.4
Cycle Q Clear(g_c), s	21.7	17.9	18.0	6.7	93.5	40.6	0.7	7.4	16.8	10.6	3.1	59.4
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	2257	869	132	2574	660	432	490	437	358	903	403
V/C Ratio(X)	0.90	0.27	0.27	0.76	1.07	0.56	0.03	0.15	0.33	0.46	0.07	1.22
Avail Cap(c_a), veh/h	500	2257	869	355	2574	660	432	490	437	358	903	403
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)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	101.5	36.4	36.4	109.5	68.3	52.6	88.0	62.3	65.7	96.8	64.4	85.3
Incr Delay (d2), s/veh	13.6	0.3	0.7	8.6	38.9	3.5	0.1	0.7	2.0	4.3	0.1	120.0
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(95%),veh/ln	15.3	11.3	12.8	5.6	57.9	24.2	0.6	6.2	11.4	8.5	2.5	53.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	115.1	36.7	37.1	118.1	107.1	56.0	88.1	63.0	67.7	101.1	64.6	205.3
LnGrp LOS	F	D	D	F	F	E	F	E	E	F	E	F
Approach Vol, veh/h		1177			3219			231			720	
Approach Delay, s/veh		58.4			101.6			67.2			169.2	
Approach LOS		E			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.7	99.3	35.0	65.0	14.9	115.1	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	23.7	95.5	2.7	61.4	8.7	20.0	12.6	18.8
Green Ext Time (p_c), s	0.8	0.0	0.0	0.0	0.2	6.0	0.4	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	99.7
HCM 7th LOS	F



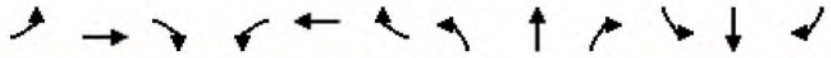
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	725	59	64	1882	1137	152	701	77	422	217	30
Future Volume (veh/h)	158	725	59	64	1882	1137	152	701	77	422	217	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	165	755	0	67	1960	1184	158	730	0	440	226	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	195	3677		93	3483	858	186	826		477	1253	
Arrive On Green	0.06	0.58	0.00	0.03	0.55	0.55	0.05	0.16	0.00	0.14	0.25	0.00
Sat Flow, veh/h	3401	6332	1560	3401	6332	1560	3401	5025	1560	3401	5025	1560
Grp Volume(v), veh/h	165	755	0	67	1960	1184	158	730	0	440	226	0
Grp Sat Flow(s),veh/h/ln	1700	1583	1560	1700	1583	1560	1700	1675	1560	1700	1675	1560
Q Serve(g_s), s	13.0	15.3	0.0	5.3	54.5	148.5	12.4	38.3	0.0	34.5	9.5	0.0
Cycle Q Clear(g_c), s	13.0	15.3	0.0	5.3	54.5	148.5	12.4	38.3	0.0	34.5	9.5	0.0
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	195	3677		93	3483	858	186	826		477	1253	
V/C Ratio(X)	0.84	0.21		0.72	0.56	1.38	0.85	0.88		0.92	0.18	
Avail Cap(c_a), veh/h	684	3677		307	3483	858	293	1011		674	1569	
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)	0.97	0.97	0.00	0.09	0.09	0.09	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	126.0	27.0	0.0	130.3	39.6	60.7	126.6	110.3	0.0	114.6	79.6	0.0
Incr Delay (d2), s/veh	9.2	0.1	0.0	1.0	0.1	171.6	12.9	8.1	0.0	14.3	0.1	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(95%),veh/ln	10.1	10.0	0.0	3.1	23.7	133.0	9.9	24.4	0.0	23.0	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	135.3	27.1	0.0	131.3	39.6	232.4	139.5	118.4	0.0	128.9	79.7	0.0
LnGrp LOS	F	C		F	D	F	F	F		F	E	
Approach Vol, veh/h		920			3211			888			666	
Approach Delay, s/veh		46.5			112.6			122.2			112.2	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	154.3	44.4	50.1	13.0	162.6	21.4	73.0
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	54.3	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	15.0	150.5	36.5	40.3	7.3	17.3	14.4	11.5
Green Ext Time (p_c), s	0.5	0.0	1.4	4.0	0.1	5.6	0.3	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	103.4
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	722	615	79	1798	112	888	68	109	49	71	297
Future Volume (veh/h)	50	722	615	79	1798	112	888	68	109	49	71	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	52	744	634	81	1854	0	965	0	0	51	73	0
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	67	3170	984	102	3259		766	0		201	101	
Arrive On Green	0.04	0.63	0.63	0.06	0.65	0.00	0.10	0.00	0.00	0.04	0.06	0.00
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	5259	0	1560	1753	1841	1560
Grp Volume(v), veh/h	52	744	634	81	1854	0	965	0	0	51	73	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	0	1560	1753	1841	1560
Q Serve(g_s), s	4.1	9.0	35.4	6.4	28.8	0.0	14.6	0.0	0.0	3.8	5.5	0.0
Cycle Q Clear(g_c), s	4.1	9.0	35.4	6.4	28.8	0.0	14.6	0.0	0.0	3.8	5.5	0.0
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	67	3170	984	102	3259		766	0		201	101	
V/C Ratio(X)	0.77	0.23	0.64	0.79	0.57		1.26	0.00		0.25	0.72	
Avail Cap(c_a), veh/h	377	3170	984	381	3259		766	0		312	390	
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)	0.89	0.89	0.89	0.77	0.77	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	66.7	11.2	16.1	65.1	13.7	0.0	57.7	0.0	0.0	58.8	65.1	0.0
Incr Delay (d2), s/veh	15.1	0.2	2.9	10.0	0.6	0.0	127.6	0.0	0.0	0.7	9.2	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(95%),veh/ln	3.8	5.7	18.9	5.6	14.6	0.0	18.0	0.0	0.0	3.1	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.8	11.4	19.0	75.0	14.3	0.0	185.3	0.0	0.0	59.5	74.3	0.0
LnGrp LOS	F	B	B	E	B		F			E	E	
Approach Vol, veh/h		1430			1935			965			124	
Approach Delay, s/veh		17.3			16.8			185.3			68.2	
Approach LOS		B			B			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	96.6	11.1	22.0	12.8	94.1	20.0	13.1
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.0	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	6.1	30.8	5.8	0.0	8.4	37.4	16.6	7.5
Green Ext Time (p_c), s	0.1	9.6	0.0	0.0	0.2	3.9	0.0	0.3

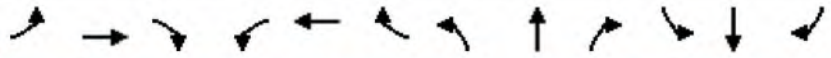
Intersection Summary	
HCM 7th Control Delay, s/veh	54.9
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	1056	293	187	2649	100	515	177	190	152	206	469
Future Volume (veh/h)	159	1056	293	187	2649	100	515	177	190	152	206	469
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	169	1123	0	199	2818	0	548	188	0	162	219	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	211	2657		241	2711		433	779		204	547	
Arrive On Green	0.06	0.52	0.00	0.07	0.54	0.00	0.13	0.22	0.00	0.06	0.16	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	169	1123	0	199	2818	0	548	188	0	162	219	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	9.2	25.7	0.0	10.9	101.7	0.0	24.0	8.3	0.0	8.9	10.6	0.0
Cycle Q Clear(g_c), s	9.2	25.7	0.0	10.9	101.7	0.0	24.0	8.3	0.0	8.9	10.6	0.0
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	211	2657		241	2711		433	779		204	547	
V/C Ratio(X)	0.80	0.42		0.83	1.04		1.27	0.24		0.79	0.40	
Avail Cap(c_a), veh/h	530	2657		433	2711		433	779		520	547	
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	0.62	0.62	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	88.0	27.6	0.0	87.2	44.2	0.0	83.0	60.9	0.0	88.2	72.3	0.0
Incr Delay (d2), s/veh	6.9	0.5	0.0	4.5	25.3	0.0	136.8	0.7	0.0	6.8	2.2	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(95%),veh/ln	7.7	15.8	0.0	7.8	58.0	0.0	28.7	6.9	0.0	7.5	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	94.9	28.1	0.0	91.7	69.5	0.0	219.8	61.6	0.0	95.0	74.5	0.0
LnGrp LOS	F	C		F	F		F	E		F	E	
Approach Vol, veh/h		1292			3017			736			381	
Approach Delay, s/veh		36.8			70.9			179.4			83.2	
Approach LOS		D			E			F			F	

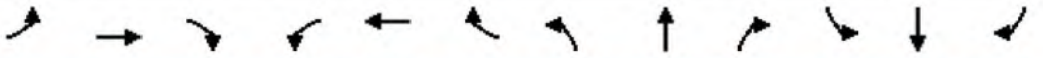
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	107.5	17.5	47.7	19.3	105.5	30.0	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	29.4	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	11.2	103.7	10.9	10.3	12.9	27.7	26.0	12.6
Green Ext Time (p_c), s	0.5	0.0	0.4	0.8	0.4	9.4	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	78.4
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



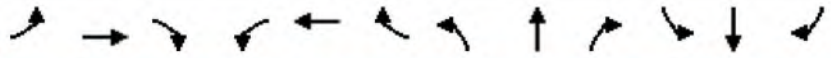
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1638	23	253	964	140	49	366	706	186	255	217
Future Volume (veh/h)	179	1638	23	253	964	140	49	366	706	186	255	217
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	183	1671	0	258	984	0	50	373	720	190	260	221
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	215	1921		289	2111		65	785	350	169	993	443
Arrive On Green	0.12	0.37	0.00	0.16	0.41	0.00	0.04	0.22	0.22	0.09	0.28	0.28
Sat Flow, veh/h	1795	5147	1598	1795	5147	1598	1795	3582	1598	1795	3582	1598
Grp Volume(v), veh/h	183	1671	0	258	984	0	50	373	720	190	260	221
Grp Sat Flow(s),veh/h/ln	1795	1716	1598	1795	1716	1598	1795	1791	1598	1795	1791	1598
Q Serve(g_s), s	12.0	36.2	0.0	16.9	16.7	0.0	3.3	10.9	26.3	11.3	6.8	13.9
Cycle Q Clear(g_c), s	12.0	36.2	0.0	16.9	16.7	0.0	3.3	10.9	26.3	11.3	6.8	13.9
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	215	1921		289	2111		65	785	350	169	993	443
V/C Ratio(X)	0.85	0.87		0.89	0.47		0.77	0.48	2.06	1.12	0.26	0.50
Avail Cap(c_a), veh/h	468	1921		386	2111		199	785	350	169	993	443
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	34.9	0.0	49.3	25.8	0.0	57.3	40.8	46.8	54.3	33.8	36.4
Incr Delay (d2), s/veh	9.0	5.7	0.0	18.2	0.7	0.0	17.1	0.4	485.1	106.3	0.1	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(95%),veh/ln	9.9	22.2	0.0	13.8	11.0	0.0	3.2	8.4	90.6	15.9	5.3	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.8	40.6	0.0	67.5	26.6	0.0	74.5	41.3	532.0	160.7	33.9	37.3
LnGrp LOS	E	D		E	C		E	D	F	F	C	D
Approach Vol, veh/h		1854			1242			1143			671	
Approach Delay, s/veh		42.6			35.1			351.8			70.9	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	49.5	9.0	38.0	19.1	53.9	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	18.9	38.2	5.3	15.9	14.0	18.7	13.3	28.3
Green Ext Time (p_c), s	0.4	0.0	0.0	1.7	0.4	4.9	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	116.5
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



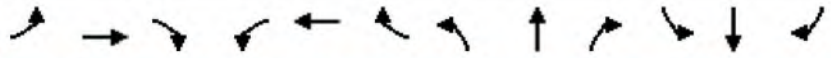
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	396	1431	675	136	951	196	348	266	125	202	319	250
Future Volume (veh/h)	396	1431	675	136	951	196	348	266	125	202	319	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	417	1506	0	143	1001	0	366	280	132	213	336	0
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	500	1809		175	1572		727	748	334	666	685	
Arrive On Green	0.14	0.35	0.00	0.10	0.31	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3483	5147	1598	1795	5147	1598	3483	3582	1598	3483	3582	1598
Grp Volume(v), veh/h	417	1506	0	143	1001	0	366	280	132	213	336	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1795	1716	1598	1742	1791	1598	1742	1791	1598
Q Serve(g_s), s	13.3	30.6	0.0	8.9	19.1	0.0	10.6	7.6	8.1	6.0	9.5	0.0
Cycle Q Clear(g_c), s	13.3	30.6	0.0	8.9	19.1	0.0	10.6	7.6	8.1	6.0	9.5	0.0
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	500	1809		175	1572		727	748	334	666	685	
V/C Ratio(X)	0.83	0.83		0.82	0.64		0.50	0.37	0.40	0.32	0.49	
Avail Cap(c_a), veh/h	788	1809		328	1572		727	748	334	666	685	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.5	33.9	0.0	50.4	34.1	0.0	39.9	38.7	38.9	39.7	41.1	0.0
Incr Delay (d2), s/veh	4.4	4.7	0.0	8.9	2.0	0.0	2.5	1.4	3.5	1.3	2.5	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(95%),veh/ln	9.9	18.9	0.0	7.8	12.7	0.0	8.2	6.2	6.2	4.8	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.9	38.5	0.0	59.3	36.1	0.0	42.4	40.1	42.4	41.0	43.6	0.0
LnGrp LOS	D	D		E	D		D	D	D	D	D	
Approach Vol, veh/h		1923			1144			778			549	
Approach Delay, s/veh		41.4			39.0			41.6			42.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	44.7	28.0	26.0	20.6	39.4	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	20.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	10.9	32.6	12.6	11.5	15.3	21.1	8.0	10.1
Green Ext Time (p_c), s	0.2	0.0	1.0	1.4	1.1	2.4	0.6	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	41.0
HCM 7th LOS	D

Notes

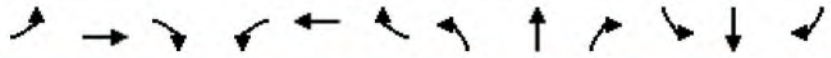
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	29	8	193	7	155	0	301	140	367	659	36
Future Volume (veh/h)	73	29	8	193	7	155	0	301	140	367	659	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	74	30	8	197	7	158	0	307	143	374	672	37
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	191	149	40	316	9	195	2	1031	469	380	2352	129
Arrive On Green	0.05	0.10	0.10	0.07	0.13	0.13	0.00	0.43	0.43	0.21	0.69	0.69
Sat Flow, veh/h	1781	1423	379	1781	68	1528	1781	2373	1080	1781	3425	188
Grp Volume(v), veh/h	74	0	38	197	0	165	0	228	222	374	348	361
Grp Sat Flow(s),veh/h/ln	1781	0	1802	1781	0	1595	1781	1777	1676	1781	1777	1836
Q Serve(g_s), s	3.8	0.0	2.0	7.5	0.0	10.4	0.0	8.6	8.9	21.5	7.9	7.9
Cycle Q Clear(g_c), s	3.8	0.0	2.0	7.5	0.0	10.4	0.0	8.6	8.9	21.5	7.9	7.9
Prop In Lane	1.00		0.21	1.00		0.96	1.00		0.64	1.00		0.10
Lane Grp Cap(c), veh/h	191	0	188	316	0	204	2	772	728	380	1220	1261
V/C Ratio(X)	0.39	0.00	0.20	0.62	0.00	0.81	0.00	0.30	0.30	0.98	0.29	0.29
Avail Cap(c_a), veh/h	233	0	534	316	0	472	277	772	728	380	1220	1261
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	0.0	42.2	39.9	0.0	43.7	0.0	18.9	19.0	40.3	6.3	6.3
Incr Delay (d2), s/veh	1.3	0.0	0.5	3.8	0.0	7.5	0.0	1.0	1.1	41.5	0.6	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(95%),veh/ln	3.0	0.0	1.6	8.6	0.0	7.8	0.0	6.4	6.3	19.5	4.7	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.1	0.0	42.7	43.7	0.0	51.2	0.0	19.9	20.1	81.8	6.9	6.9
LnGrp LOS	D		D	D		D		B	C	F	A	A
Approach Vol, veh/h		112			362			450			1083	
Approach Delay, s/veh		41.0			47.1			20.0			32.7	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	49.7	12.0	15.3	0.0	75.7	9.6	17.7
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.0	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	23.5	10.9	9.5	4.0	0.0	9.9	5.8	12.4
Green Ext Time (p_c), s	0.0	2.1	0.0	0.1	0.0	4.1	0.0	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	32.9
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	77	0	24	0	407	24	24	850	0
Future Volume (veh/h)	0	0	0	77	0	24	0	407	24	24	850	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	79	0	25	0	420	25	25	876	0
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	0	167	0	167	2	31	2	2505	149	46	2861	0
Arrive On Green	0.00	0.00	0.00	0.09	0.00	0.09	0.00	0.73	0.73	0.03	0.81	0.00
Sat Flow, veh/h	0	1870	0	1085	25	351	1781	3409	202	1781	3647	0
Grp Volume(v), veh/h	0	0	0	104	0	0	0	218	227	25	876	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1461	0	0	1781	1777	1834	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	6.1	0.0	0.0	0.0	3.3	3.4	1.2	5.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.3	0.0	0.0	0.0	3.3	3.4	1.2	5.7	0.0
Prop In Lane	0.00		0.00	0.76		0.24	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	167	0	201	0	0	2	1306	1348	46	2861	0
V/C Ratio(X)	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.17	0.17	0.54	0.31	0.00
Avail Cap(c_a), veh/h	0	333	0	483	0	0	317	1306	1348	317	2861	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)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.2	0.0	0.0	0.0	3.6	3.6	43.3	2.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.3	0.3	9.6	0.3	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(95%),veh/ln	0.0	0.0	0.0	4.2	0.0	0.0	0.0	1.6	1.7	1.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	42.2	0.0	0.0	0.0	3.9	3.9	52.9	2.5	0.0
LnGrp LOS				D				A	A	D	A	
Approach Vol, veh/h		0			104			445			901	
Approach Delay, s/veh		0.0			42.2			3.9			3.9	
Approach LOS					D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	71.1		12.5	0.0	77.5		12.5
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	3.2	5.4		0.0	0.0	7.7		8.3
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	6.4		0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	6.7
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

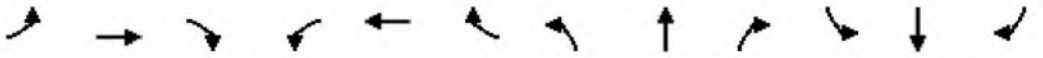
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	43	43	417	920	12
Future Vol, veh/h	12	43	43	417	920	12
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	45	45	434	958	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1271	485	971	0	-	0
Stage 1	965	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	160	528	706	-	-	-
Stage 1	330	-	-	-	-	-
Stage 2	720	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	148	528	706	-	-	-
Mov Cap-2 Maneuver	248	-	-	-	-	-
Stage 1	307	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	14.82	1.54	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	337	-	424	-	-
HCM Lane V/C Ratio	0.063	-	0.135	-	-
HCM Ctrl Dly (s/v)	10.4	0.6	14.8	-	-
HCM Lane LOS	B	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	146	17	0	9	46	442	17	1	960	1
Future Volume (veh/h)	7	0	146	17	0	9	46	442	17	1	960	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	0	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	7	0	154	18	0	9	48	465	18	1	1011	1
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, %	1	0	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	0	0	0	23	0	11	63	3080	119	2	1587	1345
Arrive On Green	0.00	0.00	0.00	0.02	0.00	0.02	0.04	0.88	0.88	0.00	0.84	0.84
Sat Flow, veh/h		0		1149	0	575	1795	3516	136	1795	1885	1598
Grp Volume(v), veh/h		0.0		27	0	0	48	236	247	1	1011	1
Grp Sat Flow(s),veh/h/ln				1724	0	0	1795	1791	1861	1795	1885	1598
Q Serve(g_s), s				2.1	0.0	0.0	3.6	2.6	2.6	0.1	24.9	0.0
Cycle Q Clear(g_c), s				2.1	0.0	0.0	3.6	2.6	2.6	0.1	24.9	0.0
Prop In Lane				0.67		0.33	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h				34	0	0	63	1569	1630	2	1587	1345
V/C Ratio(X)				0.79	0.00	0.00	0.76	0.15	0.15	0.51	0.64	0.00
Avail Cap(c_a), veh/h				349	0	0	363	1569	1630	363	1587	1345
HCM Platoon Ratio				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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				66.4	0.0	0.0	65.0	1.2	1.2	67.9	3.7	1.7
Incr Delay (d2), s/veh				41.7	0.0	0.0	22.6	0.2	0.2	167.8	2.0	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
%ile BackOfQ(95%),veh/ln				2.4	0.0	0.0	3.7	0.8	0.8	0.2	10.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				108.1	0.0	0.0	87.6	1.4	1.4	235.6	5.6	1.7
LnGrp LOS				F			F	A	A	F	A	A
Approach Vol, veh/h					27			531			1013	
Approach Delay, s/veh					108.1			9.2			5.9	
Approach LOS					F			A			A	

Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	4.6	124.1		7.2	9.3	119.5						
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0						
Max Green Setting (Gmax), s	27.5	35.0		27.5	27.5	35.0						
Max Q Clear Time (g_c+I1), s	2.1	4.6		4.1	5.6	26.9						
Green Ext Time (p_c), s	0.0	7.3		0.1	0.1	6.8						

Intersection Summary												
HCM 7th Control Delay, s/veh			8.7									
HCM 7th LOS			A									

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	106	0	2	23	18	0	0	12	18	0	0
Future Vol, veh/h	0	106	0	2	23	18	0	0	12	18	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	134	0	3	29	23	0	0	15	23	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	134	0	0	168	191	134	180	180	41
Stage 1	-	-	-	-	-	-	134	134	-	46	46	-
Stage 2	-	-	-	-	-	-	34	57	-	134	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1450	-	-	795	704	915	782	714	1031
Stage 1	-	-	-	-	-	-	869	785	-	968	857	-
Stage 2	-	-	-	-	-	-	982	847	-	869	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1450	-	-	794	703	915	768	713	1031
Mov Cap-2 Maneuver	-	-	-	-	-	-	794	703	-	768	713	-
Stage 1	-	-	-	-	-	-	869	785	-	967	855	-
Stage 2	-	-	-	-	-	-	980	846	-	855	785	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.35	9	9.83
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	915	1554	-	-	1450	-	-	768
HCM Lane V/C Ratio	0.017	-	-	-	0.002	-	-	0.03
HCM Ctrl Dly (s/v)	9	0	-	-	7.5	-	-	9.8
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	31	37	6	31	63
Future Vol, veh/h	7	31	37	6	31	63
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	52	62	10	52	105

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	275	36	0	0	72	0
Stage 1	67	-	-	-	-	-
Stage 2	208	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	703	1029	-	-	1528	-
Stage 1	949	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	678	1029	-	-	1528	-
Mov Cap-2 Maneuver	678	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	796	-	-	-	-	-

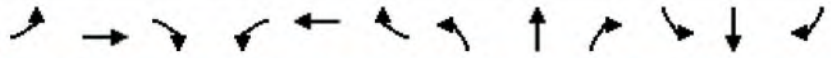
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.11	0	2.45
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	939	594	-
HCM Lane V/C Ratio	-	-	0.067	0.034	-
HCM Ctrl Dly (s/v)	-	-	9.1	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	1897	32	93	1133	168	19	82	143	398	172	553
Future Volume (veh/h)	424	1897	32	93	1133	168	19	82	143	398	172	553
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	433	1936	33	95	1156	171	19	84	146	406	176	564
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	466	3132	53	127	2433	623	439	498	444	364	918	409
Arrive On Green	0.13	0.48	0.48	0.04	0.38	0.38	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3456	6564	112	3456	6434	1648	3456	1777	1585	3456	3554	1585
Grp Volume(v), veh/h	433	1423	546	95	1156	171	19	84	146	406	176	564
Grp Sat Flow(s),veh/h/ln	1728	1609	1850	1728	1609	1648	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	28.5	50.3	50.3	6.3	31.3	16.6	1.1	8.2	16.8	24.2	8.9	59.4
Cycle Q Clear(g_c), s	28.5	50.3	50.3	6.3	31.3	16.6	1.1	8.2	16.8	24.2	8.9	59.4
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	466	2302	883	127	2433	623	439	498	444	364	918	409
V/C Ratio(X)	0.93	0.62	0.62	0.75	0.48	0.27	0.04	0.17	0.33	1.12	0.19	1.38
Avail Cap(c_a), veh/h	508	2302	883	361	2433	623	439	498	444	364	918	409
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)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	98.4	44.6	44.6	109.7	54.2	49.6	88.1	62.6	65.7	102.9	66.6	85.3
Incr Delay (d2), s/veh	18.1	0.9	2.4	8.4	0.7	1.1	0.2	0.7	2.0	82.6	0.5	184.8
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(95%),veh/ln	19.2	26.6	30.5	5.4	18.7	11.5	0.9	6.9	11.5	22.5	7.4	66.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	116.5	45.5	47.0	118.1	54.9	50.7	88.3	63.3	67.6	185.5	67.0	270.1
LnGrp LOS	F	D	D	F	D	D	F	E	E	F	E	F
Approach Vol, veh/h		2402			1422			249			1146	
Approach Delay, s/veh		58.6			58.6			67.8			208.9	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.2	92.8	35.0	65.0	14.5	115.5	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	30.5	33.3	3.1	61.4	8.3	52.3	26.2	18.8
Green Ext Time (p_c), s	0.5	10.7	0.0	0.0	0.2	19.3	0.0	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	92.1
HCM 7th LOS	F



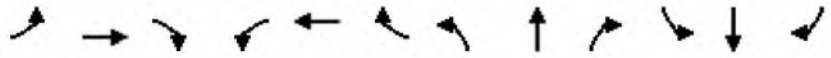
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	1710	249	147	1039	390	140	302	89	614	1233	58
Future Volume (veh/h)	208	1710	249	147	1039	390	140	302	89	614	1233	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	212	1745	0	150	1060	398	143	308	0	627	1258	0
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	244	3448		178	3322	818	171	691		656	1404	
Arrive On Green	0.07	0.54	0.00	0.05	0.52	0.52	0.05	0.14	0.00	0.19	0.27	0.00
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	212	1745	0	150	1060	398	143	308	0	627	1258	0
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	16.4	46.6	0.0	11.6	25.8	43.8	11.1	15.0	0.0	48.5	64.0	0.0
Cycle Q Clear(g_c), s	16.4	46.6	0.0	11.6	25.8	43.8	11.1	15.0	0.0	48.5	64.0	0.0
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	244	3448		178	3322	818	171	691		656	1404	
V/C Ratio(X)	0.87	0.51		0.84	0.32	0.49	0.84	0.45		0.96	0.90	
Avail Cap(c_a), veh/h	695	3448		312	3322	818	298	1027		685	1594	
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)	0.49	0.49	0.00	0.79	0.79	0.79	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	124.2	39.9	0.0	126.9	37.8	42.2	127.2	107.4	0.0	108.2	94.2	0.0
Incr Delay (d2), s/veh	4.7	0.3	0.0	8.2	0.2	1.6	10.2	0.5	0.0	23.5	6.5	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(95%),veh/ln	10.8	23.7	0.0	8.9	15.1	24.0	9.1	11.0	0.0	32.2	38.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	128.9	40.2	0.0	135.2	38.0	43.8	137.5	107.9	0.0	131.8	100.7	0.0
LnGrp LOS	F	D		F	D	D	F	F		F	F	
Approach Vol, veh/h		1957			1608			451			1885	
Approach Delay, s/veh		49.8			48.5			117.3			111.0	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	145.2	57.8	42.2	19.5	150.5	20.1	79.9
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	54.3	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	18.4	45.8	50.5	17.0	13.6	48.6	13.1	66.0
Green Ext Time (p_c), s	0.7	10.5	0.8	2.1	0.3	20.1	0.3	8.2

Intersection Summary	
HCM 7th Control Delay, s/veh	74.1
HCM 7th LOS	E

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	2071	1149	226	976	45	592	57	205	48	134	149
Future Volume (veh/h)	104	2071	1149	226	976	45	592	57	205	48	134	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	2113	1172	231	996	0	523	172	0	49	137	0
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	131	2598	806	258	2952		521	293		207	170	
Arrive On Green	0.07	0.51	0.51	0.14	0.58	0.00	0.10	0.16	0.00	0.04	0.09	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	106	2113	1172	231	996	0	523	172	0	49	137	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	8.2	48.6	71.2	17.8	14.3	0.0	14.6	12.0	0.0	3.4	10.1	0.0
Cycle Q Clear(g_c), s	8.2	48.6	71.2	17.8	14.3	0.0	14.6	12.0	0.0	3.4	10.1	0.0
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	131	2598	806	258	2952		521	293		207	170	
V/C Ratio(X)	0.81	0.81	1.45	0.90	0.34		1.00	0.59		0.24	0.81	
Avail Cap(c_a), veh/h	383	2598	806	387	2952		521	395		325	397	
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)	0.24	0.24	0.24	0.94	0.94	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.9	28.8	34.4	58.8	15.5	0.0	54.2	54.9	0.0	54.5	62.5	0.0
Incr Delay (d2), s/veh	3.0	0.7	205.8	15.5	0.3	0.0	40.1	1.9	0.0	0.6	8.8	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(95%),veh/ln	5.3	22.3	103.5	13.8	9.1	0.0	8.7	9.7	0.0	2.9	9.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.9	29.5	240.1	74.3	15.8	0.0	94.3	56.7	0.0	55.1	71.2	0.0
LnGrp LOS	E	C	F	E	B		F	E		E	E	
Approach Vol, veh/h		3391			1227			695			186	
Approach Delay, s/veh		103.5			26.8			85.0			67.0	
Approach LOS		F			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	86.7	10.8	27.3	24.9	77.0	20.0	18.1
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.3	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	10.2	16.3	5.4	14.0	19.8	73.2	16.6	12.1
Green Ext Time (p_c), s	0.2	7.1	0.0	0.7	0.4	0.0	0.0	0.6

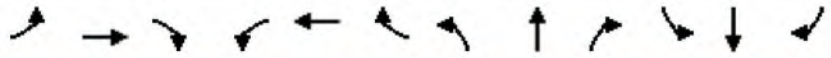
Intersection Summary	
HCM 7th Control Delay, s/veh	82.8
HCM 7th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	2523	191	182	1343	144	305	269	355	257	359	210
Future Volume (veh/h)	231	2523	191	182	1343	144	305	269	355	257	359	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	233	2548	0	184	1357	0	308	272	0	260	363	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	2832		226	2766		349	593		305	552	
Arrive On Green	0.08	0.55	0.00	0.07	0.54	0.00	0.10	0.17	0.00	0.09	0.16	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	233	2548	0	184	1357	0	308	272	0	260	363	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	12.6	84.3	0.0	10.0	31.5	0.0	16.7	13.1	0.0	14.1	18.3	0.0
Cycle Q Clear(g_c), s	12.6	84.3	0.0	10.0	31.5	0.0	16.7	13.1	0.0	14.1	18.3	0.0
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	278	2832		226	2766		349	593		305	552	
V/C Ratio(X)	0.84	0.90		0.82	0.49		0.88	0.46		0.85	0.66	
Avail Cap(c_a), veh/h	535	2832		437	2766		437	593		524	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	0.00	0.88	0.88	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	86.2	37.6	0.0	87.7	27.2	0.0	84.3	71.4	0.0	85.4	75.5	0.0
Incr Delay (d2), s/veh	6.7	5.1	0.0	6.2	0.6	0.0	15.9	2.5	0.0	6.7	6.0	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(95%),veh/ln	9.9	44.9	0.0	8.0	18.4	0.0	13.0	10.3	0.0	10.8	13.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	92.9	42.7	0.0	93.9	27.7	0.0	100.1	73.9	0.0	92.0	81.5	0.0
LnGrp LOS	F	D		F	C		F	E		F	F	
Approach Vol, veh/h		2781			1541			580			623	
Approach Delay, s/veh		46.9			35.6			87.8			85.9	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	108.7	23.0	37.4	18.4	111.2	25.2	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	29.4	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	14.6	33.5	16.1	15.1	12.0	86.3	18.7	20.3
Green Ext Time (p_c), s	0.6	12.4	0.7	1.0	0.4	2.8	0.5	1.5

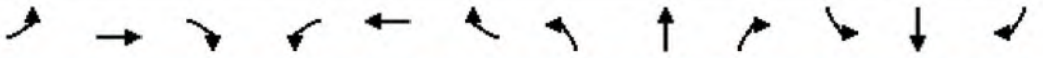
Intersection Summary	
HCM 7th Control Delay, s/veh	52.5
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

D4 – Horizon No-Build Conditions 2040



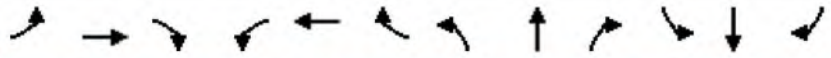
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	1130	35	462	2281	153	41	391	442	185	516	649
Future Volume (veh/h)	219	1130	35	462	2281	153	41	391	442	185	516	649
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	238	1228	0	502	2479	0	45	425	480	201	561	705
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	271	1630		383	1930		58	779	347	168	997	445
Arrive On Green	0.15	0.32	0.00	0.21	0.38	0.00	0.03	0.22	0.22	0.09	0.28	0.28
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	238	1228	0	502	2479	0	45	425	480	201	561	705
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	15.7	25.9	0.0	25.8	45.4	0.0	3.0	12.7	26.3	11.3	16.2	33.7
Cycle Q Clear(g_c), s	15.7	25.9	0.0	25.8	45.4	0.0	3.0	12.7	26.3	11.3	16.2	33.7
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	271	1630		383	1930		58	779	347	168	997	445
V/C Ratio(X)	0.88	0.75		1.31	1.28		0.77	0.55	1.38	1.20	0.56	1.58
Avail Cap(c_a), veh/h	465	1630		383	1930		197	779	347	168	997	445
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	36.6	0.0	47.1	37.3	0.0	57.6	41.6	46.8	54.4	36.9	43.2
Incr Delay (d2), s/veh	9.7	3.3	0.0	157.5	132.0	0.0	19.2	0.8	188.8	132.8	0.7	273.7
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(95%),veh/ln	12.2	16.5	0.0	41.8	61.0	0.0	3.0	9.5	43.4	17.8	11.4	72.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.5	39.9	0.0	204.6	169.3	0.0	76.8	42.3	235.7	187.2	37.6	316.8
LnGrp LOS	E	D		F	F		E	D	F	F	D	F
Approach Vol, veh/h		1466			2981			950			1467	
Approach Delay, s/veh		43.1			175.2			141.7			192.3	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	43.0	8.6	38.4	22.9	50.1	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	27.8	27.9	5.0	35.7	17.7	47.4	13.3	28.3
Green Ext Time (p_c), s	0.0	5.0	0.0	0.0	0.5	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	146.0
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



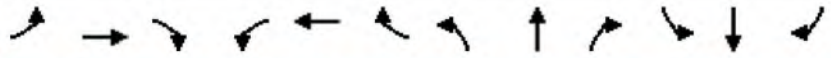
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	885	497	113	2265	300	486	292	76	193	302	466
Future Volume (veh/h)	258	885	497	113	2265	300	486	292	76	193	302	466
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	274	941	0	120	2410	0	517	311	81	205	321	0
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	352	1858		152	1774		721	742	331	661	680	
Arrive On Green	0.10	0.36	0.00	0.09	0.35	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	274	941	0	120	2410	0	517	311	81	205	321	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	8.8	16.4	0.0	7.5	39.6	0.0	15.9	8.7	4.9	5.8	9.2	0.0
Cycle Q Clear(g_c), s	8.8	16.4	0.0	7.5	39.6	0.0	15.9	8.7	4.9	5.8	9.2	0.0
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	352	1858		152	1774		721	742	331	661	680	
V/C Ratio(X)	0.78	0.51		0.79	1.36		0.72	0.42	0.24	0.31	0.47	
Avail Cap(c_a), veh/h	782	1858		325	1774		721	742	331	661	680	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	28.3	0.0	51.1	37.2	0.0	42.0	39.1	37.6	39.6	41.0	0.0
Incr Delay (d2), s/veh	3.8	1.0	0.0	8.8	165.1	0.0	6.0	1.7	1.8	1.2	2.3	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(95%),veh/ln	7.1	10.8	0.0	6.6	64.0	0.0	11.6	7.0	3.6	4.6	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	53.7	29.3	0.0	59.9	202.3	0.0	48.0	40.8	39.4	40.9	43.3	0.0
LnGrp LOS	D	C		E	F		D	D	D	D	D	
Approach Vol, veh/h		1215			2530			909			526	
Approach Delay, s/veh		34.8			195.6			44.8			42.4	
Approach LOS		C			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	46.1	28.0	26.0	15.8	44.2	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	20.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	19.5	18.4	17.9	11.2	10.8	41.6	7.8	10.7
Green Ext Time (p_c), s	0.2	4.8	1.0	1.3	0.8	0.0	0.5	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	115.8
HCM 7th LOS	F

Notes

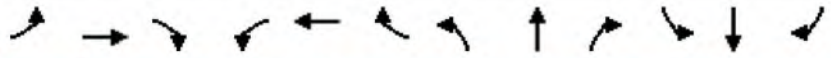
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	6	4	336	45	439	13	391	148	250	345	57
Future Volume (veh/h)	11	6	4	336	45	439	13	391	148	250	345	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	12	6	4	357	48	467	14	416	157	266	367	61
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	245	163	520	44	425	28	858	320	299	1500	247
Arrive On Green	0.01	0.24	0.24	0.07	0.30	0.30	0.02	0.34	0.34	0.17	0.50	0.50
Sat Flow, veh/h	1753	1030	687	1753	147	1435	1753	2492	930	1753	3005	495
Grp Volume(v), veh/h	12	0	10	357	0	515	14	291	282	266	212	216
Grp Sat Flow(s),veh/h/ln	1753	0	1717	1753	0	1582	1753	1749	1673	1753	1749	1752
Q Serve(g_s), s	0.5	0.0	0.5	7.5	0.0	30.5	0.8	13.5	13.7	15.3	7.1	7.3
Cycle Q Clear(g_c), s	0.5	0.0	0.5	7.5	0.0	30.5	0.8	13.5	13.7	15.3	7.1	7.3
Prop In Lane	1.00		0.40	1.00		0.91	1.00		0.56	1.00		0.28
Lane Grp Cap(c), veh/h	95	0	408	520	0	469	28	602	576	299	873	874
V/C Ratio(X)	0.13	0.00	0.02	0.69	0.00	1.10	0.50	0.48	0.49	0.89	0.24	0.25
Avail Cap(c_a), veh/h	198	0	508	520	0	469	272	602	576	374	873	874
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	0.0	30.1	31.1	0.0	36.3	50.3	26.6	26.6	41.7	14.7	14.7
Incr Delay (d2), s/veh	0.6	0.0	0.0	3.8	0.0	71.2	13.0	2.8	3.0	18.9	0.7	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(95%),veh/ln	0.4	0.0	0.3	8.1	0.0	29.5	0.8	9.8	9.6	12.6	5.1	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.5	0.0	30.2	34.9	0.0	107.5	63.3	29.3	29.6	60.7	15.4	15.4
LnGrp LOS	C		C	C		F	E	C	C	E	B	B
Approach Vol, veh/h		22			872			587			694	
Approach Delay, s/veh		31.5			77.8			30.3			32.8	
Approach LOS		C			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	40.5	12.0	29.0	5.7	56.4	6.0	35.0
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.6	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	7.3	15.7	9.5	2.5	2.8	9.3	2.5	32.5
Green Ext Time (p_c), s	0.3	2.3	0.0	0.0	0.0	2.3	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	50.1
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	42	0	21	0	592	89	47	613	0
Future Volume (veh/h)	0	0	0	42	0	21	0	592	89	47	613	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	0	0	0	45	0	22	0	630	95	50	652	0
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	105	0	122	1	27	2	2256	340	68	2878	0
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.06	0.00	0.75	0.75	0.04	0.84	0.00
Sat Flow, veh/h	0	1811	0	943	15	468	1725	2999	451	1725	3532	0
Grp Volume(v), veh/h	0	0	0	67	0	0	0	361	364	50	652	0
Grp Sat Flow(s),veh/h/ln	0	1811	0	1426	0	0	1725	1721	1730	1725	1721	0
Q Serve(g_s), s	0.0	0.0	0.0	4.1	0.0	0.0	0.0	5.9	5.9	2.6	3.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.2	0.0	0.0	0.0	5.9	5.9	2.6	3.4	0.0
Prop In Lane	0.00		0.00	0.67		0.33	1.00		0.26	1.00		0.00
Lane Grp Cap(c), veh/h	0	105	0	150	0	0	2	1295	1302	68	2878	0
V/C Ratio(X)	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.28	0.28	0.73	0.23	0.00
Avail Cap(c_a), veh/h	0	322	0	470	0	0	307	1295	1302	307	2878	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)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	41.9	0.0	0.0	0.0	3.5	3.5	42.7	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.5	0.5	13.9	0.2	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(95%),veh/ln	0.0	0.0	0.0	2.7	0.0	0.0	0.0	2.7	2.7	2.4	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	44.0	0.0	0.0	0.0	4.0	4.0	56.6	1.7	0.0
LnGrp LOS				D				A	A	E	A	
Approach Vol, veh/h		0			67			725			702	
Approach Delay, s/veh		0.0			44.0			4.0			5.6	
Approach LOS					D			A			A	

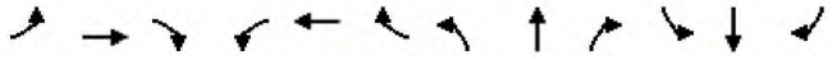
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	72.7		9.7	0.0	80.3		9.7
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	14.6	7.9		0.0	0.0	5.4		6.2
Green Ext Time (p_c), s	0.1	4.5		0.0	0.0	4.5		0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	6.6
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	21	11	0	3	220	684	17	6	653	6
Future Volume (veh/h)	7	0	21	11	0	3	220	684	17	6	653	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	0	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	8	0	25	13	0	4	265	824	20	7	787	7
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	0	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	0	0	18	0	5	292	3009	73	12	1293	1096
Arrive On Green	0.00	0.00	0.00	0.01	0.00	0.01	0.17	0.88	0.88	0.01	0.71	0.71
Sat Flow, veh/h		0		1282	0	394	1725	3433	83	1725	1811	1535
Grp Volume(v), veh/h		0.0		17	0	0	265	413	431	7	787	7
Grp Sat Flow(s),veh/h/ln				1676	0	0	1725	1721	1796	1725	1811	1535
Q Serve(g_s), s				1.4	0.0	0.0	20.5	5.3	5.3	0.6	29.9	0.2
Cycle Q Clear(g_c), s				1.4	0.0	0.0	20.5	5.3	5.3	0.6	29.9	0.2
Prop In Lane				0.76		0.24	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h				23	0	0	292	1508	1574	12	1293	1096
V/C Ratio(X)				0.73	0.00	0.00	0.91	0.27	0.27	0.59	0.61	0.01
Avail Cap(c_a), veh/h				339	0	0	349	1508	1574	349	1293	1096
HCM Platoon Ratio				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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				66.8	0.0	0.0	55.4	1.4	1.4	67.3	9.9	5.6
Incr Delay (d2), s/veh				46.1	0.0	0.0	25.1	0.4	0.4	53.2	2.1	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
%ile BackOfQ(95%),veh/ln				1.6	0.0	0.0	16.2	1.7	1.7	0.7	16.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				112.9	0.0	0.0	80.6	1.8	1.8	120.6	12.0	5.6
LnGrp LOS				F			F	A	A	F	B	A
Approach Vol, veh/h					17			1109			801	
Approach Delay, s/veh					112.9			20.6			12.9	
Approach LOS					F			C			B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	5.4	124.2		6.4	27.5	102.1
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0
Max Green Setting (Gmax), s	27.5	35.0		27.5	27.5	35.0
Max Q Clear Time (g_c+I1), s	12.6	7.3		3.4	22.5	31.9
Green Ext Time (p_c), s	0.0	13.2		0.1	0.5	2.3

Intersection Summary		
HCM 7th Control Delay, s/veh		18.2
HCM 7th LOS		B

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	17	1	17	150	0	0	0	3	0	0	0
Future Vol, veh/h	0	17	1	17	150	0	0	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	20	1	20	181	0	0	0	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	181	0	0	22	0	0	243	243	21	242	243	181
Stage 1	-	-	-	-	-	-	21	21	-	222	222	-
Stage 2	-	-	-	-	-	-	222	222	-	20	22	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.17	6.57	6.27	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.563	4.063	3.363	3.563	4.063	3.363
Pot Cap-1 Maneuver	1365	-	-	1562	-	-	701	650	1042	701	650	849
Stage 1	-	-	-	-	-	-	985	868	-	770	711	-
Stage 2	-	-	-	-	-	-	770	711	-	985	867	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1365	-	-	1562	-	-	691	641	1042	689	640	849
Mov Cap-2 Maneuver	-	-	-	-	-	-	691	641	-	689	640	-
Stage 1	-	-	-	-	-	-	985	868	-	758	700	-
Stage 2	-	-	-	-	-	-	758	700	-	982	867	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.75	8.47	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1042	1365	-	-	1562	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	0.013	-	-	-
HCM Ctrl Dly (s/v)	8.5	0	-	-	7.3	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

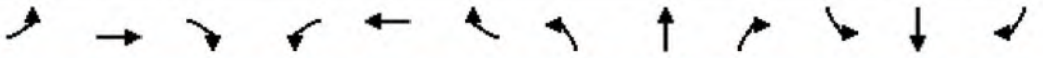
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	105	0	0	48
Future Vol, veh/h	0	0	105	0	0	48
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	0	0	131	0	0	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	191	66	0	0	131	0
Stage 1	131	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.69	6.99	-	-	4.19	-
Critical Hdwy Stg 1	5.89	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.557	3.357	-	-	2.257	-
Pot Cap-1 Maneuver	778	973	-	-	1426	-
Stage 1	871	-	-	-	-	-
Stage 2	951	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	778	973	-	-	1426	-
Mov Cap-2 Maneuver	778	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	951	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

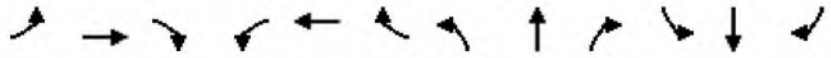
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1426	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	391	1133	11	134	3688	442	16	100	194	168	83	615
Future Volume (veh/h)	391	1133	11	134	3688	442	16	100	194	168	83	615
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1914	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	412	1193	12	141	3882	465	17	105	204	177	87	647
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	446	3014	30	174	2418	620	432	490	437	358	903	403
Arrive On Green	0.13	0.46	0.46	0.05	0.38	0.38	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3401	6513	65	3401	6332	1622	3401	1749	1560	3401	3497	1560
Grp Volume(v), veh/h	412	870	335	141	3882	465	17	105	204	177	87	647
Grp Sat Flow(s),veh/h/ln	1700	1583	1829	1700	1583	1622	1700	1749	1560	1700	1749	1560
Q Serve(g_s), s	27.5	27.7	27.7	9.4	87.8	57.1	1.0	10.6	24.9	11.3	4.4	59.4
Cycle Q Clear(g_c), s	27.5	27.7	27.7	9.4	87.8	57.1	1.0	10.6	24.9	11.3	4.4	59.4
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	446	2198	847	174	2418	620	432	490	437	358	903	403
V/C Ratio(X)	0.92	0.40	0.40	0.81	1.61	0.75	0.04	0.21	0.47	0.49	0.10	1.61
Avail Cap(c_a), veh/h	500	2198	847	355	2418	620	432	490	437	358	903	403
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)	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	98.8	40.6	40.6	108.0	71.1	61.6	88.1	63.4	68.6	97.1	64.9	85.3
Incr Delay (d2), s/veh	18.6	0.4	1.1	8.8	274.3	8.1	0.2	1.0	3.6	4.8	0.2	284.1
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(95%),veh/ln	18.7	15.9	18.2	7.9	124.0	33.1	0.8	8.5	15.7	9.0	3.6	84.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	117.4	41.1	41.8	116.8	345.3	69.7	88.3	64.4	72.1	101.9	65.1	369.4
LnGrp LOS	F	D	D	F	F	E	F	E	E	F	E	F
Approach Vol, veh/h		1617			4488			326			911	
Approach Delay, s/veh		60.7			309.6			70.5			288.3	
Approach LOS		E			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.4	93.6	35.0	65.0	17.7	112.3	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	29.5	89.8	3.0	61.4	11.4	29.7	13.3	26.9
Green Ext Time (p_c), s	0.6	0.0	0.0	0.0	0.3	9.6	0.4	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	241.5
HCM 7th LOS	F



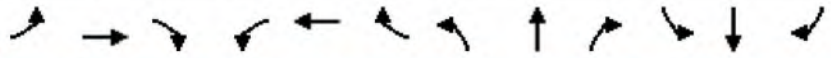
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	998	83	72	2632	1607	215	990	90	596	307	42
Future Volume (veh/h)	224	998	83	72	2632	1607	215	990	90	596	307	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	233	1040	0	75	2742	1674	224	1031	0	621	320	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	266	3109		101	2800	690	250	1011		649	1596	
Arrive On Green	0.08	0.49	0.00	0.03	0.44	0.44	0.07	0.20	0.00	0.19	0.32	0.00
Sat Flow, veh/h	3401	6332	1560	3401	6332	1560	3401	5025	1560	3401	5025	1560
Grp Volume(v), veh/h	233	1040	0	75	2742	1674	224	1031	0	621	320	0
Grp Sat Flow(s),veh/h/ln	1700	1583	1560	1700	1583	1560	1700	1675	1560	1700	1675	1560
Q Serve(g_s), s	18.3	27.0	0.0	5.9	115.0	119.4	17.6	54.3	0.0	48.8	12.5	0.0
Cycle Q Clear(g_c), s	18.3	27.0	0.0	5.9	115.0	119.4	17.6	54.3	0.0	48.8	12.5	0.0
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	266	3109		101	2800	690	250	1011		649	1596	
V/C Ratio(X)	0.88	0.33		0.74	0.98	2.43	0.89	1.02		0.96	0.20	
Avail Cap(c_a), veh/h	684	3109		307	2800	690	293	1011		674	1596	
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)	0.89	0.89	0.00	0.09	0.09	0.09	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	123.2	41.9	0.0	130.0	74.1	75.3	124.0	107.8	0.0	108.1	67.2	0.0
Incr Delay (d2), s/veh	8.1	0.3	0.0	1.0	2.2	642.4	25.1	33.5	0.0	24.1	0.1	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(95%),veh/ln	8.0	15.9	0.0	3.5	50.1	260.1	13.7	35.9	0.0	32.0	9.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	131.3	42.1	0.0	130.9	76.3	717.7	149.1	141.3	0.0	132.3	67.2	0.0
LnGrp LOS	F	D		F	E	F	F	F		F	E	
Approach Vol, veh/h		1273			4491			1255			941	
Approach Delay, s/veh		58.4			316.3			142.7			110.1	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.8	125.2	58.0	60.0	13.6	138.4	26.6	91.4
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	21.1	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	20.3	121.4	50.8	56.3	7.9	29.0	19.6	14.5
Green Ext Time (p_c), s	0.8	0.0	0.7	0.0	0.2	8.5	0.2	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	223.3
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	993	869	112	2514	158	1255	96	154	69	100	420
Future Volume (veh/h)	70	993	869	112	2514	158	1255	96	154	69	100	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	72	1024	896	115	2592	0	1365	0	0	71	103	0
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	92	2975	924	140	3101		770	0		243	133	
Arrive On Green	0.05	0.59	0.59	0.08	0.62	0.00	0.10	0.00	0.00	0.05	0.07	0.00
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	5259	0	1560	1753	1841	1560
Grp Volume(v), veh/h	72	1024	896	115	2592	0	1365	0	0	71	103	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	0	1560	1753	1841	1560
Q Serve(g_s), s	5.7	14.6	77.1	9.0	57.1	0.0	14.6	0.0	0.0	5.2	7.7	0.0
Cycle Q Clear(g_c), s	5.7	14.6	77.1	9.0	57.1	0.0	14.6	0.0	0.0	5.2	7.7	0.0
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	92	2975	924	140	3101		770	0		243	133	
V/C Ratio(X)	0.78	0.34	0.97	0.82	0.84		1.77	0.00		0.29	0.77	
Avail Cap(c_a), veh/h	377	2975	924	381	3101		770	0		337	390	
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)	0.73	0.73	0.73	0.09	0.09	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.5	14.6	27.4	63.4	21.2	0.0	56.0	0.0	0.0	55.9	63.8	0.0
Incr Delay (d2), s/veh	10.1	0.2	19.1	1.1	0.3	0.0	353.4	0.0	0.0	0.7	9.1	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(95%),veh/ln	5.0	8.6	40.7	5.0	22.5	0.0	42.7	0.0	0.0	4.3	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.6	14.9	46.5	64.6	21.5	0.0	409.5	0.0	0.0	56.6	72.8	0.0
LnGrp LOS	E	B	D	E	C		F			E	E	
Approach Vol, veh/h		1992			2707			1365			174	
Approach Delay, s/veh		31.3			23.3			409.5			66.2	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	92.2	12.5	23.0	15.8	88.7	20.0	15.6
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.0	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	7.7	59.1	7.2	0.0	11.0	79.1	16.6	9.7
Green Ext Time (p_c), s	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.5

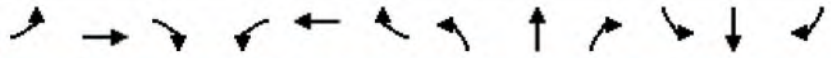
Intersection Summary	
HCM 7th Control Delay, s/veh	111.5
HCM 7th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	1484	414	246	3734	141	728	250	250	214	291	663
Future Volume (veh/h)	225	1484	414	246	3734	141	728	250	250	214	291	663
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	239	1579	0	262	3972	0	774	266	0	228	310	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	283	2564		304	2605		433	709		272	547	
Arrive On Green	0.08	0.51	0.00	0.09	0.51	0.00	0.13	0.20	0.00	0.08	0.16	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	239	1579	0	262	3972	0	774	266	0	228	310	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	13.1	42.5	0.0	14.3	97.7	0.0	24.0	12.4	0.0	12.5	15.5	0.0
Cycle Q Clear(g_c), s	13.1	42.5	0.0	14.3	97.7	0.0	24.0	12.4	0.0	12.5	15.5	0.0
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	283	2564		304	2605		433	709		272	547	
V/C Ratio(X)	0.84	0.62		0.86	1.52		1.79	0.38		0.84	0.57	
Avail Cap(c_a), veh/h	530	2564		433	2605		433	709		520	547	
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	0.09	0.09	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	85.9	33.7	0.0	85.4	46.1	0.0	83.0	65.6	0.0	86.3	74.3	0.0
Incr Delay (d2), s/veh	6.8	1.1	0.0	1.2	236.4	0.0	363.5	1.5	0.0	6.8	4.2	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(95%),veh/ln	10.1	24.3	0.0	7.6	135.3	0.0	50.7	9.7	0.0	9.8	11.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	92.7	34.8	0.0	86.7	282.5	0.0	446.5	67.1	0.0	93.0	78.5	0.0
LnGrp LOS	F	C		F	F		F	E		F	E	
Approach Vol, veh/h		1818			4234			1040			538	
Approach Delay, s/veh		42.4			270.4			349.4			84.7	
Approach LOS		D			F			F			F	

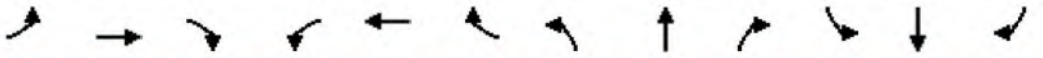
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	103.5	21.3	43.9	22.8	102.0	30.0	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	29.4	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	15.1	99.7	14.5	14.4	16.3	44.5	26.0	17.5
Green Ext Time (p_c), s	0.6	0.0	0.6	1.1	0.5	15.4	0.0	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	213.8
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



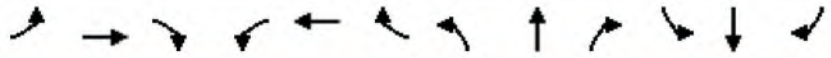
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	2271	32	357	1318	198	69	517	998	263	360	307
Future Volume (veh/h)	253	2271	32	357	1318	198	69	517	998	263	360	307
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	258	2317	0	364	1345	0	70	528	1018	268	367	313
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	291	1643		386	1893		90	785	350	169	942	420
Arrive On Green	0.16	0.32	0.00	0.21	0.37	0.00	0.05	0.22	0.22	0.09	0.26	0.26
Sat Flow, veh/h	1795	5147	1598	1795	5147	1598	1795	3582	1598	1795	3582	1598
Grp Volume(v), veh/h	258	2317	0	364	1345	0	70	528	1018	268	367	313
Grp Sat Flow(s),veh/h/ln	1795	1716	1598	1795	1716	1598	1795	1791	1598	1795	1791	1598
Q Serve(g_s), s	16.9	38.3	0.0	24.0	26.8	0.0	4.6	16.2	26.3	11.3	10.1	21.5
Cycle Q Clear(g_c), s	16.9	38.3	0.0	24.0	26.8	0.0	4.6	16.2	26.3	11.3	10.1	21.5
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	291	1643		386	1893		90	785	350	169	942	420
V/C Ratio(X)	0.89	1.41		0.94	0.71		0.78	0.67	2.91	1.59	0.39	0.74
Avail Cap(c_a), veh/h	468	1643		386	1893		199	785	350	169	942	420
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	40.8	0.0	46.4	32.5	0.0	56.3	42.9	46.8	54.3	36.3	40.5
Incr Delay (d2), s/veh	11.6	188.4	0.0	31.5	2.3	0.0	13.1	2.3	866.1	289.6	0.3	7.1
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(95%),veh/ln	13.2	66.9	0.0	19.9	16.7	0.0	4.3	11.8	148.3	29.7	7.9	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.8	229.3	0.0	77.9	34.7	0.0	69.4	45.2	912.9	343.9	36.6	47.6
LnGrp LOS	E	F		E	C		E	D	F	F	D	D
Approach Vol, veh/h		2575			1709			1616			948	
Approach Delay, s/veh		212.4			43.9			592.9			127.1	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	43.0	10.7	36.3	24.2	48.8	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	26.0	40.3	6.6	23.5	18.9	28.8	13.3	28.3
Green Ext Time (p_c), s	0.0	0.0	0.1	1.0	0.6	1.2	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	248.3
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



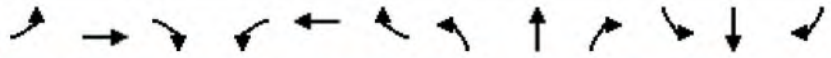
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	560	2022	910	175	1344	277	447	376	160	286	451	353
Future Volume (veh/h)	560	2022	910	175	1344	277	447	376	160	286	451	353
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	589	2128	0	184	1415	0	471	396	168	301	475	0
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	667	1692		216	1326		727	748	334	666	685	
Arrive On Green	0.19	0.33	0.00	0.12	0.26	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3483	5147	1598	1795	5147	1598	3483	3582	1598	3483	3582	1598
Grp Volume(v), veh/h	589	2128	0	184	1415	0	471	396	168	301	475	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1795	1716	1598	1742	1791	1598	1742	1791	1598
Q Serve(g_s), s	18.8	37.5	0.0	11.5	29.4	0.0	14.1	11.2	10.6	8.7	14.1	0.0
Cycle Q Clear(g_c), s	18.8	37.5	0.0	11.5	29.4	0.0	14.1	11.2	10.6	8.7	14.1	0.0
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	667	1692		216	1326		727	748	334	666	685	
V/C Ratio(X)	0.88	1.26		0.85	1.07		0.65	0.53	0.50	0.45	0.69	
Avail Cap(c_a), veh/h	788	1692		328	1326		727	748	334	666	685	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.8	38.3	0.0	49.1	42.3	0.0	41.3	40.1	39.9	40.8	43.0	0.0
Incr Delay (d2), s/veh	10.3	120.9	0.0	12.6	44.8	0.0	4.4	2.7	5.3	2.2	5.7	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(95%),veh/ln	18.7	50.0	0.0	9.7	25.3	0.0	10.5	8.8	8.1	7.0	10.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.1	159.2	0.0	61.7	87.1	0.0	45.7	42.8	45.2	43.0	48.7	0.0
LnGrp LOS	E	F		E	F		D	D	D	D	D	
Approach Vol, veh/h		2717			1599			1035			776	
Approach Delay, s/veh		136.6			84.2			44.5			46.5	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	42.1	28.0	26.0	26.0	34.0	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	20.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	13.5	39.5	16.1	16.1	20.8	31.4	10.7	13.2
Green Ext Time (p_c), s	0.3	0.0	1.1	1.4	1.1	0.0	0.8	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	96.0
HCM 7th LOS	F

Notes

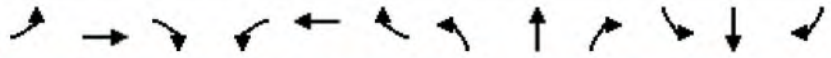
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	41	11	272	10	219	0	408	198	519	914	7
Future Volume (veh/h)	59	41	11	272	10	219	0	408	198	519	914	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	60	42	11	278	10	223	0	416	202	530	933	7
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	175	198	52	352	12	262	2	932	447	380	2360	18
Arrive On Green	0.04	0.14	0.14	0.07	0.17	0.17	0.00	0.40	0.40	0.21	0.65	0.65
Sat Flow, veh/h	1781	1429	374	1781	68	1527	1781	2328	1118	1781	3615	27
Grp Volume(v), veh/h	60	0	53	278	0	233	0	316	302	530	459	481
Grp Sat Flow(s),veh/h/ln	1781	0	1803	1781	0	1595	1781	1777	1669	1781	1777	1865
Q Serve(g_s), s	2.9	0.0	2.7	7.5	0.0	14.6	0.0	13.4	13.6	22.0	12.4	12.4
Cycle Q Clear(g_c), s	2.9	0.0	2.7	7.5	0.0	14.6	0.0	13.4	13.6	22.0	12.4	12.4
Prop In Lane	1.00		0.21	1.00		0.96	1.00		0.67	1.00		0.01
Lane Grp Cap(c), veh/h	175	0	250	352	0	274	2	711	668	380	1160	1218
V/C Ratio(X)	0.34	0.00	0.21	0.79	0.00	0.85	0.00	0.44	0.45	1.39	0.40	0.40
Avail Cap(c_a), veh/h	234	0	534	352	0	472	277	711	668	380	1160	1218
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	0.0	39.4	39.5	0.0	41.4	0.0	22.5	22.6	40.5	8.4	8.4
Incr Delay (d2), s/veh	1.2	0.0	0.4	11.6	0.0	7.3	0.0	2.0	2.2	192.3	1.0	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(95%),veh/ln	2.4	0.0	2.1	7.5	0.0	10.2	0.0	9.6	9.3	45.0	7.8	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.8	0.0	39.8	51.1	0.0	48.7	0.0	24.6	24.8	232.8	9.4	9.3
LnGrp LOS	D		D	D		D		C	C	F	A	A
Approach Vol, veh/h		113			511			618			1470	
Approach Delay, s/veh		38.7			50.0			24.7			89.9	
Approach LOS		D			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	46.2	12.0	18.8	0.0	72.2	8.6	22.2
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.0	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	24.0	15.6	9.5	4.7	0.0	14.4	4.9	16.6
Green Ext Time (p_c), s	0.0	2.5	0.0	0.2	0.0	5.2	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	65.4
HCM 7th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	109	0	34	0	558	34	34	1184	0
Future Volume (veh/h)	0	0	0	109	0	34	0	558	34	34	1184	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	112	0	35	0	575	35	35	1221	0
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	0	231	0	206	2	43	2	2362	144	58	2739	0
Arrive On Green	0.00	0.00	0.00	0.12	0.00	0.12	0.00	0.69	0.69	0.03	0.77	0.00
Sat Flow, veh/h	0	1870	0	1093	19	347	1781	3403	207	1781	3647	0
Grp Volume(v), veh/h	0	0	0	147	0	0	0	300	310	35	1221	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1459	0	0	1781	1777	1833	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	8.7	0.0	0.0	0.0	5.6	5.6	1.7	10.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.8	0.0	0.0	0.0	5.6	5.6	1.7	10.8	0.0
Prop In Lane	0.00		0.00	0.76		0.24	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	231	0	251	0	0	2	1233	1272	58	2739	0
V/C Ratio(X)	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.24	0.24	0.61	0.45	0.00
Avail Cap(c_a), veh/h	0	333	0	483	0	0	317	1233	1272	317	2739	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)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	38.4	0.0	0.0	0.0	5.1	5.1	43.0	3.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.5	0.5	9.8	0.5	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(95%),veh/ln	0.0	0.0	0.0	5.8	0.0	0.0	0.0	3.1	3.2	1.6	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	40.6	0.0	0.0	0.0	5.5	5.5	52.8	4.1	0.0
LnGrp LOS				D				A	A	D	A	
Approach Vol, veh/h		0			147			610			1256	
Approach Delay, s/veh		0.0			40.6			5.5			5.5	
Approach LOS					D			A			A	

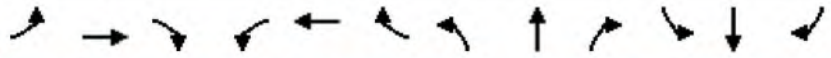
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	67.5		15.6	0.0	74.4		15.6
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	13.7	7.6		0.0	0.0	12.8		10.8
Green Ext Time (p_c), s	0.0	3.6		0.0	0.0	9.0		0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	8.1
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	171	24	0	13	31	564	24	1	1296	1
Future Volume (veh/h)	10	0	171	24	0	13	31	564	24	1	1296	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	0	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	11	0	180	25	0	14	33	594	25	1	1364	1
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, %	1	0	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	0	0	0	33	0	18	43	3034	128	2	1590	1347
Arrive On Green	0.00	0.00	0.00	0.03	0.00	0.03	0.02	0.87	0.87	0.00	0.84	0.84
Sat Flow, veh/h		0		1102	0	617	1795	3502	147	1795	1885	1598
Grp Volume(v), veh/h		0.0		39	0	0	33	303	316	1	1364	1
Grp Sat Flow(s),veh/h/ln				1719	0	0	1795	1791	1859	1795	1885	1598
Q Serve(g_s), s				3.1	0.0	0.0	2.5	3.7	3.7	0.1	55.7	0.0
Cycle Q Clear(g_c), s				3.1	0.0	0.0	2.5	3.7	3.7	0.1	55.7	0.0
Prop In Lane				0.64		0.36	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h				51	0	0	43	1551	1610	2	1590	1347
V/C Ratio(X)				0.76	0.00	0.00	0.77	0.20	0.20	0.51	0.86	0.00
Avail Cap(c_a), veh/h				348	0	0	363	1551	1610	363	1590	1347
HCM Platoon Ratio				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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				65.5	0.0	0.0	66.0	1.5	1.5	67.9	6.0	1.7
Incr Delay (d2), s/veh				27.7	0.0	0.0	32.6	0.3	0.3	167.8	6.2	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
%ile BackOfQ(95%),veh/ln				3.1	0.0	0.0	2.7	1.3	1.4	0.2	21.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				93.2	0.0	0.0	98.6	1.7	1.7	235.6	12.3	1.7
LnGrp LOS				F			F	A	A	F	B	A
Approach Vol, veh/h					39			652			1366	
Approach Delay, s/veh					93.2			6.6			12.4	
Approach LOS					F			A			B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	4.6	122.8		8.5	7.8	119.7
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0
Max Green Setting (Gmax), s	27.5	35.0		27.5	27.5	35.0
Max Q Clear Time (g_c+I1), s	12.1	5.7		5.1	4.5	57.7
Green Ext Time (p_c), s	0.0	9.5		0.2	0.1	0.0

Intersection Summary		
HCM 7th Control Delay, s/veh	12.1	
HCM 7th LOS	B	

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	140	0	3	24	0	0	0	17	0	0	0
Future Vol, veh/h	0	140	0	3	24	0	0	0	17	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	177	0	4	30	0	0	0	22	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	30	0	0	177	0	0	215	215	177	215	215	30
Stage 1	-	-	-	-	-	-	177	177	-	38	38	-
Stage 2	-	-	-	-	-	-	38	38	-	177	177	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1582	-	-	1399	-	-	741	683	866	741	683	1044
Stage 1	-	-	-	-	-	-	825	753	-	977	863	-
Stage 2	-	-	-	-	-	-	977	863	-	825	753	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1582	-	-	1399	-	-	739	681	866	721	681	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	739	681	-	721	681	-
Stage 1	-	-	-	-	-	-	825	753	-	975	861	-
Stage 2	-	-	-	-	-	-	975	861	-	804	753	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.84	9.26	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	866	1582	-	-	1399	-	-	-
HCM Lane V/C Ratio	0.025	-	-	-	0.003	-	-	-
HCM Ctrl Dly (s/v)	9.3	0	-	-	7.6	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	52	0	0	89
Future Vol, veh/h	0	0	52	0	0	89
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	87	0	0	148

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	235	43	0	0	87	0
Stage 1	87	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	743	1018	-	-	1508	-
Stage 1	927	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	743	1018	-	-	1508	-
Mov Cap-2 Maneuver	743	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	879	-	-	-	-	-

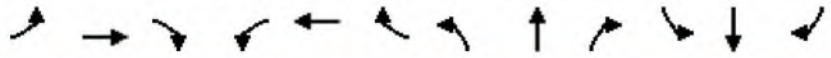
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1508	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	556	2680	45	132	1601	185	27	116	202	509	243	738
Future Volume (veh/h)	556	2680	45	132	1601	185	27	116	202	509	243	738
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	567	2735	46	135	1634	189	28	118	206	519	248	753
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	508	3055	51	168	2355	603	439	498	444	364	918	409
Arrive On Green	0.15	0.47	0.47	0.05	0.37	0.37	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3456	6566	110	3456	6434	1648	3456	1777	1585	3456	3554	1585
Grp Volume(v), veh/h	567	2009	772	135	1634	189	28	118	206	519	248	753
Grp Sat Flow(s),veh/h/ln	1728	1609	1851	1728	1609	1648	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	33.8	87.7	88.0	8.9	49.6	18.9	1.6	11.8	24.7	24.2	12.8	59.4
Cycle Q Clear(g_c), s	33.8	87.7	88.0	8.9	49.6	18.9	1.6	11.8	24.7	24.2	12.8	59.4
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	508	2245	861	168	2355	603	439	498	444	364	918	409
V/C Ratio(X)	1.12	0.89	0.90	0.80	0.69	0.31	0.06	0.24	0.46	1.43	0.27	1.84
Avail Cap(c_a), veh/h	508	2245	861	361	2355	603	439	498	444	364	918	409
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)	0.43	0.43	0.43	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	98.1	56.3	56.4	108.3	61.9	52.2	88.4	63.9	68.5	102.9	68.0	85.3
Incr Delay (d2), s/veh	64.3	2.8	6.8	8.6	1.7	1.4	0.3	1.1	3.5	207.6	0.7	387.2
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(95%),veh/ln	25.9	42.1	49.1	7.6	27.9	12.8	1.4	9.4	15.8	33.0	10.0	105.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	162.4	59.1	63.2	116.9	63.7	53.6	88.6	65.0	72.0	310.5	68.7	472.5
LnGrp LOS	F	E	E	F	E	D	F	E	E	F	E	F
Approach Vol, veh/h		3348			1958			352			1520	
Approach Delay, s/veh		77.6			66.4			71.0			351.3	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	90.0	35.0	65.0	17.2	112.8	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	35.8	51.6	3.6	61.4	10.9	90.0	26.2	26.7
Green Ext Time (p_c), s	0.0	15.5	0.0	0.0	0.3	3.9	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	132.1
HCM 7th LOS	F



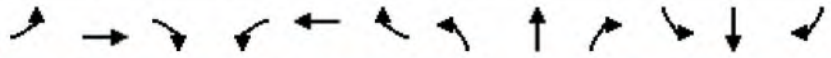
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	2391	352	191	1443	551	198	427	109	367	1742	82
Future Volume (veh/h)	294	2391	352	191	1443	551	198	427	109	367	1742	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	300	2440	0	195	1472	562	202	436	0	374	1778	0
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	335	3015		223	2804	691	230	1330		411	1594	
Arrive On Green	0.10	0.47	0.00	0.06	0.44	0.44	0.07	0.26	0.00	0.12	0.31	0.00
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	300	2440	0	195	1472	562	202	436	0	374	1778	0
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	23.2	87.7	0.0	15.1	45.2	83.7	15.6	18.6	0.0	28.9	84.3	0.0
Cycle Q Clear(g_c), s	23.2	87.7	0.0	15.1	45.2	83.7	15.6	18.6	0.0	28.9	84.3	0.0
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	335	3015		223	2804	691	230	1330		411	1594	
V/C Ratio(X)	0.90	0.81		0.87	0.52	0.81	0.88	0.33		0.91	1.12	
Avail Cap(c_a), veh/h	695	3015		312	2804	691	298	1330		685	1594	
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)	0.09	0.09	0.00	0.47	0.47	0.47	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	120.6	61.4	0.0	125.2	55.7	66.6	125.0	80.7	0.0	117.5	92.8	0.0
Incr Delay (d2), s/veh	0.9	0.2	0.0	9.3	0.3	5.0	20.5	0.1	0.0	10.2	61.1	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(95%),veh/ln	12.2	38.7	0.0	10.2	23.4	41.5	12.4	13.0	0.0	19.8	61.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	121.4	61.6	0.0	134.5	56.0	71.6	145.5	80.9	0.0	127.7	154.0	0.0
LnGrp LOS	F	E		F	E	E	F	F		F	F	
Approach Vol, veh/h		2740			2229			638			2152	
Approach Delay, s/veh		68.2			66.8			101.3			149.4	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.9	123.5	38.6	76.0	23.0	132.3	24.6	90.0
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	54.3	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	25.2	85.7	30.9	20.6	17.1	89.7	17.6	86.3
Green Ext Time (p_c), s	1.0	0.0	1.3	3.0	0.3	19.4	0.3	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	93.1
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	2901	1624	319	1354	64	836	81	290	68	189	211
Future Volume (veh/h)	147	2901	1624	319	1354	64	836	81	290	68	189	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	150	2960	1657	326	1382	0	739	243	0	69	193	0
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	177	2177	676	350	2663		523	333		200	227	
Arrive On Green	0.10	0.43	0.43	0.20	0.52	0.00	0.10	0.18	0.00	0.05	0.12	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	150	2960	1657	326	1382	0	739	243	0	69	193	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.6	59.7	59.7	25.2	24.9	0.0	14.6	17.2	0.0	4.7	14.2	0.0
Cycle Q Clear(g_c), s	11.6	59.7	59.7	25.2	24.9	0.0	14.6	17.2	0.0	4.7	14.2	0.0
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	177	2177	676	350	2663		523	333		200	227	
V/C Ratio(X)	0.85	1.36	2.45	0.93	0.52		1.41	0.73		0.34	0.85	
Avail Cap(c_a), veh/h	383	2177	676	387	2663		523	395		302	397	
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)	0.09	0.09	0.09	0.80	0.80	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	40.2	40.2	55.3	22.0	0.0	51.2	54.3	0.0	50.5	60.2	0.0
Incr Delay (d2), s/veh	1.1	162.2	653.9	23.8	0.6	0.0	197.1	5.5	0.0	1.0	8.6	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(95%),veh/ln	6.3	74.9	222.1	18.7	14.2	0.0	26.1	13.4	0.0	3.9	11.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.1	202.4	694.1	79.1	22.6	0.0	248.2	59.8	0.0	51.5	68.8	0.0
LnGrp LOS	E	F	F	E	C		F	E		D	E	
Approach Vol, veh/h		4767			1708			982			262	
Approach Delay, s/veh		368.9			33.3			201.6			64.3	
Approach LOS		F			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	78.8	12.1	30.4	32.1	65.5	20.0	22.4
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.1	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	13.6	26.9	6.7	19.2	27.2	61.7	16.6	16.2
Green Ext Time (p_c), s	0.3	8.6	0.1	0.9	0.3	0.0	0.0	0.9

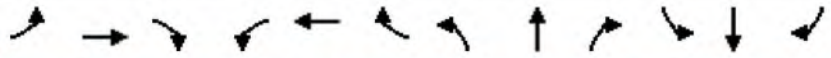
Intersection Summary	
HCM 7th Control Delay, s/veh	263.0
HCM 7th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	3556	270	240	1889	203	431	380	485	363	507	297
Future Volume (veh/h)	326	3556	270	240	1889	203	431	380	485	363	507	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	329	3592	0	242	1908	0	435	384	0	367	512	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	2617		284	2494		437	573		412	552	
Arrive On Green	0.11	0.51	0.00	0.08	0.49	0.00	0.13	0.16	0.00	0.12	0.16	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	329	3592	0	242	1908	0	435	384	0	367	512	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	17.8	97.4	0.0	13.1	58.0	0.0	23.9	19.3	0.0	19.9	27.0	0.0
Cycle Q Clear(g_c), s	17.8	97.4	0.0	13.1	58.0	0.0	23.9	19.3	0.0	19.9	27.0	0.0
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	375	2617		284	2494		437	573		412	552	
V/C Ratio(X)	0.88	1.37		0.85	0.77		1.00	0.67		0.89	0.93	
Avail Cap(c_a), veh/h	535	2617		437	2494		437	573		524	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	0.00	0.72	0.72	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	83.5	46.3	0.0	86.0	39.7	0.0	83.0	74.9	0.0	82.5	79.2	0.0
Incr Delay (d2), s/veh	11.4	170.2	0.0	7.1	1.7	0.0	42.1	6.1	0.0	14.6	24.1	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(95%),veh/ln	8.3	118.7	0.0	9.6	31.0	0.0	19.2	14.4	0.0	14.9	20.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	94.8	216.5	0.0	93.1	41.4	0.0	125.1	81.0	0.0	97.1	103.3	0.0
LnGrp LOS	F	F		F	D		F	F		F	F	
Approach Vol, veh/h		3921			2150			819			879	
Approach Delay, s/veh		206.3			47.2			104.4			100.7	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.2	98.6	28.8	36.4	21.6	103.2	30.0	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	20.6	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	19.8	60.0	21.9	21.3	15.1	99.4	25.9	29.0
Green Ext Time (p_c), s	0.8	15.0	0.8	0.7	0.5	0.0	0.0	0.2

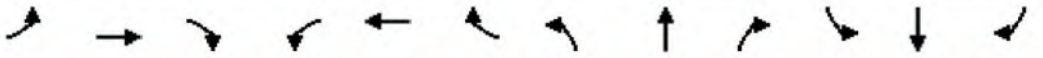
Intersection Summary	
HCM 7th Control Delay, s/veh	139.6
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

D5 – Horizon Build Conditions 2040



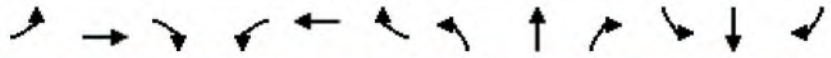
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	1162	35	462	2313	153	41	391	442	185	516	649
Future Volume (veh/h)	219	1162	35	462	2313	153	41	391	442	185	516	649
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	238	1263	0	502	2514	0	45	425	480	201	561	705
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	271	1630		383	1930		58	779	347	168	997	445
Arrive On Green	0.15	0.32	0.00	0.21	0.38	0.00	0.03	0.22	0.22	0.09	0.28	0.28
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	238	1263	0	502	2514	0	45	425	480	201	561	705
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	15.7	26.9	0.0	25.8	45.4	0.0	3.0	12.7	26.3	11.3	16.2	33.7
Cycle Q Clear(g_c), s	15.7	26.9	0.0	25.8	45.4	0.0	3.0	12.7	26.3	11.3	16.2	33.7
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	271	1630		383	1930		58	779	347	168	997	445
V/C Ratio(X)	0.88	0.77		1.31	1.30		0.77	0.55	1.38	1.20	0.56	1.58
Avail Cap(c_a), veh/h	465	1630		383	1930		197	779	347	168	997	445
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	37.0	0.0	47.1	37.3	0.0	57.6	41.6	46.8	54.4	36.9	43.2
Incr Delay (d2), s/veh	9.7	3.7	0.0	157.5	140.0	0.0	19.2	0.8	188.8	132.8	0.7	273.7
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(95%),veh/ln	12.2	17.1	0.0	41.8	63.3	0.0	3.0	9.5	43.4	17.8	11.4	72.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.5	40.6	0.0	204.6	177.3	0.0	76.8	42.3	235.7	187.2	37.6	316.8
LnGrp LOS	E	D		F	F		E	D	F	F	D	F
Approach Vol, veh/h		1501			3016			950			1467	
Approach Delay, s/veh		43.6			181.8			141.7			192.3	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	43.0	8.6	38.4	22.9	50.1	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	27.8	28.9	5.0	35.7	17.7	47.4	13.3	28.3
Green Ext Time (p_c), s	0.0	4.6	0.0	0.0	0.5	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	148.6
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



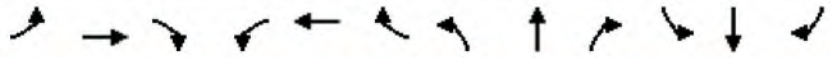
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	885	529	126	2265	300	518	292	89	193	302	466
Future Volume (veh/h)	258	885	529	126	2265	300	518	292	89	193	302	466
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	274	941	0	134	2410	0	551	311	95	205	321	0
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	352	1817		166	1774		721	742	331	661	680	
Arrive On Green	0.10	0.36	0.00	0.09	0.35	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3456	5106	1585	1781	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	274	941	0	134	2410	0	551	311	95	205	321	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	8.8	16.6	0.0	8.4	39.6	0.0	17.1	8.7	5.8	5.8	9.2	0.0
Cycle Q Clear(g_c), s	8.8	16.6	0.0	8.4	39.6	0.0	17.1	8.7	5.8	5.8	9.2	0.0
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	352	1817		166	1774		721	742	331	661	680	
V/C Ratio(X)	0.78	0.52		0.81	1.36		0.76	0.42	0.29	0.31	0.47	
Avail Cap(c_a), veh/h	782	1817		325	1774		721	742	331	661	680	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.0	29.0	0.0	50.7	37.2	0.0	42.5	39.1	38.0	39.6	41.0	0.0
Incr Delay (d2), s/veh	3.8	1.1	0.0	8.9	165.1	0.0	7.5	1.7	2.2	1.2	2.3	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(95%),veh/ln	7.1	11.0	0.0	7.4	64.0	0.0	12.5	7.0	4.3	4.6	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	53.7	30.0	0.0	59.6	202.3	0.0	50.0	40.8	40.1	40.9	43.3	0.0
LnGrp LOS	D	C		E	F		D	D	D	D	D	
Approach Vol, veh/h		1215			2544			957			526	
Approach Delay, s/veh		35.4			194.8			46.0			42.4	
Approach LOS		D			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	45.2	28.0	26.0	15.8	44.2	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	10.6	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	10.4	18.6	19.1	11.2	10.8	41.6	7.8	10.7
Green Ext Time (p_c), s	0.2	4.8	0.9	1.3	0.8	0.0	0.5	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	115.4
HCM 7th LOS	F

Notes

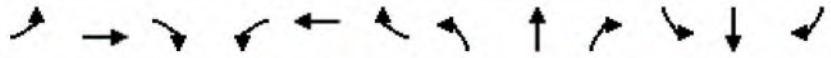
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	6	4	336	45	439	13	404	148	250	359	89
Future Volume (veh/h)	43	6	4	336	45	439	13	404	148	250	359	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	46	6	4	357	48	467	14	430	157	266	382	95
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	132	267	178	549	44	425	28	812	294	299	1329	327
Arrive On Green	0.04	0.26	0.26	0.07	0.30	0.30	0.02	0.32	0.32	0.17	0.48	0.48
Sat Flow, veh/h	1753	1030	687	1753	147	1435	1753	2516	910	1753	2782	684
Grp Volume(v), veh/h	46	0	10	357	0	515	14	298	289	266	239	238
Grp Sat Flow(s),veh/h/ln	1753	0	1717	1753	0	1582	1753	1749	1677	1753	1749	1718
Q Serve(g_s), s	2.0	0.0	0.4	7.5	0.0	30.5	0.8	14.3	14.5	15.3	8.5	8.7
Cycle Q Clear(g_c), s	2.0	0.0	0.4	7.5	0.0	30.5	0.8	14.3	14.5	15.3	8.5	8.7
Prop In Lane	1.00		0.40	1.00		0.91	1.00		0.54	1.00		0.40
Lane Grp Cap(c), veh/h	132	0	444	549	0	469	28	564	541	299	835	820
V/C Ratio(X)	0.35	0.00	0.02	0.65	0.00	1.10	0.50	0.53	0.53	0.89	0.29	0.29
Avail Cap(c_a), veh/h	198	0	508	549	0	469	272	564	541	374	835	820
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	28.5	29.3	0.0	36.3	50.3	28.5	28.5	41.7	16.3	16.3
Incr Delay (d2), s/veh	1.6	0.0	0.0	2.7	0.0	71.2	13.0	3.5	3.8	18.9	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(95%),veh/ln	1.5	0.0	0.3	7.5	0.0	29.5	0.8	10.4	10.2	12.6	6.1	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.3	0.0	28.5	32.0	0.0	107.5	63.3	32.0	32.3	60.7	17.1	17.2
LnGrp LOS	C		C	C		F	E	C	C	E	B	B
Approach Vol, veh/h		56			872			601			743	
Approach Delay, s/veh		30.8			76.6			32.9			32.8	
Approach LOS		C			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	38.2	12.0	31.2	5.7	54.2	8.2	35.0
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.6	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	17.3	16.5	9.5	2.4	2.8	10.7	4.0	32.5
Green Ext Time (p_c), s	0.3	2.2	0.0	0.0	0.0	2.6	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	49.6
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	42	0	21	1	605	89	47	626	1
Future Volume (veh/h)	0	0	0	42	0	21	1	605	89	47	626	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	0	0	0	45	0	22	1	644	95	50	666	1
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, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	0	105	0	122	1	27	2	2264	333	68	2787	4
Arrive On Green	0.00	0.00	0.00	0.06	0.00	0.06	0.00	0.75	0.75	0.04	0.79	0.79
Sat Flow, veh/h	0	1811	0	943	15	468	1725	3009	443	1725	3525	5
Grp Volume(v), veh/h	0	0	0	67	0	0	1	368	371	50	325	342
Grp Sat Flow(s),veh/h/ln	0	1811	0	1426	0	0	1725	1721	1731	1725	1721	1810
Q Serve(g_s), s	0.0	0.0	0.0	4.1	0.0	0.0	0.1	6.1	6.1	2.6	4.4	4.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.2	0.0	0.0	0.1	6.1	6.1	2.6	4.4	4.4
Prop In Lane	0.00		0.00	0.67		0.33	1.00		0.26	1.00		0.00
Lane Grp Cap(c), veh/h	0	105	0	150	0	0	2	1295	1303	68	1360	1431
V/C Ratio(X)	0.00	0.00	0.00	0.45	0.00	0.00	0.42	0.28	0.28	0.73	0.24	0.24
Avail Cap(c_a), veh/h	0	322	0	470	0	0	307	1295	1303	307	1360	1431
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	41.9	0.0	0.0	44.9	3.5	3.5	42.7	2.4	2.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.1	0.0	0.0	89.5	0.6	0.5	13.9	0.4	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(95%),veh/ln	0.0	0.0	0.0	2.7	0.0	0.0	0.1	2.7	2.8	2.4	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	44.0	0.0	0.0	134.4	4.1	4.1	56.6	2.8	2.8
LnGrp LOS				D			F	A	A	E	A	A
Approach Vol, veh/h		0			67			740			717	
Approach Delay, s/veh		0.0			44.0			4.2			6.6	
Approach LOS					D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	72.7		9.7	4.1	76.2		9.7
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	14.6	8.1		0.0	2.1	6.4		6.2
Green Ext Time (p_c), s	0.1	4.6		0.0	0.0	4.0		0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	7.1
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

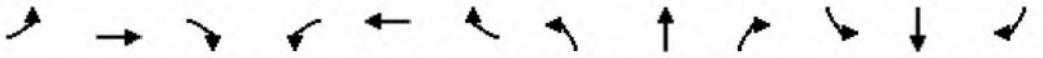
Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	45	46	683	661	13
Future Vol, veh/h	13	45	46	683	661	13
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	14	47	48	719	696	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1159	355	709	0	-	0
Stage 1	703	-	-	-	-	-
Stage 2	456	-	-	-	-	-
Critical Hdwy	6.92	7.02	4.22	-	-	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.36	2.26	-	-	-
Pot Cap-1 Maneuver	183	630	859	-	-	-
Stage 1	442	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	170	630	859	-	-	-
Mov Cap-2 Maneuver	295	-	-	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	593	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.15	1.14	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	227	-	502	-	-
HCM Lane V/C Ratio	0.056	-	0.122	-	-
HCM Ctrl Dly (s/v)	9.4	0.6	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	47	11	0	3	246	730	17	6	698	6
Future Volume (veh/h)	7	0	47	11	0	3	246	730	17	6	698	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	0	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	8	0	57	13	0	4	296	880	20	7	841	7
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	6	0	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	13	0	0	47	0	0	321	2874	65	12	1189	1008
Arrive On Green	0.01	0.00	0.00	0.01	0.00	0.01	0.19	0.84	0.84	0.01	0.66	0.66
Sat Flow, veh/h	1725	8		0	0	0	1725	3439	78	1725	1811	1535
Grp Volume(v), veh/h	8	117.3		17	0	0	296	440	460	7	841	7
Grp Sat Flow(s),veh/h/ln	1725	F		0	0	0	1725	1721	1797	1725	1811	1535
Q Serve(g_s), s	0.6			0.0	0.0	0.0	22.9	7.7	7.7	0.6	40.5	0.2
Cycle Q Clear(g_c), s	0.6			0.1	0.0	0.0	22.9	7.7	7.7	0.6	40.5	0.2
Prop In Lane	1.00			0.76		0.24	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	13			47	0	0	321	1438	1501	12	1189	1008
V/C Ratio(X)	0.60			0.36	0.00	0.00	0.92	0.31	0.31	0.59	0.71	0.01
Avail Cap(c_a), veh/h	349			301	0	0	349	1438	1501	349	1189	1008
HCM Platoon Ratio	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3			66.2	0.0	0.0	54.4	2.5	2.5	67.3	15.0	8.1
Incr Delay (d2), s/veh	50.0			6.6	0.0	0.0	29.0	0.6	0.5	53.2	3.6	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
%ile BackOfQ(95%),veh/ln	0.8			1.2	0.0	0.0	18.2	3.5	3.6	0.7	23.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	117.3			72.9	0.0	0.0	83.4	3.0	3.0	120.6	18.5	8.1
LnGrp LOS	F			E			F	A	A	F	B	A
Approach Vol, veh/h					17			1196			855	
Approach Delay, s/veh					72.9			22.9			19.3	
Approach LOS					E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6
Phs Duration (G+Y+Rc), s	5.4	118.6	5.5	6.4	29.8	94.3
Change Period (Y+Rc), s	4.5	5.0	4.5	4.5	4.5	5.0
Max Green Setting (Gmax), s	27.5	35.0	27.5	27.5	27.5	35.0
Max Q Clear Time (g_c+I1), s	2.6	9.7	2.6	2.1	24.9	42.5
Green Ext Time (p_c), s	0.0	13.5	0.0	0.1	0.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	22.2
HCM 7th LOS	C

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	23	1	17	156	19	0	0	3	19	0	0
Future Vol, veh/h	0	23	1	17	156	19	0	0	3	19	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	28	1	20	188	23	0	0	4	23	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	211	0	0	29	0	0	257	280	28	268	269	199
Stage 1	-	-	-	-	-	-	28	28	-	240	240	-
Stage 2	-	-	-	-	-	-	229	252	-	28	29	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.17	6.57	6.27	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.17	5.57	-	6.17	5.57	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.563	4.063	3.363	3.563	4.063	3.363
Pot Cap-1 Maneuver	1330	-	-	1552	-	-	686	620	1033	674	629	829
Stage 1	-	-	-	-	-	-	976	862	-	752	697	-
Stage 2	-	-	-	-	-	-	763	689	-	977	861	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1330	-	-	1552	-	-	675	611	1033	662	619	829
Mov Cap-2 Maneuver	-	-	-	-	-	-	675	611	-	662	619	-
Stage 1	-	-	-	-	-	-	976	862	-	741	687	-
Stage 2	-	-	-	-	-	-	751	679	-	973	861	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.65	8.5	10.63
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1033	1330	-	-	1552	-	-	662
HCM Lane V/C Ratio	0.004	-	-	-	0.013	-	-	0.035
HCM Ctrl Dly (s/v)	8.5	0	-	-	7.3	-	-	10.6
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	32	105	6	32	48
Future Vol, veh/h	6	32	105	6	32	48
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	8	40	131	8	40	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	275	69	0	0	139	0
Stage 1	135	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.69	6.99	-	-	4.19	-
Critical Hdwy Stg 1	5.89	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.557	3.357	-	-	2.257	-
Pot Cap-1 Maneuver	693	968	-	-	1417	-
Stage 1	867	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	673	968	-	-	1417	-
Mov Cap-2 Maneuver	673	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	850	-	-	-	-	-

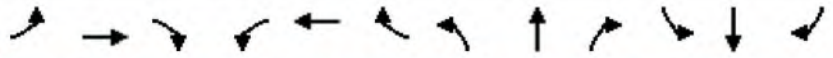
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.2	0	3.05
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	905	720	-
HCM Lane V/C Ratio	-	-	0.052	0.028	-
HCM Ctrl Dly (s/v)	-	-	9.2	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	423	1133	11	134	3688	482	16	100	194	207	83	647
Future Volume (veh/h)	423	1133	11	134	3688	482	16	100	194	207	83	647
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1914	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	445	1193	12	141	3882	507	17	105	204	218	87	681
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	475	3014	30	174	2364	606	432	490	437	358	903	403
Arrive On Green	0.14	0.46	0.46	0.05	0.37	0.37	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3401	6513	65	3401	6332	1622	3401	1749	1560	3401	3497	1560
Grp Volume(v), veh/h	445	870	335	141	3882	507	17	105	204	218	87	681
Grp Sat Flow(s),veh/h/ln	1700	1583	1829	1700	1583	1622	1700	1749	1560	1700	1749	1560
Q Serve(g_s), s	29.8	27.7	27.7	9.4	85.9	65.5	1.0	10.6	24.9	14.1	4.4	59.4
Cycle Q Clear(g_c), s	29.8	27.7	27.7	9.4	85.9	65.5	1.0	10.6	24.9	14.1	4.4	59.4
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	475	2198	847	174	2364	606	432	490	437	358	903	403
V/C Ratio(X)	0.94	0.40	0.40	0.81	1.64	0.84	0.04	0.21	0.47	0.61	0.10	1.69
Avail Cap(c_a), veh/h	500	2198	847	355	2364	606	432	490	437	358	903	403
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)	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	97.9	40.6	40.6	108.0	72.1	65.7	88.1	63.4	68.6	98.4	64.9	85.3
Incr Delay (d2), s/veh	21.4	0.4	1.1	8.8	291.0	13.0	0.2	1.0	3.6	7.5	0.2	321.2
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(95%),veh/ln	20.2	15.9	18.2	7.9	126.0	38.1	0.8	8.5	15.7	10.9	3.6	91.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	119.3	41.1	41.8	116.8	363.1	78.7	88.3	64.4	72.1	105.9	65.1	406.5
LnGrp LOS	F	D	D	F	F	E	F	E	E	F	E	F
Approach Vol, veh/h		1650			4530			326			986	
Approach Delay, s/veh		62.3			323.6			70.5			309.9	
Approach LOS		E			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.3	91.7	35.0	65.0	17.7	112.3	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	31.8	87.9	3.0	61.4	11.4	29.7	16.1	26.9
Green Ext Time (p_c), s	0.4	0.0	0.0	0.0	0.3	9.6	0.4	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	253.2
HCM 7th LOS	F



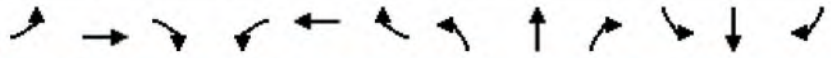
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	224	1017	83	85	2651	1607	215	990	103	596	307	42
Future Volume (veh/h)	224	1017	83	85	2651	1607	215	990	103	596	307	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	233	1059	0	89	2761	1674	224	1031	0	621	320	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	266	3082		116	2800	690	250	1011		649	1596	
Arrive On Green	0.08	0.49	0.00	0.03	0.44	0.44	0.07	0.20	0.00	0.19	0.32	0.00
Sat Flow, veh/h	3401	6332	1560	3401	6332	1560	3401	5025	1560	3401	5025	1560
Grp Volume(v), veh/h	233	1059	0	89	2761	1674	224	1031	0	621	320	0
Grp Sat Flow(s),veh/h/ln	1700	1583	1560	1700	1583	1560	1700	1675	1560	1700	1675	1560
Q Serve(g_s), s	18.3	27.8	0.0	7.0	116.4	119.4	17.6	54.3	0.0	48.8	12.5	0.0
Cycle Q Clear(g_c), s	18.3	27.8	0.0	7.0	116.4	119.4	17.6	54.3	0.0	48.8	12.5	0.0
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	266	3082		116	2800	690	250	1011		649	1596	
V/C Ratio(X)	0.88	0.34		0.77	0.99	2.43	0.89	1.02		0.96	0.20	
Avail Cap(c_a), veh/h	684	3082		307	2800	690	293	1011		674	1596	
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)	0.89	0.89	0.00	0.09	0.09	0.09	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	123.2	42.7	0.0	129.4	74.5	75.3	124.0	107.8	0.0	108.1	67.2	0.0
Incr Delay (d2), s/veh	8.1	0.3	0.0	1.0	2.8	642.4	25.1	33.5	0.0	24.1	0.1	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(95%),veh/ln	8.0	16.3	0.0	4.0	50.8	260.1	13.7	35.9	0.0	32.0	9.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	131.3	43.0	0.0	130.4	77.3	717.7	149.1	141.3	0.0	132.3	67.2	0.0
LnGrp LOS	F	D		F	E	F	F	F		F	E	
Approach Vol, veh/h		1292			4524			1255			941	
Approach Delay, s/veh		58.9			315.3			142.7			110.1	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.8	125.2	58.0	60.0	14.8	137.2	26.6	91.4
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	21.1	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	20.3	121.4	50.8	56.3	9.0	29.8	19.6	14.5
Green Ext Time (p_c), s	0.8	0.0	0.7	0.0	0.2	8.7	0.2	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	222.8
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1012	869	112	2533	158	1255	96	154	69	100	420
Future Volume (veh/h)	70	1012	869	112	2533	158	1255	96	154	69	100	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	72	1043	896	115	2611	0	1365	0	0	71	103	0
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, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	92	2975	924	140	3101		770	0		243	133	
Arrive On Green	0.05	0.59	0.59	0.08	0.62	0.00	0.10	0.00	0.00	0.05	0.07	0.00
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	5259	0	1560	1753	1841	1560
Grp Volume(v), veh/h	72	1043	896	115	2611	0	1365	0	0	71	103	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	0	1560	1753	1841	1560
Q Serve(g_s), s	5.7	15.0	77.1	9.0	58.0	0.0	14.6	0.0	0.0	5.2	7.7	0.0
Cycle Q Clear(g_c), s	5.7	15.0	77.1	9.0	58.0	0.0	14.6	0.0	0.0	5.2	7.7	0.0
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	92	2975	924	140	3101		770	0		243	133	
V/C Ratio(X)	0.78	0.35	0.97	0.82	0.84		1.77	0.00		0.29	0.77	
Avail Cap(c_a), veh/h	377	2975	924	381	3101		770	0		337	390	
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)	0.72	0.72	0.72	0.09	0.09	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	65.5	14.7	27.4	63.4	21.4	0.0	56.0	0.0	0.0	55.9	63.8	0.0
Incr Delay (d2), s/veh	9.9	0.2	18.9	1.1	0.3	0.0	353.4	0.0	0.0	0.7	9.1	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(95%),veh/ln	5.0	8.7	40.6	5.0	22.8	0.0	42.7	0.0	0.0	4.3	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.5	14.9	46.3	64.6	21.6	0.0	409.5	0.0	0.0	56.6	72.8	0.0
LnGrp LOS	E	B	D	E	C		F			E	E	
Approach Vol, veh/h		2011			2726			1365			174	
Approach Delay, s/veh		31.1			23.4			409.5			66.2	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	92.2	12.5	23.0	15.8	88.7	20.0	15.6
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.0	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	7.7	60.0	7.2	0.0	11.0	79.1	16.6	9.7
Green Ext Time (p_c), s	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.5

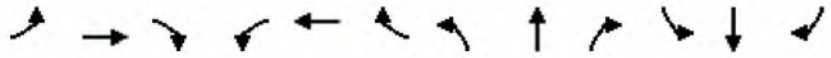
Intersection Summary	
HCM 7th Control Delay, s/veh	111.0
HCM 7th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	1490	414	259	3740	141	728	250	263	214	291	663
Future Volume (veh/h)	225	1490	414	259	3740	141	728	250	263	214	291	663
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	239	1585	0	276	3979	0	774	266	0	228	310	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	283	2543		318	2605		433	709		272	547	
Arrive On Green	0.08	0.50	0.00	0.09	0.51	0.00	0.13	0.20	0.00	0.08	0.16	0.00
Sat Flow, veh/h	3428	5066	1572	3428	5066	1572	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	239	1585	0	276	3979	0	774	266	0	228	310	0
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1714	1689	1572	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	13.1	43.1	0.0	15.1	97.7	0.0	24.0	12.4	0.0	12.5	15.5	0.0
Cycle Q Clear(g_c), s	13.1	43.1	0.0	15.1	97.7	0.0	24.0	12.4	0.0	12.5	15.5	0.0
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	283	2543		318	2605		433	709		272	547	
V/C Ratio(X)	0.84	0.62		0.87	1.53		1.79	0.38		0.84	0.57	
Avail Cap(c_a), veh/h	530	2543		433	2605		433	709		520	547	
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	0.09	0.09	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	85.9	34.3	0.0	85.1	46.1	0.0	83.0	65.6	0.0	86.3	74.3	0.0
Incr Delay (d2), s/veh	6.8	1.2	0.0	1.4	237.6	0.0	363.5	1.5	0.0	6.8	4.2	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(95%),veh/ln	10.1	24.6	0.0	8.0	135.8	0.0	50.7	9.7	0.0	9.8	11.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	92.7	35.4	0.0	86.5	283.7	0.0	446.5	67.1	0.0	93.0	78.5	0.0
LnGrp LOS	F	D		F	F		F	E		F	E	
Approach Vol, veh/h		1824			4255			1040			538	
Approach Delay, s/veh		42.9			270.9			349.4			84.7	
Approach LOS		D			F			F			F	

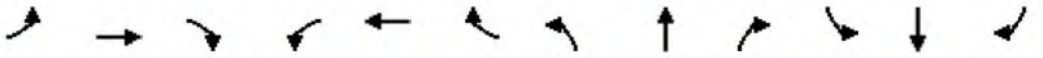
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	103.5	21.3	43.9	23.6	101.2	30.0	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	29.4	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	15.1	99.7	14.5	14.4	17.1	45.1	26.0	17.5
Green Ext Time (p_c), s	0.6	0.0	0.6	1.1	0.5	15.4	0.0	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	214.2
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



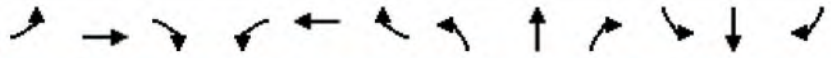
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	2302	32	357	1349	198	69	517	998	263	360	307
Future Volume (veh/h)	253	2302	32	357	1349	198	69	517	998	263	360	307
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	258	2349	0	364	1377	0	70	528	1018	268	367	313
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	291	1643		386	1893		90	785	350	169	942	420
Arrive On Green	0.16	0.32	0.00	0.21	0.37	0.00	0.05	0.22	0.22	0.09	0.26	0.26
Sat Flow, veh/h	1795	5147	1598	1795	5147	1598	1795	3582	1598	1795	3582	1598
Grp Volume(v), veh/h	258	2349	0	364	1377	0	70	528	1018	268	367	313
Grp Sat Flow(s),veh/h/ln	1795	1716	1598	1795	1716	1598	1795	1791	1598	1795	1791	1598
Q Serve(g_s), s	16.9	38.3	0.0	24.0	27.7	0.0	4.6	16.2	26.3	11.3	10.1	21.5
Cycle Q Clear(g_c), s	16.9	38.3	0.0	24.0	27.7	0.0	4.6	16.2	26.3	11.3	10.1	21.5
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	291	1643		386	1893		90	785	350	169	942	420
V/C Ratio(X)	0.89	1.43		0.94	0.73		0.78	0.67	2.91	1.59	0.39	0.74
Avail Cap(c_a), veh/h	468	1643		386	1893		199	785	350	169	942	420
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	40.8	0.0	46.4	32.7	0.0	56.3	42.9	46.8	54.3	36.3	40.5
Incr Delay (d2), s/veh	11.6	197.1	0.0	31.5	2.5	0.0	13.1	2.3	866.1	289.6	0.3	7.1
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(95%),veh/ln	13.2	69.0	0.0	19.9	17.1	0.0	4.3	11.8	148.3	29.7	7.9	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.8	237.9	0.0	77.9	35.2	0.0	69.4	45.2	912.9	343.9	36.6	47.6
LnGrp LOS	E	F		E	D		E	D	F	F	D	D
Approach Vol, veh/h		2607			1741			1616			948	
Approach Delay, s/veh		220.4			44.1			592.9			127.1	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	43.0	10.7	36.3	24.2	48.8	16.0	31.0
Change Period (Y+Rc), s	4.2	4.7	4.7	4.7	4.7	* 4.7	4.7	4.7
Max Green Setting (Gmax), s	25.8	36.3	13.3	26.3	31.3	* 30	11.3	26.3
Max Q Clear Time (g_c+I1), s	26.0	40.3	6.6	23.5	18.9	29.7	13.3	28.3
Green Ext Time (p_c), s	0.0	0.0	0.1	1.0	0.6	0.5	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	250.3
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.



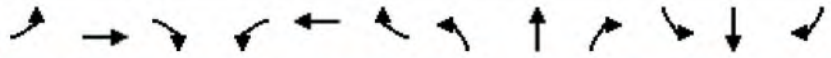
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	560	2022	941	187	1344	277	478	376	172	286	451	353
Future Volume (veh/h)	560	2022	941	187	1344	277	478	376	172	286	451	353
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	589	2128	0	197	1415	0	503	396	181	301	475	0
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, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	667	1655		229	1326		727	748	334	666	685	
Arrive On Green	0.19	0.32	0.00	0.13	0.26	0.00	0.21	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	3483	5147	1598	1795	5147	1598	3483	3582	1598	3483	3582	1598
Grp Volume(v), veh/h	589	2128	0	197	1415	0	503	396	181	301	475	0
Grp Sat Flow(s),veh/h/ln	1742	1716	1598	1795	1716	1598	1742	1791	1598	1742	1791	1598
Q Serve(g_s), s	18.8	36.7	0.0	12.3	29.4	0.0	15.2	11.2	11.5	8.7	14.1	0.0
Cycle Q Clear(g_c), s	18.8	36.7	0.0	12.3	29.4	0.0	15.2	11.2	11.5	8.7	14.1	0.0
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	667	1655		229	1326		727	748	334	666	685	
V/C Ratio(X)	0.88	1.29		0.86	1.07		0.69	0.53	0.54	0.45	0.69	
Avail Cap(c_a), veh/h	788	1655		328	1326		727	748	334	666	685	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.8	38.7	0.0	48.7	42.3	0.0	41.7	40.1	40.2	40.8	43.0	0.0
Incr Delay (d2), s/veh	10.3	133.2	0.0	14.8	44.8	0.0	5.3	2.7	6.2	2.2	5.7	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(95%),veh/ln	18.7	52.0	0.0	10.4	25.3	0.0	11.2	8.8	8.7	7.0	10.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.1	171.8	0.0	63.5	87.1	0.0	47.1	42.8	46.5	43.0	48.7	0.0
LnGrp LOS	E	F		E	F		D	D	D	D	D	
Approach Vol, veh/h		2717			1612			1080			776	
Approach Delay, s/veh		146.5			84.2			45.4			46.5	
Approach LOS		F			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	41.3	28.0	26.0	26.0	34.0	26.0	28.0
Change Period (Y+Rc), s	4.2	4.6	4.2	4.2	4.2	4.6	4.2	4.2
Max Green Setting (Gmax), s	20.8	30.4	23.8	21.8	25.8	25.4	21.8	23.8
Max Q Clear Time (g_c+I1), s	14.3	38.7	17.2	16.1	20.8	31.4	10.7	13.5
Green Ext Time (p_c), s	0.3	0.0	1.1	1.4	1.1	0.0	0.8	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	100.1
HCM 7th LOS	F

Notes

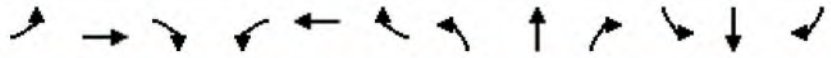
Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	41	11	272	10	219	0	420	198	519	926	38
Future Volume (veh/h)	90	41	11	272	10	219	0	420	198	519	926	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	92	42	11	278	10	223	0	429	202	530	945	39
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	207	224	59	377	12	262	2	899	419	380	2207	91
Arrive On Green	0.06	0.16	0.16	0.07	0.17	0.17	0.00	0.38	0.38	0.21	0.63	0.63
Sat Flow, veh/h	1781	1429	374	1781	68	1527	1781	2353	1097	1781	3478	144
Grp Volume(v), veh/h	92	0	53	278	0	233	0	323	308	530	483	501
Grp Sat Flow(s),veh/h/ln	1781	0	1803	1781	0	1595	1781	1777	1673	1781	1777	1845
Q Serve(g_s), s	4.4	0.0	2.6	7.5	0.0	14.6	0.0	14.1	14.4	22.0	14.0	14.0
Cycle Q Clear(g_c), s	4.4	0.0	2.6	7.5	0.0	14.6	0.0	14.1	14.4	22.0	14.0	14.0
Prop In Lane	1.00		0.21	1.00		0.96	1.00		0.66	1.00		0.08
Lane Grp Cap(c), veh/h	207	0	282	377	0	274	2	679	639	380	1128	1171
V/C Ratio(X)	0.44	0.00	0.19	0.74	0.00	0.85	0.00	0.48	0.48	1.39	0.43	0.43
Avail Cap(c_a), veh/h	234	0	534	377	0	472	277	679	639	380	1128	1171
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	0.0	37.7	38.1	0.0	41.4	0.0	24.0	24.1	40.5	9.4	9.4
Incr Delay (d2), s/veh	1.5	0.0	0.3	7.4	0.0	7.3	0.0	2.4	2.6	192.3	1.2	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(95%),veh/ln	3.5	0.0	2.1	6.6	0.0	10.2	0.0	10.2	9.9	45.0	8.8	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.9	0.0	38.1	45.5	0.0	48.7	0.0	26.4	26.7	232.8	10.6	10.6
LnGrp LOS	D		D	D		D		C	C	F	B	B
Approach Vol, veh/h		145			511			631			1514	
Approach Delay, s/veh		36.7			47.0			26.5			88.4	
Approach LOS		D			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	44.4	12.0	20.6	0.0	70.4	10.5	22.2
Change Period (Y+Rc), s	4.0	5.0	4.5	4.5	4.0	5.0	4.5	4.5
Max Green Setting (Gmax), s	22.0	25.0	7.5	30.5	16.0	31.0	7.5	30.5
Max Q Clear Time (g_c+I1), s	24.0	16.4	9.5	4.6	0.0	16.0	6.4	16.6
Green Ext Time (p_c), s	0.0	2.4	0.0	0.2	0.0	5.3	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	64.2
HCM 7th LOS	E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	109	0	34	0	570	34	34	1196	0
Future Volume (veh/h)	0	0	0	109	0	34	0	570	34	34	1196	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	0	112	0	35	0	588	35	35	1233	0
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	0	231	0	206	2	43	2	2365	141	58	2739	0
Arrive On Green	0.00	0.00	0.00	0.12	0.00	0.12	0.00	0.69	0.69	0.03	0.77	0.00
Sat Flow, veh/h	0	1870	0	1093	19	347	1781	3408	203	1781	3647	0
Grp Volume(v), veh/h	0	0	0	147	0	0	0	306	317	35	1233	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	1459	0	0	1781	1777	1834	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	8.7	0.0	0.0	0.0	5.7	5.8	1.7	11.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.8	0.0	0.0	0.0	5.7	5.8	1.7	11.0	0.0
Prop In Lane	0.00		0.00	0.76		0.24	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	0	231	0	251	0	0	2	1233	1273	58	2739	0
V/C Ratio(X)	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.25	0.25	0.61	0.45	0.00
Avail Cap(c_a), veh/h	0	333	0	483	0	0	317	1233	1273	317	2739	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)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	38.4	0.0	0.0	0.0	5.1	5.1	43.0	3.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.5	0.5	9.8	0.5	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(95%),veh/ln	0.0	0.0	0.0	5.8	0.0	0.0	0.0	3.2	3.3	1.6	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	40.6	0.0	0.0	0.0	5.6	5.6	52.8	4.2	0.0
LnGrp LOS				D				A	A	D	A	
Approach Vol, veh/h		0			147			623			1268	
Approach Delay, s/veh		0.0			40.6			5.6			5.5	
Approach LOS					D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	67.5		15.6	0.0	74.4		15.6
Change Period (Y+Rc), s	4.0	5.0		* 4.5	4.0	5.0		4.5
Max Green Setting (Gmax), s	16.0	35.0		* 16	16.0	35.0		25.5
Max Q Clear Time (g_c+I1), s	13.7	7.8		0.0	0.0	13.0		10.8
Green Ext Time (p_c), s	0.0	3.7		0.0	0.0	9.1		0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	8.1
HCM 7th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

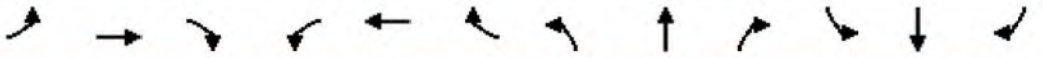
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	43	43	589	1300	12
Future Vol, veh/h	12	43	43	589	1300	12
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	45	45	614	1354	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1757	683	1367	0	-	0
Stage 1	1360	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	76	392	498	-	-	-
Stage 1	204	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	68	392	498	-	-	-
Mov Cap-2 Maneuver	149	-	-	-	-	-
Stage 1	181	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20.54	2.02	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	245	-	289	-	-
HCM Lane V/C Ratio	0.09	-	0.198	-	-
HCM Ctrl Dly (s/v)	12.9	1.2	20.5	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	196	24	0	13	55	607	24	1	1339	1
Future Volume (veh/h)	10	0	196	24	0	13	55	607	24	1	1339	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	0	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	11	0	206	25	0	14	58	639	25	1	1409	1
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, %	1	0	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	0	0	0	33	0	18	76	3044	119	2	1555	1318
Arrive On Green	0.00	0.00	0.00	0.03	0.00	0.03	0.04	0.87	0.87	0.00	0.82	0.82
Sat Flow, veh/h		0		1102	0	617	1795	3514	137	1795	1885	1598
Grp Volume(v), veh/h		0.0		39	0	0	58	325	339	1	1409	1
Grp Sat Flow(s),veh/h/ln				1719	0	0	1795	1791	1860	1795	1885	1598
Q Serve(g_s), s				3.1	0.0	0.0	4.3	4.0	4.0	0.1	70.5	0.0
Cycle Q Clear(g_c), s				3.1	0.0	0.0	4.3	4.0	4.0	0.1	70.5	0.0
Prop In Lane				0.64		0.36	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h				51	0	0	76	1551	1612	2	1555	1318
V/C Ratio(X)				0.76	0.00	0.00	0.76	0.21	0.21	0.51	0.91	0.00
Avail Cap(c_a), veh/h				348	0	0	363	1551	1612	363	1555	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)				1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh				65.5	0.0	0.0	64.4	1.5	1.5	67.9	8.3	2.1
Incr Delay (d2), s/veh				27.7	0.0	0.0	19.4	0.3	0.3	167.8	9.2	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
%ile BackOfQ(95%),veh/ln				3.1	0.0	0.0	4.3	1.5	1.5	0.2	30.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				93.2	0.0	0.0	83.8	1.8	1.8	235.6	17.5	2.1
LnGrp LOS				F			F	A	A	F	B	A
Approach Vol, veh/h					39			722			1411	
Approach Delay, s/veh					93.2			8.4			17.6	
Approach LOS					F			A			B	

Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	4.6	122.8		8.5	10.3	117.2						
Change Period (Y+Rc), s	4.5	5.0		4.5	4.5	5.0						
Max Green Setting (Gmax), s	27.5	35.0		27.5	27.5	35.0						
Max Q Clear Time (g_c+I1), s	2.1	6.0		5.1	6.3	72.5						
Green Ext Time (p_c), s	0.0	10.3		0.2	0.2	0.0						

Intersection Summary												
HCM 7th Control Delay, s/veh			15.9									
HCM 7th LOS			B									

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	147	0	3	30	18	0	0	17	18	0	0
Future Vol, veh/h	0	147	0	3	30	18	0	0	17	18	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	186	0	4	38	23	0	0	22	23	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	186	0	0	232	254	186	243	243	49
Stage 1	-	-	-	-	-	-	186	186	-	57	57	-
Stage 2	-	-	-	-	-	-	46	68	-	186	186	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1543	-	-	1388	-	-	723	649	856	711	659	1019
Stage 1	-	-	-	-	-	-	816	746	-	955	847	-
Stage 2	-	-	-	-	-	-	968	838	-	816	746	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1543	-	-	1388	-	-	721	647	856	691	657	1019
Mov Cap-2 Maneuver	-	-	-	-	-	-	721	647	-	691	657	-
Stage 1	-	-	-	-	-	-	816	746	-	952	845	-
Stage 2	-	-	-	-	-	-	966	836	-	795	746	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.45	9.31	10.39
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	856	1543	-	-	1388	-	-	691
HCM Lane V/C Ratio	0.025	-	-	-	0.003	-	-	0.033
HCM Ctrl Dly (s/v)	9.3	0	-	-	7.6	-	-	10.4
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	31	52	6	31	89
Future Vol, veh/h	7	31	52	6	31	89
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	52	87	10	52	148

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	343	48	0	0	97	0
Stage 1	92	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	640	1010	-	-	1496	-
Stage 1	922	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	616	1010	-	-	1496	-
Mov Cap-2 Maneuver	616	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	760	-	-	-	-	-

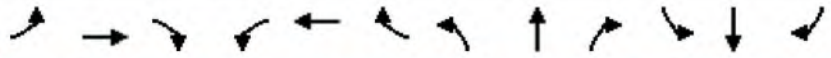
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.28	0	1.94
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	904	465	-
HCM Lane V/C Ratio	-	-	0.07	0.035	-
HCM Ctrl Dly (s/v)	-	-	9.3	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	587	2680	45	132	1601	222	27	116	202	547	243	769
Future Volume (veh/h)	587	2680	45	132	1601	222	27	116	202	547	243	769
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00
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	1945	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	599	2735	46	135	1634	227	28	118	206	558	248	785
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	508	3055	51	168	2355	603	439	498	444	364	918	409
Arrive On Green	0.15	0.47	0.47	0.05	0.37	0.37	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	3456	6566	110	3456	6434	1648	3456	1777	1585	3456	3554	1585
Grp Volume(v), veh/h	599	2009	772	135	1634	227	28	118	206	558	248	785
Grp Sat Flow(s),veh/h/ln	1728	1609	1851	1728	1609	1648	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	33.8	87.7	88.0	8.9	49.6	23.3	1.6	11.8	24.7	24.2	12.8	59.4
Cycle Q Clear(g_c), s	33.8	87.7	88.0	8.9	49.6	23.3	1.6	11.8	24.7	24.2	12.8	59.4
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	508	2245	861	168	2355	603	439	498	444	364	918	409
V/C Ratio(X)	1.18	0.89	0.90	0.80	0.69	0.38	0.06	0.24	0.46	1.53	0.27	1.92
Avail Cap(c_a), veh/h	508	2245	861	361	2355	603	439	498	444	364	918	409
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)	0.17	0.17	0.17	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	98.1	56.3	56.4	108.3	61.9	53.6	88.4	63.9	68.5	102.9	68.0	85.3
Incr Delay (d2), s/veh	84.6	1.1	2.9	8.6	1.7	1.8	0.3	1.1	3.5	254.0	0.7	421.9
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(95%),veh/ln	26.5	39.4	45.5	7.6	27.9	15.3	1.4	9.4	15.8	36.8	10.0	112.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	182.7	57.5	59.3	116.9	63.7	55.4	88.6	65.0	72.0	356.9	68.7	507.2
LnGrp LOS	F	E	E	F	E	E	F	E	E	F	E	F
Approach Vol, veh/h		3380			1996			352			1591	
Approach Delay, s/veh		80.1			66.3			71.0			386.2	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.0	90.0	35.0	65.0	17.2	112.8	30.0	70.0
Change Period (Y+Rc), s	6.2	5.8	5.8	5.6	6.0	5.8	5.8	5.6
Max Green Setting (Gmax), s	33.8	84.2	29.2	54.4	24.0	94.2	24.2	64.4
Max Q Clear Time (g_c+I1), s	35.8	51.6	3.6	61.4	10.9	90.0	26.2	26.7
Green Ext Time (p_c), s	0.0	15.8	0.0	0.0	0.3	3.9	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	142.4
HCM 7th LOS	F



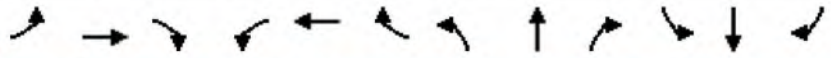
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	2409	352	203	1461	551	198	427	121	867	1742	82
Future Volume (veh/h)	294	2409	352	203	1461	551	198	427	121	867	1742	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	300	2458	0	207	1491	562	202	436	0	885	1778	0
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	335	2993		235	2804	691	230	926		685	1594	
Arrive On Green	0.10	0.47	0.00	0.07	0.44	0.44	0.07	0.18	0.00	0.20	0.31	0.00
Sat Flow, veh/h	3456	6434	1585	3456	6434	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	300	2458	0	207	1491	562	202	436	0	885	1778	0
Grp Sat Flow(s),veh/h/ln	1728	1609	1585	1728	1609	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	23.2	89.3	0.0	16.0	45.9	83.7	15.6	20.6	0.0	53.5	84.3	0.0
Cycle Q Clear(g_c), s	23.2	89.3	0.0	16.0	45.9	83.7	15.6	20.6	0.0	53.5	84.3	0.0
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	335	2993		235	2804	691	230	926		685	1594	
V/C Ratio(X)	0.90	0.82		0.88	0.53	0.81	0.88	0.47		1.29	1.12	
Avail Cap(c_a), veh/h	695	2993		312	2804	691	298	1027		685	1594	
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)	0.09	0.09	0.00	0.44	0.44	0.44	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	120.6	62.5	0.0	124.7	55.9	66.6	125.0	98.9	0.0	108.2	92.8	0.0
Incr Delay (d2), s/veh	0.9	0.2	0.0	9.9	0.3	4.7	20.5	0.4	0.0	142.3	61.1	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(95%),veh/ln	12.2	39.4	0.0	10.6	23.6	41.3	12.4	14.2	0.0	54.5	61.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	121.4	62.7	0.0	134.6	56.2	71.3	145.5	99.3	0.0	250.6	154.0	0.0
LnGrp LOS	F	E		F	E	E	F	F		F	F	
Approach Vol, veh/h		2758			2260			638			2663	
Approach Delay, s/veh		69.1			67.2			113.9			186.1	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.9	123.5	60.0	54.6	24.0	131.4	24.6	90.0
Change Period (Y+Rc), s	5.7	5.8	6.5	5.7	5.6	5.8	6.7	5.7
Max Green Setting (Gmax), s	54.3	84.2	53.5	54.3	24.4	114.2	23.3	84.3
Max Q Clear Time (g_c+I1), s	25.2	85.7	55.5	22.6	18.0	91.3	17.6	86.3
Green Ext Time (p_c), s	1.0	0.0	0.0	2.9	0.3	18.5	0.3	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	109.5
HCM 7th LOS	F

Notes

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	2919	1624	319	1372	64	836	81	290	68	189	211
Future Volume (veh/h)	147	2919	1624	319	1372	64	836	81	290	68	189	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	150	2979	1657	326	1400	0	739	243	0	69	193	0
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	177	2177	676	350	2663		523	333		200	227	
Arrive On Green	0.10	0.43	0.43	0.20	0.52	0.00	0.10	0.18	0.00	0.05	0.12	0.00
Sat Flow, veh/h	1781	5106	1585	1781	5106	1585	3563	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	150	2979	1657	326	1400	0	739	243	0	69	193	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.6	59.7	59.7	25.2	25.3	0.0	14.6	17.2	0.0	4.7	14.2	0.0
Cycle Q Clear(g_c), s	11.6	59.7	59.7	25.2	25.3	0.0	14.6	17.2	0.0	4.7	14.2	0.0
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	177	2177	676	350	2663		523	333		200	227	
V/C Ratio(X)	0.85	1.37	2.45	0.93	0.53		1.41	0.73		0.34	0.85	
Avail Cap(c_a), veh/h	383	2177	676	387	2663		523	395		302	397	
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)	0.09	0.09	0.09	0.79	0.79	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	40.2	40.2	55.3	22.1	0.0	51.2	54.3	0.0	50.5	60.2	0.0
Incr Delay (d2), s/veh	1.1	166.1	653.9	23.5	0.6	0.0	197.1	5.5	0.0	1.0	8.6	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(95%),veh/ln	6.3	76.2	222.1	18.6	14.4	0.0	26.1	13.4	0.0	3.9	11.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.1	206.3	694.1	78.9	22.7	0.0	248.2	59.8	0.0	51.5	68.8	0.0
LnGrp LOS	E	F	F	E	C		F	E		D	E	
Approach Vol, veh/h		4786			1726			982			262	
Approach Delay, s/veh		370.7			33.3			201.6			64.3	
Approach LOS		F			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	78.8	12.1	30.4	32.1	65.5	20.0	22.4
Change Period (Y+Rc), s	4.9	5.8	5.3	5.4	4.6	5.8	5.4	* 5.4
Max Green Setting (Gmax), s	30.0	44.2	14.7	29.6	30.4	44.2	14.6	* 30
Max Q Clear Time (g_c+I1), s	13.6	27.3	6.7	19.2	27.2	61.7	16.6	16.2
Green Ext Time (p_c), s	0.3	8.6	0.1	0.9	0.3	0.0	0.0	0.9

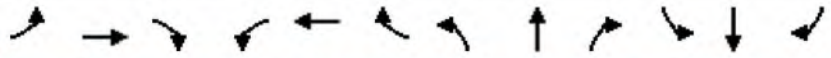
Intersection Summary	
HCM 7th Control Delay, s/veh	263.9
HCM 7th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	3562	270	252	1895	203	431	380	497	363	507	297
Future Volume (veh/h)	326	3562	270	252	1895	203	431	380	497	363	507	297
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	329	3598	0	255	1914	0	435	384	0	367	512	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	2597		297	2494		437	573		412	552	
Arrive On Green	0.11	0.51	0.00	0.09	0.49	0.00	0.13	0.16	0.00	0.12	0.16	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	329	3598	0	255	1914	0	435	384	0	367	512	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	17.8	96.7	0.0	13.8	58.3	0.0	23.9	19.3	0.0	19.9	27.0	0.0
Cycle Q Clear(g_c), s	17.8	96.7	0.0	13.8	58.3	0.0	23.9	19.3	0.0	19.9	27.0	0.0
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	375	2597		297	2494		437	573		412	552	
V/C Ratio(X)	0.88	1.39		0.86	0.77		1.00	0.67		0.89	0.93	
Avail Cap(c_a), veh/h	535	2597		437	2494		437	573		524	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	0.00	0.71	0.71	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	83.5	46.7	0.0	85.7	39.8	0.0	83.0	74.9	0.0	82.5	79.2	0.0
Incr Delay (d2), s/veh	11.4	175.8	0.0	8.0	1.7	0.0	42.1	6.1	0.0	14.6	24.1	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(95%),veh/ln	8.3	120.2	0.0	10.0	31.1	0.0	19.2	14.4	0.0	14.9	20.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	94.8	222.5	0.0	93.7	41.4	0.0	125.1	81.0	0.0	97.1	103.3	0.0
LnGrp LOS	F	F		F	D		F	F		F	F	
Approach Vol, veh/h		3927			2169			819			879	
Approach Delay, s/veh		211.8			47.6			104.4			100.7	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.2	98.6	28.8	36.4	22.3	102.5	30.0	35.2
Change Period (Y+Rc), s	5.6	5.8	6.2	5.7	6.0	5.8	6.0	* 5.7
Max Green Setting (Gmax), s	20.6	84.2	28.8	24.3	24.0	89.2	24.0	* 30
Max Q Clear Time (g_c+I1), s	19.8	60.3	21.9	21.3	15.8	98.7	25.9	29.0
Green Ext Time (p_c), s	0.8	14.9	0.8	0.7	0.5	0.0	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	142.3
HCM 7th LOS	F

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Appendix E
Scoping Memo

TRAFFIC SCOPING DOCUMENT

To: Jessica Dai, P.E. (jdai@milpitas.gov)
Michael Fossati, AICP (mfossati@milpitas.gov)

From: Israa Khan, EIT (Israa.Khan@NV5.com)
Amanda Herrera, P.E. (Amanda.Herrera@NV5.com)
Bethany Judd, P. Eng (Bethany.Judd@NV5.com)

Date: May 23, 2025

Re: Memorandum of Traffic Scoping – 1000 Gibraltar Drive, City of Milpitas

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This memorandum conveys current information related to the Traffic Scoping (TS) for a proposed delivery facility development in Milpitas, CA. It outlines the study area, study intersections, the trip generation, background growth, and trip distribution for the proposed development.

Site Description

The Local Transportation Analysis (LTA) will comply with all the requirements of the City of Milpitas and Santa Clara Valley Transportation Authority, considering the proposed development's proximity to the roadway network. The proposed development is located along Gibraltar Drive, adjacent to the intersection of S Milpitas Boulevard and Gibraltar Drive. The project will include 487,564 SF of warehousing facility. The project is expected to be completed by 2026 with a Horizon Year of 2040.

Site Trip Generation

The proposed site is anticipated to generate 3,812 daily, 260 AM and 245 PM Peak Hour trips during the typical commuter peak hours (7:00 – 9:00 a.m. and 4:00 – 6:00 p.m.) as shown in the table below. We recommend assessing the transportation network, capacity, and access driveways using the user data to best serve the community and potential user. A detailed trip schedule can be found in Appendix A.

Land Use	Source	Intensity	Daily	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
Delivery Facility	User Data[1]	487,564 SF	3,812	131	129	260	122	123	245

[1]*Delivery Facility - Proposed Traffic Schedule*

Figure 1. Site Plan



Study Intersections

The following intersections are proposed for analysis and existing data collection. An intersection map can be found below in Figure 2. Please note that Congestion Management Program (CMP) intersections are only included in the study area to replicate realistic traffic flow patterns to the development area. No mitigations, if any, will be applied to these intersections.

1. Abel St & E Calaveras Blvd (CMP Intersection)
2. Milpitas Blvd & E Calaveras Blvd (CMP Intersection)
3. S Milpitas Blvd & Yosemite Dr
4. S Milpitas Blvd & Ames Ave/Project Dwy 1
5. S Milpitas Blvd & Project Dwy 2
6. S Milpitas Blvd & Gibraltar Dr
7. Gibraltar Dr & Project Dwy 3
8. Gibraltar Dr & Project Dwy 4
9. S Milpitas Dr & Montague Expy (CMP Intersection)
10. Great Mall Pkwy/E Capitol Ave & Montague Expy (CMP Intersection)
11. McCandless Dr/Trade Zone Blvd & Montague Expy (CMP Intersection)
12. S Main St/Oakland Rd & Montague Expy (CMP Intersection)

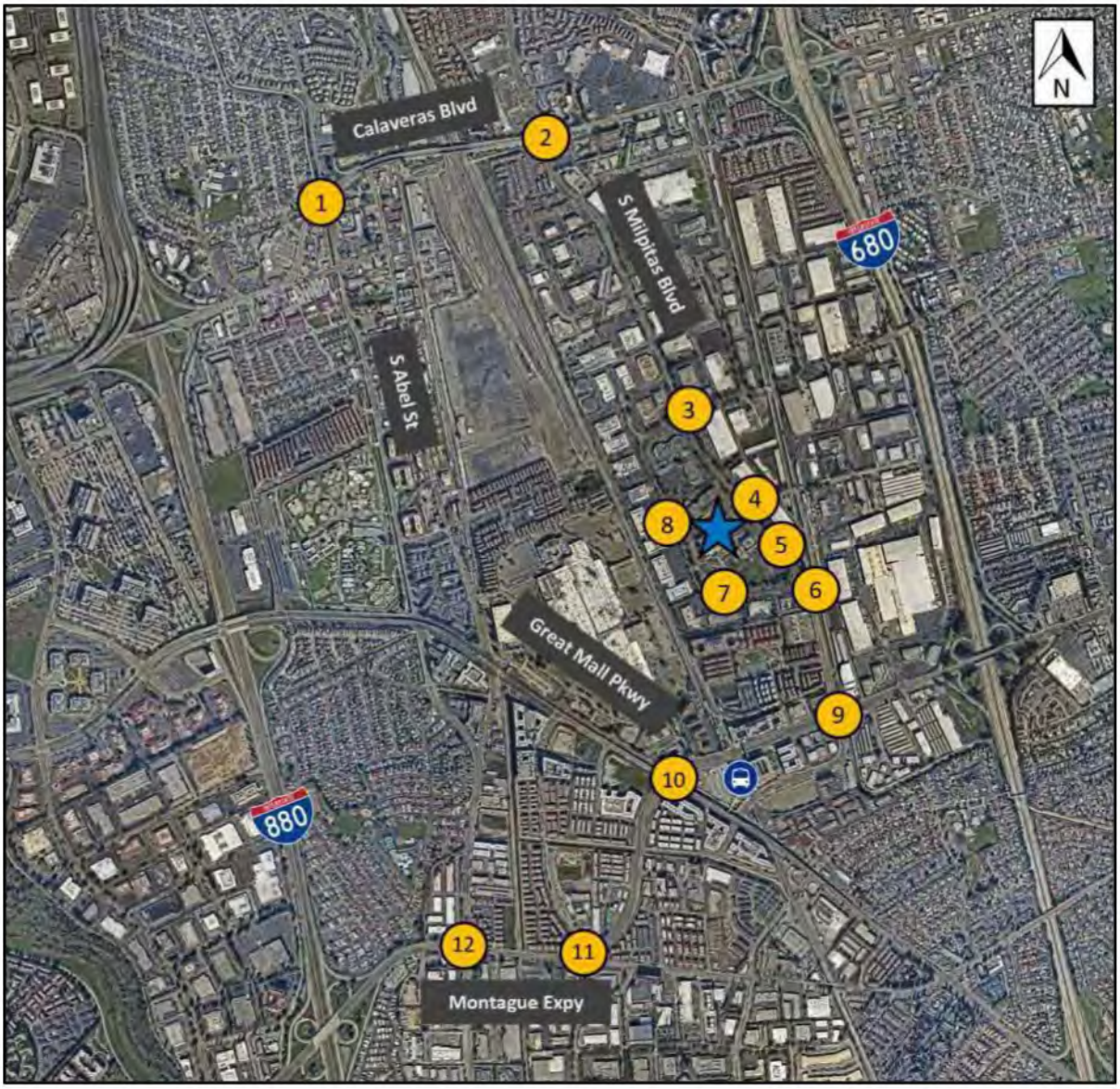
Data Collection

Existing data collection is proposed for the following:
New AM (**7-9am**) and PM (**4-6pm**) turning movement counts (TMCs) shall be conducted on Tuesday, Wednesday, or Thursday while schools are in session at the following locations:

1. Abel St & E Calaveras Blvd (CMP Intersection)
2. Milpitas Blvd & E Calaveras Blvd (CMP Intersection)
3. S Milpitas Blvd & Yosemite Dr
4. S Milpitas Blvd & Ames Ave/Project Dwy 1
5. S Milpitas Blvd & Project Dwy 2
6. S Milpitas Blvd & Gibraltar Dr
7. Gibraltar Dr & Project Dwy 3
8. Gibraltar Dr & Project Dwy 4
9. S Milpitas Dr & Montague Expy (CMP Intersection)
10. Great Mall Pkwy/E Capitol Ave & Montague Expy (CMP Intersection)
11. McCandless Dr/Trade Zone Blvd & Montague Expy (CMP Intersection)
12. S Main St/Oakland Rd & Montague Expy (CMP Intersection)

The TMC's shall include classification of vehicles as well as pedestrian/bicycle volumes.

Figure 2. Study Intersections Map



Trip Distribution

The new distribution center will receive merchandise from the regional fulfillment and sort centers located in Oakland and Tracy and deliver it to local customers of the Milpitas metropolitan area. NV5 developed a directional distribution plan to allocate site traffic to the local roadway network. Trip distribution for the 1000 Gibraltar Drive site varies by vehicle type, with cars and trucks following distinct patterns based on the on the proposed trip schedule and routes designated specific to this location. Figure 3a and 3b illustrate the general distribution patterns for both modes of travel.

The general distribution percentages were developed using the previously approved 1000 Gibraltar Industrial Project Draft LTA (2020) distribution and revised to include the possible delivery locations and specific use of each site driveway. Per Figure 1, delivery trucks are only able to enter the site through Intersection 4 (Project Dwy 1) and exit from Intersection 8 (Project Dwy 4). Based on the driveway configuration, 100% of truck traffic is expected to use S Milpitas Blvd for site entry and exit. Overall, 50% of truck traffic is anticipated to travel to and from the site from the south via I-680, 20% to the north via S Milpitas Blvd and Calaveras Blvd, and 30% to the west via Montague Expy towards I-880. A detailed trip distribution map and expected peak hour truck volumes can be found in Appendix B.

Cars are expected to enter and exit the facility via Intersection 5 (Project Dwy 2), Intersection 7 (Project Dwy 3), and Intersection 8 (Project Dwy 4). Overall, 30% of cars are anticipated to travel to and from the site from the south along S Milpitas Blvd towards I-680, 30% to the north via S Milpitas Blvd and Calaveras Blvd, and 40% to the west via Montague Expy towards I-880. A detailed trip distribution map and expected peak hour truck volumes can be found in Appendix C.

Figure 3a. Trip Distribution Map – Cars



Figure 4b. Trip Distribution Map – Trucks



Intersection Capacity Analysis

The analysis will be conducted using Synchro® 12 and time of day signal plans provided by the City on March 14, 2025. Per the City's direction, the 2040 future volumes will be utilized from the previously completed LTA (2020) for this site. This scope assumes that the LTA will not require the use of the VTA Travel Demand Model.

The following scenarios will be studied:

1. 2025 Existing Conditions
2. 2026 No-Build Conditions
3. 2026 Build Conditions
4. 2040 Future No-Build Conditions
5. 2040 Future Build Conditions
6. 2040 Future Build Conditions with Mitigations

Previous Developments in the Project Vicinity

1. Piper Drive Apartments
2. Centre Point Residential Apartments

Local Transportation Analysis

NV5 will conduct a Local Transportation Analysis (LTA) in accordance with the City's requirements. This LTA is intended to replace the previously approved *Appendix G Traffic Data: Local Transportation Analysis Report (2020)*. The LTA will assess the potential impacts of the proposed project on the key intersections in the project vicinity during the typical weekday AM (7-9 AM) and PM (4-6 PM) commute periods. This study will include performance measures such as intersection delay, Level of Service (LOS) and queuing, and provide a high-level evaluation of impacts to transit, bike, and pedestrian circulations.

VMT Study

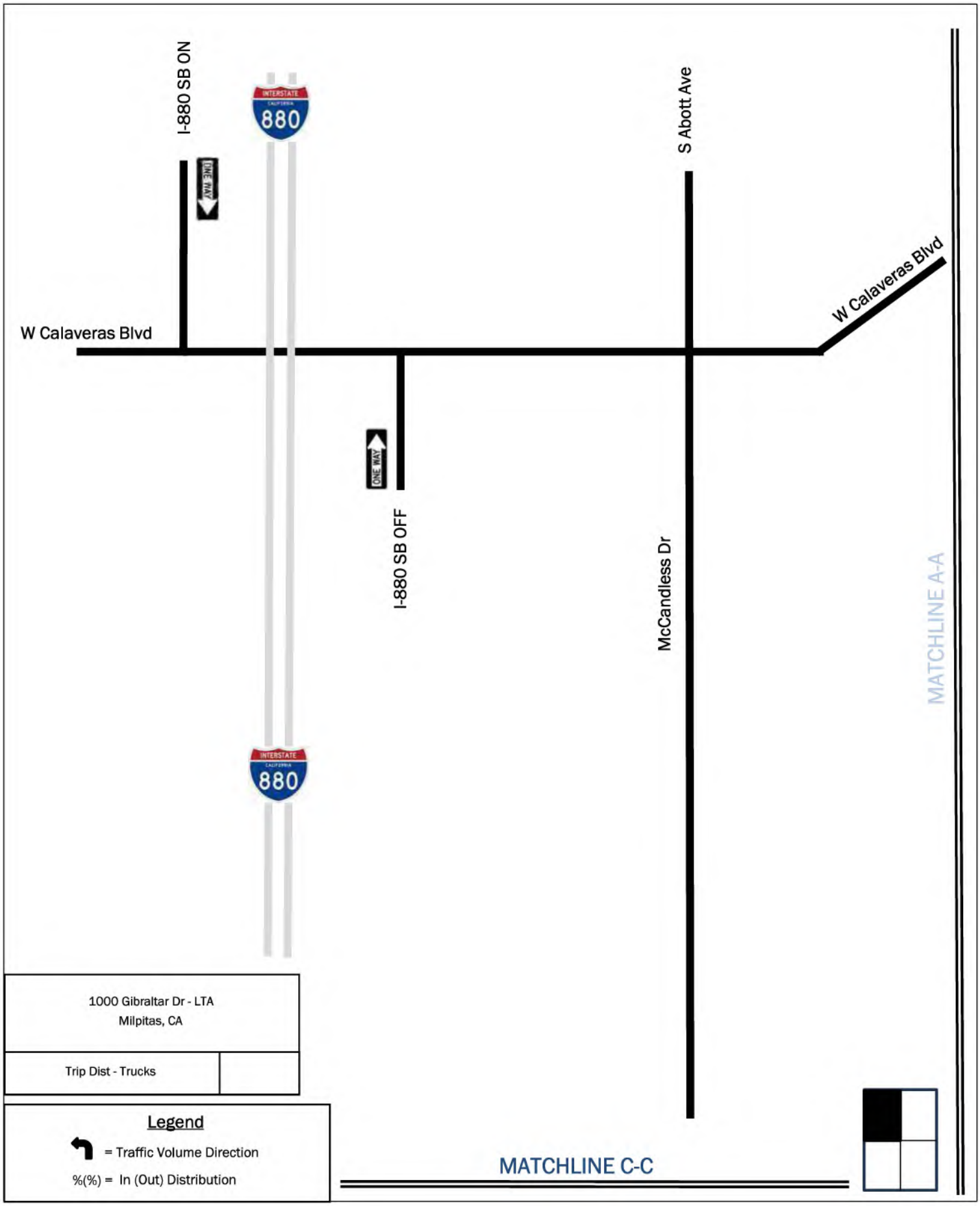
An Environmental Impact Report (EIR) was previously certified for the project site in March 2021 for a similar use—warehouse distribution. Although the proposed project is comparable in size and use, it differs slightly in operational characteristics. As such, the new VMT study is intended to replace the previous *IV Environmental Impact Analysis – E. Transportation* section. A detailed assessment of the project's Vehicle Miles Traveled (VMT) will be conducted using the Santa Clara County (SCC) VMT Evaluation Tool. The updated analysis will not require the use of VTA demand modeling. The VMT report will address the California Environmental Quality Act (CEQA) Guidelines, Appendix G, Section XVII – Transportation, items (a), (b), (c), and (d).

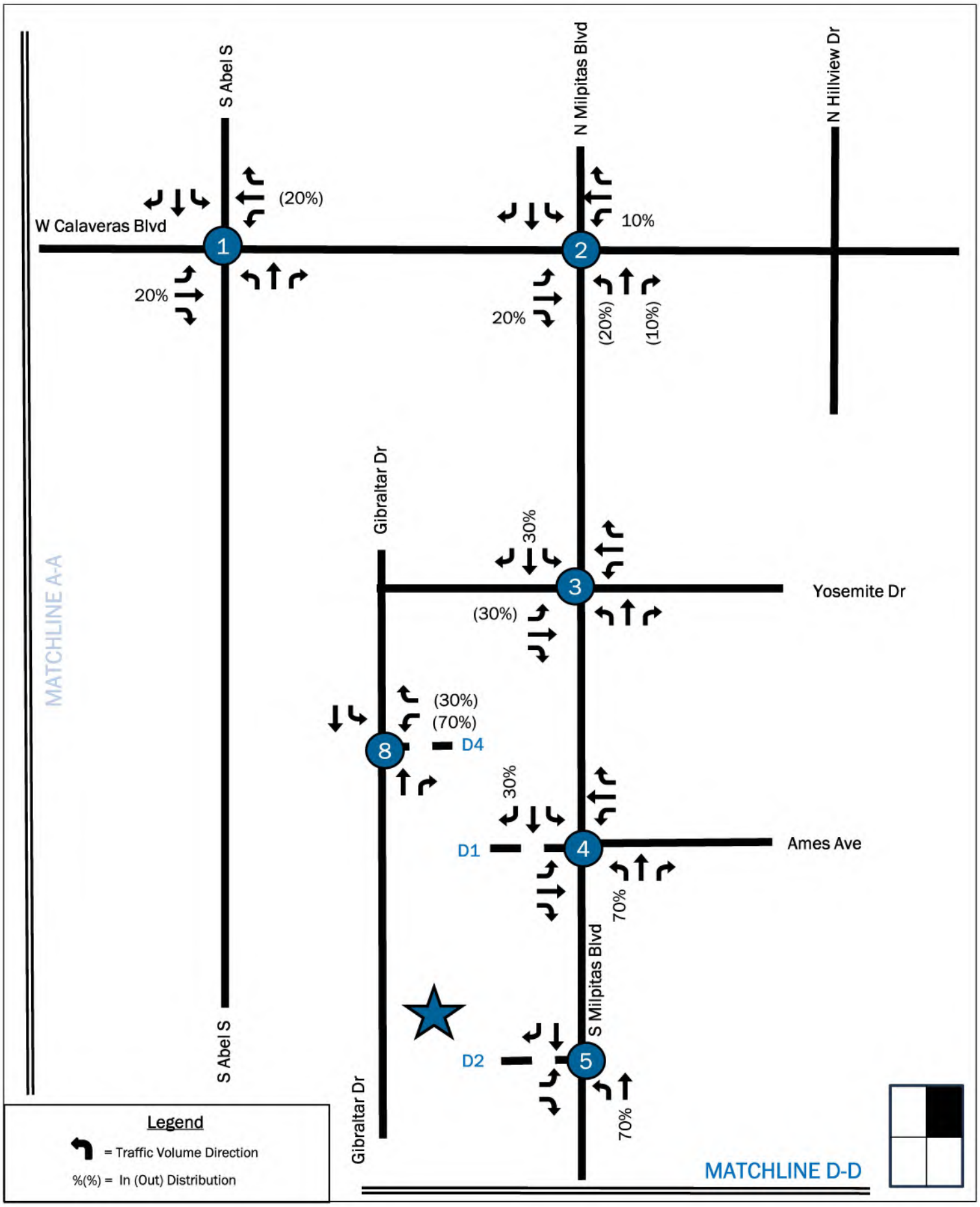
Appendix A – Trip Schedule

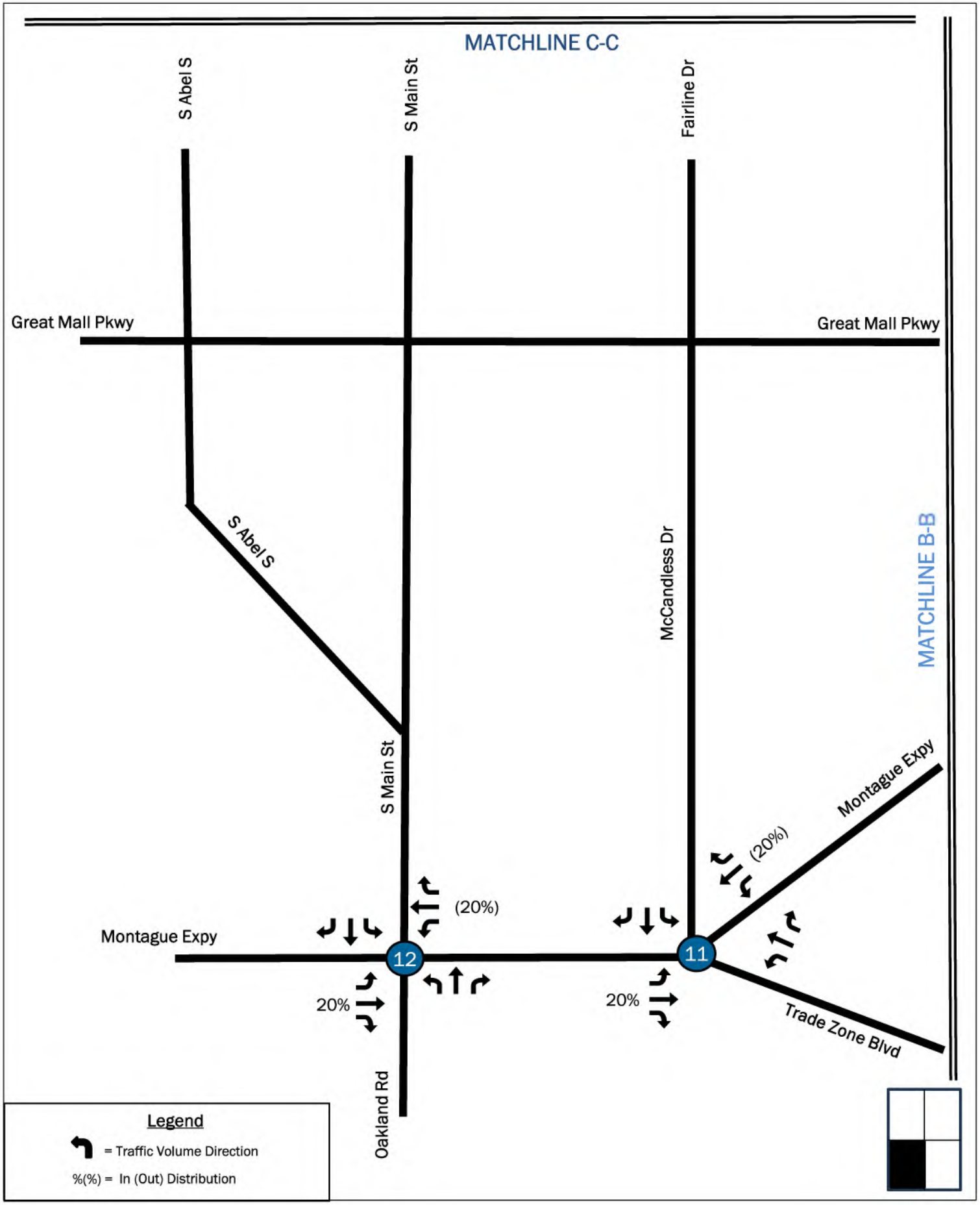
Total (Adj)			
Adjusted Avg Weekday			
	In	Out	Total
00:00	1	2	3
01:00	64	96	160
02:00	0	0	0
03:00	168	166	335
04:00	166	168	335
05:00	130	130	260
06:00	150	148	297
07:00	131	129	259
08:00	24	26	50
09:00	31	31	62
10:00	58	58	115
11:00	147	168	316
12:00	45	47	92
13:00	77	77	155
14:00	148	148	296
15:00	132	78	210
16:00	56	58	114
17:00	103	102	205
18:00	122	123	244
19:00	55	53	108
20:00	0	97	97
21:00	96	0	96
22:00	0	1	1
23:00	2	0	2
	1,906	1,906	3,812

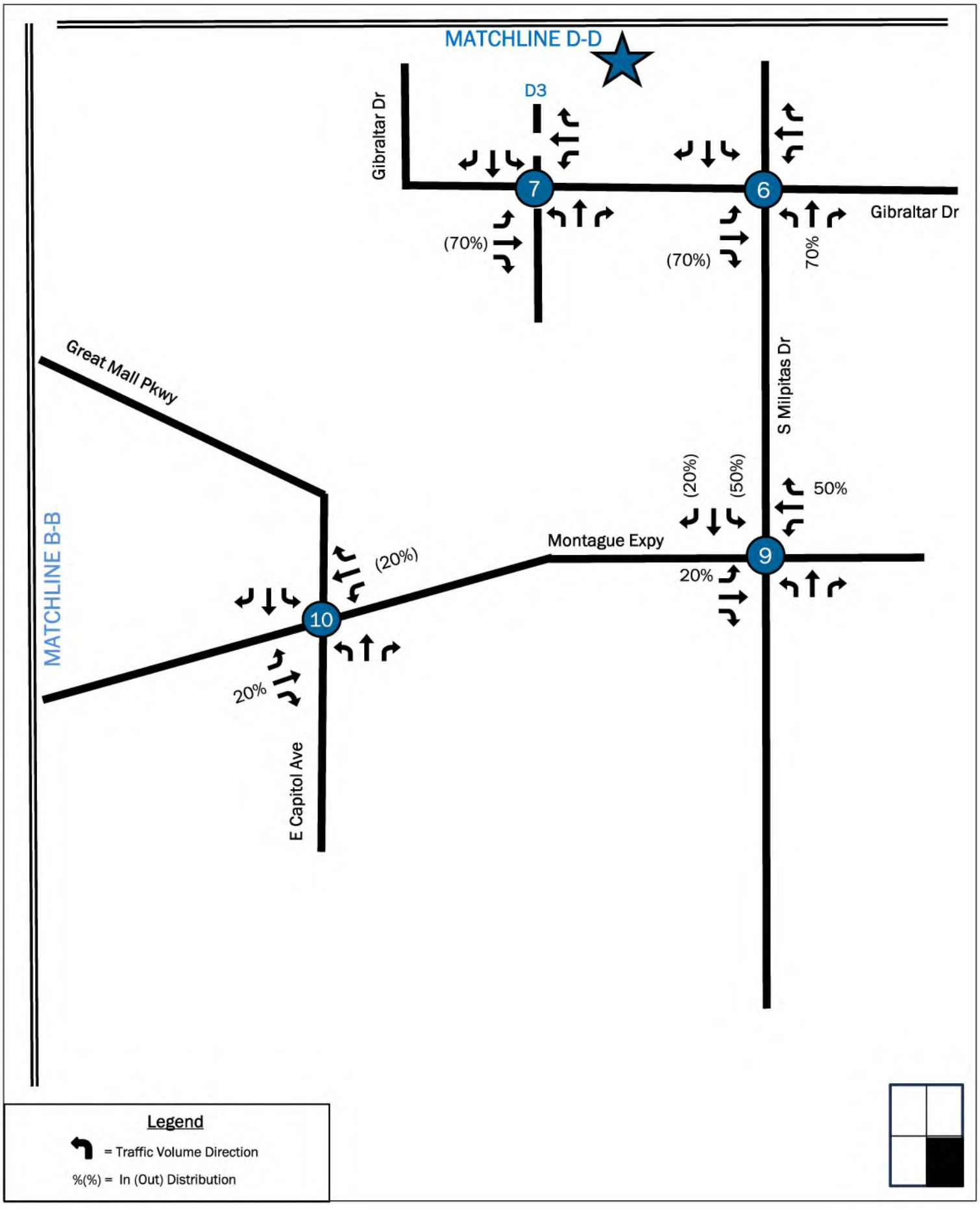
Peak Hours

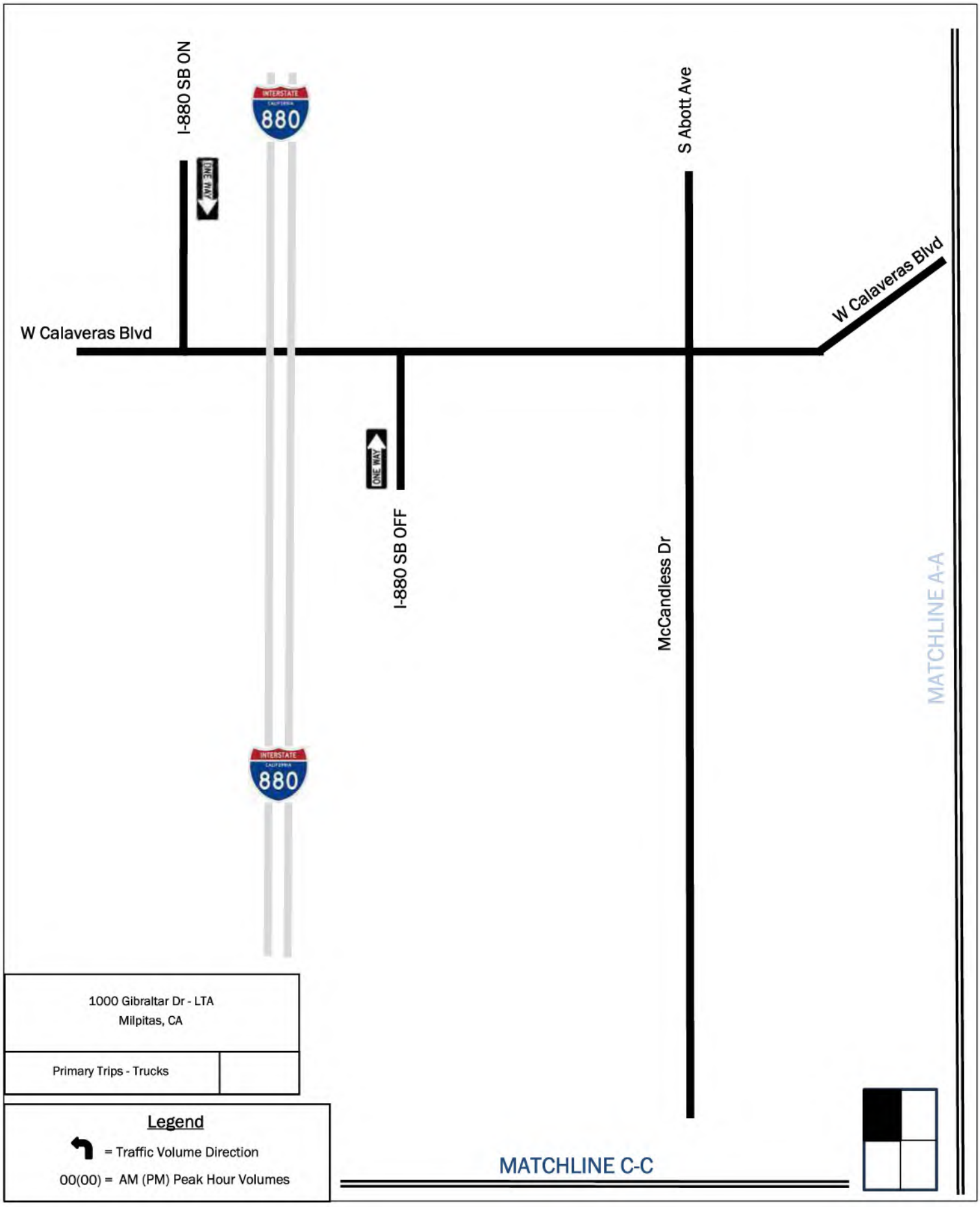
Appendix B – Truck Trip Distribution and Peak Hour Volumes

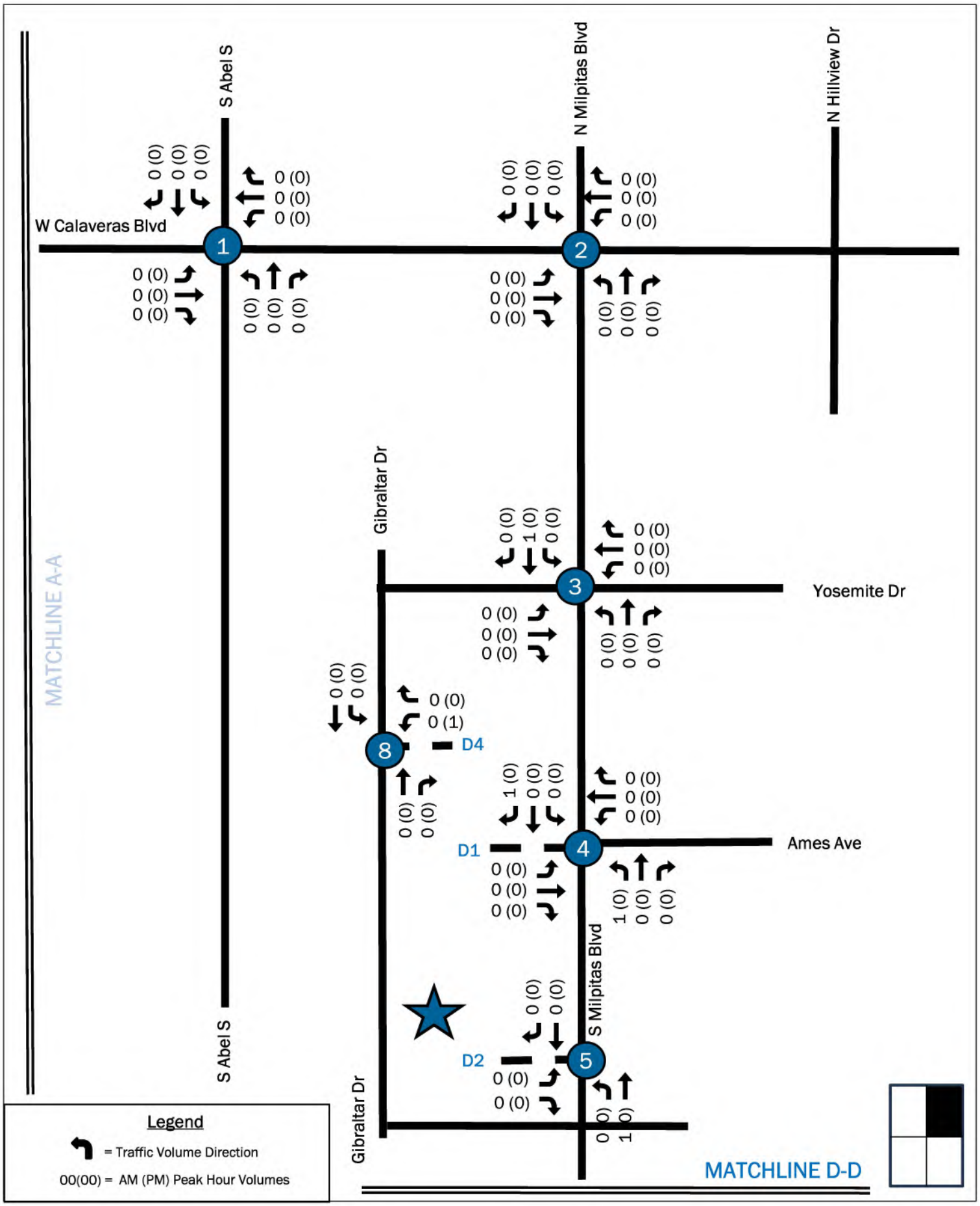

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INTERSTATE
880
ONE WAY
S Abott Ave
W Calaveras Blvd
W Calaveras Blvd
ONE WAY
I-880 SB OFF
McCandless Dr
MATCHLINE A-A
INTERSTATE
880
1000 Gibraltar Dr - LTA
Milpitas, CA
Trip Dist - Trucks
Legend
= Traffic Volume Direction
%(%) = In (Out) Distribution
MATCHLINE C-C

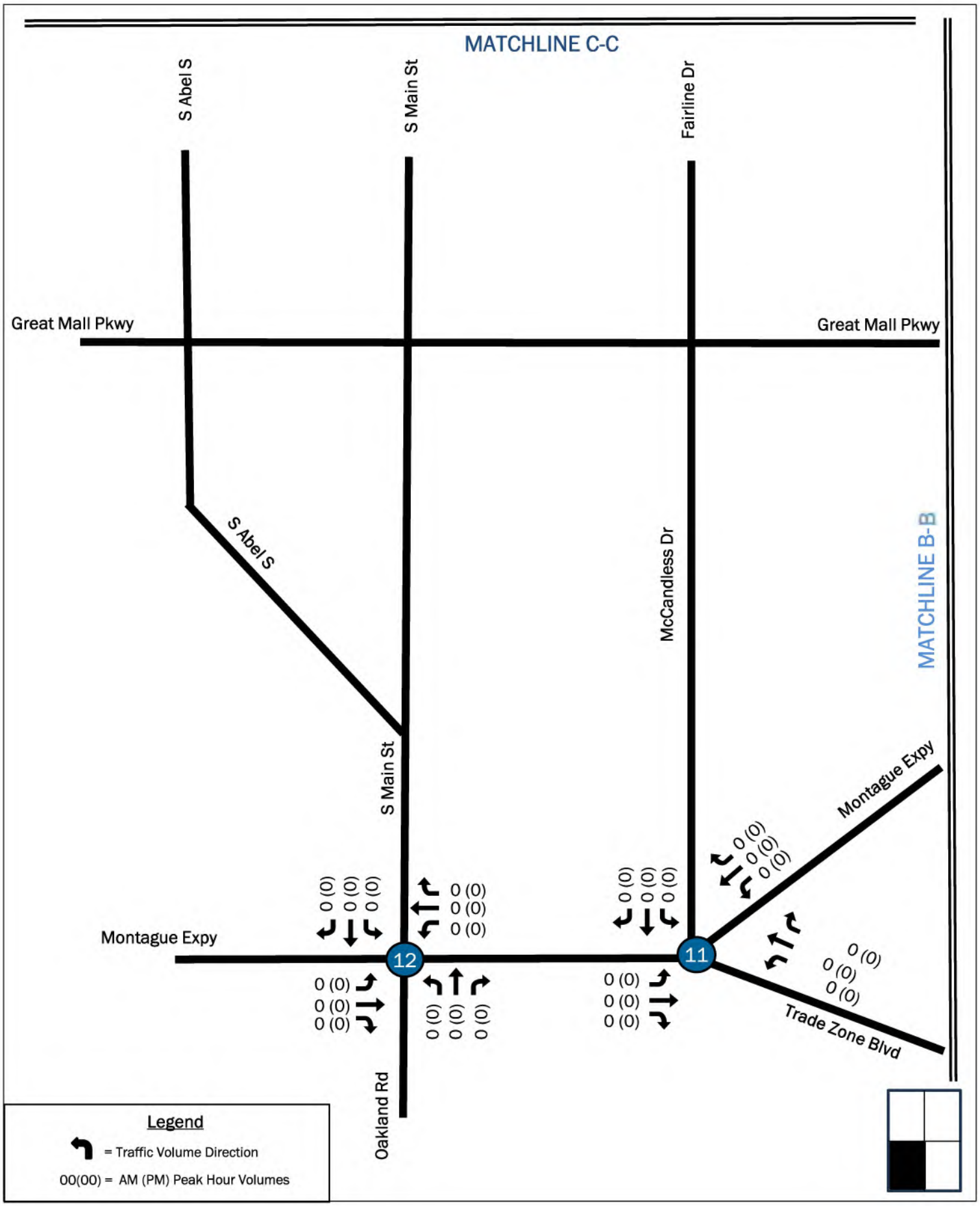

S Abel S
N Milpitas Blvd
N Hillview Dr
W Calaveras Blvd
(20%)
10%
20%
20%
(20%)
(10%)
1
2
Gibraltar Dr
30%
3
Yosemite Dr
(30%)
MATCHLINE A-A
(30%)
(70%)
8
D4
30%
D1
4
Ames Ave
70%
S Milpitas Blvd
D2
5
70%
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Gibraltar Dr
MATCHLINE D-D
Legend
= Traffic Volume Direction
%(%) = In (Out) Distribution

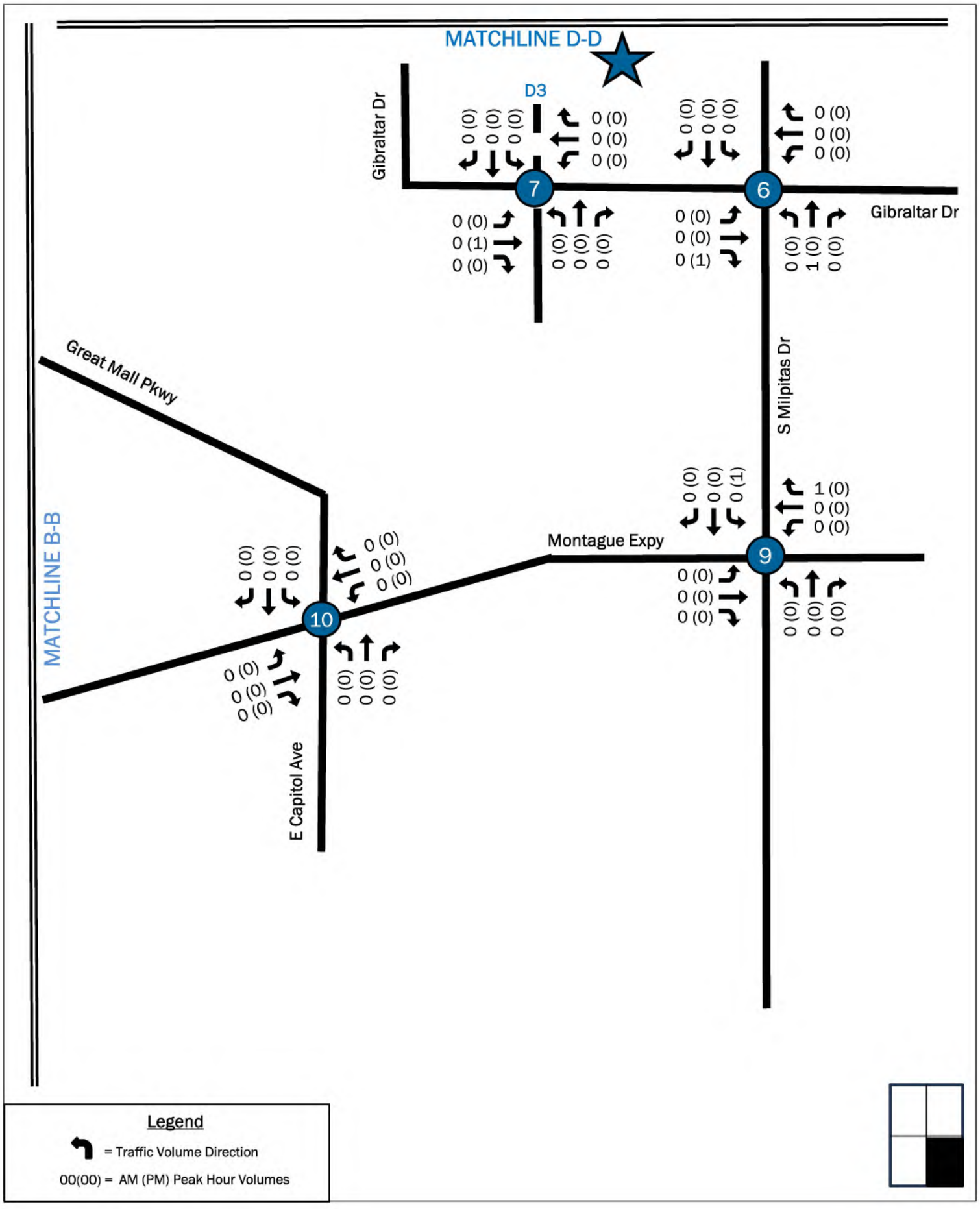

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S Main St
Fairline Dr
Great Mall Pkwy
Great Mall Pkwy
S Abel S
S Main St
McCandless Dr
MATCHLINE B-B
Montague Expy
(20%)
Montague Expy
(20%)
12
11
20%
20%
Trade Zone Blvd
Oakland Rd
Legend
= Traffic Volume Direction
%(%) = In (Out) Distribution


MATCHLINE D-D
D3
Gibraltar Dr
7
6
Gibraltar Dr
(70%)
(70%)
70%
S Milpitas Dr
Great Mall Pkwy
MATCHLINE B-B
(20%)
(50%)
50%
Montague Expy
9
20%
(20%)
10
20%
E Capitol Ave
Legend
= Traffic Volume Direction
%(%) = In (Out) Distribution

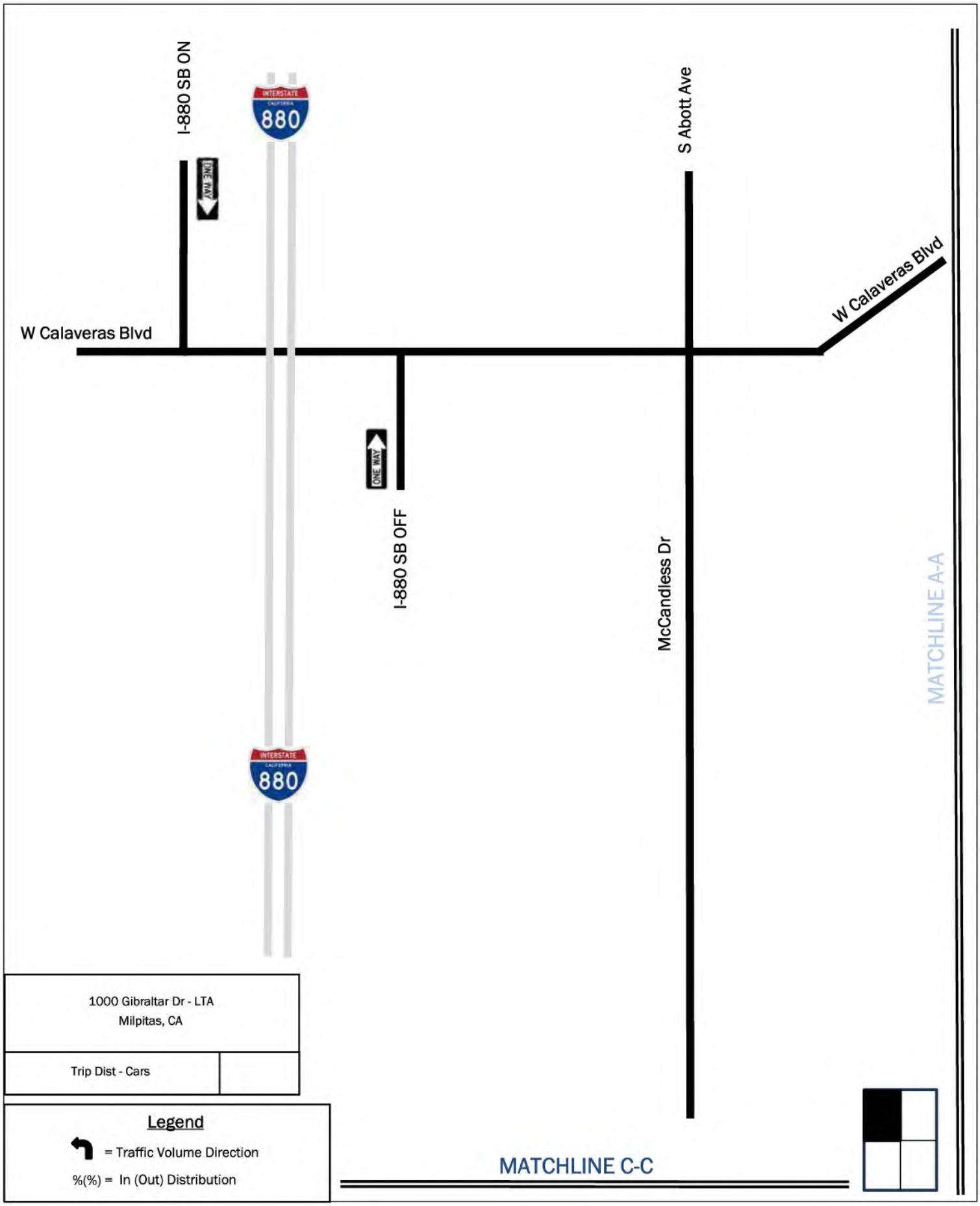

I-880 SB ON
INTERSTATE
CALIFORNIA
880
ONE WAY
S Abott Ave
W Calaveras Blvd
W Calaveras Blvd
ONE WAY
I-880 SB OFF
McCandless Dr
MATCHLINE A-A
INTERSTATE
CALIFORNIA
880
1000 Gibraltar Dr - LTA
Milpitas, CA
Primary Trips - Trucks
Legend
= Traffic Volume Direction
00(00) = AM (PM) Peak Hour Volumes
MATCHLINE C-C

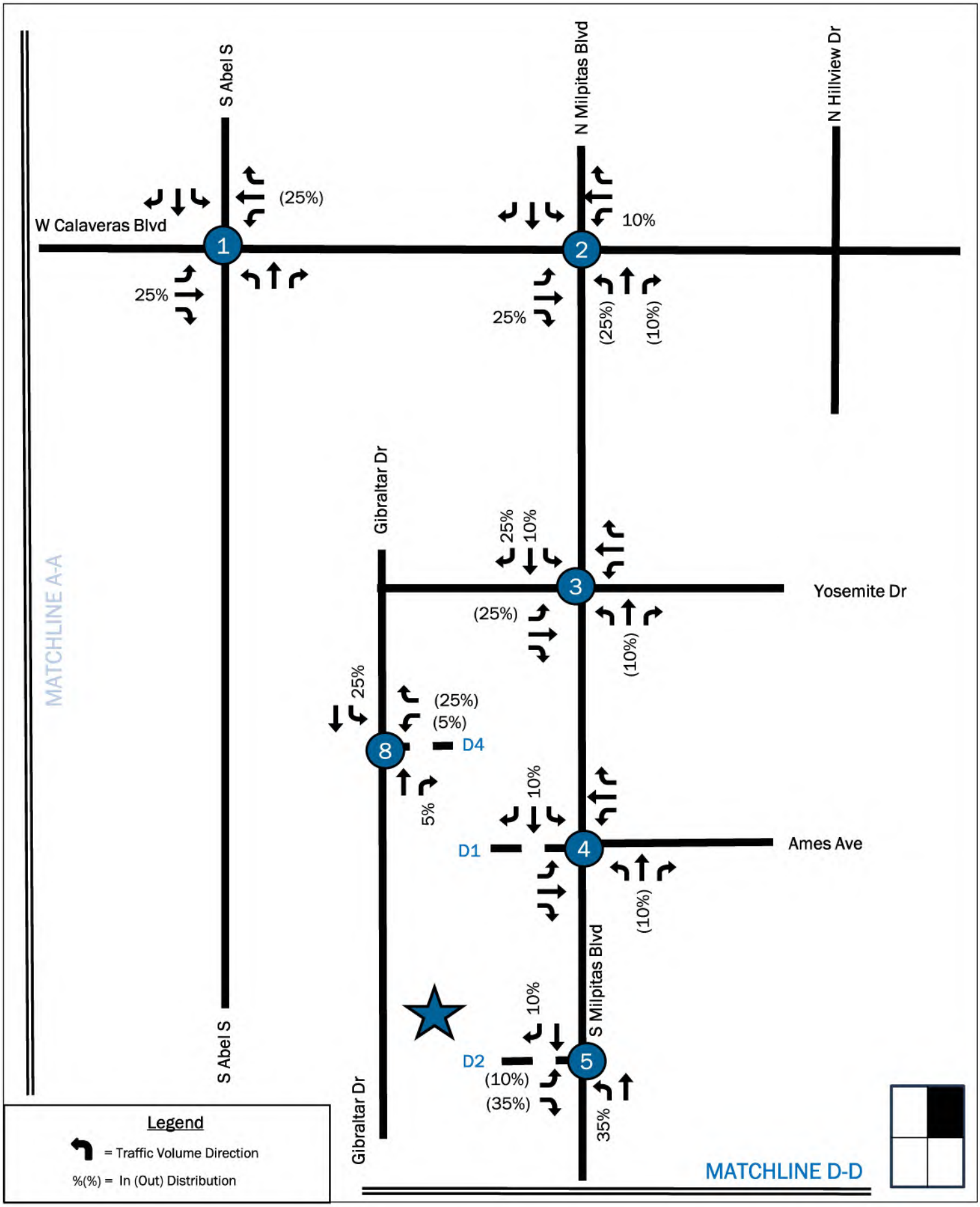

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S Abel S
N Milpitas Blvd
N Hillview Dr
Gibraltar Dr
Yosemite Dr
Ames Ave
S Milpitas Blvd
D1
D2
D4
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2
3
4
5
8
MATCHLINE A-A
MATCHLINE D-D
Legend
= Traffic Volume Direction
00(00) = AM (PM) Peak Hour Volumes

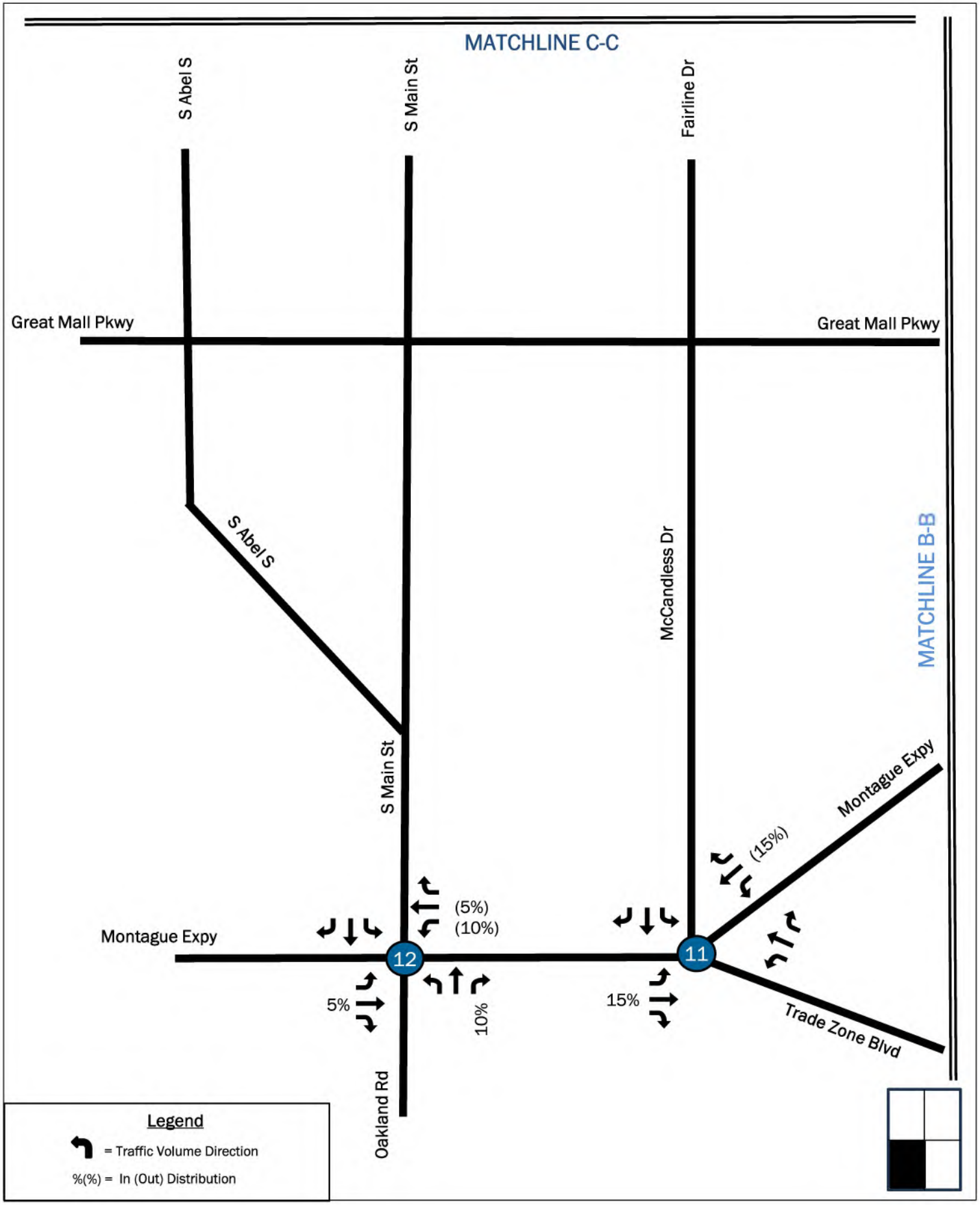

MATCHLINE C-C
S Abel S
S Main St
Fairline Dr
Great Mall Pkwy
Great Mall Pkwy
S Abel S
S Main St
McCandless Dr
MATCHLINE B-B
Montague Expy
Montague Expy
12
11
Trade Zone Blvd
Oakland Rd
0 (0)
Legend
= Traffic Volume Direction
00(00) = AM (PM) Peak Hour Volumes

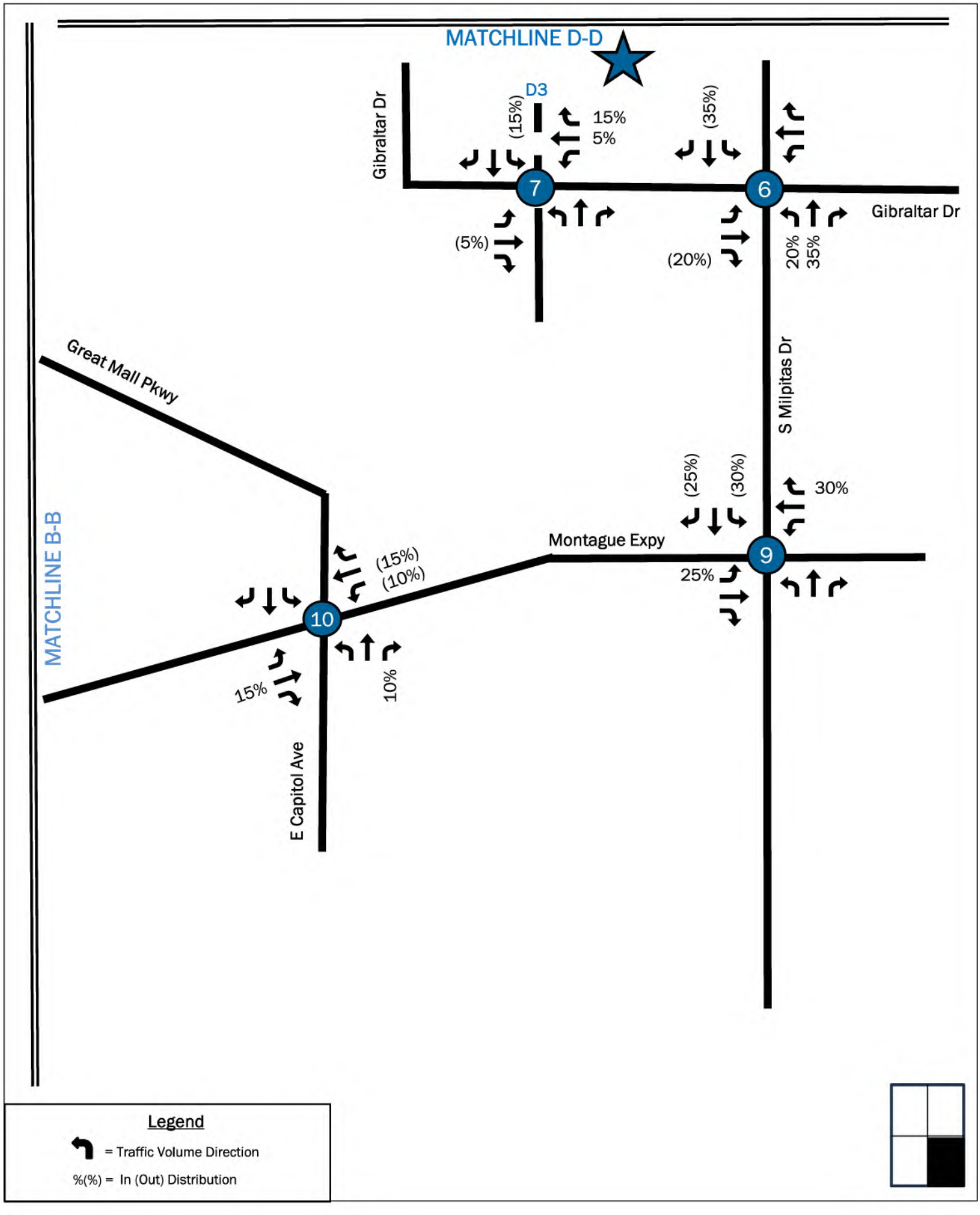

MATCHLINE D-D
D3
Gibraltar Dr
7
6
Gibraltar Dr
S Milpitas Dr
Great Mall Pkwy
MATCHLINE B-B
Montague Expy
9
10
E Capitol Ave
Legend
= Traffic Volume Direction
00(00) = AM (PM) Peak Hour Volumes

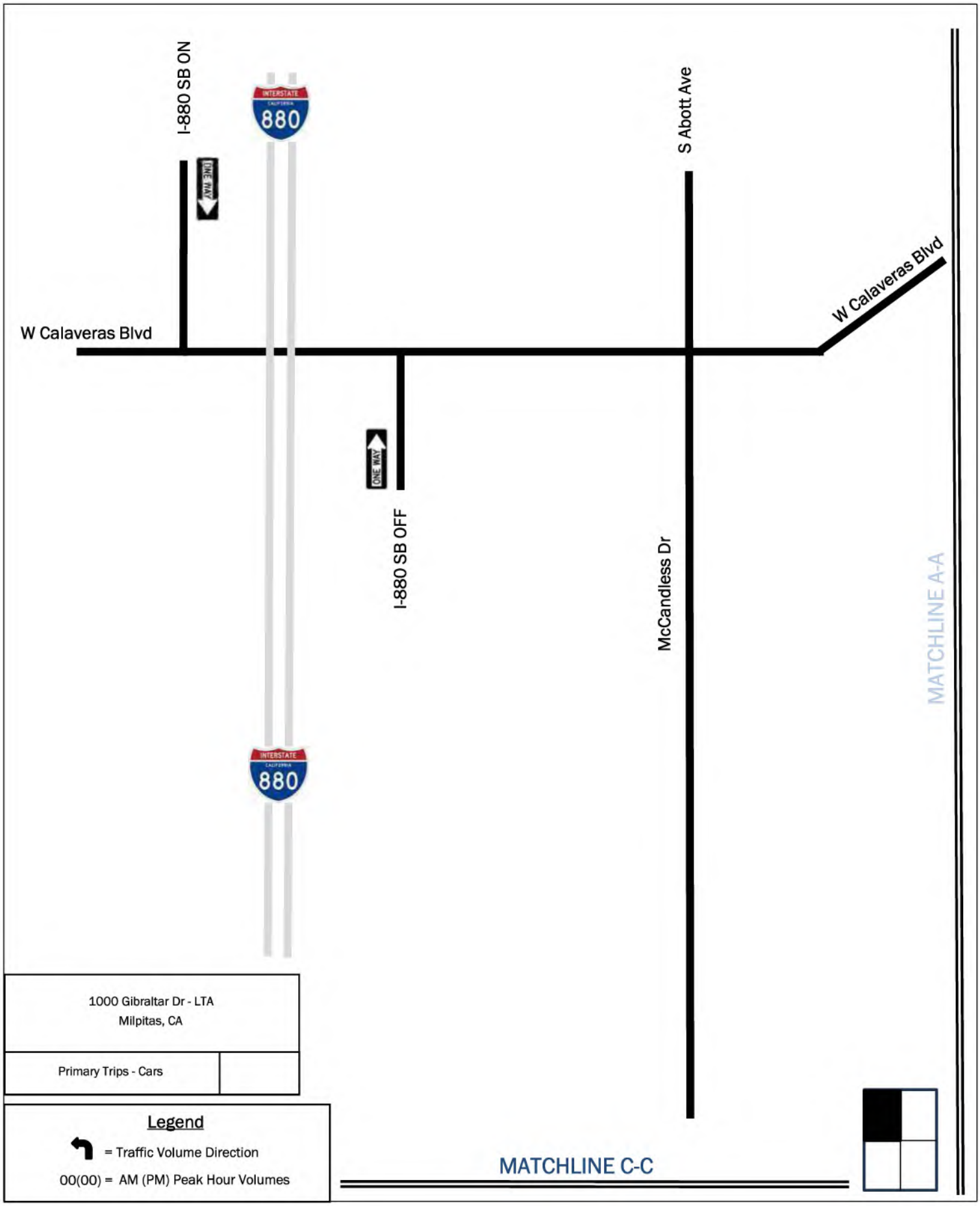
Appendix C – Car Trip Distribution and Peak Hour Volumes

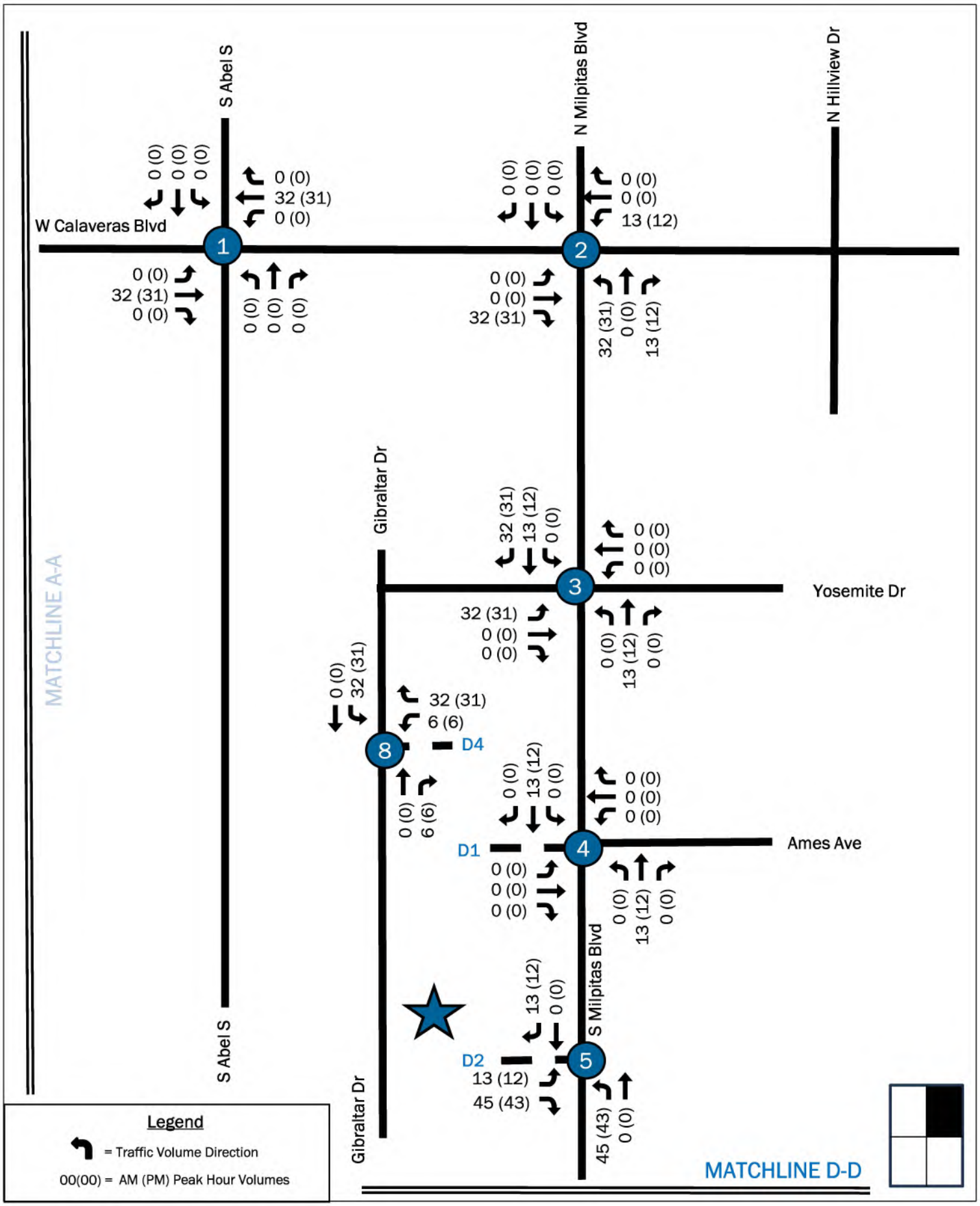

I-880 SB ON
INTERSTATE
CALIFORNIA
880
ONE WAY
S Abott Ave
W Calaveras Blvd
W Calaveras Blvd
ONE WAY
I-880 SB OFF
McCandless Dr
MATCHLINE A-A
INTERSTATE
CALIFORNIA
880
1000 Gibraltar Dr - LTA
Milpitas, CA
Trip Dist - Cars
Legend
= Traffic Volume Direction
%(%) = In (Out) Distribution
MATCHLINE C-C

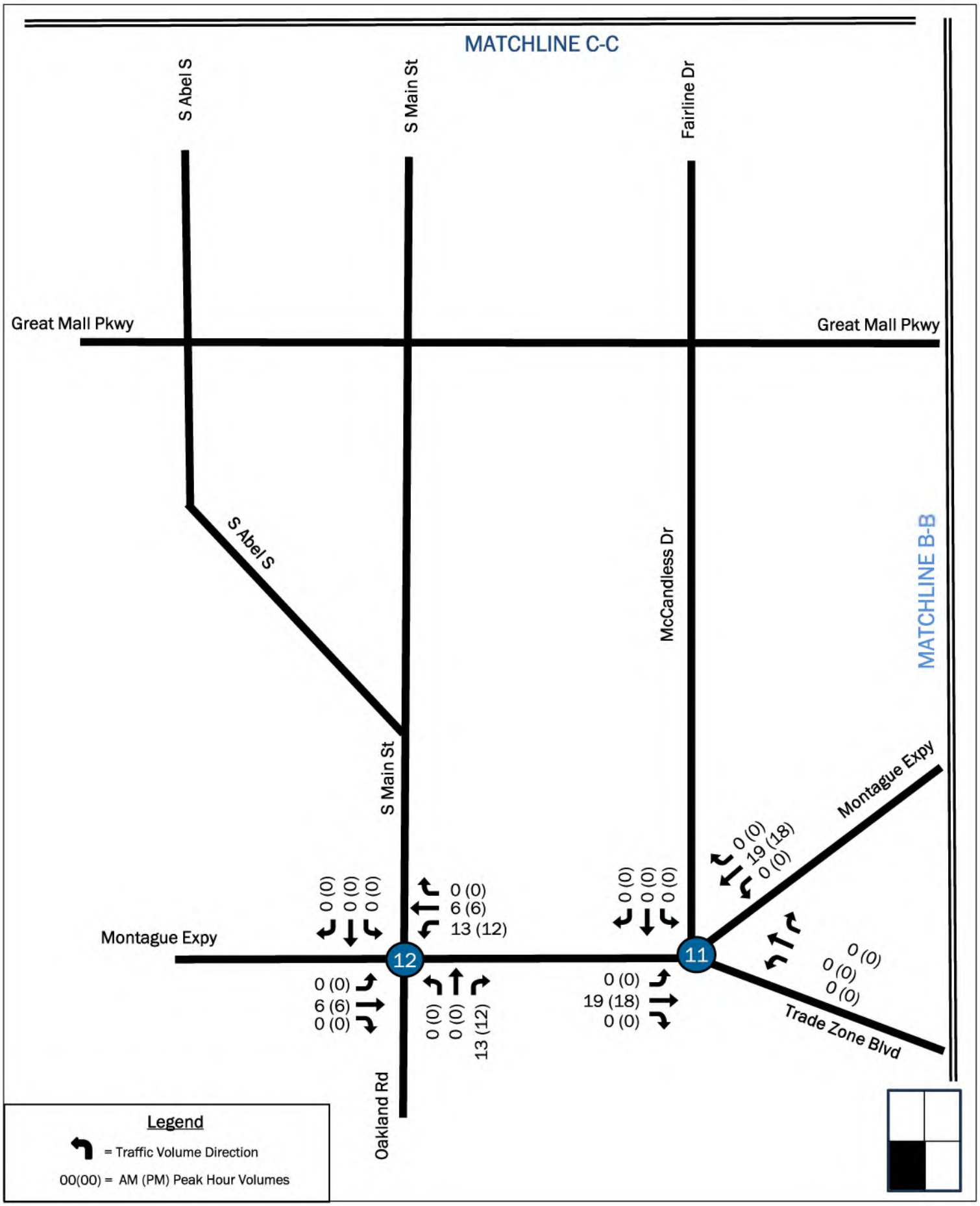

W Calaveras Blvd
S Abel S
N Milpitas Blvd
N Hillview Dr
Gibraltar Dr
Yosemite Dr
Ames Ave
S Milpitas Blvd
MATCHLINE A-A
MATCHLINE D-D
1
2
3
4
5
8
D1
D2
D4
(25%)
10%
25%
(10%)
(5%)
35%
Legend
= Traffic Volume Direction
%(%) = In (Out) Distribution

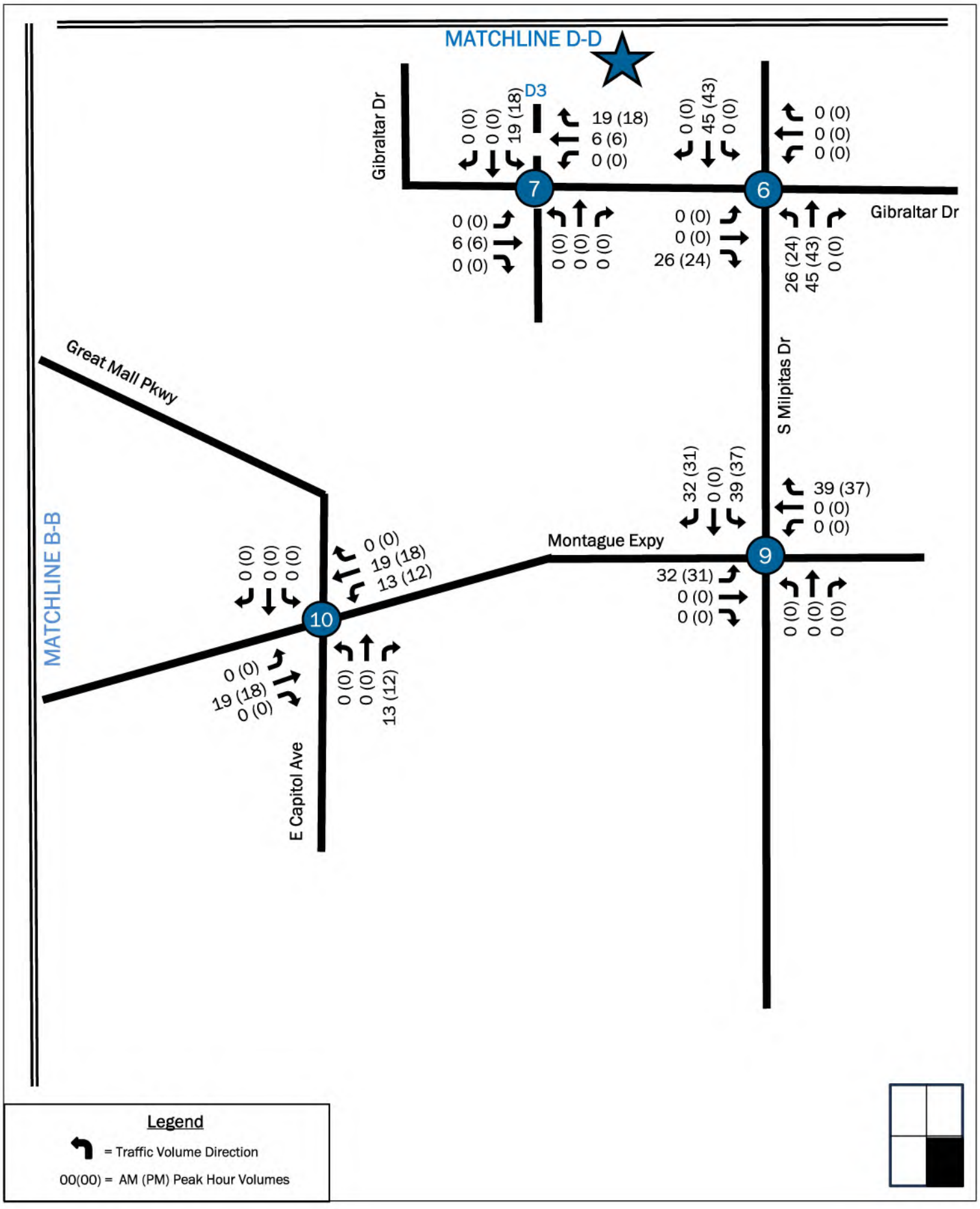

MATCHLINE C-C
S Abel S
S Main St
Fairline Dr
Great Mall Pkwy
Great Mall Pkwy
S Abel S
S Main St
McCandless Dr
MATCHLINE B-B
Montague Expy
(15%)
(5%)
(10%)
Montague Expy
12
11
5%
10%
15%
Trade Zone Blvd
Oakland Rd
Legend
= Traffic Volume Direction
%(%) = In (Out) Distribution


MATCHLINE D-D
D3
Gibraltar Dr
(15%)
15%
5%
(35%)
7
6
Gibraltar Dr
(5%)
(20%)
20%
35%
S Milpitas Dr
Great Mall Pkwy
(25%)
(30%)
30%
MATCHLINE B-B
Montague Expy
9
(15%)
(10%)
25%
10
15%
10%
E Capitol Ave
Legend
= Traffic Volume Direction
%(%) = In (Out) Distribution


I-880 SB ON
INTERSTATE
CALIFORNIA
880
ONE WAY
S Abott Ave
W Calaveras Blvd
W Calaveras Blvd
ONE WAY
I-880 SB OFF
McCandless Dr
MATCHLINE A-A
INTERSTATE
CALIFORNIA
880
1000 Gibraltar Dr - LTA
Milpitas, CA
Primary Trips - Cars
Legend
= Traffic Volume Direction
00(00) = AM (PM) Peak Hour Volumes
MATCHLINE C-C


W Calaveras Blvd
S Abel S
N Milpitas Blvd
N Hillview Dr
Gibraltar Dr
Yosemite Dr
Ames Ave
S Milpitas Blvd
MATCHLINE A-A
MATCHLINE D-D
D1
D2
D4
1
2
3
4
5
8
Legend
= Traffic Volume Direction
00(00) = AM (PM) Peak Hour Volumes


MATCHLINE C-C
S Abel S
S Main St
Fairline Dr
Great Mall Pkwy
Great Mall Pkwy
S Abel S
S Main St
McCandless Dr
MATCHLINE B-B
Montague Expy
Montague Expy
Trade Zone Blvd
Oakland Rd
12
11
0 (0)
0 (0)
0 (0)
0 (0)
6 (6)
13 (12)
0 (0)
6 (6)
0 (0)
0 (0)
0 (0)
13 (12)
0 (0)
0 (0)
0 (0)
0 (0)
19 (18)
0 (0)
0 (0)
19 (18)
0 (0)
0 (0)
0 (0)
0 (0)
Legend
= Traffic Volume Direction
00(00) = AM (PM) Peak Hour Volumes


MATCHLINE D-D
Gibraltar Dr
D3
0 (0)
0 (0)
19 (18)
19 (18)
6 (6)
0 (0)
0 (0)
45 (43)
0 (0)
0 (0)
0 (0)
0 (0)
7
6
Gibraltar Dr
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6 (6)
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0 (0)
0 (0)
0 (0)
26 (24)
26 (24)
45 (43)
0 (0)
S Milpitas Dr
Great Mall Pkwy
MATCHLINE B-B
32 (31)
0 (0)
39 (37)
39 (37)
0 (0)
0 (0)
Montague Expy
9
0 (0)
0 (0)
0 (0)
0 (0)
19 (18)
13 (12)
32 (31)
0 (0)
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19 (18)
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0 (0)
0 (0)
13 (12)
E Capitol Ave
Legend
= Traffic Volume Direction
00(00) = AM (PM) Peak Hour Volumes

D.2 - Vehicle Miles Traveled Analysis

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VEHICLE MILES TRAVELED (VMT) ANALYSIS FOR

1000 Gibraltar Drive Delivery Center

DATE:
August 15, 2025

LOCATION:
Milpitas, California

PREPARED FOR:
City of Milpitas, CA

WITH:
FCS

PREPARED BY:
NV5 Engineers & Consultants
15092 Avenue of Science, Suite 200
San Diego, CA 92128

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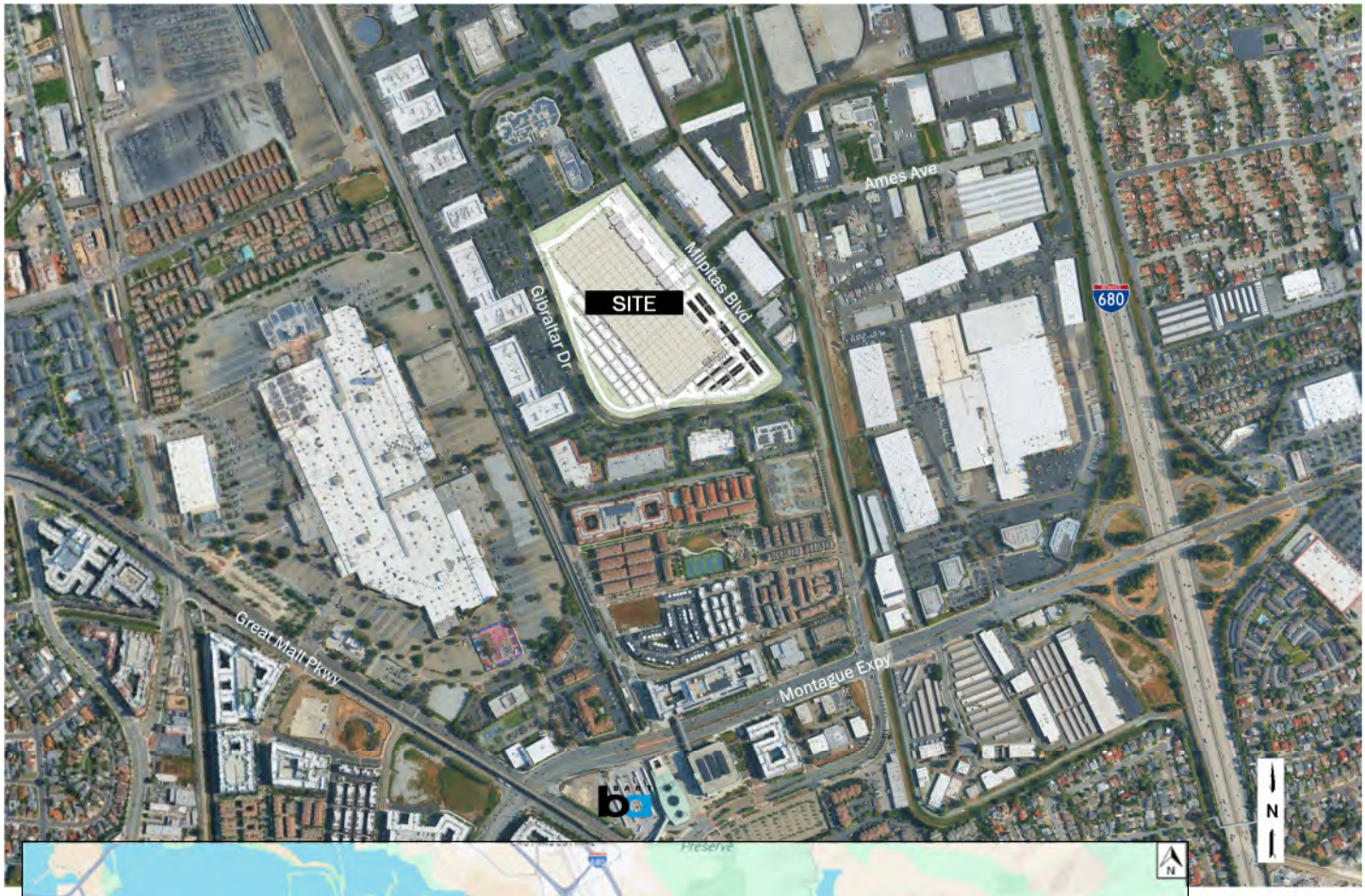
Attachment A – Site Plan
Attachment B – Tenant Supplied Trip Generation Table
Attachment C – VMT Resources

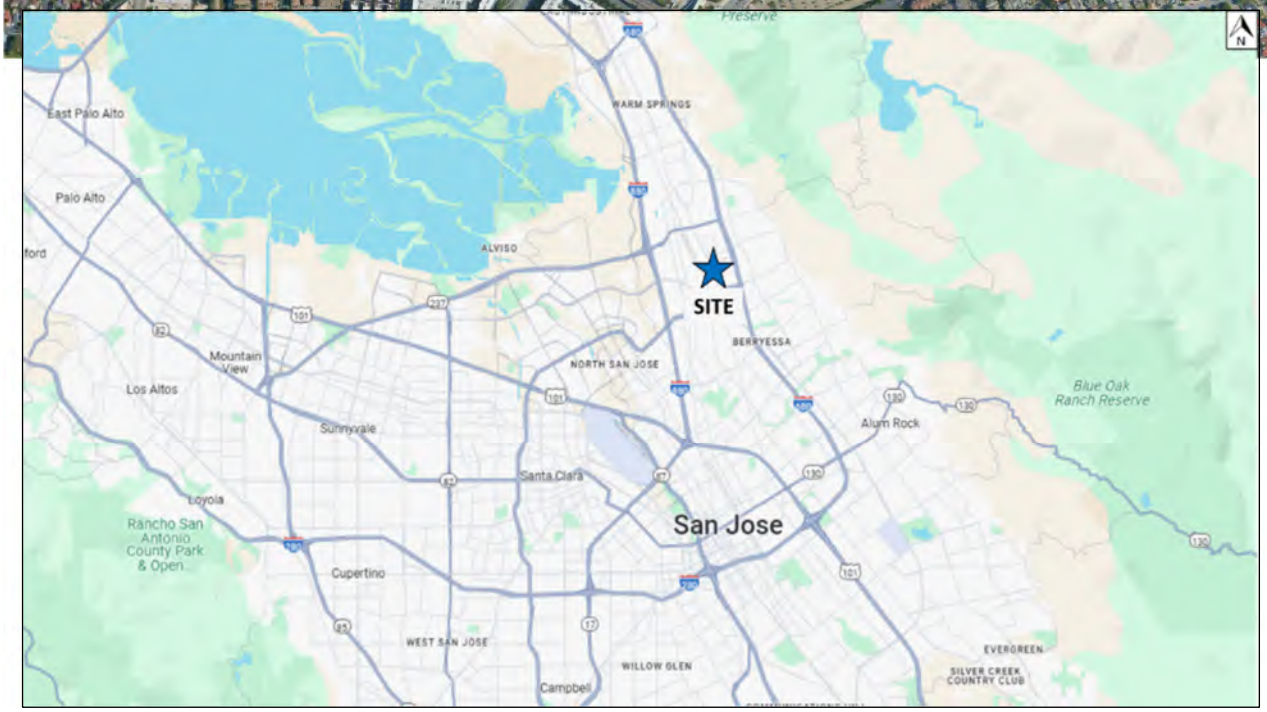
A. Introduction

A new 487,564 square-foot warehouse is planned for construction at 1000 Gibraltar Drive, on what is currently a vacant LifeScan facility, formerly Johnson & Johnson. The project will include demolition of the existing on-site structures. The proposed site (the "Project") will include a delivery center for the purpose of delivering ecommerce goods to a specific service area. Figure 1 depicts the site location in Milpitas, CA.

To adhere to local and state policies, the following vehicle miles traveled (VMT) study was prepared for the purpose of determining whether the Project may have significant transportation impacts.

Figure 1. Vicinity Map





B. Analysis Guidelines

State Requirements

The California Environmental Quality Act, known as CEQA, was enacted in 1970. In 2013, Governor Brown signed Senate Bill (SB) 743 to better align CEQA with State policies that promote public health, improve air quality, encourage infill development, promote multimodal transportation, and help reduce greenhouse gas emissions to achieve climate action goals.

In December 2018, the Natural Resources Agency certified amendments to the CEQA Guidelines to implement SB 743. Pursuant to the new CEQA Guidelines, as of July 1, 2020, transportation impacts under CEQA are no longer analyzed using LOS and instead use the VMT metric.

Section 15064.3 of the CEQA Guidelines states that "a lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project."

Local Requirements

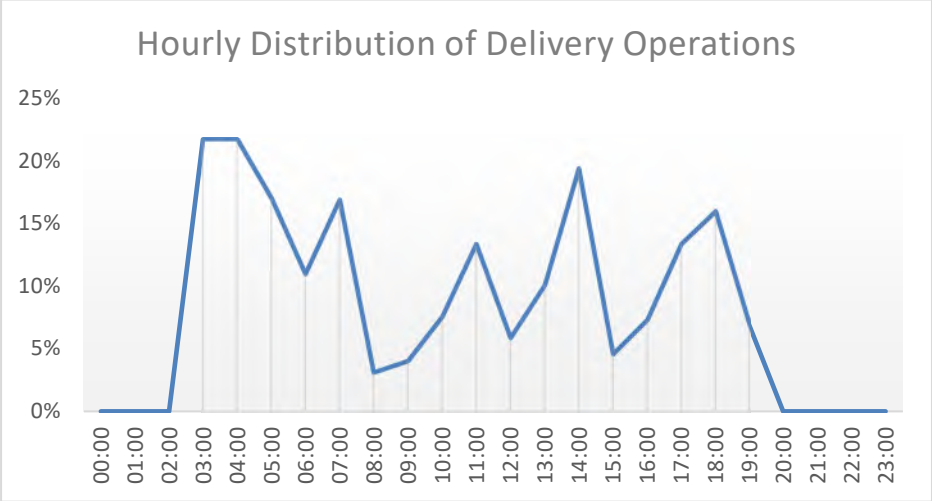
The City of Milpitas adopted a Transportation Analysis Policy in May 2021 that includes VMT analysis for many discretionary development projects. Consistent with CEQA Guidelines Section 15064.7, Thresholds of Significance, the City of Milpitas adopted the Santa Clara Congestion Management Program baseline average and thresholds set at 85% of the citywide baseline averages for determining whether a project's VMT will be significant. The citywide baseline average for VMT per employee is 17.54. The 85% (15% below) citywide baseline average is 14.91 VMT per employee per day. Projects that exceed these thresholds may have a significant effect on the environment and may require project revisions and/or mitigation measures may be implemented to reduce the impact to less than significant.

C. Project Trip Generation

The Project, referred to as a "sub-same day" delivery center. is a specialized warehouse that stores a wide range of everyday consumer goods, enabling delivery of those goods within a 4-5 hour window. Packages are dispatched to customers using private carrier vehicles.

The Project will operate 24/7 to support delivery of packages to customer locations between approximately 3:00 AM and 7:00 PM. The operations are designed to minimize traffic impacts by concentrating most of its morning deliveries between 3:00 AM and 7:30 AM. On-site employees generally work in 4-5 hours shifts beginning at 1:00 AM, 6:00 AM, 11:00 AM, 3:00 PM, and 9:00 PM with exceptions for some managerial staff.

All deliveries are handled via "Flex" drivers, who are independent, private-vehicle carries. Flex drivers generally enter and exit the facility in fifteen minutes intervals; this includes arrival, check-in, loading, and departure. The daily delivery operations will follow a pattern illustrated in the chart below.



At the proposed delivery center, up to 15 line-haul trucks are expected to deliver packages to the delivery center each day. The line-haul trucks arrive at the site between throughout the 24-hour day.

Table 1: Project Trip Generation - Traffic Volume by Vehicle Type

Traffic	Number of Vehicles	Daily Trips
Auto - Employees	363	726
Flex – Commuter	509	1018
Flex – Delivery	509*	3054**
Line-Haul Trucks	15	30
Total	**1,396**	**4,828**

*Does not represent new vehicles but are the same vehicles as the Flex-Commuter
**Assumes each driver makes 3 round trips, which over-accounts total daily trips by 1018 since Flex delivery drivers do not normally return to the center at the end of their shift. Therefore, the trip information in Table 1 does not match the trip generation shown in Table 3 of the Location Transportation Analysis (LTA). See Section 4 for more details.

D. Project Level VMT Analysis

Based on the anticipated daily trip generation for the Project, there are three types of vehicle trips:

- Line-haul truck trips
- Employee commute trips
- Personal delivery vehicles (private carrier - Flex) trips

Line-haul Truck Trips

Note: Section 15064.3 of the CEQA Guidelines states that VMT for transportation impacts refers to "… the amount and distance of automobile travel…" Per guidance provided by the California Institute of Transportation Engineers (ITE) SB 743 Task Force (April 2021), SB 743 does not apply to the movement of goods (i.e. trucks). Therefore, line-haul truck trips are not considered in VMT impact calculations.

While not germane to measuring site impacts, line-haul VMT is used in the air quality analysis, and is therefore calculated for inclusion in other studies. Line haul trucks will generally deliver goods to the delivery center from area warehouses. Table 2 shows the estimated VMT for line-haul trips. The likely warehouses that may serve the site include:

- USF1, 750 Laurelwood Rd, Santa Clara, CA 95054 (5 miles from site)
- SJC7, 188 S Mountain House Pkwy, Tracy, CA 95377 (41 miles from site)
- MCE1, 3200 Fulkerth Rd, Turlock, CA 95380 (92 miles from site)

Table 2: Freight Vehicle Miles Travels (VMT) for New Delivery Center

Traffic	Number	Daily Trips	Average Delivery Miles	Daily VMT
Line-Haul*	15	30	46	1,380

*Not used in site VMT calculations; included for air quality analysis

The total VMT for the site is the sum of the different vehicle types (except line-haul trucks). The methodology and assumptions for determining the VMT for each vehicle type other than line-haul trucks are provided below. The below analysis provides both the Project generated VMT (per vehicle type and total), as well as the Project's effect on VMT. The Project's effect on VMT is analyzed through determining changes to VMT by locating delivery operations closer to customers to reduce overall miles traveled.

Commuter Trips

The analysis assumes that employees (onsite workers) will live within a reasonable commuting distance of the site and follow the same trends as other industrial workers that are now employed

within the same area. The Santa Clara Countywide VMT Evaluation Tool – Version 2.1 was used to determine the employee-level VMT for the Project. The model estimates the commute distance for industrial employees who will work at the site is 16.42 vehicle-miles per day.

Employee_Commute_VMT = (Number of Employees * Average Employee VMT)

Employee_Commute_VMT = 363 * 16.42 = 5,960 vehicle miles per day.

Delivery Trips

There are two trips associated with delivery operations. The first is the commute trips by the drivers. For the purposes of this specific analysis, this is assumed to be home-based trips much like the on-site employees. Flex drivers will often complete three (3) round trips in a day, which would, on average require 509 drivers in a day to cover all deliveries.

Flex_Commute_VMT = (Number of Daily Drivers * Average Employee VMT)

Flex_Commute_VMT is 509 * 16.42 = 8,358 vehicle miles per day

The second type of trip is the delivery of packages to customers. The Tenant delivers packages to zones much like the U.S. Postal Service (the "USPS"), except that the routes the Flex carriers take vary by day and are optimized for the most efficient movement. The analysis estimates the VMT for delivery vehicles (via GIS) by finding the distance from the site to the furthest point within the delivery zone and multiplying by the number of vehicles bound for those zones. The furthest point within the zone is assumed to account for circuitous travel as packages are dropped off throughout a route. (Note: not every Flex vehicle will travel to the furthest point within a zone but the analysis makes that conservative assumption). The total number of private carrier delivery vehicles is shown in Table 1.

Some of the customers from the new delivery center (i.e. the Project) are currently being served by an existing delivery center. The analysis accounts for the shifting of business from two other similar delivery centers: SCA2 - 3745 Bayshore Blvd, Brisbane, CA 94005 and SCA3 - 6045 Giant Hwy, Richmond, CA 94806. Not all of the zip codes that the new site will deliver to are currently being served by the other two centers; some are new and represent an expected expansion of business. For confidential and business proprietary reasons, the locations and number of deliveries to those locations cannot be identified here. However, the percentage of trips to [redacted] zip codes before and after the new site opens is shown in Appendix C.

The private carrier drivers at these types of delivery centers will often return after their first delivery and make additional runs until the end of their day when they will not return to the center. Since the private carriers leave the site and then return, the VMT to the delivery location would be doubled to account for the return trip. In daily practice, the drivers do not normally return to the delivery center after their last delivery; however, since there is no way to account for their trip pattern after at the end of their shift, the analysis assumes they return to the center and then commute home. This likely over estimates the daily VMT but it presents a more conservative analysis.

The delivery VMT is calculated as such:

$$Delivery_VMT_{EX} = \sum (Existing\ Flex\ Trips\ to\ Zip\ Code * Dist.\ To\ Zip\ Code * 2)$$

$$Delivery_VMT_{FU} = \sum (Future\ Flex\ Trips\ to\ Zip\ Code * Dist.\ To\ Zip\ Code * 2) - Delivery_VMT_{EX}$$

The $Delivery_VMT_{EX}$ to/from the two existing delivery centers and 46 zip codes they collectively serve is 49,185 per day. The $Delivery_VMT_{FU}$ to/from the new delivery center in Milpitas and 118 zip codes is 34,151. After locating a new delivery center closer to the user's customers, as well as serving an expanded geographic area, there will be 15,034 less VMT per day than there is currently. The calculations are shown in Appendix C.

The Total Flex VMT would be calculated as follows:

$$Flex_VMT = Flex_Commute_VMT + Delivery_VMT_{FU}$$

$$Flex_VMT = 8,358 + -15,034 = -6,676$$

Total Site VMT

The future total VMT for the site, including employee trips, is calculated as follows:

$$Total_VMT = Employee_Commute_VMT + Flex_Commute_VMT + Delivery_VMT_{FU}$$

$$Total_VMT = 5,960 + 8,358 + (15,034) = -716$$

$$VMT/person = Total_VMT / \sum (All\ Commuters\ and\ Flex\ Drivers)$$

The per capita VMT is -716 divided by 1,381 personnel or -0.52 per person, per day. The VMT calculation results are shown in Table 3.

Table 3: Project VMT Results

Traffic	Personnel	Daily Trips	VMT per Day	VMT per Person per Day
On-site Commute Trips	363	726	5,960	16.42
Flex Driver Commute Trips	509	1018	8,358	16.42
Delivery Trips	509	3054	-15,034	-0.79
Total	**1,381**	**4,798**	**-716**	**-0.52**

VMT Thresholds

As mentioned, employment generating projects (commercial, industrial, manufacturing, etc.) are required to generate less than 14.91 VMT per employee per day. The results show that the proposed Project's VMT is less than the targeted Citywide VMT, resulting in a less than significant impact on VMT. See Table 4.

Table 4: VMT Significance

Description	Project VMT per Capita per Day	City of Milpitas Threshold	Compared to Threshold	Impact Significance
Commuter Trips	16.42	14.91	10% higher	Potentially Significant
Delivery Trips	-0.79	14.91	100% lower	Less than Significant
TOTAL	**-0.52**	**14.91**	**100% lower**	**Less than Significant**

E. Mitigation

The VMT for the delivery center can be viewed in three parts:

1. On-site employees who commute to the site (Employee_Commute_VMT)
2. Flex delivery drivers commuting to the site; drivers must use their own vehicles to make deliveries (Flex_Commute_VMT)
3. VMT associated with the delivery of goods and packages to the customer (Delivery_VMT).

The on-site commuter VMT is fairly low at 16.42 per person per day and is due to the relatively close proximity of the workforce expected for industrial uses in Milpitas. While the number is higher than the citywide desired threshold of 14.91, it is still less than the citywide average VMT of 17.54. The potentially feasible mitigation measures to reduce commuter VMT is using transportation demand management (TDM) techniques such as increased bicycle use, carpooling, vanpooling, or transit use for those on-site employees.

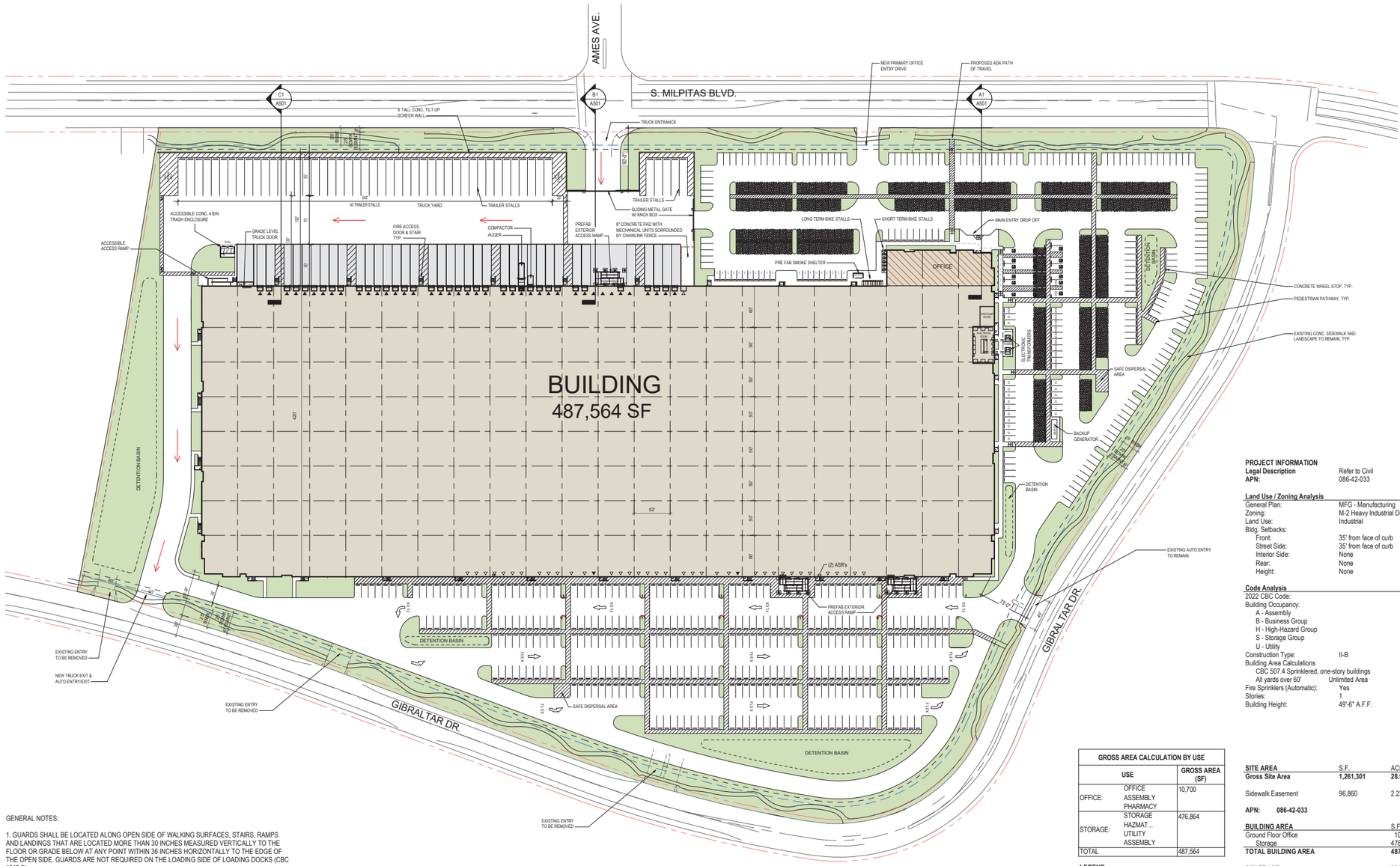
For this project, TDM techniques are more likely to be effective for those drivers who work shifts during the day. The 6:00 AM, 11:00 AM, and 3:00 PM shift workers would have the opportunity to take transit or would be candidates for carpooling programs or alternative modes of travels. This represents 204 of the 363 on-site employees. If 20% of those employees arrived by transit or carpooled with someone else, that would equate to a commuter VMT of 14.57 per day, which is under the Citywide significance level. To accomplish this reduction, the Tenant should consider the following TDM measures:

- Carpool matching programs
- Transit passes
- Guaranteed rides home

Transit is readily available in the area with VTA, BART, and Milpitas Microtransit as options. The #217 bus departs the Milpitas Transit Center every 30 minutes and has a stop on Milpitas Blvd near the site.

There are no feasible mitigation measures to reduce delivery operations VMT. This VMT could only be reduced by reducing delivery service, which would defeat the primary purpose of the Project.

Attachment A – Site Plan



GENERAL NOTES:

1. GUARDS SHALL BE LOCATED ALONG OPEN SIDE OF WALKING SURFACES, STAIRS, RAMPS AND LANDINGS THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE. GUARDS ARE NOT REQUIRED ON THE LOADING SIDE OF LOADING DOCKS (CBC 1013.2)
2. THE RUNNING SLOPE OF WALKING SURFACE SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF WALKING SURFACE SHALL NOT BE STEEPER THAN 1:48 (2.083%).
3. THE CLEAR WIDTH FOR SIDEWALKS AND WALKSSHALL BE 48 INCHES MINIMUM.
4. THE WASTE STORAGE AREA SHALL BE GRADED SO THAT STORAGE CONTAINERS REMAIN AT REST WITHOUT AUXILIARY RESTRAINING DEVICES.

GROSS AREA CALCULATION BY USE

USE		GROSS AREA (SF)
OFFICE:	OFFICE ASSEMBLY PHARMACY	10,700
STORAGE:	STORAGE HAZMAT... UTILITY ASSEMBLY	476,864
TOTAL		487,564

LEGEND

- DOCK DOORS 9' x 10'
- KNOCK-OUT PANELS
- PROPERTY LINE
- BUILDING SETBACK
- SIDEWALK ESMT
- PEDESTRIAN CIRCULATION
- PERMEABLE PAVEMENT
- TRUCK TRAFFIC FLOW
- ACCESSABLE PATH OF TRAVEL

REFER TO SHEET A102 FOR FIRE ACCESS PLAN

PROJECT NORTH / TRUE NORTH

PROJECT INFORMATION

Legal Description	Refer to Civil
APN:	086-42-033

Land Use / Zoning Analysis

General Plan:	MFG - Manufacturing
Zoning:	M-2 Heavy Industrial District
Land Use:	Industrial
Bldg. Setbacks:	
Front:	35' from face of curb
Street Side:	35' from face of curb
Interior Side:	None
Rear:	None
Height:	None

Code Analysis

2022 CBC Code:	
Building Occupancy:	
A - Assembly	
B - Business Group	
H - High-Hazard Group	
S - Storage Group	
U - Utility	
Construction Type:	II-B
Building Area Calculations	
CBC 507.4 Sprinklered, one-story buildings	
All yards over 60'	Unlimited Area
Fire Sprinklers (Automatic):	Yes
Stories:	1
Building Height:	49'-6" A.F.F.

SITE AREA	S.F.	ACRES
Gross Site Area	**1,261,301**	**28.96**
Sidewalk Easement	96,860	2.22

APN: 086-42-033

BUILDING AREA	S.F.
Ground Floor Office	10,700
Storage	476,864
TOTAL BUILDING AREA	**487,564**
COVERAGE	38.7%
Gross FAR (1.0 Max)	.387

PARKING REQUIRED		
Office	1/350	31
Warehouse/Distribution	1/1500	318
TOTAL PARKING REQUIRED		**349**

PARKING PROVIDED		
Associate Parking (9'x18')		410
Accessible Parking (9'x18')	2%	16
Compact Stalls (7.5'x15')	3%	20
EV Ready Stalls (20% of total)	90	-
EVCS (25% of EV)	23	-
Flex Parking (10'x20')		335
TOTAL PARKING PROVIDED		**781**

PARKING RATIO	**1.61/1000**
Dock Doors (9'x10')	25
Knock Out Panels (9'x10')	54
Grade Level Doors (12'x14')	1
Trailer Stalls (12'x55')	63
Bicycle Stalls Short Term 2.5%	12
Bicycle Stalls Long Term 2.5%	12

LANDSCAPE Required front yard area and street side yard areas shall be landscaped

A1 A101 **SITE PLAN**
1" = 60'-0"

Stantec
Stantec Architecture Inc.
801 South Figueroa Street Suite 300
Los Angeles CA 90017-5704
Tel: (213) 955-9775 • www.stantec.com

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Consultant

No.	Revision Remarks	Date
1	PER PLANCHECK RESPONSE	05/8/2025
2	PLANCHECK RESPONSE	03/4/2025
3	REVISED PRELIMINARY SUBMITTAL	01/13/2025
4	PRELIMINARY SUBMITTAL	12/20/2024

Permit/Seal

NOT IN SCOPE

HEA2 ABE3

Tenant
SSD - SJ11 MILPITAS
1000 Gibraltar Dr.
Milpitas, CA 95035

Project No.:2014333000

Sheet Date: 01/30/25 (YYYY.MM.DD)

Title
SITE PLAN

Scale: 1" = 60'-0"
Revision:
Drawing No. **A101**

8/8/2025 2:42:20 PM
ORIGINAL SHEET - ARCH E1

Attachment B – Tenant Specified Trip Schedule

Traffic Schedule

Cars (Associates-Personal Car)			
Average Weekday			
	In	Out	Total
00:00	0	0	0
01:00	64	95	159
02:00	0	0	0
03:00	0	0	0
04:00	0	0	0
05:00	0	0	0
06:00	66	64	130
07:00	0	0	0
08:00	0	0	0
09:00	0	0	0
10:00	0	0	0
11:00	43	66	109
12:00	0	0	0
13:00	0	0	0
14:00	0	0	0
15:00	95	43	138
16:00	0	0	0
17:00	0	0	0
18:00	0	0	0
19:00	0	0	0
20:00	0	95	95
21:00	95	0	95
22:00	0	0	0
23:00	0	0	0
	363	363	726

53' Trucks (LineHaul) - Inbound			
Average Weekday			
	In	Out	Total
00:00	1	1	2
01:00	0	1	1
02:00	0	0	0
03:00	1	0	1
04:00	0	1	1
05:00	0	0	0
06:00	0	0	0
07:00	1	0	1
08:00	0	1	1
09:00	0	0	0
10:00	0	0	0
11:00	1	0	1
12:00	0	1	1
13:00	0	0	0
14:00	0	0	0
15:00	1	0	1
16:00	0	1	1
17:00	1	0	1
18:00	0	1	1
19:00	1	0	1
20:00	0	1	1
21:00	1	0	1
22:00	0	1	1
23:00	1	0	1
	9	9	18

53' Trucks (LineHaul) - NAFC Injection			
Average Weekday			
	In	Out	Total
00:00	0	1	1
01:00	0	0	0
02:00	0	0	0
03:00	1	0	1
04:00	0	1	1
05:00	0	0	0
06:00	0	0	0
07:00	1	0	1
08:00	0	1	1
09:00	0	0	0
10:00	0	0	0
11:00	1	0	1
12:00	0	1	1
13:00	0	0	0
14:00	0	0	0
15:00	1	0	1
16:00	0	1	1
17:00	0	0	0
18:00	0	0	0
19:00	1	0	1
20:00	0	1	1
21:00	0	0	0
22:00	0	0	0
23:00	1	0	1
	6	6	12

DP (FLEX Car)			
Average Weekday			
	In	Out	Total
00:00	0	0	0
01:00	0	0	0
02:00	0	0	0
03:00	166	166	333
04:00	166	166	333
05:00	130	130	260
06:00	84	84	167
07:00	129	129	257
08:00	24	24	48
09:00	31	31	62
10:00	58	58	115
11:00	102	102	205
12:00	45	45	90
13:00	77	77	155
14:00	148	148	296
15:00	35	35	70
16:00	56	56	112
17:00	102	102	204
18:00	122	122	243
19:00	53	53	106
20:00	0	0	0
21:00	0	0	0
22:00	0	0	0
23:00	0	0	0
	1528	1528	3056

Total (Adj)			
Adjusted Avg Weekday			
	In	Out	Total
00:00	1	2	3
01:00	64	96	160
02:00	0	0	0
03:00	168	166	335
04:00	166	168	335
05:00	130	130	260
06:00	150	148	297
07:00	131	129	259
08:00	24	26	50
09:00	31	31	62
10:00	58	58	115
11:00	147	168	316
12:00	45	47	92
13:00	77	77	155
14:00	148	148	296
15:00	132	78	210
16:00	56	58	114
17:00	103	102	205
18:00	122	123	244
19:00	55	53	108
20:00	0	97	97
21:00	96	0	96
22:00	0	1	1
23:00	2	0	2
	1,906	1,906	3,812

Attachment C – VMT Resources

Santa Clara Countywide VMT Evaluation Tool - Version 2.1 - Report

Project Details

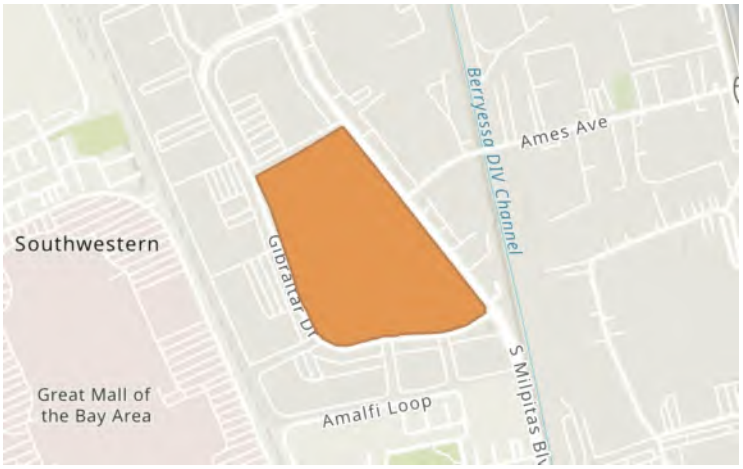
Timestamp of Analysis	July 10, 2025, 08:32:53 AM
Project Name	Delivery Center - 1000 Gibraltar Drive
Project Description	eCommerce delivery hub

Project Location Map

Jurisdiction:

Milpitas

APN	TAZ
08642033	279



Analysis Details

Data Version	VTA Countywide Model December 2019
Analysis Methodology	TAZ
Baseline Year	2026

Project Land Use

Residential:

Single Family DU:

Multifamily DU:

Total DUs: 0

Non-Residential:

Office KSF:

Local Serving Retail KSF:

Industrial KSF: 487564

Residential Affordability (percent of all units):

Extremely Low Income: 0 %

Very Low Income: 0 %

Low Income: 0 %

Parking:

Motor Vehicle Parking: 450

Bicycle Parking:

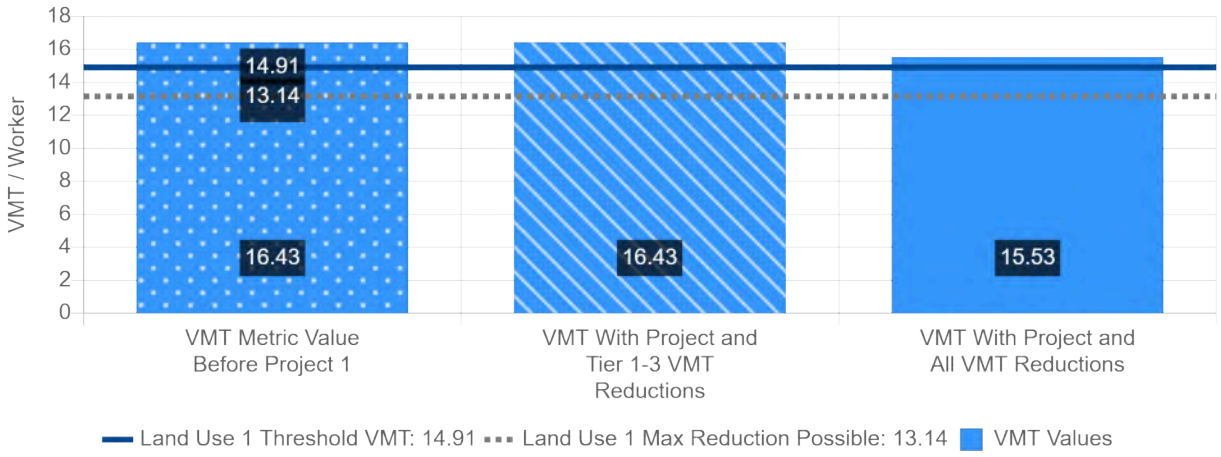
Proximity to Transit Screening

Inside a transit priority area? No (Fail)

Industrial Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Industrial
VMT Metric 1:	Home-based Work VMT per Worker
VMT Baseline Description 1:	City Average
VMT Baseline Value 1:	17.54
VMT Threshold Description 1 / Threshold Value 1:	-15% / 14.91
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	16.43	16.43	15.53
Low VMT Screening Analysis	No (Fail)	No (Fail)	No (Fail)



Tier 4 TDM Programs

TP13 Ride-Sharing Programs

Expected Percent of Ride-Sharing Participants:	10 %

Existing Delivery Station	Proposed Project Site	Zip Code	Existing Distribution Site				Proposed Project Site				Net VMT Change (Proposed – Existing)
			Distance Between Site and Zip Code	Percent Trips	Total Trips	VMT	Distance Between Site and Zip Code	Percent Trips	Total Trips	VMT	
SCA2	SSJ1		32.63	1.600%	10.6	689.4	25.58	1.037%	10.6	540.7	-148.7
	SSJ1						14.51	0.001%	0.0	0.4	0.4
SCA2	SSJ1		34.24	1.658%	10.9	749.4	16.70	1.074%	10.9	365.6	-383.7
SCA2	SSJ1		23.97	3.410%	22.5	1078.6	20.73	2.210%	22.5	933.5	-145.2
	SSJ1						18.55	0.001%	0.0	0.5	0.5
SCA2	SSJ1		23.17	0.697%	4.6	213.3	21.89	0.452%	4.6	201.6	-11.7
SCA2	SSJ1		31.70	0.659%	4.3	275.7	28.38	0.427%	4.4	247.0	-28.7
	SSJ1						11.21	0.006%	0.1	1.4	1.4
	SSJ1						11.94	0.000%	0.0	0.0	0.0
SCA2	SSJ1		33.07	2.282%	15.1	995.9	14.38	1.479%	15.1	433.5	-562.5
SCA2	SSJ1		31.68	1.124%	7.4	470.2	13.05	0.729%	7.4	193.8	-276.5
	SSJ1						11.94	0.000%	0.0	0.1	0.1
SCA2	SSJ1		31.73	2.349%	15.5	983.7	13.41	1.522%	15.5	415.9	-567.8
SCA2	SSJ1		21.80	2.416%	15.9	695.3	23.90	1.566%	16.0	762.5	67.2
SCA2	SSJ1		32.45	2.508%	16.6	1074.3	34.08	1.625%	16.6	1128.7	54.4
SCA2	SSJ1		20.95	1.796%	11.9	496.6	22.63	1.164%	11.9	536.8	40.2
	SSJ1						21.44	0.001%	0.0	0.5	0.5
SCA2	SSJ1		33.96	1.532%	10.1	686.8	10.37	0.993%	10.1	209.8	-477.0
SCA2	SSJ1		35.45	2.784%	18.4	1302.9	11.57	1.804%	18.4	425.4	-877.6
SCA2	SSJ1		36.33	3.205%	21.2	1536.8	13.77	2.077%	21.2	582.7	-954.0
	SSJ1						8.30	0.003%	0.0	0.5	0.5
SCA2	SSJ1		34.30	1.362%	9.0	616.3	8.90	0.882%	9.0	160.1	-456.2
SCA2	SSJ1		25.68	1.343%	8.9	455.2	17.15	0.870%	8.9	304.2	-151.0
	SSJ1						16.87	0.001%	0.0	0.3	0.3
SCA2	SSJ1		27.74	2.262%	14.9	828.2	17.67	1.466%	14.9	527.9	-300.3
SCA2	SSJ1		30.18	0.458%	3.0	182.5	25.72	0.297%	3.0	155.6	-26.9
SCA2	SSJ1		26.37	1.156%	7.6	402.4	17.99	0.749%	7.6	274.6	-127.8
SCA2	SSJ1		28.41	1.879%	12.4	704.6	16.72	1.218%	12.4	414.8	-289.8
	SSJ1						18.42	0.001%	0.0	0.4	0.4
SCA3	SSJ1		41.26	5.009%	33.1	2728.0	16.21	3.246%	33.1	1072.4	-1655.5
SCA3	SSJ1		39.61	0.003%	0.0	1.5	13.07	0.002%	0.0	0.5	-1.0
SCA3	SSJ1		45.27	4.337%	28.6	2591.7	11.35	2.811%	28.6	650.1	-1941.6
SCA2	SSJ1		40.90	3.090%	20.4	1668.0	11.79	2.002%	20.4	481.2	-1186.8
SCA3	SSJ1		38.14	2.081%	13.7	1047.9	16.12	1.349%	13.7	443.0	-604.8
SCA3	SSJ1		42.94	3.419%	22.6	1938.0	14.79	2.216%	22.6	667.6	-1270.4
SCA3	SSJ1		38.56	3.768%	24.9	1917.7	17.51	2.442%	24.9	871.3	-1046.4
SCA2	SSJ1		36.10	0.124%	0.8	59.2	5.90	0.080%	0.8	9.7	-49.5
	SSJ1						43.77	1.354%	13.8	1208.2	1208.2
	SSJ1						35.97	0.339%	3.5	248.3	248.3
	SSJ1						38.26	0.436%	4.4	339.7	339.7
	SSJ1						34.28	0.032%	0.3	22.4	22.4
SCA2	SSJ1		43.14	4.058%	26.8	2310.8	13.90	2.630%	26.8	745.0	-1565.8
	SSJ1						11.56	0.001%	0.0	0.3	0.3
	SSJ1						38.35	0.435%	4.4	340.1	340.1
	SSJ1						11.46	0.001%	0.0	0.3	0.3
	SSJ1						19.15	0.001%	0.0	0.5	0.5
SCA2	SSJ1		38.29	3.682%	24.3	1861.0	16.37	2.386%	24.3	795.9	-1065.1
	SSJ1						13.91	0.002%	0.0	0.5	0.5
	SSJ1						38.11	0.397%	4.1	308.7	308.7
	SSJ1						18.36	0.908%	9.3	339.7	339.7
	SSJ1						16.76	0.004%	0.0	1.4	1.4
	SSJ1						17.85	1.618%	16.5	588.7	588.7
	SSJ1						29.81	0.450%	4.6	273.6	273.6
SCA2	SSJ1		43.49	4.087%	27.0	2346.2	5.10	2.649%	27.0	275.1	-2071.1
	SSJ1						2.17	0.001%	0.0	0.1	0.1
	SSJ1						34.03	0.033%	0.3	23.0	23.0
	SSJ1						22.25	0.004%	0.0	1.9	1.9
SCA2	SSJ1		39.24	2.557%	16.9	1324.1	9.20	1.657%	16.9	310.8	-1013.4
SCA2	SSJ1		38.63	3.467%	22.9	1768.2	10.34	2.247%	22.9	473.3	-1294.9
	SSJ1						6.93	0.001%	0.0	0.1	0.1
	SSJ1						7.17	0.047%	0.5	6.8	6.8
SCA2	SSJ1		37.00	2.035%	13.4	993.8	6.89	1.319%	13.4	185.1	-808.7
	SSJ1						8.67	0.002%	0.0	0.3	0.3

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Existing Delivery Station	Proposed Project Site	Zip Code	Existing Distribution Site				Proposed Project Site				Net VMT Change (Proposed – Existing)
			Distance Between Site and Zip Code	Percent Trips	Total Trips	VMT	Distance Between Site and Zip Code	Percent Trips	Total Trips	VMT	
	SSJ1	[redacted]					5.86	0.002%	0.0	0.2	0.2
	SSJ1						47.54	1.874%	19.1	1815.7	1815.7
	SSJ1						39.88	1.565%	15.9	1271.9	1271.9
	SSJ1						39.94	0.311%	3.2	253.3	253.3
	SSJ1						38.92	0.391%	4.0	310.3	310.3
	SSJ1						32.16	0.773%	7.9	507.0	507.0
	SSJ1						32.28	0.004%	0.0	2.9	2.9
SCA2	SSJ1		41.95	2.479%	16.4	1372.8	21.60	1.607%	16.4	707.2	-665.6
	SSJ1						14.25	0.001%	0.0	0.4	0.4
	SSJ1						38.25	0.541%	5.5	422.0	422.0
	SSJ1						7.01	0.000%	0.0	0.0	0.0
SCA2	SSJ1		42.60	1.097%	7.2	617.0	9.13	0.711%	7.2	132.3	-484.7
	SSJ1						14.35	1.594%	16.2	466.3	466.3
	SSJ1						8.93	1.873%	19.1	340.8	340.8
SCA2	SSJ1		41.63	0.495%	3.3	272.2	7.98	0.321%	3.3	52.2	-219.9
	SSJ1						6.56	1.024%	10.4	137.0	137.0
SCA2	SSJ1		41.55	1.459%	9.6	800.3	11.06	0.946%	9.6	213.2	-587.1
	SSJ1						15.54	1.443%	14.7	457.1	457.1
	SSJ1						17.06	0.570%	5.8	198.3	198.3
	SSJ1						20.81	2.033%	20.7	862.1	862.1
	SSJ1						16.15	1.008%	10.3	331.8	331.8
	SSJ1						12.05	1.123%	11.4	276.0	276.0
	SSJ1						9.80	2.709%	27.6	540.9	540.9
SCA2	SSJ1		46.60	3.428%	22.6	2108.6	16.27	2.222%	22.6	736.7	-1371.8
	SSJ1						16.10	2.568%	26.2	842.7	842.7
SCA2	SSJ1		42.27	2.343%	15.5	1307.3	12.54	1.518%	15.5	388.2	-919.1
	SSJ1						10.45	1.802%	18.4	383.8	383.8
SCA2	SSJ1		41.77	2.269%	15.0	1250.9	10.04	1.470%	15.0	300.8	-950.1
SCA2	SSJ1		39.96	2.081%	13.7	1097.6	10.99	1.349%	13.7	301.9	-795.7
SCA2	SSJ1		40.89	0.787%	5.2	424.8	13.80	0.510%	5.2	143.5	-281.4
SCA2	SSJ1		41.32	1.580%	10.4	861.4	13.35	1.024%	10.4	278.5	-582.9
SCA2	SSJ1		44.20	2.053%	13.5	1197.4	3.98	1.330%	13.6	107.8	-1089.6
	SSJ1						5.44	0.812%	8.3	89.9	89.9
SCA2	SSJ1		38.48	1.732%	11.4	879.8	5.27	1.123%	11.4	120.6	-759.2
	SSJ1						5.34	0.797%	8.1	86.8	86.8
	SSJ1						14.74	1.749%	17.8	525.5	525.5
	SSJ1						14.29	0.793%	8.1	230.8	230.8
	SSJ1						16.80	0.301%	3.1	103.0	103.0
	SSJ1						17.76	0.002%	0.0	0.7	0.7
	SSJ1						24.16	1.426%	14.5	702.1	702.1
	SSJ1						11.58	0.001%	0.0	0.3	0.3
	SSJ1						10.97	0.002%	0.0	0.4	0.4
	SSJ1						8.80	0.006%	0.1	1.0	1.0
	SSJ1						3.74	0.001%	0.0	0.1	0.1
	SSJ1						14.35	0.001%	0.0	0.4	0.4
	SSJ1						13.11	0.001%	0.0	0.2	0.2
	SSJ1						9.57	0.001%	0.0	0.3	0.3
	SSJ1						6.68	0.001%	0.0	0.1	0.1
	SSJ1						11.18	0.002%	0.0	0.5	0.5
	SSJ1						12.89	0.001%	0.0	0.4	0.4
	SSJ1						8.86	0.001%	0.0	0.3	0.3
	SSJ1						2.87	0.002%	0.0	0.1	0.1
	SSJ1						3.49	0.000%	0.0	0.0	0.0
	SSJ1						8.60	0.000%	0.0	0.0	0.0
	SSJ1						6.96	0.002%	0.0	0.3	0.3
		TOTAL	**0.00**	**100%**	**660**	**49,185**	**3.74**	**100%**	**1019**	**34,151**	**(15,034)**

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CITY OF MILPITAS
Planning Commission

MEETING MINUTES

7:00pm
AUGUST 27, 2025
CITY COUNCIL CHAMBERS,
455 E CALAVERAS BLVD, MILPITAS, CA
and
via TELECONFERENCE (Zoom Webinar)

CALL TO ORDER

Chair Gupta called the meeting to order at 7:00 pm.

PLEDGE OF ALLEGIANCE

Vice Chair Caulkins led the pledge of allegiance.

ROLL CALL

Recording Secretary Medina called the roll.

PRESENT: Chair Gupta, Vice Chair Caulkins, Galang, Kong, and Awasthi.

ABSENT: Albana and Medina-Ashby.

STAFF: Jay Lee, Christopher Creech, Lillian VanHua, Anjulie Palta (consultant), and Elizabeth Medina.

CONFLICT OF INTEREST/CAMPAIGN CONTRIBUTION DECLARATION

Assistant City Attorney Christopher Creech asked if any member of the commission had any personal or financial conflict of interest related to any of the items on the agenda, and there were none.

APPROVAL OF THE MEETING AGENDA

By motion, approve the meeting agenda for August 27, 2025.

Motion/Second Galang/Kong
Motion carried by a vote of AYES: 5 NOES: 0

APPROVAL OF THE MEETING MINUTES

By motion, approve the meeting minutes for June 11, 2025.

Motion/Second Awasthi/Caulkins
Motion carried by a vote of AYES: 3 NOES: 0 ABSTAIN: 2 (Kong, Galang)

ANNOUNCEMENTS

Planning Director Lee reported that the City Council adopted Phase II of the Comprehensive Zoning Ordinance Update on August 12, 2025, following the Planning Commission's June 11 recommendation, with the second reading scheduled for September 2 and the ordinance expected to take effect in early October. He also noted that the public comment period for the Gateway Main Street Specific Plan and its Environmental Impact Report had closed during recess, with staff now addressing comments and preparing revisions. The plan is scheduled to return to the Planning Commission on September 24 for recommendation, before going to the City Council on October 21. Lastly, he confirmed that the next Planning Commission meeting is tentatively set for September 10, 2025.

Acting City Attorney Christopher Creech announced the passing of former City Attorney Michael Multalipassi, who passed away in July. Commissioners observed a moment of silence in his memory. Commissioners and staff shared condolences, noting his dedication, diligence, and contributions to the City, including his role in the Comprehensive Zoning Ordinance, the Gateway Specific Plan, and negotiations for

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the Rivian distribution center. The Commission requested that condolences be extended to his family on behalf of the body.

PUBLIC FORUM

Chair Gupta invited members of the public to address the commission, and there were none.

PUBLIC HEARING

NO ITEMS.

NEW BUSINESS

X-1 STUDY SESSION FOR GATEWAY-MAIN STREET SENSE OF PLACE PLAN

Project Planner: Lillian VanHua, Principal Planner, lvanhua@milpitas.gov

(33:33) Project Manager Lillian VanHua and Anjulie Palta (consultant w/ Toole Design Engineers) addressed commissioners' clarifying questions on various topics.

Commission Questions & Feedback:

- Clarification was provided that this is a streetscape plan, not a development plan, so existing businesses would remain unless owners pursue redevelopment.
- Commissioners asked about parking configurations, the flexibility of “flex zones,” and whether current right-of-way widths can accommodate proposed designs. Staff confirmed that options fit within the 66-foot right-of-way and explained changes would include narrower travel lanes and shared bicycle lanes.
- Questions were raised about visualization tools (e.g., use of AI renderings), tree replacement, lighting, rooftop patios, and integration of public art.
- Commissioners discussed funding mechanisms, including impact fees, capital improvement programming, and developer contributions, as well as implementation strategies to balance piecemeal development with cohesive corridor improvements.
- Concerns were expressed about potential congestion due to buses and rideshare pickups, with staff noting coordination with VTA and the intent to divert through-traffic to Abel Street.
- Commissioners expressed support for more colorful, family-friendly design palettes (Option 2) and suggested integrating murals, public art, lighting, and cultural/historic elements unique to Milpitas (e.g., Milpitas Monster, historical street art, benches with art).
- Commissioners generally favored a combination of Options 1 and 2, tailored to different segments of Main Street, with a preference for Option 2’s colorful design elements and emphasis on cultural vibrancy.

The Commission emphasized the importance of preserving Main Street’s history while creating a vibrant, pedestrian-oriented corridor. Commissioners supported exploring near-term activation strategies (e.g., events, art installations) alongside long-term phased improvements.

Recommendation: Staff recommends that the Planning Commission receive staff’s presentation and report regarding the Gateway-Main Street Sense of Place Plan.

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ADJOURNMENT

Chair Gupta adjourned the meeting at 8:11 pm
Motion/Second Galang/Caulkins
Motion carried by a vote of AYES: 5 NOES: 0

Meeting Minutes submitted by
Planning Commission Secretary Elizabeth Medina

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