ATTACHMENT D

MITIGATED NEGATIVE DECLARATION

APPENDIX G2 - LOCAL TRANSPORTATION ANALYSIS APPENDICES

Appendix G

Local Transportation Analysis Appendices

Appendix A
Proposed Scope of Work Memorandum and Confirmation Emails

Becca Hoffman

From: Jonathan Quezada <JQuezada@san-marcos.net>
Sent: Monday, May 15, 2023 2:18 PM
To: Kristine Connolly; Stephanie Kellar; Kyrenne Chua; Norman Pedersen; Damian Schoenecke; Teni Garcia; Phuong Nguyen (pnguyen@cramobility.com)
Cc: Sean Anderson; Becca Hoffman; Mychal Loomis
Subject: RE: Costco Fuel Station - Trip Gen Memo and Site Plan Redlines Discussion

[External Sender]

Good afternoon Kristine,

Thank you for your thorough email below. We look forward to discussing the site plan and the trip gen memo with the team later this afternoon.

Below are some high level responses to the questions you have posed. These can be discussed in greater detail during our upcoming call:

- The City of San Marcos has adopted the Transportation Impact Analysis Guidelines since November 2020. Every analysis has to comply with these guidelines, calling for both a Transportation Impact Study, which is VMT based, and a Local Transportation Analysis, which is LOS/Queueing based. Moreover, the analysis must fulfill the requirements of the Transportation section in Appendix G of the CEQA checklist. A traffic engineering firm from the city-approved roster must conduct the study. This roster is updated annually through a selection process.
- Trips Generation: The choice for trips generation should be a site that mirrors North County's socio-economic landscape and driving habits. The Santee Costco should be excluded.
- Trips Diversion: It's generally acknowledged that there may be a diversion of existing trips from other Costco stores. However, it's also plausible that new trips will emerge from members who previously didn't get gas due to extended queues. The applicant must record any assumptions about trips diversion and provide compelling evidence to support these assumptions. Diversion examples could be drawn from other Southern California locations, such as the Commerce Business Center (opened July 2009) and the Hawthorne Business Center (opened March 2009), which both have gas stations. The applicant should be able to show that the opening of these new business centers with gas stations resulted in a decrease in trips from other nearby Costco stores. This information should also be included in the Transportation Impact Study.
- Internal Capture / Adjustment Factor: All these should be clearly recorded. It is anticipated that there will be an internal capture rate; however, these vehicles are still likely to get gas first before shopping at the business center. They may be removed from the existing traffic counts at intersections within the study area, but they shouldn't be automatically subtracted from the trips generation.
- The project should provide an MOA or Project Analysis Form (available on the City's website), in line with the TIA guidelines' stipulations. After receiving the MOA, the city will provide a list of cumulative projects and/or growth factors. The MOA or the form should cover:
    - Trips generation
    - Trips Distribution
    - Internal capture and/or diversion assumptions
    - Proposed operation hours
    - Study scenarios and analysis periods. The study's period, scenarios, and area must comply with the TIA guidelines.
    - Study Area
    - The queuing analysis should not be part of the MOA; it should be submitted along with the TIS and LTA.

- Boardwalk Gate - The decision to close the Boardwalk entrance was upon Costco's request and tracked under City approved grading plans GP21-00003 CC#3. Therefore, please consult with Costco regarding this matter.
- Additional items:
    - Show the turn radius/travel path for fuel trucks. Where will the fuel truck line up before entering the site?
    - The queuing analysis should be grounded on verified data, such as existing queue processing rates and queue observations. For this study, any speeds less than 15 mph will be classified as a queue. For instance, if vehicles queue up and move at 5 mph on city streets while trying to enter the site, it will be considered a queue.

Thanks,

JONATHAN QUEZADA, MPA, CFM, E.I.T.| Assistant Engineer - Land Development
City of San Marcos | 1 Civic Center Drive, San Marcos CA 92069
T: (760) 744-1050 x3216 | | **C:** (760) 310-6203
jquezada@san-marcos.net | **www.san-marcos.net**

Discover San Marcos on social media:
Facebook | Twitter | Instagram | LinkedIn | YouTube
At the City of San Marcos, the health and safety of our community is our top priority. For real-time updates about the City's response to COVID-19, visit www.san-marcos.net/covid19.

At the current time, public counters are OPEN. The City remains open for virtual business via email and phone from 7:30 am to 5:30 pm on Monday through Thursday and closed every other Friday (click here to view the scheduled closures).

From: Kristine Connolly <kconnolly@kittelson.com>
Sent: Friday, May 12, 2023 3:39 PM
To: Jonathan Quezada <JQuezada@san-marcos.net>; Stephanie Kellar <SKellar@san-marcos.net>; Kyrenne Chua <kchua@san-marcos.net>; Norman Pedersen <NPedersen@san-marcos.net>; Damian Schoenecke <dschoenecke@san-marcos.net>; Teni Garcia <tgarcia@san-marcos.net>; Phuong Nguyen (pnguyen@cramobility.com) <pnguyen@cramobility.com>
Cc: Sean Anderson <sanderson@barghausen.com>; Becca Hoffman <rhoffman@kittelson.com>; Mychal Loomis <mloomis@kittelson.com>
Subject: RE: Costco Fuel Station - Trip Gen Memo and Site Plan Redlines Discussion

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jonathan –

Below is a summary of our initial suggested approach to updating the draft trip generation and queuing estimate for the San Marcos Costco Business Center gas station addition in response to City comments, and preparing a TIA for the site. We look forward to discussing in more detail on Monday, and getting the City's feedback on this approach. We would like to begin the conversation with questions/clarifications on the site plan, in case some folks would like to hop off the call before we get into the traffic analysis details below.

- Trip Generation
    - We will continue to use Costco-specific trip generation data from our Costco Trip Generation Database (expanded to include additional sites in the San Diego North County area).
        - Gas station data previously collected at the following locations:
            - Vista Costco (16 fueling positions, data collected March 2019)
            - Santee Costco (32 fueling positions, data collected February 2020)

            - Carlsbad Costco (22 fueling positions, data collected March 2022)
        - Potential to collect new gas station data at the following locations:
            - San Marcos Costco (24 fueling positions)
            - Carmel Mountain Costco (22 fueling positions)
    - Some trips currently made by members to nearby existing Costco gas stations will be reassigned to the project location based on shortest travel distance. We can use GIS to calculate trip distances between each square-mile grid and 1) the existing gas stations where transactions are made, and 2) the project location. The remaining trip generation is assumed to be members who did not previously purchase gas from Costco. We can provide an estimate of what portion of trips are expected to be new vs. relocated from nearby Costco gas locations. In order to provide this analysis, transaction data and market area analysis will be collected for surrounding Costco Warehouses with gas stations located at:
        - San Marcos Costco
        - Vista Costco
        - Carlsbad Costco
        - Carmel Mountain Costco
        - Future Escondido Costco (market analysis only)
    - Most of the existing Costco gas stations in the San Diego North County area are smaller than the proposed San Marcos Business Center gas station. A factor will be applied to adjust the data collected at 16-24 position stations to reflect the proposed 30 position station. This factor will be calculated based on a comparison of trip generation data for sites of these sizes within the Costco Trip Generation Database.
    - The existing Costco gas stations in the San Diego North County area are Costco Warehouses, whereas the proposed gas station will be added at a Costco Business Center. A factor will be applied to adjust the data collected at Costco Warehouses to reflect the proposed Costco Business Center location. This factor will be calculated based on a comparison of trip generation data for Warehouses and Business Centers within the Costco Trip Generation Database.
    - Internalization reduction based on transaction data for other Costco Business Centers with gas stations.
    - Diverted and Pass-by trip reductions based on survey data collected at Costco gas stations in California.
- Queuing
    - Projected queues will be based on data from the same gas station locations used for trip generation (above)
    - A factor will be applied to adjust the data collected at 16-24 position stations to reflect the proposed 30 position station. This factor will be calculated based on a comparison of queue data for sites of these sizes within the Costco Trip Generation Database.
    - Adequate queue storage will be provided on-site, or a queue management plan will be prepared to identify temporary solutions to peak queue conditions.
- Trip Distribution/Assignment
    - A trip distribution will be developed based on the market analysis
    - Diverted and pass-by trips will be assigned based on existing traffic patterns on SR-78, San Marcos Blvd and Grand Ave.
- We will submit at updated trip generation and queuing memorandum summarizing the above information for City review prior to completion of the TIA.
- Traffic Impact Analysis
    - Proposed Study Intersections:
        - Linda Vista Drive / Grand Avenue
        - S Bent Avenue / Grand Avenue
        - San Marcos Boulevard / Grand Avenue
        - Site Access A / Bent Avenue (proposed to be relocated to the south of its existing location)
        - Site Access B / Bent Avenue
        - Site Access C / Bent Avenue
        - Site Access D / Boardwalk (If this access to the Costco site is closed to non-emergency vehicles at the time of data collection this intersection will not be counted or studied. If this access remains

open during data collection effort traffic counts will be collected and redistributed to the other access locations to reflect future conditions)

- Time Periods/Scenarios:
  - The TIA will evaluate Weekday PM (4:00 PM – 6:00 PM) and Saturday Midday (11:00 AM – 2:00 PM) peak hours, as the combination of gas station and adjacent street traffic is typically higher during the weekday PM peak and Saturday midday peak than the weekday AM peak or Sunday midday peak.
  - The TIA will analyze 2023 existing conditions and 2025 opening year background and total traffic conditions.
  - Does the City have a standard growth rate for this area?
- Data Collection:
  - School/University schedule impacts?
    - CSUSM – final exams May 13th – May 18th
    - San Marcos Unified School District – last day of school June 7th
  - Signal timing information – who is the best point of contact?
  - Crash data for safety analysis
  - Planned Transportation Improvements:
    - Conversion of Boardwalk to emergency-only access – when will this occur?
    - CIP Review: San Marcos Boulevard Reconstruction Project (2022-2023)
    - Other?
  - In-Process Developments:
    - San Marcos Artist's Village (anticipated build-out 2024) on the NW corner of Linda Vista Road/Grand Avenue with 102 apartments, 7 live/work units, 7,658 SF office space, and 49,266 SF specialty retail
    - Other?
- Miscellaneous:
  - Confirm City operational standards or mobility targets
  - Confirm preferred analysis software and HCM edition
  - Besides the proposed hours/days of operation, is there anything else that should be included in the statement of operations?

Thanks,

Kristine Connolly, PE*
Associate Engineer
(*she/her*)
*OR, WA and NV

Kittelson & Associates, Inc.
Transportation Engineering / Planning
503.535.7448 (direct)
503.329.0199 (mobile)

-----Original Appointment-----
From: Jonathan Quezada <JQuezada@san-marcos.net>
Sent: Tuesday, May 9, 2023 12:29 PM
To: Jonathan Quezada; Stephanie Kellar; Kyrenne Chua; Norman Pedersen; Damian Schoenecke; Teni Garcia; Sean Anderson; Kristine Connolly; Phuong Nguyen (pnguyen@cramobility.com)
Subject: Costco Fuel Station - Trip Gen Memo and Site Plan Redlines Discussion
When: Monday, May 15, 2023 2:30 PM-3:30 PM (UTC-08:00) Pacific Time (US & Canada).
Where: https://meet.goto.com/238134477

[External Sender]

Costco Fuel Station - Trip Gen Memo and Site Plan Redlines Discussion
May 15, 2023, 2:30 – 3:30 PM (America/Los_Angeles)

Please join my meeting from your computer, tablet or smartphone.
https://meet.goto.com/238134477

You can also dial in using your phone.
Access Code: 238-134-477
United States (Toll Free): 1 866 899 4679
United States: +1 (571) 317-3116

Get the app now and be ready when your first meeting starts:
https://meet.goto.com/install

Meeting requested by the development team to discuss the recent redlines provided on the revised site plan and traffic queueing memo:

Please use the links below to access the respective redlines:

Costco Business Center Fuel Station Revised Site Plan Redlines

Kittelson Draft Trip Gen Memo Redlines

In addition to redlines contained in the links above, please see narrative below for additional items that should be considered and incorporated into Kittelson trip gen memo and the forthcoming LTA:

While we appreciate that Kittelson has maintained a database of queuing and trips generation for Costco for over 20 years, we require additional analysis due to the proposed Gas Station's close proximity to a roadway known for congestion and traffic issues. This is necessary for City staff to determine whether the proposed Gas Station will have a negative impact on the nearby public roadway and intersection. We have several concerns, which are as follows:

1. The current trips generation sampling should not be conducted based on just Costco warehouse with similar gas stations, especially in areas with high-quality transit such as Sunnyvale, SSF Airport, SSF El Camino Real. San Marcos is more suburban compared to these areas, which results in more vehicle dependency and more demand for a Costco Gas Station. Please revise the trip generation, taking into consideration the unique factors of San Marcos and San Diego North County area such as the following:
    - To ensure accurate reflection of the socioeconomic data of the area, sampling for the Costco gas station should be based on actual traffic counts (a minimum of 3) in North County. The counts should also validate the adjustment factor assumed in Table 1 by including vehicles that stop at the nearby Costco versus those just using Costco gas.
    - The analysis should adjust for the number of residents/households in North County with Costco memberships and the number of members who currently use Costco gas stations. While membership is a factor in determining use of the gas station, it's not the only one. For example, members may avoid Costco gas stations due to long queues throughout North County but may use the proposed station if the wait is shorter.
    - The analysis should also account for the number of potential pass-by and diverted trips from SR-78 due to the proximity of the proposed Costco Gas Station.

2. Provide an operation statement including anticipated opening hours/dates is requested. Although Costco Business does not open on Sundays, if the gas station remains open, the analysis should account for Sunday traffic demand.

3. The queueing analysis sampling is also not appropriate for the same reason as above. It should be noted that the queueing observations made between 2020 and 2022 may not accurately represent the actual demand due to factors such as hybrid work and work-from-home arrangements which can affect driver behavior. Therefore, a queuing analysis should be conducted using a recognized methodology, research, or microsimulation to ensure that the potential queue does not spill onto the public roadway. If the queue extends onto the public roadway, the Project should propose measures to accommodate the queue.
4. Please demonstrate with an autoturn diagram that a vehicle (standard pickup truck) can safely exit from South Bent Avenue and turn into the gas station without doing a 3-points turn.
5. Please provide an internal circulation diagram and autoturn diagram that demonstrates how vehicles exiting the gas station can navigate back onto South Bent Avenue.
6. It suggested that the relocated Bent Avenue driveway be shifted further south to accommodate more onsite queueing and improve internal circulation.
7. Please demonstrate how the fuel truck can safely enter and exit the gas station area without blocking the nearby roadway. For example, if the fuel truck is entering from Linda Vista Drive, please demonstrate how the fuel truck can safely enter the fueling/refueling area and account for item such as where the fuel truck would queue at while waiting for the driver/attendance to open the gate/bollard. If the truck intends to exit onto Linda Vista Drive, please demonstrate how it can safely exit without blocking the Grand Avenue & Linda Vista Drive intersection.
8. The project will need to conduct a traffic impact study and local transportation analysis, following the City of San Marcos Transportation Impact Analysis Guidelines (Kittelson & Associates, November 2020).
9. Please coordinate with City staff throughout the development process to ensure that any potential design features account for nearby development and CIP projects.

Becca Hoffman

From: Becca Hoffman
Sent: Wednesday, December 20, 2023 12:15 PM
To: Jonathan Quezada; Kristine Connolly
Cc: Sean Anderson; Kayleen Burnett; Damian Schoenecke; Stephanie Kellar; Norman Pedersen; Kyrenne Chua
Subject: RE: San Marcos BC Fuel Facility addition - LTA

Hi Jonathan,

Thanks so much for sending this over! Have a Happy Holidays!

Rebecca Hoffman, EIT
Engineering Associate
(*she/her*)

Kittelson & Associates, Inc.
Transporta on Engineering / Planning
208.472.9825 (direct)
925.785.4553 (mobile)

From: Jonathan Quezada <JQuezada@san-marcos.net>
Sent: Wednesday, December 20, 2023 11:21 AM
To: Becca Hoffman <rhoffman@kittelson.com>; Kristine Connolly <kconnolly@kittelson.com>
Cc: Sean Anderson <sandersonj@costco.com>; Kayleen Burnett <kburnet@costco.com>; Damian Schoenecke <dschoenecke@san-marcos.net>; Stephanie Kellar <SKellar@san-marcos.net>; Norman Pedersen <NPedersen@san-marcos.net>; Kyrenne Chua <kchua@san-marcos.net>
Subject: RE: San Marcos BC Fuel Facility addition - LTA

[External Sender]

Good afternoon Becca,

I have gone ahead and pulled the available LTA's. These are available u lizing the Dropbox link below:

h ps://www.dropbox.com/scl/fo/n4at77msndia37ds4hsam/h?rlkey=ydyvwj8c6xihifqn9j3km 6m&dl=0

Please see some initial feedback below:

- Discovery Village North
  - Only a tentative map has been processed through the City for this project area. No Site Development Plans (SDP's) or a final map have been submitted. Therefore, a buildout date cannot be quan fied at this me.
- Pacific Commercial
  - This project was CEQA exempt; therefore, no LTA was prepared. This project is s ll under construc on and has not been closed out/as built by the City.
- Discovery Village South
  - LTA included in the link above.

    - Project has been built out; however, the City has not officially closed out/as built the project yet.
- MacDonald Group (Former Sears Site)
    - This project was CEQA exempt; therefore, no LTA was prepared. Final engineering/construc on drawings are s ll being reviewed. Grading permit has not been issued to date.
- Jump Ball LLC (Panera)
    - LTA included in the link above.
    - Panera Bread officially opened its doors on November 27th, 2023.
- Karl Strauss Brewery
    - An interim/temporary use of the project site by Karl Strauss is ac ve on site. A full permanent build out date of the site is unknown at this me. No current LTA available for the project.
- Pacific Grand Ventures, LP
    - This project was CEQA exempt; therefore, no LTA was prepared. This project is s ll under construc on and has not been closed out/as built by the City.
- Gran Vista
    - LTA included in the link above.
    - Project is currently under final engineering/construc on drawing review. Grading permit issuance an cipated Q1 or Q2 of 2024 with full buildout by 2025. This is tentative.
- Arco
    - LTA included in the link above.
    - Final engineering/construc on level drawings have not been submitted to the City yet; therefore, a build out year cannot be quan fied at this me.

Please review and let me know if you need anything else.

Thanks,

JONATHAN QUEZADA, MPA, CFM, E.I.T.| Assistant Engineer - Land Development
City of San Marcos | 1 Civic Center Drive, San Marcos CA 92069
T: (760) 744-1050 x3216 | | **C:** (760) 310-6203
jquezada@san-marcos.net | **www.san-marcos.net**

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

Discover San Marcos on social media:
Facebook | Twitter | Instagram | LinkedIn | YouTube
At the City of San Marcos, the health and safety of our community is our top priority. For real-time updates about the City's response to COVID-19, visit www.san-marcos.net/covid19.

At the current time, public counters are OPEN. The City remains open for virtual business via email and phone from 7:30 am to 5:30 pm on Monday through Thursday and closed every other Friday (click here to view the scheduled closures).

From: Becca Hoffman <rhoffman@kittelson.com>
Sent: Wednesday, December 20, 2023 9:12 AM
To: Jonathan Quezada <JQuezada@san-marcos.net>; Kristine Connolly <kconnolly@kittelson.com>

Cc: Sean Anderson <sandersonj@costco.com>; Kayleen Burnett <kburnet@costco.com>; Damian Schoenecke <dschoenecke@san-marcos.net>; Stephanie Kellar <SKellar@san-marcos.net>; Norman Pedersen <NPedersen@san-marcos.net>
Subject: RE: San Marcos BC Fuel Facility addition - LTA

> Some people who received this message don't often get email from rhoffman@kittelson.com. Learn why this is important

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jonathan,

Just wanted to follow up with you on my previous email. We understand that the City will be closed star ng Friday the 22nd. Will you be able to send over these project materials before the closure? If not, when do you an cipate being able to send them?

Please let us know. Thanks!

Rebecca Hoffman, EIT
Engineering Associate
(*she/her*)

Kittelson & Associates, Inc.
Transporta on Engineering / Planning
208.472.9825 (direct)
925.785.4553 (mobile)

From: Becca Hoffman
Sent: Wednesday, December 13, 2023 11:37 AM
To: Jonathan Quezada <JQuezada@san-marcos.net>; Kristine Connolly <kconnolly@kittelson.com>
Cc: Sean Anderson <sandersonj@costco.com>; Kayleen Burnett <kburnet@costco.com>; Damian Schoenecke <dschoenecke@san-marcos.net>; Stephanie Kellar <SKellar@san-marcos.net>; Norman Pedersen <NPedersen@san-marcos.net>
Subject: RE: San Marcos BC Fuel Facility addition - LTA

Hi Jonathan,

Thanks for sending this information over.

There are a couple projects on the project list that we are curious to learn more about. Could you please provide the LTAs/additional information for the following:

- Discovery Village North
  - Is there an established build out year for this development?
- Pacific Commercial
  - This development is indicated as under construc on with a 2023 build out year, has construc on been completed?
- Discovery Village South
  - This development is indicated as under construc on with a 2023 build out year, has construc on been completed?
- MacDonald Group
- Jump Ball LLC

    - From what we can tell this site is a new Panera that has opened in the last couple weeks – do you know it was open in the first week of November?
- Karl Strauss Brewery
    - Is there an established build out year for this development?
- Pacific Grand Ventures, LP
    - This development is indicated as approved but with a build out year of 2023, is it completed?
- Gran Vista/CCI
    - Is there an established build out year for this development?
- Lonnie Tabbaa-Arco
    - Is there an established build out year for this development?

I have also attached the cumulative project list including the information you provided for these sites. Please let me know if you have any ques ons.

Thanks!

Rebecca Hoffman, EIT
Engineering Associate
(*she/her*)

Kittelson & Associates, Inc.
Transporta on Engineering / Planning
208.472.9825 (direct)
925.785.4553 (mobile)

From: Jonathan Quezada <JQuezada@san-marcos.net>
Sent: Thursday, December 7, 2023 5:22 PM
To: Kristine Connolly <kconnolly@kittelson.com>
Cc: Becca Hoffman <rhoffman@kittelson.com>; Sean Anderson <sandersonj@costco.com>; Kayleen Burnett <kburnet@costco.com>; Damian Schoenecke <dschoenecke@san-marcos.net>; Stephanie Kellar <SKellar@san-marcos.net>; Norman Pedersen <NPedersen@san-marcos.net>
Subject: RE: San Marcos BC Fuel Facility addition - LTA

[External Sender]

Good afternoon Kris ne,

As a follow up to your email below, please see City responses below in BLUE.

Thanks,

JONATHAN QUEZADA, MPA, CFM, E.I.T.| Assistant Engineer - Land Development
City of San Marcos | 1 Civic Center Drive, San Marcos CA 92069
T: (760) 744-1050 x3216 | | **C:** (760) 310-6203
jquezada@san-marcos.net | **www.san-marcos.net**

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES
Discover San Marcos on social media:
Facebook | Twitter | Instagram | LinkedIn | YouTube
At the City of San Marcos, the health and safety of our community is our top priority. For real-time updates about the City's response to COVID-19, visit www.san-marcos.net/covid19.

At the current time, public counters are OPEN. The City remains open for virtual business via email and phone from 7:30 am to 5:30 pm on Monday through Thursday and closed every other Friday (click here to view the scheduled closures).

From: Kristine Connolly <kconnolly@kittelson.com>
Sent: Thursday, November 30, 2023 3:37 PM
To: Jonathan Quezada <JQuezada@san-marcos.net>
Cc: Becca Hoffman <rhoffman@kittelson.com>; Sean Anderson <sandersonj@costco.com>; Kayleen Burnett <kburnet@costco.com>; Damian Schoenecke <dschoenecke@san-marcos.net>; Teni Garcia <tgarcia@san-marcos.net>; Stephanie Kellar <SKellar@san-marcos.net>
Subject: San Marcos BC Fuel Facility addition - LTA

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jonathan,

We are ge ng into the ini al steps of preparing the LTA for the Costco Business Center Fuel Facility Addition and we are hoping to clarify a few items with you:

- While collec ng traffic counts earlier this month (November 2 and November 4) we noted that the northbound leg of the Via Vera Cruz / San Marcos Boulevard intersec on was closed. From what we can find, it appears this leg of Via Vera Cruz is closed for reconstruc on between San Marcos Boulevard and Discovery Street, following a similar project done along Bent Avenue between San Marcos Boulevard and Discovery Street. Could you provide any insight into when this construc on is scheduled to be completed, and the new roadway open to vehicle traffic?

  City Response 12/7/2023: The Via Vera Cruz bridge project is nearing comple on and is an cipated to be completed in the coming months.

  - For the Ar sts Village development TIA, traffic counts were collected at Via Vera Cruz/San Marcos Boulevard in May 2022.
    - Are you able to confirm whether Bent Avenue was closed between Discovery Street and San Marcos Boulevard during that me?

    City Response 12/7/2023: The Bent Avenue bridge was opened to the public around May 18th, 2022.
  - Does the City have any historical turning movement counts we could reference for the intersec ons of Via Vera Cruz / San Marcos Boulevard and Bent Avenue / San Marcos Boulevard to inform the volumes for our analysis (preferably while both connec ons were open to vehicular traffic)?
    - Alternatively, does the City have any tube counts collected along Via Vera Cruz or Bent Avenue between San Marcos Boulevard and Discovery Street?
    - Does the City feel it is appropriate for us to adjust volumes collected at these two intersec ons based on a comparison of historical and current traffic counts?

    City Response 12/7/2023: Unfortunately, the City does not have any historical turning movement counts to provide.

- Our analysis is planning to include the Ar sts Village development as an in-process development. Are there any other in-process developments we should include? It looks like there may be an area under construc on along the north side of the new Discovery Boulevard extension.
    - If there are, could you please provide the appropriate TIAs for our reference?
      City Response 12/7/2023: Please see attached cumulative project list. Please review and let me know which project you would like an LTA for. If we have one (1) file, we can forward them to you.

Thanks!

Kristine Connolly, PE*
Associate Engineer
(*she/her*)
*OR, WA and NV

Kittelson & Associates, Inc.
Transportation Engineering / Planning
851 SW 6th Avenue, Suite 600
Portland, OR 97204
503.228.5230
503.535.7448 (direct)
503.329.0199 (mobile)

Becca Hoffman

From: Kristine Connolly
Sent: Monday, February 5, 2024 5:00 PM
To: Jonathan Quezada
Cc: Becca Hoffman; Norman Pedersen
Subject: RE: San Marcos Costco Business Center Fuel Facility Addition

Thanks Jonathan!

Kristine Connolly, PE*
Associate Engineer
(*she/her*)
*OR, WA, NV and TX

Kittelson & Associates, Inc.
Transportation Engineering / Planning
503.535.7448 (direct)
503.329.0199 (mobile)

From: Jonathan Quezada <JQuezada@san-marcos.net>
Sent: Monday, February 5, 2024 3:22 PM
To: Kristine Connolly <kconnolly@kittelson.com>
Cc: Becca Hoffman <rhoffman@kittelson.com>; Norman Pedersen <NPedersen@san-marcos.net>
Subject: RE: San Marcos Costco Business Center Fuel Facility Addition

[External Sender]

Good afternoon Kris ne,

Confirming I am in receipt of the original LTA assump ons redlines the City has previously provided as well as the Word file with your team's responses.

We will get your responses reviewed and will provide any necessary feedback in the near term.

Thanks,

JONATHAN QUEZADA, MPA, CFM, E.I.T.| Assistant Engineer - Land Development
City of San Marcos | 1 Civic Center Drive, San Marcos CA 92069
T: (760) 744-1050 x3216 | | **C:** (760) 310-6203
jquezada@san-marcos.net | **www.san-marcos.net**

Discover San Marcos on social media:
Facebook | **Twitter** | **Instagram** | **LinkedIn** | **YouTube**
At the City of San Marcos, the health and safety of our community is our top priority. For real-time updates about the City's response to COVID-19, visit www.san-marcos.net/covid19.

At the current time, public counters are OPEN. The City remains open for virtual business via email and phone from 7:30 am to 5:30 pm on Monday through Thursday and closed every other Friday (click here to view the scheduled closures).

From: Kristine Connolly <kconnolly@kittelson.com>
Sent: Monday, February 5, 2024 12:00 PM
To: Jonathan Quezada <JQuezada@san-marcos.net>
Cc: Becca Hoffman <rhoffman@kittelson.com>
Subject: RE: San Marcos Costco Business Center Fuel Facility Addition

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sorry about that Jonathan! At the OneDrive link below, you will find the City's comments on our LTA Scoping Memo (included for reference) and a Word document with our responses. Let me know if you have any trouble accessing the files this way.

San Marcos Costco Business Center Gas Addition

I did learn that the applicant has not yet submitted a combined response to comments from other departments – they are currently finalizing, so hopefully you'll see that come through soon. We are also wrapping up our LTA in the coming weeks.

Thanks,

Kristine Connolly, PE*
Associate Engineer
(*she/her*)
*OR, WA, NV and TX

Kittelson & Associates, Inc.
Transportation Engineering / Planning
503.535.7448 (direct)
503.329.0199 (mobile)

From: Jonathan Quezada <JQuezada@san-marcos.net>
Sent: Monday, February 5, 2024 10:51 AM
To: Kristine Connolly <kconnolly@kittelson.com>
Cc: Becca Hoffman <rhoffman@kittelson.com>
Subject: RE: San Marcos Costco Business Center Fuel Facility Addition

[External Sender]

Good morning Kris ne,

I did receive your email from Friday (2/2) but not the one you sent on Thursday (2/1) that included the attachments.

Please resend using a file sharing platform (e.g. Dropbox, etc.) to ensure the size of the attachments does not force the email to be kicked back.

Once we are in receipt of the files in ques on, I will confirm and advise if we need anything else to review.

Thanks,

JONATHAN QUEZADA, MPA, CFM, E.I.T.| Assistant Engineer - Land Development
City of San Marcos | 1 Civic Center Drive, San Marcos CA 92069
T: (760) 744-1050 x3216 | | **C:** (760) 310-6203
jquezada@san-marcos.net | **www.san-marcos.net**

Discover San Marcos on social media:
Facebook | Twitter | Instagram | LinkedIn | YouTube
At the City of San Marcos, the health and safety of our community is our top priority. For real-time updates about the City's response to COVID-19, visit www.san-marcos.net/covid19.

At the current time, public counters are OPEN. The City remains open for virtual business via email and phone from 7:30 am to 5:30 pm on Monday through Thursday and closed every other Friday (click here to view the scheduled closures).

From: Kristine Connolly <kconnolly@kittelson.com>
Sent: Friday, February 2, 2024 11:37 AM
To: Jonathan Quezada <JQuezada@san-marcos.net>
Cc: Becca Hoffman <rhoffman@kittelson.com>
Subject: RE: San Marcos Costco Business Center Fuel Facility Addition

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jonathan – I just wanted to confirm you received my message and attachment yesterday. I received a bounce-back.

Thanks,

Kristine Connolly, PE*
Associate Engineer
(*she/her*)
*OR, WA, NV and TX

Kittelson & Associates, Inc.
Transportation Engineering / Planning
503.535.7448 (direct)
503.329.0199 (mobile)

From: Kristine Connolly
Sent: Thursday, February 1, 2024 2:57 PM
To: Jonathan Quezada <JQuezada@san-marcos.net>
Cc: Becca Hoffman <rhoffman@kittelson.com>
Subject: San Marcos Costco Business Center Fuel Facility Addition

Hi Jonathan – hope you are doing well! I believe the team submitted a full response to comments last week incorporating our traffic response, but wanted to make sure you received it as well. Please let us know if you'd like to schedule a call to discuss any of these items further. Thanks!

Kristine Connolly, PE*
Associate Engineer
(*she/her*)
*OR, WA, NV and TX

Kittelson & Associates, Inc.
Transportation Engineering / Planning
851 SW 6th Avenue, Suite 600
Portland, OR 97204
503.228.5230
503.535.7448 (direct)
503.329.0199 (mobile)

Comment Response Memorandum

This memorandum provides a response to the comments provided by the City of San Marcos on October 20, 2023 commenting on the San Marcos Costco Business Center LTA Assumptions and Methodology memorandum dated August 29, 2023. Agency comments are provided in italics followed by our response.

CITY OF SAN MARCOS COMMENTS

Comment #1

Page 7: Please provide any backup data for pass-by, diverted, or internal capture to compare to data provided by the author of this memorandum.

KITTELSON RESPONSE

In response to the City of San Marcos' comment Kittelson has prepared the following Table 1 summarizing the pass-by and diverted trip rate characteristics applied to the San Marcos fuel station trip generation estimate averaged from the California sites available in Kittelson's Costco Database.

Table 1. Pass-By and Diverted Trip Rates at California Sites

Site	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
	Pass By	Diverted	Pass By	Diverted	Pass By	Diverted
Clovis, CA	-	-	42%	32%	38%	28%
Temecula, CA	49% [1]	33% [1]	41%	43%	43%	35%
El Camino, CA	-	-	20%	47%	20%	44%
Average	-	-	34.3%	40.7%	33.7%	35.7%

[1] Weekday AM peak-hour pass-by and diverted trip rate information for California sites is only available for one location. For a more conservative analysis, the average PM peak hour pass-by and diverted trip rates were applied to the weekday AM peak hour, resulting in a higher percentage of primary trips compared to using this single AM peak hour data point.

Kittelson previously provided a table summarizing the internal trip rate characteristics applied to the San Marcos fuel station trip generation estimate averaged from other California Costco Business Center sites with fuel stations (*see Table 4 of the August 2023 LTA Assumptions and Methodologies memorandum)*. This information is repeated below in Table 2.

Table 2. Internal Trip Rates at California Business Center Sites

Site	Weekday Daily	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Hayward, CA	20.5%	16.2%	16.5%	24.5%
Commerce, CA	21.0%	16.0%	17.9%	29.4%
Hawthorne, CA	14.2%	11.4%	12.6%	17.5%
Average	18.5%	14.5%	15.7%	23.8%

Averages previously provided in the draft San Marcos Costco Business Center Trip Generation and Queuing Estimate memorandum dated April 16, 2023, included data collected at sites in other states besides California. The data was refined to sites in California based on City comments on the April 2023 draft memorandum and scoping discussions with City staff.

Comment #2

Page 13: Queuing analysis needs to be conducted using either microsimulation (Vissim) or deterministic method supported by published research. Comparison of storage length only is not sufficient, as other factors could affect how efficient vehicles enter the queue.

Figure 4 (page 17): This could potentially be a chokepoint where multiple vehicles try to figure out which lanes to go and results in a spillback onto Bent. Simulations should provide sufficient data that vehicles turning right from southbound Bent to enter pump queue will not spill back into Bent or the intersection at Grand.

KITTELSON RESPONSE

We agree that there are factors that relate to the flow and efficiency of vehicles entering and exiting a gas station. However, we do not agree that microsimulation would be helpful and that the most realistic way to estimate them is using data from other similar sites that account for unique travel behaviors. Costco/Kittelson have collected data for many other Costco fuel facilities, with the trip generation and associated queue data provided in 5-minute and 1-minute increments, respectively. This level of detailed data compiled from several sites is essentially a calibrated model that accounts for a variety of factors that would be difficult to measure/quantify - such as member/driver behavior, the randomness/variation in fuel times (numerous sizes/types of vehicles, range of fill %, queue discharge rate, etc.). Since it uses actual observed vehicle arrival patterns, this would presumably be a more accurate representation than creating a microsimulation that has several assumptions included in it that are not based on gas stations, nor Costco-specific fuel facilities. The "research" here is that Costco has proactively obtained information specific to this situation that can inform trip arrival and associated queue lengths. The number of vehicles queued then can be compared to the available space at the proposed site to look at how that level of vehicles may influence the circulation of the site. Each site has different layouts and the number of vehicles queued looks different depending on the layout. Kittelson has prepared figures depicting the anticipated queue lengths and access patterns specific to the proposed site based on the compiled data from other similar sites.

At each Costco fuel facility there is at least one attendant on-site to manage queue efficiency and direct customers to utilize all fuel lanes and storage area. The proposed site has been designed to accommodate anticipated peak hour 95th percentile queues. In addition, queue management plan will be prepared for the site to be used for holidays or unexpected surges in demand for fuel.

Comment #3

Figure A-1 (page 21): Lefts not allowed from [driveway A along Bent Avenue] due to high conflict areas, please revise.

KITTELSON RESPONSE

Traffic operational analysis will be performed in the TIA to assess whether left-turns at this intersection can operate safely and efficiently.

Comment #4

Figure A-1 (page 21): Project needs to provide existing traffic counts at all intersections to show that there are actually enough existing traffic volumes to take credits for [indicated] diverted and pass-by trips.

Pass-by and diverted trips assumptions should make sense when compared against existing traffic counts. We can agree on principle that there would be a certain percentage of existing trips that would be diverted or pass-by from the existing traffic, but an actual number will need to be proven in the analysis.

KITTELSON RESPONSE

Kittelson will review existing traffic counts at study intersections to confirm diverted and pass-by trip estimates are appropriate relative to existing traffic volumes.

KITTELSON & ASSOCIATES
851 SW 6th Avenue, Suite 600
Portland, OR 97204
P 503.228.5230

Memorandum

August 29, 2023 Project# 27900

To: Jonathan Quezada, City of San Marcos

Cc: Kayleen Burnett & Sean Anderson, Costco Wholesale

From: Kristine Connolly, Mychal Loomis, PE/TE/PTOE/RSP$_1$, Rebecca Hoffman, & Cesar De Leon

Project: San Marcos Costco Business Center - Fuel Facility Addition

Subject: Costco Traffic Impact Analysis Assumptions and Methodology

Kittelson & Associates, Inc. (Kittelson) prepared this scoping memorandum in coordination with City of San Marcos staff to document the project assumptions and methodology associated with preparing a Local Transportation Analysis (LTA) for the addition of a Costco Gasoline fuel facility (herein referred to as the "Project") to the existing Costco Business Center site located at 150 S Bent Avenue in San Marcos, California. Details of the LTA assumptions and methodology are documented herein and reflect the outcome of the preliminary scoping meeting held with City of San Marcos staff on May 15, 2023, and respond to the comments provided by City staff on April 27, 2023.

This memorandum covers the following transportation elements:

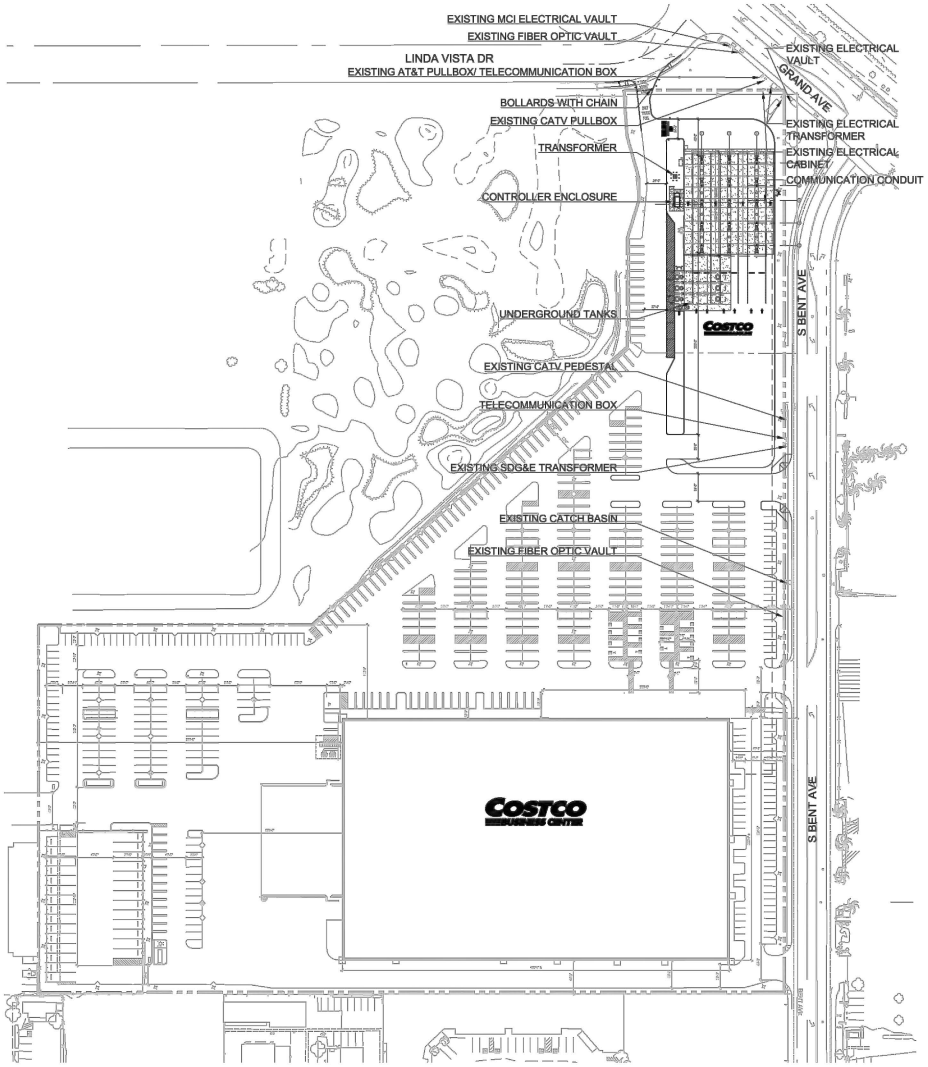
- Project Trip Generation;
- Preliminary Trip Distribution and Assignment;
- Proposed Study Methodology for the Forthcoming LTA;
- Fuel Facility Queuing; and,
- Vehicle Miles Traveled (VMT) Analysis Screening.

Please review this material and provide us with any additional comments.

INTRODUCTION

The Project will replace existing parking in the northern portion of the site with a new Costco Gasoline fuel facility with 30 vehicle fueling positions. The northernmost existing Costco site driveway on S Bent Avenue will be relocated to the south to provide additional queue storage for the fuel facility. Figure 1 shows the preliminary site plan.

Costco Gasoline fuel facilities serve as an ancillary use to the Costco Warehouses and Business Centers. Like other Costco services, fuel can only be purchased by members. Payment can only be made with credit card, and unlike traditional gas/service station operations, there are no other automotive services (such as repairs), or other type of sales (including food or sundries) associated with the Costco Gasoline facility. Based on data collected at Costco Gasoline facilities, the trip generation of fuel facilities at Costco Business Centers are lower than at Costco Warehouses. This is the result of the higher overall trip generation of Warehouses and internalization with the fuel facilities.



PROJECT DATA

CLIENT: COSTCO WHOLESALE, 999 LAKE DRIVE, ISSAQUAH, WA 98027

PROJECT ADDRESS: 150 S BENT AVENUE, SAN MARCOS, CA 92078

SITE DATA:

TOTAL SITE AREA: 14.30 ACRES (619,691 SF)

JURISDICTION: CITY OF SAN MARCOS

ZONING: COMMERCIAL (C)

SETBACKS:

	REQUIRED		ACTUAL	
FRONT:	10 FT		FRONT:	115'-5"
SIDE:	10 FT		SIDE:	67'-7"
REAR:	10 FT		REAR:	41'-8"

BOUNDARIES INFORMATION: THIS PLAN WAS DEVELOPED AND REVISED BY MG2 FOR COMPLIANCE WITH COSTCO STANDARDS AND REQUIREMENTS ONLY.

BUILDING DATA:

TOTAL BUILDING FOOTPRINT AREA: 204,919 SF

INCLUDES:

WAREHOUSE AREA	142,962 SF
MECHANICAL ROOM	271 SF
FUEL FACILITY	60,906 SF

PARKING DATA:

EXISTING PARKING: 794 STALLS

INCLUDES:

EXISTING PARKING PROVIDED:

9' X 15' STALLS	214 STALLS
9' X 20' STALLS	520 STALLS
10' X 18' STALLS	45 STALLS
ACCESSIBLE STALLS (2 PER 100) (1 IN 6 VAN REQ)	15 STALLS (4 OF 15)

PROPOSED PARKING: 583 STALLS

INCLUDES:

EXISTING PARKING PROVIDED:

9' X 15' STALLS	156 STALLS
9' X 20' STALLS	367 STALLS
10' X 18' STALLS	45 STALLS
ACCESSIBLE STALLS (2 PER 100) (1 IN 6 VAN REQ)	15 STALLS (4 OF 15)

NUMBER OF STALLS PER 1000 SF OF BUILDING AREA: 4.08 STALLS

JURISDICTIONAL PARKING REQUIRED: 593 STALLS

TRUCK STALLS 28 STALLS

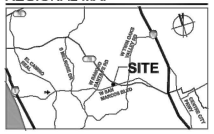
BICYCLE PARKING PER CALGREEN 5.106.4: SHORT TERM 5% OF VEHICLE PARKING (750 X 5% = 37.5) 38 REQUIRED

LONG TERM STORAGE 5% OF TENANT PARKING (106 X 5% = 8) 8 REQUIRED (MAX OF 160 EMPLOYEES)

NOTES:
EXISTING CONDITIONS TO BE FIELD VERIFIED.

VICINITY MAP

REGIONAL MAP



COSTCO BUSINESS CENTER
SAN MARCOS, CA

150 S BENT AVE
SAN MARCOS, CA 92069

1101 Second Ave. Ste 100
Seattle WA 98101
206 902 6500
MG2.com

MG2

19-5105-02
JUNE 14, 2023

PROPOSED SITE PLAN

DD11-09

© 2023, Inc. All rights reserved. No part of this document may be reproduced in any form or by any means without permission in writing from MG2.

COSTCO BUSINESS CENTER

SAN MARCOS, CA

PROPOSED SITE PLAN

JUNE 14, 2023

H:\27\27900 - San Marco Costco Fuel Expansion\report\figs\27900 Figures.dwg Aug 11, 2023 - 1:59pm - cdeleon Layout Tab: Site Plan

RECEIVED FROM MG2: (7/28/2023)

Proposed Site Plan
San Marcos, CA

Figure
1

KITTELSON & ASSOCIATES

Costco fuel facilities are typically operated by one to three employees, who maintain fuel facility operations, flow, and assist members when necessary. All Costco Gasoline facilities have a minimum of one attendant working when the fuel facility is open, who is responsible for expediting members' use of the dispensers, directing entering vehicles to available dispensers, and managing on-site queues from the dispenser area.

Typical Costco Business Center locations operate their fuel facilities between 6:00 AM and 8:00 PM Monday through Friday, 6:00 AM to 7:00 PM on Saturday, and from 9:00 AM to 6:00 PM on Sunday. While the Costco Business Center warehouse is closed on Sunday, the Costco fuel facility typically operates seven days a week.

Given the fuel facility's role as an ancillary use to the Business Center, which is closed on Sundays, critical fuel facility operations take place during the weekdays and on Saturday. Therefore, analysis presented herein focuses on weekday AM (7:00 AM – 9:00 AM), weekday PM (4:00 PM – 6:00 PM), and Saturday midday (11:00 AM – 2:00 PM) peak operations.

TRIP GENERATION ESTIMATE

Costco Trip Generation Database

For more than 20 years, Kittelson has maintained a database of traffic data and travel characteristics for Costco Wholesale, including data about Business Center fuel facilities. The database contains transportation information such as trip rates, trip type percentages, and parking demand for Costco locations throughout the United States as well as Canada and Mexico. The database is updated periodically each time new Costco traffic counts or other information become available to Kittelson.

To best evaluate the anticipated transportation characteristics of the San Marcos Costco Business Center fuel facility addition, the Costco database was used to develop the trip generation estimate since it provides use-specific data that most accurately represents the anticipated traffic characteristics of the unique development type. Costco has invested significant time and effort into developing this use-specific trip generation database for its Warehouses, Business Centers and its fuel facilities. Because of members-only access requirement and the nature of Costco sales, Costco members have unique travel characteristics and patterns, which are different from customers of other retail facilities or more traditional gas stations or convenience stores. These unique characteristics and patterns exist in the trip generation for Costco Warehouses/Business Centers, Costco Gasoline fuel facilities, and the interaction of trips between the two.

The Costco-specific trip generation data presented herein follows nationally accepted practices for trip generation data collection as recommended by the Institute of Transportation Engineers (ITE) and presents a robust dataset upon which to confidently and accurately predict the trip generation of the San Marcos Costco Business Center fuel facility.

Costco Fueling Position Adjustment Factors

Based on coordination with the City of San Marcos, new and historical trip generation data was collected at surrounding local Costco fuel facilities at standard Costco Warehouses in San Diego North County. There are currently no Costco Business Centers with fuel facilities in the North County area. Table 1 provides a summary of the trip generation at each North County site.

Table 1. San Diego North County Costco Fuel Facility Trip Generation

Site	Fueling Positions	Data Collection	Weekday Daily	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Vista, CA	16	March 2019	5,207	386	397	467
Carmel Mountain, CA	22	June 2023	9,284	518	660	704
Carlsbad, CA	22	March 2022	8,868	612	594	598
San Marcos, CA	24	June 2023	8,970	420	672	820

Source: Kittelson & Associates, Inc., 2023

These North County sites have 16-24 fueling positions, whereas the Project will have 30 positions. Therefore, an adjustment factor for each time period was calculated and applied to the trip generations of the North County sites shown in Table 1 to reflect the expected trip generation of a 30-position Costco fuel facility in North County. Table 2 presents the adjustment factors and corresponding adjusted trip generation for each local site and summarizes the average adjusted trip generation estimate for the Project. The adjustment factors presented in Table 2 were calculated by dividing the average trip generation for Costco fuel facilities with 30-32 fueling positions by the average trip generation for Costco fuel facilities with 16 and 22-24 fueling positions (based on data collected at other Costco Warehouse fuel facilities in California).

Table 2. San Diego North County Costco Fuel Facility Trip Generation – Adjusted to 30 Fueling Positions

Site	Fueling Positions	Weekday Daily	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Adjustment Factor (16 FP - 30/32 FP)		*1.64*	*1.26*	*1.74*	*1.85*
Vista, CA	16	8,541	486	689	863
Adjustment Factor (22/24 FP – 30/32 FP)		*1.35*	*1.12*	*1.39*	*1.37*
Carmel Mountain, CA	22	12,544	579	916	962
Carlsbad, CA	22	11,972	684	825	818
San Marcos, CA	24	12,120	470	933	1,121
	Average	**11,294**	**555**	**841**	**941**

Source: Kittelson & Associates, Inc., 2023

Costco Business Center Adjustment Factors

Table 3 compares the average trip generation for fuel facilities at Costco Business Centers in California with the average trip generation for fuel facilities at standard Costco Warehouses in California (with the same number of fueling positions) based on the data available in the trip generation database.

Table 3. California Costco Business Center & Warehouse Fuel Facility Trip Generation Comparison

Site Type	Weekday Daily	Weekday AM	Weekday PM	Saturday Midday
Business Center Trips	6049	482	520	536
Warehouse Average Trips	6372	416	502	549
% Difference WH to BC	**-5.1%**	**16.0%**	**3.6%**	**-2.3%**

Source: Kittelson & Associates, Inc., 2023
Note: There are currently no existing Costco Business Center fuel facilities with more than 24 fueling positions (the Project will have 30 fueling positions). Data summarized in the table reflects Costco Business Center and Costco Warehouse locations in California with 16-24 fueling positions.

Comparing the trip generation data collected for Costco Warehouse fuel facilities and Costco Business Center fuel facilities in California, the fuel facilities at Business Centers generate 5.1% less traffic on a weekday than a Costco Warehouse, 16.0% more traffic during the AM peak hour, 3.6% more traffic during the PM peak hour and 2.3% less traffic during the Saturday midday peak hour. Overall, Costco Business Center locations generate fewer (or similar) trips compared to typical Costco Warehouse locations, with the exception of the weekday AM peak hour. During the weekday AM peak hour the Business Center locations generate more traffic than a standard Warehouse, likely because the Business Center is open during the AM peak hour while a Warehouse is not.

Based on these results, an adjustment was applied to the Project trip generation in Table 2 to reflect the ancillary use being to a Costco Business Center, rather than a standard Costco Warehouse. These results are presented in Table 6 later in this memorandum.

Costco Fuel Facility Trip Characteristics

The trip characteristics described below for internal trip capture between Costco Business Centers and their associated fuel facilities are based on data collected at existing Costco Business Centers with fuel facilities in California. The trip characteristics described below for pass-by and diverted trip capture from the surrounding street system are based on studies of customer surveys at existing Costco Gasoline fuel facilities in California. The unique nature of Costco's members-only operations results in different trip characteristics than those observed at typical gas/service stations summarized in SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates or the *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE). The percentages of pass-by or diverted trips at Costco fuel facilities are considerably lower than those documented by SANDAG and in the ITE *Trip Generation Manual* for typical gas/service stations. In addition, the members-only access requirement also has a significant effect on trip internalization (or sharing of trips) between the warehouse and the fuel facility. Fewer people exclusively visit a Costco fuel facility (in comparison to a typical standalone gas/service station) because they have another primary purpose for visiting the site (that being a trip to the Warehouse/Business Center).

Internal Trips

Internal capture trips account for those members who patronize both the Warehouse/Business Center and the fuel facility during a single visit to the Costco site. As such, although they account for a trip to both the Warehouse/Business Center and the fuel facility, they only account for one overall vehicle trip to the site and on the surrounding transportation system. Table 4 outlines the percentage of internalized trips (trips frequenting both the Business Center and fuel facility) for each time period at three existing California Costco Business Center locations with fuel facilities.

Table 4. California Costco Business Center with Fuel Facility Internal Trip Characteristics

Site	Weekday Daily	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Hawthorne, CA	14.2%	11.4%	12.6%	17.5%
Hayward, CA	20.5%	16.2%	16.5%	24.5%
Commerce, CA	21.0%	16.0%	17.9%	29.4%
Average	**18.5%**	**14.5%**	**15.7%**	**23.8%**

Source: Kittelson & Associates, Inc., 2023

Shifted Trips

Construction of a fuel facility does not increase the general demand for gasoline within a given geographic area. With construction of the San Marcos Business Center Costco fuel facility, it is expected that a portion of the trips generated by the Project will shift from visiting the previously identified existing local Costco fuel facilities to visit the new location instead because it is closer or more convenient. The number of trips expected to shift from nearby Costco fuel facilities was calculated using proprietary member transaction data provided by Costco. The member transaction data includes:

- Approximate home locations of Costco members who shopped at the four previously identified existing North County Costco Warehouses in the project area during May and June 2023, grouped into 1-square-mile zones.
- Number of visits to the four existing North County Costco Warehouses in May and June 2023 by members in each 1-square-mile zone.
- Market areas of the four existing North County Costco Warehouses and the existing San Marcos Costco Business Center.

Table 5 includes the calculated percent of shifted trips from each of the identified North County Costco sites.

Table 5. San Diego North County Costco Fuel Facility Shifted Trips Characteristics

Site	Percent Shifted	Weekday Daily		Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		Existing Trip Generation	Shifted Trips	Existing Trip Generation	Shifted Trips	Existing Trip Generation	Shifted Trips	Existing Trip Generation	Shifted Trips
Vista, CA	5%	5,207	260	386	19	397	20	467	23
Carmel Mountain, CA	2%	9,284	186	518	10	660	13	704	14
Carlsbad, CA	10%	8,868	887	612	61	594	59	598	60
San Marcos, CA	16%	8,970	1,435	420	67	672	108	820	131
Total Shifted Trips		**-**	**2,768**	**-**	**157**	**-**	**200**	**-**	**228**

Source: Kittelson & Associates, Inc., 2023

The remaining trips generated by the Project are expected to shift from non-Costco gas/service stations in the Project vicinity, as the construction of a fuel facility does not increase the general demand for gasoline within a given geographic area.

Given that the preliminary trip generation estimate is conservatively based on trip generation data collected at the four local North County Costco fuel facilities, the trip generation estimate presented in this memorandum has not been adjusted to take credit for trips that will shift from an existing site to the new

fuel facility. These trips, while already on the network to frequent a different fuel facility, will be considered net new trips at intersections and driveways in the immediate vicinity of the Project.

Pass-by Trips

Pass-by trips represent members (and trips) that are currently traveling on the surrounding street network for some other primary purpose (such as a trip from work to home) and stop into the site enroute during their normal travel. As such, pass-by trips do not result in a net increase in traffic on the surrounding transportation system and their only effect occurs at the immediate intersections and site access driveways where they become turning movements.

Based on studies of customer surveys at existing Costco Gasoline fuel facilities in California, on average 34.3% of trips during the weekday PM and 33.7% during the Saturday midday peak hours can be classified as pass-by trip capture from the surrounding street system. Within the Kittelson Costco database for sites in California there is no daily pass-by trip information and only one data point is available for the weekday AM peak hour pass-by trip characteristic. Therefore, weekday PM peak hour pass-by percentages are applied to the weekday AM peak hour and weekday daily calculations. These averages are lower than the average pass-by rate quoted in the ITE *Trip Generation Manual* for typical gas/service stations (63% AM, 57% PM and 49% Saturday midday) and SANDAG's Trip Generation (50%). This lower pass-by rate is attributable to the unique travel characteristics that result from Costco's membership requirements.

Diverted Trips

Diverted trips are similar to pass-by trips in that they represent members (and trips) that are currently traveling on the surrounding street network for some other primary purpose and stop into the site enroute during their travel. However, as the name indicates, diverted trips divert from the normal roadways they would be traveling on to go to the Costco site.

Based on studies of customer surveys at existing Costco Gasoline fuel facilities in California, on average 40.7% of trips during the weekday PM and 35.7% of the during the Saturday midday peak hours can be classified as diverted trip capture from the surrounding street system. Within the Kittelson Costco database for sites in California there is no daily diverted trip information and only one data point is available for the weekday AM peak hour diverted trip characteristic. Therefore, weekday PM peak hour diverted percentages are applied to the weekday AM peak hour and weekday daily calculations. These averages are higher than the average diverted rate quoted in the ITE *Trip Generation* manual for typical gas/service stations (21% AM and 31% PM) and is attributable to the unique travel characteristics that result from Costco's membership requirements.

San Marcos Business Center Fuel Facility Trip Generation Estimate

The trip characteristics and adjustment factors presented above have been summarized in Table 6. The adjustment factors shown are applied to the estimated Project trip generation in Table 2 which was established based on local North County sites selected in consultation with the City.

Table 6. Trip Characteristics for Costco Fuel Facility Addition

Land Use / Trip Type	Weekday Daily	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Warehouse to Business Center Adjustment	94.9%	115.9%	103.6%	97.6%
Internal Capture	18.5%	14.5%	15.7%	23.8%
Pass-By Trips	34.3%	34.3%	34.3%	33.7%
Diverted Trips	40.7%	40.7%	40.7%	35.7%

Source: Kittelson & Associates, Inc., 2023

Based on the trip generation adjustment factors and trip characteristics outlined above, a trip generation estimate for the San Marcos Costco Business Center fuel facility is summarized in Table 7.

Table 7. San Marcos Costco Business Center Fuel Facility Addition Trip Generation Estimate

Land Use / Trip Type	Weekday Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
		Total	In	Out	Total	In	Out	Total	In	Out
Total Trips – Normalized	11,294	555	277	278	841	420	421	941	471	470
Total Trips – BC Adjustment	**10,718**	**643**	**322**	**321**	**871**	**436**	**435**	**919**	**460**	**459**
Internal Capture	*(1,983)*	*(94)*	*(47)*	*(47)*	*(136)*	*(68)*	*(68)*	*(219)*	*(110)*	*(109)*
Total External Trips – BC	**8,735**	**549**	**275**	**274**	**735**	**368**	**367**	**700**	**350**	**350**
New Trips Previously Visiting Non-Costco Gas/Service Stations	*5,967*	*392*	*196*	*196*	*535*	*268*	*267*	*472*	*236*	*236*
Shifted Trips from Local Costco Fuel Facilities	*2,768*	*157*	*79*	*78*	*200*	*100*	*100*	*228*	*114*	*114*
Total External Trips – BC	**8,735**	**549**	**275**	**274**	**735**	**368**	**367**	**700**	**350**	**350**
Pass-By Trips	*(2,996)*	*(188)*	*(94)*	*(94)*	*(252)*	*(126)*	*(126)*	*(236)*	*(118)*	*(118)*
Diverted Trips	*(3,555)*	*(224)*	*(112)*	*(112)*	*(300)*	*(150)*	*(150)*	*(250)*	*(125)*	*(125)*
Net New Trips	**2,184**	**137**	**69**	**68**	**183**	**92**	**91**	**214**	**107**	**107**

BC = Business Center
Source: Kittelson & Associates, Inc., 2023

As shown in Table 7, the San Marcos Costco Business Center fuel facility is estimated to generate 2,184 weekday daily net new trip ends. Of these, 137 are estimated to occur in the weekday AM peak hour (69 inbound / 68 outbound), 183 are estimated to occur in the weekday PM peak hour (92 inbound / 91 outbound). Additionally, the fuel facility addition is estimated to generate 214 net new trip ends during the Saturday midday peak hour (107 inbound / 107 outbound).

TRIP DISTRIBUTION & ASSIGNMENT

The Project is located within the northern parking area of the existing Costco Business Center in San Marcos at the northwest corner of the W San Marcos Boulevard / S Bent Avenue intersection. The San Marcos Costco Business Center has an existing market area in the greater San Diego North County area, which the fuel facility will serve as an ancillary use. Market study data provided by Costco Wholesale for the existing Business Center was reviewed to develop a trip distribution estimate for fuel facility trips. Additionally, the

project team reviewed site driveway locations and the surrounding land uses in the San Marcos area to identify trip distribution patterns. Preliminary trip distribution and assignment figures are provided in Attachment A.

Trip Distribution

A preliminary trip distribution for each trip type was prepared based upon existing traffic volume patterns in the Project vicinity and a market study conducted by Costco.

Pass-by trips to the site occur on Grand Avenue and W San Marcos Boulevard. While treated as new trips at the site accesses, pass-by trips do not result in additional trips to the overall network or have the same environmental impacts compared to new trips to the system since these trips are already present on the adjacent arterial streets. Historical counts along Grand Avenue and W San Marcos Boulevard were used to determine the following peak hour directional distribution of pass-by trips (Saturday midday distribution is assumed to be an even split).

Grand Avenue:

- 10% eastbound and 10% westbound during the weekday AM peak hour
- 15% eastbound and 5% westbound during the weekday PM peak hour
- 10% eastbound and 10% westbound during the Saturday midday peak hour

W San Marcos Boulevard:

- 34% eastbound and 46% westbound during the weekday AM peak hour
- 44% eastbound and 36% westbound during the weekday PM peak hour
- 40% eastbound and 40% westbound during the Saturday midday peak hour

Diverted trips to the site originate from State Route 78 (SR-78). While treated as new trips between the interchange ramps and site access points, diverted trips result in fewer system capacity and environmental impacts as compared to new trips to the system because these trips generally have no impact once traced back onto the system they divert from. In this scenario, trips exiting from their respective interchange will return onto the system through the interchange that is further downstream. For example, a trip heading eastbound on SR-78 will exit at the intersection of Via Vera Cruz and Grand Avenue and reenter the interchange from W San Marcos Boulevard. Caltrans produces a Peak Hour Report (Reference 1) where data from control stations 985 and 986 on milepost 10.606 was utilized for the following peak hour directional distribution for diverted trips (Saturday midday distribution is assumed to be an even split):

- 50% eastbound and 50% westbound during the weekday AM peak hour
- 45% eastbound and 55% westbound during the weekday PM peak hour
- 50% eastbound and 50% westbound during the Saturday midday peak hour

Primary trip distribution to the site is based on a market study prepared by Costco, a review of driveway counts for the existing Costco Business Center, and an analysis of established gas/service stations in the surrounding area. The driveway counts can be found in Attachment B. Based on this assessment: primary site trips were distributed to the study intersections accordingly:

- 20% to/from Grand Avenue, west of S Las Posas Road
- 15% to/from SR-78, west of S Las Posas Road
- 10% to/from Las Posas Road, north of SR-78
- 2% to/from Linda Vista Drive, west of S Las Posas Road

- 22% to/from W San Marcos Boulevard, west of S Las Posas Road
- 3% to/from Discovery Street, south of W San Marcos Boulevard
- 3% to/from Via Vera Cruz, south of W San Marcos Boulevard
- 5% to/from S Bent Avenue, south of W San Marcos Boulevard
- 5% to/from SR-78, east of W San Marcos Boulevard
- 15% to/from W San Marcos Boulevard, east of SR-78

Trip Assignment

Pass-by, diverted, and primary site trips were assigned to the study area according to the distribution assumptions outlined above, as shown in Attachment A.

Conservatively, all external trips associated with the Costco fuel facility addition are assigned to the northernmost Costco driveway. Some internally captured trips may be reassigned in the LTA from the southern driveways to the northernmost driveway to reflect a shift in travel patterns to get gas before visiting the Business Center.

STUDY METHODOLOGY

The following sections outline the proposed analysis methodology associated with conducting a local transportation analysis (LTA) for the Costco Business Center fuel facility addition.

Study Intersections

The following study intersections are proposed based on the preliminary trip distribution. Per the direction of City staff, study intersections include all intersections expected to receive 50 or more AM or PM peak hour vehicle trips associated with the Project.

1. S Las Posas Road/SR-78 westbound ramps
2. S Las Posas Road/Grand Avenue
3. Grand Avenue/Via Vera Cruz
4. Grand Avenue/Linda Vista Drive
5. Grand Avenue/S Bent Avenue

A. S Bent Avenue/Northern Costco Driveway
B. S Bent Avenue/Industrial Driveway
C. S Bent Avenue/Middle Costco Driveway
D. S Bent Avenue/Southern Costco Driveway

6. W San Marcos Boulevard/Via Vera Cruz
7. W San Marcos Boulevard/S Bent Avenue
8. W San Marcos Boulevard/Grand Avenue
9. W San Marcos Boulevard/SR-78 eastbound ramps
10. W San Marcos Boulevard/Knoll Road

The roadway segments that will be analyzed include:

1. S Las Posas Road, between SR-78 westbound ramps and Grand Avenue
2. Grand Avenue, between S Las Posas Road and Via Vera Cruz
3. Grand Avenue, between Via Vera Cruz and Linda Vista Dr

4. Grand Avenue, between Linda Vista Dr and S Bent Avenue
5. Grand Avenue, between S Bent Avenue and W San Marcos Boulevard
6. S Bent Avenue, between Grand Avenue W San Marcos Boulevard
7. W San Marcos Boulevard, between Via Vera Cruz and S Bent Avenue
8. W San Marcos Boulevard, between S Bent Avenue and Grand Avenue
9. W San Marcos Boulevard, between Grand Avenue and SR-78 eastbound ramps
11. W San Marcos Boulevard, between SR-78 eastbound ramps and Knoll Road

Analysis Periods

In order to assess the impact of the Project, intersection operations will be analyzed for the highest hour of traffic at each study intersection during the following time periods:

- Weekday AM peak period of Adjacent Street Traffic (7:00 AM – 9:00 AM)
- Weekday PM peak period of Adjacent Street Traffic (4:00 PM – 6:00 PM)
- Saturday midday peak period of Adjacent Street Traffic (11:00 AM – 2:00 PM)

The City of San Marcos Transportation Impact Analysis (TIA) Guidelines (Reference 2) require an analysis of the weekday AM and PM peak hour. Based on typical Costco operations, in addition to those two study periods, a weekend midday peak hour will also be included because Costco Warehouses typically experience comparably high customer volumes during weekend peak.

Between Saturday and Sunday, typically Costco Business Center fuel facilities in California experience approximately 62% more traffic on Saturdays when compared to Sundays. Additionally, based on tube counts collected at the frontage of the existing San Marcos Costco Business Center along Bent Avenue, traffic volumes observed are lower on Sundays when compared to Saturdays. For these reasons, the Saturday midday peak hour will be the included weekend peak hour in the analysis. Attachment B includes the existing tube counts along Bent Avenue.

Analysis Scenarios

In accordance with the City of San Marcos TIA guidelines, the LTA report will consider and analyze the following scenarios:

- 2023 Existing Traffic Conditions
- Costco Business Center fuel facility addition 2025 background traffic conditions (includes in-process developments but no site development traffic)
- Costco Business Center fuel facility addition Build-Out-Year 2025 (includes Costco site-generated trips)
- Horizon Year 2050 Conditions (includes regional growth and in-process developments but no site development traffic)
- Horizon Year 2050 Conditions with project (includes Costco site-generated trips)

Kittelson requests that the City of San Marcos provide the details of all approved in-process developments impacting the study intersections.

Horizon Year 2050 traffic volumes will be forecast using output from the SANDAG travel demand model. Similar growth will be assumed for study intersections not included in the model.

Traffic Analysis Methodology

All intersection capacity analyses will be performed in accordance with the procedures stated in the *Highway Capacity Manual, 6th Edition* (HCM, Reference 3), using Synchro 11 software. Queuing analyses will reflect the 95th percentile queues in the Synchro HCM reports. A queuing analysis will be conducted at the site driveways and at off-site study intersections.

Kittelson requests that the City of San Marcos provide the current signal timing and phasing information for all signalized study intersections.

Segment capacity analysis will be performed by comparing the estimated average daily traffic (ADT) of each segment to the daily volume capacity outlined in Table 3 of the City of San Marcos TIA Guidelines.

At the site driveways, turn lane needs will be assessed using the guidance of the National Cooperative Highway Research Program (NCHRP) Report 457 *Engineering Study Guide for Evaluating Intersection Improvements* (Reference 4).

Agency Performance Standards

According to Policy M-1.4, per the City of San Marcos General Plan Mobility Element (Reference 5), there is an operating standard of a level of service (LOS) D or better for intersections and roadway segments where vehicles are considered a prioritized mode. The City of San Marcos allows for flexible LOS where warranted, primarily within the Urban Core of San Marcos and neighborhood streets. Per Table 3.4 of the City of San Marcos General Plan Mobility Element, San Marcos Boulevard, from Discovery to Grand, along with collectors and neighborhood streets are allowed to have an LOS of E or better.

If an LOS below a street's standard is found to exist during any of the analysis scenarios, potential modifications will be identified to bring the intersection operations up to standard. If an intersection is found to already be below an acceptable LOS, Kittelson will identify if the average delay per vehicle is increased. If a roadway segment is found to already be below an acceptable LOS, Kittelson will identify if the V/C ratio for the roadway segment is increased by more than 0.02.

Other Analysis Requirements

In addition to the analyses outlined above, Kittelson will also perform an analysis of the Project's on-site circulation paths for passenger vehicles and delivery trucks. The sight distance for all three site driveways will also be evaluated.

QUEUING ESTIMATE

Similar to the trip generation estimate, anticipated queues at the San Marcos Business Center fuel facility were estimated based on new and historical data collected at surrounding local Costco fuel facilities in San Diego North County. Measured queues include vehicles stopped behind the fuel pumps as well as vehicles approaching the end of the queue at slow speeds. Table 8 provides a summary of the maximum and 95th percentile queues at each North County site. Maximum queues represent the longest queue length recorded during the peak hour, and 95th percentile queues represent a queue length in number of vehicles that has a five percent likelihood of being exceeded during the peak hour.

Table 8. San Diego North County Costco Fuel Facility Queues

Site	Fueling Positions	Data Collection	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
			Max	95th	Max	95th	Max	95th
Vista, CA	16	March 2019	21	19	39	38	40	36
Carmel Mountain, CA	22	June 2023	5	2	44	39	42	38
Carlsbad, CA	22	March 2022	26	22	53	47	43	38
San Marcos, CA	24	June 2023	5	1	10	8	39	34

Source: Kittelson & Associates, Inc., 2023

These North County sites have 16-24 fueling positions, whereas the Project will have 30 positions. Therefore, an adjustment factor for each time period was calculated and applied to the queues of the North County sites shown in Table 8 to reflect the expected queuing of a 30-position Costco fuel facility in North County. Table 9 presents the adjustment factors and corresponding adjusted queue estimates for each local site and summarizes the average adjusted queue estimate for the Project. The adjustment factors presented in Table 9 were calculated by dividing the average queues for Costco fuel facilities with 30-32 fueling positions by the average queues for Costco fuel facilities with 16 and 22-24 fueling positions (based on data collected at other Costco Warehouse fuel facilities in California).

Table 9. San Diego North County Costco Fuel Facility Queues – Adjusted to 30 Fueling Positions

Site	Fueling Positions	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		Max	95th	Max	95th	Max	95th
Adjustment Factor (16 FP – 30/32 FP)		*0.20*	*0.10*	*0.56*	*0.53*	*0.81*	*0.79*
Vista, CA	16	4	2	22	20	32	29
Adjustment Factor (22/24 FP – 30/32 FP)		*0.36*	*0.24*	*0.77*	*0.76*	*0.90*	*0.89*
Carmel Mountain, CA	22	2	0	34	30	38	34
Carlsbad, CA	22	9	5	41	36	39	34
San Marcos, CA	24	2	0	8	6	35	30
	Average	**4**	**2**	**26**	**23**	**36**	**32**

Source: Kittelson & Associates, Inc., 2023

Table 10 compares the average maximum and 95th percentile queues for fuel facilities at Costco Business Centers in California with the average maximum and 95th percentile queues for fuel facilities at standard Costco Warehouses in California (with the same number fueling positions) based on the data available in the trip generation database.

Table 10. California Costco Business Center & Warehouse Fuel Facility Queue Comparison

Site Type	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
	Max	95th	Max	95th	Max	95th
Business Center Average Queue	19	13	19	14	54	47
Warehouse Average Queue	9	7	28	26	35	32
% Difference WH to BC	**108.9%**	**86.6%**	**-33.0%**	**-45.1%**	**53.8%**	**48.3%**

Source: Kittelson & Associates, Inc., 2023
Note: There are currently no existing Costco Business Center fuel facilities with more than 24 fueling positions (the Project will have 30 fueling positions). Data summarized in the table reflects Costco Business Center and Costco Warehouse locations in California with 16-24 fueling positions.

Comparing the queue data collected for Costco Warehouse fuel facilities and Costco Business Center fuel facilities in California, the fuel facilities at Business Centers generate 108.9% and 86.6% more vehicles in the maximum and 95th percentile queues, respectively, during the weekday AM peak hour. The Costco Business Centers generate 33.0% and 45.1% fewer vehicles in the maximum and 95th percentile queues, respectively, during the weekday PM peak hour. During the Saturday midday peak hour, Costco Business Centers generate approximately 53.8% and 48.3% more vehicles in the maximum and 95th percentile queues, respectively.

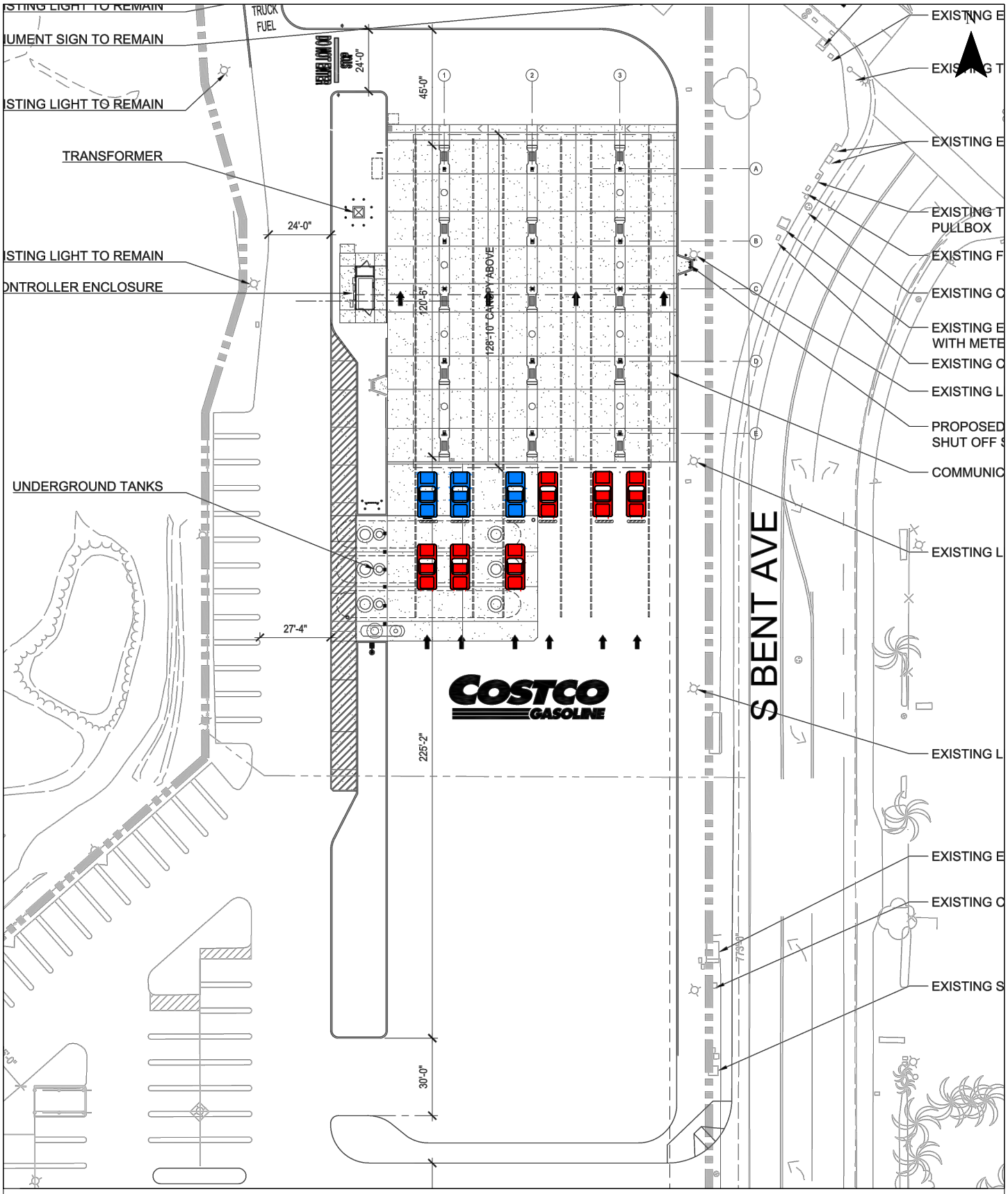
A corresponding adjustment was applied to the expected maximum and 95th percentile queue estimates in Table 9 to reflect the ancillary use being to a Costco Business Center, rather than a standard Costco Warehouse. Table 11 presents the estimated queues for the Project.

Table 11. San Marcos Costco Business Center Fuel Facility Addition Queue Estimate

Site Type	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
	Max	95th	Max	95th	Max	95th
Business Center Average Queue	9	3	18	13	55	47

Source: Kittelson & Associates, Inc., 2023

Figure 2 – Figure 4 provide a visual representation of these identified queue lengths within the provided queue storage available behind the first row of dispensers. As shown, the fuel facility queue is expected to be contained within the available storage for the fuel facility for the weekday AM, weekday PM, and Saturday midday peak hours.



- 95th Percentile Queue (3 Vehicles Anticipated)

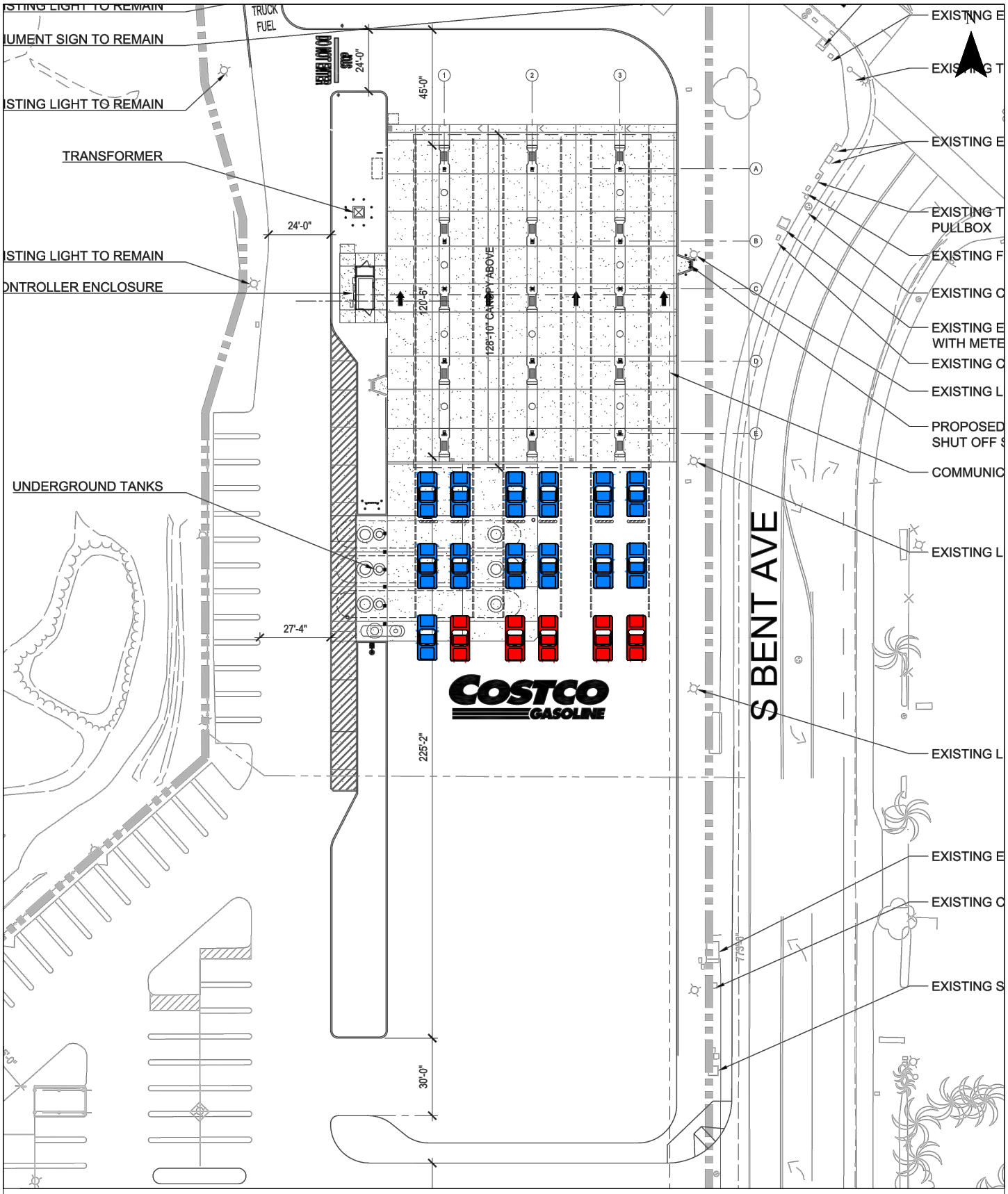
- Maximum Queue (9 Vehicles Anticipated)

Queuing AM Peak Hour
San Marcos, CA

Figure
2

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Queuing AM



- 95th Percentile Queue (13 Vehicles Anticipated)

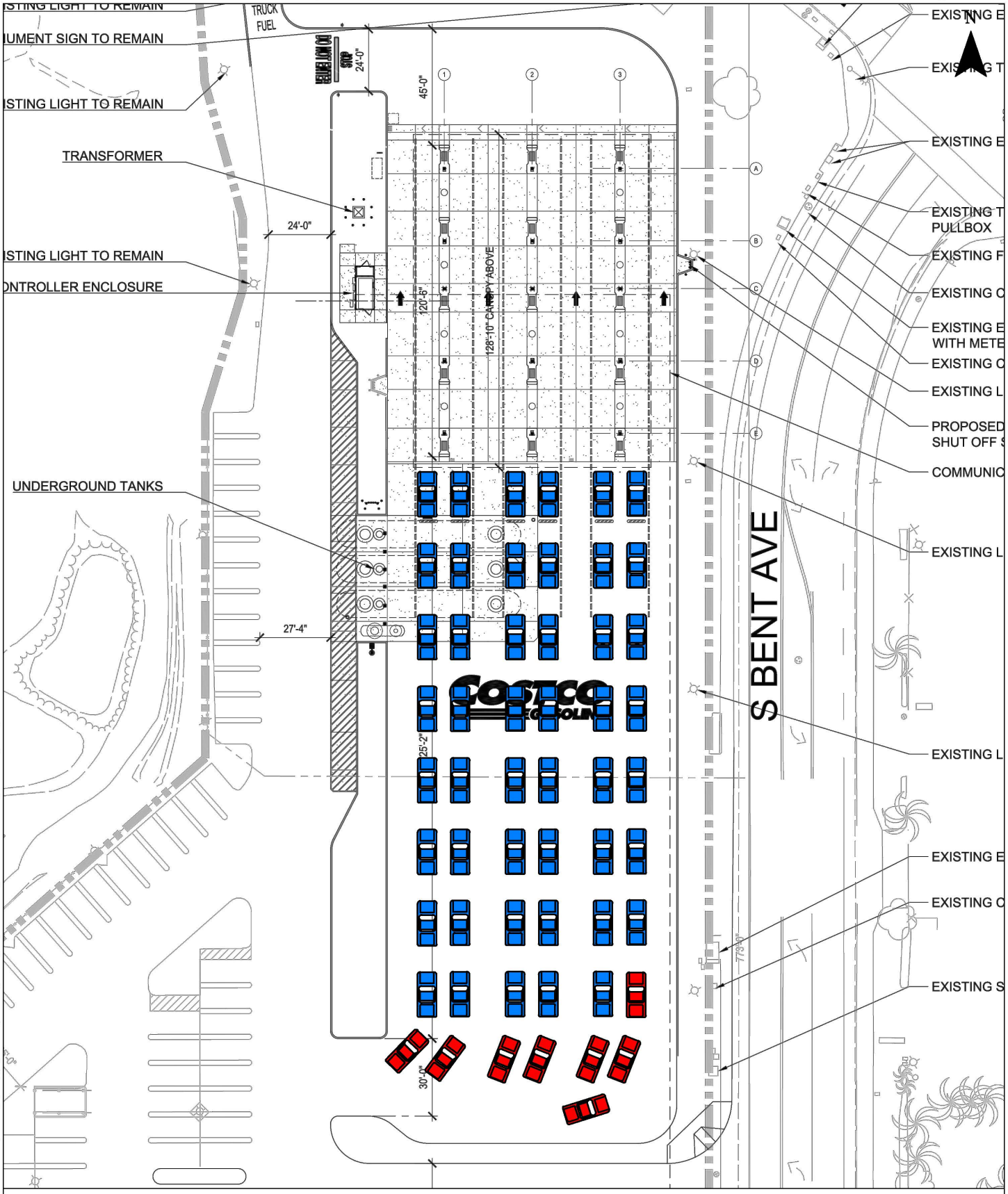
- Maximum Queue (18 Vehicles Anticipated)

Queuing PM Peak Hour
San Marcos, CA

Figure
3

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Queuing PM



- 95th Percentile Queue (47 Vehicles Anticipated)

- Maximum Queue (55 Vehicles Anticipated)

Queuing Sat Peak Hour
San Marcos, CA

Figure
4

H:\27\27900 - San Marco Costco Fuel Expansion\report\figs\27900 Figures.dwg Aug 28, 2023 - 5:53pm - rhoffman Layout Tab: Queuing Sat

KITTELSON & ASSOCIATES

VMT ANALYSIS SCREENING

Traffic operations are typically evaluated based on two key performance measures: level of service (LOS) and queuing. Additionally, the California Environmental Quality Act (CEQA) standards for evaluating traffic impact were updated with the adoption of SB 743, which requires lead agencies in California to evaluate development projects for Vehicles Miles Traveled (VMT). In November 2020, the City of San Marcos updated their TIA Guidelines for VMT and LOS Assessment, which includes methodologies and criteria to evaluate land use and transportation projects.

The guidelines indicate a VMT assessment shall be required for proposed projects that do not satisfy at least one of the identified project screening criteria. As identified by the Local-Serving Retail and Public Facilities screening criteria, the fuel facility addition to the existing San Marcos Costco Business Center qualifies as a retail use. The Project includes an approximately 15,000 square-foot canopy, which is less than the City's threshold of 50,000 square feet for new projects and would serve a membership base that is already residing and/or traveling within the community. As a result, the Project meets the criteria for a local-serving retail and is presumed to have a less-than-significant impact for VMT, not requiring further VMT analysis.

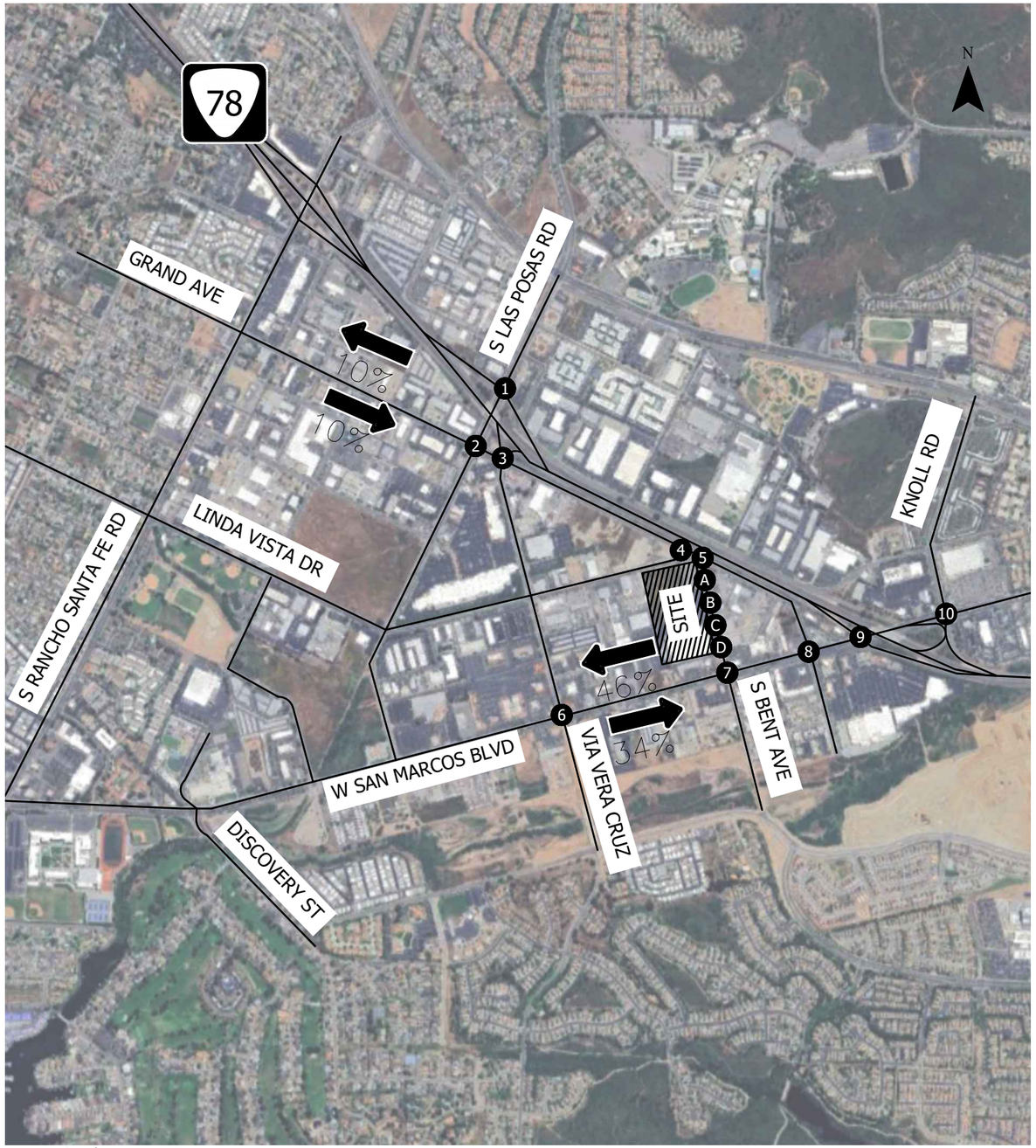
NEXT STEPS

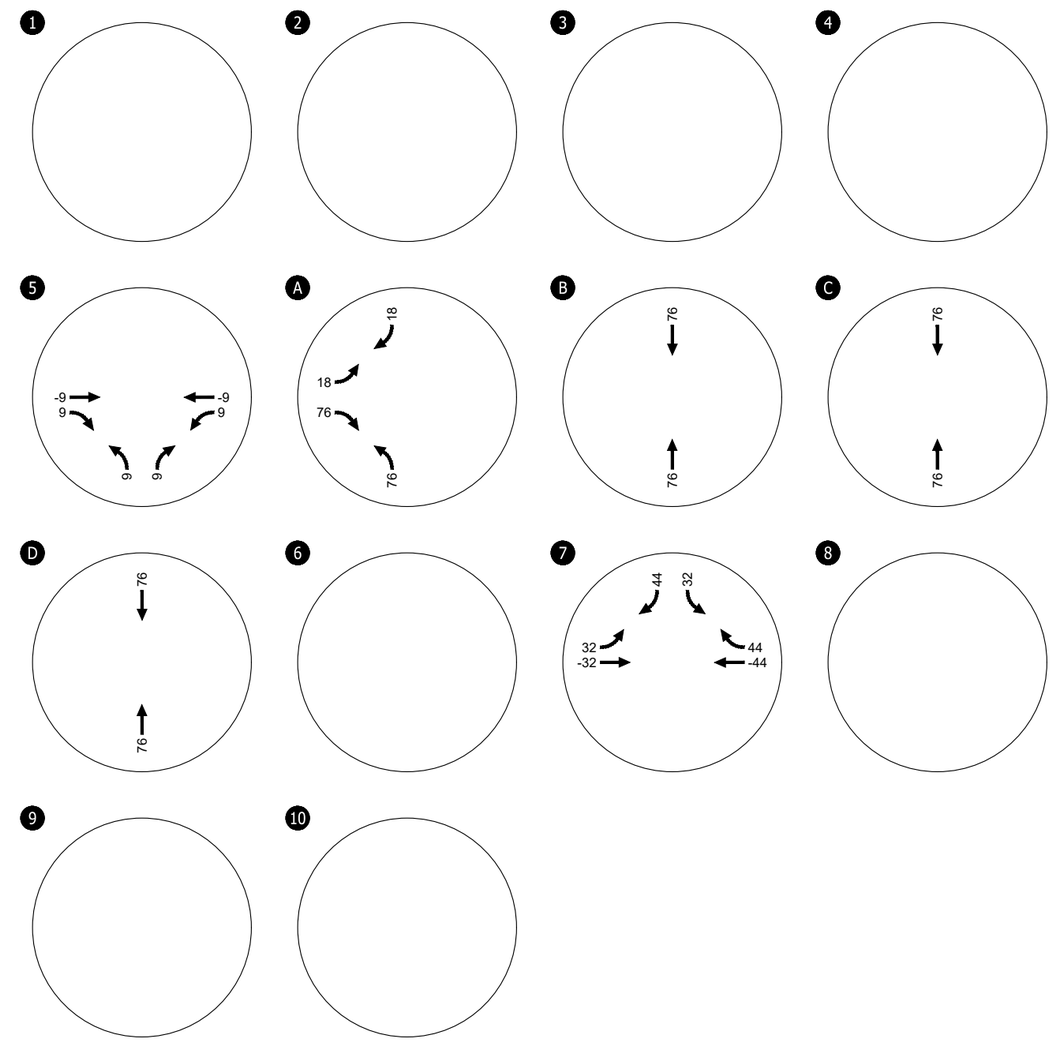
Based on the information provided in this memorandum, we respectfully request the City of San Marcos confirm the preliminary trip generation and distribution, study intersections, analysis periods and scenarios, queuing analysis methodology, and VMT analysis screening results for the Costco Business Center fuel facility addition. We request confirmation of the assumptions described in this memorandum by September 1, 2023. Please contact us at 503-535-7448 or kconnolly@kittelson.com if you have questions and/or want to discuss this information.

REFERENCES

1) California Department of Transportation. *2021 California Peak Hours*.
2) City of San Marcos. *Traffic Impact Analysis Guidelines.* 2020.
3) Transportation Research Board. *Highway Capacity Manual 6th Edition*. 2016.
4) Bonneson, James A. & Fontaine, Michael D. *NCHRP Report 457: Engineering Study Guide for Evaluating Intersection Improvements*. Transportation Research Board, National Research Council, Washington, D.C., 2001.
5) City of San Marcos. *General Plan: Mobility Element*. February 2012.

Attachment A
Preliminary Trip Distribution & Trip Assignment Figures





Study Intersections

Trip Distribution

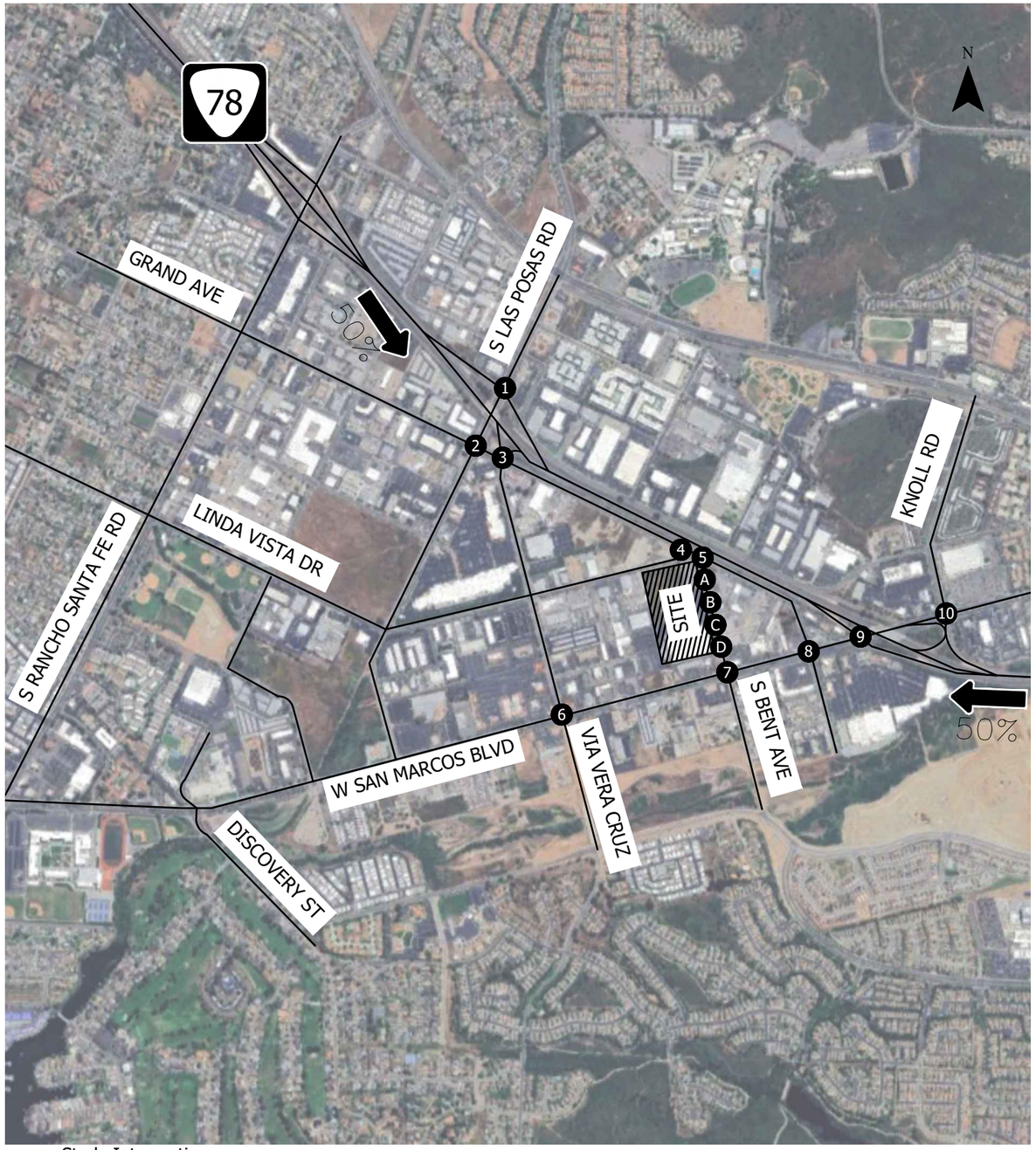
X%

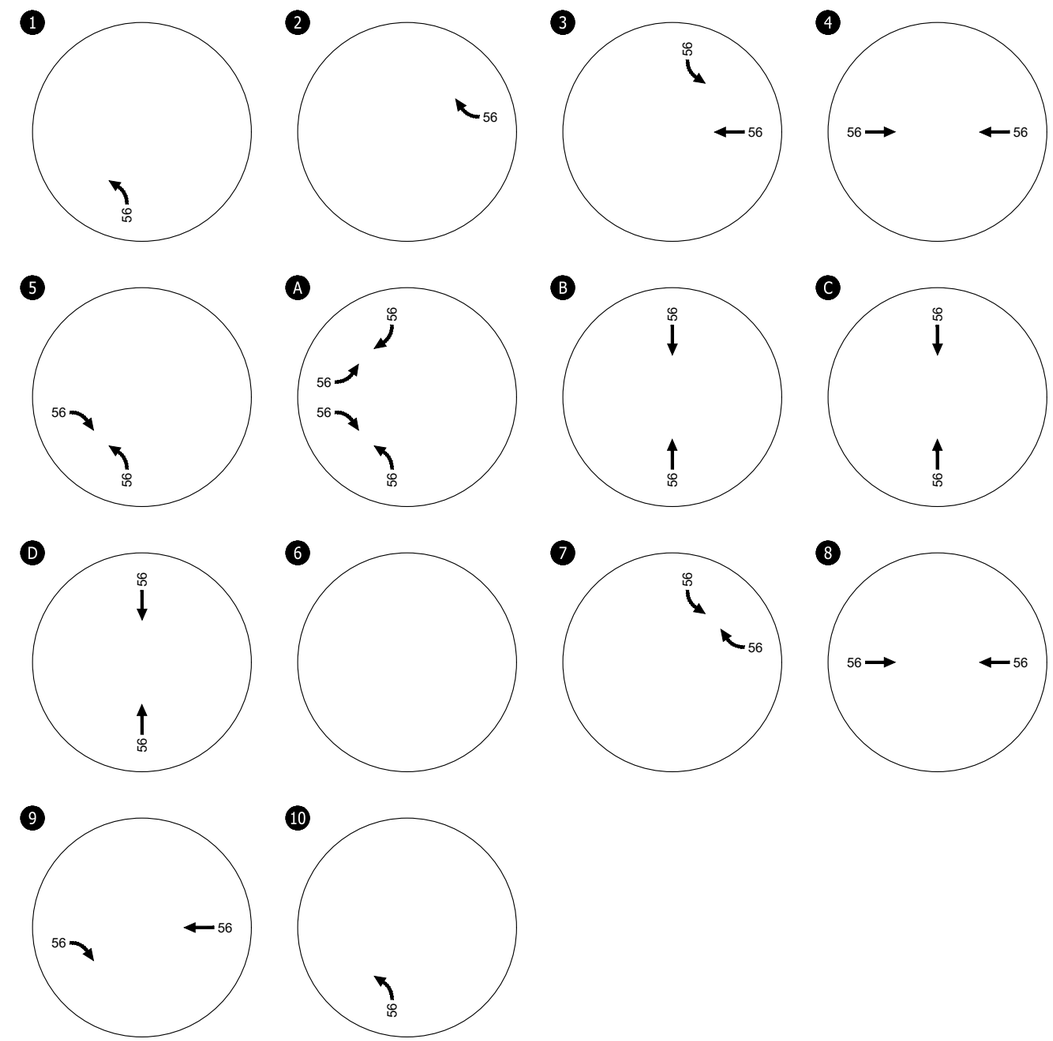
San Marcos Costco Business Center Fuel Facility Addition
Weekday AM Peak Hour Pass-By Trips
San Marcos, CA

Figure
A-1

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Weekday AM Pass By





Study Intersections

Trip Distribution

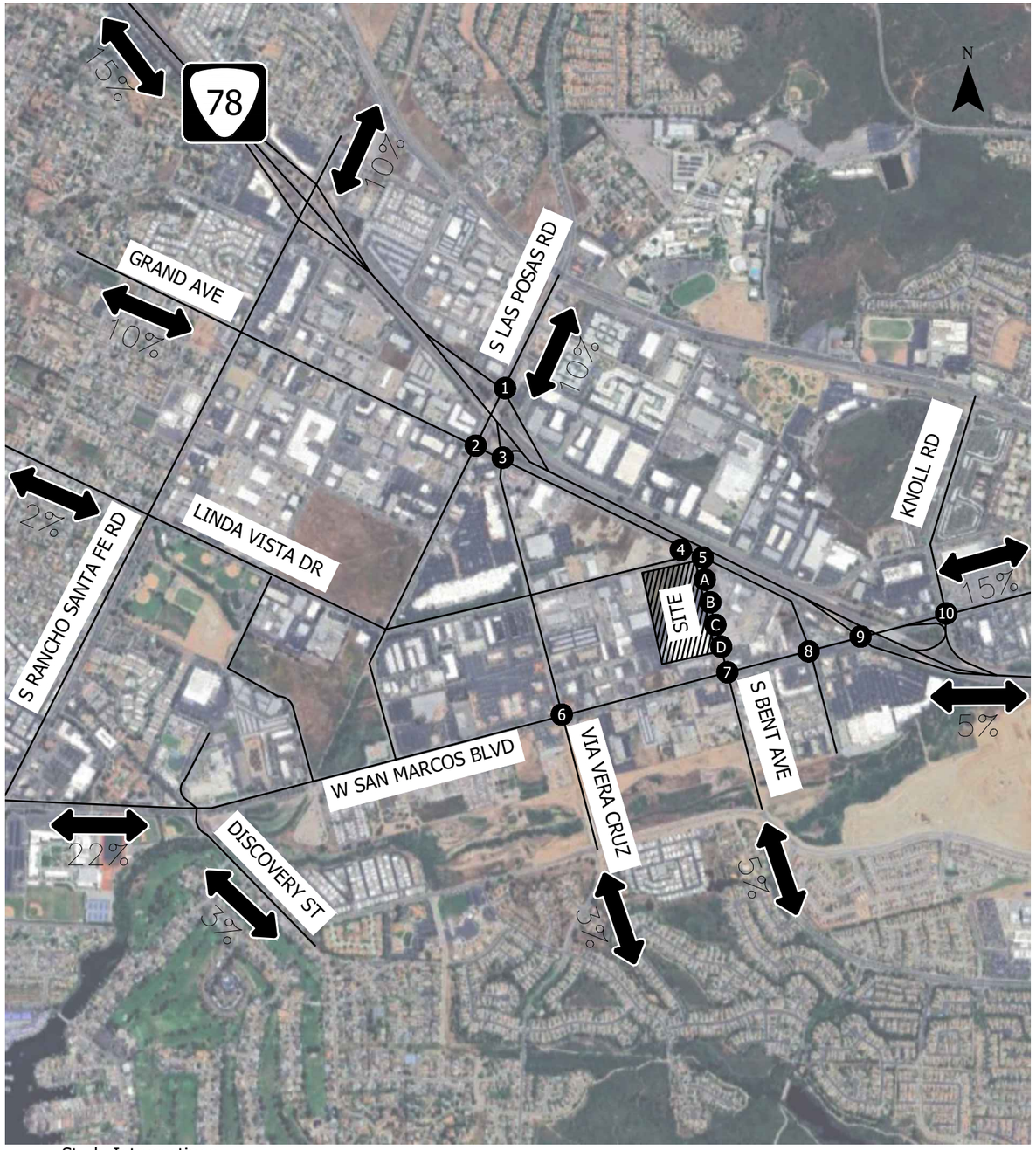
X%

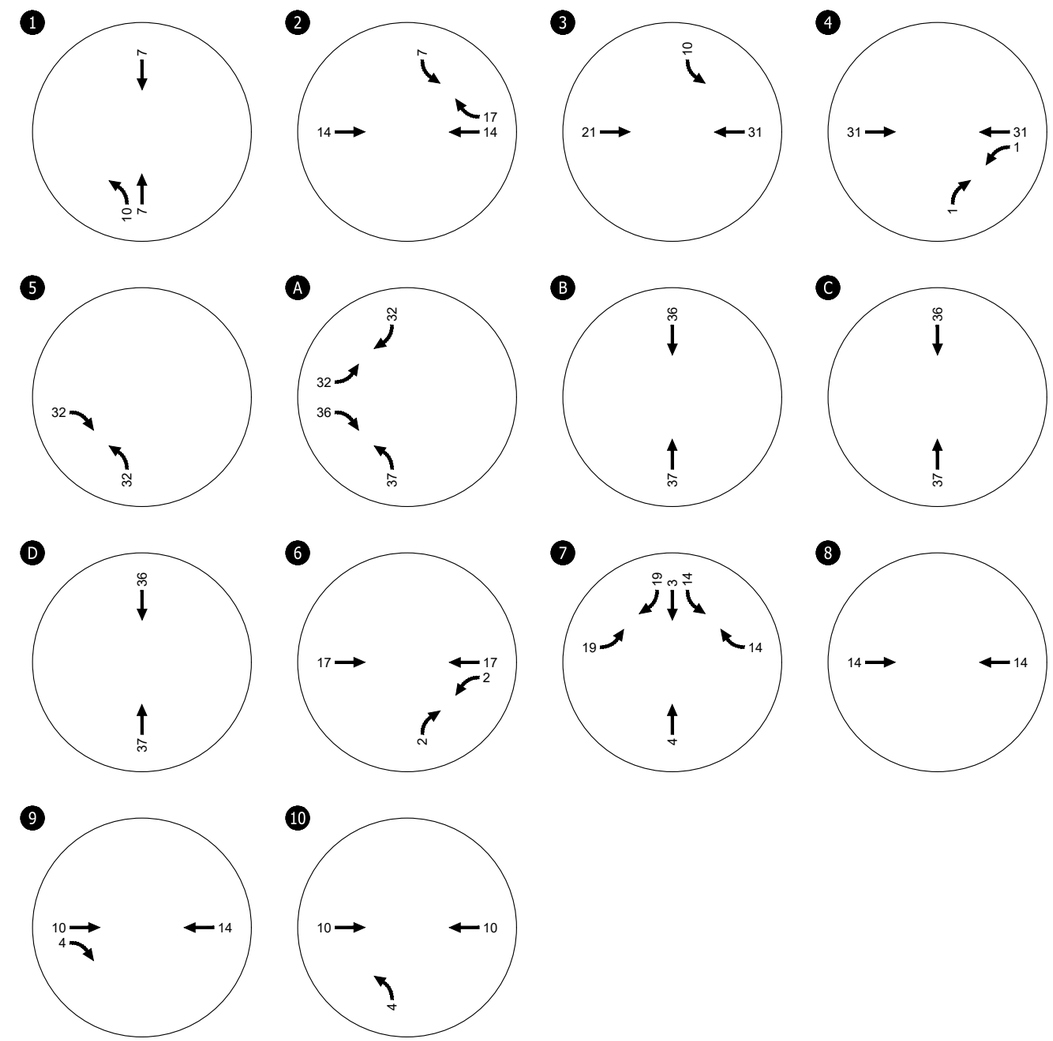
San Marcos Costco Business Center Fuel Facility Addition
Weekday AM Peak Hour Diverted Trips
San Marcos, CA

Figure
A-2

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Weekday AM Diverted





Study Intersections

Trip Distribution

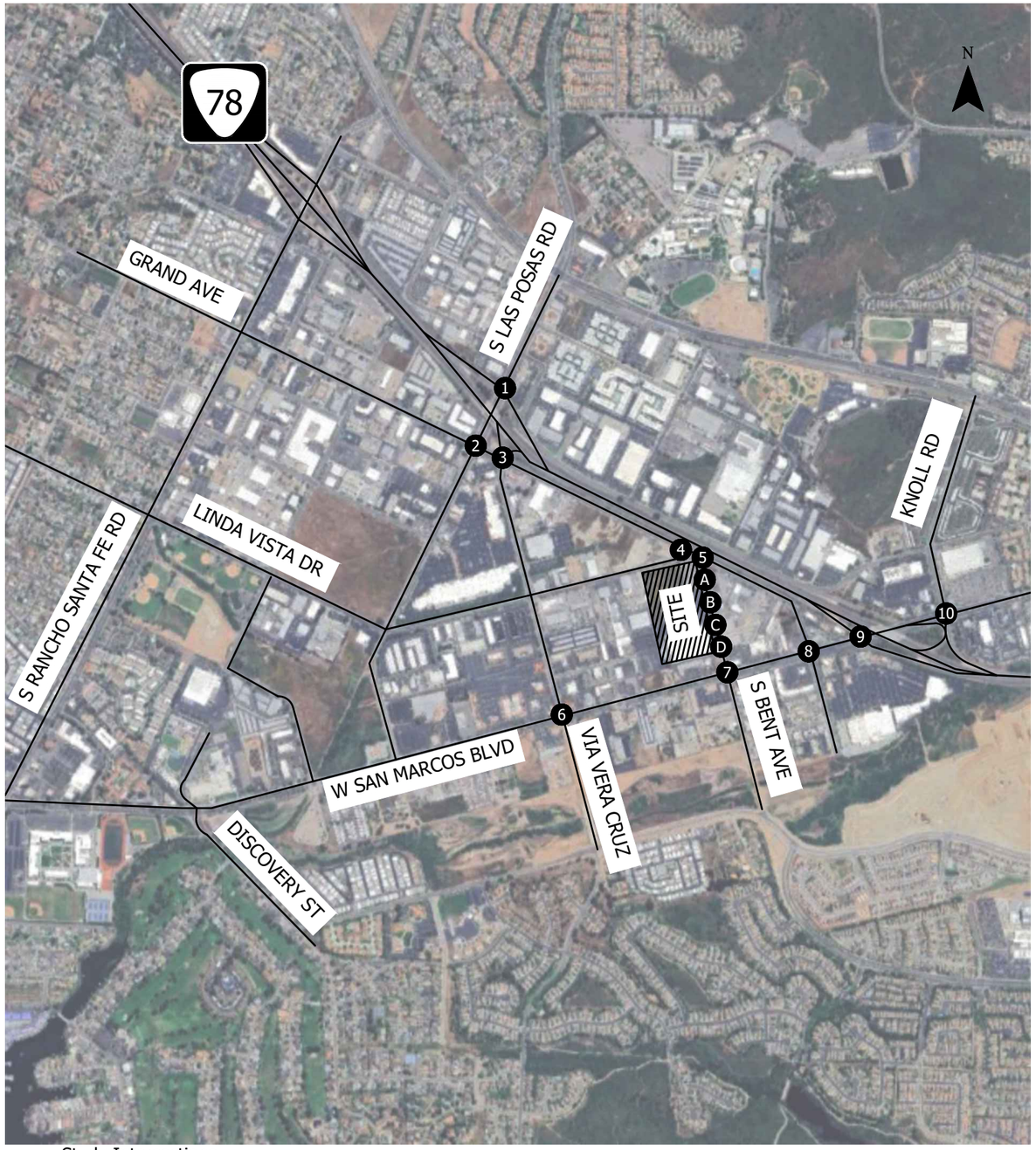
X%

San Marcos Costco Business Center Fuel Facility Addition
Weekday AM Peak Hour Primary Trips
San Marcos, CA

Figure
A-3

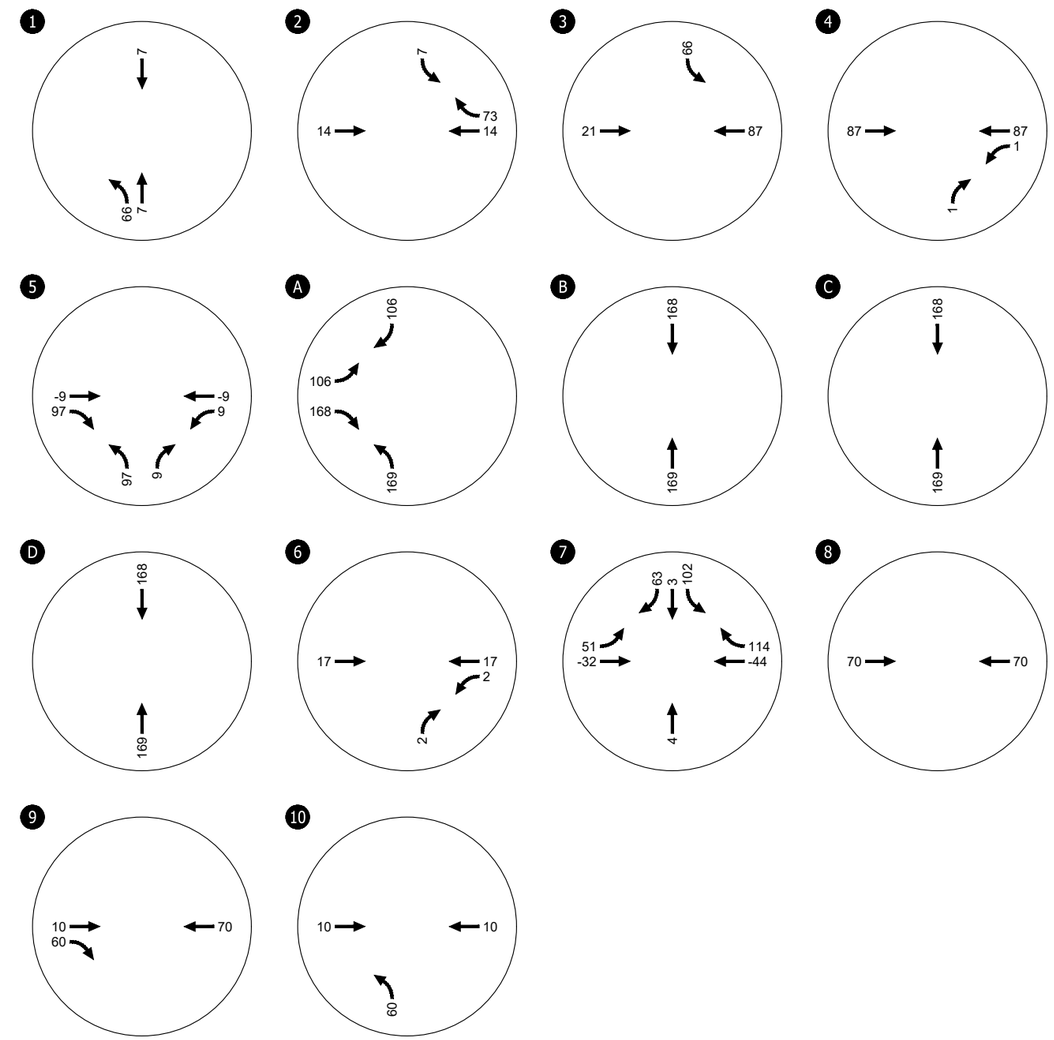
KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Weekday AM Primary



Study Intersections

##

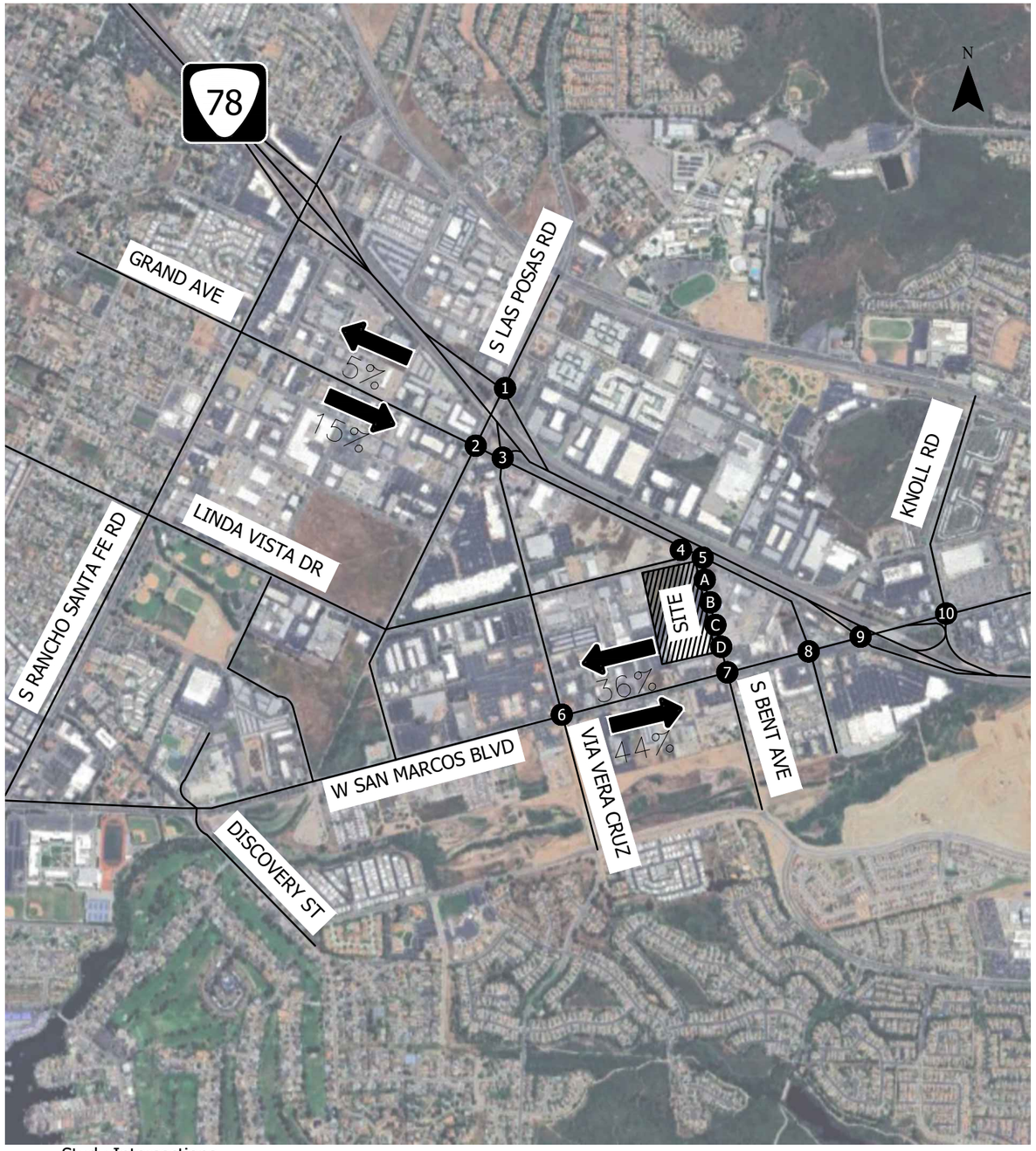


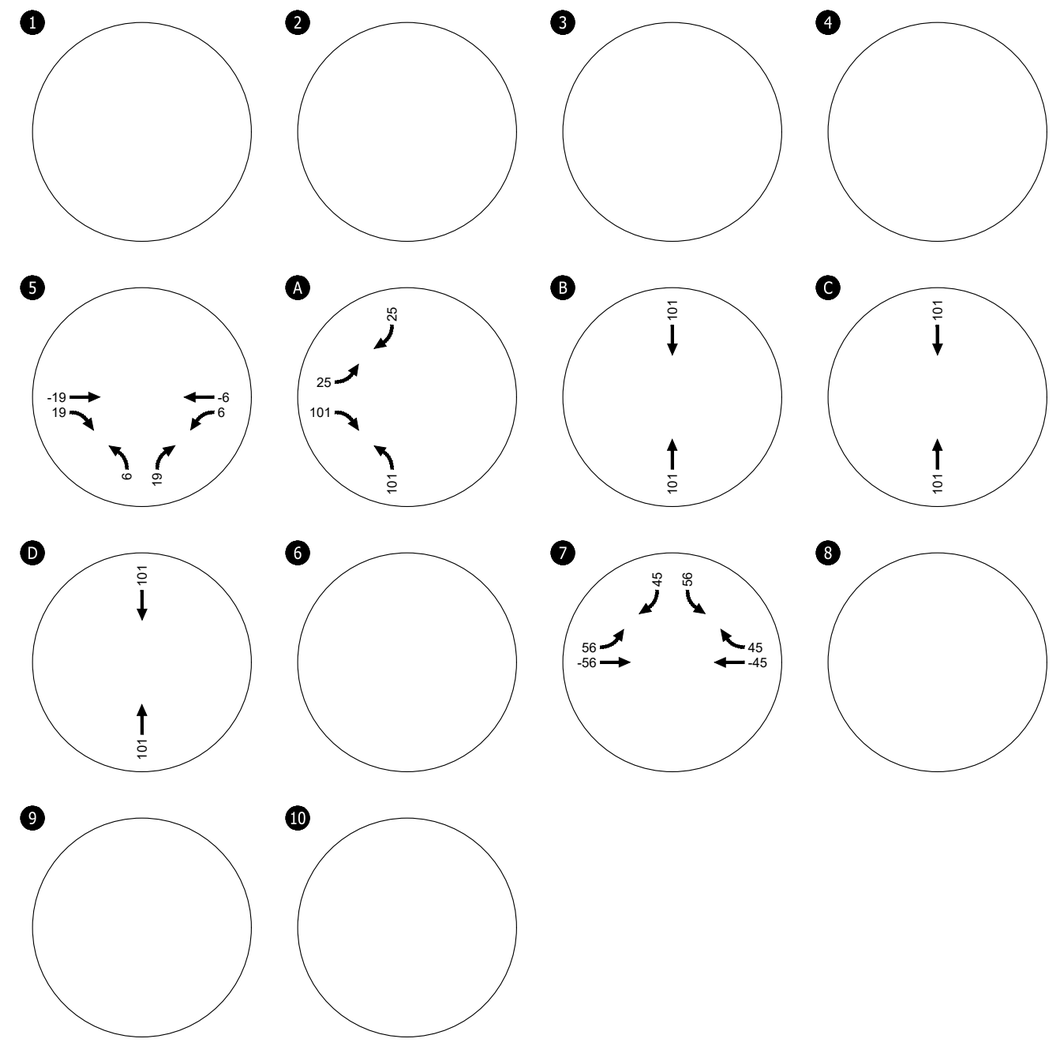
San Marcos Costco Business Center Fuel Facility Addition
Weekday AM Peak Hour Total Trips
San Marcos, CA

Figure
A-4

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Weekday AM Total





Study Intersections

Trip Distribution

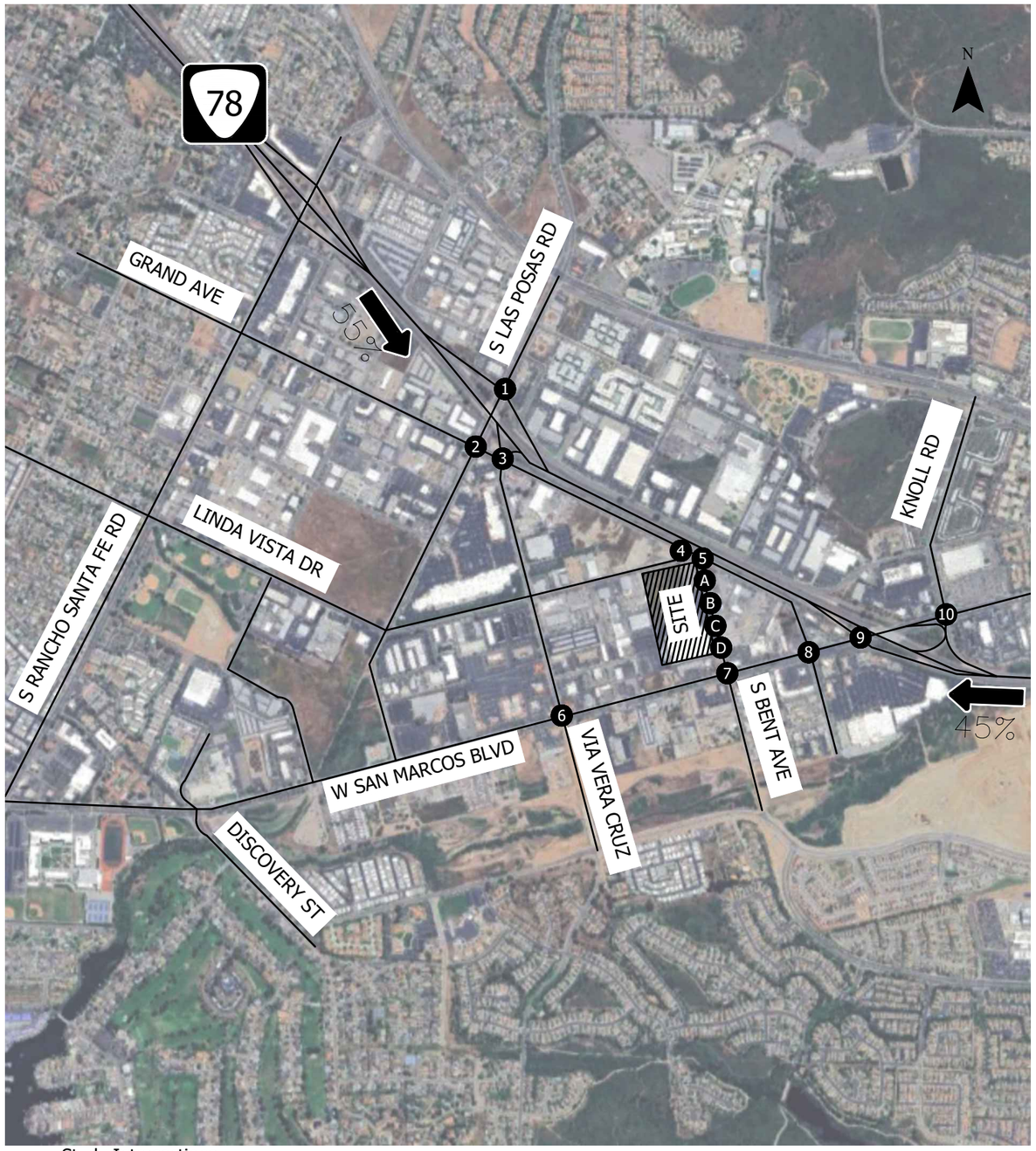
X%

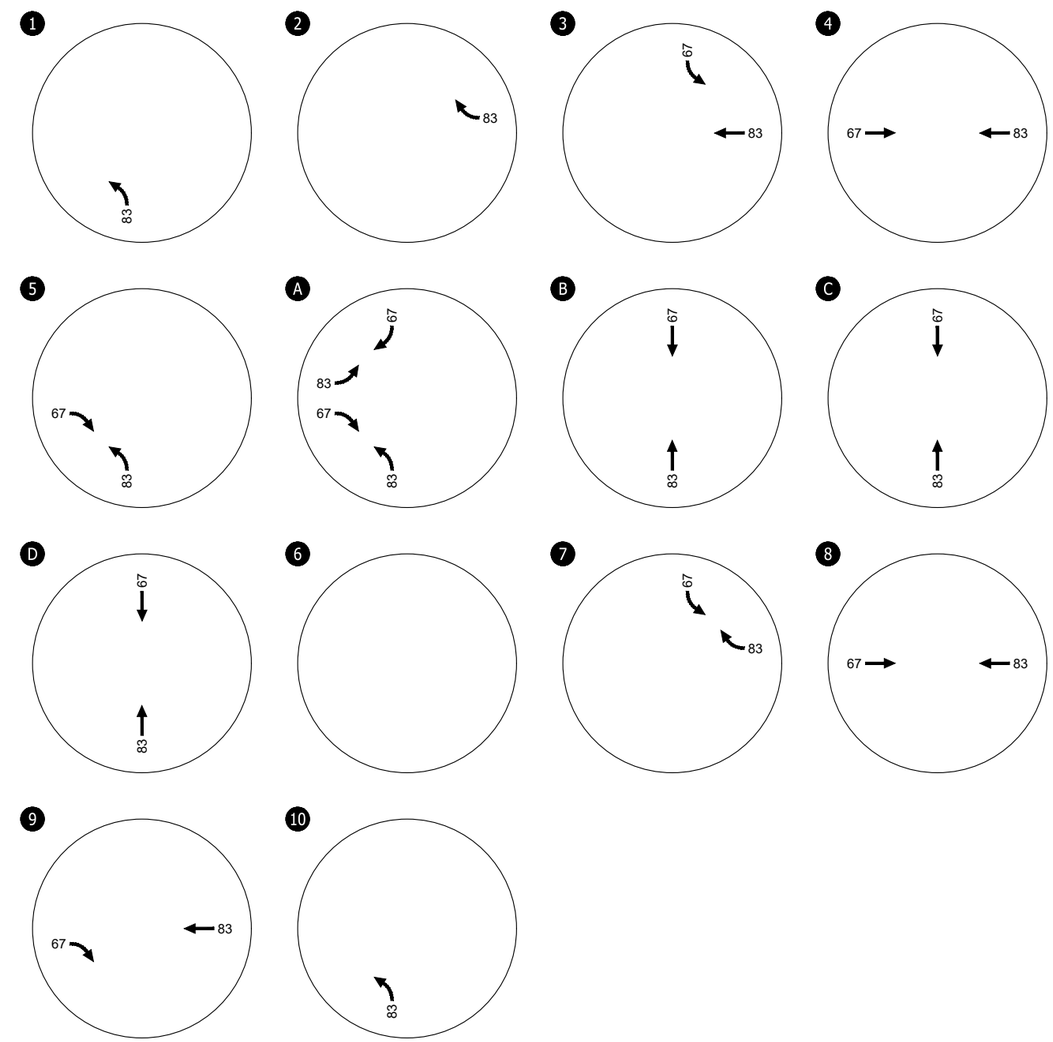
San Marcos Costco Business Center Fuel Facility Addition
Weekday PM Peak Hour Pass-By Trips
San Marcos, CA

Figure
A-5

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Weekday PM Pass By





Study Intersections

Trip Distribution

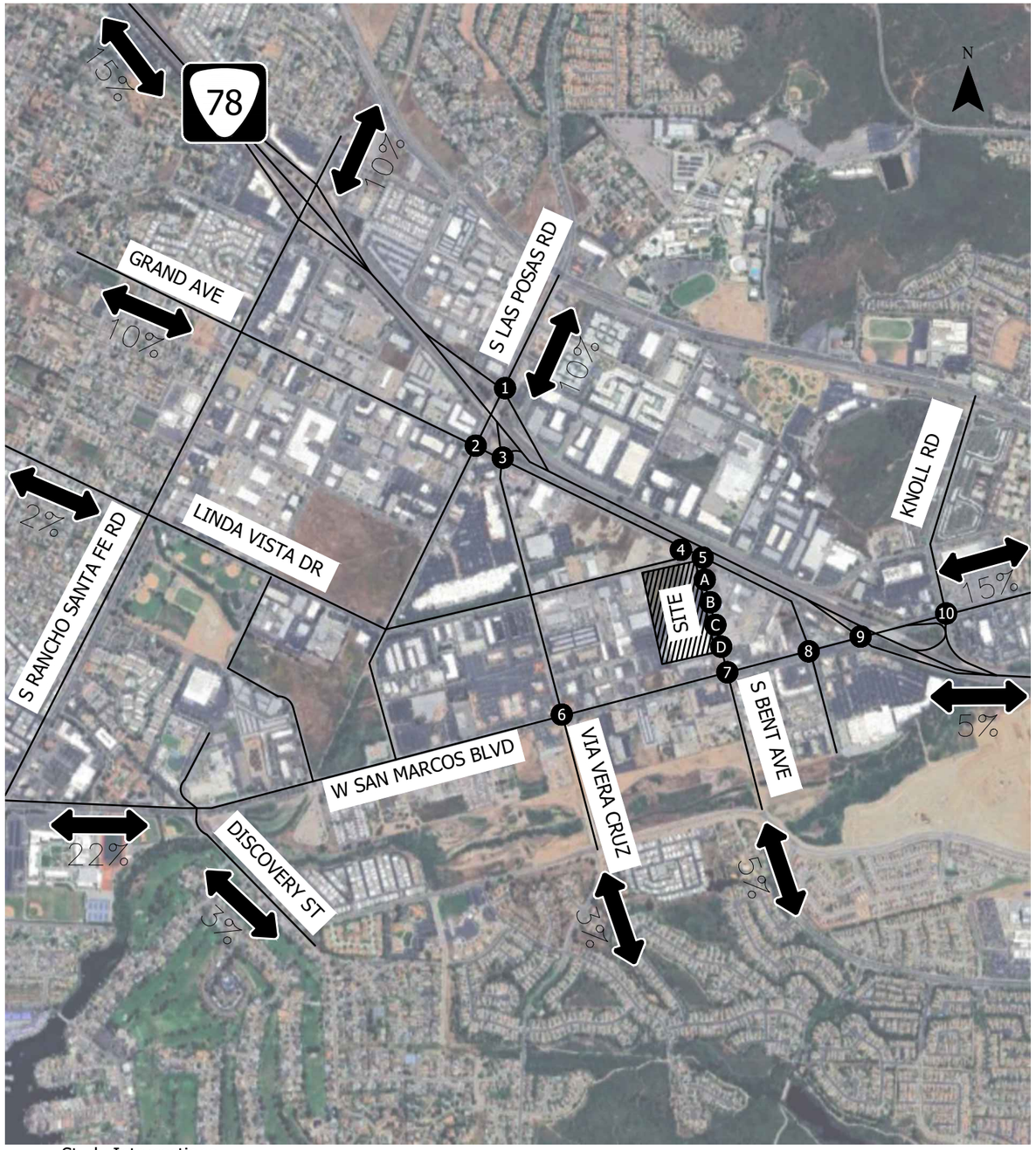
X%

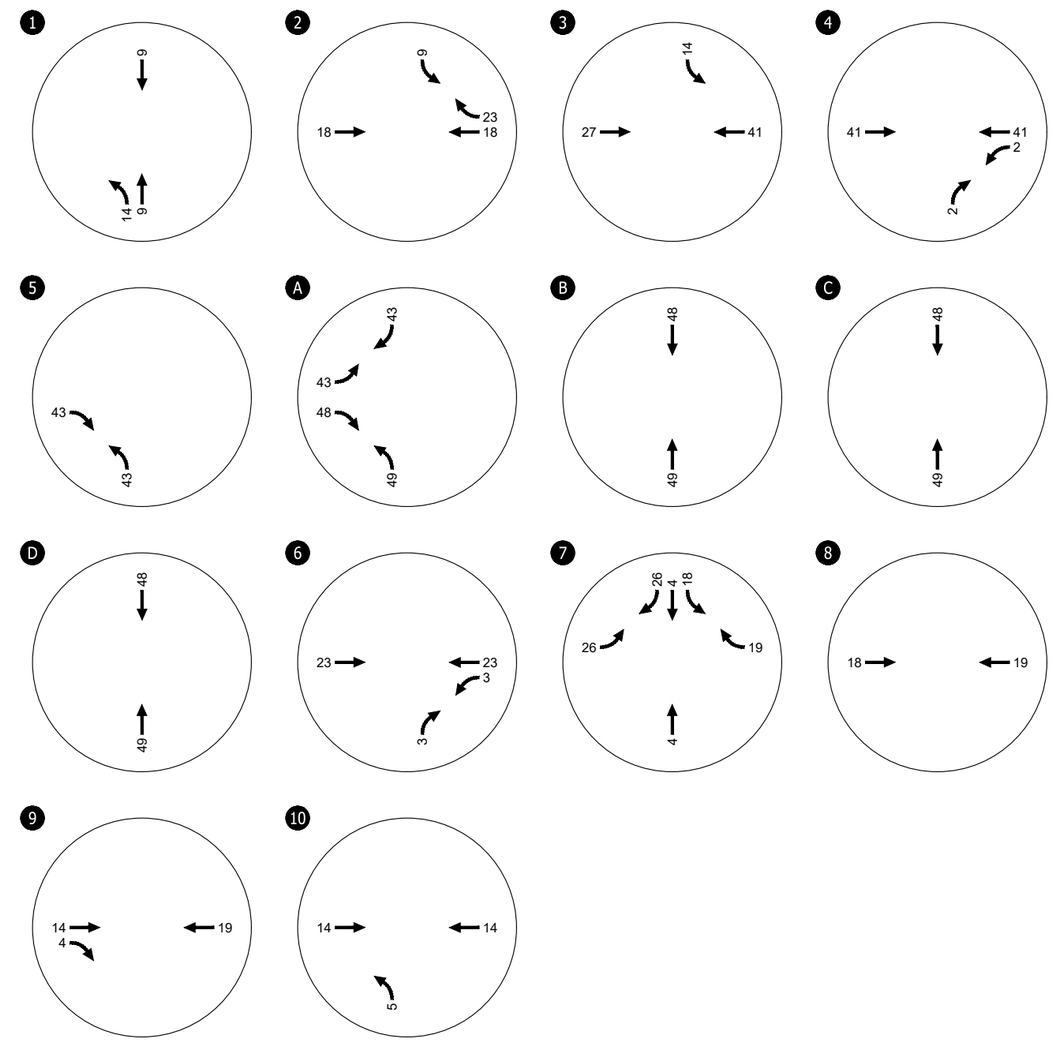
San Marcos Costco Business Center Fuel Facility Addition
Weekday PM Peak Hour Diverted Trips
San Marcos, CA

Figure
A-6

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Weekday PM Diverted





Study Intersections

Trip Distribution

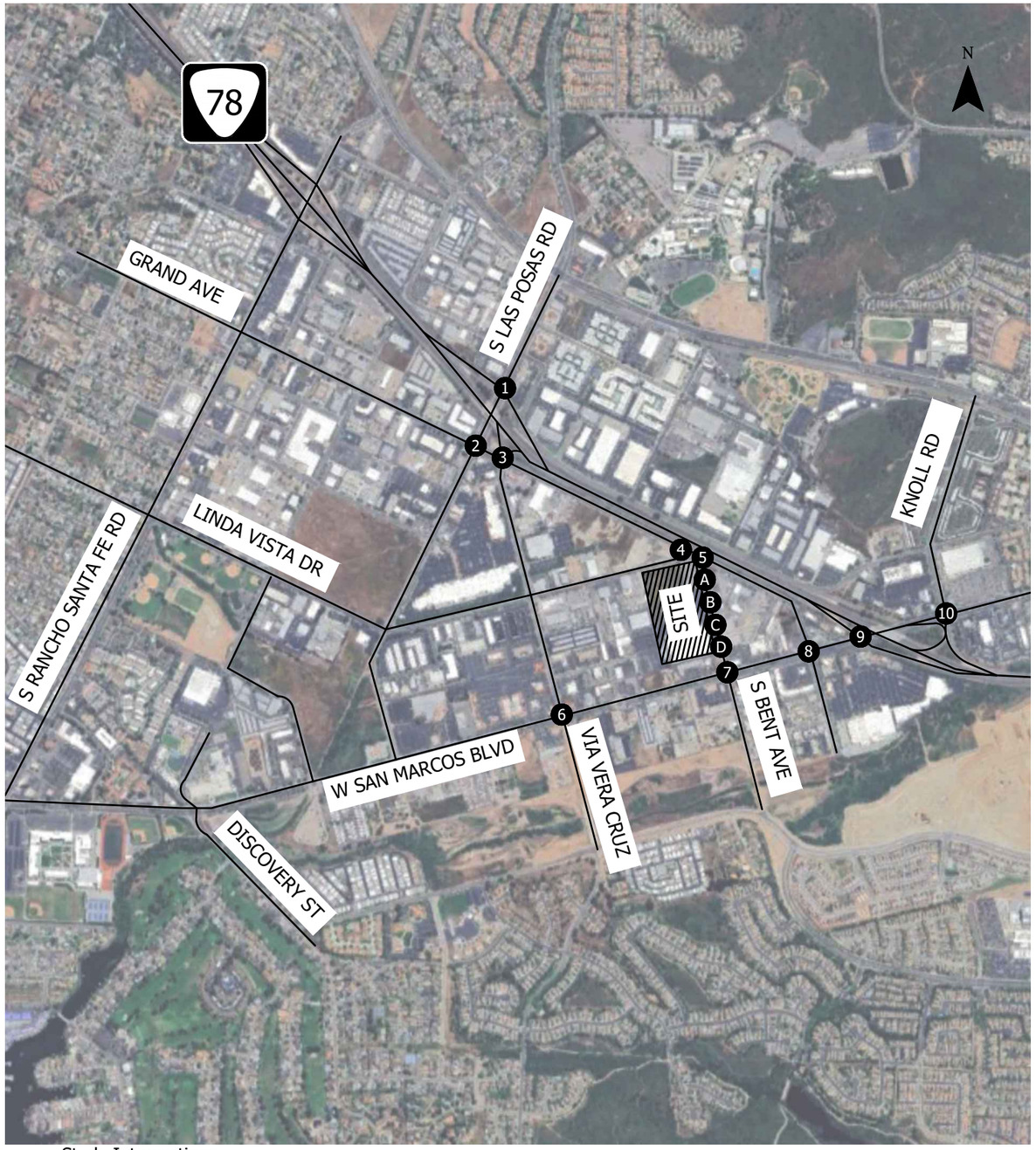
X%

San Marcos Costco Business Center Fuel Facility Addition
Weekday PM Peak Hour Primary Trips
San Marcos, CA

Figure
A-7

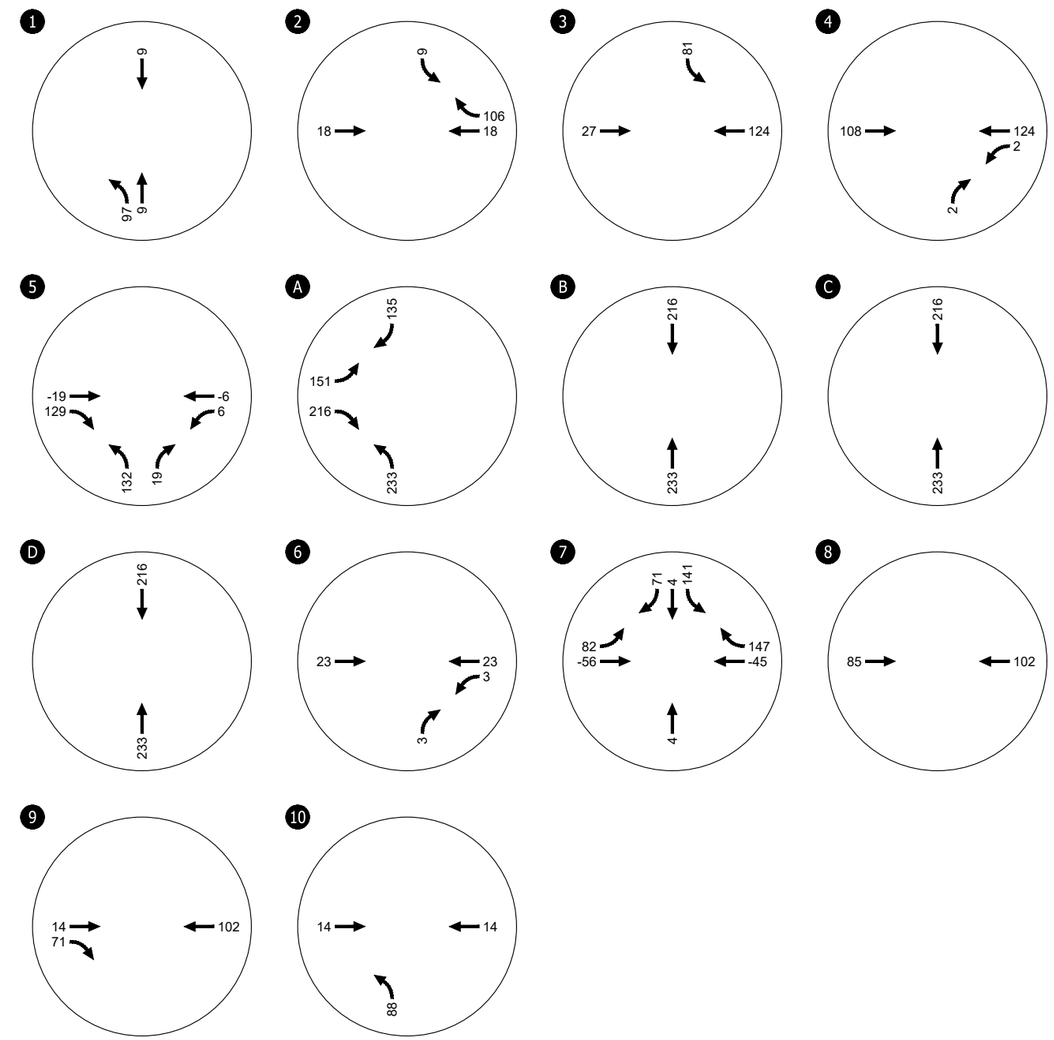
KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Weekday PM Primary



Study Intersections

##

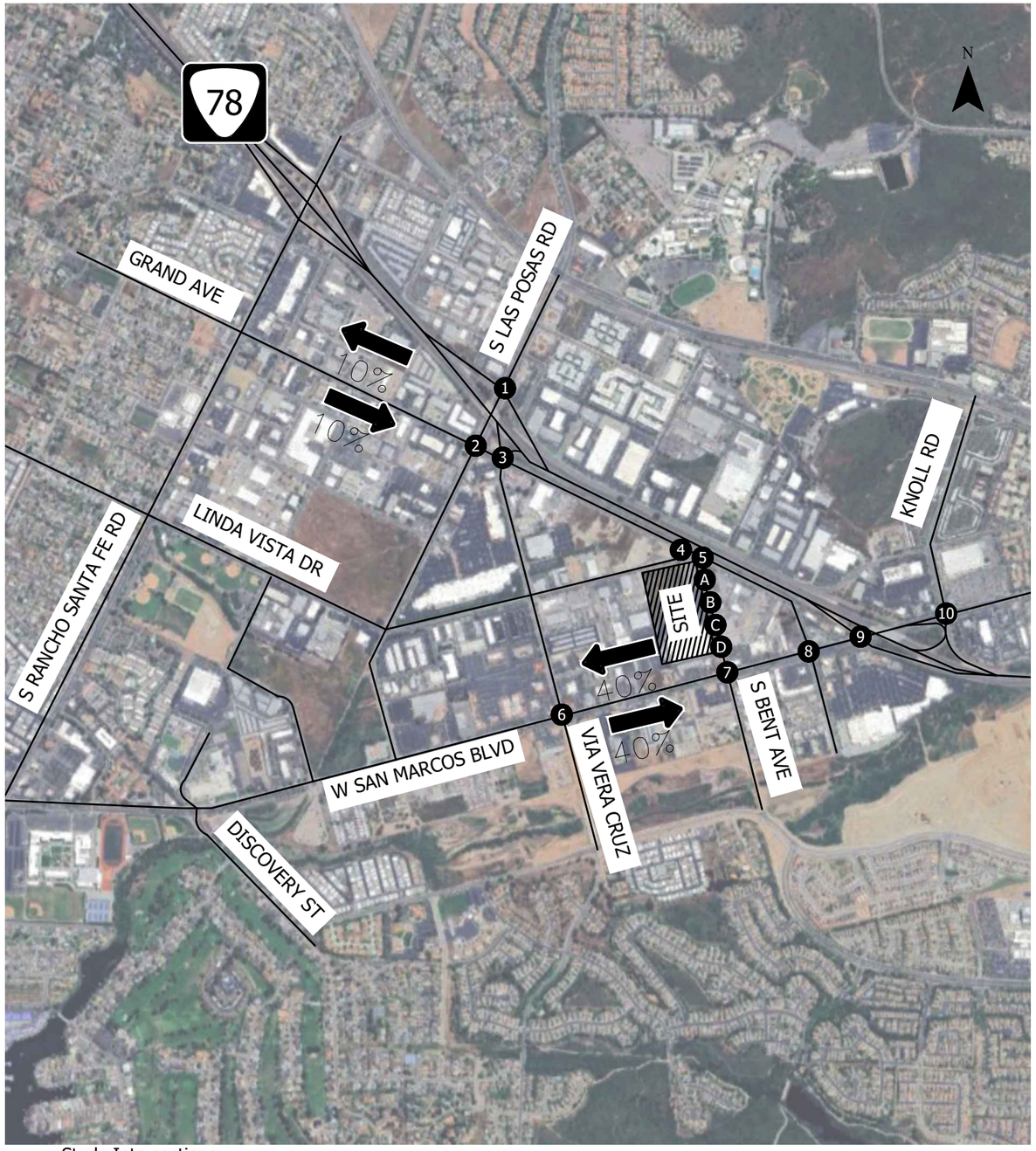


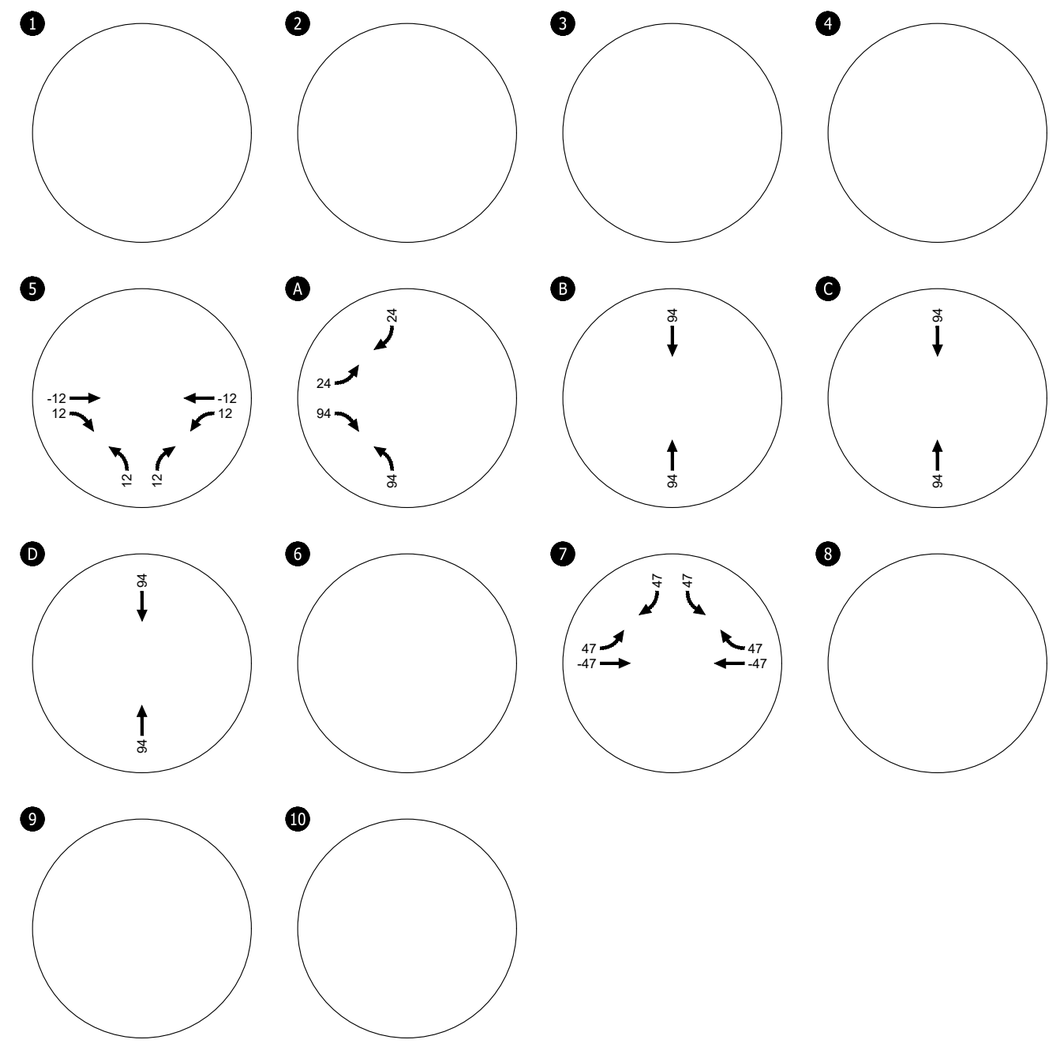
San Marcos Costco Business Center Fuel Facility Addition
Weekday PM Peak Hour Total Trips
San Marcos, CA

Figure
A-8

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Weekday PM Total

KITTELSON & ASSOCIATES





Study Intersections

Trip Distribution

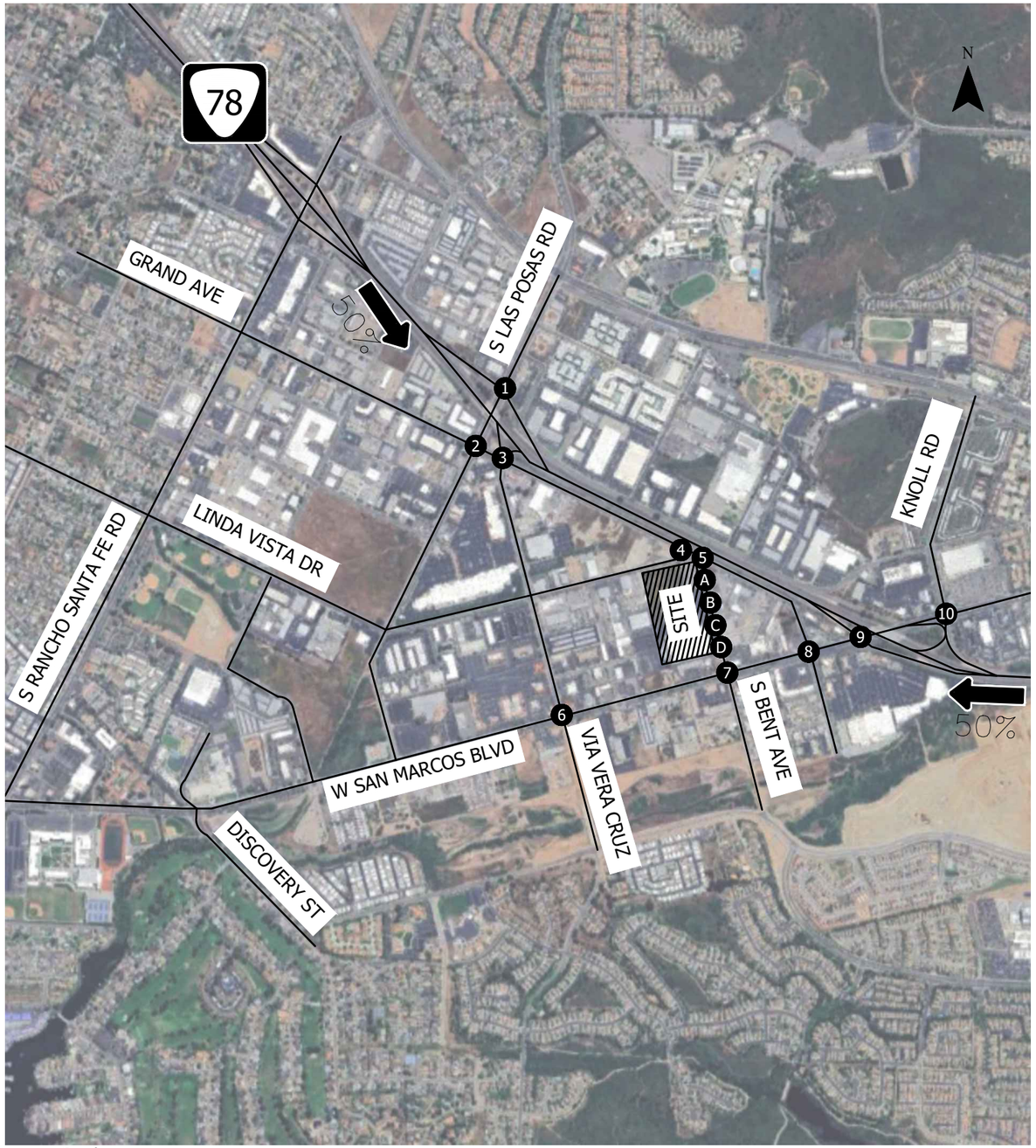
X%

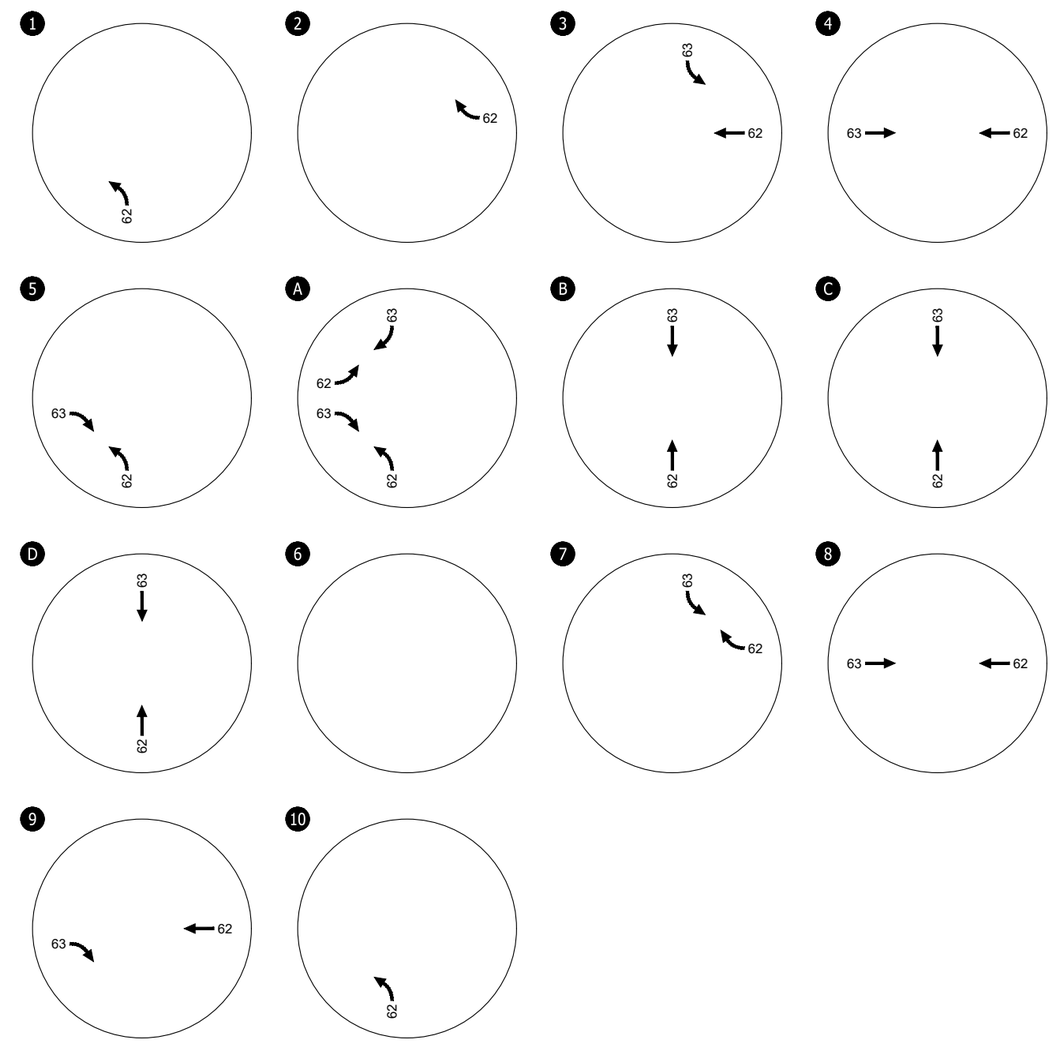
San Marcos Costco Business Center Fuel Facility Addition
Saturday Midday Peak Hour Pass-By Trips
San Marcos, CA

Figure
A-9

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Sat Midday Pass By





Study Intersections

Trip Distribution

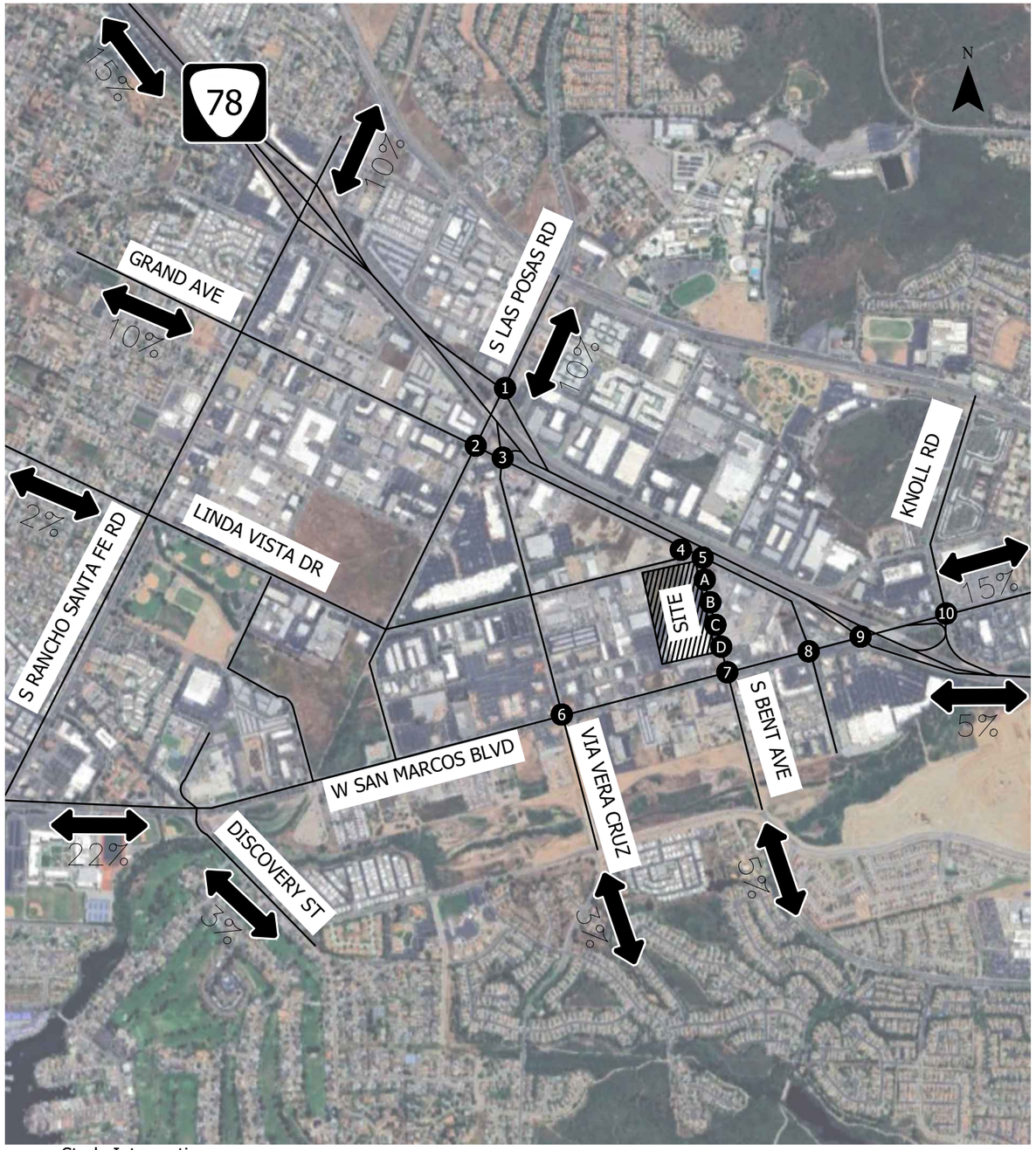
X%

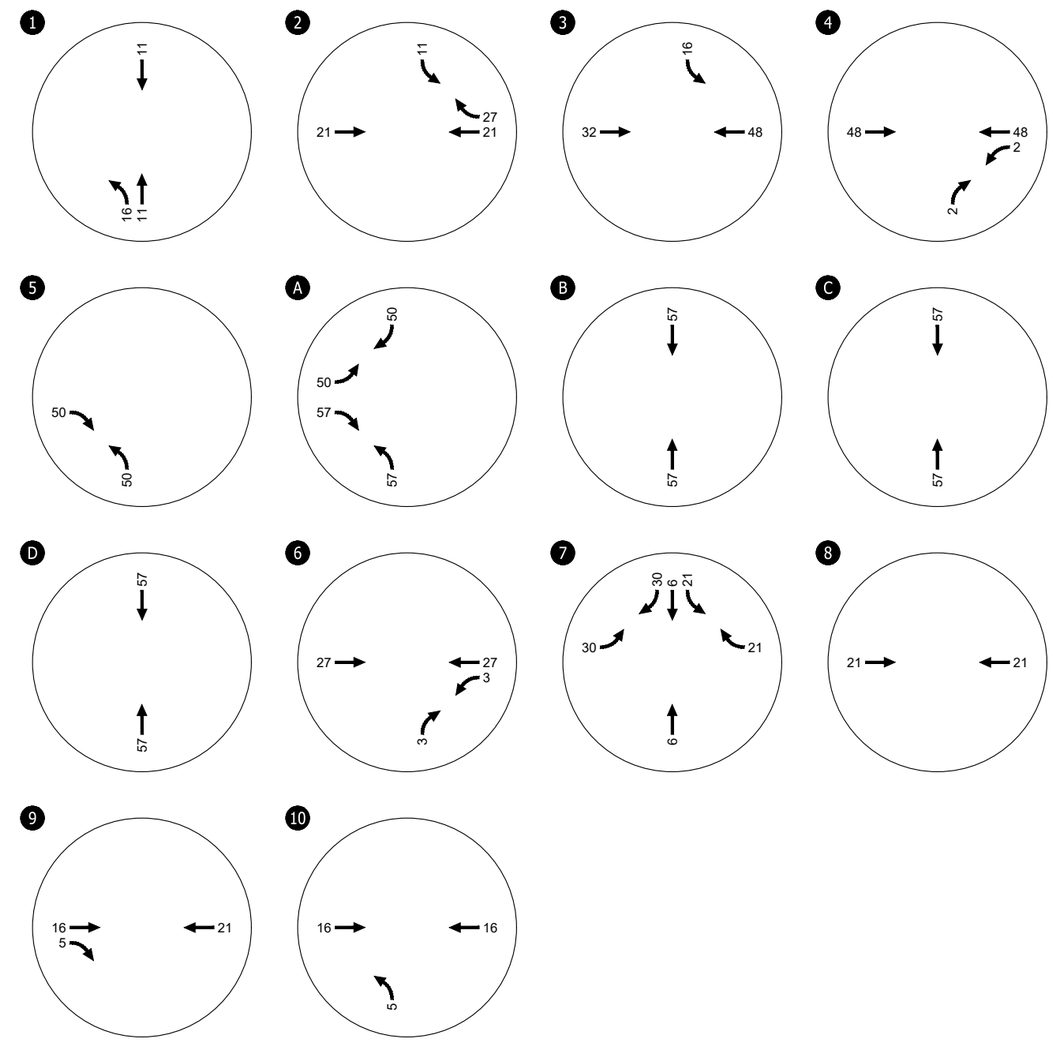
San Marcos Costco Business Center Fuel Facility Addition
Saturday Midday Peak Hour Diverted Trips
San Marcos, CA

Figure
A-10

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Sat Midday Diverted





Study Intersections

Trip Distribution

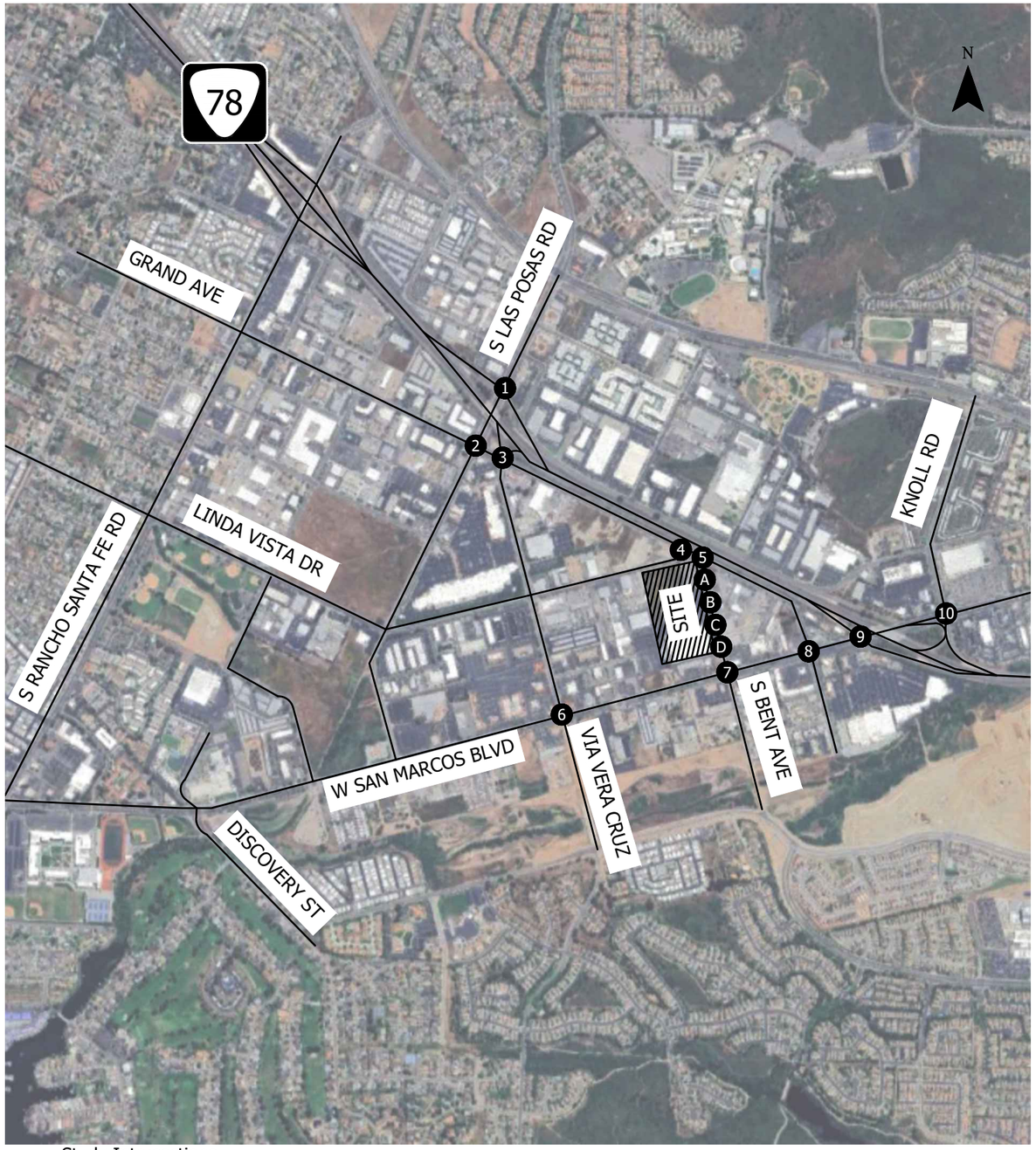
X%

San Marcos Costco Business Center Fuel Facility Addition
Saturday Midday Peak Hour Primary Trips
San Marcos, CA

Figure
A-11

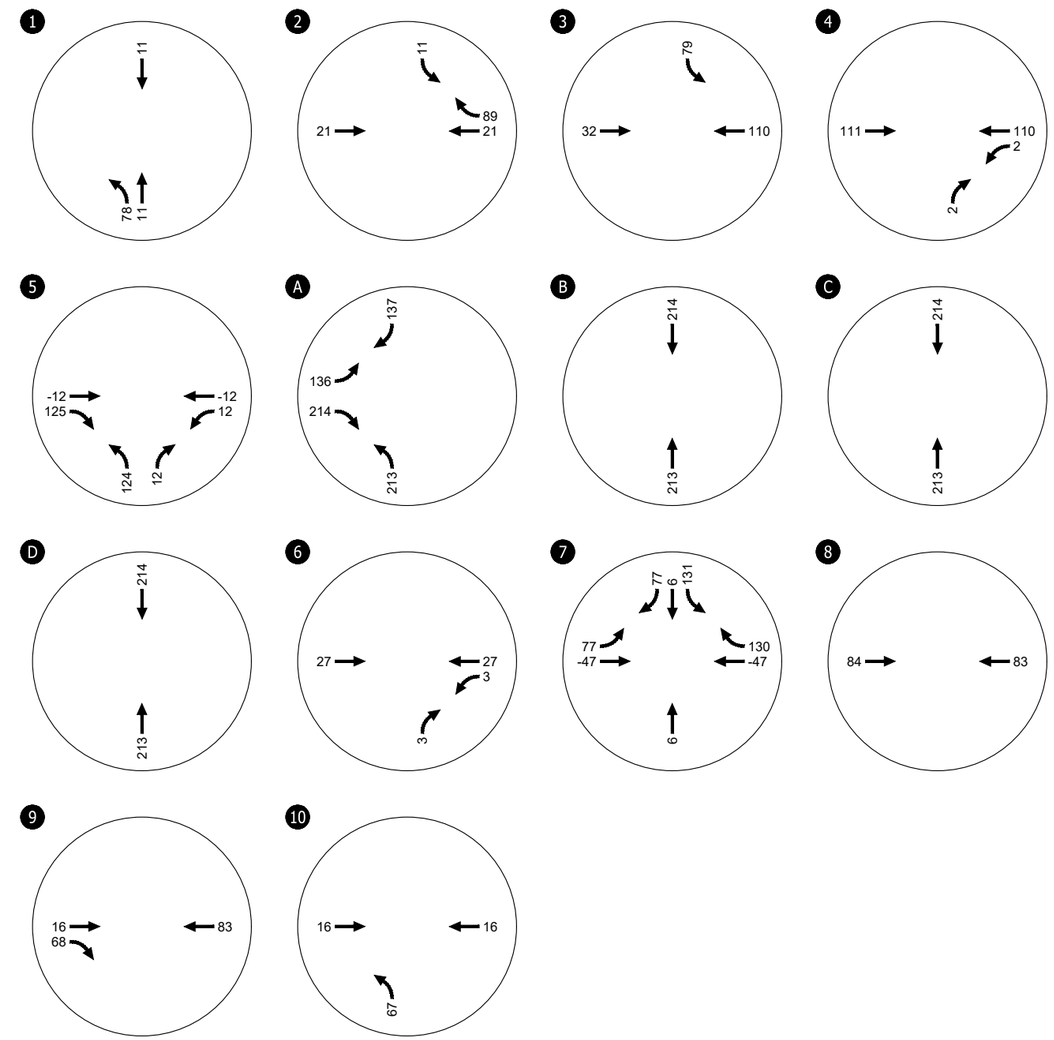
KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:38pm - cdeleon Layout Tab: Sat Midday Primary



Study Intersections

##



San Marcos Costco Business Center Fuel Facility Addition
Saturday Midday Peak Hour Total Trips
San Marcos, CA

Figure
A-12

KITTELSON & ASSOCIATES

C:\Users\cdeleon\appdata\local\temp\AcPublish_7928\27900 Figures.dwg Aug 11, 2023 - 1:58pm - cdeleon Layout Tab: Sat Midday Total

Attachment B
Existing 2023 Site Access Traffic Counts

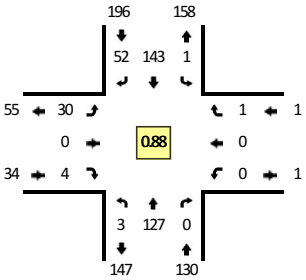
Type of peak hour being reported: Intersection Peak

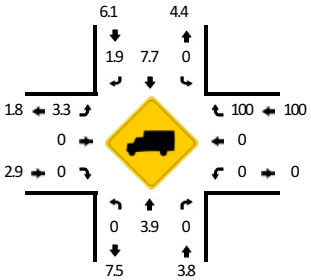
Method for determining peak hour: Total Entering Volume

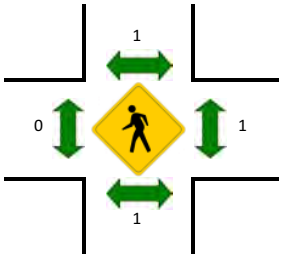
LOCATION: Bent Ave -- Site Access Dwy (north)
CITY/STATE: San Marcos, CA

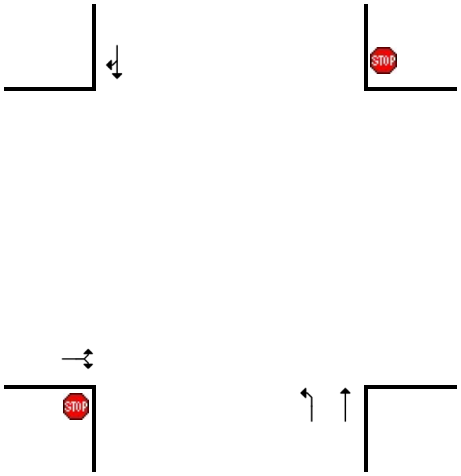
QC JOB #: 16219910
DATE: Tue, Jun 6 2023

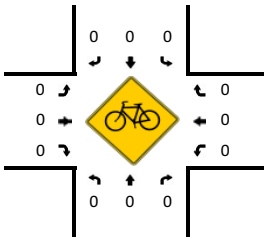
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM

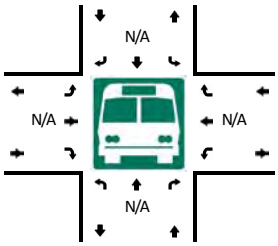


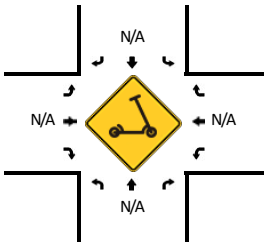












5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (north) (Eastbound)				Site Access Dwy (north) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	2	0	0	0	3	2	0	0	0	0	0	0	0	0	0	7	
7:05 AM	1	2	0	0	0	5	4	0	2	0	0	0	0	0	0	0	14	
7:10 AM	0	7	0	0	0	7	1	0	4	0	0	0	0	0	0	0	19	
7:15 AM	0	3	0	0	0	5	1	0	1	0	0	0	0	0	0	0	10	
7:20 AM	0	6	0	0	0	7	4	0	2	0	0	0	0	0	0	0	19	
7:25 AM	0	7	0	0	0	10	2	0	1	0	0	0	0	0	0	0	20	
7:30 AM	0	4	0	0	0	6	5	0	0	0	0	0	0	0	0	0	15	
7:35 AM	0	9	0	0	0	14	0	0	2	0	0	0	0	0	0	0	25	
7:40 AM	1	3	0	0	0	8	2	0	1	0	0	0	0	0	0	0	15	
7:45 AM	0	19	0	0	0	9	1	0	2	0	0	0	0	0	0	0	31	
7:50 AM	0	12	0	0	0	13	1	0	4	0	0	0	0	0	0	0	30	
7:55 AM	1	15	0	0	0	13	4	0	0	0	0	0	0	0	0	0	33	238
8:00 AM	0	15	0	0	0	15	4	0	0	0	0	0	0	0	0	0	34	265
8:05 AM	1	9	0	0	0	8	4	0	2	0	0	0	0	0	0	0	24	275
8:10 AM	2	16	0	0	0	14	1	0	3	0	0	0	0	0	0	0	36	292
8:15 AM	0	11	0	0	1	10	3	0	4	0	1	0	0	0	0	0	30	312
8:20 AM	0	8	0	0	0	15	3	0	2	0	0	0	0	0	0	0	28	321
8:25 AM	0	7	0	0	0	7	3	0	3	0	0	0	0	0	1	0	21	322
8:30 AM	0	8	0	0	0	14	6	0	3	0	0	0	0	0	0	0	31	338
8:35 AM	0	6	0	0	0	9	2	0	1	0	0	0	0	0	0	0	18	331
8:40 AM	0	8	0	0	0	18	9	0	1	0	0	0	0	0	0	0	36	352
8:45 AM	0	10	0	0	0	8	6	0	4	0	1	0	0	0	0	0	29	350
8:50 AM	0	16	0	0	0	12	5	0	4	0	0	0	0	0	0	0	37	357
8:55 AM	0	13	0	0	0	13	6	0	3	0	2	0	0	0	0	0	37	361

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	156	0	0	0	132	68	0	44	0	12	0	0	0	0	0	412
Heavy Trucks	0	4	0		0	16	0		4	0	0		0	0	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

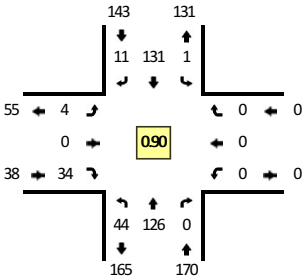
Type of peak hour being reported: Intersection Peak

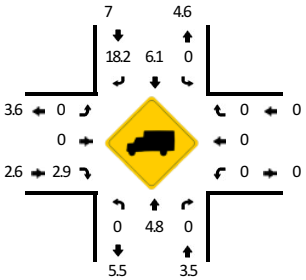
Method for determining peak hour: Total Entering Volume

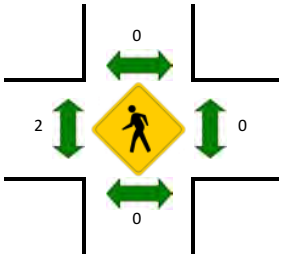
LOCATION: Bent Ave -- Site Access Dwy (mid)
CITY/STATE: San Marcos, CA

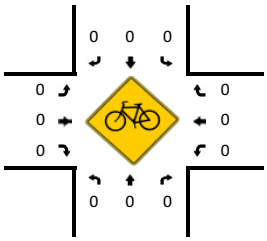
QC JOB #: 16219912
DATE: Tue, Jun 6 2023

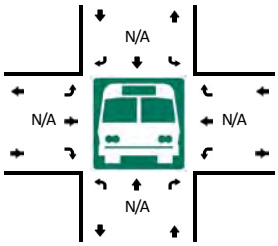
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:10 AM -- 8:25 AM

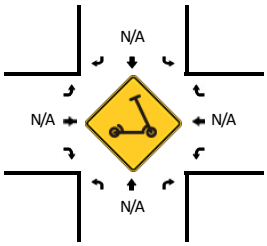












5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (mid) (Eastbound)				Site Access Dwy (mid) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	9	
7:05 AM	3	2	0	0	0	4	0	0	2	0	1	0	0	0	0	0	12	
7:10 AM	2	7	0	0	0	6	0	0	0	0	3	0	0	0	0	0	18	
7:15 AM	4	3	0	0	0	4	0	0	0	0	4	0	0	0	0	0	15	
7:20 AM	3	6	0	0	0	8	1	0	0	0	2	0	0	0	0	0	20	
7:25 AM	3	7	0	0	0	10	0	0	1	0	6	0	0	0	0	0	27	
7:30 AM	3	2	0	0	0	6	0	0	1	0	2	0	0	0	0	0	14	
7:35 AM	2	7	0	0	0	12	1	0	1	0	0	0	0	0	0	0	23	
7:40 AM	0	4	0	0	0	7	0	0	1	0	3	0	0	0	0	0	15	
7:45 AM	3	16	0	0	0	10	0	0	2	0	0	0	0	0	0	0	31	
7:50 AM	2	11	0	0	0	11	0	0	2	0	1	0	0	0	0	0	27	
7:55 AM	1	15	0	0	0	8	1	0	1	0	1	0	0	0	0	0	27	238
8:00 AM	2	17	0	0	0	13	2	0	0	0	2	0	0	0	0	0	36	265
8:05 AM	4	10	0	0	0	7	0	0	1	0	1	0	0	0	0	0	23	276
8:10 AM	5	15	0	0	0	14	1	0	0	0	3	0	0	0	0	0	38	296
8:15 AM	3	9	0	0	0	9	1	0	1	0	2	0	0	0	0	0	25	306
8:20 AM	7	10	0	0	0	15	0	0	0	0	3	0	0	0	0	0	35	321
8:25 AM	2	6	0	0	0	7	1	0	0	0	3	0	0	0	0	0	19	313
8:30 AM	2	8	0	0	0	14	0	0	1	0	2	0	0	0	0	0	27	326
8:35 AM	2	9	0	0	0	9	0	0	0	0	5	0	0	0	0	0	25	328
8:40 AM	6	7	0	0	0	15	2	0	0	0	3	0	0	0	0	0	33	346
8:45 AM	4	11	0	0	0	6	1	1	0	0	4	0	0	0	0	0	27	342
8:50 AM	4	10	0	0	0	9	1	0	1	0	1	0	0	0	0	0	26	341
8:55 AM	3	14	0	0	0	13	2	0	0	0	5	0	0	0	0	0	37	351

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	136	0	0	0	152	8	0	4	0	32	0	0	0	0	0	392
Heavy Trucks	0	4	0		0	12	4		0	0	0		0	0	0		20
Buses																	
Pedestrians		0				0				8				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

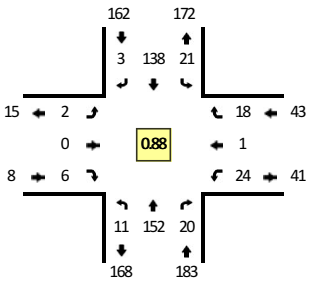
Type of peak hour being reported: Intersection Peak

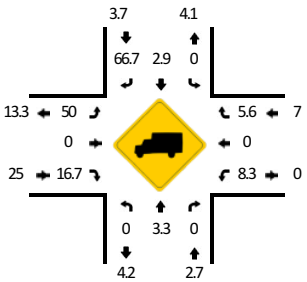
Method for determining peak hour: Total Entering Volume

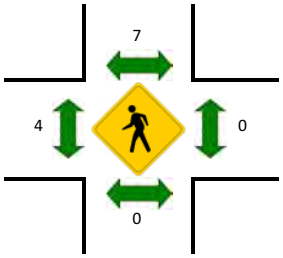
LOCATION: Bent Ave -- Site Access Dwy (south)
CITY/STATE: San Marcos, CA

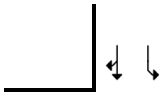
QC JOB #: 16219914
DATE: Tue, Jun 6 2023

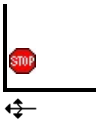
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

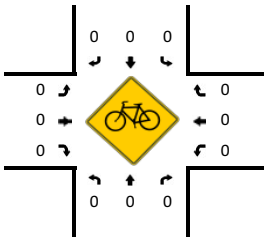


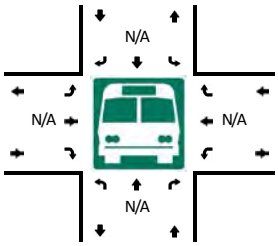


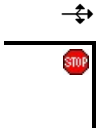


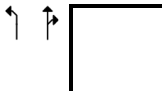


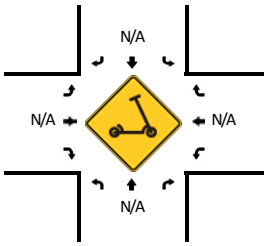












5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (south) (Eastbound)				Site Access Dwy (south) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	5	1	0	0	3	0	0	0	0	0	0	0	0	1	0	11	
7:05 AM	1	2	1	0	0	5	0	0	1	0	0	0	1	0	2	0	13	
7:10 AM	0	10	0	0	1	6	0	0	0	0	0	0	1	0	0	0	18	
7:15 AM	0	5	0	0	1	9	0	0	0	0	1	0	3	0	1	0	20	
7:20 AM	0	9	0	0	1	10	0	0	0	0	1	0	1	0	2	0	24	
7:25 AM	3	7	0	1	1	15	0	0	0	0	0	0	2	0	3	0	32	
7:30 AM	2	3	0	0	1	7	0	0	0	0	1	0	1	0	2	0	17	
7:35 AM	0	10	1	0	0	13	0	0	0	0	1	0	1	0	0	0	26	
7:40 AM	0	7	0	0	0	11	0	0	0	0	0	0	0	0	0	0	18	
7:45 AM	0	14	1	0	1	9	0	0	0	0	0	0	1	0	2	0	28	
7:50 AM	0	11	1	0	1	10	0	0	0	0	0	0	2	0	3	0	28	
7:55 AM	0	11	0	0	1	9	0	0	0	0	1	0	1	0	4	0	27	262
8:00 AM	0	17	0	0	3	11	0	0	2	0	0	0	0	0	1	0	34	285
8:05 AM	1	12	3	0	1	8	0	0	0	0	0	0	3	0	1	0	29	301
8:10 AM	0	19	1	0	2	14	1	0	0	0	1	0	6	0	5	0	49	332
8:15 AM	0	10	1	0	0	10	0	0	0	0	1	0	2	0	0	0	24	336
8:20 AM	0	15	0	0	1	13	0	0	0	0	1	0	1	0	2	0	33	345
8:25 AM	0	7	2	0	1	14	0	0	0	0	0	0	0	0	0	0	24	337
8:30 AM	1	10	1	0	6	8	0	0	0	0	1	0	4	0	0	0	31	351
8:35 AM	3	11	4	0	3	11	1	0	0	0	0	0	2	0	0	0	35	360
8:40 AM	2	12	1	0	1	16	0	0	0	0	0	0	1	0	2	0	35	377
8:45 AM	1	14	3	0	1	7	0	0	0	0	0	0	2	0	1	0	29	378
8:50 AM	1	11	2	0	0	12	1	0	0	0	1	0	1	1	3	0	33	383
8:55 AM	2	14	2	0	2	14	0	0	0	0	1	0	2	0	3	0	40	396

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	192	16	0	24	132	4	0	8	0	4	0	36	0	28	0	448
Heavy Trucks	0	0	0		0	4	4		4	0	0		0	0	4		16
Buses																	
Pedestrians		0				8				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

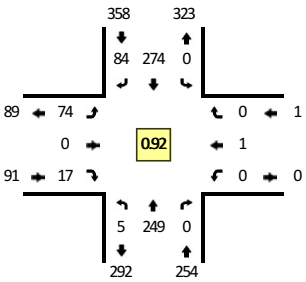
Type of peak hour being reported: Intersection Peak

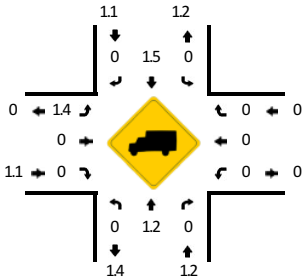
Method for determining peak hour: Total Entering Volume

LOCATION: Bent Ave -- Site Access Dwy (north)
CITY/STATE: San Marcos, CA

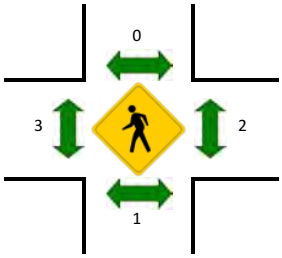
QC JOB #: 16219911
DATE: Tue, Jun 6 2023

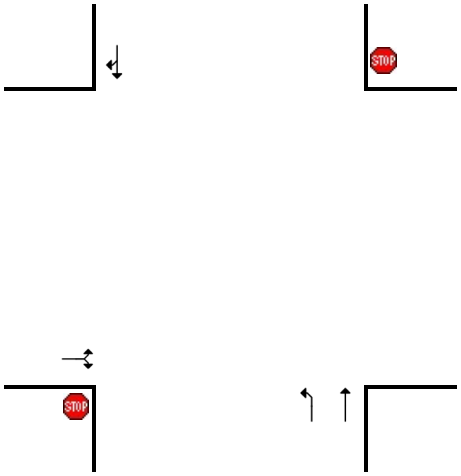
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

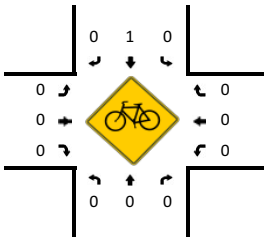


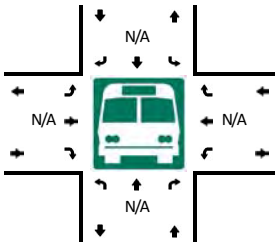


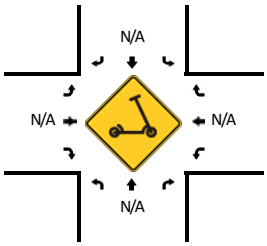
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (north) (Eastbound)				Site Access Dwy (north) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	24	0	0	0	18	9	0	7	0	1	0	0	0	0	0	59	
4:05 PM	0	17	0	0	0	25	5	0	5	0	2	0	0	0	0	0	54	
4:10 PM	0	13	0	0	0	19	5	0	4	0	2	0	0	0	0	0	43	
4:15 PM	1	18	0	0	0	22	4	0	10	0	0	0	0	0	0	0	55	
4:20 PM	2	17	0	0	0	21	7	0	5	0	0	0	0	0	0	0	52	
4:25 PM	1	22	0	0	0	17	10	0	6	0	4	0	0	0	0	0	60	
4:30 PM	0	20	0	0	0	22	6	0	8	0	1	0	0	1	0	0	58	
4:35 PM	0	25	0	0	0	19	9	0	5	0	1	0	0	0	0	0	59	
4:40 PM	1	19	0	0	0	24	6	0	5	0	1	0	0	0	0	0	56	
4:45 PM	1	16	0	0	0	28	8	0	9	0	0	0	0	0	0	0	62	
4:50 PM	0	19	0	0	0	22	11	0	7	0	1	0	0	0	0	0	60	
4:55 PM	0	26	0	0	0	29	6	0	8	0	1	0	0	0	0	0	70	688
5:00 PM	0	15	0	0	0	19	4	0	10	0	1	0	0	0	0	0	49	678
5:05 PM	0	23	0	0	0	17	5	0	5	0	1	0	0	0	0	0	51	675
5:10 PM	1	21	0	0	0	21	6	0	3	0	3	0	0	0	0	0	55	687
5:15 PM	0	23	0	0	0	34	7	0	5	0	1	0	0	0	0	0	70	702
5:20 PM	0	20	0	1	0	22	6	0	3	0	2	0	0	0	0	0	54	704
5:25 PM	0	22	0	0	0	24	5	0	4	0	0	0	0	0	0	0	55	699
5:30 PM	1	9	0	0	0	18	6	0	4	0	2	0	0	0	0	0	40	681
5:35 PM	0	17	0	0	0	32	5	0	5	0	2	0	0	0	0	0	61	683
5:40 PM	0	18	0	0	0	15	4	0	6	0	0	0	0	0	0	0	43	670
5:45 PM	0	12	0	0	0	17	7	0	5	0	1	0	0	0	0	0	42	650
5:50 PM	0	16	0	0	0	22	3	0	3	0	3	0	0	0	0	0	47	637
5:55 PM	1	17	0	0	0	14	6	0	2	0	1	0	0	0	0	0	41	608
6:00 PM	0	14	0	0	0	15	3	0	4	0	1	0	0	0	0	0	37	596
6:05 PM	0	7	0	0	0	14	1	0	5	0	3	0	0	0	0	0	30	575
6:10 PM	0	13	0	0	0	13	0	0	3	0	0	0	0	0	0	0	29	549
6:15 PM	1	18	0	0	0	11	3	0	9	0	0	0	0	0	0	0	42	521
6:20 PM	0	13	0	0	0	15	0	0	3	0	0	0	0	0	0	0	31	498
6:25 PM	0	11	0	0	0	12	2	0	2	0	1	0	0	0	0	0	28	471
6:30 PM	0	9	0	0	0	10	0	0	2	0	1	0	0	0	0	0	22	453
6:35 PM	0	11	0	0	0	7	1	0	1	0	1	0	0	0	0	0	21	413
6:40 PM	0	9	0	0	0	4	1	0	0	0	0	0	0	0	0	0	14	384
6:45 PM	0	6	0	0	0	8	0	0	1	0	0	0	0	0	0	0	15	357
6:50 PM	0	5	0	0	0	12	0	0	3	0	0	0	0	0	0	0	20	330
6:55 PM	0	7	0	0	0	4	0	0	1	0	0	0	0	0	0	0	12	301

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	244	0	0	0	316	100	0	96	0	8	0	0	0	0	0	768
Heavy Trucks	0	4	0		0	4	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

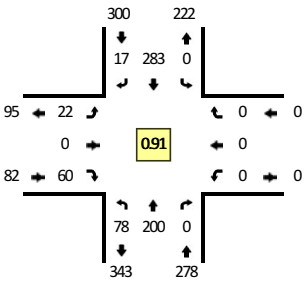
Type of peak hour being reported: Intersection Peak

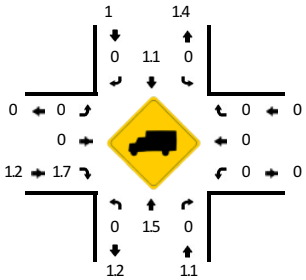
Method for determining peak hour: Total Entering Volume

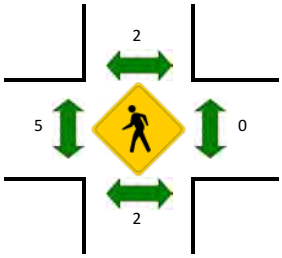
LOCATION: Bent Ave -- Site Access Dwy (mid)
CITY/STATE: San Marcos, CA

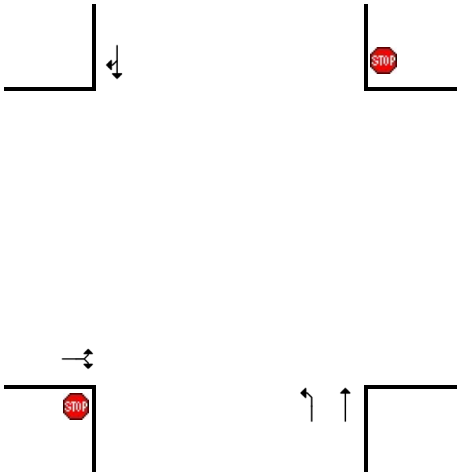
QC JOB #: 16219913
DATE: Tue, Jun 6 2023

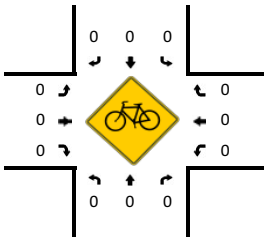
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

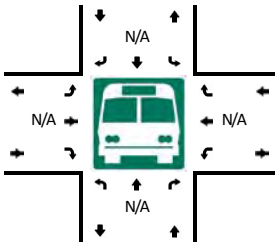


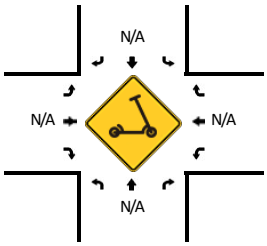












5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (mid) (Eastbound)				Site Access Dwy (mid) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	21	0	0	0	17	2	0	5	0	2	0	0	0	0	0	50	
4:05 PM	9	12	0	0	0	25	0	0	4	0	4	0	0	0	0	0	54	
4:10 PM	4	12	0	0	0	18	2	0	1	0	6	0	0	0	0	0	43	
4:15 PM	1	16	0	0	0	19	1	0	3	0	2	0	0	0	0	0	42	
4:20 PM	6	16	0	0	0	20	0	0	1	0	6	0	0	0	0	0	49	
4:25 PM	2	21	0	0	0	24	0	0	0	0	6	0	0	0	0	0	53	
4:30 PM	3	20	0	0	0	22	2	0	1	0	2	0	0	0	0	0	50	
4:35 PM	6	21	0	0	0	18	1	0	1	0	5	0	0	0	0	0	52	
4:40 PM	7	16	0	0	0	22	1	0	1	0	4	0	0	0	0	0	51	
4:45 PM	10	15	0	0	0	18	0	0	0	0	2	0	0	0	0	0	45	
4:50 PM	5	20	0	0	0	31	0	0	0	0	3	0	0	0	0	0	59	
4:55 PM	8	21	0	0	0	27	3	0	0	0	3	0	0	0	0	0	62	610
5:00 PM	5	10	0	0	0	18	1	0	4	0	7	0	0	0	0	0	45	605
5:05 PM	7	23	0	0	0	18	1	0	0	0	7	0	0	0	0	0	56	607
5:10 PM	6	20	0	0	0	19	2	0	3	0	2	0	0	0	0	0	52	616
5:15 PM	11	19	0	0	0	36	2	0	2	0	4	0	0	0	0	0	74	648
5:20 PM	2	12	0	0	0	22	1	0	6	0	9	0	0	0	0	0	52	651
5:25 PM	3	21	0	0	0	24	1	0	1	0	6	0	0	0	0	0	56	654
5:30 PM	4	9	0	0	0	17	3	0	2	0	7	0	0	0	0	0	42	646
5:35 PM	10	14	0	0	0	31	2	0	3	0	6	0	0	0	0	0	66	660
5:40 PM	9	17	0	0	0	15	1	0	0	0	5	0	0	0	0	0	47	656
5:45 PM	3	10	0	1	0	14	2	0	2	0	6	0	0	0	0	0	38	649
5:50 PM	4	14	0	0	0	26	0	0	1	0	6	0	0	0	0	0	51	641
5:55 PM	4	14	0	1	0	14	1	0	5	0	3	0	0	0	0	0	42	621
6:00 PM	1	11	0	0	0	15	1	0	3	0	13	0	0	0	0	0	44	620
6:05 PM	0	4	0	0	0	16	0	0	2	0	11	0	0	0	0	0	33	597
6:10 PM	0	9	0	0	0	14	0	0	4	0	1	0	0	0	0	0	28	573
6:15 PM	0	17	0	0	0	11	0	0	2	0	3	0	0	0	0	0	33	532
6:20 PM	2	12	0	0	0	14	0	0	1	0	4	0	0	0	0	0	33	513
6:25 PM	0	12	0	0	0	14	0	0	0	0	6	0	0	0	0	0	32	489
6:30 PM	1	8	0	0	0	11	0	0	0	0	5	0	0	0	0	0	25	472
6:35 PM	0	10	0	0	0	8	0	0	1	0	4	0	0	0	0	0	23	429
6:40 PM	0	9	0	0	0	3	0	0	0	0	2	0	0	0	0	0	14	396
6:45 PM	0	6	0	0	0	9	0	0	0	0	3	0	0	0	0	0	18	376
6:50 PM	1	5	0	0	0	12	0	0	0	0	1	0	0	0	0	0	19	344
6:55 PM	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0	0	11	313

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	96	248	0	0	0	292	20	0	20	0	52	0	0	0	0	0	728
Heavy Trucks	0	4	0		0	0	0		0	0	4		0	0	0		8
Buses																	
Pedestrians		4				4				16				0			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

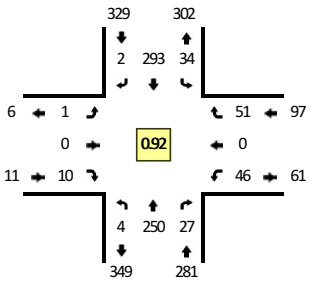
Type of peak hour being reported: Intersection Peak

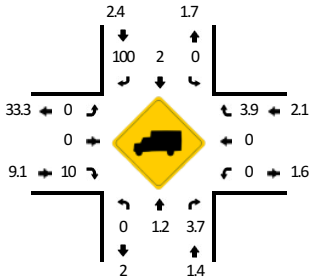
Method for determining peak hour: Total Entering Volume

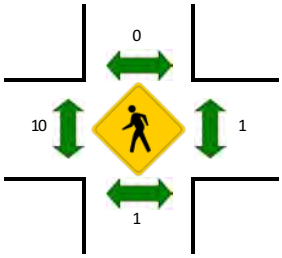
LOCATION: Bent Ave -- Site Access Dwy (south)
CITY/STATE: San Marcos, CA

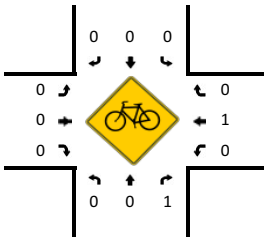
QC JOB #: 16219915
DATE: Tue, Jun 6 2023

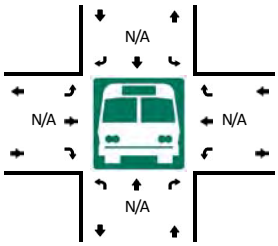
Peak-Hour: 4:20 PM -- 5:20 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

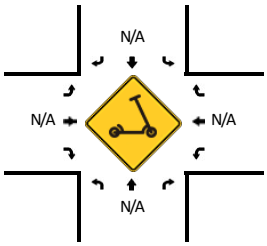












5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (south) (Eastbound)				Site Access Dwy (south) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	22	2	0	1	19	0	0	0	0	2	0	2	0	2	0	50	
4:05 PM	1	16	5	0	2	24	0	0	0	0	0	0	0	0	5	0	53	
4:10 PM	0	13	2	0	3	18	0	0	0	0	1	0	8	0	3	0	48	
4:15 PM	0	14	2	0	2	20	0	0	0	0	1	0	2	0	4	0	45	
4:20 PM	0	22	3	0	3	20	0	0	0	0	0	0	4	0	1	0	53	
4:25 PM	0	16	6	0	4	26	0	0	0	0	2	0	6	0	6	0	66	
4:30 PM	0	19	5	0	3	27	1	0	0	0	1	0	4	0	5	0	65	
4:35 PM	1	24	1	0	3	19	0	0	0	0	0	0	4	0	3	0	55	
4:40 PM	0	18	0	0	3	24	0	0	0	0	0	0	0	0	6	0	51	
4:45 PM	0	22	0	0	0	17	0	0	0	0	1	0	5	0	4	0	49	
4:50 PM	0	16	2	0	5	29	0	0	0	0	1	0	2	0	6	0	61	
4:55 PM	0	29	1	0	2	27	0	0	0	0	0	0	3	0	4	0	66	662
5:00 PM	0	15	4	0	1	29	0	0	0	0	1	0	6	0	1	0	57	669
5:05 PM	2	24	2	0	2	23	0	0	0	0	1	0	5	0	6	0	65	681
5:10 PM	0	18	1	0	5	17	1	0	1	0	1	0	3	0	6	0	53	686
5:15 PM	1	27	2	0	3	35	0	0	0	0	2	0	4	0	3	0	77	718
5:20 PM	0	13	3	1	6	27	0	0	0	0	0	0	1	0	2	0	53	718
5:25 PM	1	22	1	0	2	28	0	0	0	0	0	0	6	0	4	0	64	716
5:30 PM	0	8	2	0	4	18	0	0	0	0	0	0	6	0	4	0	42	693
5:35 PM	0	18	2	0	7	28	0	0	0	0	0	0	3	0	5	0	63	701
5:40 PM	0	20	0	0	5	19	0	0	1	0	1	0	4	0	7	0	57	707
5:45 PM	0	10	1	0	0	21	0	0	0	0	0	0	4	0	5	0	41	699
5:50 PM	0	14	1	0	0	31	0	0	0	0	0	0	3	0	5	0	54	692
5:55 PM	1	13	4	1	1	19	0	0	1	0	0	0	4	0	4	0	48	674
6:00 PM	0	9	2	0	0	27	0	0	0	0	2	0	2	0	3	0	45	662
6:05 PM	0	2	3	0	2	26	0	0	0	0	0	0	3	0	0	0	36	633
6:10 PM	0	8	3	0	4	12	0	0	0	0	0	0	3	0	2	0	32	612
6:15 PM	0	15	2	0	1	13	0	0	0	0	0	0	2	0	3	0	36	571
6:20 PM	1	12	0	0	3	15	0	0	0	0	1	0	2	0	2	0	36	554
6:25 PM	0	9	1	0	0	20	0	0	0	0	0	0	4	0	4	0	38	528
6:30 PM	1	6	0	0	0	13	0	0	0	0	0	0	2	0	2	0	24	510
6:35 PM	0	7	2	0	2	9	0	0	0	0	2	0	1	0	4	0	27	474
6:40 PM	0	6	0	0	0	5	0	0	0	0	1	0	1	1	3	0	17	434
6:45 PM	0	5	2	0	4	8	0	0	0	0	0	0	4	0	2	0	25	418
6:50 PM	0	4	2	0	5	7	0	0	0	0	0	0	3	0	1	0	22	386
6:55 PM	0	2	1	0	0	5	0	0	0	0	1	0	4	0	6	0	19	357

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	276	20	0	40	300	4	0	4	0	16	0	48	0	60	0	780
Heavy Trucks	0	0	0		0	4	4		0	0	4		0	0	4		16
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

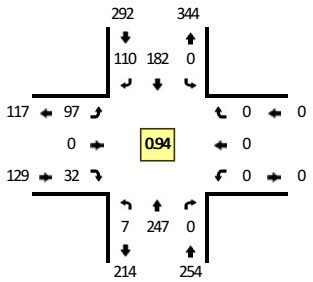
Type of peak hour being reported: Intersection Peak

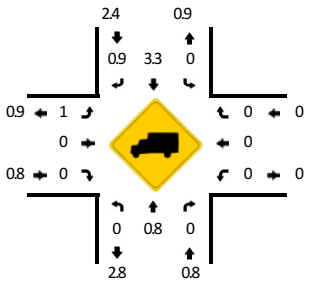
Method for determining peak hour: Total Entering Volume

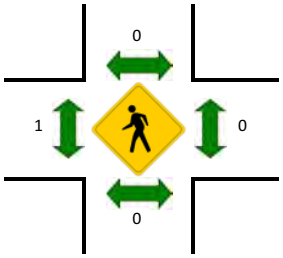
LOCATION: Bent Ave -- Site Access Dwy (north)
CITY/STATE: San Marcos, CA

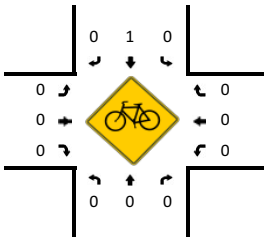
QC JOB #: 16219903
DATE: Sat, Jun 3 2023

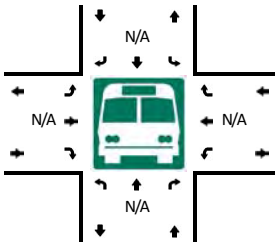
Peak-Hour: 11:20 AM -- 12:20 PM
Peak 15-Min: 11:20 AM -- 11:35 AM

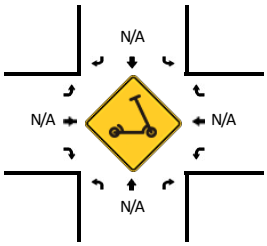












5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (north) (Eastbound)				Site Access Dwy (north) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	24	0	0	0	13	10	0	9	0	2	0	0	0	0	0	58	
11:05 AM	0	24	0	0	0	12	10	0	11	0	3	0	0	0	0	0	60	
11:10 AM	0	22	0	0	0	13	5	0	4	0	4	0	0	0	0	0	48	
11:15 AM	1	11	0	0	0	7	9	0	10	0	0	0	0	0	0	0	38	
11:20 AM	0	26	0	0	0	17	11	0	6	0	6	0	0	0	0	0	66	
11:25 AM	2	16	0	0	0	13	11	0	5	0	3	0	0	0	0	0	50	
11:30 AM	3	18	0	0	0	20	11	0	11	0	0	0	0	0	0	0	63	
11:35 AM	0	27	0	0	0	12	7	0	11	0	2	0	0	0	0	0	59	
11:40 AM	0	20	0	0	0	10	10	0	3	0	2	0	0	0	0	0	45	
11:45 AM	0	23	0	0	0	20	9	0	4	0	1	0	0	0	0	0	57	
11:50 AM	1	10	0	0	0	15	13	0	12	0	1	0	0	0	0	0	52	
11:55 AM	1	21	0	0	0	15	7	0	11	0	4	0	0	0	0	0	59	655
12:00 PM	0	19	0	0	0	14	7	0	5	0	5	0	0	0	0	0	50	647
12:05 PM	0	20	0	0	0	16	10	0	8	0	4	0	0	0	0	0	58	645
12:10 PM	0	18	0	0	0	15	6	0	11	0	1	0	0	0	0	0	51	648
12:15 PM	0	29	0	0	0	15	8	0	10	0	3	0	0	0	0	0	65	675
12:20 PM	0	16	0	0	0	14	6	0	5	0	1	0	0	0	0	0	42	651
12:25 PM	1	18	0	0	0	19	8	0	8	0	1	0	0	0	0	0	55	656
12:30 PM	0	18	0	0	0	7	13	0	8	0	1	0	0	0	0	0	47	640
12:35 PM	0	21	0	0	0	20	14	0	6	0	4	0	0	0	0	0	65	646
12:40 PM	0	16	0	0	0	12	10	0	6	0	0	0	0	0	0	0	44	645
12:45 PM	0	25	0	0	0	11	5	0	3	0	1	0	0	0	0	0	45	633
12:50 PM	0	11	0	0	0	23	21	0	6	0	1	0	0	0	0	0	62	643
12:55 PM	0	18	0	0	0	13	11	0	8	0	5	0	0	0	0	0	55	639
1:00 PM	0	12	0	0	0	15	10	0	9	0	1	0	0	0	0	0	47	636
1:05 PM	0	20	0	0	0	17	10	0	10	0	4	0	0	0	0	0	61	639
1:10 PM	0	17	0	0	0	13	12	1	7	0	3	0	0	0	0	0	53	641
1:15 PM	1	21	0	0	0	19	7	0	10	0	2	0	0	0	0	0	60	636
1:20 PM	1	20	0	0	0	16	6	0	9	0	4	0	0	0	0	0	56	650
1:25 PM	0	12	0	0	0	17	8	0	8	0	2	0	0	0	0	0	47	642
1:30 PM	0	19	0	0	0	22	7	0	11	0	7	0	0	0	0	0	66	661
1:35 PM	0	18	0	0	0	12	8	1	9	0	4	0	0	0	0	0	52	648
1:40 PM	1	17	0	0	0	13	15	0	7	0	2	0	0	0	0	0	55	659
1:45 PM	0	16	0	0	0	14	11	0	6	0	1	0	0	0	0	0	48	662
1:50 PM	0	21	0	0	0	18	10	0	8	0	2	0	0	0	0	0	59	659
1:55 PM	0	17	0	0	0	15	18	0	5	0	3	0	0	0	0	0	58	662

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	240	0	0	0	200	132	0	88	0	36	0	0	0	0	0	716
Heavy Trucks	0	0	0		0	8	4		0	0	0		0	0	0		12
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

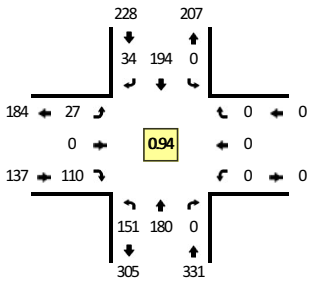
Type of peak hour being reported: Intersection Peak

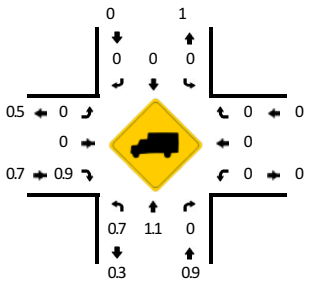
Method for determining peak hour: Total Entering Volume

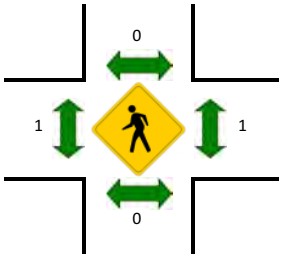
LOCATION: Bent Ave -- Site Access Dwy (mid)
CITY/STATE: San Marcos, CA

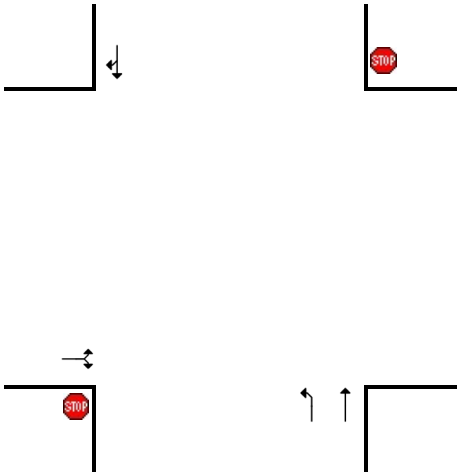
QC JOB #: 16219906
DATE: Sat, Jun 3 2023

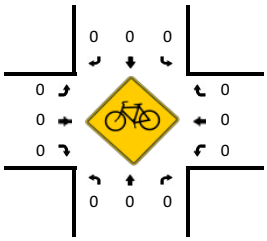
Peak-Hour: 12:35 PM -- 1:35 PM
Peak 15-Min: 12:35 PM -- 12:50 PM

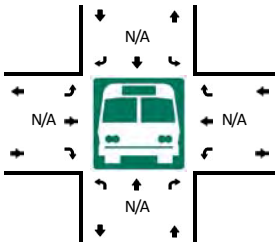


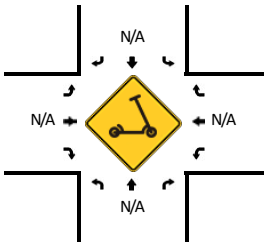












5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (mid) (Eastbound)				Site Access Dwy (mid) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	12	23	0	0	0	12	2	0	1	0	11	0	0	0	0	0	61	
11:05 AM	13	21	0	0	0	15	1	0	2	0	10	0	0	0	0	0	62	
11:10 AM	4	18	0	0	0	15	1	0	5	0	11	0	0	0	0	0	54	
11:15 AM	10	11	0	0	0	5	3	0	1	0	11	0	0	0	0	0	41	
11:20 AM	15	19	0	0	0	18	3	0	7	0	8	0	0	0	0	0	70	
11:25 AM	13	16	0	0	0	14	3	0	2	0	3	0	0	0	0	0	51	
11:30 AM	9	21	0	0	0	19	1	0	2	0	4	0	0	0	0	0	56	
11:35 AM	15	23	0	0	0	9	5	0	0	0	6	0	0	0	0	0	58	
11:40 AM	20	15	0	0	0	9	1	0	5	0	2	0	0	0	0	0	52	
11:45 AM	12	22	0	0	0	18	2	0	3	0	9	0	0	0	0	0	66	
11:50 AM	8	12	0	1	0	16	0	0	1	0	10	0	0	0	0	0	48	
11:55 AM	10	18	0	0	0	20	0	0	3	0	10	0	0	0	0	0	61	680
12:00 PM	9	16	0	0	0	15	3	0	4	0	11	0	0	0	0	0	58	677
12:05 PM	17	15	0	0	0	21	0	0	4	0	5	0	0	0	0	0	62	677
12:10 PM	6	13	0	0	0	14	1	0	5	0	12	0	0	0	0	0	51	674
12:15 PM	7	26	0	0	0	16	2	0	4	0	5	0	0	0	0	0	60	693
12:20 PM	3	14	0	0	0	16	0	0	1	0	7	0	0	0	0	0	41	664
12:25 PM	10	20	0	0	0	16	3	0	0	0	8	0	0	0	0	0	57	670
12:30 PM	11	14	0	0	0	9	1	0	3	0	9	0	0	0	0	0	47	661
12:35 PM	17	19	0	1	0	22	2	0	3	0	13	0	0	0	0	0	77	680
12:40 PM	11	16	0	0	0	10	3	0	2	0	10	0	0	0	0	0	52	680
12:45 PM	15	21	0	0	0	9	3	0	3	0	5	0	0	0	0	0	56	670
12:50 PM	14	10	0	0	0	20	4	0	1	0	8	0	0	0	0	0	57	679
12:55 PM	5	13	0	0	0	16	2	0	6	0	9	0	0	0	0	0	51	669
1:00 PM	16	8	0	0	0	11	3	0	2	0	8	0	0	0	0	0	48	659
1:05 PM	9	18	0	0	0	19	2	0	1	0	11	0	0	0	0	0	60	657
1:10 PM	16	14	0	0	0	15	2	0	1	0	10	0	0	0	0	0	58	664
1:15 PM	17	18	0	0	0	16	5	0	1	0	8	0	0	0	0	0	65	669
1:20 PM	12	17	0	0	0	16	3	0	2	0	6	0	0	0	0	0	56	684
1:25 PM	12	12	0	0	0	16	1	0	0	0	12	0	0	0	0	0	53	680
1:30 PM	6	14	0	0	0	24	4	0	5	0	10	0	0	0	0	0	63	696
1:35 PM	11	17	0	0	0	18	1	0	1	0	14	0	0	0	0	0	62	681
1:40 PM	10	16	0	0	0	13	3	0	4	0	10	0	0	0	0	0	56	685
1:45 PM	11	14	0	0	0	13	2	0	1	0	14	0	0	0	0	0	55	684
1:50 PM	12	18	0	0	0	17	3	0	2	0	12	0	0	0	0	0	64	691
1:55 PM	9	16	0	0	0	15	2	0	2	0	7	0	0	0	0	0	51	691

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	172	224	0	4	0	164	32	0	32	0	112	0	0	0	0	0	740
Heavy Trucks	4	4	0		0	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

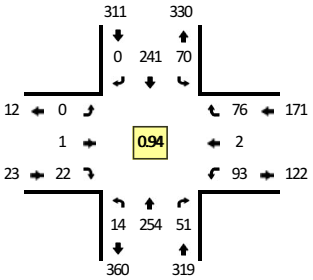
Type of peak hour being reported: Intersection Peak

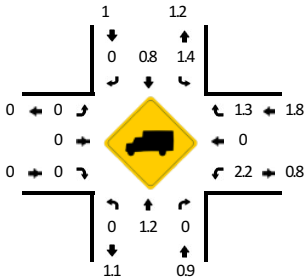
Method for determining peak hour: Total Entering Volume

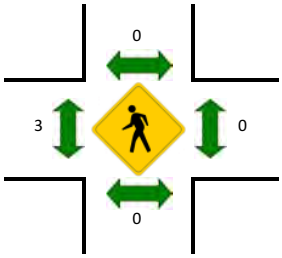
LOCATION: Bent Ave -- Site Access Dwy (south)
CITY/STATE: San Marcos, CA

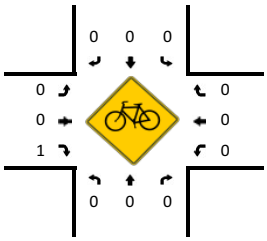
QC JOB #: 16219909
DATE: Sat, Jun 3 2023

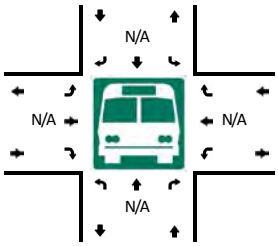
Peak-Hour: 11:45 AM -- 12:45 PM
Peak 15-Min: 12:30 PM -- 12:45 PM

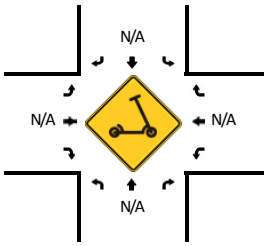












5-Min Count Period Beginning At	Bent Ave (Northbound)				Bent Ave (Southbound)				Site Access Dwy (south) (Eastbound)				Site Access Dwy (south) (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	29	5	0	2	22	0	0	0	0	0	0	4	0	7	0	69	
11:05 AM	3	31	8	0	5	18	0	0	0	0	1	0	6	0	2	0	74	
11:10 AM	0	15	1	0	4	23	0	0	0	0	3	0	9	0	6	0	61	
11:15 AM	2	21	4	0	1	16	0	0	0	0	2	0	3	0	3	0	52	
11:20 AM	0	31	4	1	5	22	0	0	0	0	0	0	8	0	3	0	74	
11:25 AM	1	25	5	0	2	15	0	0	0	0	1	0	12	0	1	0	62	
11:30 AM	2	30	3	0	1	21	1	0	0	0	3	0	7	1	2	0	71	
11:35 AM	4	34	5	0	2	12	0	0	0	0	4	0	9	0	6	0	76	
11:40 AM	0	26	4	0	2	7	0	0	0	0	2	0	5	0	8	0	54	
11:45 AM	0	26	3	0	6	23	0	0	0	0	0	0	8	0	6	0	72	
11:50 AM	0	19	8	0	4	24	0	0	0	1	0	0	7	0	4	0	67	
11:55 AM	0	25	7	0	9	22	0	0	0	0	3	0	8	1	2	0	77	809
12:00 PM	0	15	5	0	8	17	0	0	0	0	1	0	11	0	10	0	67	807
12:05 PM	2	27	2	0	6	20	0	0	0	0	2	0	7	0	5	0	71	804
12:10 PM	0	12	4	0	6	20	0	0	0	0	1	0	10	0	7	0	60	803
12:15 PM	2	22	4	0	3	19	0	0	0	0	1	0	8	0	12	0	71	822
12:20 PM	1	16	2	0	4	18	0	0	0	0	3	0	9	0	1	0	54	802
12:25 PM	1	21	5	1	7	17	0	0	0	0	1	0	4	0	8	0	65	805
12:30 PM	2	20	4	0	4	15	0	0	0	0	1	0	12	0	5	0	63	797
12:35 PM	0	28	3	1	8	28	0	0	0	0	8	0	2	1	9	0	88	809
12:40 PM	2	23	4	2	5	18	0	0	0	0	1	0	7	0	7	0	69	824
12:45 PM	2	26	2	0	1	13	0	0	0	0	1	0	8	0	7	0	60	812
12:50 PM	1	20	4	0	5	23	0	0	0	0	3	0	9	0	4	0	69	814
12:55 PM	2	14	2	0	6	19	0	0	0	0	0	0	7	0	5	0	55	792
1:00 PM	2	18	1	0	5	13	0	0	0	0	3	0	13	0	7	0	62	787
1:05 PM	1	21	3	0	4	28	0	0	0	0	2	0	5	0	9	0	73	789
1:10 PM	0	22	3	0	5	21	0	0	0	0	2	0	4	0	7	0	64	793
1:15 PM	0	26	0	0	4	19	1	0	0	1	3	0	10	0	9	0	73	795
1:20 PM	3	22	1	0	6	16	0	0	0	0	2	0	3	0	7	0	60	801
1:25 PM	2	21	3	1	6	21	1	0	0	0	3	0	7	0	2	0	67	803
1:30 PM	0	14	1	0	2	32	0	0	0	0	2	0	9	0	9	0	69	809
1:35 PM	4	21	5	0	5	28	0	0	0	0	1	0	4	1	7	0	76	797
1:40 PM	2	19	4	0	4	18	0	0	1	0	3	0	7	0	5	0	63	791
1:45 PM	2	22	5	1	4	22	0	0	0	1	1	0	7	0	3	0	68	799
1:50 PM	1	25	2	1	4	27	0	0	0	0	2	0	9	0	5	0	76	806
1:55 PM	2	20	2	0	2	20	0	0	0	0	2	0	6	0	7	0	61	812

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	284	44	12	68	244	0	0	0	0	40	0	84	4	84	0	880
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	4		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/26/2023 9:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of report: Tube Count - Volume Data

LOCATION: Bent Ave north of San Marcos Blvd (Thu) **QC JOB #:** 16219923
SPECIFIC LOCATION: **DIRECTION:** NB, SB
CITY/STATE: San Marcos, CA **DATE:** Jun 22 2023 - Jun 22 2023

Start Time	Mon	Tue	Wed	Thu 22 Jun 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				9		9			9	
01:00 AM				19		19			19	
02:00 AM				11		11			11	
03:00 AM				9		9			9	
04:00 AM				18		18			18	
05:00 AM				42		42			42	
06:00 AM				118		118			118	
07:00 AM				248		248			248	
08:00 AM				313		313			313	
09:00 AM				357		357			357	
10:00 AM				442		442			442	
11:00 AM				**477**		**477**			**477**	
12:00 PM				528		528			528	
01:00 PM				469		469			469	
02:00 PM				503		503			503	
03:00 PM				564		564			564	
04:00 PM				**637**		**637**			**637**	
05:00 PM				579		579			579	
06:00 PM				311		311			311	
07:00 PM				181		181			181	
08:00 PM				136		136			136	
09:00 PM				91		91			91	
10:00 PM				33		33			33	
11:00 PM				12		12			12	
Day Total				6107		6107			6107	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 477		11:00 AM 477			11:00 AM 477	
PM Peak Volume				4:00 PM 637		4:00 PM 637			4:00 PM 637	

Comments:

Report generated on 6/27/2023 1:44 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
DATA THAT DRIVES COMMUNITIES

Type of report: Tube Count - Volume Data

LOCATION: Bent Ave north of San Marcos Blvd (Sat & Sun) **QC JOB #:** 16219924
SPECIFIC LOCATION: **DIRECTION:** NB, SB
CITY/STATE: San Marcos, CA **DATE:** Jun 3 2023 - Jun 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 3 Jun 23	Sun 4 Jun 23	Average Week Hourly Traffic	Average Week Profile
12:00 AM							17	13	15	
01:00 AM							17	14	16	
02:00 AM							6	5	6	
03:00 AM							6	4	5	
04:00 AM							10	0	5	
05:00 AM							15	11	13	
06:00 AM							65	27	46	
07:00 AM							198	58	128	
08:00 AM							312	86	199	
09:00 AM							441	145	293	
10:00 AM							536	200	368	
11:00 AM							**648**	**243**	446	
12:00 PM							641	254	448	
01:00 PM							**657**	**313**	485	
02:00 PM							653	267	460	
03:00 PM							556	268	412	
04:00 PM							436	221	329	
05:00 PM							376	198	287	
06:00 PM							263	187	225	
07:00 PM							158	162	160	
08:00 PM							149	110	130	
09:00 PM							79	69	74	
10:00 PM							49	40	45	
11:00 PM							27	8	18	
Day Total							6315	2903	4613	
% Weekday Average										
% Week Average						0%	136.9%	62.9%		
AM Peak Volume							11:00 AM 648	11:00 AM 243	11:00 AM 446	
PM Peak Volume							1:00 PM 657	1:00 PM 313	1:00 PM 485	

Comments:

Report generated on 6/27/2023 1:44 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
DATA THAT DRIVES COMMUNITIES

Costco Fuel Facility and Business Center Internalization Methodology

Internalization rates were calculated for the fuel stations by dividing the number of instances where transactions occurred at multiple Costco facilities (Business Center & fuel facility) within a 90-minute period by the total number of transactions at the fuel facility. In the equation below, (Fuel Only) represents the number of member visits where a member made a purchase at the fuel facility but did not visit the Business Center. (Fuel + BC) represents the number of member visits where a member made purchases at both the fuel facility and the Business Center in the same visit to the site. For example, if the value for (Fuel + BC) is 10, that means that 10 members made transactions at both the Business Center and fuel station within 90 minutes of each other (20 transactions were actually made). The expressions are mutually exclusive.

<u>Definitions/Equations:</u> Fuel Station Internalization is the percentage of visits to the fuel station that also involves a transaction at the Business Center.

$$= \frac{Shared\ Fuel\ Facility\ Visits}{Total\ Fuel\ Facility\ Visits} = \frac{(Fuel + BC)}{(Fuel\ Only) + (Fuel + BC)}$$

<u>Assumptions:</u>

- Peak Hours
    - AM peak 6-9 AM
    - Midday peak 11 AM - 2 PM
    - PM peak 4-7 PM
- Days
    - Weekday – Tuesday through Thursday
    - Saturday

<u>Data Description:</u>

- Data from 3 existing Costco Business Center locations
    - #569: Commerce Business Center
    - #564: Hawthorne Business Center
    - #823: Hayward Business Center
- Time period – May 1 to June 12, 2023
- Frequency – every thirty minutes

Appendix B
Signal Timing Data

CALTRANS SIGNAL TIMING
78 EB / SAN MARCOS BLVD

© 2017 California Department of Transportation, All Rights Reserved

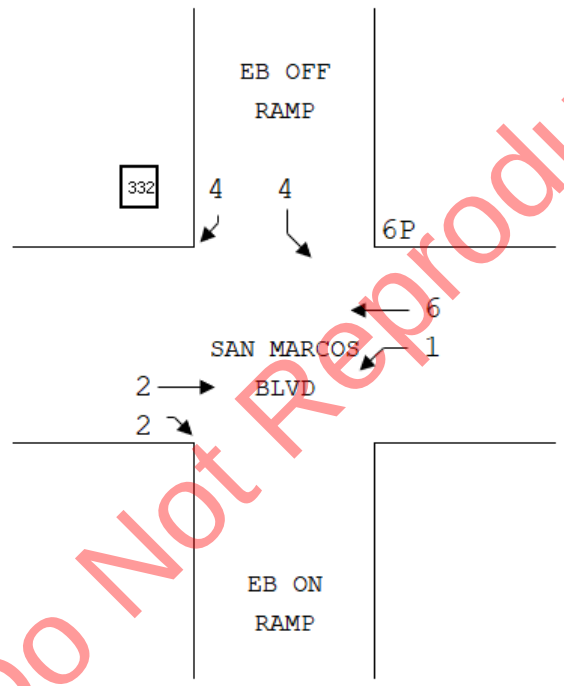
2070 Controller TSCP Timing Chart

Location: 78 EB @ San Marcos Blvd
System:
Master At: 78 WB @ San Marcos Blvd
District: 11
I/C: Yes
Designed By:
Installed By:
Service Info:

Timing Change: 5/30/2023
Date Start:
Date End:
Designed:
Installed:

		FLASH
PHASE	1) SB San Marcos Blvd Left Turn	[ ]
	2) NB San Marcos Blvd	[ ]
	3)	[ ]
	4) EB 78 Off Ramp	[ ]
	5)	[ ]
	6) SB San Marcos Blvd	[ ]
	7)	[ ]
	8)	[ ]
OVERLAP	A)	[ ]
	B)	[ ]
	C)	[ ]
	D)	[ ]
	E)	[ ]
	F)	[ ]

Intersection Layout



Do Not Reproduce

Comments and Notes:

PHASES	1	2	3	4	5	6	7	8
3.5 PED FT	-	-	-	-	-	105	-	-
Bike xing FT	-	71	-	-	-	167	-	-

OLA = FZ 2
OLB = FZ 4
Yellow Yield to Grand Ave Fz 2 (NB San Marcos Blvd)

RAM Checksum

Page 2: A041	Page 8: 85AF
Page 3: E4AE	Page 9: F1EC
Page 4: F29E	Page 10: A8B7
Page 5: 191A	Page 11: A3AF
Page 6: 191A	Page 12: 96CF
Page 7: A9DC	Page 13: 7666

© 2017 California Department of Transportation, All Rights Reserved

CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	1 2 . 4 . 6 . .
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	1 . . 4 . . . .
Yellow	. . . . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	1 2 . 4 . 6 . .
Pedestrian Calls	. . . . . 6 . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlaps	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlaps	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. . . . . 6 . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . . 6 . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	0	0	0	0	1	0	10
Flash Don't Walk	0	0	0	0	0	24	0	10
Minimum Green	5	5	10	5	10	12	10	10
Det Limit	0	0	10	0	10	0	10	10
Max Initial	0	0	10	0	10	0	10	10
Max Green 1	17	35	50	25	50	35	50	50
Max Green 2	0	0	50	0	50	0	50	50
Max Green 3	0	0	50	0	50	0	50	50
Extension	1.5	1.0	5.0	1.5	5.0	1.0	5.0	5.0
Maximum Gap	4.0	1.0	5.0	4.0	5.0	1.0	5.0	5.0
Minimum Gap	1.5	1.0	5.0	1.5	5.0	1.0	5.0	5.0
Add Per Vehicle	0.0	0.0	1.0	0.0	1.0	0.0	1.0	1.0
Reduce Gap By	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Reduce Every	0.5	1.0	1.0	0.5	1.0	1.0	1.0	1.0
Yellow	3.7	4.8	5.0	4.1	5.0	4.8	5.0	5.0
All-Red	2.0	2.0	1.0	2.0	1.0	2.0	1.0	1.0
Ped/Bike (2-3)	**-1-**	**-2-**	**-3-**	**-4-**	**-5-**	**-6-**	**-7-**	**-8-**
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	0	0	6	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Do Not Reproduce

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor			.....											
Plan 2	Green Factor			.....											
Plan 3	Green Factor			.....											
Plan 4	Green Factor			.....											
Plan 5	Green Factor			.....											
Plan 6	Green Factor			.....											
Plan 7	Green Factor			.....											
Plan 8	Green Factor			.....											
Plan 9	Green Factor			.....											

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	.....	.....	.....	.....	.....	.....	.....	.....
Plan 2	.....	.....	.....	.....	.....	.....	.....	.....
Plan 3	.....	.....	.....	.....	.....	.....	.....	.....
Plan 4	.....	.....	.....	.....	.....	.....	.....	.....
Plan 5	.....	.....	.....	.....	.....	.....	.....	.....
Plan 6	.....	.....	.....	.....	.....	.....	.....	.....
Plan 7	.....	.....	.....	.....	.....	.....	.....	.....
Plan 8	.....	.....	.....	.....	.....	.....	.....	.....
Plan 9	.....	.....	.....	.....	.....	.....	.....	.....

Master Timer Sync (7-A)	
Enable in Plans	
1-9	.....
11-19	.....
21-29	.....

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
. 2 . 4 . 6 . 8	.....
Veh Min	Veh Max
. 2 . . . 6 . .	.....
Ped	Bike
.....	.....
Cond	Cond Grn
.....	10

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

TOD SCHEDULE

Table 1 (8-2-1)			Table 2 (8-2-2)			Table 3 (8-2-3)			Table 4 (8-2-4)			Table 5 (8-2-5)			Table 6 (8-2-6)		
Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A

Do Not Reproduce

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

© 2017 California Department of Transportation, All Rights Reserved

HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Daylight Saving (8-1)

Enabled	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	.....
Holiday	.....

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1	0645	2100	M T W T F . .	12	1 2 . 4 . 6 . .
2	0815	1900	. . . . . S S	12	1 2 . 4 . 6 . .
3			.....		.....
4			.....		.....
5			.....		.....
6			.....		.....
7			.....		.....
8			.....		.....
9			.....		.....
10			.....		.....
11			.....		.....
12			.....		.....
13			.....		.....
14			.....		.....
15			.....		.....
16			.....		.....

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

RAILROAD PREEMPTION

RR 1

Timing (3-1-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
.2..5...	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.2..5...	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
1..4..78	.....	.....	.....	...4...8	.2...6..	.....	.....	.....

Exit Parameters (3-1-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
.2...6..	.....	12345678	.2.4.6.8

Configuration (3-1-6)									
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

RR 2

Timing (3-2-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
...4..7.	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
...4..7.	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
123..6..	.....	.....	.....	.2...6..	...4...8	.....	.....	.....

Exit Parameters (3-2-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
.2...6..	.....	12345678	.2.4.6.8

Configuration (3-2-6)									
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

Do Not Reproduce

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)	Preempt Timers			Phase Green	Overlap Green
	Delay	Clear	Max		
		5	255	.2.....	.....

Port	Latching	Phase Termination
5.5	NO	ADVANCE

EVB (3-B)	Preempt Timers			Phase Green	Overlap Green
	Delay	Clear	Max		
		5	255	...4....	.....

Port	Latching	Phase Termination
5.6	NO	ADVANCE

EVC (3-C)	Preempt Timers			Phase Green	Overlap Green
	Delay	Clear	Max		
		5	255	1....6..	.....

Port	Latching	Phase Termination
5.7	NO	ADVANCE

EVD (3-D)	Preempt Timers			Phase Green	Overlap Green
	Delay	Clear	Max		
		5	255	.....	.....

Port	Latching	Phase Termination
5.8	NO	ADVANCE

© 2017 California Department of Transportation, All Rights Reserved

INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	RR1		Free	
Max ON		RR2		D2	
Max OFF		RR3		D3	

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
2.7	FLASHING

Y-Coordination (2-1-5-6	
Port C	Port D
6.1	

OUTPUTS

Loadswitch Assignments (2-1-6)							
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

Do Not Reproduce

INTERVAL CONTROL

Interval Control (3-3-1)	Time	Phase Control (3-3-2) Hold	Force	Advance	Phase Recall (3-3-3) Veh Call	Ped Call	Int Call	Phase Permitted (3-3-4) Phs Permit	Ped Permit	Ovrlap Permit
Step 1		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 2		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 3		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 4		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 5		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 6		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 7		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 8		.....	.....	.....	.....	.....	.....	.....	.....	.....

Configuration (3-3-5)			
Input	Port	Delay	HRI Cross
1			
2			

HRI

HRI Configuration (3-4)	
RailRoad	0
Line	
Group	

	WAYSIDE	ATC
Subnode		
Device		

© 2017 California Department of Transportation, All Rights Reserved

TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Enable in Local Plans (3-E-3)	
Plan 1-9	. . . . .
Plan 11-19	. . . . .

Queue Jump (3-E-4)	
Grn Hold	Hold Phase
	. . . . .
	. . . . .

Input		Output	
Type	Port	Stop	Go
NONE	0.0	0	0
NONE	0.0	0	0

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	. . . . .

Do Not Reproduce

YELLOW YIELD COORDINATION

Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	Force-Offs -1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C	100	170	11	5				210					. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . 4	. . . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . . .	0.0	0.0	0.0	0	0.0	0

CALTRANS SIGNAL TIMING
78 EB / VIA VERA CRUZ / GRAND

© 2017 California Department of Transportation, All Rights Reserved

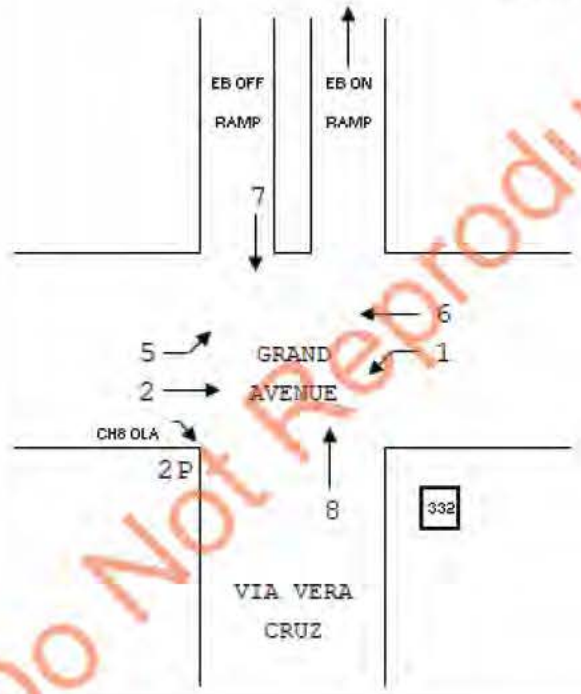
2070 Controller TSCP Timing Chart

Location: 78 EB @ Grand Ave - Via Vera Cruz
System:
Master At: None
District: 11
I/C: Yes
Designed By:
Installed By:
Service Info:

Timing Change:	Date Start:	Date End:	Designed:	Installed:
2/14/2023				

		FLASH
PHASE	1) WB Grand Ave Left Turn	[ ]
	2) EB Grand Ave	[ ]
	3)	[ ]
	4)	[ ]
	5) EB Grand Ave Left Turn	[ ]
	6) WB Grand Ave	[ ]
	7) SB 78 Off Ramp	[ ]
	8) NB Via Vera Cruz	[ ]
OVERLAP	A)	[ ]
	B)	[ ]
	C)	[ ]
	D)	[ ]
	E)	[ ]
	F)	[ ]

Intersection Layout



Do Not Reproduce

Comments and Notes:

PHASES	1	2	3	4	5	6	7	8
3.5 PED FT	-	80	-	-	-	-	-	-
Bike xing FT	127	84	-	-	-	124	-	133

7/8 Split
OLA = Fz 8

RAM Checksum

Page 2: 4D9C	Page 8: A35D
Page 3: E680	Page 9: 673A
Page 4: AC0B	Page 10: E95B
Page 5: 191A	Page 11: A7EF
Page 6: 191A	Page 12: A135
Page 7: 4D5C	Page 13: 84E7

Post Mile: RTE 78 P11.290: 78 EB @ Grand Ave / Via Vera Cruz

Printed: 2/15/2023

© 2017 California Department of Transportation, All Rights Reserved

CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	1 2 . . 5 6 7 8
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	1 . . . 5 . 7 8
Yellow	. . . . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. 2 . . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	1 2 . . 5 6 7 8
Pedestrian Calls	. 2 . . . . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlaps	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlaps	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. 2 . . . . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. 2 . . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . .
P7	. . . . . 7 .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	1	0	10	0	0	19	0
Flash Don't Walk	0	18	0	10	0	0	1	0
Minimum Green	11	6	10	10	5	9	5	11
Det Limit	0	0	10	10	0	0	0	0
Max Initial	0	0	10	10	0	0	0	0
Max Green 1	10	25	50	50	20	15	15	15
Max Green 2	0	0	50	50	40	0	40	0
Max Green 3	0	0	50	50	0	0	0	0
Extension	2.0	2.0	5.0	5.0	2.0	2.0	2.0	2.0
Maximum Gap	2.0	2.0	5.0	5.0	5.0	2.0	2.0	2.0
Minimum Gap	2.0	2.0	5.0	5.0	2.0	2.0	2.0	2.0
Add Per Vehicle	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0
Reduce Gap By	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yellow	3.7	4.8	5.0	5.0	3.7	4.8	4.1	4.1
All-Red	1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.0
Ped/Bike (2-3)	**-1-**	**-2-**	**3-**	**-4-**	**-5-**	**-6-**	**-7-**	**-8-**
--- Walk 2 ---	0	1	0	0	0	0	0	0
Delay/Early Walk	0	6	0	0	0	0	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Do Not Reproduce

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor	100		.....	65	65	65	15	6			12	9	40	15
Plan 2	Green Factor	100		.....	56	56	56	15	13			19	9	32	16
Plan 3	Green Factor	110		.....	39	39	39	15	29			34	10	25	17
Plan 4	Green Factor			.....											
Plan 5	Green Factor			.....											
Plan 6	Green Factor			.....											
Plan 7	Green Factor			.....											
Plan 8	Green Factor			.....											
Plan 9	Green Factor			.....											

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	.2...6.8	.2...6..	.....	.....	8	....5...	.....7.	.....
Plan 2	.2...6.8	.2...6..	.....	.....	8	....5...	.....7.	.....
Plan 3	.2...6.8	.2...6..	.....	.....	8	....5...	.....7.	.....
Plan 4	.....	.....	.....	.....	.....	.....	.....	.....
Plan 5	.....	.....	.....	.....	.....	.....	.....	.....
Plan 6	.....	.....	.....	.....	.....	.....	.....	.....
Plan 7	.....	.....	.....	.....	.....	.....	.....	.....
Plan 8	.....	.....	.....	.....	.....	.....	.....	.....
Plan 9	.....	.....	.....	.....	.....	.....	.....	.....

Master Timer Sync (7-A)

Enable in Plans	
1-9	.....
11-19	.....
21-29	.....

Master Sub Master

Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free

Lag	Omit
.2.4.6.8	.....
Veh Min	**Veh Max**
.2...6..	.....
Ped	**Bike**
.....	.....
Cond	**Cond Grn**
.....	10

MANUAL COMMANDS

Manual Plan (4-1)

Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)

#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

TOD SCHEDULE

Table 1 (8-2-1)			Table 2 (8-2-2)			Table 3 (8-2-3)			Table 4 (8-2-4)			Table 5 (8-2-5)			Table 6 (8-2-6)		
Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS
0630	1	A	0900	2	A			A			A			A			A
0930	2	A	2000	255	A			A			A			A			A
1430	3	A			A			A			A			A			A
2000	255	A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A

Do Not Reproduce

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

© 2017 California Department of Transportation, All Rights Reserved

HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Daylight Saving (8-1)

Enabled	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	.....
Holiday	.....

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1	0630	2000	M T W T F S S	17	. . . 5 . 7 .
2			.....		.....
3			.....		.....
4			.....		.....
5			.....		.....
6			.....		.....
7			.....		.....
8			.....		.....
9			.....		.....
10			.....		.....
11			.....		.....
12			.....		.....
13			.....		.....
14			.....		.....
15			.....		.....
16			.....		.....

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

RAILROAD PREEMPTION

RR 1

Timing (3-1-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. 2 . . 5 . . .	. . . . .	. . . . .	. . . . .	. . . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. 2 . . 5 . . .	. . . . .	. . . . .	. . . . .	. . . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
1 . . 4 . . 7 8	. . . . .	. . . . .	. . . . .	. . . 4 . . . 8	. 2 . . . 6 . .	. . . . .	. . . . .	. . . . .

Exit Parameters (3-1-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-1-6)									
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inp ts 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Va d Ou puts: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

RR 2

Timing (3-2-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-2-2)			Pedestrian Flags (3-2 3)			Overlap Flags (3-2-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
. . . 4 . . 7 .	. . . . .	. . . . .	. . . . .	. . . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . 4 . . 7 .	. . . . .	. . . . .	. . . . .	. . . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
1 2 3 . . 6 . .	. . . . .	. . . . .	. . . . .	2 6 . .	. . . 4 . . . 8	. . . . .	. . . . .	. . . . .

Exit Parameters (3-2-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
. 2 . . . 6 . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-2-6)									
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

Do Not Reproduce

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	. 2 . . 5 . .	. . . . . .

Port	Latching	Phase Termination
5.5	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	. . . . . 7 .	. . . . .

Port	Latching	Phase Termination
5.6	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	1 . . . . 6 . .	. . . . .

Port	Latching	Phase Termination
5.7	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	 8	. . . . .

Port	Latching	Phase Termination
5.8	NO	ADVANCE

© 2017 California Department of Transportation, All Rights Reserved

INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	RR1		Free	
Max ON		RR2		D2	
Max OFF		RR3		D3	

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
2.7	FLASHING

Y-Coordination (2-1-5-6	
Port C	Port D

OUTPUTS

Loadswitch Assignments (2-1-6)							
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special F nctions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

Do Not Reproduce

INTERVAL CONTROL

Interval Control (3-3-1)	Time	Phase Control (3-3-2) Hold	Force	Advance	Phase Recall (3-3-3) Veh Call	Ped Call	Int Call	Phase Permitted (3-3-4) Phs Permit	Ped Permit	Ovrlap Permit
Step 1		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 2		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 3		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 4		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 5		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 6		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 7		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 8		.....	.....	.....	.....	.....	.....	.....	.....	.....

Configuration (3-3-5)			
Input	Port	Delay	HRI Cross
1			
2			

HRI

HRI Configuration (3-4)	
RailRoad	0
Line	
Group	

	WAYSIDE	ATC
Subnode		
Device		

© 2017 California Department of Transportation, All Rights Reserved

TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Enable in Local Plans (3-E-3)	
Plan 1-9	. . . . .
Plan 11-19	. . . . .

Queue Jump (3-E-4)	
Grn Hold	Hold Phase
	. . . . .
	. . . . .

Input		Output	
Type	Port	Stop	Go
NONE	0.0	0	0
NONE	0.0	0	0

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	. . . . .

Do Not Reproduce

YELLOW YIELD COORDINATION

Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	Force-Offs -1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . . .	0.0	0.0	0.0	0	0.0	0

CALTRANS SIGNAL TIMING
78 WB / LAS POSAS

© 2017 California Department of Transportation, All Rights Reserved

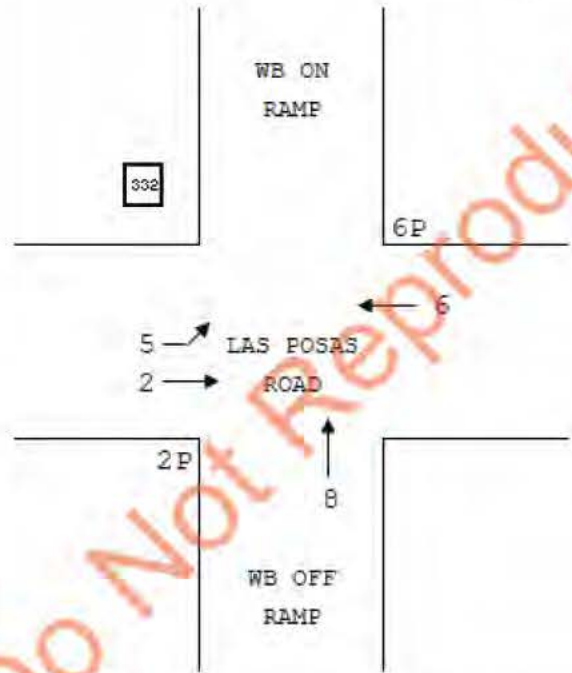
2070 Controller TSCP Timing Chart

Location: 78 WB @ Las Posas Rd
System:
Master At: None
District: 11
I/C: Yes
Designed By:
Installed By:
Service Info:

Timing Change: Date Start: Date End: Designed: Installed:

		FLASH
PHASE	1)	[ ]
	2) NB Las Posas Rd	[ ]
	3)	[ ]
	4)	[ ]
	5) NB Las Posas Rd Left Turn	[ ]
	6) SB Las Posas Rd	[ ]
	7)	[ ]
	8) WB 78 Off Ramp	[ ]
OVERLAP	A)	[ ]
	B)	[ ]
	C)	[ ]
	D)	[ ]
	E)	[ ]
	F)	[ ]

Intersection Layout



Do Not Reproduce

Comments and Notes:

PHASES	1	2	3	4	5	6	7	8
3.5 PED FT	-	30	-	-	-	30	-	-
Bike xing FT	-	63	-	-	-	69	-	-

RAM Checksum

Page 2: D5F7	Page 8: A35D
Page 3: B5EE	Page 9: 69D3
Page 4: BAC8	Page 10: 8884
Page 5: 191A	Page 11: 45D8
Page 6: 191A	Page 12: D68F
Page 7: 1804	Page 13: 84E7

Post Mile: RTE 78 P11.183: 78 WB @ Las Posas Rd

Printed: 1/24/2023

© 2017 California Department of Transportation, All Rights Reserved

CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	. 2 . . 5 6 . 8
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	. . . . 5 . . 8
Yellow	. . . . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	. 2 . . 5 6 . 8
Pedestrian Calls	. 2 . . . 6 . .
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlap	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlap	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. . . . . 6 . .

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. 2 . . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . . 6 . .
P7	. . . . .
P8	. . . . .

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	7	0	10	0	1	0	0
Flash Don't Walk	0	10	0	10	0	10	0	0
Minimum Green	10	5	10	10	5	5	10	5
Det Limit	10	0	10	10	0	0	10	0
Max Initial	10	0	10	10	0	0	10	0
Max Green 1	50	25	50	50	20	25	50	25
Max Green 2	50	0	50	50	35	0	50	0
Max Green 3	50	0	50	50	0	0	50	0
Extension	5.0	2.0	5.0	5.0	2.0	2.0	5.0	2.0
Maximum Gap	5.0	2.0	5.0	5.0	5.0	2.0	5.0	2.0
Minimum Gap	5.0	2.0	5.0	5.0	2.0	2.0	5.0	2.0
Add Per Vehicle	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Reduce Gap By	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yellow	5.0	4.8	5.0	5.0	3.7	4.8	5.0	4.1
All-Red	1.0	2.0	1.0	1.0	1.0	2.0	1.0	1.0
Ped/Bike (2-3)	**-1-**	**-2-**	**3-**	**-4-**	**-5-**	**-6-**	**-7-**	**-8-**
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	0	0	6	0	0
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Do Not Reproduce

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor	100		.....	51	51	51		64			12	47		23
Plan 2	Green Factor	100		.....	14	14	14		65			26	34		22
Plan 3	Green Factor	110		.....	11	11	11		78			34	39		19
Plan 4	Green Factor			.....											
Plan 5	Green Factor			.....											
Plan 6	Green Factor			.....											
Plan 7	Green Factor			.....											
Plan 8	Green Factor			.....											
Plan 9	Green Factor			.....											

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	.2...6.8	.2...6..	.....	.....	8	.....	.....	.....
Plan 2	.2...6.8	.2...6..	.....	.....	8	.....	.....	.....
Plan 3	.2...6.8	.2...6..	.....	.....	8	.....	.....	.....
Plan 4	.....	.....	.....	.....	.....	.....	.....	.....
Plan 5	.....	.....	.....	.....	.....	.....	.....	.....
Plan 6	.....	.....	.....	.....	.....	.....	.....	.....
Plan 7	.....	.....	.....	.....	.....	.....	.....	.....
Plan 8	.....	.....	.....	.....	.....	.....	.....	.....
Plan 9	.....	.....	.....	.....	.....	.....	.....	.....

Master Timer Sync (7-A)	
Enable in Plans	
1-9	.....
11-19	.....
21-29	.....

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
.2.4.6.8	.....
Veh Min	Veh Max
.2...6..	.....
Ped	Bike
.....	.....
Cond	Cond Grn
.....	10

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

TOD SCHEDULE

Table 1 (8-2-1)			Table 2 (8-2-2)			Table 3 (8-2-3)			Table 4 (8-2-4)			Table 5 (8-2-5)			Table 6 (8-2-6)		
Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS
0630	1	A	0900	2	A			A			A			A			A
0930	2	A	2000	255	A			A			A			A			A
1430	3	A			A			A			A			A			A
2000	255	A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A

Do Not Reproduce

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

© 2017 California Department of Transportation, All Rights Reserved

HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Daylight Saving (8-1)

Enabl	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	.....
Holiday	.....

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1	0900	2000	M T W T F S S	17	. . . 5 . . .
2			.....		.....
3			.....		.....
4			.....		.....
5			.....		.....
6			.....		.....
7			.....		.....
8			.....		.....
9			.....		.....
10			.....		.....
11			.....		.....
12			.....		.....
13			.....		.....
14			.....		.....
15			.....		.....
16			.....		.....

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

RAILROAD PREEMPTION

RR 1

(3-1-1)	Timing	Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Delay		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Clear 1	10	. 2 . . 5 . . .	. . . . .	. . . . .	. . . . .	. . . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
Clear 2		. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Clear 3		. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Hold		. . . . .	. . . . .	1 2 3 4 5 6 7 8	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	A B C D E F
Exit	5									
Min Grn										
Ped Clr										

Exit Parameters (3-1-5)			
Phase Green	Overlap Green	Vehicle Call	Ped Call
. . . . .	. . . . .	1 2 3 4 5 6 7 8	. 2 . 4 . 6 . 8

Configuration (3-1-6)			
PR 1	PR 2	Latching	Power-Up
2.5	0.0	YES	FLASHING

RR 2

(3-2-1)	Timing	Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
Delay		Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
Clear 1	10	. . . 4 . . 7 .	. . . . .	. . . . .	. . . . .	. . . . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .	. . . . .
Clear 2		. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Clear 3		. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
Hold		1 2 3 . . 6 . .	. . . . .	. . . . .	. 2 . . 6 .	. . . . .	. . . 4 . . . 8	. . . . .	. . . . .	. . . . .
Exit										
Min Grn										
Ped Clr										

Exit Parameters (3-2-5)			
Phase Green	Overlap Green	Vehicle Call	Ped Call
. . . . .	. . . . .	. . . 4 . 7 .	. . . . .

Configuration (3-2-6)			
PR 1	PR 2	Latching	Power-up
2.6	0.0	YES	DARK

Do Not Reproduce

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	2 . . 5 . . .	. . . . .

Port	Latching	Phase Termination
5.5	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	. . . . .	. . . . .

Port	Latching	Phase Termination
5.6	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	. . . . . 6 . .	. . . . .

Port	Latching	Phase Termination
5.7	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	 8	. . . . .

Port	Latching	Phase Termination
5.8	NO	ADVANCE

© 2017 California Department of Transportation, All Rights Reserved

INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	R1	3.8	Free	3.6
Max ON		R2	3.5	D2	2.8
Max OFF		R3	3.7	D3	6.1

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Battery Backup (2-1-5-5)	
Port	Operation
2.7	FLASHING

Cabinet Status (2-1-5-3)	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Y-Coordination (2-1-5-6)	
Port C	Port D
6.1	2.8

Do Not Reproduce

OUTPUTS

Loadswitch Assignments (2-1-6)							+
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:

- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special Functions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6
Channel 9 and 10

© 2017 California Department of Transportation, All Rights Reserved

TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Transit Priority Configuration (3-E-A)				Indicator Output	
Enable in Plans		Input	Type	Stop	Go
Plan 1-9	. . . . .	0.0	NONE	0	0
Plan 11-19	. . . . .	0.0	NONE	0	0

Queue Jump (3-E-B)	
G n Hold	Hold Phase
	. . . . .
	. . . . .

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	. . . . .

YELLOW YIELD COORDINATION

Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	Force-Offs -1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . . .	0.0	0.0	0.0	0	0.0	0

Do Not Reproduce

CALTRANS SIGNAL TIMING
78 WB / SAN MARCOS BLVD

© 2017 California Department of Transportation, All Rights Reserved

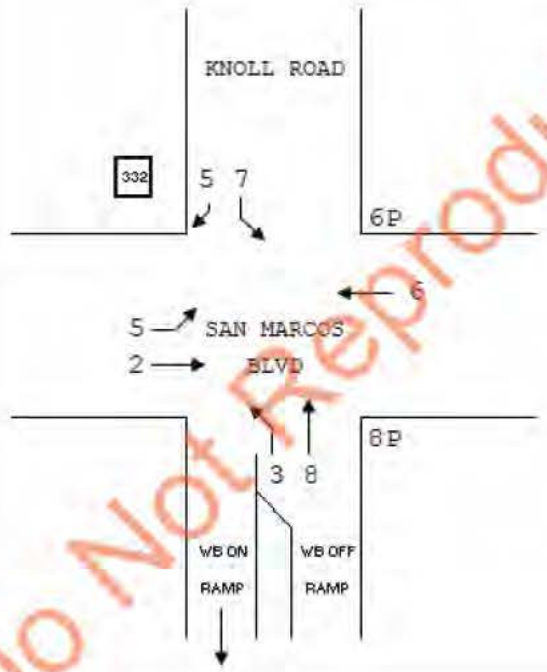
2070 Controller TSCP Timing Chart

Location: 78 WB @ San Marcos Blvd
System:
Master At: 78 WB @ San Marcos Blvd
District: 11
I/C: Yes
Designed By:
Installed By:
Service Info:

Timing Change: Date Start: Date End: Designed: Installed:

			FLASH
PHASE	1)		[ ]
	2)	NB San Marcos Blvd	[ ]
	3)	WB 78 Off Ramp	[ ]
	4)		[ ]
	5)	NB San Marcos Blvd Left Turn	[ ]
	6)	SB San Marcos Blvd	[ ]
	7)	EB Knoll Rd Left Turn	[ ]
	8)		[ ]
OVERLAP	A)		[ ]
	B)		[ ]
	C)		[ ]
	D)		[ ]
	E)		[ ]
	F)		[ ]

Intersection Layout



Do Not Reproduce

Comments and Notes:

PHASES	1	2	3	4	5	6	7	8
3.5 PED FT	-	-	-	-	-	97	-	118
Bike xing FT	-	121	-	-	151	105	141	-

OLA = Fz 5

RAM Checksum

Page 2: CD5B	Page 8: 85AF
Page 3: 8FDB	Page 9: E841
Page 4: F29E	Page 10: 354A
Page 5: 191A	Page 11: ECA8
Page 6: 191A	Page 12: A135
Page 7: 101F	Page 13: 84E7

Post Mile: RTE 78 P12.115: 78 WB @ San Marcos Blvd

Printed: 5/31/2023

© 2017 California Department of Transportation, All Rights Reserved

CONFIGURATION PHASE FLAGS

Cabinet (9-3)
332
Configuration
CALTRANS

Phases (2-1-1-1)	
Permitted	. 2 3 . 5 6 7 8
Restricted	. . . . .

Phase Recalls (2-1-1-2)	
Vehicle Min	. 2 . . . 6 . .
Vehicle Max	. . . . .
Pedestrian	. . . . .
Bicycle	. . . . .

Phase Locks (2-1-1-3)	
Red	. . 3 . 5 . 7 .
Yellow	. . . . .
Force/Max	. . . . .

Phase Features (2-1-1-4)	
Double Entry	. . . . .
Rest In Walk	. . . . .
Rest In Red	. . . . .
Walk 2	. . . . .
Max Green 2	. . . . .
Max Green 3	. . . . .

Startup (2-1-1-5)	
First Green Phases	. 2 . . . 6 . .
Yellow Start Phases	. . . . .
Vehicle Calls	. 2 3 . 5 6 7 8
Pedestrian Calls	. . . . . 6 . 8
Yellow Start Overlaps	. . . . .
Startup All-Red	6.0

Call To Phase (2-1-2-1)		Omit On Green	
1	. . . . .	1	. . . . .
2	. . . . .	2	. . . . .
3	. . . . .	3	. . . . .
4	. . . . .	4	. . . . .
5	. . . . .	5	. . . . .
6	. . . . .	6	. . . . .
7	. . . . .	7	. . . . .
8	. . . . .	8	. . . . .

Flashing Colors (2-1-2-2)	
Yellow Flash Phases	. . . . .
Yellow Flash Overlaps	. . . . .
Flash In Red Phases	. . . . .
Flash In Red Overlaps	. . . . .

Special Operation (2-1-2-3)	
Single Exit Phase	. . . . .
Driveway Signal Phases	. . . . .
Driveway Signal Overlaps	. . . . .
Leading Ped Phases	. . . . . 6 . 8

Protected Permissive (2-1-2-4)	
Protected Permissive	. . . . .

Pedestrian (2-1-3)	
P1	. . . . .
P2	. . . . .
P3	. . . . .
P4	. . . . .
P5	. . . . .
P6	. . . . . 6 . .
P7	. . . . .
P8	 8

Overlap (2-1-4)				
Overlap	Parent	Omit	No Start	Not
A	. . . . .	. . . . .	. . . . .	. . . . .
B	. . . . .	. . . . .	. . . . .	. . . . .
C	. . . . .	. . . . .	. . . . .	. . . . .
D	. . . . .	. . . . .	. . . . .	. . . . .
E	. . . . .	. . . . .	. . . . .	. . . . .
F	. . . . .	. . . . .	. . . . .	. . . . .

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

PHASE TIMING

Phase (2-2)	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
--- Walk 1 ---	0	0	0	10	0	1	0	1
Flash Don't Walk	0	0	0	10	0	21	0	28
Minimum Green	10	9	5	10	12	8	11	5
Det Limit	10	0	0	10	15	0	0	0
Max Initial	10	0	0	10	0	0	0	0
Max Green 1	50	31	45	50	10	32	9	30
Max Green 2	50	0	0	50	0	0	0	0
Max Green 3	50	0	0	50	0	0	0	0
Extension	5.0	2.0	2.0	5.0	2.0	2.0	2.0	2.0
Maximum Gap	5.0	2.0	2.0	5.0	2.0	2.0	2.0	2.0
Minimum Gap	5.0	2.0	2.0	5.0	2.0	2.0	2.0	2.0
Add Per Vehicle	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Reduce Gap By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reduce Every	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Yellow	5.0	4.8	4.1	5.0	3.7	4.8	4.1	4.1
All-Red	1.0	2.0	2.0	1.0	2.0	2.0	2.0	2.0
Ped/Bike (2-3)	**-1-**	**-2-**	**3-**	**-4-**	**-5-**	**-6-**	**-7-**	**-8-**
--- Walk 2 ---	0	0	0	0	0	0	0	0
Delay/Early Walk	0	0	0	0	0	6	0	6
Solid Don't Walk	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0
Bike All-Red	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Do Not Reproduce

OVERLAP TIMING

Overlap (2-4)	A	B	C	D	E	F
Green	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	5.0	5.0	5.0
Red	0.0	0.0	0.0	0.0	0.0	0.0

Red Revert

Red Revert (2-5)	
Time	5.0
All-Red Sec/Min (2-6)	
All-Red Sec/Min:	OFF

Max 2 Extension

Max/Gap Out (2-7)	
Max Cnt	0
Gap Cnt	0

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 1...9 (7-1) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 1	Green Factor			.....											
Plan 2	Green Factor			.....											
Plan 3	Green Factor			.....											
Plan 4	Green Factor			.....											
Plan 5	Green Factor			.....											
Plan 6	Green Factor			.....											
Plan 7	Green Factor			.....											
Plan 8	Green Factor			.....											
Plan 9	Green Factor			.....											

Local Plan 1...9 (7-1) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 1	.....	.....	.....	.....	.....	.....	.....	.....
Plan 2	.....	.....	.....	.....	.....	.....	.....	.....
Plan 3	.....	.....	.....	.....	.....	.....	.....	.....
Plan 4	.....	.....	.....	.....	.....	.....	.....	.....
Plan 5	.....	.....	.....	.....	.....	.....	.....	.....
Plan 6	.....	.....	.....	.....	.....	.....	.....	.....
Plan 7	.....	.....	.....	.....	.....	.....	.....	.....
Plan 8	.....	.....	.....	.....	.....	.....	.....	.....
Plan 9	.....	.....	.....	.....	.....	.....	.....	.....

Master Timer Sync (7-A)	
Enable in Plans	
1-9	.....
11-19	.....
21-29	.....

Master Sub Master	
Input	
Output	

FREE PLAN PHASE FLAGS

(7-E) Free	
Lag	Omit
. 2 . 4 . 6 . 8	.....
Veh Min	Veh Max
. 2 . . . 6 . .	.....
Ped	Bike
.....	.....
Cond	Cond Grn
.....	10

MANUAL COMMANDS

Manual Plan (4-1)	
Plan	OffSet
	A

Plan: 1-29
254 = Flash
255 = Free
Offset A, B, or C

Special Function Override (4-2)			
#	Control	#	Control
1	NORMAL	3	NORMAL
2	NORMAL	4	NORMAL

Detector Reset	(4-3)
Local Manual (4-4)	OFF

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 11...19 (7-2) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 11	Green Factor			.....											
Plan 12	Green Factor			.....											
Plan 13	Green Factor			.....											
Plan 14	Green Factor			.....											
Plan 15	Green Factor			.....											
Plan 16	Green Factor			.....											
Plan 17	Green Factor			.....											
Plan 18	Green Factor			.....											
Plan 19	Green Factor			.....											

Local Plan 11...19 (7-2) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 11	.....	.....	.....	.....	.....	.....	.....	.....
Plan 12	.....	.....	.....	.....	.....	.....	.....	.....
Plan 13	.....	.....	.....	.....	.....	.....	.....	.....
Plan 14	.....	.....	.....	.....	.....	.....	.....	.....
Plan 15	.....	.....	.....	.....	.....	.....	.....	.....
Plan 16	.....	.....	.....	.....	.....	.....	.....	.....
Plan 17	.....	.....	.....	.....	.....	.....	.....	.....
Plan 18	.....	.....	.....	.....	.....	.....	.....	.....
Plan 19	.....	.....	.....	.....	.....	.....	.....	.....

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

Local Plan 21...29 (7-3) TIMING DATA

COORDINATION

[Offsets] Green Factors or Press [F] to Select Force-Off

		Cycle	Multi	Lag Gap	A	B	C	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
Plan 21	Green Factor			.....											
Plan 22	Green Factor			.....											
Plan 23	Green Factor			.....											
Plan 24	Green Factor			.....											
Plan 25	Green Factor			.....											
Plan 26	Green Factor			.....											
Plan 27	Green Factor			.....											
Plan 28	Green Factor			.....											
Plan 29	Green Factor			.....											

Local Plan 21...29 (7-3) PHASE FLAGS

	Lag	Sync	Hold	Omit	Veh Min	Veh Max	Ped	Bike
Plan 21	.....	.....	.....	.....	.....	.....	.....	.....
Plan 22	.....	.....	.....	.....	.....	.....	.....	.....
Plan 23	.....	.....	.....	.....	.....	.....	.....	.....
Plan 24	.....	.....	.....	.....	.....	.....	.....	.....
Plan 25	.....	.....	.....	.....	.....	.....	.....	.....
Plan 26	.....	.....	.....	.....	.....	.....	.....	.....
Plan 27	.....	.....	.....	.....	.....	.....	.....	.....
Plan 28	.....	.....	.....	.....	.....	.....	.....	.....
Plan 29	.....	.....	.....	.....	.....	.....	.....	.....

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

TOD SCHEDULE

Table 1 (8-2-1)			Table 2 (8-2-2)			Table 3 (8-2-3)			Table 4 (8-2-4)			Table 5 (8-2-5)			Table 6 (8-2-6)		
Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS	Time	Plan	OS
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A
		A			A			A			A			A			A

Do Not Reproduce

WEEKDAY ASSIGNMENT

Weekday Table Assignments (8-2-7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	1	1	1	1	2	2

© 2017 California Department of Transportation, All Rights Reserved

HOLIDAY TABLES

Floating Holiday Table (8-2-8)

#	Mnth	Week	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Fixed Holiday Table (8-2-9)

#	Mnth	Day	DOW	Table
1			.....	
2			.....	
3			.....	
4			.....	
5			.....	
6			.....	
7			.....	
8			.....	
9			.....	
10			.....	
11			.....	
12			.....	
13			.....	
14			.....	
15			.....	
16			.....	

Daylight Saving (8-1)

Enabled	YES	Month	Sunday
	Start	MAR	2nd
	End	NOV	1st

Solar Clock Data (8-4)

North Latitude	34
West Longitude	118
Local Time Zone	8

Sabbatical Clock (8-5)

Hebrew	Ped Recall
Sabbath	.....
Holiday	.....

TOD FUNCTIONS

TOD Functions (8-3)

#	Start	End	DOW	Action	Phases
1			.....		.....
2			.....		.....
3			.....		.....
4			.....		.....
5			.....		.....
6			.....		.....
7			.....		.....
8			.....		.....
9			.....		.....
10			.....		.....
11			.....		.....
12			.....		.....
13			.....		.....
14			.....		.....
15			.....		.....
16			.....		.....

Action Codes:

0. None
1. Permitted
2. Restricted
4. Veh Min Recall
5. Veh Max Recall
6. Ped Recall
7. Bike Recall
8. Red Lock
9. Yellow Lock
10. Force/Max Lock
11. Double Entry
12. Y-Coord C
13. Y-Coord D
14. Free
15. Flashing
16. Walk 2
17. Max Green 2
18. Max Green 3
19. Rest in Walk
20. Rest in Red
21. Free Lag Phases
22. Special Functions
23. Truck Preempt
24. Conditional Service
25. Conditional Service
26. Leading Ped
27. Traffic Actuated Max 2
41. Protected Permissive
42. Protected Permissive

Action Code = Phases added to normal setting

100+Action Code = Phases removed

200+Action Code = Phases replaced

Do Not Reproduce

© 2017 California Department of Transportation, All Rights Reserved

RAILROAD PREEMPTION

RR 1

Timing (3-1-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-1-2)			Pedestrian Flags (3-1-3)			Overlap Flags (3-1-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
.2..5...	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.2..5...	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
1..4..78	.....	.....	.....	...4...8	.2...6..	.....	.....	.....

Exit Parameters (3-1-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
.2...6..	.....	12345678	.2.4.6.8

Configuration (3-1-6)									
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inp ts 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Va d Ou puts: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

RR 2

Timing (3-2-1)	
Clear 1	15
Clear 2	5
Clear 3	
Hold	
Min Gr	
Delay	
Exit	
Ped Clr	

Phase Flags (3-2-2)			Pedestrian Flags (3-2-3)			Overlap Flags (3-2-4)		
Grn Hold	Yel Flash	Red Flash	Walk	Flash DW	Solid DW	Grn Hold	Yel Flash	Red Flash
...4..7.	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
...4..7.	.....	.....	.....	.....	.2.4.6.8	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
123..6..	.....	.....	.....	2 6..	...4...8	.....	.....	.....

Exit Parameters (3-2-5)			
Phase Green	Ovrlap Green	Veh Permit/Call	Ped Permit/Call
.2...6..	.....	12345678	.2.4.6.8

Configuration (3-2-6)									
	PR	XR	Gate	Isld	APP	Sign	Sign	Max On	Latching
1								5	NO
2									

Valid Inputs: 1.x, 2.x, 3.x, 4.x, 5.x, 6.x, 7.x, 8.x x=1 to 8
Valid Outputs: 11.x, 12.x, 13.x, 14.x, 15.x, 16.x, 17.x, 18.x x=1 to 8

Do Not Reproduce

EMERGENCY VEHICLE PREEMPTION

EVA (3-A)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	.2..5..	.....

Port	Latching	Phase Termination
5.5	NO	ADVANCE

EVB (3-B)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	.....7.	.....

Port	Latching	Phase Termination
5.6	NO	ADVANCE

EVC (3-C)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	.....6..	.....

Port	Latching	Phase Termination
5.7	NO	ADVANCE

EVD (3-D)

Preempt Timers			Phase Green	Overlap Green
Delay	Clear	Max		
	5	255	..3....8	.....

Port	Latching	Phase Termination
5.8	NO	ADVANCE

© 2017 California Department of Transportation, All Rights Reserved

INPUTS

		7 Wire I/C (2-1-5-1)			
		Input	Port	Input	Port
Enable	NO	RR1		Free	
Max ON		RR2		D2	
Max OFF		RR3		D3	

Manual Control (2-1-5-2)	
Input	Port
Manual Advance	
Advance Enable	

Cabinet Status (2-1-5-3	
Input	Port
Flash Bus	
Door Ajar	
Flash Sense	6.7
Stop Time	6.8

Special Function (2-1-5-4)	
Input	Port
1	
2	
3	
4	

Battery Backup (2-1-5-5)	
Port	Operation
2.7	FLASHING

Y-Coordination (2-1-5-6	
Port C	Port D

OUTPUTS

Loadswitch Assignments (2-1-6)							
A	1	2	22	3	4	24	9
B	5	6	26	7	8	28	10
X	13	14	0	11	12	0	0

Loadswitch Codes:
- 0 Unused (no output)
- 1-8 Vehicle 1-8
- 9-14 Overlap A-F
- 21-28 Ped 1-8
- 41-47 Special F nctions
- 41 Protected Permissive Flashing Phase 1
- 43 Protected Permissive Flashing Phase 3
- 45 Protected Permissive Flashing Phase 5
- 47 Protected Permissive Flashing Phase 7
- 51-57 Special Functions
- 71-72 Seven Wire I/C

+ middle output of loadswitches 3 and 6 Channel 9 and 10

Do Not Reproduce

INTERVAL CONTROL

Interval Control (3-3-1)	Time	Phase Control (3-3-2) Hold	Force	Advance	Phase Recall (3-3-3) Veh Call	Ped Call	Int Call	Phase Permitted (3-3-4) Phs Permit	Ped Permit	Ovrlap Permit
Step 1		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 2		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 3		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 4		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 5		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 6		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 7		.....	.....	.....	.....	.....	.....	.....	.....	.....
Step 8		.....	.....	.....	.....	.....	.....	.....	.....	.....

Configuration (3-3-5)			
Input	Port	Delay	HRI Cross
1			
2			

HRI

HRI Configuration (3-4)	
RailRoad	0
Line	
Group	

	WAYSIDE	ATC
Subnode		
Device		

© 2017 California Department of Transportation, All Rights Reserved

TRANSIT PRIORITY

Local Plans (3-E) 1...9 11...19		Early Green	Green Extend	Inhibit Cycles	Phase 1 Minimum	Phase 2 Minimum	Phase 3 Minimum	Phase 4 Minimum	Phase 5 Minimum	Phase 6 Minimum	Phase 7 Minimum	Phase 8 Minimum
Plan 1	Green Factor											
Plan 2	Green Factor											
Plan 3	Green Factor											
Plan 4	Green Factor											
Plan 5	Green Factor											
Plan 6	Green Factor											
Plan 7	Green Factor											
Plan 8	Green Factor											
Plan 9	Green Factor											
Plan 11	Green Factor											
Plan 12	Green Factor											
Plan 13	Green Factor											
Plan 14	Green Factor											
Plan 15	Green Factor											
Plan 16	Green Factor											
Plan 17	Green Factor											
Plan 18	Green Factor											
Plan 19	Green Factor											

Enable in Local Plans (3-E-3)	
Plan 1-9	. . . . .
Plan 11-19	. . . . .

Queue Jump (3-E-4)	
Grn Hold	Hold Phase
	. . . . .
	. . . . .

Input		Output	
Type	Port	Stop	Go
NONE	0.0	0	0
NONE	0.0	0	0

Free Plans (3-E-E)	
Max Grn Hold	Hold Phase
	. . . . .

Do Not Reproduce

YELLOW YIELD COORDINATION

Y-Coord Plans (7-C,D)	Long Grn	No Grn	Offset	Perm	Force-Offs -1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	Coord	Lag	Min Recall	Restricted
Plan C													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .
Plan D													. 2 . . . 6 . .	. 2 . 4 . 6 . 8	. . . . .	. . . . .

TRUCK PRIORITY

Truck Priority (3-F)	Passage	CarryOver	Clearance	Next Priority	Phase Green	Det 2 Port	Det 3 Port	Det 4 Port	Sign Output	Slave Input	Slave Output
					. . . . .	0.0	0.0	0.0	0	0.0	0

CITY OF SAN MARCOS SIGNAL TIMING
GRAND / BENT

INTELIGHT

City of San Marcos

Grand @ Bent

Phase Timing and Options

Unit Information

Controller Number	115
Software	Intelight MAXTIME 2.X
Main Street	Grand
Side Street	Bent
IP Address	

Unit Parameters

Extended Mode	Disable
Startup Flash	0
Auto Ped Clear	Enable
Red Revert	6.0
Backup Time	600
Startup All Red	6
Man. Control Seq.	1
MCE Enable	Enable
Start Yel. Override	0.0
Start Red Override	0.0
Free Sequence	1
All Red Flash Exit	6
Local CVM Fash	Disable
All Red Flash Sns	Disable
All Dark Flash Sns	Disable

Phase Timing

Phase	1	2	3	4	5	6	7	8
Description	WB Left	EB				WB		NB
Walk		5						
Ped Clear		18						
Steady Don't Walk								
Min Green	6	15				15		7
Min Green 2								
Passage	3.0	3.0				3.0		3.0
Passage 2								
Max Green 1	5	23				13		25
Max Green 2								
Yellow Change	4.0	4.8				4.8		4.0
Red Clear	1.2	1.0				1.0		1.0
Added Initial								
Maximum Initial								
Time B4 Reduction								
Cars B4 Reduction								
Time To Reduce								
Reduce By								
Minimum Gap								
Advance Walk								
Delayed Ped								

Phase Options

Phase	1	2	3	4	5	6	7	8
Enable	X	X	.	.	.	X	.	X
Auto Flash Entry	.	.	.	.	.	.	.	X
Auto Flash Exit	.	X	.	.	.	X	.	.
Non Lock Detector	X	X	.	.	.	X	.	X
Min Vehicle Recall	.	X	.	.	.	X	.	.
Max Vehicle Recall	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.
Soft Vehicle Recall	.	.	.	.	.	.	.	.
Dual Entry	.	.	.	.	.	.	.	.
Sim. Gap Disable	.	.	.	.	.	.	.	.
Actuated Rest in Walk	.	.	.	.	.	.	.	.
Conditional Svc Enable	.	.	.	.	.	.	.	.
Add Initial Calculation	.	.	.	.	.	.	.	.
Ped Clear During Yellow	.	.	.	.	.	.	.	.
Ped Clear During Red Clr	.	.	.	.	.	.	.	.
Yellow Min Override	.	.	.	.	.	.	.	.
No Startup Call	.	.	.	.	.	.	.	.
No Ped Startup Call	.	.	.	.	.	.	.	.
Min Green 2	.	.	.	.	.	.	.	.
Max Green 2	.	.	.	.	.	.	.	.
Red Rest	.	.	.	.	.	.	.	.
Ped Recycle	.	X	.	.	.	.	.	.

Phase Configuration

Phase	Startup	Description
1	Phase Not On	WB Left
2	Green No Walk	EB
3	None	
4	None	
5	None	
6	Green No Walk	WB
7	None	
8	Phase Not On	NB

Global Phase Recalls

Phase	1	2	3	4	5	6	7	8
Min	.	.	.	.	.	.	.	.
Max	.	.	.	.	.	.	.	.
Ped	.	.	.	.	.	.	.	.

Notes

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

Printed on: 3/25/2021

Sequences

Sequence 1

Ring	Sequence
1	1,2,a,b
2	6,a,8,b
3	
4	

Sequence 2

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 3

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 4

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 5

Ring	Sequence
1	1,2,a,b
2	6,a,8,b
3	
4	

Sequence 6

Ring	Sequence
1	1,2,a,b
2	6,a,8,b
3	
4	

Sequence 7

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 8

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 9

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 10

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 11

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 12

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 13

Ring	Sequence
1	1,2,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 14

Ring	Sequence
1	2,1,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 15

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Sequence 16

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Overlaps

Standard Overlaps

Overlap	1	2	3	4	5	6
Enabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Description						
Type	Off	Off	Off	Off	Off	Off
Included Phs						
Modifier Phs						
Negative Phs						
Negative Ovlp						
Negative Ped						
Green Suppr						
Trail Green						
Trail Yellow						
Trail Red						
Walk						
Ped Clear						
Delay						
Startup Call	.	.	.	.	.	.
Recall	.	.	.	.	.	.
Call for Svc	.	.	.	.	.	.

Backup Prevention / No Serve Phases

Sequence 1

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 2

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 3

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 4

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 5

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 6

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 7

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 8

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 9

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Detector Configuration

Vehicle Detectors

Detector	Slot	C1 Pin Number	Call Phas	Call O/L	Addtnl Call PH	Switch Phase	Delay	Extend	Queue Limit	No Activity	Max Pres.	Erratic Count	Fail Time	Failed Recall	Description
1	I-1	C1-56	1											None	
2	I-2U	C1-39	2											None	
3	I-2L	C1-43	2											None	
4	I-3U	C1-63	2											None	
5	I-3L	C1-76	2											None	
6	I-4	C1-47	2											None	
7	I-5	C1-58	3											None	
8	I-6U	C1-41	4											None	
9	I-6L	C1-45	4											None	
10	I-7U	C1-65	4											None	
11	I-7L	C1-78	4											None	
12	I-8	C1-49	4											None	
13	I-9U	C1-60	1											None	
14	I-9L	C1-62	3											None	
15	J-1	C1-55	5											None	
16	J-2U	C1-40	6											None	
17	J-2L	C1-44	6											None	
18	J-3U	C1-64	6											None	
19	J-3L	C1-77	6											None	
20	J-4	C1-48	6											None	
21	J-5	C1-57	7											None	
22	J-6U	C1-42	8											None	
23	J-6L	C1-46	8											None	
24	J-7U	C1-66	8											None	
25	J-7L	C1-79	8											None	
26	J-8	C1-50	8											None	
27	J-9U	C1-59	5											None	
28	J-9L	C1-61	7											None	

Pedestrian Detectors

Detector	Slot	C1 Pin Number	Call PH	Call O/L	Addtnl Call PH	No Act	Max Pres	Erratic Count
1	-------	-------						
2	I-12U	C1-67	2					
3	-------	-------						
4	I-12L	C1-69	4					
5	-------	-------						
6	I-13U	C1-68	6					
7	-------	-------						
8	I-13L	C1-70	8					

Global Vehicle Detector Parameters

Global No Activity	
Global Max Presence	20
Global Erratic Count	
Global Failed Recall	Max Recall
Detector Reset Enable	Enabled

Global Ped Detector Parameters

Global No Activity	
Global Max Pres.	5
Global Erratic Ct	

Vehicle Detection Options

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Volume	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Occupancy	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yellow Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Extend	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Added Initial	X	X	X	X	X	.	X	X	X	X	X	.	X	X	X	X	X	X	X	.	X	X	X	X	X	.	X	X
Queue	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Min Green 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Passage 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Coordination Configuration

Coordination Parameters

Operational Mode	Manual Free
Coord Mode	Full Permissive
Maximum Mode	Per Pattern
Force Mode	Per Pattern
Correction Mode	Shortway (Auto)
Max Cyc Limit %	25
Min Cyc Limit %	25
Max Dwell	0
Trans. Cover Ped	Pattern

Patterns

Patt.	Cycle	Offset 1	Split	Seq	Reference	Coord Mode	FO Mode	Max Mode	Phs Pln	Det Pln	Ped Pln	OL Pln	Description
1					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
2					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
3					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
4					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
5					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
6					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
7					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
8					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
9					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	

Split Parameters

Split 1

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 2

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 3

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 4

PH.	Time	Min	Max	Coord Phase	Ref Phas	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 5

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 6

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 7

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 8

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 9

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Advanced Coord Options

Pattern	1	2	3	4	5	6	7	8	9
Ring Plan									
Allow Split Underrun	.	.	.	.	.	.	.	.	.
Allow Split Overrun	.	.	.	.	.	.	.	.	.
Allow No Coord Phase	.	.	.	.	.	.	.	.	.
Coord Now	.	.	.	.	.	.	.	.	.

Ring Plans

Ring Plan 1

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 2

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 3

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 4

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 5

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 6

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 7

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 8

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 9

Ring	Offset	Early Gap
1		
2		
3		
4		

Scheduler Configuration

Schedule 1

Status	Enabled

Description	Weekday

Day Plan	1

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Days of Week						
S	M	T	W	T	F	S
.	X	X	X	X	X	.

Days of Month																																			
										1											2														3
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 2

Status	Enabled

Description	Weekend

Day Plan	2

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Days of Week						
S	M	T	W	T	F	S
X	.	.	.	.	.	X

Days of Month																																			
										1											2														3
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 3

Status	Disabled

Description	

Day Plan	0

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
.	.	.	.	.	.	.	.	.	.	.	.

Days of Week						
S	M	T	W	T	F	S
.	.	.	.	.	.	.

Days of Month																																			
										1											2														3
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plans

Day Plan 1

Event	HR	MIN	ACT	Description
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Day Plan 2

Event	HR	MIN	ACT	Description
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Day Plan 3

Event	HR	MIN	ACT	Description
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Actions

		Aux			Special Functions							
Action	Pattern	1	2	3	1	2	3	4	5	6	7	8
1	Pattern 1	.	.	.	.	.	.	.	.	.	.	.
2	Pattern 2	.	.	.	.	.	.	.	.	.	.	.
3	Pattern 3	.	.	.	.	.	.	.	.	.	.	.
4	Pattern 4	.	.	.	.	.	.	.	.	.	.	.
5	Pattern 5	.	.	.	.	.	.	.	.	.	.	.
6	Pattern 6	.	.	.	.	.	.	.	.	.	.	.
7	Pattern 7	.	.	.	.	.	.	.	.	.	.	.
8	Pattern 8	.	.	.	.	.	.	.	.	.	.	.
9	Pattern 9	.	.	.	.	.	.	.	.	.	.	.
10	Pattern 10	.	.	.	.	.	.	.	.	.	.	.
11	None	.	.	.	.	.	.	.	.	.	.	.
12	None	.	.	.	.	.	.	.	.	.	.	.
13	None	.	.	.	.	.	.	.	.	.	.	.
14	None	.	.	.	.	.	.	.	.	.	.	.
15	None	.	.	.	.	.	.	.	.	.	.	.
16	None	.	.	.	.	.	.	.	.	.	.	.
17	None	.	.	.	.	.	.	.	.	.	.	.
18	None	.	.	.	.	.	.	.	.	.	.	.
19	None	.	.	.	.	.	.	.	.	.	.	.
20	None	.	.	.	.	.	.	.	.	.	.	.
64	Free	.	.	.	.	.	.	.	.	.	.	.

Action Commands

Action	Command	Index
1	None	
2	None	
3	None	
4	None	
5	None	

Action	Command	Index
6	None	
7	None	
8	None	
9	None	
10	None	

Action	Command	Index
11	None	
12	None	
13	None	
14	None	
15	None	

Action	Command	Index
16	None	
17	None	
18	None	
19	None	
20	None	

Preempt Configuration

Preemption Configuration

Preempt	1	2	3	4	5	6
Enabled	Enabled	Disabled	Enabled	Disabled	Enabled	Enabled
Type	Rail Road	Rail Road	Emergency Veh	Emergency Veh	Emergency Veh	Emergency Veh
Description	BBS Flash					
Track Phase						
Track 2 Phases						
Track Overlap						
Track 2 Overlap						
Dwell Phase			2		1,6	8
Dwell Ped						
Dwell Overlap						
Cycling Phase						
Cycling Ped						
Cycling Overlap						
Exit Phase			2,6		2,6	8
Exit Overlaps						
Recovery Exit Omit						

Preemption Options

Preempt	1	2	3	4	5	6
Non Lock Mem	.	.	.	.	.	.
Not Overide Flash	.	.	.	.	.	.
Not Overide Next Preempt	.	.	.	.	.	.
Flash Dwell	.	.	.	.	.	.
Ped Recycle in Dwell Cycle	.	.	.	.	.	.
Immediate Ped Clear	.	.	.	.	.	.
Dwell Only Status Output	.	.	.	.	.	.
All Red Flash Dwell	X	.	.	.	.	.
Allow All Overlaps	.	.	.	.	.	.
Require All Red Entry	.	.	.	.	.	.
Require Gate Down Track Exit	.	.	.	.	.	.
Require Gate Up Dwell Exit	.	.	.	.	.	.
Use Normal On/Normal Off Input	.	.	.	.	.	.

Preemption Parameters

Preempt	1	2	3	4	5	6
Link						
Delay			1		1	1
Min Duration						
Min Presence						
Max Presence			255		255	255
Max Presence Action	Terminate	Terminate	Terminate	Terminate	Terminate	Terminate
Enter Min Green						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Walk						
Enter Ped Clear			255	255	255	255
Track Green						
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Green						
Track 2 Yellow	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Red	25.5	25.5	25.5	25.5	25.5	25.5
Track Ext. Gate Down						

Preempt Parameters

Preempt	1	2	3	4	5	6
Dwell Green			1		1	1
Exit Ped Clear	255	255	255	255	255	255
Exit Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Exit Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dwell Ext Time			5		5	5
Max Exit Green						
Exit Type	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases
Exit Max Mode	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Exit Max Apply Time						
Veh Exit Calls						
Ped Exit Calls						

Advanced I/O Configuration

Channel Configuration

Ch	Control Type	Source
1	Phase Vehicle	1
2	Phase Vehicle	2
3	Phase Vehicle	3
4	Phase Vehicle	4
5	Phase Vehicle	5
6	Phase Vehicle	6
7	Phase Vehicle	7
8	Phase Vehicle	8

Ch	Control Type	Source
9	None	
10	None	
11	None	
12	None	
13	Phase Ped	2
14	Phase Ped	4
15	Phase Ped	6
16	Phase Ped	8

Concurrency Mode

Concurrency Mode
Auto

Auto Concurrency

Ch	Concurrency
1	6,15
2	6,13,15
3	
4	14
5	
6	13,15
7	
8	16
9	
10	
11	
12	
13	15
14	
15	
16	

Channel Options

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Yellow	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Red	X	X	X	X	X	X	X	X	.	.	.	.	.	.	.	.
Flash Alternate Half Hertz	X	.	.	X	X	.	.	X	.	.	.	.	.	.	.	.

Cabinet Configuration

IO Modules

IO Module	Type
1	Caltrans 332

Input Points

Input	C1 Pin	Input Type	Idx
1	C1-39	Vehicle Det Call	2
2	C1-40	Vehicle Det Call	16
3	C1-41	Vehicle Det Call	8
4	C1-42	Vehicle Det Call	22
5	C1-43	Vehicle Det Call	3
6	C1-44	Vehicle Det Call	17
7	C1-45	Vehicle Det Call	9
8	C1-46	Vehicle Det Call	23
9	C1-47	Vehicle Det Call	6
10	C1-48	Vehicle Det Call	20
11	C1-49	Vehicle Det Call	12
12	C1-50	Vehicle Det Call	26
13	C1-51	Preempt Input	1
14	C1-52	Preempt Input	2
15	C1-53	Unit Manual Control Enable	1
16	C1-54	Not Active	

Input	C1 Pin	Input Type	Idx
17	C1-55	Vehicle Det Call	15
18	C1-56	Vehicle Det Call	1
19	C1-57	Vehicle Det Call	21
20	C1-58	Vehicle Det Call	7
21	C1-59	Vehicle Det Call	27
22	C1-60	Vehicle Det Call	13
23	C1-61	Vehicle Det Call	28
24	C1-62	Vehicle Det Call	14
25	C11-10	Not Active	
26	C11-11	Not Active	
27	C11-12	Not Active	
28	C11-13	Not Active	
29	C1-63	Vehicle Det Call	4
30	C1-64	Vehicle Det Call	18
31	C1-65	Vehicle Det Call	10
32	C1-66	Vehicle Det Call	24

Input	C1 Pin	Input Type	Idx
33	C1-67	Ped Det Call	2
34	C1-68	Ped Det Call	6
35	C1-69	Ped Det Call	4
36	C1-70	Ped Det Call	8
37	C1-71	Preempt Input	3
38	C1-72	Preempt Input	4
39	C1-73	Preempt Input	5
40	C1-74	Preempt Input	6
41	C1-75	Not Active	
42	C1-76	Vehicle Det Call	5
43	C1-77	Vehicle Det Call	19
44	C1-78	Vehicle Det Call	11
45	C1-79	Vehicle Det Call	25
46	C1-80	Unit Interval Advance	1
47	C1-81	Unit Local Flash Sense	1
48	C1-82	Unit Stop Time	1

Input	C1 Pin	Input Type	Idx
49	C11-15	Not Active	
50	C11-16	Not Active	
51	C11-17	Not Active	
52	C11-18	Not Active	
53	C11-19	Not Active	
54	C11-20	Not Active	
55	C11-21	Not Active	
56	C11-22	Not Active	
57	C11-23	Not Active	
58	C11-24	Not Active	
59	C11-25	Not Active	
60	C11-26	Not Active	
61	C11-27	Not Active	
62	C11-28	Not Active	
63	C11-29	Not Active	
64	C11-30	Not Active	

Cabinet Configuration

Output Points

Output	C1 Pin	Output Type	Idx
1	C1-2	Channel Red Do Not Walk Driver	14
2	C1-3	Channel Green Walk Driver	14
3	C1-4	Channel Red Do Not Walk Driver	4
4	C1-5	Channel Yellow Ped Clear Driver	4
5	C1-6	Channel Green Walk Driver	4
6	C1-7	Channel Red Do Not Walk Driver	3
7	C1-8	Channel Yellow Ped Clear Driver	3
8	C1-9	Channel Green Walk Driver	3
9	C1-10	Channel Red Do Not Walk Driver	13
10	C1-11	Channel Green Walk Driver	13
11	C1-12	Channel Red Do Not Walk Driver	2
12	C1-13	Channel Yellow Ped Clear Driver	2
13	C1-15	Channel Green Walk Driver	2
14	C1-16	Channel Red Do Not Walk Driver	1
15	C1-17	Channel Yellow Ped Clear Driver	1
16	C1-18	Channel Green Walk Driver	1
17	C1-19	Channel Red Do Not Walk Driver	16
18	C1-20	Channel Green Walk Driver	16
19	C1-21	Channel Red Do Not Walk Driver	8
20	C1-22	Channel Yellow Ped Clear Driver	8
21	C1-23	Channel Green Walk Driver	8
22	C1-24	Channel Red Do Not Walk Driver	7
23	C1-25	Channel Yellow Ped Clear Driver	7
24	C1-26	Channel Green Walk Driver	7
25	C1-27	Channel Red Do Not Walk Driver	15
26	C1-28	Channel Green Walk Driver	15
27	C1-29	Channel Red Do Not Walk Driver	6
28	C1-30	Channel Yellow Ped Clear Driver	6
29	C1-31	Channel Green Walk Driver	6
30	C1-32	Channel Red Do Not Walk Driver	5
31	C1-33	Channel Yellow Ped Clear Driver	5
32	C1-34	Channel Green Walk Driver	5

Output	C1 Pin	Output Type	Idx
33	C1-35	Channel Yellow Ped Clear Driver	13
34	C1-36	Channel Yellow Ped Clear Driver	15
35	C1-37	Channel Yellow Ped Clear Driver	14
36	C1-38	Channel Yellow Ped Clear Driver	16
37	C1-100	Channel Yellow Ped Clear Driver	18
38	C1-101	Channel Yellow Ped Clear Driver	11
39	C1-102	Detector Reset	1
40	C1-103	Watchdog	
41	C1-83	Channel Red Do Not Walk Driver	18
42	C1-84	Channel Green Walk Driver	18
43	C1-85	Channel Red Do Not Walk Driver	17
44	C1-86	Channel Yellow Ped Clear Driver	17
45	C1-87	Channel Green Walk Driver	17
46	C1-88	Channel Red Do Not Walk Driver	12
47	C1-89	Channel Yellow Ped Clear Driver	12
48	C1-90	Channel Green Walk Driver	12
49	C1-91	Channel Red Do Not Walk Driver	11
50	C1-93	Channel Green Walk Driver	11
51	C1-94	Channel Red Do Not Walk Driver	10
52	C1-95	Channel Yellow Ped Clear Driver	10
53	C1-96	Channel Green Walk Driver	10
54	C1-97	Channel Red Do Not Walk Driver	9
55	C1-98	Channel Yellow Ped Clear Driver	9
56	C1-99	Channel Green Walk Driver	9
57	C11-1	Not Active	
58	C11-2	Not Active	
59	C11-3	Not Active	
60	C11-4	Not Active	
61	C11-5	Not Active	
62	C11-6	Not Active	
63	C11-7	Not Active	
64	C11-8	Not Active	

User Programs

Program 1

Enabled

Line	Result	Idx	Operation	Parameter A	Idx	Parameter B	Idx	Dly	Ext	Description
1	Unit Stop Time	1	Result=A	Aux Switch State						Aux switch stop time
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

CITY OF SAN MARCOS SIGNAL TIMING
LAS POSAS / GRAND

INTELIGHT

City of San Marcos

Las Posas @ Grand

Phase Timing and Options

Unit Information

Controller Number	83
Software	Intelight MAXTIME 2.X
Main Street	Las Posas
Side Street	Grand
IP Address	

Unit Parameters

Extended Mode	Disable
Startup Flash	0
Auto Ped Clear	Enable
Red Revert	6.0
Backup Time	600
Startup All Red	6
Man. Control Seq.	1
MCE Enable	Enable
Start Yel. Override	0.0
Start Red Override	0.0
Free Sequence	1
All Red Flash Exit	6
Local CVM Fash	Disable
All Red Flash Sns	Disable
All Dark Flash Sns	Disable

Phase Timing

Phase	1	2	3	4	5	6	7	8
Description	SB Left	NB	WB Left	EB	NB Left	SB	EB Left	WB
Walk		5		5		5		
Ped Clear		29		27		23		
Steady Don't Walk								
Min Green	8	10	9	7	7	10	9	9
Min Green 2								
Passage	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Passage 2								
Max Green 1	25	40	25	40	25	40	25	40
Max Green 2								
Yellow Change	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Red Clear	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Added Initial								
Maximum Initial								
Time B4 Reduction								
Cars B4 Reduction								
Time To Reduce								
Reduce By								
Minimum Gap								
Advance Walk								
Delayed Ped								

Phase Options

Phase	1	2	3	4	5	6	7	8
Enable	X	X	X	X	X	X	X	X
Auto Flash Entry	.	.	.	X	.	.	.	X
Auto Flash Exit	.	X	.	.	.	X	.	.
Non Lock Detector	X	X	X	X	X	X	X	X
Min Vehicle Recall	.	X	.	.	.	X	.	.
Max Vehicle Recall	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.
Soft Vehicle Recall	.	.	.	.	.	.	.	.
Dual Entry	.	.	.	X	.	.	.	X
Sim. Gap Disable	.	.	.	.	.	.	.	.
Actuated Rest in Walk	.	.	.	.	.	.	.	.
Conditional Svc Enable	.	.	.	.	.	.	.	.
Add Initial Calculation	.	.	.	.	.	.	.	.
Ped Clear During Yellow	.	.	.	.	.	.	.	.
Ped Clear During Red Clr	.	.	.	.	.	.	.	.
Yellow Min Override	.	.	.	.	.	.	.	.
No Startup Call	.	.	.	.	.	.	.	.
No Ped Startup Call	.	.	.	.	.	.	.	.
Min Green 2	.	.	.	.	.	.	.	.
Max Green 2	.	.	.	.	.	.	.	.
Red Rest	.	.	.	.	.	.	.	.
Ped Recycle	.	X	.	X	.	X	.	.

Phase Configuration

Phase	Startup	Description
1	Phase Not On	SB Left
2	Green No Walk	NB
3	Phase Not On	WB Left
4	Phase Not On	EB
5	Phase Not On	NB Left
6	Green No Walk	SB
7	Phase Not On	EB Left
8	Phase Not On	WB

Global Phase Recalls

Phase	1	2	3	4	5	6	7	8
Min	.	.	.	.	.	.	.	.
Max	.	.	.	.	.	.	.	.
Ped	.	.	.	.	.	.	.	.

Notes

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

Printed on: 3/25/2021

Sequences

Sequence 1

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 2

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 3

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 4

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 5

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 6

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 7

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 8

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 9

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 10

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 11

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 12

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 13

Ring	Sequence
1	1,2,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 14

Ring	Sequence
1	2,1,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 15

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Sequence 16

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Overlaps

Standard Overlaps

Overlap	1	2	3	4	5	6
Enabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Description						
Type	Off	Off	Off	Off	Off	Off
Included Phs						
Modifier Phs						
Negative Phs						
Negative Ovlp						
Negative Ped						
Green Suppr						
Trail Green						
Trail Yellow						
Trail Red						
Walk						
Ped Clear						
Delay						
Startup Call	.	.	.	.	.	.
Recall	.	.	.	.	.	.
Call for Svc	.	.	.	.	.	.

Backup Prevention / No Serve Phases

Sequence 1

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 2

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 3

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 4

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 5

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 6

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 7

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 8

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 9

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Detector Configuration

Vehicle Detectors

Detector	Slot	C1 Pin Number	Call Phas	Call O/L	Addtnl Call PH	Switch Phase	Delay	Extend	Queue Limit	No Activity	Max Pres.	Erratic Count	Fail Time	Failed Recall	Description
1	I-1	C1-56	1											None	
2	I-2U	C1-39	2											None	
3	I-2L	C1-43	2											None	
4	I-3U	C1-63	2											None	
5	I-3L	C1-76	2											None	
6	I-4	C1-47	2											None	
7	I-5	C1-58	3											None	
8	I-6U	C1-41	4											None	
9	I-6L	C1-45	4											None	
10	I-7U	C1-65	4											None	
11	I-7L	C1-78	4											None	
12	I-8	C1-49	4											None	
13	I-9U	C1-60	1											None	
14	I-9L	C1-62	3											None	
15	J-1	C1-55	5											None	
16	J-2U	C1-40	6											None	
17	J-2L	C1-44	6											None	
18	J-3U	C1-64	6											None	
19	J-3L	C1-77	6											None	
20	J-4	C1-48	6											None	
21	J-5	C1-57	7											None	
22	J-6U	C1-42	8											None	
23	J-6L	C1-46	8											None	
24	J-7U	C1-66	8											None	
25	J-7L	C1-79	8											None	
26	J-8	C1-50	8											None	
27	J-9U	C1-59	5											None	
28	J-9L	C1-61	7											None	

Pedestrian Detectors

Detector	Slot	C1 Pin Number	Call PH	Call O/L	Addtnl Call PH	No Act	Max Pres	Erratic Count
1	-------	-------						
2	I-12U	C1-67	2					
3	-------	-------						
4	I-12L	C1-69	4					
5	-------	-------						
6	I-13U	C1-68	6					
7	-------	-------						
8	I-13L	C1-70	8					

Global Vehicle Detector Parameters

Global No Activity	
Global Max Presence	20
Global Erratic Count	
Global Failed Recall	Max Recall
Detector Reset Enable	Enabled

Global Ped Detector Parameters

Global No Activity	
Global Max Pres.	5
Global Erratic Ct	

Vehicle Detection Options

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Volume	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Occupancy	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yellow Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Extend	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Added Initial	X	X	X	X	X	.	X	X	X	X	X	.	X	X	X	X	X	X	X	.	X	X	X	X	X	.	X	X
Queue	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Min Green 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Passage 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Coordination Configuration

Coordination Parameters

Operational Mode	Automatic
Coord Mode	Full Permissive
Maximum Mode	Per Pattern
Force Mode	Per Pattern
Correction Mode	Shortway (Auto)
Max Cyc Limit %	25
Min Cyc Limit %	25
Max Dwell	0
Trans. Cover Ped	Pattern

Patterns

Patt.	Cycle	Offset 1	Split	Seq	Reference	Coord Mode	FO Mode	Max Mode	Phs Pln	Det Pln	Ped Pln	OL Pln	Description
1	100	24	1	2	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
2	100	3	2	3	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
3	110	1	3	2	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
4					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
5					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
6					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
7					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
8					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
9					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	

Split Parameters

Split 1

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	20			.	.	Fixed	None
2	36			X	X	Fixed	None
3	16			.	.	Fixed	None
4	28			.	.	Fixed	None
5	16			.	.	Fixed	None
6	40			X	.	Fixed	None
7	16			.	.	Fixed	None
8	28			.	.	Fixed	None

Split 2

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	22			.	.	Fixed	None
2	30			X	X	Fixed	None
3	16			.	.	Fixed	None
4	32			.	.	Fixed	None
5	16			.	.	Fixed	None
6	36			X	.	Fixed	None
7	17			.	.	Fixed	None
8	31			.	.	Fixed	None

Split 3

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	24			.	.	Fixed	None
2	42			X	X	Fixed	None
3	18			.	.	Fixed	None
4	26			.	.	Fixed	None
5	20			.	.	Fixed	None
6	46			X	.	Fixed	None
7	18			.	.	Fixed	None
8	26			.	.	Fixed	None

Split 4

PH.	Time	Min	Max	Coord Phase	Ref Phas	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 5

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 6

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 7

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 8

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 9

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Advanced Coord Options

Pattern	1	2	3	4	5	6	7	8	9
Ring Plan									
Allow Split Underrun	.	.	.	.	.	.	.	.	.
Allow Split Overrun	.	.	.	.	.	.	.	.	.
Allow No Coord Phase	.	.	.	.	.	.	.	.	.
Coord Now	.	.	.	.	.	.	.	.	.

Ring Plans

Ring Plan 1

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 2

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 3

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 4

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 5

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 6

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 7

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 8

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 9

Ring	Offset	Early Gap
1		
2		
3		
4		

Scheduler Configuration

Schedule 1

Status	Enabled
Description	Weekday
Day Plan	1

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Days of Week						
S	M	T	W	T	F	S
.	X	X	X	X	X	.

Days of Month									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 2

Status	Enabled
Description	Weekend
Day Plan	2

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Days of Week						
S	M	T	W	T	F	S
X	.	.	.	.	.	X

Days of Month									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 3

Status	Disabled
Description	
Day Plan	0

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
.	.	.	.	.	.	.	.	.	.	.	.

Days of Week						
S	M	T	W	T	F	S
.	.	.	.	.	.	.

Days of Month									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plans

Day Plan 1

Event	HR	MIN	ACT	Description
1	6	30	1	AM Peak
2	9	30	2	MD Peak
3	14	30	3	PM Peak
4	20		64	Free
5				
6				
7				
8				
9				
10				

Day Plan 2

Event	HR	MIN	ACT	Description
1	9		2	Weekend Plan
2	20		64	Free
3				
4				
5				
6				
7				
8				
9				
10				

Day Plan 3

Event	HR	MIN	ACT	Description
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Action Commands

Action	Command	Index
1	None	
2	None	
3	None	
4	None	
5	None	

Action	Command	Index
6	None	
7	None	
8	None	
9	None	
10	None	

Action	Command	Index
11	None	
12	None	
13	None	
14	None	
15	None	

Action	Command	Index
16	None	
17	None	
18	None	
19	None	
20	None	

Actions

		Aux			Special Functions							
Action	Pattern	1	2	3	1	2	3	4	5	6	7	8
1	Pattern 1	.	.	.	.	.	.	.	.	.	.	.
2	Pattern 2	.	.	.	.	.	.	.	.	.	.	.
3	Pattern 3	.	.	.	.	.	.	.	.	.	.	.
4	Pattern 4	.	.	.	.	.	.	.	.	.	.	.
5	Pattern 5	.	.	.	.	.	.	.	.	.	.	.
6	Pattern 6	.	.	.	.	.	.	.	.	.	.	.
7	Pattern 7	.	.	.	.	.	.	.	.	.	.	.
8	Pattern 8	.	.	.	.	.	.	.	.	.	.	.
9	Pattern 9	.	.	.	.	.	.	.	.	.	.	.
10	Pattern 10	.	.	.	.	.	.	.	.	.	.	.
11	None	.	.	.	.	.	.	.	.	.	.	.
12	None	.	.	.	.	.	.	.	.	.	.	.
13	None	.	.	.	.	.	.	.	.	.	.	.
14	None	.	.	.	.	.	.	.	.	.	.	.
15	None	.	.	.	.	.	.	.	.	.	.	.
16	None	.	.	.	.	.	.	.	.	.	.	.
17	None	.	.	.	.	.	.	.	.	.	.	.
18	None	.	.	.	.	.	.	.	.	.	.	.
19	None	.	.	.	.	.	.	.	.	.	.	.
20	None	.	.	.	.	.	.	.	.	.	.	.
64	Free	.	.	.	.	.	.	.	.	.	.	.

Preempt Configuration

Preemption Configuration

Preempt	1	2	3	4	5	6
Enabled	Enabled	Disabled	Enabled	Enabled	Enabled	Enabled
Type	Rail Road	Rail Road	Emergency Veh	Emergency Veh	Emergency Veh	Emergency Veh
Description	BBS Flash					
Track Phase						
Track 2 Phases						
Track Overlap						
Track 2 Overlap						
Dwell Phase			2,5	4,7	1,6	3,8
Dwell Ped						
Dwell Overlap						
Cycling Phase						
Cycling Ped						
Cycling Overlap						
Exit Phase			2,6	4,8	2,6	4,8
Exit Overlaps						
Recovery Exit Omit						

Preemption Options

Preempt	1	2	3	4	5	6
Non Lock Mem	.	.	.	.	.	.
Not Overide Flash	.	.	.	.	.	.
Not Overide Next Preempt	.	.	.	.	.	.
Flash Dwell	.	.	.	.	.	.
Ped Recycle in Dwell Cycle	.	.	.	.	.	.
Immediate Ped Clear	.	.	.	.	.	.
Dwell Only Status Output	.	.	.	.	.	.
All Red Flash Dwell	X	.	.	.	.	.
Allow All Overlaps	.	.	.	.	.	.
Require All Red Entry	.	.	.	.	.	.
Require Gate Down Track Exit	.	.	.	.	.	.
Require Gate Up Dwell Exit	.	.	.	.	.	.
Use Normal On/Normal Off Input	.	.	.	.	.	.

Preemption Parameters

Preempt	1	2	3	4	5	6
Link						
Delay						
Min Duration						
Min Presence						
Max Presence			255	255	255	255
Max Presence Action	Terminate	Terminate	Terminate	Terminate	Terminate	Terminate
Enter Min Green						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Walk						
Enter Ped Clear			255	255	255	255
Track Green						
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Green						
Track 2 Yellow	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Red	25.5	25.5	25.5	25.5	25.5	25.5
Track Ext. Gate Down						

Preempt Parameters

Preempt	1	2	3	4	5	6
Dwell Green			1	1	1	1
Exit Ped Clear	255	255	255	255	255	255
Exit Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Exit Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dwell Ext Time						
Max Exit Green						
Exit Type	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases
Exit Max Mode	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Exit Max Apply Time						
Veh Exit Calls						
Ped Exit Calls						

Advanced I/O Configuration

Channel Configuration

Ch	Control Type	Source
1	Phase Vehicle	1
2	Phase Vehicle	2
3	Phase Vehicle	3
4	Phase Vehicle	4
5	Phase Vehicle	5
6	Phase Vehicle	6
7	Phase Vehicle	7
8	Phase Vehicle	8

Ch	Control Type	Source
9	None	
10	None	
11	None	
12	None	
13	Phase Ped	2
14	Phase Ped	4
15	Phase Ped	6
16	Phase Ped	8

Concurrency Mode

Concurrency Mode
Auto

Auto Concurrency

Ch	Concurrency
1	5,6,15
2	5,6,13,15
3	7,8,16
4	7,8,14,16
5	13
6	13,15
7	14
8	14,16
9	
10	
11	
12	
13	15
14	16
15	
16	

Channel Options

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Yellow	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Red	X	X	X	X	X	X	X	X	.	.	.	.	.	.	.	.
Flash Alternate Half Hertz	X	.	.	X	X	.	.	X	.	.	.	.	.	.	.	.

Cabinet Configuration

IO Modules

IO Module	Type
1	Caltrans 332

Input Points

Input	C1 Pin	Input Type	Idx
1	C1-39	Vehicle Det Call	2
2	C1-40	Vehicle Det Call	16
3	C1-41	Vehicle Det Call	8
4	C1-42	Vehicle Det Call	22
5	C1-43	Vehicle Det Call	3
6	C1-44	Vehicle Det Call	17
7	C1-45	Vehicle Det Call	9
8	C1-46	Vehicle Det Call	23
9	C1-47	Vehicle Det Call	6
10	C1-48	Vehicle Det Call	20
11	C1-49	Vehicle Det Call	12
12	C1-50	Vehicle Det Call	26
13	C1-51	Preempt Input	1
14	C1-52	Preempt Input	2
15	C1-53	Unit Manual Control Enable	1
16	C1-54	Not Active	

Input	C1 Pin	Input Type	Idx
17	C1-55	Vehicle Det Call	15
18	C1-56	Vehicle Det Call	1
19	C1-57	Vehicle Det Call	21
20	C1-58	Vehicle Det Call	7
21	C1-59	Vehicle Det Call	27
22	C1-60	Vehicle Det Call	13
23	C1-61	Vehicle Det Call	28
24	C1-62	Vehicle Det Call	14
25	C11-10	Not Active	
26	C11-11	Not Active	
27	C11-12	Not Active	
28	C11-13	Not Active	
29	C1-63	Vehicle Det Call	4
30	C1-64	Vehicle Det Call	18
31	C1-65	Vehicle Det Call	10
32	C1-66	Vehicle Det Call	24

Input	C1 Pin	Input Type	Idx
33	C1-67	Ped Det Call	2
34	C1-68	Ped Det Call	6
35	C1-69	Ped Det Call	4
36	C1-70	Ped Det Call	8
37	C1-71	Preempt Input	3
38	C1-72	Preempt Input	4
39	C1-73	Preempt Input	5
40	C1-74	Preempt Input	6
41	C1-75	Not Active	
42	C1-76	Vehicle Det Call	5
43	C1-77	Vehicle Det Call	19
44	C1-78	Vehicle Det Call	11
45	C1-79	Vehicle Det Call	25
46	C1-80	Unit Interval Advance	1
47	C1-81	Unit Local Flash Sense	1
48	C1-82	Unit Stop Time	1

Input	C1 Pin	Input Type	Idx
49	C11-15	Not Active	
50	C11-16	Not Active	
51	C11-17	Not Active	
52	C11-18	Not Active	
53	C11-19	Not Active	
54	C11-20	Not Active	
55	C11-21	Not Active	
56	C11-22	Not Active	
57	C11-23	Not Active	
58	C11-24	Not Active	
59	C11-25	Not Active	
60	C11-26	Not Active	
61	C11-27	Not Active	
62	C11-28	Not Active	
63	C11-29	Not Active	
64	C11-30	Not Active	

Cabinet Configuration

Output Points

Output	C1 Pin	Output Type	Idx
1	C1-2	Channel Red Do Not Walk Driver	14
2	C1-3	Channel Green Walk Driver	14
3	C1-4	Channel Red Do Not Walk Driver	4
4	C1-5	Channel Yellow Ped Clear Driver	4
5	C1-6	Channel Green Walk Driver	4
6	C1-7	Channel Red Do Not Walk Driver	3
7	C1-8	Channel Yellow Ped Clear Driver	3
8	C1-9	Channel Green Walk Driver	3
9	C1-10	Channel Red Do Not Walk Driver	13
10	C1-11	Channel Green Walk Driver	13
11	C1-12	Channel Red Do Not Walk Driver	2
12	C1-13	Channel Yellow Ped Clear Driver	2
13	C1-15	Channel Green Walk Driver	2
14	C1-16	Channel Red Do Not Walk Driver	1
15	C1-17	Channel Yellow Ped Clear Driver	1
16	C1-18	Channel Green Walk Driver	1
17	C1-19	Channel Red Do Not Walk Driver	16
18	C1-20	Channel Green Walk Driver	16
19	C1-21	Channel Red Do Not Walk Driver	8
20	C1-22	Channel Yellow Ped Clear Driver	8
21	C1-23	Channel Green Walk Driver	8
22	C1-24	Channel Red Do Not Walk Driver	7
23	C1-25	Channel Yellow Ped Clear Driver	7
24	C1-26	Channel Green Walk Driver	7
25	C1-27	Channel Red Do Not Walk Driver	15
26	C1-28	Channel Green Walk Driver	15
27	C1-29	Channel Red Do Not Walk Driver	6
28	C1-30	Channel Yellow Ped Clear Driver	6
29	C1-31	Channel Green Walk Driver	6
30	C1-32	Channel Red Do Not Walk Driver	5
31	C1-33	Channel Yellow Ped Clear Driver	5
32	C1-34	Channel Green Walk Driver	5

Output	C1 Pin	Output Type	Idx
33	C1-35	Channel Yellow Ped Clear Driver	13
34	C1-36	Channel Yellow Ped Clear Driver	15
35	C1-37	Channel Yellow Ped Clear Driver	14
36	C1-38	Channel Yellow Ped Clear Driver	16
37	C1-100	Channel Yellow Ped Clear Driver	18
38	C1-101	Channel Yellow Ped Clear Driver	11
39	C1-102	Detector Reset	1
40	C1-103	Watchdog	
41	C1-83	Channel Red Do Not Walk Driver	18
42	C1-84	Channel Green Walk Driver	18
43	C1-85	Channel Red Do Not Walk Driver	17
44	C1-86	Channel Yellow Ped Clear Driver	17
45	C1-87	Channel Green Walk Driver	17
46	C1-88	Channel Red Do Not Walk Driver	12
47	C1-89	Channel Yellow Ped Clear Driver	12
48	C1-90	Channel Green Walk Driver	12
49	C1-91	Channel Red Do Not Walk Driver	11
50	C1-93	Channel Green Walk Driver	11
51	C1-94	Channel Red Do Not Walk Driver	10
52	C1-95	Channel Yellow Ped Clear Driver	10
53	C1-96	Channel Green Walk Driver	10
54	C1-97	Channel Red Do Not Walk Driver	9
55	C1-98	Channel Yellow Ped Clear Driver	9
56	C1-99	Channel Green Walk Driver	9
57	C11-1	Not Active	
58	C11-2	Not Active	
59	C11-3	Not Active	
60	C11-4	Not Active	
61	C11-5	Not Active	
62	C11-6	Not Active	
63	C11-7	Not Active	
64	C11-8	Not Active	

User Programs

Program 1

Enabled

Line	Result	Idx	Operation	Parameter A	Idx	Parameter B	Idx	Dly	Ext	Description
1	Unit Stop Time	1	Result=A	Aux Switch State						Aux switch stop time
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

CITY OF SAN MARCOS SIGNAL TIMING
SAN MARCOS BLVD / BENT

INTELIGHT

City of San Marcos

San Marcos @ Bent

Phase Timing and Options

Unit Information

Controller Number	6
Software	Intelight MAXTIME 2.X
Main Street	San Marcos
Side Street	Bent
IP Address	

Unit Parameters

Extended Mode	Disable
Startup Flash	0
Auto Ped Clear	Enable
Red Revert	6.0
Backup Time	600
Startup All Red	6
Man. Control Seq.	1
MCE Enable	Enable
Start Yel. Override	0.0
Start Red Override	0.0
Free Sequence	1
All Red Flash Exit	6
Local CVM Fash	Disable
All Red Flash Sns	Disable
All Dark Flash Sns	Disable

Phase Timing

Phase	1	2	3	4	5	6	7	8
Description	WB Left	EB	NB Left	SB	EB Left	WB	SB Left	NB
Walk		5		5		5		5
Ped Clear		19		26		19		34
Steady Don't Walk								
Min Green	6	15	8	8	6	15	8	8
Min Green 2								
Passage	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Passage 2								
Max Green 1	30	50	30	30	30	50	30	30
Max Green 2								
Yellow Change	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.0
Red Clear	2.0	1.5	2.0	2.5	2.0	1.5	2.5	3.0
Added Initial								
Maximum Initial								
Time B4 Reduction								
Cars B4 Reduction								
Time To Reduce								
Reduce By								
Minimum Gap								
Advance Walk								
Delayed Ped								

Phase Options

Phase	1	2	3	4	5	6	7	8
Enable	X	X	X	X	X	X	X	X
Auto Flash Entry	.	.	.	X	.	.	.	X
Auto Flash Exit	.	X	.	.	.	X	.	.
Non Lock Detector	X	X	X	X	X	X	X	X
Min Vehicle Recall	.	X	.	.	.	X	.	.
Max Vehicle Recall	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.
Soft Vehicle Recall	.	.	.	.	.	.	.	.
Dual Entry	.	.	X	.	.	.	X	.
Sim. Gap Disable	.	.	.	.	.	.	.	.
Actuated Rest in Walk	.	.	.	.	.	.	.	.
Conditional Svc Enable	.	.	.	.	.	.	.	.
Add Initial Calculation	.	.	.	.	.	.	.	.
Ped Clear During Yellow	.	.	.	.	.	.	.	.
Ped Clear During Red Clr	.	.	.	.	.	.	.	.
Yellow Min Override	.	.	.	.	.	.	.	.
No Startup Call	.	.	.	.	.	.	.	.
No Ped Startup Call	.	.	.	.	.	.	.	.
Min Green 2	.	.	.	.	.	.	.	.
Max Green 2	.	.	.	.	.	.	.	.
Red Rest	.	.	.	.	.	.	.	.
Ped Recycle	.	X	.	X	.	X	.	X

Phase Configuration

Phase	Startup	Description
1	Phase Not On	WB Left
2	Green No Walk	EB
3	Phase Not On	NB Left
4	Phase Not On	SB
5	Phase Not On	EB Left
6	Green No Walk	WB
7	Phase Not On	SB Left
8	Phase Not On	NB

Global Phase Recalls

Phase	1	2	3	4	5	6	7	8
Min	.	.	.	.	.	.	.	.
Max	.	.	.	.	.	.	.	.
Ped	.	.	.	.	.	.	.	.

Notes

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

Printed on: 3/25/2021

Sequences

Sequence 1

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 2

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 3

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 4

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 5

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 6

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 7

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 8

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 9

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 10

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 11

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 12

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 13

Ring	Sequence
1	1,2,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 14

Ring	Sequence
1	2,1,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 15

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Sequence 16

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Overlaps

Standard Overlaps

Overlap	1	2	3	4	5	6
Enabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Description						
Type	Off	Off	Off	Off	Off	Off
Included Phs						
Modifier Phs						
Negative Phs						
Negative Ovlp						
Negative Ped						
Green Suppr						
Trail Green						
Trail Yellow						
Trail Red						
Walk						
Ped Clear						
Delay						
Startup Call	.	.	.	.	.	.
Recall	.	.	.	.	.	.
Call for Svc	.	.	.	.	.	.

Backup Prevention / No Serve Phases

Sequence 1

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 2

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 3

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 4

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 5

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 6

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 7

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 8

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 9

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Detector Configuration

Vehicle Detectors

Detector	Slot	C1 Pin Number	Call Phas	Call O/L	Addtnl Call PH	Switch Phase	Delay	Extend	Queue Limit	No Activity	Max Pres.	Erratic Count	Fail Time	Failed Recall	Description
1	I-1	C1-56	1											None	
2	I-2U	C1-39	2											None	
3	I-2L	C1-43	2											None	
4	I-3U	C1-63	2											None	
5	I-3L	C1-76	2											None	
6	I-4	C1-47	2						20					None	
7	I-5	C1-58	3											None	
8	I-6U	C1-41	4											None	
9	I-6L	C1-45	4				1.0							None	
10	I-7U	C1-65	4				1.0							None	
11	I-7L	C1-78	4											None	
12	I-8	C1-49	4											None	
13	I-9U	C1-60	**2**											None	
14	I-9L	C1-62	**2**											None	
15	J-1	C1-55	5											None	
16	J-2U	C1-40	6											None	
17	J-2L	C1-44	6					1.0						None	
18	J-3U	C1-64	6					1.0						None	
19	J-3L	C1-77	6											None	
20	J-4	C1-48	6						20					None	
21	J-5	C1-57	7											None	
22	J-6U	C1-42	8				5.0							None	
23	J-6L	C1-46	8											None	
24	J-7U	C1-66	8				5.0							None	
25	J-7L	C1-79	8											None	
26	J-8	C1-50												None	
27	J-9U	C1-59	**6**											None	
28	J-9L	C1-61	**6**											None	

Pedestrian Detectors

Detector	Slot	C1 Pin Number	Call PH	Call O/L	Addtnl Call PH	No Act	Max Pres	Erratic Count
1	-------	-------						
2	I-12U	C1-67	2					
3	-------	-------						
4	I-12L	C1-69	4					
5	-------	-------						
6	I-13U	C1-68	6					
7	-------	-------						
8	I-13L	C1-70	8					

Global Vehicle Detector Parameters

Global No Activity	
Global Max Presence	20
Global Erratic Count	45
Global Failed Recall	Max Recall
Detector Reset Enable	Enabled

Global Ped Detector Parameters

Global No Activity	
Global Max Pres.	5
Global Erratic Ct	

Vehicle Detection Options

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Volume	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Occupancy	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yellow Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Extend	X	**.**	X	X	X	.	X	X	X	X	X	.	**.**	**.**	X	**.**	X	X	X	.	X	X	X	X	X	.	**.**	**.**
Added Initial	X	X	X	X	X	**X**	X	X	X	X	X	**X**	X	X	X	X	X	X	X	**X**	X	X	X	X	X	**X**	X	X
Queue	.	.	.	.	.	**.**	.	.	.	.	.	**.**	.	.	.	.	.	.	.	**.**	.	.	.	.	.	**.**	.	.
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Min Green 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Passage 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Coordination Configuration

Coordination Parameters

Operational Mode	Automatic
Coord Mode	Full Permissive
Maximum Mode	Per Pattern
Force Mode	Per Pattern
Correction Mode	Shortway (Auto)
Max Cyc Limit %	25
Min Cyc Limit %	25
Max Dwell	0
Trans. Cover Ped	Pattern

Patterns

Patt.	Cycle	Offset 1	Split	Seq	Reference	Coord Mode	FO Mode	Max Mode	Phs Pln	Det Pln	Ped Pln	OL Pln	Description
1	120	17	1	2	Yellow	Full Permissive	Fixed	Max Inhibit	1	1	1	1	
2	120	43	2	1	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
3	130	34	3	2	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
4	150	27	4	5	Yellow	Full Permissive	Fixed	Max Inhibit	1	1	1	1	
5	130	129	5	2	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
6	140	78	6	1	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
7					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
8					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
9					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	

Split Parameters

Split 1

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	28			.	.	Fixed	None
2	35			X	X	Fixed	None
3	22			.	.	Fixed	None
4	35			.	.	Fixed	None
5	24			.	.	Fixed	None
6	22			X	.	Fixed	None
7	22			.	.	Fixed	None
8	35			.	.	Fixed	None

Split 2

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	24			.	.	Fixed	None
2	36			X	X	Fixed	None
3	24			.	.	Fixed	None
4	36			.	.	Fixed	None
5	24			.	.	Fixed	None
6	36			X	X	Fixed	None
7	24			.	.	Fixed	None
8	36			.	.	Fixed	None

Split 3

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	18			.	.	Fixed	None
2	59			X	X	Fixed	None
3	15			.	.	Fixed	None
4	38			.	.	Fixed	None
5	19			.	.	Fixed	None
6	58			X	.	Fixed	None
7	18			.	.	Fixed	None
8	35			.	.	Fixed	None

Split 4

PH.	Time	Min	Max	Coord Phase	Ref Phas	FO Mode	Mode
1	23			.	.	Fixed	None
2	54			X	.	Fixed	None
3	22			.	.	Fixed	None
4	36			.	.	Fixed	None
5	15			.	.	Fixed	None
6	77			X	X	Fixed	None
7	22			.	.	Fixed	None
8	36			.	.	Fixed	None

Split 5

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	22			.	.	Fixed	None
2	62			X	X	Fixed	None
3	15			.	.	Fixed	None
4	31			.	.	Fixed	None
5	15			.	.	Fixed	None
6	69			X	.	Fixed	None
7	15			.	.	Fixed	None
8	31			.	.	Fixed	None

Split 6

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	20			.	.	Fixed	None
2	60			X	X	Fixed	None
3	26			.	.	Fixed	None
4	34			.	.	Fixed	None
5	20			.	.	Fixed	None
6	60			X	X	Fixed	None
7	26			.	.	Fixed	None
8	34			.	.	Fixed	None

Split 7

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 8

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 9

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Advanced Coord Options

Pattern	1	2	3	4	5	6	7	8	9
Ring Plan									
Allow Split Underrun	X	.	X	X	.	.	.	.	.
Allow Split Overrun	.	.	.	.	.	.	.	.	.
Allow No Coord Phase	.	.	.	.	.	.	.	.	.
Coord Now	.	.	.	.	.	.	.	.	.

Ring Plans

Ring Plan 1

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 2

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 3

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 4

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 5

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 6

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 7

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 8

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 9

Ring	Offset	Early Gap
1		
2		
3		
4		

Scheduler Configuration

Schedule 1

Status	Enabled

Description	Weekday

Day Plan	1

Month of Year

J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Days of Week

S	M	T	W	T	F	S
.	X	X	X	X	X	.

Days of Month

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 2

Status	Enabled

Description	Weekend

Day Plan	2

Month of Year

J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Days of Week

S	M	T	W	T	F	S
X	.	.	.	.	.	X

Days of Month

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 3

Status	Disabled

Description	

Day Plan	0

Month of Year

J	F	M	A	M	J	J	A	S	O	N	D
.	.	.	.	.	.	.	.	.	.	.	.

Days of Week

S	M	T	W	T	F	S
.	.	.	.	.	.	.

Days of Month

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plans

Day Plan 1

Event	HR	MIN	ACT	Description
1	6	30	1	
2	9		2	
3	14		4	
4	19		2	
5	21		64	Free
6				
7				
8				
9				
10				

Day Plan 2

Event	HR	MIN	ACT	Description
1	8		2	
2	19		64	Free
3				
4				
5				
6				
7				
8				
9				
10				

Day Plan 3

Event	HR	MIN	ACT	Description
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Actions

Action	Pattern	Aux 1	Aux 2	Aux 3	Special Functions 1	2	3	4	5	6	7	8
1	Pattern 1	.	.	.	.	.	.	.	.	.	.	.
2	Pattern 2	.	.	.	.	.	.	.	.	.	.	.
3	Pattern 3	.	.	.	.	.	.	.	.	.	.	.
4	Pattern 4	.	.	.	.	.	.	.	.	.	.	.
5	Pattern 5	.	.	.	.	.	.	.	.	.	.	.
6	Pattern 6	.	.	.	.	.	.	.	.	.	.	.
7	Pattern 7	.	.	.	.	.	.	.	.	.	.	.
8	Pattern 8	.	.	.	.	.	.	.	.	.	.	.
9	Pattern 9	.	.	.	.	.	.	.	.	.	.	.
10	Pattern 10	.	.	.	.	.	.	.	.	.	.	.
11	None	.	.	.	.	.	.	.	.	.	.	.
12	None	.	.	.	.	.	.	.	.	.	.	.
13	None	.	.	.	.	.	.	.	.	.	.	.
14	None	.	.	.	.	.	.	.	.	.	.	.
15	None	.	.	.	.	.	.	.	.	.	.	.
16	None	.	.	.	.	.	.	.	.	.	.	.
17	None	.	.	.	.	.	.	.	.	.	.	.
18	None	.	.	.	.	.	.	.	.	.	.	.
19	None	.	.	.	.	.	.	.	.	.	.	.
20	None	.	.	.	.	.	.	.	.	.	.	.
64	Free	.	.	.	.	.	.	.	.	.	.	.

Action Commands

Action	Command	Index
1	None	
2	None	
3	None	
4	None	
5	None	

Action	Command	Index
6	None	
7	None	
8	None	
9	None	
10	None	

Action	Command	Index
11	None	
12	None	
13	None	
14	None	
15	None	

Action	Command	Index
16	None	
17	None	
18	None	
19	None	
20	None	

Preempt Configuration

Preemption Configuration

Preempt	1	2	3	4	5	6
Enabled	Enabled	Disabled	Enabled	Enabled	Enabled	Enabled
Type	Rail Road	Rail Road	Emergency Veh	Emergency Veh	Emergency Veh	Emergency Veh
Description	BBS Flash					
Track Phase						
Track 2 Phases						
Track Overlap						
Track 2 Overlap						
Dwell Phase			2,5	4,7	1,6	3,8
Dwell Ped						
Dwell Overlap						
Cycling Phase						
Cycling Ped						
Cycling Overlap						
Exit Phase	2,6		2,6	4,8	2,6	4,8
Exit Overlaps						
Recovery Exit Omit						

Preemption Options

Preempt	1	2	3	4	5	6
Non Lock Mem	.	.	.	.	.	.
Not Overide Flash	.	.	.	.	.	.
Not Overide Next Preempt	.	.	.	.	.	.
Flash Dwell	.	.	.	.	.	.
Ped Recycle in Dwell Cycle	.	.	.	.	.	.
Immediate Ped Clear	.	.	.	.	.	.
Dwell Only Status Output	.	.	.	.	.	.
All Red Flash Dwell	X	.	.	.	.	.
Allow All Overlaps	.	.	.	.	.	.
Require All Red Entry	.	.	.	.	.	.
Require Gate Down Track Exit	.	.	.	.	.	.
Require Gate Up Dwell Exit	.	.	.	.	.	.
Use Normal On/Normal Off Input	.	.	.	.	.	.

Preemption Parameters

Preempt	1	2	3	4	5	6
Link						
Delay						
Min Duration						
Min Presence						
Max Presence			255	255	255	255
Max Presence Action	Terminate	Terminate	Terminate	Terminate	Terminate	Terminate
Enter Min Green						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Walk						
Enter Ped Clear			255	255	255	255
Track Green						
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Green						
Track 2 Yellow	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Red	25.5	25.5	25.5	25.5	25.5	25.5
Track Ext. Gate Down						

Preempt Parameters

Preempt	1	2	3	4	5	6
Dwell Green			1	1	1	1
Exit Ped Clear	255	255	255	255	255	255
Exit Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Exit Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dwell Ext Time						
Max Exit Green						
Exit Type	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases
Exit Max Mode	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Exit Max Apply Time						
Veh Exit Calls						
Ped Exit Calls						

Advanced I/O Configuration

Channel Configuration

Ch	Control Type	Source
1	Phase Vehicle	1
2	Phase Vehicle	2
3	Phase Vehicle	3
4	Phase Vehicle	4
5	Phase Vehicle	5
6	Phase Vehicle	6
7	Phase Vehicle	7
8	Phase Vehicle	8

Ch	Control Type	Source
9	None	
10	None	
11	None	
12	None	
13	Phase Ped	2
14	Phase Ped	4
15	Phase Ped	6
16	Phase Ped	8

Concurrency Mode

Concurrency Mode
Auto

Auto Concurrency

Ch	Concurrency
1	5,6,15
2	5,6,13,15
3	7,8,16
4	7,8,14,16
5	13
6	13,15
7	14
8	14,16
9	
10	
11	
12	
13	15
14	16
15	
16	

Channel Options

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Yellow	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Red	X	X	X	X	X	X	X	X	.	.	.	.	.	.	.	.
Flash Alternate Half Hertz	X	.	.	X	X	.	.	X	.	.	.	.	.	.	.	.

Cabinet Configuration

IO Modules

IO Module	Type
1	Caltrans 332

Input Points

Input	C1 Pin	Input Type	Idx
1	C1-39	Vehicle Det Call	2
2	C1-40	Vehicle Det Call	16
3	C1-41	Vehicle Det Call	8
4	C1-42	Vehicle Det Call	22
5	C1-43	Vehicle Det Call	3
6	C1-44	Vehicle Det Call	17
7	C1-45	Vehicle Det Call	9
8	C1-46	Vehicle Det Call	23
9	C1-47	Vehicle Det Call	6
10	C1-48	Vehicle Det Call	20
11	C1-49	Vehicle Det Call	12
12	C1-50	Vehicle Det Call	26
13	C1-51	Preempt Input	1
14	C1-52	Preempt Input	2
15	C1-53	Unit Manual Control Enable	1
16	C1-54	Not Active	

Input	C1 Pin	Input Type	Idx
17	C1-55	Vehicle Det Call	15
18	C1-56	Vehicle Det Call	1
19	C1-57	Vehicle Det Call	21
20	C1-58	Vehicle Det Call	7
21	C1-59	Vehicle Det Call	27
22	C1-60	Vehicle Det Call	13
23	C1-61	Vehicle Det Call	28
24	C1-62	Vehicle Det Call	14
25	C11-10	Not Active	
26	C11-11	Not Active	
27	C11-12	Not Active	
28	C11-13	Not Active	
29	C1-63	Vehicle Det Call	4
30	C1-64	Vehicle Det Call	18
31	C1-65	Vehicle Det Call	10
32	C1-66	Vehicle Det Call	24

Input	C1 Pin	Input Type	Idx
33	C1-67	Ped Det Call	2
34	C1-68	Ped Det Call	6
35	C1-69	Ped Det Call	4
36	C1-70	Ped Det Call	8
37	C1-71	Preempt Input	3
38	C1-72	Preempt Input	4
39	C1-73	Preempt Input	5
40	C1-74	Preempt Input	6
41	C1-75	Not Active	
42	C1-76	Vehicle Det Call	5
43	C1-77	Vehicle Det Call	19
44	C1-78	Vehicle Det Call	11
45	C1-79	Vehicle Det Call	25
46	C1-80	Unit Interval Advance	1
47	C1-81	Unit Local Flash Sense	1
48	C1-82	Unit Stop Time	1

Input	C1 Pin	Input Type	Idx
49	C11-15	Not Active	
50	C11-16	Not Active	
51	C11-17	Not Active	
52	C11-18	Not Active	
53	C11-19	Not Active	
54	C11-20	Not Active	
55	C11-21	Not Active	
56	C11-22	Not Active	
57	C11-23	Not Active	
58	C11-24	Not Active	
59	C11-25	Not Active	
60	C11-26	Not Active	
61	C11-27	Not Active	
62	C11-28	Not Active	
63	C11-29	Not Active	
64	C11-30	Not Active	

Cabinet Configuration

Output Points

Output	C1 Pin	Output Type	Idx
1	C1-2	Channel Red Do Not Walk Driver	14
2	C1-3	Channel Green Walk Driver	14
3	C1-4	Channel Red Do Not Walk Driver	4
4	C1-5	Channel Yellow Ped Clear Driver	4
5	C1-6	Channel Green Walk Driver	4
6	C1-7	Channel Red Do Not Walk Driver	3
7	C1-8	Channel Yellow Ped Clear Driver	3
8	C1-9	Channel Green Walk Driver	3
9	C1-10	Channel Red Do Not Walk Driver	13
10	C1-11	Channel Green Walk Driver	13
11	C1-12	Channel Red Do Not Walk Driver	2
12	C1-13	Channel Yellow Ped Clear Driver	2
13	C1-15	Channel Green Walk Driver	2
14	C1-16	Channel Red Do Not Walk Driver	1
15	C1-17	Channel Yellow Ped Clear Driver	1
16	C1-18	Channel Green Walk Driver	1
17	C1-19	Channel Red Do Not Walk Driver	16
18	C1-20	Channel Green Walk Driver	16
19	C1-21	Channel Red Do Not Walk Driver	8
20	C1-22	Channel Yellow Ped Clear Driver	8
21	C1-23	Channel Green Walk Driver	8
22	C1-24	Channel Red Do Not Walk Driver	7
23	C1-25	Channel Yellow Ped Clear Driver	7
24	C1-26	Channel Green Walk Driver	7
25	C1-27	Channel Red Do Not Walk Driver	15
26	C1-28	Channel Green Walk Driver	15
27	C1-29	Channel Red Do Not Walk Driver	6
28	C1-30	Channel Yellow Ped Clear Driver	6
29	C1-31	Channel Green Walk Driver	6
30	C1-32	Channel Red Do Not Walk Driver	5
31	C1-33	Channel Yellow Ped Clear Driver	5
32	C1-34	Channel Green Walk Driver	5

Output	C1 Pin	Output Type	Idx
33	C1-35	Channel Yellow Ped Clear Driver	13
34	C1-36	Channel Yellow Ped Clear Driver	15
35	C1-37	Channel Yellow Ped Clear Driver	14
36	C1-38	Channel Yellow Ped Clear Driver	16
37	C1-100	Channel Yellow Ped Clear Driver	18
38	C1-101	Channel Yellow Ped Clear Driver	11
39	C1-102	Detector Reset	1
40	C1-103	Watchdog	
41	C1-83	Channel Red Do Not Walk Driver	18
42	C1-84	Channel Green Walk Driver	18
43	C1-85	Channel Red Do Not Walk Driver	17
44	C1-86	Channel Yellow Ped Clear Driver	17
45	C1-87	Channel Green Walk Driver	17
46	C1-88	Channel Red Do Not Walk Driver	12
47	C1-89	Channel Yellow Ped Clear Driver	12
48	C1-90	Channel Green Walk Driver	12
49	C1-91	Channel Red Do Not Walk Driver	11
50	C1-93	Channel Green Walk Driver	11
51	C1-94	Channel Red Do Not Walk Driver	10
52	C1-95	Channel Yellow Ped Clear Driver	10
53	C1-96	Channel Green Walk Driver	10
54	C1-97	Channel Red Do Not Walk Driver	9
55	C1-98	Channel Yellow Ped Clear Driver	9
56	C1-99	Channel Green Walk Driver	9
57	C11-1	Not Active	
58	C11-2	Not Active	
59	C11-3	Not Active	
60	C11-4	Not Active	
61	C11-5	Not Active	
62	C11-6	Not Active	
63	C11-7	Not Active	
64	C11-8	Not Active	

User Programs

Program 1

Enabled

Line	Result	Idx	Operation	Parameter A	Idx	Parameter B	Idx	Dly	Ext	Description
1	Unit Stop Time	1	Result=A	Aux Switch State						
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

CITY OF SAN MARCOS SIGNAL TIMING
SAN MARCOS BLVD / GRAND

INTELIGHT

City of San Marcos

San Marcos @ Grand

Phase Timing and Options

Unit Information

Controller Number	5
Software	Intelight MAXTIME 2.X
Main Street	San Marcos
Side Street	Grand
IP Address	

Unit Parameters

Extended Mode	Disable
Startup Flash	0
Auto Ped Clear	Enable
Red Revert	6.0
Backup Time	600
Startup All Red	6
Man. Control Seq.	1
MCE Enable	Enable
Start Yel. Override	0.0
Start Red Override	0.0
Free Sequence	9
All Red Flash Exit	6
Local CVM Fash	Disable
All Red Flash Sns	Disable
All Dark Flash Sns	Disable

Phase Timing

Phase	1	2	3	4	5	6	7	8
Description	EB Left	WB	NB Left	SB	WB Left	EB	SB Left	NB
Walk		5		5		5		5
Ped Clear		27		33		24		10
Steady Don't Walk								
Min Green	7	15	10	10	7	15	9	10
Min Green 2								
Passage	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Passage 2								
Max Green 1	40	60	30	30	30	45	40	30
Max Green 2								
Yellow Change	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.0
Red Clear	2.0	2.5	3.0	2.5	2.5	2.0	2.5	3.0
Added Initial		2.5				2.5		
Maximum Initial		20				20		
Time B4 Reduction								
Cars B4 Reduction								
Time To Reduce								
Reduce By								
Minimum Gap								
Advance Walk								
Delayed Ped								

Phase Options

Phase	1	2	3	4	5	6	7	8
Enable	X	X	X	X	X	X	X	X
Auto Flash Entry	.	.	.	X	.	.	.	X
Auto Flash Exit	.	X	.	.	.	X	.	.
Non Lock Detector	X	X	X	X	X	X	X	X
Min Vehicle Recall	.	.	.	.	.	.	.	.
Max Vehicle Recall	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	X	.	X
Soft Vehicle Recall	.	X	.	.	.	X	.	.
Dual Entry	.	.	X	.	.	.	.	X
Sim. Gap Disable	.	.	.	.	.	.	.	.
Actuated Rest in Walk	.	.	.	.	.	.	.	.
Conditional Svc Enable	.	.	.	.	.	.	.	.
Add Initial Calculation	.	.	.	.	.	.	.	.
Ped Clear During Yellow	.	.	.	.	.	.	.	.
Ped Clear During Red Clr	.	.	.	.	.	.	.	.
Yellow Min Override	.	.	.	.	.	.	.	.
No Startup Call	.	.	.	.	.	.	.	.
No Ped Startup Call	.	.	.	.	.	.	.	.
Min Green 2	.	.	.	.	.	.	.	.
Max Green 2	.	.	.	.	.	.	.	.
Red Rest	.	.	.	.	.	.	.	.
Ped Recycle	.	X	.	X	.	X	.	X

Phase Configuration

Phase	Startup	Description
1	Phase Not On	EB Left
2	Green No Walk	WB
3	Phase Not On	NB Left
4	Phase Not On	SB
5	Phase Not On	WB Left
6	Green No Walk	EB
7	Phase Not On	SB Left
8	Phase Not On	NB

Global Phase Recalls

Phase	1	2	3	4	5	6	7	8
Min	.	.	.	.	.	.	.	.
Max	.	.	.	.	.	.	.	.
Ped	.	.	.	.	.	.	.	.

Notes

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

Printed on: 3/25/2021

Sequences

Sequence 1

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 2

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 3

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 4

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 5

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 6

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 7

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 8

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 9

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 10

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 11

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 12

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 13

Ring	Sequence
1	1,2,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 14

Ring	Sequence
1	2,1,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 15

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Sequence 16

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Overlaps

Standard Overlaps

Overlap	1	2	3	4	5	6
Enabled	Enabled	Enabled	Enabled	Enabled	Enabled	Enabled
Description	SB Left	SB	NB Left	NB	EB Right	
Type	Normal	Normal	Normal	Normal	Normal	Normal
Included Phs	1,7	4,6	3	2,8	3	8
Modifier Phs						
Negative Phs						
Negative Ovlp						
Negative Ped						
Green Suppr						
Trail Green	2					
Trail Yellow	3.2	4.3	3.2	4.3	4.3	4.3
Trail Red	1.0	1.0	1.0	1.0	1.0	1.0
Walk						
Ped Clear						
Delay						
Startup Call	.	.	.	.	.	.
Recall	.	.	.	.	.	.
Call for Svc	.	.	.	.	.	.

Backup Prevention / No Serve Phases

Sequence 1

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Sequence 2

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Sequence 3

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Sequence 4

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Sequence 5

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Sequence 6

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Sequence 7

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Sequence 8

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Sequence 9

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	7
4	
5	
6	
7	
8	

Detector Configuration

Vehicle Detectors

Detector	Slot	C1 Pin Number	Call Phas	Call O/L	Addtnl Call PH	Switch Phase	Delay	Extend	Queue Limit	No Activity	Max Pres.	Erratic Count	Fail Time	Failed Recall	Description
1	I-1	C1-56	1					5.0						None	
2	I-2U	C1-39	2											None	
3	I-2L	C1-43	2											None	
4	I-3U	C1-63												None	
5	I-3L	C1-76	2											None	
6	I-4	C1-47	2						20					None	
7	I-5	C1-58	3											None	
8	I-6U	C1-41	4				8.0							None	
9	I-6L	C1-45	4											None	
10	I-7U	C1-65	4											None	
11	I-7L	C1-78	4											None	
12	I-8	C1-49	4											None	
13	I-9U	C1-60	1											None	
14	I-9L	C1-62	3											None	
15	J-1	C1-55	5											None	
16	J-2U	C1-40	6											None	
17	J-2L	C1-44	6					1.0						None	
18	J-3U	C1-64	6					1.0						None	
19	J-3L	C1-77	6											None	
20	J-4	C1-48	6						20					None	
21	J-5	C1-57	7		4									None	
22	J-6U	C1-42	8											None	
23	J-6L	C1-46	8											None	
24	J-7U	C1-66												None	
25	J-7L	C1-79												None	
26	J-8	C1-50	8					1.0						None	
27	J-9U	C1-59												None	
28	J-9L	C1-61	1											None	

Pedestrian Detectors

Detector	Slot	C1 Pin Number	Call PH	Call O/L	Addtnl Call PH	No Act	Max Pres	Erratic Count
1	-------	-------						
2	I-12U	C1-67	2					
3	-------	-------						
4	I-12L	C1-69	4					
5	-------	-------						
6	I-13U	C1-68	6					
7	-------	-------						
8	I-13L	C1-70	8					

Global Vehicle Detector Parameters

Global No Activity	
Global Max Presence	5
Global Erratic Count	45
Global Failed Recall	Max Recall
Detector Reset Enable	Enabled

Global Ped Detector Parameters

Global No Activity	
Global Max Pres.	5
Global Erratic Ct	

Vehicle Detection Options

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Volume	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Occupancy	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yellow Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Extend	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Added Initial	X	X	X	.	X	.	X	X	X	X	X	.	X	X	X	X	X	X	X	.	X	X	X	.	.	X	.	X
Queue	.	.	.	.	.	X	.	.	.	.	.	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Min Green 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Passage 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Coordination Configuration

Coordination Parameters

Operational Mode	Automatic
Coord Mode	Full Permissive
Maximum Mode	Per Pattern
Force Mode	Per Pattern
Correction Mode	Shortway (Auto)
Max Cyc Limit %	25
Min Cyc Limit %	25
Max Dwell	0
Trans. Cover Ped	Pattern

Patterns

Patt.	Cycle	Offset 1	Split	Seq	Reference	Coord Mode	FO Mode	Max Mode	Phs Pln	Det Pln	Ped Pln	OL Pln	Description
1	120	30	1	9	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
2	120	54	2	9	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
3					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
4	150	32	4	13	Yellow	Full Permissive	Fixed	Max Inhibit	1	1	1	1	
5	130	11	5	10	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
6					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
7					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
8					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
9					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	

Split Parameters

Split 1

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	15			.	.	Fixed	None
2	42			X	X	Fixed	None
3	17			.	.	Fixed	None
4	46			.	.	Fixed	None
5	15			.	.	Fixed	None
6	42			X	.	Fixed	None
7	20			.	.	Fixed	None
8	43			.	.	Fixed	None

Split 2

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	23			.	.	Fixed	None
2	40			X	X	Fixed	None
3	17			.	.	Fixed	None
4	40			.	.	Fixed	None
5	18			.	.	Fixed	None
6	45			X	.	Fixed	None
7	27			.	.	Fixed	None
8	30			.	.	Fixed	None

Split 3

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 4

PH.	Time	Min	Max	Coord Phase	Ref Phas	FO Mode	Mode
1	26			.	.	Fixed	None
2	43			X	.	Fixed	None
3	18			.	.	Fixed	None
4	45			.	.	Fixed	None
5	18			.	.	Fixed	None
6	69			X	X	Fixed	None
7	42			.	.	Fixed	None
8	21			.	.	Fixed	None

Split 5

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	20			.	.	Fixed	None
2	46			X	X	Fixed	None
3	17			.	.	Fixed	None
4	47			.	.	Fixed	None
5	15			.	.	Fixed	None
6	51			X	.	Fixed	None
7	26			.	.	Fixed	None
8	38			.	.	Fixed	None

Split 6

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 7

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 8

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 9

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Advanced Coord Options

Pattern	1	2	3	4	5	6	7	8	9
Ring Plan									
Allow Split Underrun	.	.	.	X	.	.	.	.	.
Allow Split Overrun	.	.	.	.	.	.	.	.	.
Allow No Coord Phase	.	.	.	.	.	.	.	.	.
Coord Now	.	.	.	.	.	.	.	.	.

Ring Plans

Ring Plan 1

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 2

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 3

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 4

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 5

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 6

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 7

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 8

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 9

Ring	Offset	Early Gap
1		
2		
3		
4		

Scheduler Configuration

Schedule 1

Status	Enabled
Description	Weekday
Day Plan	1

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Days of Week						
S	M	T	W	T	F	S
.	X	X	X	X	X	.

Days of Month																														
									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 2

Status	Enabled
Description	Weekend
Day Plan	2

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Days of Week						
S	M	T	W	T	F	S
X	.	.	.	.	.	X

Days of Month																														
									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 3

Status	Disabled
Description	
Day Plan	0

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
.	.	.	.	.	.	.	.	.	.	.	.

Days of Week						
S	M	T	W	T	F	S
.	.	.	.	.	.	.

Days of Month																														
									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plans

Day Plan 1

Event	HR	MIN	ACT	Description
1	6	30	1	
2	9		2	
3	14		4	
4	19		2	
5	21		64	Free
6				
7				
8				
9				
10				

Day Plan 2

Event	HR	MIN	ACT	Description
1	8		2	
2	19		64	Free
3				
4				
5				
6				
7				
8				
9				
10				

Day Plan 3

Event	HR	MIN	ACT	Description
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Action Commands

Action	Command	Index
1	None	
2	None	
3	None	
4	None	
5	None	

Action	Command	Index
6	None	
7	None	
8	None	
9	None	
10	None	

Action	Command	Index
11	None	
12	None	
13	None	
14	None	
15	None	

Action	Command	Index
16	None	
17	None	
18	None	
19	None	
20	None	

Actions

		Aux			Special Functions							
Action	Pattern	1	2	3	1	2	3	4	5	6	7	8
1	Pattern 1	.	.	.	.	.	.	.	.	.	.	.
2	Pattern 2	.	.	.	.	.	.	.	.	.	.	.
3	Pattern 3	.	.	.	.	.	.	.	.	.	.	.
4	Pattern 4	.	.	.	.	.	.	.	.	.	.	.
5	Pattern 5	.	.	.	.	.	.	.	.	.	.	.
6	Pattern 6	.	.	.	.	.	.	.	.	.	.	.
7	Pattern 7	.	.	.	.	.	.	.	.	.	.	.
8	Pattern 8	.	.	.	.	.	.	.	.	.	.	.
9	Pattern 9	.	.	.	.	.	.	.	.	.	.	.
10	Pattern 10	.	.	.	.	.	.	.	.	.	.	.
11	None	.	.	.	.	.	.	.	.	.	.	.
12	None	.	.	.	.	.	.	.	.	.	.	.
13	None	.	.	.	.	.	.	.	.	.	.	.
14	None	.	.	.	.	.	.	.	.	.	.	.
15	None	.	.	.	.	.	.	.	.	.	.	.
16	None	.	.	.	.	.	.	.	.	.	.	.
17	None	.	.	.	.	.	.	.	.	.	.	.
18	None	.	.	.	.	.	.	.	.	.	.	.
19	None	.	.	.	.	.	.	.	.	.	.	.
20	None	.	.	.	.	.	.	.	.	.	.	.
64	Free	.	.	.	.	.	.	.	.	.	.	.

Preempt Configuration

Preemption Configuration

Preempt	1	2	3	4	5	6
Enabled	Enabled	Disabled	Enabled	Enabled	Enabled	Enabled
Type	Rail Road	Rail Road	Emergency Veh	Emergency Veh	Emergency Veh	Emergency Veh
Description	BBS Flash					
Track Phase						
Track 2 Phases						
Track Overlap						
Track 2 Overlap						
Dwell Phase			2,5	4,7	1,6	3,8
Dwell Ped						
Dwell Overlap						
Cycling Phase						
Cycling Ped						
Cycling Overlap						
Exit Phase			2,6	4,8	2,6	4,8
Exit Overlaps						
Recovery Exit Omit						

Preemption Options

Preempt	1	2	3	4	5	6
Non Lock Mem	.	.	.	.	.	.
Not Overide Flash	.	.	.	.	.	.
Not Overide Next Preempt	.	.	.	.	.	.
Flash Dwell	.	.	.	.	.	.
Ped Recycle in Dwell Cycle	.	.	.	.	.	.
Immediate Ped Clear	.	.	.	.	.	.
Dwell Only Status Output	.	.	.	.	.	.
All Red Flash Dwell	X	.	.	.	.	.
Allow All Overlaps	.	.	.	.	.	.
Require All Red Entry	.	.	.	.	.	.
Require Gate Down Track Exit	.	.	.	.	.	.
Require Gate Up Dwell Exit	.	.	.	.	.	.
Use Normal On/Normal Off Input	.	.	.	.	.	.

Preemption Parameters

Preempt	1	2	3	4	5	6
Link						
Delay						
Min Duration						
Min Presence						
Max Presence			255	255	255	255
Max Presence Action	Terminate	Terminate	Terminate	Terminate	Terminate	Terminate
Enter Min Green						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Walk						
Enter Ped Clear			255	255	255	255
Track Green						
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Green						
Track 2 Yellow	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Red	25.5	25.5	25.5	25.5	25.5	25.5
Track Ext. Gate Down						

Preempt Parameters

Preempt	1	2	3	4	5	6
Dwell Green			1	1	1	1
Exit Ped Clear	255	255	255	255	255	255
Exit Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Exit Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dwell Ext Time						
Max Exit Green						
Exit Type	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases
Exit Max Mode	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Exit Max Apply Time						
Veh Exit Calls						
Ped Exit Calls						

Advanced I/O Configuration

Channel Configuration

Ch	Control Type	Source
1	Phase Vehicle	1
2	Phase Vehicle	2
3	**Overlap**	5
4	Phase Vehicle	4
5	Phase Vehicle	5
6	Phase Vehicle	6
7	Phase Vehicle	7
8	**Overlap**	6

Ch	Control Type	Source
9	Overlap	1
10	Overlap	2
11	Overlap	3
12	Overlap	4
13	Phase Ped	2
14	Phase Ped	4
15	Phase Ped	6
16	Phase Ped	8

Concurrency Mode

Concurrency Mode
Auto

Auto Concurrency

Ch	Concurrency
1	5,6,9,10,15
2	5,6,10,12,13,15
3	
4	7,8,9,10,12,14,16
5	9,12,13
6	9,10,12,13,15
7	9,10,14
8	12,14,15
9	14,15
10	13,16
11	16
12	14,15
13	15
14	16
15	
16	

Channel Options

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Yellow	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Red	X	X	X	X	X	X	X	X	X	X	X	X	.	.	.	.
Flash Alternate Half Hertz	X	.	.	X	X	.	.	X	.	.	.	.	.	.	.	.

Cabinet Configuration

IO Modules

IO Module	Type
1	Caltrans 332

Input Points

Input	C1 Pin	Input Type	Idx
1	C1-39	Vehicle Det Call	2
2	C1-40	Vehicle Det Call	16
3	C1-41	Vehicle Det Call	8
4	C1-42	Vehicle Det Call	22
5	C1-43	Vehicle Det Call	3
6	C1-44	Vehicle Det Call	17
7	C1-45	Vehicle Det Call	9
8	C1-46	Vehicle Det Call	23
9	C1-47	Vehicle Det Call	6
10	C1-48	Vehicle Det Call	20
11	C1-49	Vehicle Det Call	12
12	C1-50	Vehicle Det Call	26
13	C1-51	Preempt Input	1
14	C1-52	Preempt Input	2
15	C1-53	Unit Manual Control Enable	1
16	C1-54	Not Active	

Input	C1 Pin	Input Type	Idx
17	C1-55	Vehicle Det Call	15
18	C1-56	Vehicle Det Call	1
19	C1-57	Vehicle Det Call	21
20	C1-58	Vehicle Det Call	7
21	C1-59	Vehicle Det Call	27
22	C1-60	Vehicle Det Call	13
23	C1-61	Vehicle Det Call	28
24	C1-62	Vehicle Det Call	14
25	C11-10	Not Active	
26	C11-11	Not Active	
27	C11-12	Not Active	
28	C11-13	Not Active	
29	C1-63	Vehicle Det Call	4
30	C1-64	Vehicle Det Call	18
31	C1-65	Vehicle Det Call	10
32	C1-66	Vehicle Det Call	24

Input	C1 Pin	Input Type	Idx
33	C1-67	Ped Det Call	2
34	C1-68	Ped Det Call	6
35	C1-69	Ped Det Call	4
36	C1-70	Ped Det Call	8
37	C1-71	Preempt Input	3
38	C1-72	Preempt Input	4
39	C1-73	Preempt Input	5
40	C1-74	Preempt Input	6
41	C1-75	Not Active	
42	C1-76	Vehicle Det Call	5
43	C1-77	Vehicle Det Call	19
44	C1-78	Vehicle Det Call	11
45	C1-79	Vehicle Det Call	25
46	C1-80	Unit Interval Advance	1
47	C1-81	Unit Local Flash Sense	1
48	C1-82	Unit Stop Time	1

Input	C1 Pin	Input Type	Idx
49	C11-15	Not Active	
50	C11-16	Not Active	
51	C11-17	Not Active	
52	C11-18	Not Active	
53	C11-19	Not Active	
54	C11-20	Not Active	
55	C11-21	Not Active	
56	C11-22	Not Active	
57	C11-23	Not Active	
58	C11-24	Not Active	
59	C11-25	Not Active	
60	C11-26	Not Active	
61	C11-27	Not Active	
62	C11-28	Not Active	
63	C11-29	Not Active	
64	C11-30	Not Active	

Cabinet Configuration

Output Points

Output	C1 Pin	Output Type	Idx
1	C1-2	Channel Red Do Not Walk Driver	14
2	C1-3	Channel Green Walk Driver	14
3	C1-4	Channel Red Do Not Walk Driver	4
4	C1-5	Channel Yellow Ped Clear Driver	4
5	C1-6	Channel Green Walk Driver	4
6	C1-7	Channel Red Do Not Walk Driver	3
7	C1-8	Channel Yellow Ped Clear Driver	3
8	C1-9	Channel Green Walk Driver	3
9	C1-10	Channel Red Do Not Walk Driver	13
10	C1-11	Channel Green Walk Driver	13
11	C1-12	Channel Red Do Not Walk Driver	2
12	C1-13	Channel Yellow Ped Clear Driver	2
13	C1-15	Channel Green Walk Driver	2
14	C1-16	Channel Red Do Not Walk Driver	1
15	C1-17	Channel Yellow Ped Clear Driver	1
16	C1-18	Channel Green Walk Driver	1
17	C1-19	Channel Red Do Not Walk Driver	16
18	C1-20	Channel Green Walk Driver	16
19	C1-21	Channel Red Do Not Walk Driver	8
20	C1-22	Channel Yellow Ped Clear Driver	8
21	C1-23	Channel Green Walk Driver	8
22	C1-24	Channel Red Do Not Walk Driver	7
23	C1-25	Channel Yellow Ped Clear Driver	7
24	C1-26	Channel Green Walk Driver	7
25	C1-27	Channel Red Do Not Walk Driver	15
26	C1-28	Channel Green Walk Driver	15
27	C1-29	Channel Red Do Not Walk Driver	6
28	C1-30	Channel Yellow Ped Clear Driver	6
29	C1-31	Channel Green Walk Driver	6
30	C1-32	Channel Red Do Not Walk Driver	5
31	C1-33	Channel Yellow Ped Clear Driver	5
32	C1-34	Channel Green Walk Driver	5

Output	C1 Pin	Output Type	Idx
33	C1-35	Channel Yellow Ped Clear Driver	13
34	C1-36	Channel Yellow Ped Clear Driver	15
35	C1-37	Channel Yellow Ped Clear Driver	14
36	C1-38	Channel Yellow Ped Clear Driver	16
37	C1-100	Channel Yellow Ped Clear Driver	18
38	C1-101	Channel Yellow Ped Clear Driver	17
39	C1-102	Detector Reset	1
40	C1-103	Watchdog	
41	C1-83	Channel Red Do Not Walk Driver	18
42	C1-84	Channel Green Walk Driver	18
43	C1-85	Channel Red Do Not Walk Driver	12
44	C1-86	Channel Yellow Ped Clear Driver	12
45	C1-87	Channel Green Walk Driver	12
46	C1-88	Channel Red Do Not Walk Driver	11
47	C1-89	Channel Yellow Ped Clear Driver	11
48	C1-90	Channel Green Walk Driver	11
49	C1-91	Channel Red Do Not Walk Driver	17
50	C1-93	Channel Green Walk Driver	17
51	C1-94	Channel Red Do Not Walk Driver	10
52	C1-95	Channel Yellow Ped Clear Driver	10
53	C1-96	Channel Green Walk Driver	10
54	C1-97	Channel Red Do Not Walk Driver	9
55	C1-98	Channel Yellow Ped Clear Driver	9
56	C1-99	Channel Green Walk Driver	9
57	C11-1	Not Active	
58	C11-2	Not Active	
59	C11-3	Not Active	
60	C11-4	Not Active	
61	C11-5	Not Active	
62	C11-6	Not Active	
63	C11-7	Not Active	
64	C11-8	Not Active	

User Programs

Program 1

Enabled

Line	Result	Idx	Operation	Parameter A	Idx	Parameter B	Idx	Dly	Ext	Description
1	Unit Stop Time	1	Result=A	Aux Switch State						
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

CITY OF SAN MARCOS SIGNAL TIMING
SAN MARCOS BLVD / VIA VERA CRUZ

INTELIGHT

City of San Marcos

San Marcos @ Via Vera Cruz

Phase Timing and Options

Unit Information

Controller Number	7
Software	Intelight MAXTIME 2.X
Main Street	San Marcos
Side Street	Via Vera Cruz
IP Address	

Unit Parameters

Extended Mode	Disable
Startup Flash	0
Auto Ped Clear	Enable
Red Revert	6.0
Backup Time	600
Startup All Red	6
Man. Control Seq.	1
MCE Enable	Enable
Start Yel. Override	0.0
Start Red Override	0.0
Free Sequence	1
All Red Flash Exit	6
Local CVM Fash	Disable
All Red Flash Sns	Disable
All Dark Flash Sns	Disable

Phase Timing

Phase	1	2	3	4	5	6	7	8
Description	WB Left	EB	NB Left	SB	EB Left	WB	SB Left	NB
Walk		5		5		5		5
Ped Clear		23		27		21		27
Steady Don't Walk								
Min Green	6	15	8	7	6	15	7	7
Min Green 2								
Passage	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Passage 2								
Max Green 1	30	50	30	30	30	50	40	30
Max Green 2								
Yellow Change	4.5	4.5	4.0	4.0	4.5	4.5	4.0	4.0
Red Clear	2.0	2.0	2.0	2.5	2.0	2.0	2.5	2.5
Added Initial								
Maximum Initial								
Time B4 Reduction								
Cars B4 Reduction								
Time To Reduce								
Reduce By								
Minimum Gap								
Advance Walk								
Delayed Ped								

Phase Options

Phase	1	2	3	4	5	6	7	8
Enable	X	X	X	X	X	X	X	X
Auto Flash Entry	.	.	.	X	.	.	.	X
Auto Flash Exit	.	X	.	.	.	X	.	.
Non Lock Detector	X	X	X	X	X	X	X	X
Min Vehicle Recall	.	X	.	.	.	X	.	.
Max Vehicle Recall	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.
Soft Vehicle Recall	.	.	.	.	.	.	.	.
Dual Entry	.	.	.	X	.	.	.	X
Sim. Gap Disable	.	.	.	.	.	.	.	.
Actuated Rest in Walk	.	.	.	.	.	.	.	.
Conditional Svc Enable	.	.	.	.	.	.	.	.
Add Initial Calculation	.	.	.	.	.	.	.	.
Ped Clear During Yellow	.	.	.	.	.	.	.	.
Ped Clear During Red Clr	.	.	.	.	.	.	.	.
Yellow Min Override	.	.	.	.	.	.	.	.
No Startup Call	.	.	.	.	.	.	.	.
No Ped Startup Call	.	.	.	.	.	.	.	.
Min Green 2	.	.	.	.	.	.	.	.
Max Green 2	.	.	.	.	.	.	.	.
Red Rest	.	.	.	.	.	.	.	.
Ped Recycle	.	X	.	X	.	X	.	X

Phase Configuration

Phase	Startup	Description
1	Phase Not On	WB Left
2	Green No Walk	EB
3	Phase Not On	NB Left
4	Phase Not On	SB
5	Phase Not On	EB Left
6	Green No Walk	WB
7	Phase Not On	SB Left
8	Phase Not On	NB

Global Phase Recalls

Phase	1	2	3	4	5	6	7	8
Min	.	.	.	.	.	.	.	.
Max	.	.	.	.	.	.	.	.
Ped	.	.	.	.	.	.	.	.

Notes

SAN MARCOS
DISCOVER LIFE'S POSSIBILITIES

Printed on: 3/25/2021

Sequences

Sequence 1

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 2

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 3

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 4

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,7,8,b
3	
4	

Sequence 5

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 6

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	

Sequence 7

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 8

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,7,8,b
3	
4	

Sequence 9

Ring	Sequence
1	1,2,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 10

Ring	Sequence
1	2,1,a,3,4,b
2	5,6,a,8,7,b
3	
4	

Sequence 11

Ring	Sequence
1	1,2,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 12

Ring	Sequence
1	2,1,a,4,3,b
2	5,6,a,8,7,b
3	
4	

Sequence 13

Ring	Sequence
1	1,2,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 14

Ring	Sequence
1	2,1,a,3,4,b
2	6,5,a,8,7,b
3	
4	

Sequence 15

Ring	Sequence
1	1,2,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Sequence 16

Ring	Sequence
1	2,1,a,4,3,b
2	6,5,a,8,7,b
3	
4	

Overlaps

Standard Overlaps

Overlap	1	2	3	4	5	6
Enabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Description						
Type	Off	Off	Off	Off	Off	Off
Included Phs						
Modifier Phs						
Negative Phs						
Negative Ovlp						
Negative Ped						
Green Suppr						
Trail Green						
Trail Yellow						
Trail Red						
Walk						
Ped Clear						
Delay						
Startup Call	.	.	.	.	.	.
Recall	.	.	.	.	.	.
Call for Svc	.	.	.	.	.	.

Backup Prevention / No Serve Phases

Sequence 1

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 2

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 3

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 4

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 5

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 6

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 7

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 8

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Sequence 9

Backup Protection Plan

Serve Phase	Backup phase 1	2	3	4	5	6	7	8
1	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.
7	.	.	.	.	.	.	.	.
8	.	.	.	.	.	.	.	.
Thru Red	No							

Call Phs

Ph	Call Ph
1	
2	
3	
4	
5	
6	
7	
8	

No Serve

Ph	No Srv
1	
2	
3	
4	
5	
6	
7	
8	

Detector Configuration

Vehicle Detectors

Detector	Slot	C1 Pin Number	Call Phas	Call O/L	Addtnl Call PH	Switch Phase	Delay	Extend	Queue Limit	No Activity	Max Pres.	Erratic Count	Fail Time	Failed Recall	Description
1	I-1	C1-56	1											None	
2	I-2U	C1-39	2											None	
3	I-2L	C1-43	2											None	
4	I-3U	C1-63	2											None	
5	I-3L	C1-76	2											None	
6	I-4	C1-47	2											None	
7	I-5	C1-58	3											None	
8	I-6U	C1-41	**7**											None	
9	I-6L	C1-45	4											None	
10	I-7U	C1-65	4											None	
11	I-7L	C1-78	4											None	
12	I-8	C1-49	4											None	
13	I-9U	C1-60	**2**											None	
14	I-9L	C1-62	**2**											None	
15	J-1	C1-55	5											None	
16	J-2U	C1-40	6											None	
17	J-2L	C1-44	6					1.0						None	
18	J-3U	C1-64	6											None	
19	J-3L	C1-77	6											None	
20	J-4	C1-48	6											None	
21	J-5	C1-57	7											None	
22	J-6U	C1-42	8					1.0						None	
23	J-6L	C1-46	8											None	
24	J-7U	C1-66	8											None	
25	J-7L	C1-79	8											None	
26	J-8	C1-50	8											None	
27	J-9U	C1-59	**6**											None	
28	J-9L	C1-61	**6**											None	

Pedestrian Detectors

Detector	Slot	C1 Pin Number	Call PH	Call O/L	Addtnl Call PH	No Act	Max Pres	Erratic Count
1	-------	-------						
2	I-12U	C1-67	2					
3	-------	-------						
4	I-12L	C1-69	4					
5	-------	-------						
6	I-13U	C1-68	6					
7	-------	-------						
8	I-13L	C1-70	8					

Global Vehicle Detector Parameters

Global No Activity	
Global Max Presence	60
Global Erratic Count	45
Global Failed Recall	Max Recall
Detector Reset Enable	Enabled

Global Ped Detector Parameters

Global No Activity	
Global Max Pres.	5
Global Erratic Ct	

Vehicle Detection Options

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Volume	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Occupancy	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Yellow Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Red Lock Call	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Extend	X	X	X	X	X	**X**	X	X	X	X	X	**X**	X	X	X	X	X	X	X	**X**	X	X	X	X	X	**X**	X	X
Added Initial	X	X	X	X	X	.	X	X	X	X	X	.	X	X	X	X	X	X	X	.	X	X	X	X	X	.	X	X
Queue	.	.	.	.	.	**.**	.	.	.	.	.	**.**	.	.	.	.	.	.	.	**.**	.	.	.	.	.	**.**	.	.
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Min Green 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Passage 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Coordination Configuration

Coordination Parameters

Operational Mode	Automatic
Coord Mode	Full Permissive
Maximum Mode	Per Pattern
Force Mode	Per Pattern
Correction Mode	Shortway (Auto)
Max Cyc Limit %	25
Min Cyc Limit %	25
Max Dwell	0
Trans. Cover Ped	Pattern

Patterns

Patt.	Cycle	Offset 1	Split	Seq	Reference	Coord Mode	FO Mode	Max Mode	Phs Pln	Det Pln	Ped Pln	OL Pln	Description
1	120	83	1	5	Yellow	Full Permissive	Fixed	Max Inhibit	1	1	1	1	
2	120	103	2	1	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
3	130	104	3	13	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
4	140	6	4	1	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
5	150	24	5	2	Yellow	Full Permissive	Fixed	Max Inhibit	1	1	1	1	
6	140	30	6	1	Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
7					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
8					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	
9					Yellow	Auto Permissive	Fixed	Max Inhibit	1	1	1	1	

Split Parameters

Split 1

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	22			.	.	Fixed	None
2	22			X	.	Fixed	None
3	22			.	.	Fixed	None
4	32			.	.	Fixed	None
5	22			.	.	Fixed	None
6	44			X	X	Fixed	None
7	22			.	.	Fixed	None
8	32			.	.	Fixed	None

Split 2

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	24			.	.	Fixed	None
2	42			X	X	Fixed	None
3	22			.	.	Fixed	None
4	32			.	.	Fixed	None
5	24			.	.	Fixed	None
6	42			X	X	Fixed	None
7	22			.	.	Fixed	None
8	32			.	.	Fixed	None

Split 3

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	17			.	.	Fixed	None
2	57			X	.	Fixed	None
3	20			.	.	Fixed	None
4	36			.	.	Fixed	None
5	16			.	.	Fixed	None
6	58			X	X	Fixed	None
7	25			.	.	Fixed	None
8	31			.	.	Fixed	None

Split 4

PH.	Time	Min	Max	Coord Phase	Ref Phas	FO Mode	Mode
1	24			.	.	Fixed	None
2	58			X	X	Fixed	None
3	25			.	.	Fixed	None
4	33			.	.	Fixed	None
5	24			.	.	Fixed	None
6	58			X	X	Fixed	None
7	25			.	.	Fixed	None
8	33			.	.	Fixed	None

Split 5

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	23			.	.	Fixed	None
2	64			X	X	Fixed	None
3	20			.	.	Fixed	None
4	43			.	.	Fixed	None
5	25			.	.	Fixed	None
6	42			X	.	Fixed	None
7	20			.	.	Fixed	None
8	43			.	.	Fixed	None

Split 6

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1	24			.	.	Fixed	None
2	58			X	X	Fixed	None
3	25			.	.	Fixed	None
4	33			.	.	Fixed	None
5	24			.	.	Fixed	None
6	58			X	X	Fixed	None
7	25			.	.	Fixed	None
8	33			.	.	Fixed	None

Split 7

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 8

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Split 9

PH.	Time	Min	Max	Coord Phase	Ref Phase	FO Mode	Mode
1				.	.	Fixed	None
2				.	.	Fixed	None
3				.	.	Fixed	None
4				.	.	Fixed	None
5				.	.	Fixed	None
6				.	.	Fixed	None
7				.	.	Fixed	None
8				.	.	Fixed	None

Advanced Coord Options

Pattern	1	2	3	4	5	6	7	8	9
Ring Plan									
Allow Split Underrun	X	.	.	.	X	.	.	.	.
Allow Split Overrun	.	.	.	.	.	.	.	.	.
Allow No Coord Phase	.	.	.	.	.	.	.	.	.
Coord Now	.	.	.	.	.	.	.	.	.

Ring Plans

Ring Plan 1

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 2

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 3

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 4

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 5

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 6

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 7

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 8

Ring	Offset	Early Gap
1		
2		
3		
4		

Ring Plan 9

Ring	Offset	Early Gap
1		
2		
3		
4		

Scheduler Configuration

Schedule 1

Status	Enabled

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Description	Weekday

Days of Week						
S	M	T	W	T	F	S
.	X	X	X	X	X	.

Day Plan	1

Days of Month																														
									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 2

Status	Enabled

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
X	X	X	X	X	X	X	X	X	X	X	X

Description	Weekend

Days of Week						
S	M	T	W	T	F	S
X	.	.	.	.	.	X

Day Plan	2

Days of Month																														
									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Schedule 3

Status	Disabled

Month of Year											
J	F	M	A	M	J	J	A	S	O	N	D
.	.	.	.	.	.	.	.	.	.	.	.

Description	

Days of Week						
S	M	T	W	T	F	S
.	.	.	.	.	.	.

Day Plan	0

Days of Month																														
									1										2										3	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Day Plans

Day Plan 1

Event	HR	MIN	ACT	Description
1	6	30	1	
2	9		2	
3	14		5	
4	19		2	
5	21		64	Free
6				
7				
8				
9				
10				

Day Plan 2

Event	HR	MIN	ACT	Description
1	8		2	
2	19		64	Free
3				
4				
5				
6				
7				
8				
9				
10				

Day Plan 3

Event	HR	MIN	ACT	Description
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Action Commands

Action	Command	Index
1	None	
2	None	
3	None	
4	None	
5	None	

Action	Command	Index
6	None	
7	None	
8	None	
9	None	
10	None	

Action	Command	Index
11	None	
12	None	
13	None	
14	None	
15	None	

Action	Command	Index
16	None	
17	None	
18	None	
19	None	
20	None	

Actions

		Aux			Special Functions							
Action	Pattern	1	2	3	1	2	3	4	5	6	7	8
1	Pattern 1	.	.	.	.	.	.	.	.	.	.	.
2	Pattern 2	.	.	.	.	.	.	.	.	.	.	.
3	Pattern 3	.	.	.	.	.	.	.	.	.	.	.
4	Pattern 4	.	.	.	.	.	.	.	.	.	.	.
5	Pattern 5	.	.	.	.	.	.	.	.	.	.	.
6	Pattern 6	.	.	.	.	.	.	.	.	.	.	.
7	Pattern 7	.	.	.	.	.	.	.	.	.	.	.
8	Pattern 8	.	.	.	.	.	.	.	.	.	.	.
9	Pattern 9	.	.	.	.	.	.	.	.	.	.	.
10	Pattern 10	.	.	.	.	.	.	.	.	.	.	.
11	None	.	.	.	.	.	.	.	.	.	.	.
12	None	.	.	.	.	.	.	.	.	.	.	.
13	None	.	.	.	.	.	.	.	.	.	.	.
14	None	.	.	.	.	.	.	.	.	.	.	.
15	None	.	.	.	.	.	.	.	.	.	.	.
16	None	.	.	.	.	.	.	.	.	.	.	.
17	None	.	.	.	.	.	.	.	.	.	.	.
18	None	.	.	.	.	.	.	.	.	.	.	.
19	None	.	.	.	.	.	.	.	.	.	.	.
20	None	.	.	.	.	.	.	.	.	.	.	.
64	Free	.	.	.	.	.	.	.	.	.	.	.

Preempt Configuration

Preemption Configuration

Preempt	1	2	3	4	5	6
Enabled	Enabled	Disabled	Enabled	Enabled	Enabled	Enabled
Type	Rail Road	Rail Road	Emergency Veh	Emergency Veh	Emergency Veh	Emergency Veh
Description	BBS Flash					
Track Phase						
Track 2 Phases						
Track Overlap						
Track 2 Overlap						
Dwell Phase			2,5	4,7	1,6	3,8
Dwell Ped						
Dwell Overlap						
Cycling Phase						
Cycling Ped						
Cycling Overlap						
Exit Phase	2,6		2,6	4,8	2,6	4,8
Exit Overlaps						
Recovery Exit Omit						

Preemption Options

Preempt	1	2	3	4	5	6
Non Lock Mem	.	.	.	.	.	.
Not Overide Flash	.	.	.	.	.	.
Not Overide Next Preempt	.	.	.	.	.	.
Flash Dwell	.	.	.	.	.	.
Ped Recycle in Dwell Cycle	.	.	.	.	.	.
Immediate Ped Clear	.	.	.	.	.	.
Dwell Only Status Output	.	.	.	.	.	.
All Red Flash Dwell	X	.	.	.	.	.
Allow All Overlaps	.	.	.	.	.	.
Require All Red Entry	.	.	.	.	.	.
Require Gate Down Track Exit	.	.	.	.	.	.
Require Gate Up Dwell Exit	.	.	.	.	.	.
Use Normal On/Normal Off Input	.	.	.	.	.	.

Preemption Parameters

Preempt	1	2	3	4	5	6
Link						
Delay						
Min Duration						
Min Presence						
Max Presence			255	255	255	255
Max Presence Action	Terminate	Terminate	Terminate	Terminate	Terminate	Terminate
Enter Min Green						
Enter Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Enter Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Walk						
Enter Ped Clear			255	255	255	255
Track Green						
Track Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Track Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Green						
Track 2 Yellow	25.5	25.5	25.5	25.5	25.5	25.5
Track 2 Red	25.5	25.5	25.5	25.5	25.5	25.5
Track Ext. Gate Down						

Preempt Parameters

Preempt	1	2	3	4	5	6
Dwell Green			1	1	1	1
Exit Ped Clear	255	255	255	255	255	255
Exit Yellow Change	25.5	25.5	25.5	25.5	25.5	25.5
Exit Red Clear	25.5	25.5	25.5	25.5	25.5	25.5
Dwell Ext Time						
Max Exit Green						
Exit Type	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases	Exit Phases
Exit Max Mode	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Exit Max Apply Time						
Veh Exit Calls						
Ped Exit Calls						

Advanced I/O Configuration

Channel Configuration

Ch	Control Type	Source
1	Phase Vehicle	1
2	Phase Vehicle	2
3	Phase Vehicle	3
4	Phase Vehicle	4
5	Phase Vehicle	5
6	Phase Vehicle	6
7	Phase Vehicle	7
8	Phase Vehicle	8

Ch	Control Type	Source
9	None	
10	None	
11	None	
12	None	
13	Phase Ped	2
14	Phase Ped	4
15	Phase Ped	6
16	Phase Ped	8

Concurrency Mode

Concurrency Mode
Auto

Auto Concurrency

Ch	Concurrency
1	5,6,15
2	5,6,13,15
3	7,8,16
4	7,8,14,16
5	13
6	13,15
7	14
8	14,16
9	
10	
11	
12	
13	15
14	16
15	
16	

Channel Options

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flash Yellow	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flash Red	X	X	X	X	X	X	X	X	.	.	.	.	.	.	.	.
Flash Alternate Half Hertz	X	.	.	X	X	.	.	X	.	.	.	.	.	.	.	.

Cabinet Configuration

IO Modules

IO Module	Type
1	Caltrans 332

Input Points

Input	C1 Pin	Input Type	Idx
1	C1-39	Vehicle Det Call	2
2	C1-40	Vehicle Det Call	16
3	C1-41	Vehicle Det Call	8
4	C1-42	Vehicle Det Call	22
5	C1-43	Vehicle Det Call	3
6	C1-44	Vehicle Det Call	17
7	C1-45	Vehicle Det Call	9
8	C1-46	Vehicle Det Call	23
9	C1-47	Vehicle Det Call	6
10	C1-48	Vehicle Det Call	20
11	C1-49	Vehicle Det Call	12
12	C1-50	Vehicle Det Call	26
13	C1-51	Preempt Input	1
14	C1-52	Preempt Input	2
15	C1-53	Unit Manual Control Enable	1
16	C1-54	Not Active	

Input	C1 Pin	Input Type	Idx
17	C1-55	Vehicle Det Call	15
18	C1-56	Vehicle Det Call	1
19	C1-57	Vehicle Det Call	21
20	C1-58	Vehicle Det Call	7
21	C1-59	Vehicle Det Call	27
22	C1-60	Vehicle Det Call	13
23	C1-61	Vehicle Det Call	28
24	C1-62	Vehicle Det Call	14
25	C11-10	Not Active	
26	C11-11	Not Active	
27	C11-12	Not Active	
28	C11-13	Not Active	
29	C1-63	Vehicle Det Call	4
30	C1-64	Vehicle Det Call	18
31	C1-65	Vehicle Det Call	10
32	C1-66	Vehicle Det Call	24

Input	C1 Pin	Input Type	Idx
33	C1-67	Ped Det Call	2
34	C1-68	Ped Det Call	6
35	C1-69	Ped Det Call	4
36	C1-70	Ped Det Call	8
37	C1-71	Preempt Input	3
38	C1-72	Preempt Input	4
39	C1-73	Preempt Input	5
40	C1-74	Preempt Input	6
41	C1-75	Not Active	
42	C1-76	Vehicle Det Call	5
43	C1-77	Vehicle Det Call	19
44	C1-78	Vehicle Det Call	11
45	C1-79	Vehicle Det Call	25
46	C1-80	Unit Interval Advance	1
47	C1-81	Unit Local Flash Sense	1
48	C1-82	Unit Stop Time	1

Input	C1 Pin	Input Type	Idx
49	C11-15	Not Active	
50	C11-16	Not Active	
51	C11-17	Not Active	
52	C11-18	Not Active	
53	C11-19	Not Active	
54	C11-20	Not Active	
55	C11-21	Not Active	
56	C11-22	Not Active	
57	C11-23	Not Active	
58	C11-24	Not Active	
59	C11-25	Not Active	
60	C11-26	Not Active	
61	C11-27	Not Active	
62	C11-28	Not Active	
63	C11-29	Not Active	
64	C11-30	Not Active	

Cabinet Configuration

Output Points

Output	C1 Pin	Output Type	Idx
1	C1-2	Channel Red Do Not Walk Driver	14
2	C1-3	Channel Green Walk Driver	14
3	C1-4	Channel Red Do Not Walk Driver	4
4	C1-5	Channel Yellow Ped Clear Driver	4
5	C1-6	Channel Green Walk Driver	4
6	C1-7	Channel Red Do Not Walk Driver	3
7	C1-8	Channel Yellow Ped Clear Driver	3
8	C1-9	Channel Green Walk Driver	3
9	C1-10	Channel Red Do Not Walk Driver	13
10	C1-11	Channel Green Walk Driver	13
11	C1-12	Channel Red Do Not Walk Driver	2
12	C1-13	Channel Yellow Ped Clear Driver	2
13	C1-15	Channel Green Walk Driver	2
14	C1-16	Channel Red Do Not Walk Driver	1
15	C1-17	Channel Yellow Ped Clear Driver	1
16	C1-18	Channel Green Walk Driver	1
17	C1-19	Channel Red Do Not Walk Driver	16
18	C1-20	Channel Green Walk Driver	16
19	C1-21	Channel Red Do Not Walk Driver	8
20	C1-22	Channel Yellow Ped Clear Driver	8
21	C1-23	Channel Green Walk Driver	8
22	C1-24	Channel Red Do Not Walk Driver	7
23	C1-25	Channel Yellow Ped Clear Driver	7
24	C1-26	Channel Green Walk Driver	7
25	C1-27	Channel Red Do Not Walk Driver	15
26	C1-28	Channel Green Walk Driver	15
27	C1-29	Channel Red Do Not Walk Driver	6
28	C1-30	Channel Yellow Ped Clear Driver	6
29	C1-31	Channel Green Walk Driver	6
30	C1-32	Channel Red Do Not Walk Driver	5
31	C1-33	Channel Yellow Ped Clear Driver	5
32	C1-34	Channel Green Walk Driver	5

Output	C1 Pin	Output Type	Idx
33	C1-35	Channel Yellow Ped Clear Driver	13
34	C1-36	Channel Yellow Ped Clear Driver	15
35	C1-37	Channel Yellow Ped Clear Driver	14
36	C1-38	Channel Yellow Ped Clear Driver	16
37	C1-100	Channel Yellow Ped Clear Driver	18
38	C1-101	Channel Yellow Ped Clear Driver	11
39	C1-102	Detector Reset	1
40	C1-103	Watchdog	
41	C1-83	Channel Red Do Not Walk Driver	18
42	C1-84	Channel Green Walk Driver	18
43	C1-85	Channel Red Do Not Walk Driver	17
44	C1-86	Channel Yellow Ped Clear Driver	17
45	C1-87	Channel Green Walk Driver	17
46	C1-88	Channel Red Do Not Walk Driver	12
47	C1-89	Channel Yellow Ped Clear Driver	12
48	C1-90	Channel Green Walk Driver	12
49	C1-91	Channel Red Do Not Walk Driver	11
50	C1-93	Channel Green Walk Driver	11
51	C1-94	Channel Red Do Not Walk Driver	10
52	C1-95	Channel Yellow Ped Clear Driver	10
53	C1-96	Channel Green Walk Driver	10
54	C1-97	Channel Red Do Not Walk Driver	9
55	C1-98	Channel Yellow Ped Clear Driver	9
56	C1-99	Channel Green Walk Driver	9
57	C11-1	Not Active	
58	C11-2	Not Active	
59	C11-3	Not Active	
60	C11-4	Not Active	
61	C11-5	Not Active	
62	C11-6	Not Active	
63	C11-7	Not Active	
64	C11-8	Not Active	

User Programs

Program 1

Enabled

Line	Result	Idx	Operation	Parameter A	Idx	Parameter B	Idx	Dly	Ext	Description
1	Unit Stop Time	1	Result=A	Aux Switch State						
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Appendix C
Regression Analysis

TRIP GENERATION FORECAST REGRESSION GRAPHS

Table L1. Regression Analysis of Trip Generation vs Number of Fueling Positions – Weekday AM Peak Hour

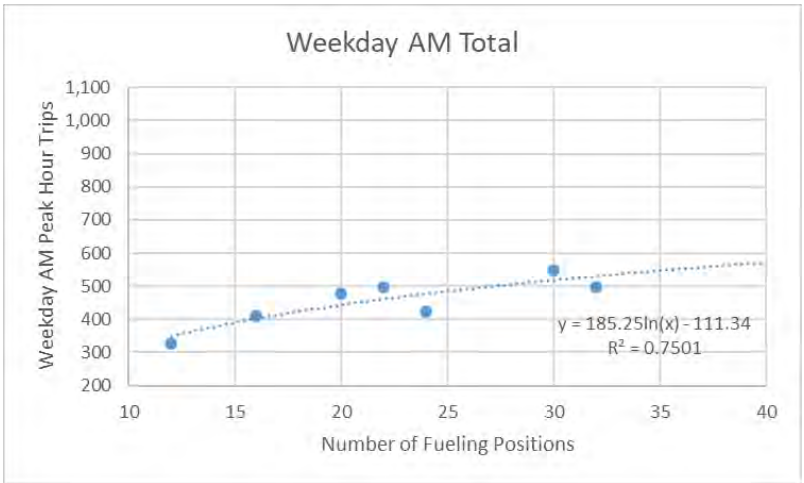


Table L2. Regression Analysis of Trip Generation vs Number of Fueling Positions – Weekday PM Peak Hour

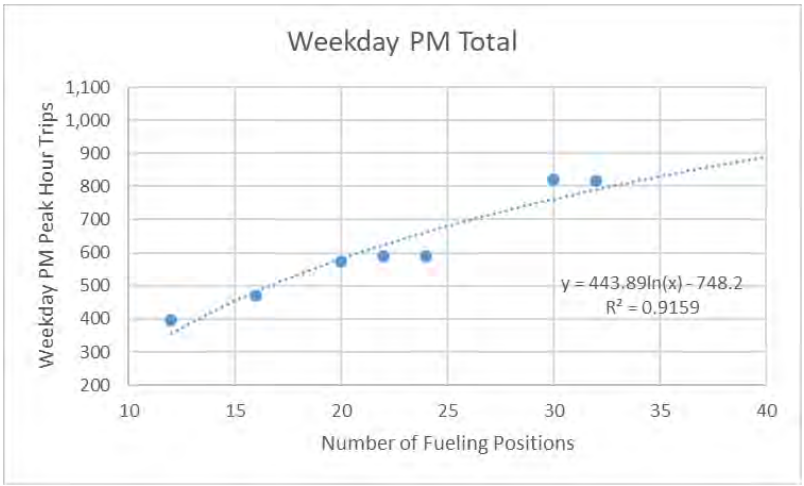


Table L3. Regression Analysis of Trip Generation vs Number of Fueling Positions – Saturday Midday Peak Hour

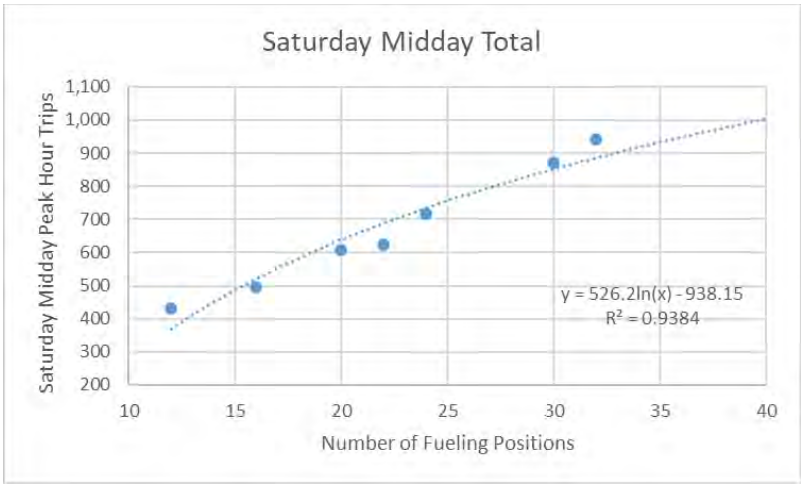


Table L4. Regression Analysis of Trip Generation vs Number of Fueling Positions – Weekday Daily

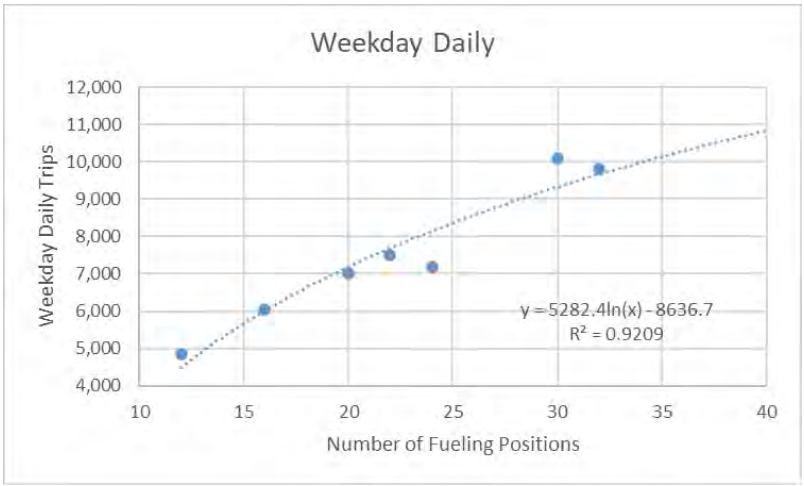
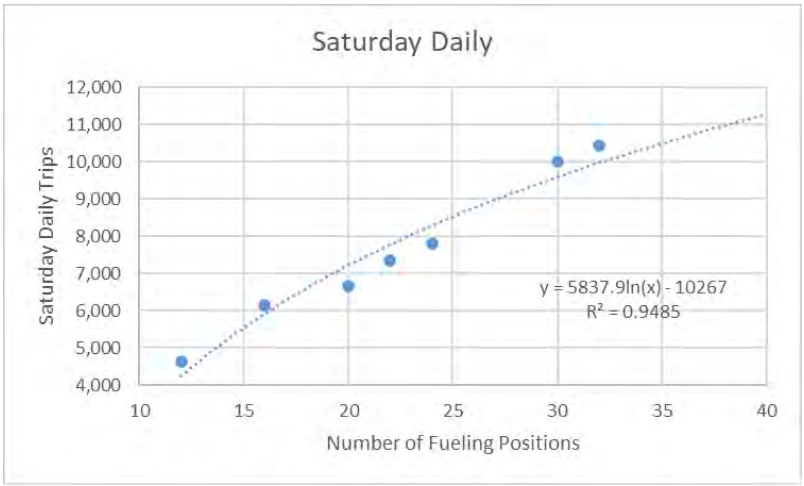


Table L5. Regression Analysis of Trip Generation vs Number of Fueling Positions – Saturday Midday



QUEUE FORECAST REGRESSION GRAPHS

Table L6. Regression Analysis of Max Queue vs Number of Fueling Positions – Weekday AM Peak Hour

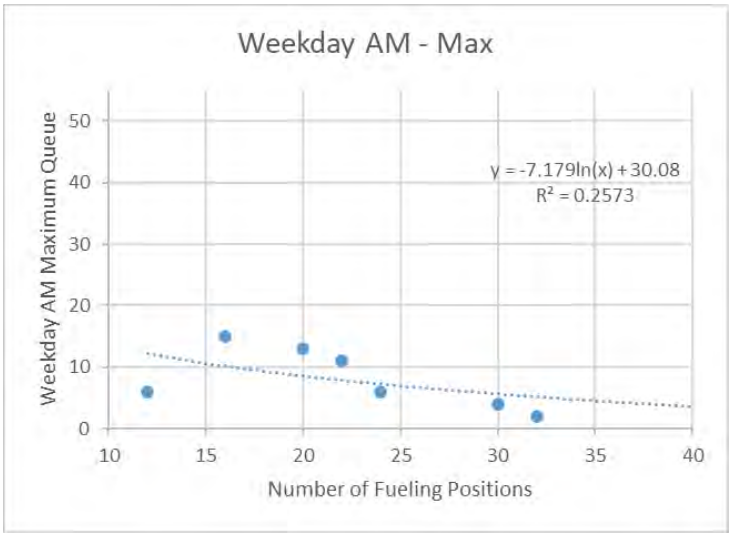


Table L7. Regression Analysis of 95th Percentile Queue vs Number of Fueling Positions – Weekday AM Peak Hour

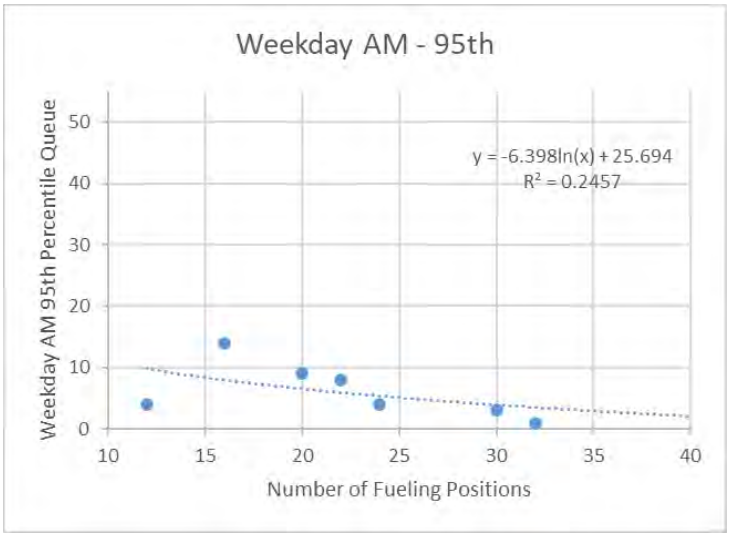


Table L8. Regression Analysis of Max Queue vs Number of Fueling Positions – Weekday PM Peak Hour

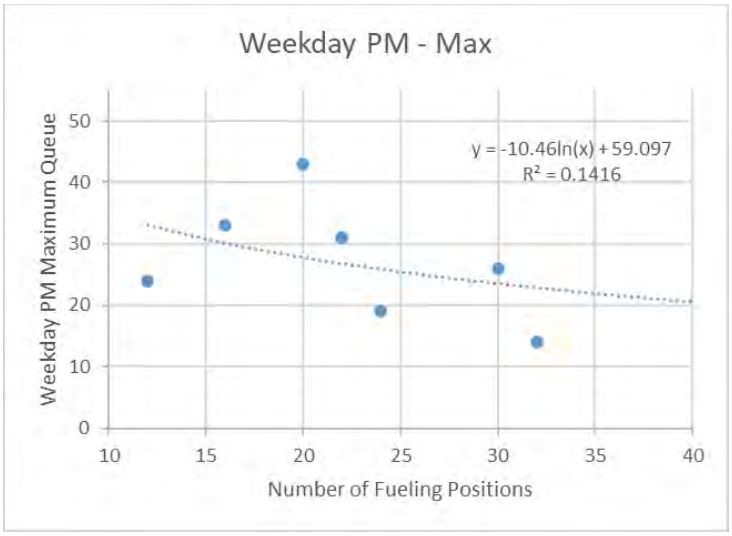


Table L9. Regression Analysis of 95th Percentile Queue vs Number of Fueling Positions – Weekday PM Peak Hour

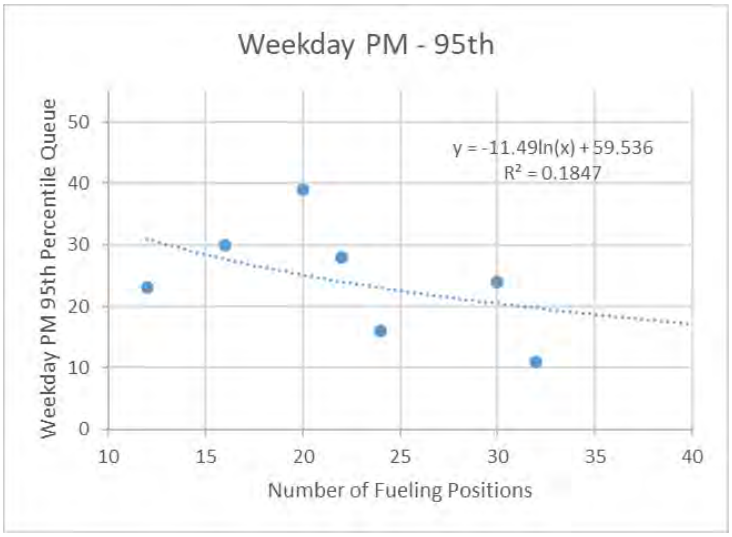


Table L10. Regression Analysis of Max Queue vs Number of Fueling Positions – Saturday Midday Peak Hour

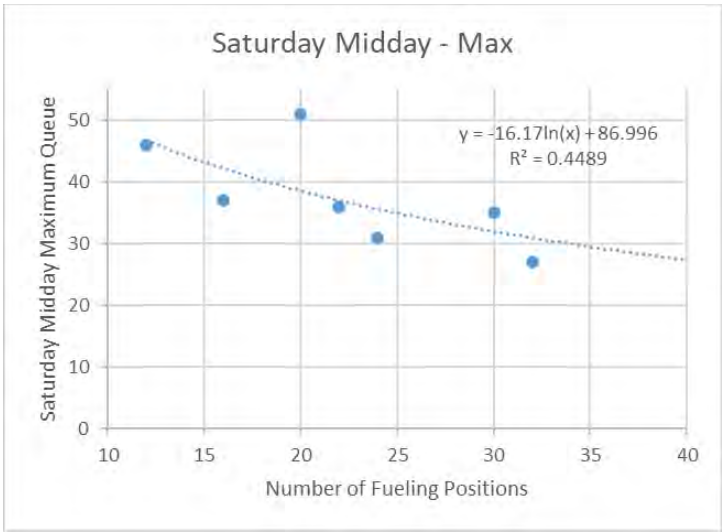
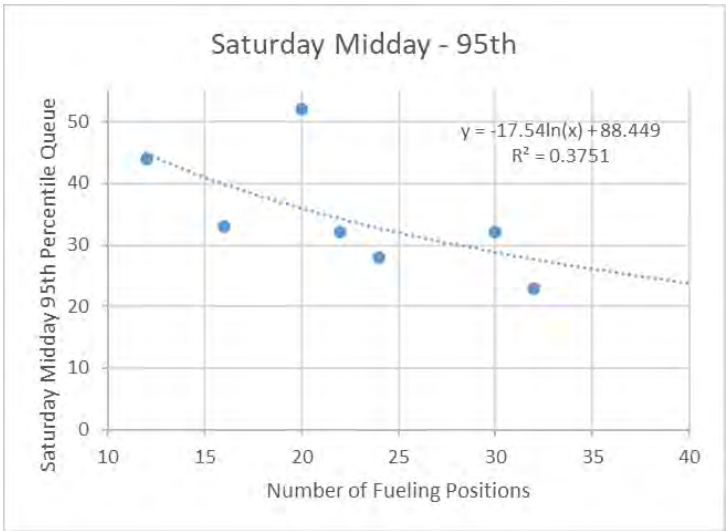
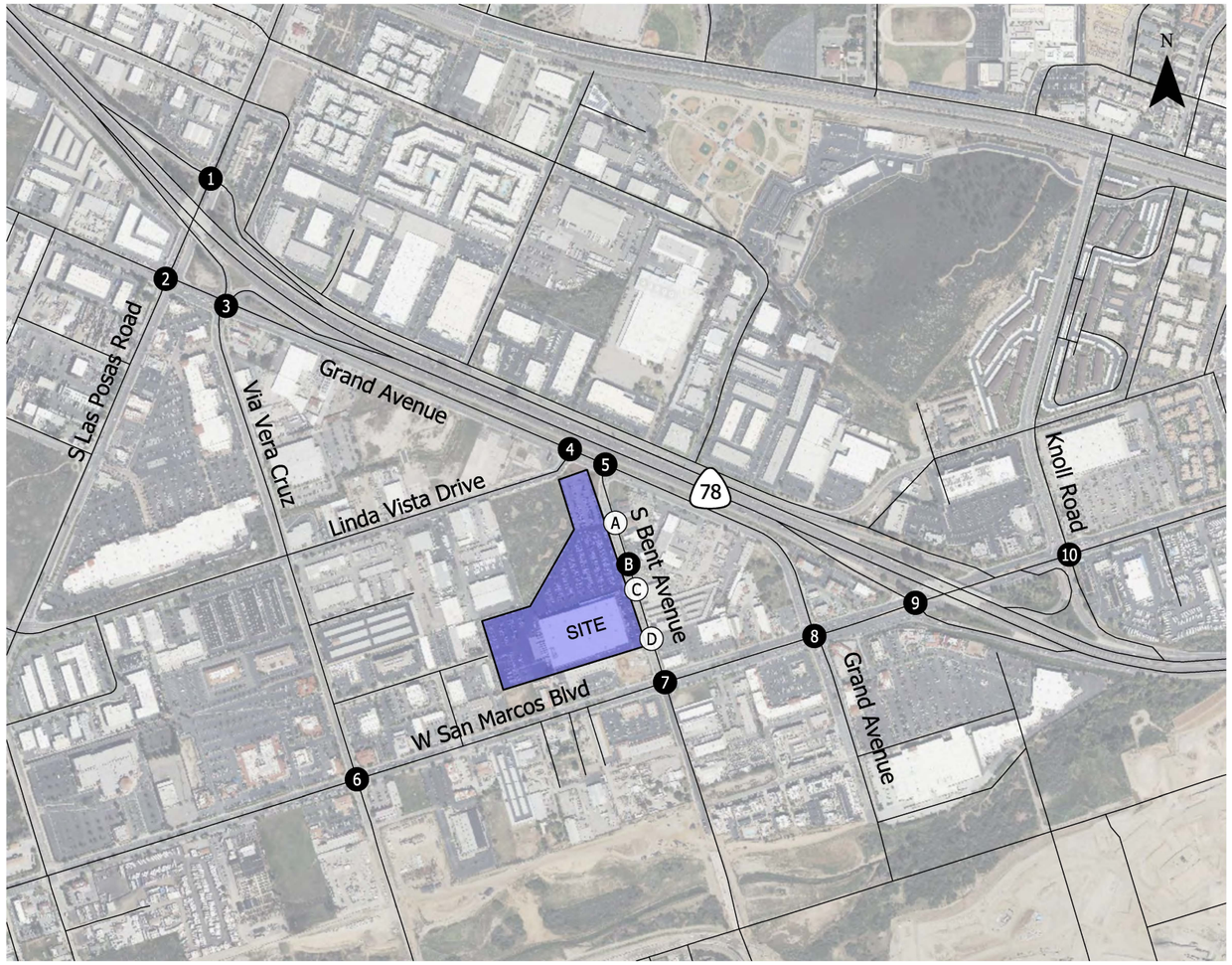
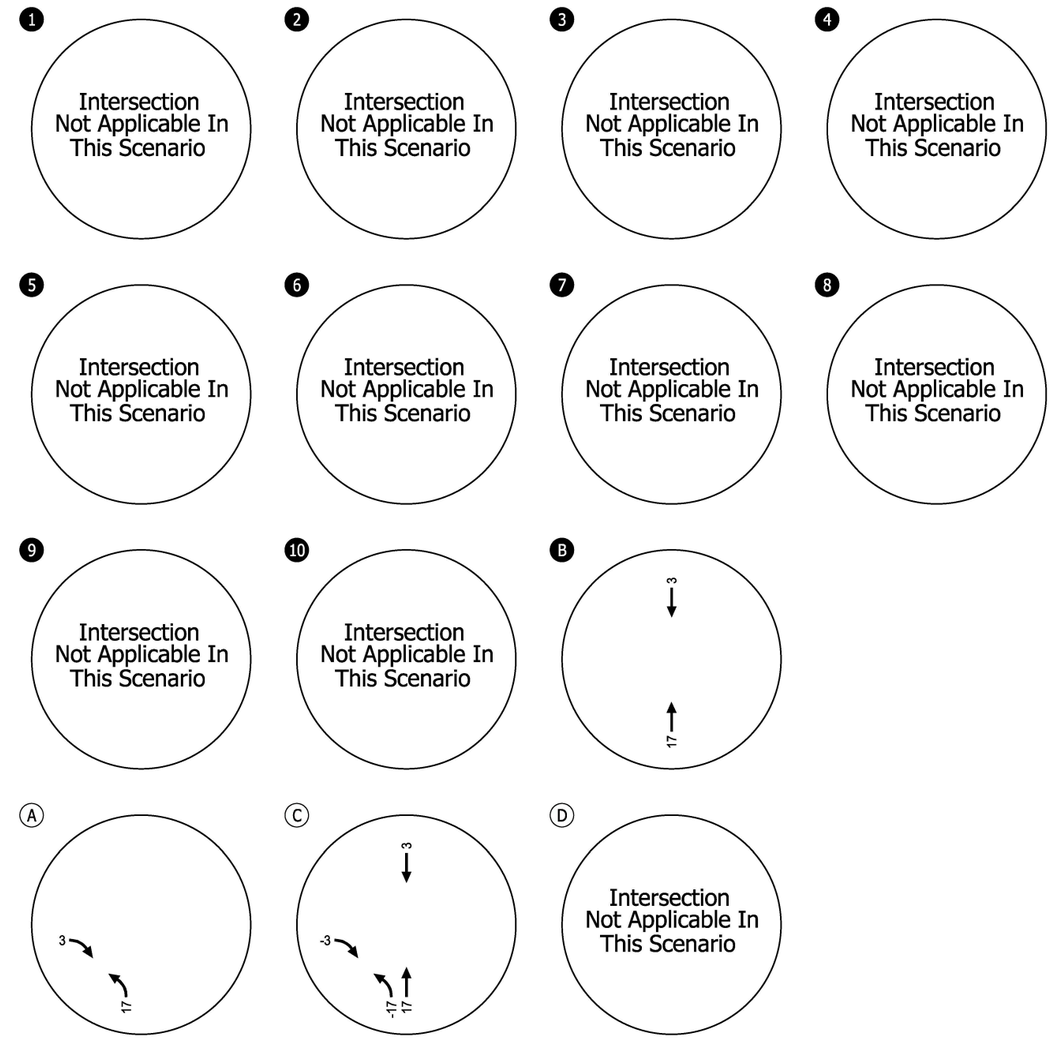


Table L11. Regression Analysis of 95th Percentile Queue vs Number of Fueling Positions – Saturday Midday Peak Hour



Appendix D
San Marcos Costco Business Center Fuel Addition Traffic Reassignment



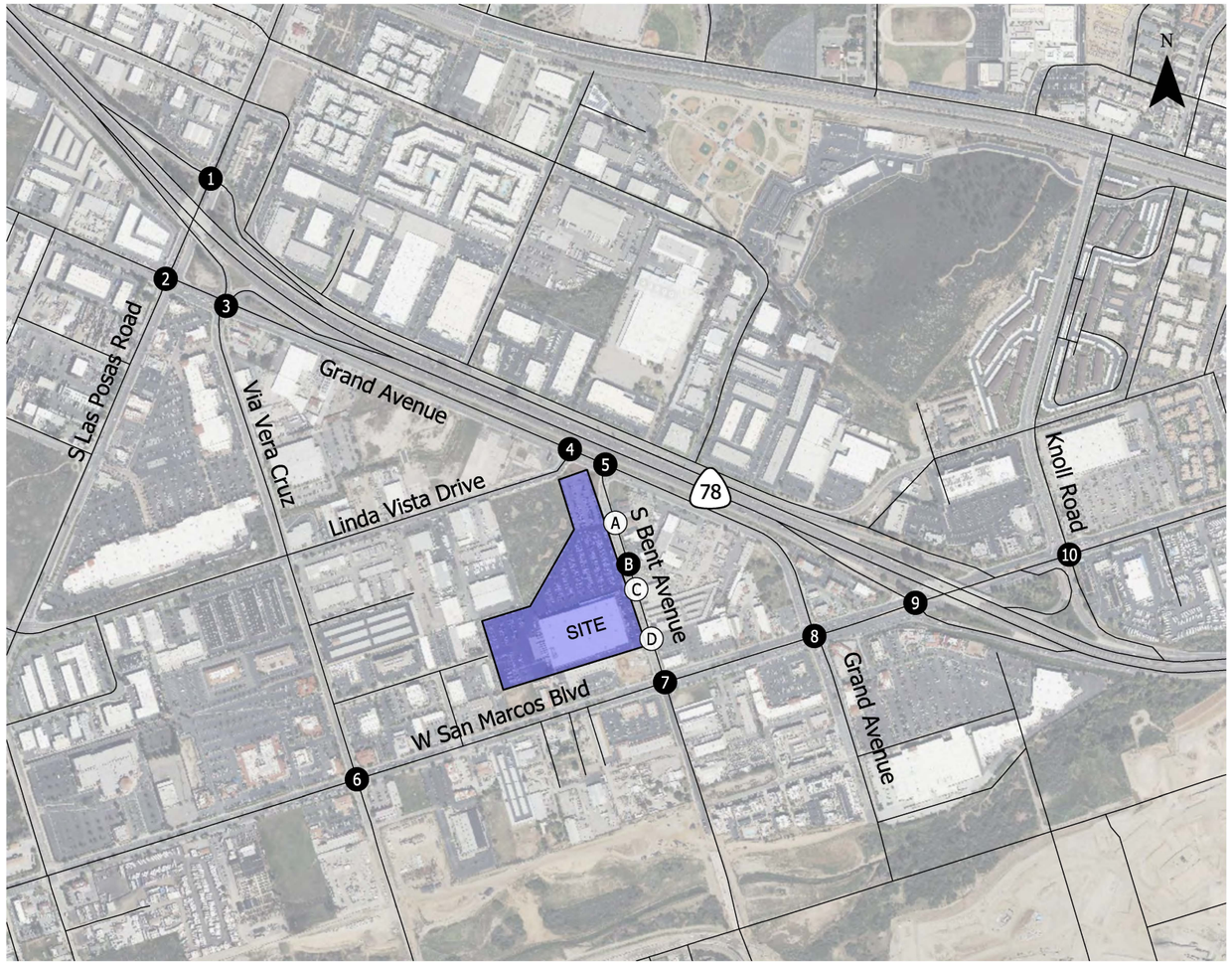


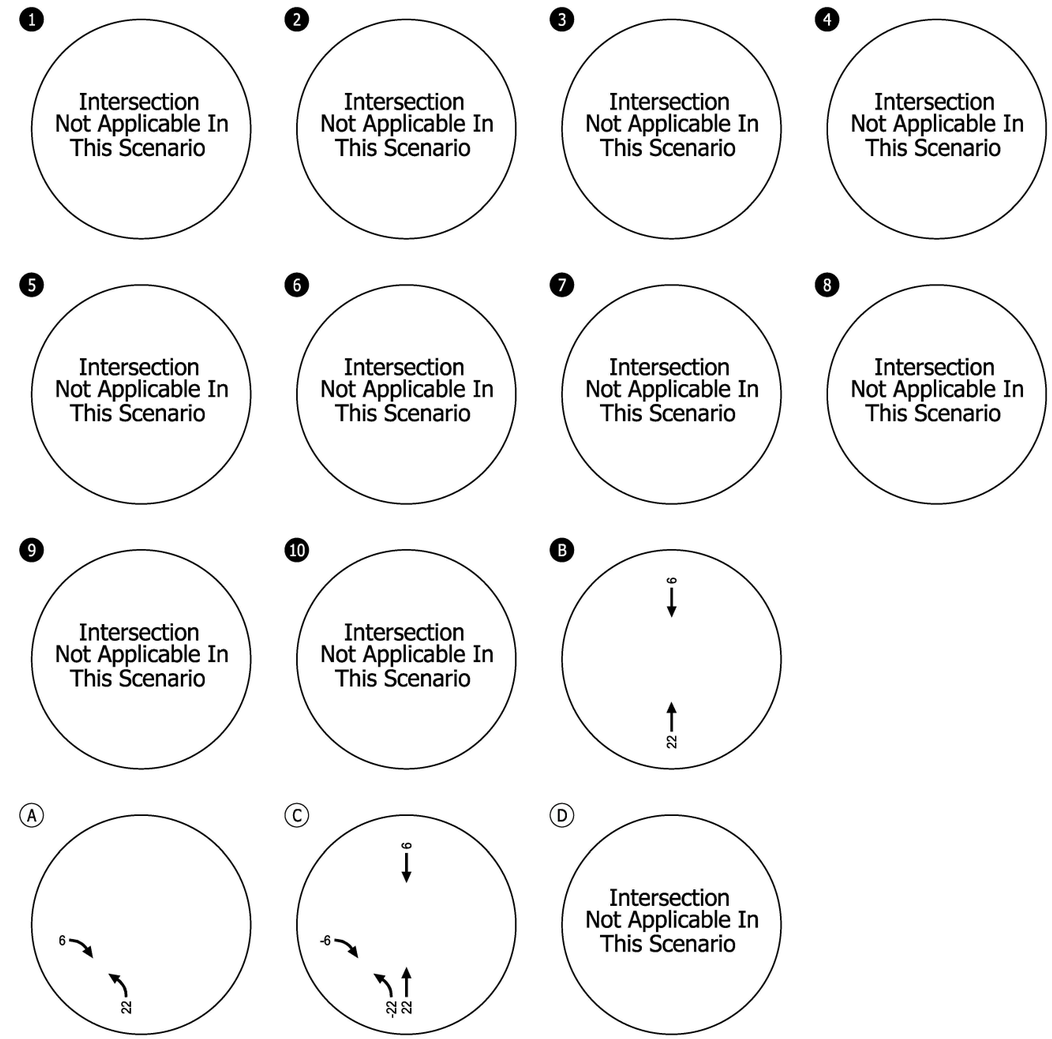
● - Study Intersection
(#) - Site Access Intersection

Existing Driveway Reroute
Weekday AM Peak Hour
San Marcos, CA

Figure
D1

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: D1. driveway reroute AM





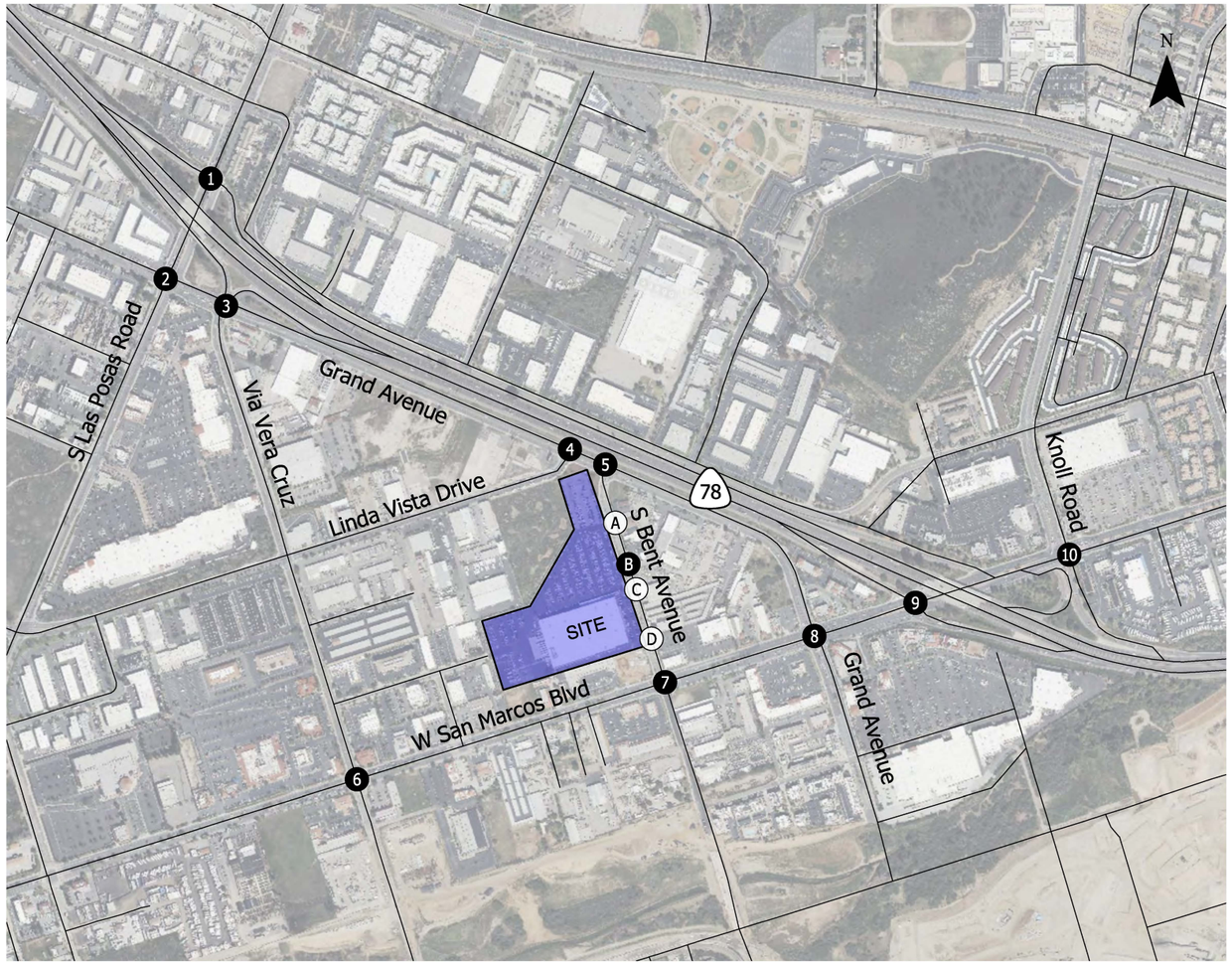
● - Study Intersection

Ⓐ - Site Access Intersection

Existing Driveway Reroute
Weekday PM Peak Hour
San Marcos, CA

Figure
D2

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: D2. driveway reroute PM



1 Intersection Not Applicable In This Scenario

2 Intersection Not Applicable In This Scenario

3 Intersection Not Applicable In This Scenario

4 Intersection Not Applicable In This Scenario

5 Intersection Not Applicable In This Scenario

6 Intersection Not Applicable In This Scenario

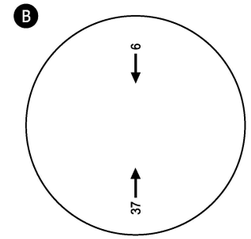
7 Intersection Not Applicable In This Scenario

8 Intersection Not Applicable In This Scenario

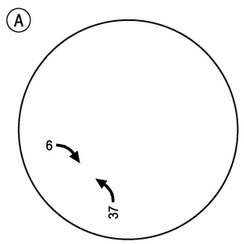
9 Intersection Not Applicable In This Scenario

10 Intersection Not Applicable In This Scenario

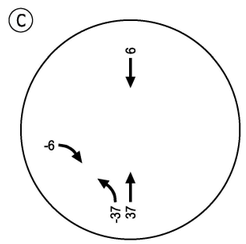
B



A



C



D

Intersection Not Applicable In This Scenario

- Study Intersection

(#) - Site Access Intersection

Existing Driveway Reroute
Saturday Midday Peak Hour
San Marcos, CA

Figure
D3

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: D3. driveway reroute SAT

Appendix E
Crash Data

CASEID	ACCIDENT_YEAR	PROC_DATE	JURIS	COLLISION_DATE	COLLISION_TIME	OFFICER_ID	REPORTING_DISTRICT	DAY_OF_WEEK	CHP_SHIFT	POPULATION	CNTY_CITY_LOC	SPECIAL_COND	BEAT_TYPE	CHP_BEAT_TYPE	CITY_DIVISION_LAPD	CHP_BEAT_CLASS	BEAT_NUMBER	PRIMARY_RD	SECONDARY_RD	DISTANCE	DIRECTION	INTERSECTION	WEATHER_1	WEATHER_2	STATE_HWY_IND
90721674	2018	20180508	9650	20180426	1520	021200	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	750	W	N	A	-	Y
90893503	2018	20181228	9650	20181222	1525	021435	0	6	2	5	3712	0	1	3		2	19	SR-78 EB	SAN MARCOS BLVD	1000	E	N	A	-	Y
90804321	2018	20180903	9650	20180828	1510	019822	0	2	2	5	3712	0	1	3		2	19	SR-78 E/B TO LAS POSAS RD	LAS POSAS RD	20	E	N	A	-	Y
91006030	2019	20190610	9650	20190531	1510	021154	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD.	1000	W	N	B	-	Y
90846941	2018	20181026	9650	20181023	1823	021327	0	2	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	900	W	N	A	-	Y
91880952	2022	20221003	9650	20220930	1600	019480	0	5	2	5	3712	0	1	3		2	19	SR-78 EATSBOUND	LAS POSAS ROAD	1360	W	N	A	-	Y
90761345	2018	20180702	9650	20180627	1525	020771	0	3	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1795	W	N	A	-	Y
91330700	2020	20201026	9650	20201010	1442	018950	0	6	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	3168	W	N	A	-	Y
90960117	2019	20190403	9650	20190125	1600	021267	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1584	W	N	A	-	Y
91716372	2022	20220307	9650	20220227	2025	021154	0	7	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1387	W	N	A	-	Y
90977192	2019	20190429	9650	20190419	1700	019490	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1157	W	N	A	-	Y
91271138	2020	20200720	9650	20200717	1620	021154	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1300	W	N	A	-	Y
91711918	2022	20220301	9650	20220225	1805	021992	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS ROAD	800	W	N	A	-	Y
90984822	2019	20190508	9650	20190502	1630	019490	0	4	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	960	W	N	A	-	Y
91270614	2020	20200720	9650	20200716	1630	020771	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1162	W	N	A	-	Y
90813386	2018	20180914	9650	20180910	1830	020771	0	1	2	5	3712	0	1	3		2	19	SR-78 W/B FROM LAS POSAS RD.	LAS POSAS RD	1003	W	N	A	-	Y
90722067	2018	20180508	9650	20180430	1637	021933	0	1	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1050	W	N	B	-	Y
91631975	2021	20211122	9650	20211113	205	019766	0	6	3	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1100	W	N	A	-	Y
90642782	2018	20180118	9650	20180113	2034	021805	0	6	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1056	W	N	A	-	Y
90782437	2018	20180801	9650	20180730	1548	021327	0	1	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1000	W	N	A	-	Y
90794407	2018	20180821	9650	20180817	1745	019822	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1056	W	N	A	-	Y
91206585	2020	20200311	9650	20200310	1747	021327	0	2	2	5	3712	0	1	3		2	19	SR-78 W/B FROM LAS POSAS RD.	LAS POSAS RD	160	W	N	B	-	Y
90649325	2018	20180126	9650	20180118	740	013570	0	4	1	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	300	W	N	A	-	Y
91869286	2022	20220920	9650	20220913	805	018105	0	2	1	5	3712	0	1	3		2	19	SR-78 E/B TO LAS POSAS RD	LAS POSAS RD	422	W	N	A	-	Y
91833381	2022	20220804	9650	20220717	1510	020474	0	7	2	5	3712	0	1	3		2	19	SR-78 W/B TO LAS POSAS RD	LAS POSAS RD	53	E	N	A	-	Y
91080059	2019	20190923	9650	20190912	1825	021200	0	4	2	5	3712	0	1	3		2	19	SR-78 WB TO LAS POSAS ROAD	LAS POSAS ROAD	10	E	N	A	-	Y
91149730	2019	20191223	9650	20191209	1640	021154	0	1	2	5	3712	0	1	3		2	19	SR-78 W/B TO LAS POSAS RD.	LAS POSAS RD	100	E	N	A	-	Y
91229042	2020	20200423	9650	20200422	2500	021200	0	3	4	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	500	W	N	A	-	Y
90996124	2019	20190527	9650	20190524	845	018840	0	5	1	5	3712	0	1	3		2	19	SR-78 W/B TO LAS POSAS RD	LAS POSAS RD	20	E	N	A	-	Y
90996896	2019	20190528	9650	20190519	307	020343	0	7	3	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	70	W	N	C	-	Y
91424277	2021	20210310	9650	20210307	157	020343	0	7	3	5	3712	0	1	3		2	19	SR-78 WB TO LAS POSAS RD	LAS POSAS ROAD	18	E	N	A	-	Y
91745575	2022	20220411	9650	20220407	1630	020673	0	4	2	5	3712	0	1	3		2	19	SR-78 WESTBOUND	LAS POSAS RD.	25	E	N	A	-	Y
90779376	2018	20180730	9650	20180723	1540	021992	0	1	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	50	W	N	A	-	Y
91843546	2022	20220818	9650	20220624	1735	019480	0	5	2	5	3712	0	1	3		2	19	SR-78 EASTBOUND	LAS POSAS ROAD	15	W	N	A	-	Y
91370644	2020	20201218	9650	20201211	1712	021154	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	40	E	N	A	-	Y
91110341	2019	20191031	9650	20191020	143	020747	0	7	3	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	300	E	N	A	-	Y
91089301	2019	20191002	9650	20190923	2008	016997	0	1	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	150	E	N	A	-	Y
90649651	2018	20180129	9650	20180125	1620	015830	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	350	E	N	A	-	Y
90746806	2018	20180612	9650	20180611	1530	020966	0	1	2	5	3712	0	1	3		2	19	SR-78 E/B TO LAS POSAS	GRAND AVE	60	N	N	A	-	Y
91350756	2020	20201120	9650	20201109	1110	019270	0	1	1	5	3712	0	1	3		2	19	SR-78 E/B FROM GRAND AVENUE	LAS POSAS RD	450	E	N	A	-	Y
91819471	2022	20220718	9650	20220705	1214	022911	0	2	1	5	3712	0	1	3		2	19	SR-78 E/B TO LAS POSAS	GRAND AVE	5	N	N	A	-	Y
91756076	2022	20220425	9650	20220421	1615	021154	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B FROM LAS POSAS RD	LAS POSAS RD	552	E	N	A	-	Y
90723994	2018	20180510	9650	20180509	1920	020771	0	3	2	5	3712	0	1	3		2	19	SR-78 E/B FROM GRAND AVE.	LAS POSAS RD.	600	E	N	A	-	Y
91189552	2020	20200219	9650	20200207	1803	018041	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS ROAD	528	E	N	A	-	Y
90907743	2019	20190121	9650	20190114	2121	020343	0	1	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS ROAD	1214	E	N	A	-	Y
90822823	2018	20180927	9650	20180922	849	018840	0	6	1	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1000	E	N	A	-	Y
91080535	2019	20190923	9650	20190915	329	020343	0	7	3	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1208	E	N	A	-	Y
91781171	2022	20220526	9650	20220518	939	018105	0	3	1	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1398	E	N	A	-	Y
91621349	2021	20211110	9650	20211030	1536	021154	0	6	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1240	E	N	A	-	Y
90754383	2018	20180625	9650	20180622	650	018840	0	5	1	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1500	E	N	B	-	Y
90754388	2018	20180625	9650	20180622	651	018840	0	5	1	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1520	E	N	B	-	Y
90994987	2019	20190523	9650	20190519	210	020771	0	7	3	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1070	E	N	B	C	Y
90659595	2018	20180212	9650	20180208	1520	021267	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1050	E	N	A	-	Y
90730500	2018	20180521	9650	20180515	1125	013570	0	2	1	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	500	E	N	A	-	Y
91516884	2021	20210709	9650	20210707	1600	021154	0	3	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1512	E	N	A	-	Y
90662522	2018	20180215	9650	20180210	1953	017392	0	6	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	1584	E	N	A	-	Y
90969455	2019	20190417	9650	20190415	1900	019822	0	1	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	528	E	N	B	-	Y

CASEID	CALTRANS_COUNTY	CALTRANS_DISTRICT	STATE_ROUTE	ROUTE_SUFFIX	POSTMILE_PREFIX	POSTMILE	LOCATION_TYPE	RAMP_INTERSECTION	SIDE_OF_HWY	TOW_AWAY	COLLISION_SEVERITY	NUMBER_KILLED	NUMBER_INJURED	PARTY_COUNT	PRIMARY_COLL_FACTOR	PCF_CODE_OF_VIOL	PCF_VIOL_CATEGORY	PCF_VIOLATION	PCF_VIOL_SUBSECTION	HIT_AND_RUN	TYPE_OF_COLLISION	MVIW	PED_ACTION	ROAD_SURFACE	ROAD_COND_1	ROAD_COND_2	LIGHTING	CONTROL_DEVICE	CHP_ROAD_TYPE
90721674		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90893503		0	0			0		0		N	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	D	0
90804321		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
91006030		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90846941		0	0			0		0		Y	0	0	0	5	A	-	3	22350		N	C	C	A	A	H	-	B	D	0
91880952		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	A	D	0
90761345		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	A	D	0
91330700		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	A	D	0
90960117		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	M	B	C	A	A	H	-	A	D	0
91716372		0	0			0		0		N	0	0	0	1	C	-	18	0		N	E	J	A	A	H	-	D	D	0
90977192		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	A	D	0
91271138		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	D	0
91711918		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	N	C	C	A	A	H	-	C	D	0
90984822		0	0			0		0		Y	0	0	0	3	A	-	3	22350		M	C	C	A	A	H	-	A	D	0
91270614		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90813386		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	A	D	0
90722067		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91631975		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	D	D	0
90642782		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	M	B	C	A	A	H	-	D	D	0
90782437		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90794407		0	0			0		0		N	0	0	0	2	A	-	4	21703		N	C	C	A	A	H	-	A	D	0
91206585		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	B	H	-	A	A	0
90649325		0	0			0		0		N	0	0	0	2	A	-	6	21750		N	B	C	A	A	H	-	A	D	0
91869286		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91833381		0	0			0		0		N	0	0	0	1	A	-	1	23152	A	M	E	I	A	A	H	-	A	D	0
91080059		0	0			0		0		N	0	0	0	2	A	-	21	22106		N	C	C	A	A	H	-	D	D	0
91149730		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	C	D	0
91229042		0	0			0		0		N	0	0	0	1	A	-	8	22107		M	E	I	A	A	H	-	A	D	0
90996124		0	0			0		0		Y	0	0	0	2	A	-	6	21755		N	B	C	A	A	H	-	A	D	0
90996896		0	0			0		0		N	0	0	0	1	A	-	3	22350		N	E	J	A	B	H	-	C	D	0
91424277		0	0			0		0		Y	0	0	0	1	A	-	8	22107		M	E	I	A	A	H	-	C	D	0
91745575		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90779376		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91843546		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	D	0
91370644		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	D	D	0
91110341		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	C	D	0
91089301		0	0			0		0		N	0	0	0	1	A	-	3	22350		N	E	J	A	A	C	-	C	D	0
90649651		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90746806		0	0			0		0		N	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91350756		0	0			0		0		Y	0	0	0	1	C	-	18	0		N	H	A	A	A	H	-	A	A	0
91819471		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
91756076		0	0			0		0		N	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	D	0
90723994		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	B	D	0
91189552		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	E	D	0
90907743		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	B	H	-	C	D	0
90822823		0	0			0		0		Y	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	A	D	0
91080535		0	0			0		0		Y	0	0	0	1	A	-	1	23152	A	N	F	A	A	A	H	-	C	D	0
91781171		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	A	D	0
91621349		0	0			0		0		Y	0	0	0	1	C	-	18	0		N	E	J	A	A	H	-	A	D	0
90754383		0	0			0		0		Y	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	D	0
90754388		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90994987		0	0			0		0		Y	0	0	0	1	A	-	1	23152	A	N	E	I	A	B	H	-	C	D	0
90659595		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	A	D	0
90730500		0	0			0		0		N	0	0	0	3	A	-	3	22350		M	D	C	A	A	H	-	A	D	0
91516884		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90662522		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	B	C	A	A	H	-	A	D	0
90969455		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	B	D	0

CASEID	PEDESTRIAN_ ACCIDENT	BICYCLE_AC CIDENT	MOTORCYCLE _ACCIDENT	TRUCK_ACC IDENT	NOT_PRIVATE_ PROPERTY	ALCOHOL_IN VOLVED	STWD_VEHTYP E_AT_FAULT	CHP_VEHTYPE _AT_FAULT	COUNT_SEV ERE_INJ	COUNT_VISI BLE_INJ	COUNT_COMP LAINT_PAIN	COUNT_PED _KILLED	COUNT_PED _INJURED	COUNT_BICYCL IST_KILLED	COUNT_BICYCLI ST_INJURED	COUNT_MC_ KILLED	COUNT_MC_I NJURED	PRIMARY_R AMP	SECONDARY_ RAMP	LATITUDE	LONGITUDE
90721674					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	34.14556	117.19318
90893503					Y		E	22	0	0	0	0	0	0	0	0	0	-	-	33.81950	117.10280
90804321					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.19518	117.25222
91006030					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.18772	117.23715
90846941					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.15238	117.20082
91880952					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.14785	117.19592
90761345					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.14764	117.19544
91330700					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.14752	117.19541
90960117					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14709	117.19488
91716372					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.14690	117.19463
90977192					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14686	117.19464
91271138					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.14672	117.19451
91711918					Y	Y	D	22	0	0	0	0	0	0	0	0	0	-	-	33.14643	117.19413
90984822					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14636	117.19379
91270614					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14636	117.19385
90813386					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14635	117.19351
90722067					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14624	117.19368
91631975					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.14624	117.19381
90642782					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-	33.14620	117.19385
90782437					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14615	117.19369
90794407					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14586	117.19328
91206585					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.14500	117.19146
90649325					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14487	117.19229
91869286					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14482	117.19235
91833381					Y	Y	A	08	0	0	0	0	0	0	0	0	0	-	-	33.14454	117.19046
91080059				Y	Y		G	25	0	0	0	0	0	0	0	0	0	-	-	33.14447	117.19057
91149730					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14446	117.19051
91229042					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.14445	117.19187
90996124				Y	Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14441	117.19044
90996896					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14429	117.19148
91424277					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14424	117.19068
91745575					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14399	117.19100
90779376					Y		I	11	0	0	0	0	0	0	0	0	0	-	-	33.14391	117.19127
91843546					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.14380	117.19107
91370644					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.14356	117.19070
91110341					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-	33.14342	117.19017
91089301					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14341	117.19026
90649651					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14293	117.18995
90746806					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14289	117.19052
91350756				Y	Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.14278	117.18999
91819471					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.14265	117.19056
91756076					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.14261	117.18966
90723994					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14250	117.18956
91189552					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14227	117.18888
90907743					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14216	117.18779
90822823					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14215	117.18814
91080535					Y	Y	A	07	0	0	0	0	0	0	0	0	0	-	-	33.14210	117.18762
91781171					Y		D	23	0	0	0	0	0	0	0	0	0	-	-	33.14209	117.18774
91621349					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.14201	117.18743
90754383					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14192	117.18735
90754388					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14192	117.18735
90994987					Y	Y	A	07	0	0	0	0	0	0	0	0	0	-	-	33.14189	117.18828
90659595					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14172	117.18750
90730500					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14169	117.18724
91516884					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14162	117.18672
90662522					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14160	117.18650
90969455					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14160	117.18670

CASEID	ACCIDENT_YEAR	PROC_DATE	JURIS	COLLISION_DATE	COLLISION_TIME	OFFICER_ID	REPORTING_DISTRICT	DAY_OF_WEEK	CHP_SHIFT	POPULATION	CNTY_CITY_LOC	SPECIAL_COND	BEAT_TYPE	CHP_BEAT_TYPE	CITY_DIVISION_LAPD	CHP_BEAT_CLASS	BEAT_NUMBER	PRIMARY_RD	SECONDARY_RD	DISTANCE	DIRECTION	INTERSECTION	WEATHER_1	WEATHER_2	STATE_HWY_IND
91650054	2021	20211213	9650	20211208	752	020966	0	3	1	5	3712	0	1	3		2	19	SR-78 E/B	LOS POSAS	1478	E	N	A	-	Y
91602278	2021	20211021	9650	20211009	220	019191	0	6	3	5	3712	0	1	3		2	19	SR-78 W/B	LOS POSAS ROAD	1710	E	N	A	-	Y
91509040	2021	20210629	9650	20210529	930	018550	0	6	1	5	3712	0	1	3		2	19	SR-78 WESTBOUND EAST OF LAS POSAS RD.	LAS POSAS RD	1795	E	N	A	-	Y
90774066	2018	20180723	9650	20180716	1120	020747	0	1	1	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1600	E	N	A	-	Y
90955042	2019	20190327	9650	20190323	1300	016487	0	6	1	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1480	E	N	A	-	Y
90917898	2019	20190204	9650	20190126	1623	019490	0	6	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	2112	W	N	A	-	Y
91122904	2019	20191118	9650	20191111	1755	021154	0	1	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	2100	E	N	A	-	Y
90906524	2019	20190117	9650	20190111	1745	021698	0	5	2	5	3712	0	1	3		2	19	SR-78 W/B	LOS POSAS RD	2112	E	N	B	-	Y
91423089	2021	20210309	9650	20210227	1352	021154	0	6	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	2649	W	N	A	-	Y
91078340	2019	20190919	9650	20190914	2230	019191	0	6	3	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	5280	E	N	A	-	Y
90726140	2018	20180514	9650	20180508	1655	019270	0	2	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	2640	E	N	A	-	Y
90774087	2018	20180723	9650	20180717	1710	020771	0	2	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	2270	E	N	A	-	Y
90900193	2018	20190108	9650	20181222	240	017056	0	6	3	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	2640	E	N	A	-	Y
91394280	2021	20210126	9650	20210125	510	017392	0	1	3	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	1056	E	N	B	C	Y
91624161	2021	20211115	9650	20211105	2145	019549	0	5	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	2112	E	N	B	-	Y
91945316	2022	20221219	9650	20221208	1824	022588	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1500	W	N	A	-	Y
91140583	2019	20191211	9650	20191129	1540	018041	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	470	W	N	B	-	Y
91783827	2022	20220530	9650	20220521	1405	020673	0	6	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	2215	W	N	A	-	Y
91115221	2019	20191107	9650	20191031	2150	019822	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	2640	W	N	A	-	Y
91545367	2021	20210816	9650	20210806	1440	018840	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	2100	E	N	A	-	Y
91303399	2020	20200914	9650	20200908	1600	018041	0	2	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	2960	W	N	A	-	Y
91448304	2021	20210412	9650	20210407	2045	019270	0	3	2	5	3712	0	1	3		2	19	SR-78 E/B	LAS POSAS RD	2640	E	N	A	-	Y
90947387	2019	20190318	9650	20190309	1248	019352	0	6	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	2112	W	N	A	-	Y
91423359	2021	20210309	9650	20210305	430	019822	0	5	3	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS ROAD	3960	E	N	B	-	Y
90920363	2019	20190206	9650	20190204	2305	021992	0	1	3	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	528	W	N	C	-	Y
90938264	2019	20190304	9650	20190220	1740	019490	0	3	2	5	3712	0	1	3		2	19	SR-78 W/B	LAS POSAS RD	3168	E	N	B	-	Y
90927461	2019	20190215	9650	20190205	1225	018321	0	2	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	2487	W	N	B	C	Y
91312650	2020	20200928	9650	20200921	1920	021154	0	1	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1700	W	N	A	-	Y
90644147	2018	20180122	9650	20180119	740	016885	0	5	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1800	W	N	A	-	Y
90991397	2019	20190520	9650	20190516	1525	021200	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1320	W	N	B	-	Y
91513524	2021	20210706	9650	20210627	1637	021327	0	7	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1500	W	N	A	-	Y
91630202	2021	20211119	9650	20211111	1326	017392	0	4	1	5	3712	0	1	3		2	17	SR-78 E/B	SAN MARCOS BLVD	528	W	N	A	-	Y
91541536	2021	20210810	9650	20210726	2105	021404	0	1	2	5	3712	0	1	3		2	17	SR-78 E/B	SAN MARCOS BLVD	528	W	N	A	-	Y
90957857	2019	20190401	9650	20190321	2135	021747	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD.	500	W	N	A	-	Y
91880805	2022	20221003	9650	20220915	925	022892	0	4	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1232	W	N	A	-	Y
91044170	2019	20190802	9650	20190721	228	021463	0	7	3	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1500	W	N	A	-	Y
91100949	2019	20191018	9650	20191017	1820	018041	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD.	1807	W	N	A	-	Y
91931869	2022	20221201	9650	20221123	605	017590	0	3	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1103	W	N	A	-	Y
91262872	2020	20200703	9650	20200628	1015	019227	0	7	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD.	1320	W	N	B	-	Y
91755776	2022	20220425	9650	20220418	1145	020497	0	1	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	750	W	N	A	-	Y
90677668	2018	20180308	9650	20180302	1414	021747	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	200	W	N	A	-	Y
90725074	2018	20180514	9650	20180507	1630	021267	0	1	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	500	W	N	A	-	Y
91536416	2021	20210804	9650	20210729	1228	020966	0	4	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	445	W	N	A	-	Y
90761333	2018	20180702	9650	20180626	2337	020343	0	2	3	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	311	W	N	A	-	Y
90764657	2018	20180709	9650	20180626	2338	020343	0	2	3	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	263	W	N	A	-	Y
90807102	2018	20180906	9650	20180829	2035	019822	0	3	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	20	W	N	A	-	Y
90805569	2018	20180905	9650	20180829	2030	020771	0	3	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	100	W	N	A	-	Y
91249928	2020	20200609	9650	20200604	1740	019191	0	4	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	500	W	N	B	-	Y
90805497	2018	20180905	9650	20180829	2035	020771	0	3	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	50	E	N	A	-	Y
91628032	2021	20211118	9650	20211117	1720	021933	0	3	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	150	E	N	A	-	Y
90961532	2019	20190405	9650	20190320	1	018496	0	3	3	5	3712	0	1	3		2	19	SR-78 W/B FROM SAN MARCOS BLVD	KNOLL RD	87	W	N	B	-	Y
91655962	2021	20211220	9650	20211205	1950	022031	0	7	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	250	E	N	A	-	Y
91752746	2022	20220420	9650	20220416	1520	020966	0	6	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	350	E	N	A	-	Y
90634557	2018	20180108	9650	20180101	1703	021805	0	1	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1056	E	N	A	-	Y
91097007	2019	20191014	9650	20190910	1025	016103	0	2	1	5	3712	0	1	3		2	17	SR-78 E/B	SAN MARCOS BLVD	1056	E	N	A	-	Y
91327894	2020	20201021	9650	20201017	1305	018840	0	6	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	2640	W	N	A	-	Y
91444958	2021	20210407	9650	20210403	521	020343	0	6	3	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1214	E	N	A	-	Y

CASEID	CALTRANS_COUNTY	CALTRANS_DISTRICT	STATE_ROUTE	ROUTE_SUFFIX	POSTMILE_PREFIX	POST MILE	LOCATION_TYPE	RAMP_INTERSECTION	SIDE_OF_HWY	TOW_AWAY	COLLISION_SEVERITY	NUMBER_KILLED	NUMBER_INJURED	PARTY_COUNT	PRIMARY_COLL_FACTOR	PCF_CODE_OF_VIOL	PCF_VIOL_CATEGORY	PCF_VIOLATION	PCF_VIOL_SUBSECTION	HIT_AND_RUN	TYPE_OF_COLLISION	MVIW	PED_ACTION	ROAD_SURFACE	ROAD_COND_1	ROAD_COND_2	LIGHTING	CONTROL_DEVICE	CHP_ROAD_TYPE
91650054		0	0			0		0		N	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	D	0
91602278		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	8	A	A	H	-	D	D	0
91509040		0	0			0		0		N	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	A	D	0
90774066		0	0			0		0		N	0	0	0	1	C	-	18	0		N	E	J	A	A	H	-	A	D	0
90955042		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90917898		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	A	D	0
91122904		0	0			0		0		N	0	0	0	4	A	-	3	22350		N	C	C	A	A	H	-	D	D	0
90906524		0	0			0		0		Y	0	0	0	4	A	-	3	22350		N	C	C	A	A	H	-	C	D	0
91423089		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	M	C	C	A	A	H	-	A	D	0
91078340		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	M	B	C	A	A	H	-	C	D	0
90726140		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	A	D	0
90774087		0	0			0		0		Y	0	0	0	4	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90900193		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	C	D	0
91394280		0	0			0		0		Y	0	0	0	2	A	-	8	22107		N	B	C	A	B	H	-	D	D	0
91624161		0	0			0		0		Y	0	0	0	2	D	-	0	0		N	B	C	A	A	H	-	D	D	0
91945316		0	0			0		0		N	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	D	D	0
91140583		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	B	C	A	B	H	-	A	D	0
91783827		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91115221		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	D	A	A	H	-	C	D	0
91545367		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91303399		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91448304		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	C	D	0
90947387		0	0			0		0		N	0	0	0	1	C	-	18	0		N	E	J	A	A	H	-	A	D	0
91423359		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	D	D	0
90920363		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	B	C	A	B	H	-	D	D	0
90938264		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	B	H	-	D	D	0
90927461		0	0			0		0		N	0	0	0	4	A	-	7	21658	A	M	B	C	A	B	H	-	A	D	0
91312650		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	D	D	0
90644147		0	0			0		0		Y	0	0	0	1	C	-	18	0		N	E	I	A	A	H	-	A	D	0
90991397		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91513524		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	A	D	0
91630202		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	M	B	C	A	A	H	-	A	D	0
91541536		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	C	D	0
90957857		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	D	D	0
91880805		0	0			0		0		Y	0	0	0	3	A	-	3	22350		M	C	C	A	A	H	-	A	D	0
91044170		0	0			0		0		Y	0	0	0	1	A	-	1	23152	A	N	E	I	A	A	H	-	C	D	0
91100949		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	C	D	0
91931869		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	C	D	0
91262872		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	C	C	A	A	H	-	A	D	0
91755776		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	2	A	A	H	-	A	D	0
90677668		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
90725074		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91536416		0	0			0		0		N	0	0	0	1	C	-	18	0		N	E	J	A	A	H	-	A	D	0
90761333		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	E	C	A	A	H	-	C	D	0
90764657		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	C	D	0
90807102		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	N	C	C	A	A	H	-	C	D	0
90805569		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	D	D	0
91249928		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	B	C	A	A	H	-	A	D	0
90805497		0	0			0		0		N	0	0	0	2	D	-	0	0		N	C	C	A	A	H	-	D	D	0
91628032		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	C	D	0
90961532		0	0			0		0		Y	0	0	0	1	A	-	1	23152	A	M	E	I	A	A	H	-	C	D	0
91655962		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	M	C	C	A	A	H	-	D	D	0
91752746		0	0			0		0		Y	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	D	0
90634557		0	0			0		0		N	0	0	0	2	D	-	0	0		N	B	C	A	A	H	-	D	D	0
91097007		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	A	D	0
91327894		0	0			0		0		N	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	D	0
91444958		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	C	D	0

CASEID	PEDESTRIAN_ ACCIDENT	BICYCLE_AC CIDENT	MOTORCYCLE _ACCIDENT	TRUCK_ACC IDENT	NOT_PRIVATE_ PROPERTY	ALCOHOL_IN VOLVED	STWD_VEHTYP E_AT_FAULT	CHP_VEHTYPE _AT_FAULT	COUNT_SEV ERE_INJ	COUNT_VISI BLE_INJ	COUNT_COMP LAINT_PAIN	COUNT_PED _KILLED	COUNT_PED _INJURED	COUNT_BICYCL IST_KILLED	COUNT_BICYCLI ST_INJURED	COUNT_MC_ KILLED	COUNT_MC_I NJURED	PRIMARY_R AMP	SECONDARY_ RAMP	LATITUDE	LONGITUDE
91650054					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14157	117.18700
91602278					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.14154	117.18613
91509040					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14147	117.18588
90774066					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.14142	117.18647
90955042					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14109	117.18575
90917898					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-	33.14099	117.18584
91122904					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.14098	117.18505
90906524					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14084	117.18454
91423089					Y	Y	D	22	0	0	0	0	0	0	0	0	0	-	-	33.14079	117.18496
91078340					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14068	117.18470
90726140					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14065	117.18393
90774087					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14064	117.18453
90900193					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14054	117.18387
91394280					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14053	117.18408
91624161					Y	Y	-	-	0	0	0	0	0	0	0	0	0	-	-	33.14052	117.18361
91945316					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.14049	117.18404
91140583					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14046	117.18369
91783827					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.14035	117.18346
91115221					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.14032	117.18374
91545367					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14024	117.18299
91303399					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14016	117.18282
91448304					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14014	117.18350
90947387					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.14010	117.18293
91423359				Y	Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14008	117.18273
90920363					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.14007	117.18261
90938264					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.13990	117.18189
90927461					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13988	117.18233
91312650					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.13984	117.18213
90644147					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.13971	117.18240
90991397					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13964	117.18174
91513524					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.13959	117.18131
91630202					Y		E	22	0	0	0	0	0	0	0	0	0	-	-	33.13948	117.18114
91541536					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13944	117.18111
90957857					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13939	117.18086
91880805					Y		A	08	0	0	0	0	0	0	0	0	0	-	-	33.13938	117.18077
91044170					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-	33.13933	117.18096
91100949					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.13920	117.18172
91931869					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13914	117.18012
91262872				Y	Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13910	117.18128
91755776				Y	Y		F	27	0	0	0	0	0	0	0	0	0	-	-	33.13884	117.17939
90677668					Y		A	07	0	0	0	0	0	0	0	0	0	-	-	33.13872	117.17879
90725074					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.13852	117.17836
91536416					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.13840	117.17821
90761333					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13828	117.17771
90764657					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13820	117.17776
90807102					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-	33.13809	117.17713
90805569					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13803	117.17721
91249928					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13801	117.17703
90805497				Y	Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.13766	117.17609
91628032					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.13763	117.17587
90961532					Y	Y	D	22	0	0	0	0	0	0	0	0	0	-	-	33.13743	117.17439
91655962					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-	33.13740	117.17530
91752746					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13733	117.17523
90634557					Y		-	-	0	0	0	0	0	0	0	0	0	-	-	33.13670	117.17337
91097007					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13668	117.17286
91327894					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.13667	117.17078
91444958					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.13662	117.17245

CASEID	ACCIDENT_YEAR	PROC_DATE	JURIS	COLLISION_DATE	COLLISION_TIME	OFFICER_ID	REPORTING_DISTRICT	DAY_OF_WEEK	CHP_SHIFT	POPULATION	CNTY_CITY_LOC	SPECIAL_COND	BEAT_TYPE	CHP_BEAT_TYPE	CITY_DIVISION_LAPD	CHP_BEAT_CLASS	BEAT_NUMBER	PRIMARY_RD	SECONDARY_RD	DISTANCE	DIRECTION	INTERSECTION	WEATHER_1	WEATHER_2	STATE_HWY_IND
90971595	2019	20190422	9650	20190416	1821	019822	0	2	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1584	E	N	B	-	Y
91128267	2019	20191125	9650	20191120	2205	019227	0	3	3	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD.	2112	E	N	B	C	Y
91389349	2021	20210118	9650	20210107	612	017392	0	4	1	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1056	E	N	A	-	Y
91241670	2020	20200525	9650	20200520	1410	018041	0	3	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1050	E	N	A	-	Y
91345449	2020	20201116	9650	20201107	1633	021154	0	6	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1335	E	N	C	-	Y
91556740	2021	20210827	9650	20210814	650	017328	0	6	1	5	3712	0	2	4		1	27	SR-78 E/B	SAN MARCOS BLVD.	1785	E	N	A	-	Y
90866177	2018	20181126	9650	20181120	1718	020673	0	2	2	5	3712	0	1	3		2	19	SR-78 WESTBOUND	LAS POSAS RD	700	W	N	A	-	Y
91178116	2020	20200203	9650	20200124	1305	020673	0	5	1	5	3712	0	1	3		2	19	SR-78 W/B TO LAS POSAS RD.	LAS POSAS RD.	20	E	N	A	-	Y
91188398	2020	20200218	9650	20200213	850	018386	0	4	1	5	3712	0	1	3		2	19	SR-78 E/B TO LAS POSAS RD.	GRAND AVE	200	N	N	A	-	Y
91155925	2019	20191230	9650	20191223	1730	020673	0	1	2	5	3712	0	1	3		2	19	SR-78 WESTBOUND	LAS POSAS RD.	1600	E	N	C	-	Y
90756238	2018	20180626	9650	20180622	1445	021992	0	5	2	5	3712	0	1	3		2	19	SR-78 E/B	SAN MARCOS BLVD	1056	W	N	A	-	Y
8530995	2018	20180216	3700	20180103	1125	SH3913	0	3	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	S BENT AV	0		Y	A	-	N
8530999	2018	20180216	3700	20180104	1245	SH0324	0	4	5	5	3712	0	0	0		0	360	GRAND AV	SAN MARCOS BL	299	S	N	A	-	N
8555687	2018	20180217	3700	20180120	1213	SH0141	0	6	5	5	3712	0	0	0		0	355	WEST SAN MARCOS BL	KNOLL RD	260	W	N	A	-	N
8567316	2018	20180309	3700	20180201	1500	SH0141	0	4	5	5	3712	0	0	0		0	355	NORTH LAS POSAS RD	RT 78	0		Y	A	-	N
8567565	2018	20180314	3700	20180207	1058	SH0141	0	3	5	5	3712	0	0	0		0	359	VIA VERA CRUZ	WEST SAN MARCOS BL	0		Y	A	-	N
8574796	2018	20180326	3700	20180306	1200	SJ2659	0	2	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	KNOLL RD	498	W	N	A	-	N
8601777	2018	20180821	3700	20180420	1640	SH0817	0	5	5	5	3712	0	0	0		0	356	NORTH LAS POSAS RD	RT 78	0		Y	A	-	Y
8617111	2018	20180615	3700	20180502	1957	SH1725	0	3	5	5	3712	0	0	0		0	355	GRAND AV	S BENT AV	0		Y	B	-	N
8623633	2018	20180524	3700	20180317	1219	SHO141	0	6	5	5	3712	0	0	0		0	359	SAN MARCOS AV	VIA VERA CRUZ	261	W	N	A	-	N
8630576	2018	20180625	3700	20180503	2125	SH817	0	4	5	5	3712	0	0	0		0	355	LAS POSAS RD	GRAND AV	65	N	N	A	-	N
8630580	2018	20180625	3700	20180508	1626	SH0327	0	2	5	5	3712	0	0	0		0	355	SAN MARCOS BL	GRAND AV	22	W	N	A	-	N
8633582	2018	20180710	3700	20180514	1259	SH7236	0	1	5	5	3712	0	0	0		0	355	W SAN MARCOS BL	KNOLL RD	260	W	N	A	-	N
8642438	2018	20180802	3700	20180607	2340	SH0327	0	4	5	5	3712	0	0	0		0	359	SAN MARCOS BL	BENT AV	350	W	N	A	-	N
8648926	2018	20180724	3700	20180628	1306	SH2659	0	4	5	5	3712	0	0	0		0	359	S BENT AVE	WEST SAN MARCOS BL	639	S	N	A	-	N
8662784	2018	20180725	3700	20180525	1612	SH7236	0	5	5	5	3712	0	0	0		0	359	S BENT AV	WEST SAN MARCOS BL	216	N	N	A	-	N
8662834	2018	20180809	3700	20180628	1844	SH0320	0	4	5	5	3712	0	0	0		0	355	S LAS POSAS RD	GRAND AV	64	N	N	A	-	N
8678136	2018	20180823	3700	20180516	2500	SH0141	0	3	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	143	E	N	A	-	N
8683432	2018	20181029	3700	20180817	1306	SH7236	0	5	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	S BENT AV	0		Y	A	-	N
8737228	2018	20181217	3700	20180912	1900	SH1725	0	3	5	5	3712	0	0	0		0	355	GRAND AV	VIA VERA CRUZ	0		Y	A	-	Y
8767144	2018	20190116	3700	20181212	56	SH3746	0	3	5	5	3712	0	0	0		0	350	WEST SAN MARCOS BL	KNOLL RD	0		Y	A	-	N
8799388	2019	20190221	3700	20190131	1715	SH1725	0	4	5	5	3712	0	0	0		0	355	BENT AV	SAN MARCOS BL	0		Y	A	-	N
8811857	2019	20190314	3700	20190205	1523	SH7236	0	2	5	5	3712	0	0	0		0	355	S BENT AV	W SAN MARCOS AV	15	N	N	A	-	N
8822156	2019	20190506	3700	20190215	1927	SH1725	0	5	5	5	3712	0	0	0		0	350	KNOLL RD	WEST SAN MARCOS BL	0		N	C	-	N
8826389	2019	20190531	3700	20190307	1848	SH0817	0	4	5	5	3712	0	0	0		0	356	NORTH LAS POSAS RD	RT 78	0		Y	B	-	Y
8827664	2019	20190424	3700	20190124	1105	SH0141	0	4	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	0		Y	A	-	N
8829113	2019	20190423	3700	20190401	1632	SH4063	0	1	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	200	W	N	A	-	N
8832175	2019	20190403	3700	20190308	2230	SHO817	0	5	5	5	3712	0	0	0		0	359	SAN MARCOS BL	S BENT AV	60	E	N	B	-	N
8834884	2019	20190416	3700	20190316	1300	SH0141	0	6	5	5	3712	0	0	0		0	355	WEST SAN MARCOS BL	KNOLL RD	0		Y	A	-	N
8834949	2019	20190426	3700	20190216	1700	SH1725	0	6	5	5	3712	0	0	0		0	355	GRAND AV	LAS POSAS RD	14	E	N	B	-	N
8834953	2019	20190426	3700	20190228	1800	SH1725	0	4	5	5	3712	0	0	0		0	355	LAS POSAS RD	GRAND AV	250	N	N	A	-	N
8857228	2019	20190521	3700	20190503	1813	SH3913	0	5	5	5	3712	0	0	0		0	350	WEST SAN MARCOS BL	KNOLL RD	114	E	N	A	-	N
8860119	2019	20190604	3700	20190512	1608	SH3913	0	7	5	5	3712	0	0	0		0	360	W SAN MARCOS AV	GRAND AV	0		Y	A	-	N
8870089	2019	20190610	3700	20190419	106	SH0817	0	5	5	5	3712	0	0	0		0	355	WEST SAN MARCOS BL	GRAND AV	345	E	N	A	-	N
8870112	2019	20190923	3700	20190519	250	SH0817	0	7	5	5	3712	0	0	0		0	355	GRAND AV	VIA VERA CRUZ	125	E	N	A	-	N
8894619	2019	20190722	3700	20190620	2128	SH7085	0	4	5	5	3712	0	0	0		0	355	S LAS POSAS RD	GRAND AV	0	S	N	A	-	N
8897553	2019	20190719	3700	20190522	2008	SH0141	0	3	5	5	3712	0	0	0		0	357	W SAN MARCOS AV	GRAND AV	0		Y	A	-	N
8900152	2019	20190724	3700	20190714	1910	SH0390	0	7	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	430	E	N	A	-	N
8900156	2019	20190724	3700	20190710	1707	SH0390	0	3	5	5	3712	0	0	0		0	360	BENT AV	SAN MARCOS AV	215	S	N	A	-	N
8903062	2019	20200128	3700	20190721	2024	SH3913	0	7	5	5	3712	0	0	0		0	355	NORTH LAS POSAS RD	RT 78	0		Y	A	-	Y
8906721	2019	20190808	3700	20190722	1528	SH2505	0	1	5	5	3712	0	0	0		0	355	GRAND AV	VIA VERA CRUZ	753	E	N	A	-	N
8916077	2019	20190812	3700	20190524	1455	SH7236	0	5	5	5	3712	0	0	0		0	350	SAN MARCOS BL	KNOLL RD	235	E	N	A	-	N
8935461	2019	20190920	3700	20190830	1852	SH3913	0	5	5	5	3712	0	0	0		0	355	WEST SAN MARCOS BL	BENT AV	0		Y	A	-	N
8940814	2019	20190923	3700	20190629	1350	SH0141	0	6	5	5	3712	0	0	0		0	355	LAS POSAS AV	GRAND AV	0		Y	A	-	N
8961540	2019	20191024	3700	20191002	1417	SH0394	0	3	5	5	3712	0	0	0		0	360	GRAND AV	SAN MARCOS BL	216	N	N	A	-	N
8970274	2019	20191115	3700	20191016	359	SH0672	0	3	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	140	E	N	A	-	N
8972865	2019	20191115	3700	20190923	1210	SH2505	0	1	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	63	W	N	A	-	N

CASEID	CALTRANS_COUNTY	CALTRANS_DISTRICT	STATE_ROUTE	ROUTE_SUFFIX	POSTMILE_PREFIX	POSTMILE	LOCATION_TYPE	RAMP_INTERSECTION	SIDE_OF_HWY	TOW_AWAY	COLLISION_SEVERITY	NUMBER_KILLED	NUMBER_INJURED	PARTY_COUNT	PRIMARY_COLL_FACTOR	PCF_CODE_OF_VIOL	PCF_VIOL_CATEGORY	PCF_VIOLATION	PCF_VIOL_SUBSECTION	HIT_AND_RUN	TYPE_OF_COLLISION	MVIW	PED_ACTION	ROAD_SURFACE	ROAD_COND_1	ROAD_COND_2	LIGHTING	CONTROL_DEVICE	CHP_ROAD_TYPE
90971595		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	A	D	0
91128267		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	F	A	A	B	H	-	C	D	0
91389349		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	C	D	0
91241670		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
91345449		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	E	I	A	B	H	-	A	D	0
91556740		0	0			0		0		Y	0	0	0	1	A	-	1	23152	A	M	E	I	A	A	H	-	A	D	0
90866177		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	D	D	0
91178116		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	A	A	0
91188398		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	D	0
91155925		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	B	H	-	D	D	0
90756238		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	M	C	C	A	A	H	-	A	D	0
8530995		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
8530999		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	A	D	0
8555687		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
8567316		0	0			0		0		N	0	0	0	3	A	-	9	21453	B	N	C	C	A	A	H	-	A	A	0
8567565		0	0			0		0		N	0	0	0	2	A	-	9	21804	A	N	D	C	A	A	H	-	A	A	0
8574796		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
8601777	SD	11	78	-	-	11.34	R	4	W	N	0	0	0	2	A	-	9	21453	B	N	B	C	A	A	H	-	A	A	0
8617111		0	0			0		0		N	0	0	0	2	A	-	7	21658	A	N	B	C	A	A	H	-	C	A	0
8623633		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
8630576		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	C	A	0
8630580		0	0			0		0		Y	0	0	0	3	A	-	3	22350		M	C	C	A	A	H	-	A	A	0
8633582		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
8642438		0	0			0		0		Y	0	0	0	1	A	-	1	23152	A	N	E	I	A	A	H	-	A	D	0
8648926		0	0			0		0		N	0	0	0	2	A	-	9	21801	A	N	A	C	A	A	H	-	A	D	0
8662784		0	0			0		0		N	0	0	0	2	A	-	9	21804	A	N	D	C	A	A	H	-	A	D	0
8662834		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	A	D	0
8678136		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	B	C	A	A	H	-	A	A	0
8683432		0	0			0		0		N	0	0	0	2	A	-	8	22101		N	B	C	A	A	H	-	A	A	0
8737228	SD	11	78	-	-	11.15	R	4	E	N	0	0	0	2	A	-	12	21453	A	N	D	C	A	A	H	-	B	A	0
8767144		0	0			0		0		N	0	0	0	2	A	-	1	23152	A	N	C	C	A	A	H	-	C	A	0
8799388		0	0			0		0		Y	0	0	0	2	A	-	9	21804	A	N	D	C	A	A	H	-	A	D	0
8811857		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	A	0
8822156		0	0			0		0		N	0	0	0	2	A	-	12	21453	A	N	D	C	A	B	H	-	C	A	0
8826389	SD	11	78	-	-	11.34	R	4	W	N	0	0	0	2	D	-	0	0		M	B	C	A	A	H	-	C	A	0
8827664		0	0			0		0		N	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	A	0
8829113		0	0			0		0		N	0	0	0	3	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
8832175		0	0			0		0		N	0	0	0	2	D	-	0	0		M	C	C	A	A	H	-	C	A	0
8834884		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	G	-	A	A	0
8834949		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
8834953		0	0			0		0		Y	0	0	0	4	A	-	3	22350		M	C	C	A	A	H	-	C	D	0
8857228		0	0			0		0		Y	0	0	0	2	A	-	9	21801	A	M	D	C	A	A	H	-	A	D	0
8860119		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	A	0
8870089		0	0			0		0		Y	0	0	0	1	A	-	1	23152	A	N	E	I	A	A	H	-	C	D	0
8870112		0	0			0		0		N	0	0	0	1	A	-	8	22107		M	E	I	A	A	H	-	C	D	0
8894619		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	D	A	A	H	-	C	A	0
8897553		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	A	0
8900152		0	0			0		0		Y	0	0	0	1	C	-	18	0		M	E	I	A	A	H	-	A	D	0
8900156		0	0			0		0		N	0	0	0	2	A	-	9	21804	A	N	B	C	A	A	H	-	A	D	0
8903062	SD	11	78	-	-	11.08	R	4	W	N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	C	A	0
8906721		0	0			0		0		Y	0	0	0	3	A	-	3	22350		N	B	E	A	A	H	-	A	D	0
8916077		0	0			0		0		N	0	0	0	2	A	-	9	21804	A	N	B	C	A	A	H	-	A	D	0
8935461		0	0			0		0		Y	0	0	0	3	A	-	8	22107		M	B	C	A	A	H	-	A	A	0
8940814		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	D	0
8961540		0	0			0		0		N	0	0	0	1	B	-	22	0		M	C	I	A	A	H	-	A	D	0
8970274		0	0			0		0		N	0	0	0	1	A	-	3	22350		N	E	J	A	A	C	-	C	D	0
8972865		0	0			0		0		N	0	0	0	2	A	-	1	23152	F	N	C	C	A	A	H	-	A	A	0

CASEID	PEDESTRIAN_ ACCIDENT	BICYCLE_AC CIDENT	MOTORCYCLE _ACCIDENT	TRUCK_ACC IDENT	NOT_PRIVATE_ PROPERTY	ALCOHOL_IN VOLVED	STWD_VEHTYP E_AT_FAULT	CHP_VEHTYPE _AT_FAULT	COUNT_SEV ERE_INJ	COUNT_VISI BLE_INJ	COUNT_COMP LAINT_PAIN	COUNT_PED _KILLED	COUNT_PED _INJURED	COUNT_BICYCL IST_KILLED	COUNT_BICYCLI ST_INJURED	COUNT_MC_ KILLED	COUNT_MC_I NJURED	PRIMARY_R AMP	SECONDARY_ RAMP	LATITUDE	LONGITUDE
90971595			Y		Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.13660	117.17083
91128267					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.13660	117.17065
91389349					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13657	117.17292
91241670					Y		D	22	0	0	0	0	0	0	0	0	0	-	-	33.13654	117.17238
91345449					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.13654	117.17251
91556740					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-	33.13654	117.17072
90866177					Y		A	01	0	0	0	0	0	0	0	0	0	-	-	33.08446	117.11345
91178116					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.08402	117.11260
91188398					Y		-	99	0	0	0	0	0	0	0	0	0	-	-	33.08364	117.11272
91155925					Y		A	08	0	0	0	0	0	0	0	0	0	-	-	33.08312	117.11160
90756238					Y		A	08	0	0	0	0	0	0	0	0	0	-	-	33.08213	117.10502
8530995					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8530999					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8555687					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8567316					Y	Y	D	22	0	0	0	0	0	0	0	0	0	-	-		
8567565					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8574796					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8601777				Y	Y		A	01	0	0	0	0	0	0	0	0	0	-	WF		
8617111					Y		D	22	0	0	0	0	0	0	0	0	0	-	-		
8623633					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8630576					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8630580					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8633582					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8642438					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
8648926					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8662784					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8662834					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8678136					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8683432					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
8737228					Y		D	22	0	0	0	0	0	0	0	0	0	-	-		
8767144					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
8799388					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8811857					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8822156				Y	Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8826389					Y		-	-	0	0	0	0	0	0	0	0	0	-	WF		
8827664					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8829113					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8832175					Y		-	-	0	0	0	0	0	0	0	0	0	-	-		
8834884					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8834949					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8834953					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8857228					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8860119					Y		-	-	0	0	0	0	0	0	0	0	0	-	-		
8870089					Y	Y	A	07	0	0	0	0	0	0	0	0	0	-	-		
8870112					Y		-	99	0	0	0	0	0	0	0	0	0	-	-		
8894619					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
8897553					Y		-	-	0	0	0	0	0	0	0	0	0	-	-		
8900152					Y		-	-	0	0	0	0	0	0	0	0	0	-	-		
8900156					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8903062					Y		D	22	0	0	0	0	0	0	0	0	0	-	WO		
8906721					Y		D	22	0	0	0	0	0	0	0	0	0	-	-		
8916077			Y		Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8935461					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8940814					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8961540				Y	Y		F	27	0	0	0	0	0	0	0	0	0	-	-		
8970274					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8972865					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		

CASEID	ACCIDENT_YEAR	PROC_DATE	JURIS	COLLISION_DATE	COLLISION_TIME	OFFICER_ID	REPORTING_DISTRICT	DAY_OF_WEEK	CHP_SHIFT	POPULATION	CNTY_CITY_LOC	SPECIAL_COND	BEAT_TYPE	CHP_BEAT_TYPE	CITY_DIVISION_LAPD	CHP_BEAT_CLASS	BEAT_NUMBER	PRIMARY_RD	SECONDARY_RD	DISTANCE	DIRECTION	INTERSECTION	WEATHER_1	WEATHER_2	STATE_HWY_IND
8984064	2019	20200929	3700	20191113	1856	SH3913	0	3	5	5	3712	0	0	0		0	350	WEST SAN MARCOS BL	KNOLL RD	0		Y	A	-	Y
8984068	2019	20200121	3700	20191112	1757	SH3913	0	2	5	5	3712	0	0	0		0	355	NORTH LAS POSAS RD	RT 78	0		Y	A	-	Y
8985923	2019	20200213	3700	20191108	1820	SH0817	0	5	5	5	3712	0	0	0		0	360	GRAND AV	WEST SAN MARCOS BL	100	S	N	A	-	N
9000707	2019	20200206	3700	20191208	12	0115	0	7	5	5	3712	0	0	0		0	355	VIA VERA CRUZ	SAN MARCOS BL	0		N	A	-	N
9041782	2020	20200302	3700	20200112	1623	SH3913	0	7	5	5	3712	0	0	0		0	355	VIA VERA CRUZ	GRAND AV	0		Y	A	-	N
9041790	2020	20201020	3700	20200115	2230	SH0690	0	3	5	5	3712	0	0	0		0	355	SOUTH LAS POSAS RD	RT 78	0		Y	A	-	Y
9042797	2020	20200226	3700	20200110	1330	SH0141	0	5	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	S BENT AV	0		Y	A	-	N
9059260	2020	20200319	3700	20200130	2202	SH0817	0	4	5	5	3712	0	0	0		0	355	WEST SAN MARCOS BL	GRAND AV	100	W	N	A	-	N
9061038	2020	20200516	3700	20200222	1613	SH0141	0	6	5	5	3712	0	0	0		0	355	VIA VERA CRUZ	WEST SAN MARCOS BL	235	N	N	A	-	N
9070647	2020	20200528	3700	20200302	1656	SH4787	0	1	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	324	W	N	A	-	N
9071504	2019	20200515	3700	20190802	2141	SH0817	0	5	5	5	3712	0	0	0		0	355	GRAND AV	S LAS POSAS RD	30	W	N	A	-	N
9094458	2019	20200522	3700	20191213	829	SH7236	0	5	5	5	3712	0	0	0		0	359	VIA VERA CRUZ	SAN MARCOS BL	80	N	N	A	-	N
9156444	2020	20201008	3700	20200721	910	SH7236	0	2	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0		Y	A	-	N
9165875	2020	20201120	3700	20200930	742	SH7236	0	3	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	0		Y	A	-	N
9184164	2020	20201210	3700	20201004	1249	SH2558	0	7	5	5	3712	0	0	0		0	355	BENT AV	WEST SAN MARCOS BL	0		Y	A	-	N
9189545	2020	20201212	3700	20201018	1340	SH2558	0	7	5	5	3712	0	0	0		0	360	GRAND AV	WEST SAN MARCOS BL	0		Y	A	-	N
9195313	2020	20210303	3700	20201211	1918	SH0272	0	5	5	5	3712	0	0	0		0	360	GRAND AV	WEST SAN MARCOS BL	202	N	N	A	-	N
9207029	2021	20210312	3700	20210105	1533	SH0690	0	2	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	200	E	N	A	-	N
9222973	2020	20210226	3700	20201221	2218	SH0141	0	1	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	82	W	N	A	-	N
9235282	2021	20210427	3700	20210304	1311	SH7236	0	4	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	280	W	N	A	-	N
9242651	2021	20210422	3700	20210227	1133	SH7236	0	6	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	BENT AV	0		N	A	-	N
9271902	2021	20210615	3700	20210526	1600	SH1911	0	3	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	S BENT AV	330	E	N	A	-	N
9276562	2021	20210823	3700	20210720	1344	SH3913	0	2	5	5	3712	0	0	0		0	360	SAN MARCOS BL	GRAND AVE	263	E	N	A	-	N
9314344	2021	20210917	3700	20210804	1219	SH3606	0	3	5	5	3712	0	0	0		0	359	SAN MARCOS BL	VIA VERA CRUZ	680	W	N	A	-	N
9343428	2021	20211007	3700	20210823	1115	0141	0	1	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	0		Y	A	-	N
9346406	2021	20211202	3700	20211005	212	SH1911	0	2	5	5	3712	0	0	0		0	360	GRAND AV	WEST SAN MARCOS BL	225	S	N	C	-	N
9346526	2021	20211122	3700	20211001	1625	SH0817	0	5	5	5	3712	0	0	0		0	360	GRAND AV	SAN MARCOS BL	60	S	N	A	-	N
9382578	2021	20220207	3700	20211201	745	SH3913	0	3	5	5	3712	0	0	0		0	350	WEST SAN MARCOS BL	KNOLL RD	0		Y	A	-	N
9385169	2021	20220114	3700	20211212	2110	SH0141	0	7	5	5	3712	0	0	0		0	355	WEST SAN MARCOS BL	GRAND AV	515	E	N	A	-	N
9386074	2021	20220105	3700	20211124	944	SH3913	0	3	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0		Y	A	-	N
9405846	2021	20220314	3700	20211230	1505	SH0817	0	4	5	5	3712	0	0	0		0	355	WEST SAN MARCOS BL	GRAND AV	200	W	N	B	-	N
9410327	2022	20220318	3700	20220120	810	SH7236	0	4	5	5	3712	0	0	0		0	355	GRAND AV	VIA VERA CRUZ	250	E	N	A	-	N
9410796	2022	20220216	3700	20220108	207	SH1911	0	6	5	5	3712	0	0	0		0	360	GRAND AV	SAN MARCOS BL	0	N	N	A	-	N
9414741	2021	20220309	3700	20211218	918	SH7236	0	6	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	40	W	N	A	-	N
9414952	2022	20220301	3700	20220216	724	SH0690	0	3	5	5	3712	0	0	0		0	355	GRAND AV	SOUTH BENT AV	0		Y	A	-	N
9418803	2022	20220325	3700	20220216	1923	SH0206	0	3	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	SOUTH BENT AV	314	E	N	A	-	N
9454690	2022	20220708	3700	20220510	1545	SH1911	0	2	5	5	3712	0	0	0		0	355	VIA VERA CRUZ	GRAND AV	164	S	N	A	-	N
9454909	2022	20220628	3700	20220526	1344	SH2659	0	4	5	5	3712	0	0	0		0	358	WEST SAN MARCOS BL	VIA VERA CRUZ	100	W	N	A	-	N
9454911	2022	20220628	3700	20220523	1540	SH0698	0	1	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	88	E	N	A	-	N
9460017	2022	20220629	3700	20220605	1255	SH5120	0	7	5	5	3712	0	0	0		0	356	LAS POSAS RD	GRAND AV	260	N	N	A	-	N
9460029	2022	20220624	3700	20220513	1754	SH7085	0	5	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	297	W	N	A	-	N
9460032	2022	20220624	3700	20220531	1423	SH5120	0	2	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	S BENT AV	194	W	N	A	-	N
9479996	2022	20221003	3700	20220823	1508	SH0070	0	2	5	5	3712	0	0	0		0	355	LAS POSAS RD	GRAND AV	460	N	N	A	-	N
9484801	2022	20220826	3700	20220803	1045	SH0817	0	3	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	S BENT AV	170	W	N	A	-	N
9484804	2022	20220826	3700	20220812	1001	SH0690	0	5	5	5	3712	0	0	0		0	360	GRAND AV	WEST SAN MARCOS BL	262	S	N	A	-	N
9492159	2022	20221007	3700	20220914	955	SH0817	0	3	5	5	3712	0	0	0		0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	190	W	N	B	-	N
9492922	2022	20220921	3700	20220810	1414	SH0070	0	3	5	5	3712	0	0	0		0	360	WEST SAN MARCOS BL	GRAND AV	300	W	N	A	-	N
9521437	2022	20221110	3700	20221012	1700	SH3910	0	3	5	5	3712	0	0	0		0	360	GRAND AV	SAN MARCOS BL	230	N	N	A	-	N
9530142	2022	20230103	3700	20221110	1920	SH0817	0	4	5	5	3712	0	0	0		0	350	WEST SAN MARCOS BL	KNOLL RD	0		Y	A	-	Y
9536287	2022	20230106	3700	20221112	908	SH0272	0	6	5	5	3712	0	0	0		0	359	S BENT AV	WEST SAN MARCOS BL	12	N	N	A	-	N
9537269	2022	20221229	3700	20221105	1515	SH0272	0	6	5	5	3712	0	0	0		0	350	WEST SAN MARCOS BL	KNOLL RD	201	E	N	A	-	N
9540786	2022	20230126	3700	20221116	844	SH0272	0	3	5	5	3712	0	0	0		0	355	S LAS POSAS RD	GRAND AV	0		Y	A	-	N

CASEID	CALTRANS_COUNTY	CALTRANS_DISTRICT	STATE_ROUTE	ROUTE_SUFFIX	POSTMILE_PREFIX	POSTMILE	LOCATION_TYPE	RAMP_INTERSECTION	SIDE_OF_HWY	TOW_AWAY	COLLISION_SEVERITY	NUMBER_KILLED	NUMBER_INJURED	PARTY_COUNT	PRIMARY_COLL_FACTOR	PCF_CODE_OF_VIOL	PCF_VIOL_CATEGORY	PCF_VIOLATION	PCF_VIOL_SUBSECTION	HIT_AND_RUN	TYPE_OF_COLLISION	MVIW	PED_ACTION	ROAD_SURFACE	ROAD_COND_1	ROAD_COND_2	LIGHTING	CONTROL_DEVICE	CHP_ROAD_TYPE
8984064	SD	11	78	-	-	12.3	R	4	W	N	0	0	0	2	A	-	12	21453	A	N	D	C	A	A	H	-	C	A	0
8984068	SD	11	78	-	-	11.34	R	4	W	Y	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	C	A	0
8985923		0	0			0		0		N	0	0	0	2	D	-	0	0		N	B	C	A	A	H	-	C	D	0
9000707		0	0			0		0		N	0	0	0	2	A	-	1	23152	A	N	B	C	A	A	H	-	C	D	0
9041782		0	0			0		0		Y	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	B	A	0
9041790	SD	11	78	-	-	11.34	R	4	W	N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	C	A	0
9042797		0	0			0		0		Y	0	0	0	2	A	-	3	22350		M	B	C	A	A	H	-	A	A	0
9059260		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	N	C	C	A	A	H	-	C	A	0
9061038		0	0			0		0		Y	0	0	0	2	A	-	9	21804	A	N	D	C	A	A	H	-	A	D	0
9070647		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
9071504		0	0			0		0		N	0	0	0	2	D	-	0	0		N	B	C	A	A	H	-	C	A	0
9094458		0	0			0		0		Y	0	0	0	3	A	-	1	23152	B	N	C	C	A	A	H	-	A	A	0
9156444		0	0			0		0		Y	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	A	0
9165875		0	0			0		0		Y	0	0	0	2	A	-	12	21453	A	N	D	C	A	A	H	-	A	A	0
9184164		0	0			0		0		Y	0	0	0	2	A	-	8	22102		N	D	C	A	A	H	-	A	D	0
9189545		0	0			0		0		N	0	0	0	2	A	-	9	21453	C	N	D	C	A	A	A	-	A	A	0
9195313		0	0			0		0		N	0	0	0	1	A	-	5	21651	A	M	E	I	A	B	H	-	C	D	0
9207029		0	0			0		0		N	0	0	0	2	A	-	9	21804	A	N	D	C	A	A	H	-	A	D	0
9222973		0	0			0		0		Y	0	0	0	3	A	-	1	23152	A	N	C	C	A	A	H	-	C	A	0
9235282		0	0			0		0		Y	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	D	0
9242651		0	0			0		0		N	0	0	0	2	A	-	3	22350		M	C	C	A	A	H	-	A	D	0
9271902		0	0			0		0		N	0	0	0	2	A	-	8	22107		N	B	C	A	A	H	-	A	D	0
9276562		0	0			0		0		N	0	0	0	2	A	-	21	22106		N	B	C	A	A	H	-	A	D	0
9314344		0	0			0		0		Y	0	0	0	1	A	-	7	21658	A	N	E	I	A	A	H	-	A	D	0
9343428		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	N	D	C	A	A	H	-	C	A	0
9346406		0	0			0		0		N	0	0	0	1	A	-	8	22107		M	E	I	A	B	H	-	C	A	0
9346526		0	0			0		0		Y	0	0	0	2	A	-	7	21658	A	N	B	-	A	A	H	-	A	A	0
9382578		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
9385169		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	N	C	C	A	A	H	-	C	A	0
9386074		0	0			0		0		Y	0	0	0	2	A	-	1	23152	A	M	B	C	A	A	H	-	A	A	0
9405846		0	0			0		0		N	0	0	0	2	D	-	0	0		M	B	C	A	A	H	-	A	D	0
9410327		0	0			0		0		Y	0	0	0	2	A	-	9	21801	A	N	D	C	A	A	H	-	A	D	0
9410796		0	0			0		0		Y	0	0	0	1	A	-	3	22350		M	E	I	A	A	H	-	C	A	0
9414741		0	0			0		0		Y	0	0	0	5	A	-	7	21658	A	N	B	C	A	A	H	-	A	A	0
9414952		0	0			0		0		Y	0	0	0	2	A	-	12	21453	A	N	D	C	A	A	H	-	A	A	0
9418803		0	0			0		0		Y	0	0	0	2	A	-	4	21703		N	C	C	A	A	H	-	C	D	0
9454690		0	0			0		0		N	0	0	0	2	A	-	8	22107		M	B	C	A	A	H	-	A	A	0
9454909		0	0			0		0		N	0	0	0	2	B	-	22	0		M	C	C	A	A	H	-	A	A	0
9454911		0	0			0		0		N	0	0	0	2	A	-	9	21804	A	N	B	C	A	A	H	-	A	A	0
9460017		0	0			0		0		N	0	0	0	3	A	-	7	21658	A	N	B	C	A	A	H	-	A	A	0
9460029		0	0			0		0		N	0	0	0	2	A	-	1	23152	A	N	B	C	A	A	H	-	A	D	0
9460032		0	0			0		0		N	0	0	0	2	A	-	3	22350		N	C	C	A	A	H	-	A	A	0
9479996		0	0			0		0		N	0	0	0	2	A	-	21	22106		N	B	C	A	A	H	-	A	A	0
9484801		0	0			0		0		N	0	0	0	2	A	-	21	22106		N	C	C	A	A	H	-	A	A	0
9484804		0	0			0		0		Y	0	0	0	2	A	-	9	21800	A	N	D	C	A	A	-	-	A	A	0
9492159		0	0			0		0		Y	0	0	0	1	A	-	21	22106		N	E	I	A	A	H	-	A	D	0
9492922		0	0			0		0		Y	0	0	0	2	A	-	9	21804	A	N	D	C	A	A	H	-	A	D	0
9521437		0	0			0		0		Y	0	0	0	2	A	-	7	21658		N	B	C	A	A	H	-	A	D	0
9530142	SD	11	78	-	-	12.3	R	1	W	N	0	0	0	2	A	-	8	22101	D	N	B	C	A	A	H	-	C	A	0
9536287		0	0			0		0		N	0	0	0	1	A	-	8	22107		M	E	I	A	A	H	-	A	D	0
9537269		0	0			0		0		N	0	0	0	1	A	-	8	22107		N	E	I	A	A	H	-	A	D	0
9540786		0	0			0		0		Y	0	0	0	3	A	-	12	21453	A	N	D	C	A	A	H	-	A	A	0

CASEID	PEDESTRIAN_ ACCIDENT	BICYCLE_AC CIDENT	MOTORCYCLE _ACCIDENT	TRUCK_ACC IDENT	NOT_PRIVATE_ PROPERTY	ALCOHOL_IN VOLVED	STWD_VEHTYP E_AT_FAULT	CHP_VEHTYPE _AT_FAULT	COUNT_SEV ERE_INJ	COUNT_VISI BLE_INJ	COUNT_COMP LAINT_PAIN	COUNT_PED _KILLED	COUNT_PED _INJURED	COUNT_BICYCL IST_KILLED	COUNT_BICYCLI ST_INJURED	COUNT_MC_ KILLED	COUNT_MC_I NJURED	PRIMARY_R AMP	SECONDARY_ RAMP	LATITUDE	LONGITUDE
8984064					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
8984068					Y		A	01	0	0	0	0	0	0	0	0	0	-	WO		
8985923					Y		-	-	0	0	0	0	0	0	0	0	0	-	-		
9000707					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
9041782					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9041790					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9042797					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9059260					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
9061038					Y		D	22	0	0	0	0	0	0	0	0	0	-	-		
9070647					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9071504					Y		-	-	0	0	0	0	0	0	0	0	0	-	-		
9094458					Y	Y	A	07	0	0	0	0	0	0	0	0	0	-	-		
9156444					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9165875					Y		D	22	0	0	0	0	0	0	0	0	0	-	-		
9184164					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9189545					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
9195313					Y		-	99	0	0	0	0	0	0	0	0	0	-	-		
9207029					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
9222973					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
9235282					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
9242651					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9271902					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9276562					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
9314344					Y		A	08	0	0	0	0	0	0	0	0	0	-	-		
9343428					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9346406					Y		-		0	0	0	0	0	0	0	0	0	-	-		
9346526					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
9382578					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
9385169					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
9386074					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
9405846					Y		-	-	0	0	0	0	0	0	0	0	0	-	-		
9410327					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9410796					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
9414741					Y		D	22	0	0	0	0	0	0	0	0	0	-	-		
9414952					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9418803					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9454690					Y		D	22	0	0	0	0	0	0	0	0	0	-	-		
9454909					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9454911					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9460017					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9460029					Y	Y	A	01	0	0	0	0	0	0	0	0	0	-	-		
9460032					Y		A	08	0	0	0	0	0	0	0	0	0	-	-		
9479996					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9484801					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9484804					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9492159					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9492922					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9521437					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9530142					Y		A	07	0	0	0	0	0	0	0	0	0	-	-		
9536287					Y		-	99	0	0	0	0	0	0	0	0	0	-	-		
9537269					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		
9540786					Y		A	01	0	0	0	0	0	0	0	0	0	-	-		

CASEID	ACCIDENT_YEAR	PROC_DATE	JURIS	COLLISION_DATE	COLLISION_TIME	OFFICER_ID	REPORTING_DISTRICT	DAY_OF_WEEK	CHP_SHIFT	POPULATION	CNTY_CITY_LOC	SPECIAL_COND	BEAT_TYPE	CHP_BEAT_TYPE	CITY_DIVISION_LAPD	CHP_BEAT_CLASS	BEAT_NUMBER	PRIMARY_RD	SECONDARY_RD	DISTANCE	DIRECTION	INTERSECTION	WEATHER_1	WEATHER_2	STATE_HWY_IND	CALTRANS_COUNTY
8553096	2018	43145	3700	43121	1846	SH0327	0	7	5	5	3712	0	0	0	0	0	355	S BENT AV	GRAND AV	280	S	N	A	-	N	0
8556412	2018	43153	3700	43104	1248	SH3913	0	4	5	5	3712	0	0	0	0	0	360	GRAND AV	WEST SAN MARCOS BL	249	S	N	A	-	N	0
8577772	2018	43186	3700	43166	1627	SH3913	0	3	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0	0	Y	A	-	N	0
8594155	2018	43209	3700	43184	2222	SH2659	0	7	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	SOUTH BENT AV	103	W	N	A	-	N	0
8609360	2018	43220	3700	43180	1329	SH2558	0	3	5	5	3712	0	0	0	0	0	360	WEST SAN MARCOS BL	GRAND AV	0	0	Y	A	-	N	0
8612673	2018	43230	3700	43206	1059	SH2659	0	1	5	5	3712	0	0	0	0	0	360	GRAND AV	WEST SAN MARCOS BL	26	S	N	A	-	N	0
8612681	2018	43230	3700	43192	1139	SH2558	0	1	5	5	3712	0	0	0	0	0	360	W SAN MARCOS AV	GRAND AV	0	0	Y	A	-	N	0
8633612	2018	43266	3700	43188	1413	SH0141	0	4	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	BENT AV	34	E	N	A	-	N	0
8633769	2018	43271	3700	43233	1203	SH2558	0	7	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VERA CRUZ	0	0	Y	A	-	N	0
8642862	2018	43280	3700	43217	0733	SH7236	0	5	5	5	3712	0	0	0	0	0	355	GRAND AV	S LAS POSAS RD	8	E	N	A	-	N	0
8647271	2018	43290	3700	43273	0235	SH0817	0	5	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0	0	Y	A	-	N	0
8662737	2018	43307	3700	43224	0110	SH1725	0	5	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	S BENT AV	27	E	N	A	-	N	0
8666117	2018	43325	3700	43265	1726	SH2558	0	4	5	5	3712	0	0	0	0	0	350	WEST SAN MARCOS BL	KNOLL RD	0	0	Y	A	-	N	0
8683994	2018	43348	3700	43312	0844	SH7236	0	2	5	5	3712	0	0	0	0	0	355	GRAND AV	VIA VERA CRUZ	0	0	Y	A	-	N	0
8708781	2018	43398	3700	43367	1336	SH2659	0	1	5	5	3712	0	0	0	0	0	355	S LAS POSAS RD	GRAND AV	206	S	N	A	-	N	0
8731997	2018	43424	3700	43203	1340	SH0141	0	5	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	S BENT AV	30	E	N	A	-	N	0
8734868	2018	43417	3700	43355	1717	SH1725	0	3	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	61	W	N	A	-	N	0
8747285	2018	43474	3700	43414	1800	SH3913	0	6	5	5	3712	0	0	0	0	0	356	LOS VALLECITOS BL	VALLECITOS DE ORO	550	W	N	A	-	N	0
8751094	2018	43481	3700	43423	2223	SH0817	0	1	5	5	3712	0	0	0	0	0	355	WEST SAN MARCOS BL	GRAND AV	65	W	N	B	-	N	0
8762748	2018	43462	3700	43441	1735	SH0817	0	5	5	5	3712	0	0	0	0	0	359	W SAN MARCOS AV	S BENT AV	20	E	N	B	-	N	0
8784075	2019	43509	3700	43485	1437	SH2558	0	7	5	5	3712	0	0	0	0	0	355	S LAS POSAS RD	GRAND AV	0	0	Y	A	-	N	0
8805394	2019	43523	3700	43503	0005	SH3913	0	4	5	5	3712	0	0	0	0	0	350	WEST SAN MARCOS BL	KNOLL RD	0	0	Y	B	-	N	0
8807620	2019	43525	3700	43497	2030	SH1725	0	5	5	5	3712	0	0	0	0	0	355	VIA VERA CRUZ	SAN MARCOS BL	29	N	N	B	-	N	0
8813245	2019	43531	3700	43495	1200	SH2558	0	3	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	BENT AV	0	0	Y	A	-	N	0
8823485	2019	43551	3700	43521	1504	SH2558	0	1	5	5	3712	0	0	0	0	0	350	W SAN MARCOS BL	KNOLL RD	0	0	Y	A	-	N	0
8871644	2019	43642	3700	43621	2009	SH3913	0	3	5	5	3712	0	0	0	0	0	360	WEST SAN MARCOS BL	GRAND AV	0	0	Y	A	-	N	0
8876354	2019	43629	3700	43618	1527	SH2558	0	7	5	5	3712	0	0	0	0	0	350	KNOLL RD	WEST SAN MARCOS BL	0	0	Y	A	-	N	0
8879232	2019	43637	3700	43562	0651	SH2659	0	7	5	5	3712	0	0	0	0	0	360	WEST SAN MARCOS BL	GRAND AV	588	E	N	A	-	N	0
8881942	2019	43654	3700	43638	1635	SH0690	0	6	5	5	3712	0	0	0	0	0	355	SAN MARCOS BL	S BENT AV	0	0	-	A	-	N	0
8931161	2019	43719	3700	43667	1452	SH2558	0	7	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0	0	Y	A	-	N	0
8935571	2019	43732	3700	43709	1533	SH2659	0	7	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	50	W	N	A	-	N	0
8974362	2018	43776	3700	43456	1334	SH0141	0	6	5	5	3712	0	0	0	0	0	360	WEST SAN MARCOS BL	GRAND AV	0	0	Y	A	-	N	0
8983089	2019	43813	3700	43728	1803	SH2558	0	5	5	5	3712	0	0	0	0	0	350	WEST SAN MARCOS BL	KNOLL RD	0	0	Y	A	-	N	0
9015433	2019	43874	3700	43805	0822	SH2659	0	5	5	5	3712	0	0	0	0	0	350	KNOLL RD	WEST SAN MARCOS BL	200	N	N	A	-	N	0
9037731	2020	43907	3700	43852	1726	SH0505	0	3	5	5	3712	0	0	0	0	0	355	WEST SAN MARCOS BL	GRAND AV	105	W	N	A	-	N	0
9043225	2020	43980	3700	43864	1624	SH0505	0	1	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	S BENT AV	100	E	N	A	-	N	0
9064906	2020	44006	3700	43896	1605	SH0817	0	5	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	S BENT AV	100	E	N	A	-	N	0
90733482	2018	43244	9650	43234	1740	021992	0	1	2	5	3712	0	1	3	0	2	019	SR-78 W/B TO SAN MARCOS BVLD.	SAN MARCOS BLVD	100	E	N	A	-	Y	0
90810463	2018	43354	9650	43349	1841	015446	0	4	2	5	3712	0	1	3	0	2	019	SR-78 EASTBOUND	SAN MARCOS BLVD U/C	200	W	N	A	-	Y	0
90818151	2018	43364	9650	43361	0650	018840	0	2	1	5	3712	0	1	3	0	2	019	SR-78 E/B	SAN MARCOS BLVD	200	W	N	A	-	Y	0
90866175	2018	43430	9650	43424	1730	019822	0	2	2	5	3712	0	1	3	0	2	019	SR-78 W/B	LAS POSAS RD	64	W	N	A	-	Y	0
90888398	2018	43458	9650	43451	1650	021435	0	1	2	5	3712	0	1	3	0	2	019	SR-78 W/B	LAS POSAS RD	1500	E	N	B	-	Y	0
90907741	2019	43486	9650	43478	2203	021747	0	7	3	5	3712	0	1	3	0	2	019	SR-78 E/B	LAS POSAS RD	500	E	N	A	-	Y	0
90986681	2019	43598	9650	43595	2355	019766	0	5	3	5	3712	0	1	3	0	2	019	SR-78 WESTBOUND	SAN MARCOS BLVD	235	W	N	B	-	Y	0
91087230	2019	43738	9650	43736	1710	020673	0	6	2	5	3712	0	1	3	0	2	019	SR-78 WESTBOUND	SAN MARCOS BLVD.	2150	W	N	B	-	Y	0
91182949	2020	43871	9650	43867	1400	018041	0	4	2	5	3712	0	1	3	0	2	019	SR-78 W/B	SAN MARCOS BLVD	375	W	N	A	-	Y	0
91239599	2020	43970	9650	43960	0420	021500	0	6	3	5	3712	0	1	3	0	2	019	SR-78 W/B	SAN MARCOS BLVD	2280	W	N	A	-	Y	0
91248705	2020	43990	9650	43979	2046	018041	0	4	2	5	3712	0	1	3	0	2	019	SR-78 W/B	SAN MARCOS BLVD	320	W	N	B	-	Y	0
91275608	2020	44040	9650	44037	2139	020343	0	6	2	5	3712	0	1	3	0	2	019	SR-78 WB FROM LAS POSAS ROAD	LAS POSAS RD	65	W	N	A	-	Y	0
91359493	2020	44169	9650	44156	1900	021154	0	6	2	5	3712	0	1	3	0	2	019	SR-78 W/B	SAN MARCOS BLVD	690	W	N	A	-	Y	0
9142540	2020	44104	3700	44027	1814	SH0817	0	3	5	5	3712	0	0	0	0	0	360	GRAND AV	W SAN MARCOS BLVD	100	N	N	A	-	N	0
91466926	2021	44322	9650	44316	1354	021200	0	5	1	5	3712	0	1	3	0	2	019	SR-78 EB	SAN MARCOS BLVD	750	W	N	A	-	Y	0
91507419	2021	44375	9650	44365	1615	015081	0	5	2	5	3712	0	1	3	0	2	019	SR-78 W/B	LAS POSAS ROAD	100	W	N	A	-	Y	0
91574018	2021	44459	9650	44449	1530	018105	0	5	2	5	3712	0	1	3	0	2	019	SR-78 E/B	SAN MARCOS BLVD	200	W	N	A	-	Y	0
91592108	2021	44477	9650	44466	2333	020747	0	1	3	5	3712	0	1	3	0	2	019	SR-78 W/B	SAN MARCOS BLVD	104	E	N	C	-	Y	0
91610865	2021	44498	9650	44485	1320	018840	0	6	1	5	3712	0	1	3	0	2	019	SR-78 E/B	LAS POSAS ROAD	70	E	N	A	-	Y	0

CASEID	CALTRANS_DISTRICT	STATE_ROUTE	ROUTE_SUFFIX	POSTMILE_PREFIX	POSTMILE	LOCATION_TYPE	RAMP_INTERSECTION	SIDE_OF_HWY	TOW_AWAY	COLLISION_SEVERITY	NUMBER_KILLED	NUMBER_INJURED	PARTY_COUNT	PRIMARY_COLL_FACTOR	PCF_CODE_OF_VIOL	PCF_VIOL_CATEGORY	PCF_VIOLATION	PCF_VIOL_SUBSECTION	HIT_AND_RUN	TYPE_OF_COLLISION	MVIW	PED_ACTION	ROAD_SURFACE	ROAD_COND_1	ROAD_COND_2	LIGHTING
8553096	0	0	0	0	0	0	0	0	N	4	0	1	2	A	-	08	22107	0	N	D	C	A	B	H	-	C
8556412	0	0	0	0	0	0	0	0	N	2	0	1	2	A	-	11	21950	B	N	D	B	D	A	H	-	A
8577772	0	0	0	0	0	0	0	0	Y	3	0	1	2	A	-	07	21658	A	N	B	C	A	A	H	-	A
8594155	0	0	0	0	0	0	0	0	Y	4	0	4	3	A	-	01	23152	A	N	C	C	A	A	H	-	C
8609360	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	12	21453	A	N	D	C	A	A	H	-	A
8612673	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	12	21453	A	N	D	C	A	A	H	-	A
8612681	0	0	0	0	0	0	0	0	N	4	0	1	3	A	-	04	21703	0	N	C	C	A	A	H	-	A
8633612	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A
8633769	0	0	0	0	0	0	0	0	Y	4	0	1	3	A	-	04	21703	0	N	C	C	A	A	H	-	A
8642862	0	0	0	0	0	0	0	0	N	4	0	1	2	A	-	05	21651	B	N	D	G	A	A	H	-	A
8647271	0	0	0	0	0	0	0	0	Y	3	0	2	2	A	-	12	21453	A	N	D	D	A	A	H	-	C
8662737	0	0	0	0	0	0	0	0	Y	3	0	1	1	A	-	01	23152	A	N	E	I	A	A	H	-	C
8666117	0	0	0	0	0	0	0	0	N	3	0	1	2	A	-	05	21650	1	N	D	G	A	A	H	-	A
8683994	0	0	0	0	0	0	0	0	Y	4	0	1	3	A	-	12	21453	A	N	D	C	A	A	H	-	A
8708781	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A
8731997	0	0	0	0	0	0	0	0	Y	4	0	1	3	A	-	03	22350	0	N	C	C	A	A	H	-	A
8734868	0	0	0	0	0	0	0	0	Y	4	0	5	3	A	-	03	22350	0	N	C	C	A	A	H	-	B
8747285	0	0	0	0	0	0	0	0	Y	4	0	3	2	A	-	01	23152	A	N	C	C	A	A	H	-	D
8751094	0	0	0	0	0	0	0	0	Y	4	0	1	1	A	-	03	22350	0	N	E	I	A	A	H	-	C
8762748	0	0	0	0	0	0	0	0	Y	4	0	3	3	A	-	03	22350	0	N	C	C	A	A	H	-	C
8784075	0	0	0	0	0	0	0	0	Y	4	0	5	3	A	-	12	21453	A	N	D	C	A	A	H	-	A
8805394	0	0	0	0	0	0	0	0	Y	3	0	1	1	A	-	01	23152	A	N	E	I	A	A	H	-	C
8807620	0	0	0	0	0	0	0	0	N	4	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	C
8813245	0	0	0	0	0	0	0	0	N	3	0	1	2	A	-	08	22101	D	N	B	G	A	A	H	-	A
8823485	0	0	0	0	0	0	0	0	Y	4	0	1	3	A	-	03	22350	0	N	B	C	A	A	H	-	A
8871644	0	0	0	0	0	0	0	0	Y	3	0	4	2	A	-	12	21453	A	F	D	C	A	A	H	-	A
8876354	0	0	0	0	0	0	0	0	Y	3	0	1	2	A	-	12	21453	A	N	D	C	A	A	H	-	A
8879232	0	0	0	0	0	0	0	0	Y	2	0	2	2	A	-	12	21453	A	N	A	C	A	A	H	-	C
8881942	0	0	0	0	0	0	0	0	Y	3	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A
8931161	0	0	0	0	0	0	0	0	N	4	0	1	2	A	-	03	22350	0	F	C	C	A	A	H	-	A
8935571	0	0	0	0	0	0	0	0	N	4	0	1	2	A	-	12	21453	A	N	C	C	A	A	H	-	A
8974362	0	0	0	0	0	0	0	0	Y	2	0	1	2	A	-	09	21453	C	N	D	C	A	A	H	-	A
8983089	0	0	0	0	0	0	0	0	Y	4	0	1	3	A	-	03	22350	0	F	C	C	A	A	H	-	A
9015433	0	0	0	0	0	0	0	0	Y	3	0	2	2	A	-	12	21453	A	N	D	C	A	A	H	-	A
9037731	0	0	0	0	0	0	0	0	N	4	0	1	2	A	-	09	21804	A	N	D	G	A	A	H	-	B
9043225	0	0	0	0	0	0	0	0	Y	3	0	4	4	A	-	03	22350	0	N	C	C	A	A	H	-	A
9064906	0	0	0	0	0	0	0	0	N	4	0	1	3	A	-	04	21703	0	N	C	C	A	A	H	-	A
90733482	0	78	0	0	0	R	0	W	Y	3	0	1	4	A	-	03	22350	0	N	C	C	A	A	H	-	A
90810463	0	78	0	0	0	0	0	E	Y	4	0	1	4	A	-	03	22350	0	F	C	C	A	A	H	-	A
90818151	0	78	0	0	0	0	0	E	Y	4	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A
90866175	0	78	0	0	0	0	0	W	Y	2	0	1	2	A	-	07	21658	A	N	B	C	A	A	H	-	C
90888398	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	C
90907741	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	07	21658	A	N	B	C	A	A	H	-	D
90986681	0	78	0	0	0	0	0	W	Y	4	0	1	2	A	-	03	22350	0	F	C	C	A	A	H	-	C
91087230	0	0	0	0	0	0	0	0	Y	4	0	3	4	A	-	03	22350	0	N	C	C	A	A	H	-	A
91182949	0	78	0	0	0	0	0	W	Y	4	0	1	1	A	-	08	22107	0	N	E	I	A	A	H	-	A
91239599	0	78	0	0	0	0	0	W	Y	3	0	2	1	A	-	08	22107	0	N	E	I	A	A	H	-	C
91248705	0	78	0	0	0	0	0	W	Y	2	0	1	1	A	-	08	22107	0	N	E	I	A	A	H	-	C
91275608	0	78	0	0	0	R	0	W	Y	3	0	1	1	A	-	01	23152	A	N	E	I	A	A	H	-	C
91359493	0	78	0	0	0	0	0	W	Y	3	0	2	2	A	-	01	23152	A	N	B	C	A	A	H	-	D
9142540	0	0	0	0	0	0	0	0	N	4	0	1	2	D	-	00	0	0	F	H	C	A	A	H	-	A
91466926	0	78	0	0	0	0	0	E	Y	3	0	1	3	A	-	03	22350	0	N	C	C	A	A	H	-	A
91507419	0	78	0	0	0	0	0	W	N	4	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A
91574018	0	0	0	0	0	0	0	0	Y	3	0	2	3	A	-	03	22350	0	N	C	C	A	A	H	-	A
91592108	0	78	0	0	0	0	0	W	Y	2	0	3	4	A	-	03	22350	0	N	G	B	E	B	C	-	D
91610865	0	78	0	0	0	0	0	E	N	3	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A

CASEID	CONTROL_DEVICE	CHP_ROAD_TYPE	PEDESTRIAN_ACCIDENT	BICYCLE_ACCIDENT	MOTORCYCLE_ACCIDENT	TRUCK_ACCIDENT	NOT_PRIVATE_PROPERTY	ALCOHOL_INVOLVED	STWD_VEHTYPE_AT_FAULT	CHP_VEHTYPE_AT_FAULT	COUNT_SEVERE_INJ	COUNT_VISIBLE_INJ	COUNT_COMPLAINT_PAIN	COUNT_PED_KILLED	COUNT_PED_INJURED	COUNT_BICYCLIST_KILLED	COUNT_BICYCLIST_INJURED	COUNT_MC_KILLED	COUNT_MC_INJURED	PRIMARY_RAMP	SECONDARY_RAMP	LATITUDE	LONGITUDE
8553096	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8556412	A	0	Y	0	0	0	Y	0	N	60	1	0	0	0	1	0	0	0	0	-	-	0	0
8577772	A	0	0	0	Y	0	Y	0	A	01	0	1	0	0	0	0	0	0	1	-	-	0	0
8594155	A	0	0	0	0	0	Y	Y	A	01	0	0	4	0	0	0	0	0	0	-	-	0	0
8609360	A	0	0	0	0	0	Y	0	D	22	0	0	1	0	0	0	0	0	0	-	-	0	0
8612673	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8612681	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8633612	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8633769	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8642862	A	0	0	Y	0	0	Y	0	L	04	0	0	1	0	0	0	1	0	0	-	-	0	0
8647271	A	0	0	0	0	0	Y	0	A	01	0	2	0	0	0	0	0	0	0	-	-	0	0
8662737	D	0	0	0	0	0	Y	Y	A	01	0	1	0	0	0	0	0	0	0	-	-	0	0
8666117	D	0	0	Y	0	0	Y	0	L	04	0	1	0	0	0	0	1	0	0	-	-	0	0
8683994	A	0	0	0	0	0	Y	0	D	22	0	0	1	0	0	0	0	0	0	-	-	0	0
8708781	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8731997	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8734868	D	0	0	0	0	0	Y	0	A	07	0	0	5	0	0	0	0	0	0	-	-	0	0
8747285	D	0	0	0	0	0	Y	Y	A	01	0	0	3	0	0	0	0	0	0	-	-	0	0
8751094	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8762748	A	0	0	0	0	0	Y	0	A	07	0	0	3	0	0	0	0	0	0	-	-	0	0
8784075	A	0	0	0	0	0	Y	0	A	01	0	0	5	0	0	0	0	0	0	-	-	0	0
8805394	A	0	0	0	0	0	Y	Y	A	01	0	1	0	0	0	0	0	0	0	-	-	0	0
8807620	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8813245	A	0	0	Y	0	0	Y	0	A	07	0	1	0	0	0	0	1	0	0	-	-	0	0
8823485	A	0	0	Y	0	0	Y	0	A	01	0	0	1	0	0	0	1	0	0	-	-	0	0
8871644	A	0	0	0	0	0	Y	Y	D	23	0	1	3	0	0	0	0	0	0	-	-	0	0
8876354	A	0	0	0	0	0	Y	0	A	07	0	1	0	0	0	0	0	0	0	-	-	0	0
8879232	A	0	0	0	0	0	Y	0	-	0	1	0	1	0	0	0	0	0	0	-	-	0	0
8881942	A	0	0	0	0	0	Y	0	D	22	0	1	0	0	0	0	0	0	0	-	-	0	0
8931161	A	0	0	0	0	0	Y	0	A	08	0	0	1	0	0	0	0	0	0	-	-	0	0
8935571	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
8974362	A	0	0	0	Y	0	Y	0	A	01	1	0	0	0	0	0	0	0	1	-	-	0	0
8983089	A	0	0	0	0	0	Y	0	D	22	0	0	1	0	0	0	0	0	0	-	-	0	0
9015433	A	0	0	0	0	0	Y	0	A	01	0	1	1	0	0	0	0	0	0	-	-	0	0
9037731	D	0	0	Y	0	0	Y	0	A	01	0	0	1	0	0	0	1	0	0	-	-	0	0
9043225	D	0	0	0	0	0	Y	0	A	08	0	3	1	0	0	0	0	0	0	-	-	0	0
9064906	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
90733482	D	0	0	0	0	0	Y	0	A	07	0	1	0	0	0	0	0	0	0	-	-	33.13835144	-117.174316
90810463	D	0	0	0	0	0	Y	0	A	07	0	0	1	0	0	0	0	0	0	-	-	33.13798141	-117.176987
90818151	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	33.13803863	-117.177109
90866175	D	0	0	0	Y	0	Y	0	A	01	1	0	0	0	0	0	0	0	1	-	-	33.14434051	-117.191452
90888398	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	33.84738922	-117.111412
90907741	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	33.08250045	-117.110023
90986681	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	33.13827133	-117.177383
91087230	D	0	0	0	0	0	Y	0	A	01	0	0	3	0	0	0	0	0	0	-	-	33.08253097	-117.105911
91182949	D	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	33.13819885	-117.176781
91239599	D	0	0	0	0	0	Y	0	A	01	0	1	1	0	0	0	0	0	0	-	-	33.14051055	-117.18325
91248705	D	0	0	0	0	0	Y	0	A	01	1	0	0	0	0	0	0	0	0	-	-	33.13848876	-117.177094
91275608	A	0	0	0	0	0	Y	Y	A	01	0	1	0	0	0	0	0	0	0	-	-	33.14479827	-117.191139
91359493	D	0	0	0	0	0	Y	Y	A	01	0	2	0	0	0	0	0	0	0	-	-	33.13800811	-117.176987
9142540	A	0	0	0	0	0	Y	0	-	-	0	0	1	0	0	0	0	0	0	-	-	0	0
91466926	D	0	0	0	0	0	Y	0	A	01	0	1	0	0	0	0	0	0	0	-	-	33.13780975	-117.176483
91507419	D	0	0	0	0	0	Y	0	D	22	0	0	1	0	0	0	0	0	0	-	-	33.14440155	-117.191383
91574018	D	0	0	0	0	0	Y	0	A	01	0	2	0	0	0	0	0	0	0	-	-	33.16828918	-117.216278
91592108	D	0	Y	0	0	0	Y	0	A	01	1	2	0	0	2	0	0	0	0	-	-	33.13787841	-117.176323
91610865	D	0	0	0	0	0	Y	0	A	07	0	1	0	0	0	0	0	0	0	-	-	33.14395904	-117.191132

CASEID	COUNTY	CITY	POINT_X	POINT_Y
8553096	SAN DIEGO	SAN MARCOS	-117.1830444	33.139129638671875
8556412	SAN DIEGO	SAN MARCOS	-117.178833	33.136581420898438
8577772	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844
8594155	SAN DIEGO	SAN MARCOS	-117.1823502	33.13635254
8609360	SAN DIEGO	SAN MARCOS	-117.1790924	33.137229919433594
8612673	SAN DIEGO	SAN MARCOS	-117.1790695	33.137161254882812
8612681	SAN DIEGO	SAN MARCOS	-117.1790924	33.137229919433594
8633612	SAN DIEGO	SAN MARCOS	-117.1819229	33.136466979980469
8633769	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844
8642862	SAN DIEGO	SAN MARCOS	-117.1916275	33.142932891845703
8647271	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844
8662737	SAN DIEGO	SAN MARCOS	-117.1819458	33.136463165283203
8666117	SAN DIEGO	SAN MARCOS	-117.1742401	33.138568878173828
8683994	SAN DIEGO	SAN MARCOS	-117.1905518	33.142539978027344
8708781	SAN DIEGO	SAN MARCOS	-117.1919098	33.142421722412109
8731997	SAN DIEGO	SAN MARCOS	-117.1819382	33.136463165283203
8734868	SAN DIEGO	SAN MARCOS	-117.1881561	33.134799957275391
8747285	SAN DIEGO	SAN MARCOS	-117.183136	33.140560150146484
8751094	SAN DIEGO	SAN MARCOS	-117.1792908	33.137176513671875
8762748	SAN DIEGO	SAN MARCOS	-117.1819687	33.136455535888672
8784075	SAN DIEGO	SAN MARCOS	-117.1916504	33.142940521240234
8805394	SAN DIEGO	SAN MARCOS	-117.1742401	33.138568878173828
8807620	SAN DIEGO	SAN MARCOS	-117.1879959	33.134925842285156
8813245	SAN DIEGO	SAN MARCOS	-117.1820297	33.136440277099609
8823485	SAN DIEGO	SAN MARCOS	-117.1742401	33.138568878173828
8871644	SAN DIEGO	SAN MARCOS	-117.1790924	33.137229919433594
8876354	SAN DIEGO	SAN MARCOS	-117.1742401	33.138568878173828
8879232	SAN DIEGO	SAN MARCOS	-117.1772614	33.137699127197266
8881942	SAN DIEGO	SAN MARCOS	-117.1820297	33.136440277099609
8931161	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844
8935571	SAN DIEGO	SAN MARCOS	-117.1881256	33.134807586669922
8974362	SAN DIEGO	SAN MARCOS	-117.1790924	33.137229919433594
8983089	SAN DIEGO	SAN MARCOS	-117.1742401	33.138568878173828
9015433	SAN DIEGO	SAN MARCOS	-117.1744537	33.139087677001953
9037731	SAN DIEGO	SAN MARCOS	-117.1794128	33.137142181396484
9043225	SAN DIEGO	SAN MARCOS	-117.1817169	33.136524200439453
9064906	SAN DIEGO	SAN MARCOS	-117.1817169	33.136524200439453
90733482	SAN DIEGO	SAN MARCOS	-117.1743164	33.138351440429688
90810463	SAN DIEGO	SAN MARCOS	-117.1769943	33.137966156005859
90818151	SAN DIEGO	SAN MARCOS	-117.177124	33.138011932373047
90866175	SAN DIEGO	SAN MARCOS	-117.1914139	33.144382476806641
90888398	SAN DIEGO	SAN MARCOS	-117.1909714	33.144001007080078
90907741	SAN DIEGO	SAN MARCOS	-117.1910477	33.143840789794922
90986681	SAN DIEGO	SAN MARCOS	-117.1773682	33.138301849365234
91087230	SAN DIEGO	SAN MARCOS	-117.1828537	33.140254974365234
91182949	SAN DIEGO	SAN MARCOS	-117.1768188	33.138099670410156
91239599	SAN DIEGO	SAN MARCOS	-117.1832733	33.140445709228516
91248705	SAN DIEGO	SAN MARCOS	-117.1771851	33.138236999511719
91275608	SAN DIEGO	SAN MARCOS	-117.1911392	33.144798278808594
91359493	SAN DIEGO	SAN MARCOS	-117.1769409	33.138145446777344
9142540	SAN DIEGO	SAN MARCOS	-117.1792068	33.137485504150391
91466926	SAN DIEGO	SAN MARCOS	-117.1764908	33.137783050537109
91507419	SAN DIEGO	SAN MARCOS	-117.1913986	33.144374847412109
91574018	SAN DIEGO	SAN MARCOS	-117.176918	33.137973785400391
91592108	SAN DIEGO	SAN MARCOS	-117.1763077	33.137912750244141
91610865	SAN DIEGO	SAN MARCOS	-117.191185	33.143898010253906

CASEID	ACCIDENT_YEAR	PROC_DATE	JURIS	COLLISION_DATE	COLLISION_TIME	OFFICER_ID	REPORTING_DISTRICT	DAY_OF_WEEK	CHP_SHIFT	POPULATION	CNTY_CITY_LOC	SPECIAL_COND	BEAT_TYPE	CHP_BEAT_TYPE	CITY_DIVISION_LAPD	CHP_BEAT_CLASS	BEAT_NUMBER	PRIMARY_RD	SECONDARY_RD	DISTANCE	DIRECTION	INTERSECTION	WEATHER_1	WEATHER_2	STATE_HWY_IND	CALTRANS_COUNTY
91913070	2022	44873	9650	44854	1600	019490	0	4	2	5	3712	0	1	3	0	2	019	SR-78 W/B TO LAS POSAS RD	LAS POSAS RD	1	E	N	B	-	Y	0
9199690	2020	44221	3700	44158	1430	SH2558	0	1	5	5	3712	0	0	0	0	0	360	GRAND AV	WEST SAN MARCOS BL	0	0	Y	A	-	N	0
9203459	2020	44233	3700	44193	1801	SH0141	0	1	5	5	3712	0	0	0	0	0	3960	WEST SAN MARCOS BL	GRAND AV	0	0	Y	C	-	N	0
9226287	2021	44277	3700	44247	1956	SH2659	0	6	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	28	0	N	A	-	N	0
9226327	2021	44277	3700	44223	0924	SH2558	0	3	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0	0	Y	A	-	N	0
9273819	2021	44393	3700	44353	1405	SH3913	0	7	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	BENT AV	0	0	Y	A	-	N	0
9279267	2021	44368	3700	44338	1842	SH0817	0	6	5	5	3712	0	0	0	0	0	355	GRAND AV	S LAS POSAS RD	75	E	N	A	-	N	0
9284195	2021	44398	3700	44352	1931	SH0272	0	6	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	BENT AV	221	E	N	A	-	N	0
9345410	2021	44536	3700	44471	2018	SH0817	0	6	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0	0	Y	A	-	N	0
9349067	2021	44544	3700	44473	1042	SH0597	0	1	5	5	3712	0	0	0	0	0	355	GRAND AV	VIA VERA CRUZ	0	0	Y	A	-	N	0
9395530	2021	44589	3700	44539	1238	SH7236	0	4	5	5	3712	0	0	0	0	0	355	GRAND AV	S LAS POSAS RD	0	0	Y	C	-	N	0
9395559	2022	44589	3700	44575	1516	SH3905	0	5	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	175	W	N	A	-	N	0
9416040	2022	44642	3700	44613	1252	SH3913	0	1	5	5	3712	0	0	0	0	0	355	GRAND AV	WEST SAN MARCOS BL	235	N	N	B	-	N	0
9418942	2022	44655	3700	44628	2111	SH0141	0	2	5	5	3712	0	0	0	0	0	355	GRAND AV	VIA VERA CRUZ	50	E	N	A	-	N	0
9434861	2022	44687	3700	44654	0153	SH7085	0	7	5	5	3712	0	0	0	0	0	360	WEST SAN MARCOS BL	GRAND AV	0	0	Y	B	C	N	0
9437182	2022	44697	3700	44657	2337	SH0206	0	3	5	5	3712	0	0	0	0	0	350	WEST SAN MARCOS BL	KNOLL RD	0	0	Y	A	-	N	0
9472084	2022	44757	3700	44719	1422	SH0690	0	2	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0	0	Y	A	-	N	0
9493389	2022	44862	3700	44792	1425	SH1911	0	5	5	5	3712	0	0	0	0	0	355	GRAND AV	WEST SAN MARCOS BL	200	N	N	A	-	N	0
9520355	2022	44959	3700	44824	0915	SH2659	0	2	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	15	E	N	A	-	N	0
9521388	2022	44875	3700	44826	1821	SH3197	0	4	5	5	3712	0	0	0	0	0	360	GRAND AV	SAN MARCOS BL	230	S	N	A	-	N	0
9531628	2022	44908	3700	44866	1139	SH0690	0	2	5	5	3712	0	0	0	0	0	359	WEST SAN MARCOS BL	VIA VERA CRUZ	0	0	Y	A	-	N	0

CASEID	CALTRANS_DISTRICT	STATE_ROUTE	ROUTE_SUFFIX	POSTMILE_PREFIX	POSTMILE	LOCATION_TYPE	RAMP_INTERSECTION	SIDE_OF_HWY	TOW_AWAY	COLLISION_SEVERITY	NUMBER_KILLED	NUMBER_INJURED	PARTY_COUNT	PRIMARY_COLL_FACTOR	PCF_CODE_OF_VIOL	PCF_VIOL_CATEGORY	PCF_VIOLATION	PCF_VIOL_SUBSECTION	HIT_AND_RUN	TYPE_OF_COLLISION	MVIW	PED_ACTION	ROAD_SURFACE	ROAD_COND_1	ROAD_COND_2	LIGHTING
91913070	0	78	0	0	0	R	0	W	N	3	0	1	2	A	-	05	21650	0	F	D	G	A	A	H	-	A
9199690	0	0	0	0	0	0	0	0	N	4	0	2	2	A	-	09	21453	C	N	D	C	A	A	H	-	A
9203459	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	01	23152	A	F	D	C	A	B	H	-	C
9226287	0	0	0	0	0	0	0	0	Y	4	0	2	2	A	-	08	22100	A	N	B	C	A	A	H	-	C
9226327	0	0	0	0	0	0	0	0	Y	4	0	1	3	A	-	12	21453	A	N	D	C	A	A	H	-	A
9273819	0	0	0	0	0	0	0	0	Y	4	0	2	2	A	-	09	21453	C	N	D	C	A	A	H	-	A
9279267	0	0	0	0	0	0	0	0	Y	3	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A
9284195	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A
9345410	0	0	0	0	0	0	0	0	Y	3	0	2	2	D	-	00	0	0	N	D	C	A	A	H	-	C
9349067	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	12	21453	A	N	D	C	A	A	H	-	A
9395530	0	0	0	0	0	0	0	0	N	4	0	1	2	A	-	12	21453	A	N	D	G	A	B	H	-	A
9395559	0	0	0	0	0	0	0	0	Y	4	0	1	3	A	-	03	22350	0	N	C	C	A	A	H	-	A
9416040	0	0	0	0	0	0	0	0	Y	3	0	3	2	A	-	03	22350	0	N	D	C	A	A	H	-	A
9418942	0	0	0	0	0	0	0	0	Y	4	0	2	2	A	-	12	21453	A	N	D	C	A	A	H	-	C
9434861	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	01	23152	A	N	D	C	A	A	H	-	-
9437182	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	09	21453	C	N	D	C	A	A	H	-	C
9472084	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	08	22107	0	N	B	C	A	A	H	-	A
9493389	0	0	0	0	0	0	0	0	Y	3	0	1	2	A	-	01	23152	A	N	A	C	A	A	H	-	A
9520355	0	0	0	0	0	0	0	0	Y	1	1	0	2	A	-	08	22107	0	N	D	G	A	A	D	-	A
9521388	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	12	21453	A	N	D	C	A	A	H	-	A
9531628	0	0	0	0	0	0	0	0	Y	4	0	1	2	A	-	03	22350	0	N	C	C	A	A	H	-	A

CASEID	CONTROL_DEVICE	CHP_ROAD_TYPE	PEDESTRIAN_ACCIDENT	BICYCLE_ACCIDENT	MOTORCYCLE_ACCIDENT	TRUCK_ACCIDENT	NOT_PRIVATE_PROPERTY	ALCOHOL_INVOLVED	STWD_VEHTYPE_AT_FAULT	CHP_VEHTYPE_AT_FAULT	COUNT_SEVERE_INJ	COUNT_VISIBLE_INJ	COUNT_COMPLAINT_PAIN	COUNT_PED_KILLED	COUNT_PED_INJURED	COUNT_BICYCLIST_KILLED	COUNT_BICYCLIST_INJURED	COUNT_MC_KILLED	COUNT_MC_INJURED	PRIMARY_RAMP	SECONDARY_RAMP	LATITUDE	LONGITUDE
91913070	A	0	0	Y	0	0	Y	0	L	04	0	1	0	0	0	0	1	0	0	-	-	33.14461898	-117.19062
9199690	A	0	0	0	0	0	Y	0	A	07	0	0	2	0	0	0	0	0	0	-	-	0	0
9203459	A	0	0	0	0	0	Y	Y	I	11	0	0	1	0	0	0	0	0	0	-	-	0	0
9226287	A	0	0	0	0	0	Y	0	A	01	0	0	2	0	0	0	0	0	0	-	-	0	0
9226327	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
9273819	A	0	0	0	0	0	Y	0	D	22	0	0	2	0	0	0	0	0	0	-	-	0	0
9279267	A	0	0	0	0	0	Y	0	A	01	0	1	0	0	0	0	0	0	0	-	-	0	0
9284195	D	0	0	0	0	0	Y	Y	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
9345410	A	0	0	0	0	0	Y	0	-	-	0	1	1	0	0	0	0	0	0	-	-	0	0
9349067	A	0	0	0	0	0	Y	0	A	07	0	0	1	0	0	0	0	0	0	-	-	0	0
9395530	A	0	0	Y	0	0	Y	0	L	04	0	0	1	0	0	0	1	0	0	-	-	0	0
9395559	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
9416040	D	0	0	0	0	0	Y	0	A	01	0	1	2	0	0	0	0	0	0	-	-	0	0
9418942	A	0	0	0	0	0	Y	0	A	01	0	0	2	0	0	0	0	0	0	-	-	0	0
9434861	A	0	0	0	0	0	Y	Y	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
9437182	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
9472084	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
9493389	D	0	0	0	0	0	Y	Y	A	01	0	1	0	0	0	0	0	0	0	-	-	0	0
9520355	A	0	0	Y	0	0	Y	0	A	01	0	0	0	0	0	1	0	0	0	-	-	0	0
9521388	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0
9531628	A	0	0	0	0	0	Y	0	A	01	0	0	1	0	0	0	0	0	0	-	-	0	0

CASEID	COUNTY	CITY	POINT_X	POINT_Y
91913070	SAN DIEGO	SAN MARCOS	-117.1906204	33.144618988037109
9199690	SAN DIEGO	SAN MARCOS	-117.1790924	33.137229919433594
9203459	SAN DIEGO	SAN MARCOS	-117.1790924	33.137229919433594
9226287	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844
9226327	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844
9273819	SAN DIEGO	SAN MARCOS	-117.1820297	33.136444091796875
9279267	SAN DIEGO	SAN MARCOS	-117.1914291	33.142856597900391
9284195	SAN DIEGO	SAN MARCOS	-117.1813431	33.136623382568359
9345410	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844
9349067	SAN DIEGO	SAN MARCOS	-117.1905518	33.142536163330078
9395530	SAN DIEGO	SAN MARCOS	-117.1916504	33.142940521240234
9395559	SAN DIEGO	SAN MARCOS	-117.1885147	33.13470458984375
9416040	SAN DIEGO	SAN MARCOS	-117.1793594	33.137832641601562
9418942	SAN DIEGO	SAN MARCOS	-117.1903992	33.142486572265625
9434861	SAN DIEGO	SAN MARCOS	-117.1790924	33.137226104736328
9437182	SAN DIEGO	SAN MARCOS	-117.1742401	33.138568878173828
9472084	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844
9493389	SAN DIEGO	SAN MARCOS	-117.1793213	33.137741088867188
9520355	SAN DIEGO	SAN MARCOS	-117.1879196	33.134860992431641
9521388	SAN DIEGO	SAN MARCOS	-117.1788559	33.136631011962891
9531628	SAN DIEGO	SAN MARCOS	-117.187973	33.134849548339844

Appendix F
Year 2023 Existing Traffic Counts

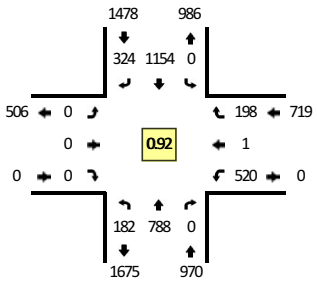
Type of peak hour being reported: Intersection Peak

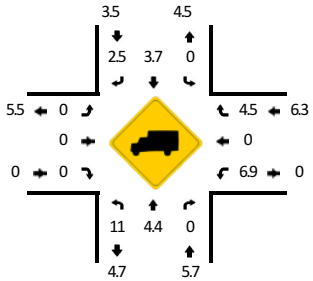
Method for determining peak hour: Total Entering Volume

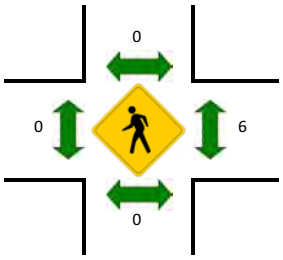
LOCATION: Las Posas Rd -- SR-78 WB Ramps
CITY/STATE: San Marcos, CA

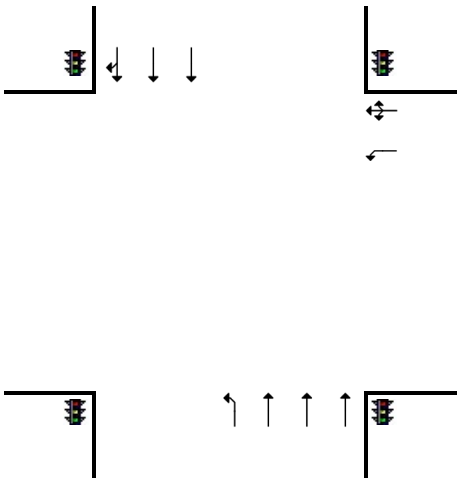
QC JOB #: 16384601
DATE: Thu, Nov 2 2023

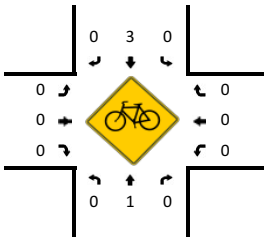
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

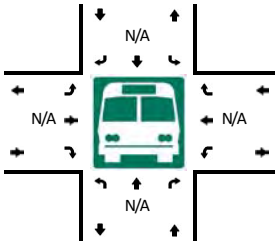


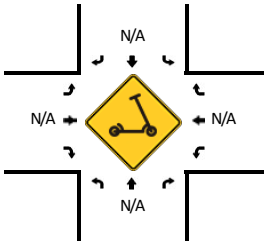












5-Min Count Period Beginning At	Las Posas Rd (Northbound)				Las Posas Rd (Southbound)				SR-78 WB Ramps (Eastbound)				SR-78 WB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	32	0	0	0	69	18	0	0	0	0	0	39	0	24	0	186	
7:05 AM	3	40	0	0	0	73	21	0	0	0	0	0	20	0	24	0	181	
7:10 AM	4	43	0	0	0	59	20	0	0	0	0	0	36	0	14	0	176	
7:15 AM	6	39	0	0	0	70	17	0	0	0	0	0	28	0	16	0	176	
7:20 AM	7	58	0	2	0	76	29	0	0	0	0	0	36	0	19	0	227	
7:25 AM	12	52	0	0	0	77	40	0	0	0	0	0	29	0	18	0	228	
7:30 AM	17	53	0	0	0	58	25	0	0	0	0	0	39	0	17	0	209	
7:35 AM	12	52	0	0	0	101	40	0	0	0	0	0	40	0	22	0	267	
7:40 AM	18	56	0	0	0	95	31	0	0	0	0	0	29	0	18	0	247	
7:45 AM	17	57	0	0	0	89	24	0	0	0	0	0	34	0	13	0	234	
7:50 AM	9	62	0	0	0	122	30	0	0	0	0	0	49	1	19	0	292	
7:55 AM	20	74	0	1	0	91	17	0	0	0	0	0	39	0	17	0	259	2682
8:00 AM	9	64	0	0	0	114	29	0	0	0	0	0	51	0	17	0	284	2780
8:05 AM	14	66	0	0	0	104	28	0	0	0	0	0	53	0	17	0	282	2881
8:10 AM	17	76	0	0	0	101	27	0	0	0	0	0	51	0	18	0	290	2995
8:15 AM	17	71	0	0	0	90	26	0	0	0	0	0	53	0	11	0	268	3087
8:20 AM	18	76	0	0	0	96	19	0	0	0	0	0	39	0	14	0	262	3122
8:25 AM	13	81	0	0	0	93	28	0	0	0	0	0	43	0	15	0	273	3167
8:30 AM	17	56	0	0	0	49	22	0	0	0	0	0	32	1	14	0	191	3149
8:35 AM	17	51	0	0	0	93	39	0	0	0	0	0	27	0	13	0	240	3122
8:40 AM	17	67	0	0	0	77	29	0	0	0	0	0	37	1	16	0	244	3119
8:45 AM	19	62	0	0	0	70	28	0	0	0	0	0	35	0	16	0	230	3115
8:50 AM	15	80	0	0	0	85	30	0	0	0	0	0	51	0	16	0	277	3100
8:55 AM	17	54	0	0	0	74	23	0	0	0	0	0	35	1	21	0	225	3066

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	160	824	0	0	0	1276	336	0	0	0	0	0	620	0	208	0	3424
Heavy Trucks	20	32	0		0	44	8		0	0	0		36	0	8		148
Buses																	
Pedestrians		0				0				0				12			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:30 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

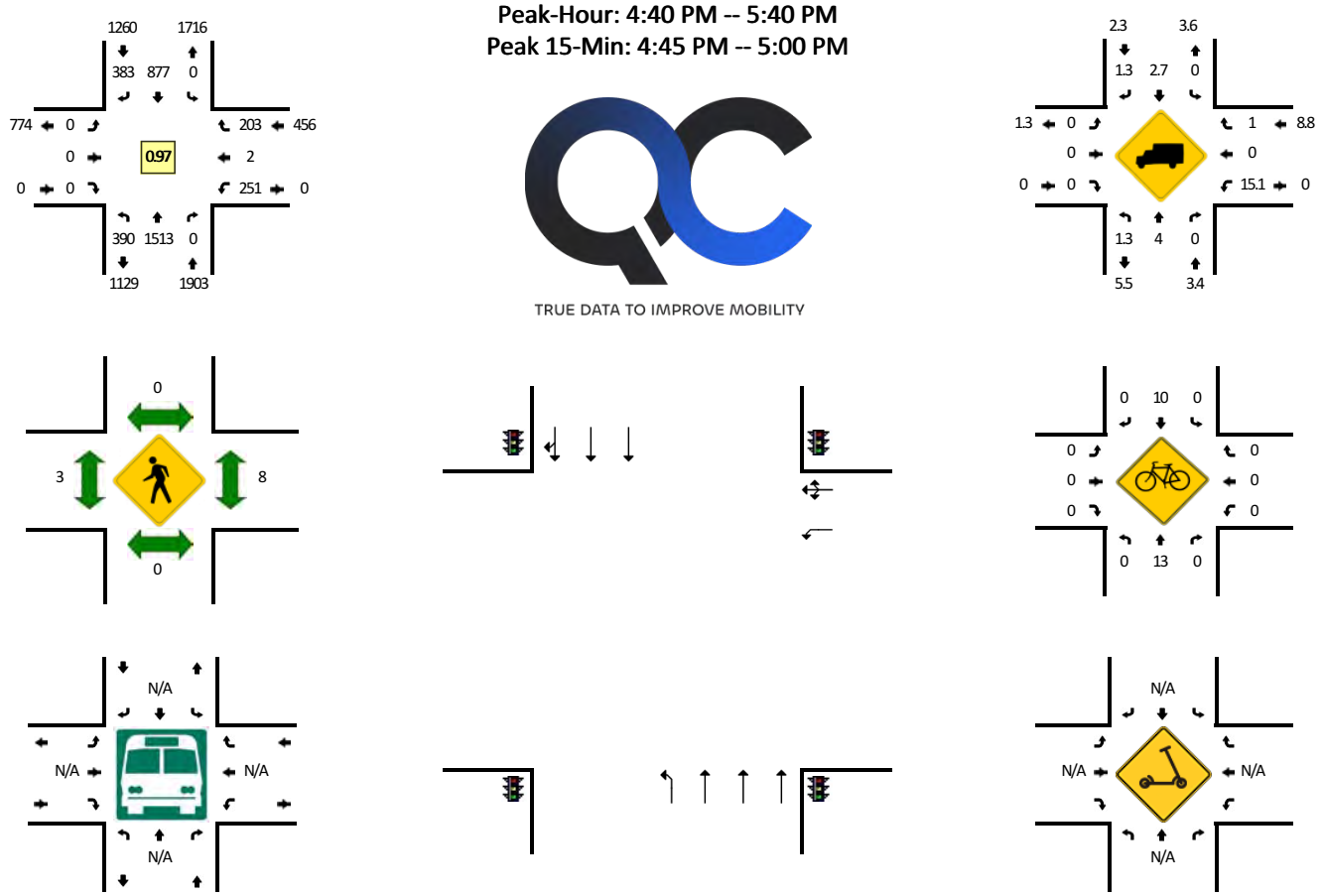
Method for determining peak hour: Total Entering Volume

LOCATION: Las Posas Rd -- SR-78 WB Ramps
CITY/STATE: San Marcos, CA

QC JOB #: 16384602
DATE: Thu, Nov 2 2023

Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

TRUE DATA TO IMPROVE MOBILITY



5-Min Count Period Beginning At	Las Posas Rd (Northbound)				Las Posas Rd (Southbound)				SR-78 WB Ramps (Eastbound)				SR-78 WB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	34	117	0	0	0	77	33	0	0	0	0	0	36	0	22	0	319	
4:05 PM	39	124	0	0	0	67	37	0	0	0	0	0	24	0	12	0	303	
4:10 PM	35	119	0	0	0	61	27	0	0	0	0	0	28	1	10	0	281	
4:15 PM	30	117	0	0	0	72	29	0	0	0	0	0	25	0	17	0	290	
4:20 PM	26	111	0	0	0	94	28	0	0	0	0	0	22	0	9	0	290	
4:25 PM	37	139	0	0	0	53	22	0	0	0	0	0	22	0	13	0	286	
4:30 PM	33	109	0	0	0	53	36	0	0	0	0	0	36	0	9	0	276	
4:35 PM	28	112	0	0	0	83	33	0	0	0	0	0	31	0	15	0	302	
4:40 PM	39	131	0	0	0	68	31	0	0	0	0	0	21	0	12	0	302	
4:45 PM	41	122	0	0	0	75	29	0	0	0	0	0	26	1	21	0	315	
4:50 PM	34	115	0	0	0	70	31	0	0	0	0	0	29	0	29	0	308	
4:55 PM	25	137	0	0	0	78	28	0	0	0	0	0	23	1	22	0	314	3586
5:00 PM	25	139	0	1	0	81	29	0	0	0	0	0	13	0	9	0	297	3564
5:05 PM	39	124	0	0	0	53	31	0	0	0	0	0	26	0	14	0	287	3548
5:10 PM	26	119	0	0	0	77	33	0	0	0	0	0	21	0	14	0	290	3557
5:15 PM	38	139	0	0	0	66	39	0	0	0	0	0	19	0	15	0	316	3583
5:20 PM	39	135	0	0	0	69	24	0	0	0	0	0	7	0	11	0	285	3578
5:25 PM	24	113	0	0	0	84	31	0	0	0	0	0	22	0	15	0	289	3581
5:30 PM	30	99	0	0	0	76	39	0	0	0	0	0	25	0	24	0	293	3598
5:35 PM	29	140	0	0	0	80	38	0	0	0	0	0	19	0	17	0	323	3619
5:40 PM	44	127	0	0	0	65	25	0	0	0	0	0	14	0	12	0	287	3604
5:45 PM	24	129	0	0	0	65	29	0	0	0	0	0	17	0	16	0	280	3569
5:50 PM	24	119	0	0	0	68	38	0	0	0	0	0	24	0	16	0	289	3550
5:55 PM	36	91	0	0	0	69	35	0	0	0	0	0	13	1	18	0	263	3499
6:00 PM	25	102	0	0	0	35	13	0	0	0	0	0	22	0	22	0	219	3421
6:05 PM	23	88	0	0	0	77	30	0	0	0	0	0	24	0	22	0	264	3398
6:10 PM	29	97	0	0	0	75	30	0	0	0	0	0	22	0	19	0	272	3380
6:15 PM	19	84	0	0	0	60	28	0	0	0	0	0	24	1	18	0	234	3298
6:20 PM	30	79	0	0	0	67	24	0	0	0	0	0	33	0	22	0	255	3268
6:25 PM	15	83	0	0	0	52	25	0	0	0	0	0	21	0	15	0	211	3190
6:30 PM	20	86	0	1	0	56	28	0	0	0	0	0	9	0	15	0	215	3112
6:35 PM	27	63	0	0	0	59	27	0	0	0	0	0	17	0	22	0	215	3004
6:40 PM	31	75	0	0	0	41	28	0	0	0	0	0	18	0	19	0	212	2929
6:45 PM	17	60	0	0	0	57	19	0	0	0	0	0	25	0	23	0	201	2850
6:50 PM	30	55	0	1	0	67	28	0	0	0	0	0	19	0	17	0	217	2778
6:55 PM	17	67	0	1	0	51	16	0	0	0	0	0	15	0	19	0	186	2701

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	400	1496	0	0	0	892	352	0	0	0	0	0	312	8	288	0	3748
Heavy Trucks	12	52	0		0	24	8		0	0	0		48	0	0		144
Buses																	
Pedestrians		0				0				0				8			8
Bicycles	0	12	0		0	12	0		0	0	0		0	0	0		24
Scooters																	

Comments:

Report generated on 11/27/2023 4:30 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

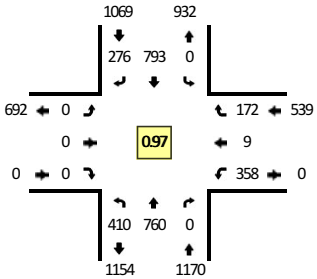
Type of peak hour being reported: Intersection Peak

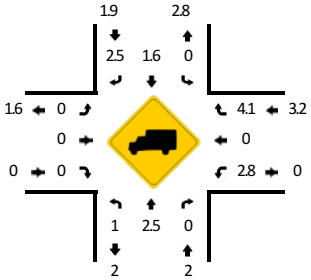
Method for determining peak hour: Total Entering Volume

LOCATION: Las Posas Rd -- SR-78 WB Ramps
CITY/STATE: San Marcos, CA

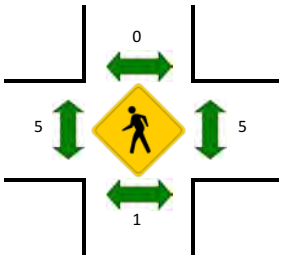
QC JOB #: 16384603
DATE: Sat, Nov 4 2023

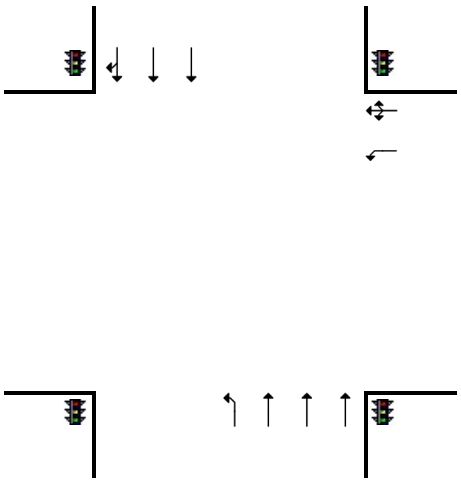
Peak-Hour: 11:45 AM -- 12:45 PM
Peak 15-Min: 11:55 AM -- 12:10 PM

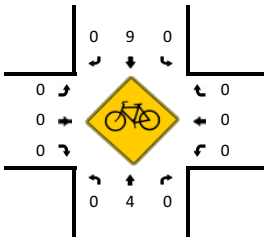


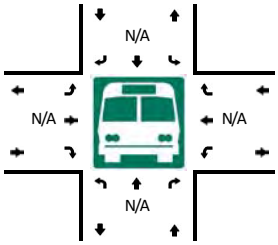


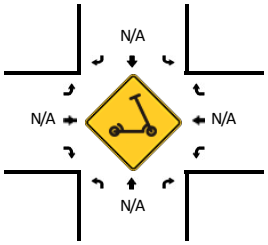
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Las Posas Rd (Northbound)				Las Posas Rd (Southbound)				SR-78 WB Ramps (Eastbound)				SR-78 WB Ramps (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	27	64	0	2	0	73	22	0	0	0	0	0	31	0	22	0	241	
11:05 AM	29	63	0	0	0	74	19	0	0	0	0	0	21	0	17	0	223	
11:10 AM	25	57	0	0	0	54	20	0	0	0	0	0	28	0	20	0	204	
11:15 AM	27	59	0	0	0	58	17	0	0	0	0	0	23	0	17	0	201	
11:20 AM	29	77	0	0	0	70	21	0	0	0	0	0	37	0	16	0	250	
11:25 AM	21	55	0	0	0	65	23	0	0	0	0	0	32	2	16	0	214	
11:30 AM	27	46	0	1	0	53	12	0	0	0	0	0	35	0	16	0	190	
11:35 AM	30	54	0	0	0	66	28	0	0	0	0	0	30	0	13	0	221	
11:40 AM	22	61	0	0	0	55	20	0	0	0	0	0	33	0	25	0	216	
11:45 AM	37	59	0	0	0	64	22	0	0	0	0	0	35	1	14	0	232	
11:50 AM	28	61	0	0	0	80	22	0	0	0	0	0	27	1	7	0	226	
11:55 AM	30	68	0	0	0	69	25	0	0	0	0	0	37	2	11	0	242	2660
12:00 PM	36	64	0	0	0	47	22	0	0	0	0	0	39	1	11	0	220	2639
12:05 PM	42	68	0	1	0	76	23	0	0	0	0	0	26	0	17	0	253	2669
12:10 PM	28	62	0	0	0	73	26	0	0	0	0	0	19	2	16	0	226	2691
12:15 PM	34	56	0	0	0	79	14	0	0	0	0	0	34	0	17	0	234	2724
12:20 PM	34	75	0	0	0	55	27	0	0	0	0	0	22	1	13	0	227	2701
12:25 PM	37	70	0	0	0	66	20	0	0	0	0	0	29	1	18	0	241	2728
12:30 PM	39	54	0	0	0	48	28	0	0	0	0	0	24	0	17	0	210	2748
12:35 PM	33	57	0	1	0	72	24	0	0	0	0	0	29	0	12	0	228	2755
12:40 PM	29	66	0	1	0	64	23	0	0	0	0	0	37	0	19	0	239	2778
12:45 PM	27	49	0	0	0	81	20	0	0	0	0	0	23	0	24	0	224	2770
12:50 PM	23	51	0	0	0	69	26	0	0	0	0	0	30	0	20	0	219	2763
12:55 PM	32	66	0	1	0	54	17	0	0	0	0	0	30	2	24	0	226	2747
1:00 PM	30	61	0	0	0	56	24	0	0	0	0	0	31	0	14	0	216	2743
1:05 PM	33	68	0	0	0	61	15	0	0	0	0	0	22	0	22	0	221	2711
1:10 PM	39	50	0	0	0	77	16	0	0	0	0	0	19	1	16	0	218	2703
1:15 PM	31	67	0	0	0	68	17	0	0	0	0	0	30	2	24	0	239	2708
1:20 PM	31	63	0	0	0	65	32	0	0	0	0	0	40	0	22	0	253	2734
1:25 PM	34	74	0	1	0	49	23	0	0	0	0	0	30	0	19	0	230	2723
1:30 PM	38	67	0	1	0	65	24	0	0	0	0	0	33	0	9	0	237	2750
1:35 PM	41	55	0	0	0	54	17	0	0	0	0	0	29	0	20	0	216	2738
1:40 PM	36	59	0	0	0	57	22	0	0	0	0	0	28	0	19	0	221	2720
1:45 PM	35	64	0	0	0	70	22	0	0	0	0	0	26	0	14	0	231	2727
1:50 PM	32	63	0	0	0	70	23	0	0	0	0	0	42	0	16	0	246	2754
1:55 PM	25	56	0	0	0	63	13	0	0	0	0	0	39	0	18	0	214	2742

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	432	800	0	4	0	768	280	0	0	0	0	0	408	12	156	0	2860
Heavy Trucks	4	8	0		0	16	0		0	0	0		12	0	0		40
Buses																	
Pedestrians		0				0				4				0			4
Bicycles	0	8	0		0	0	0		0	0	0		0	0	0		8
Scooters																	

Comments:

Report generated on 11/27/2023 4:30 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

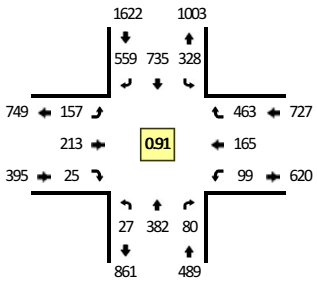
Type of peak hour being reported: Intersection Peak

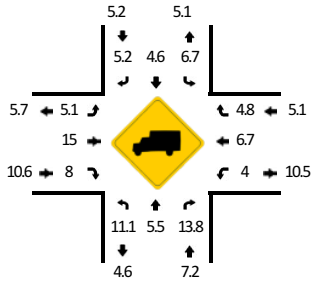
Method for determining peak hour: Total Entering Volume

LOCATION: S Las Posas Rd -- Grand Ave
CITY/STATE: San Marcos, CA

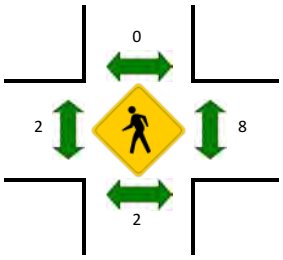
QC JOB #: 16384604
DATE: Thu, Nov 2 2023

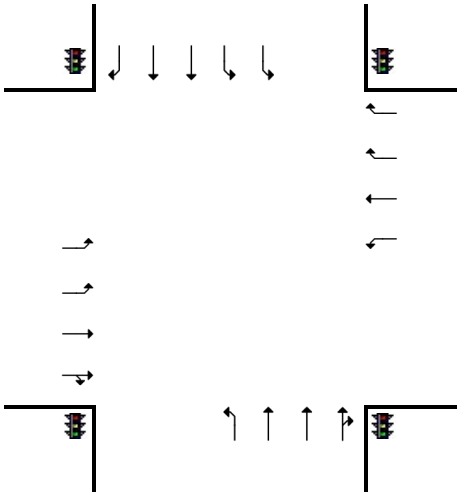
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

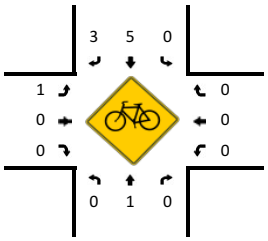


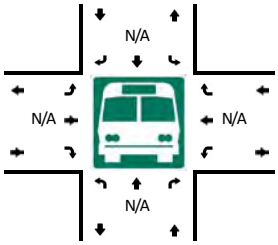


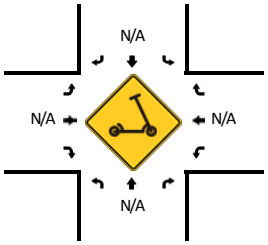
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	S Las Posas Rd (Northbound)				S Las Posas Rd (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	7	6	0	31	42	36	0	4	9	0	0	2	7	27	0	171	
7:05 AM	0	14	3	0	30	43	29	0	3	6	0	0	2	5	22	0	157	
7:10 AM	1	13	5	1	27	46	24	0	7	7	0	0	4	13	26	0	174	
7:15 AM	0	11	8	0	27	39	35	0	3	11	0	0	5	5	39	0	183	
7:20 AM	0	16	6	0	22	54	36	0	3	11	2	0	5	10	53	0	218	
7:25 AM	2	25	3	0	24	49	40	0	5	14	2	0	3	6	27	0	200	
7:30 AM	0	22	8	0	22	43	37	0	8	1	1	0	6	8	40	0	196	
7:35 AM	1	24	6	0	33	72	38	0	5	8	5	0	4	10	34	0	240	
7:40 AM	1	28	2	0	32	51	42	0	15	11	3	0	8	11	33	0	237	
7:45 AM	2	31	3	0	22	59	41	0	5	17	1	0	7	14	35	0	237	
7:50 AM	1	27	8	1	26	65	55	0	14	18	2	0	7	12	33	0	269	
7:55 AM	0	39	5	0	27	62	53	1	18	13	3	0	11	11	36	0	279	2561
8:00 AM	1	27	1	0	27	80	64	0	13	12	3	0	15	17	35	0	295	2685
8:05 AM	3	27	5	0	21	70	68	0	10	18	1	0	13	19	41	0	296	2824
8:10 AM	0	35	6	0	31	66	54	0	15	17	4	0	10	12	47	0	297	2947
8:15 AM	1	34	13	1	27	49	57	0	19	27	2	0	5	12	44	0	291	3055
8:20 AM	6	34	5	0	26	67	44	0	13	16	3	0	6	18	32	0	270	3107
8:25 AM	2	39	9	0	35	70	44	0	18	23	0	0	8	15	55	0	318	3225
8:30 AM	0	23	8	0	13	39	21	0	15	18	1	0	6	9	33	0	186	3215
8:35 AM	4	21	8	0	34	45	31	0	5	20	5	0	9	13	34	0	229	3204
8:40 AM	5	45	9	0	38	63	27	0	12	14	0	0	2	13	38	0	266	3233
8:45 AM	0	24	10	0	28	46	23	0	8	16	2	0	1	10	40	0	208	3204
8:50 AM	0	34	8	0	35	55	45	0	11	10	3	0	5	11	52	0	269	3204
8:55 AM	1	22	8	0	34	66	22	0	12	11	1	0	5	9	38	0	229	3154

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	356	48	0	316	864	744	0	152	188	32	0	152	192	492	0	3552
Heavy Trucks	0	20	12		12	44	32		8	40	0		8	4	28		208
Buses																	
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	4	8		0	0	0		0	0	0		12
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

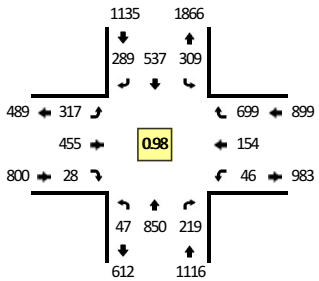
Method for determining peak hour: Total Entering Volume

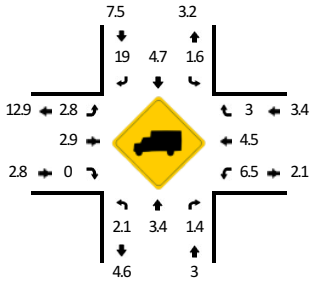
LOCATION: S Las Posas Rd -- Grand Ave
CITY/STATE: San Marcos, CA

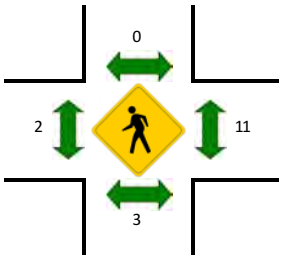
QC JOB #: 16384605
DATE: Thu, Nov 2 2023

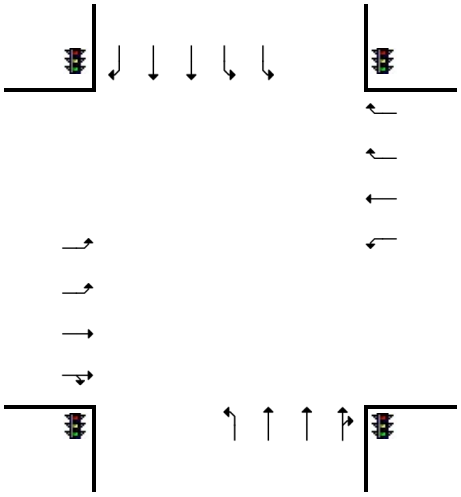
Peak-Hour: 4:05 PM -- 5:05 PM
Peak 15-Min: 4:05 PM -- 4:20 PM

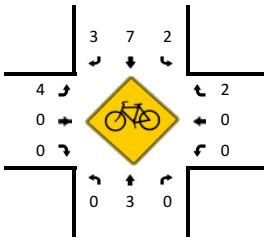
TRUE DATA TO IMPROVE MOBILITY

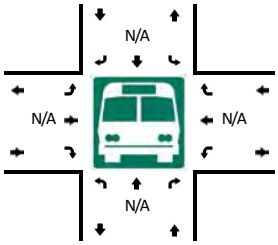


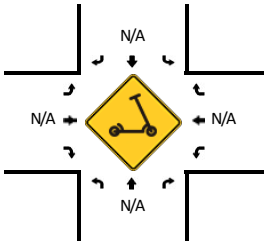












5-Min Count Period Beginning At	S Las Posas Rd (Northbound)				S Las Posas Rd (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	94	10	0	34	51	25	0	13	27	1	0	4	10	45	0	318	
4:05 PM	3	84	36	1	13	42	27	0	30	42	4	0	5	11	55	0	353	
4:10 PM	4	67	17	0	33	40	31	0	25	43	5	0	1	13	59	0	338	
4:15 PM	3	57	21	0	28	46	18	0	28	52	2	0	7	10	49	0	321	
4:20 PM	0	76	28	0	31	55	29	0	15	26	1	0	2	13	46	0	322	
4:25 PM	3	76	18	0	24	30	21	0	35	36	2	0	5	14	63	0	327	
4:30 PM	7	55	11	0	23	37	26	0	24	36	1	0	2	19	71	0	312	
4:35 PM	3	72	26	0	35	48	25	0	25	21	1	0	7	11	58	0	332	
4:40 PM	4	97	15	0	27	45	20	0	17	36	3	0	3	11	42	0	320	
4:45 PM	6	47	23	0	26	50	20	0	33	44	1	0	4	12	74	0	340	
4:50 PM	4	54	9	0	26	50	28	0	36	43	2	0	3	16	60	0	331	
4:55 PM	6	81	8	0	29	50	21	0	22	35	2	0	3	10	48	0	315	3929
5:00 PM	3	84	7	0	14	44	23	0	27	41	4	0	4	14	74	0	339	3950
5:05 PM	4	69	13	0	30	38	25	0	31	53	0	0	2	15	60	0	340	3937
5:10 PM	1	64	24	0	23	41	26	0	27	27	1	0	3	19	65	0	321	3920
5:15 PM	0	89	17	0	28	42	21	0	16	23	3	0	3	15	61	0	318	3917
5:20 PM	2	77	8	0	19	27	15	0	26	38	3	0	6	15	56	0	292	3887
5:25 PM	1	45	6	0	29	50	33	0	24	39	2	0	3	13	67	0	312	3872
5:30 PM	4	64	15	0	31	47	19	0	29	21	5	0	4	7	51	0	297	3857
5:35 PM	5	75	18	0	27	54	15	0	15	37	6	0	6	10	60	0	328	3853
5:40 PM	0	70	13	0	20	44	15	0	25	22	3	0	5	18	72	0	307	3840
5:45 PM	6	47	12	0	26	41	16	0	28	23	5	0	3	18	72	0	297	3797
5:50 PM	1	79	19	0	24	49	20	0	15	12	1	0	7	17	53	0	297	3763
5:55 PM	3	46	12	0	25	35	17	0	18	20	0	0	5	13	55	0	249	3697
6:00 PM	2	62	9	0	24	26	14	0	21	26	4	0	6	11	46	0	251	3609
6:05 PM	6	51	26	0	35	50	19	0	20	19	1	0	4	13	38	0	282	3551
6:10 PM	3	61	17	0	29	46	18	0	11	7	1	0	3	8	50	0	254	3484
6:15 PM	5	45	12	0	27	46	10	0	8	22	2	0	5	10	50	0	242	3408
6:20 PM	6	32	12	0	29	52	14	0	17	16	2	0	3	14	46	0	243	3359
6:25 PM	2	58	13	0	31	28	13	0	15	8	0	0	3	9	38	0	218	3265
6:30 PM	1	53	9	1	21	40	11	0	11	15	1	0	3	6	38	0	210	3178
6:35 PM	0	47	17	0	27	31	11	0	17	24	3	0	3	4	30	0	214	3064
6:40 PM	2	39	11	0	28	25	12	0	11	14	3	0	2	8	45	0	200	2957
6:45 PM	2	48	14	0	29	39	12	0	5	10	1	0	3	7	45	0	215	2875
6:50 PM	1	29	13	0	22	37	18	0	8	8	2	0	3	12	34	0	187	2765
6:55 PM	5	30	11	0	32	19	10	0	15	13	0	0	5	11	35	0	186	2702

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	832	296	4	296	512	304	0	332	548	44	0	52	136	652	0	4048
Heavy Trucks	0	32	4		0	28	60		4	20	0		0	4	8		160
Buses																	
Pedestrians		4				0				4				24			32
Bicycles	0	4	0		0	0	0		12	0	0		0	0	0		16
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

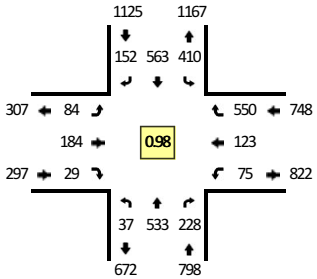
Type of peak hour being reported: Intersection Peak

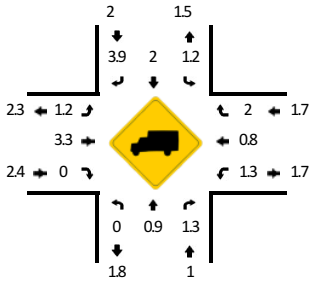
Method for determining peak hour: Total Entering Volume

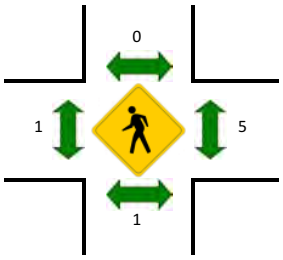
LOCATION: S Las Posas Rd -- Grand Ave
CITY/STATE: San Marcos, CA

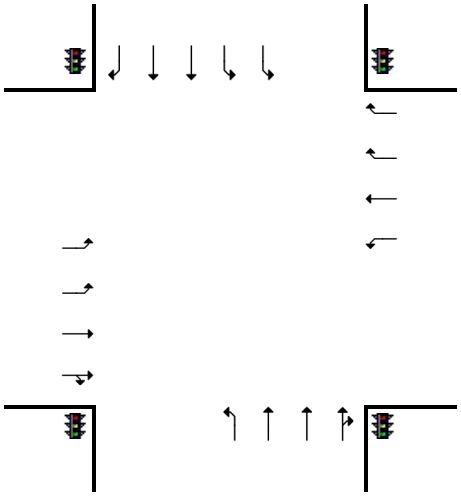
QC JOB #: 16384606
DATE: Sat, Nov 4 2023

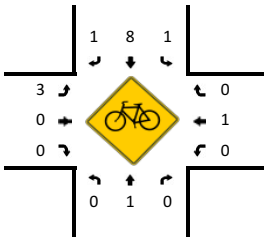
Peak-Hour: 11:45 AM -- 12:45 PM
Peak 15-Min: 11:50 AM -- 12:05 PM

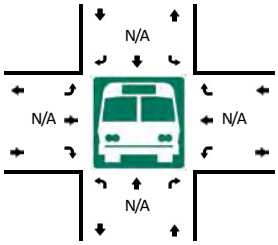


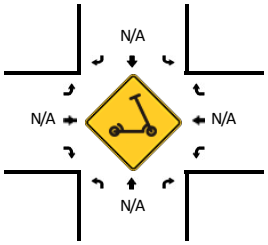












5-Min Count Period Beginning At	S Las Posas Rd (Northbound)				S Las Posas Rd (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	1	45	18	0	43	61	10	0	13	15	1	0	6	11	41	0	265	
11:05 AM	1	35	19	0	31	38	16	0	10	19	3	0	4	9	40	0	225	
11:10 AM	1	38	21	0	35	45	13	0	7	14	1	0	6	10	35	0	226	
11:15 AM	5	50	15	1	38	36	11	0	8	17	1	0	5	12	34	0	233	
11:20 AM	3	43	15	1	35	53	14	0	6	17	0	0	5	10	44	0	246	
11:25 AM	1	30	20	0	39	36	12	0	11	10	2	0	8	12	38	0	219	
11:30 AM	1	42	13	1	30	70	9	0	4	5	2	0	7	3	33	0	220	
11:35 AM	2	35	25	0	27	50	10	0	10	16	3	0	9	12	45	0	244	
11:40 AM	1	40	14	1	32	46	15	0	6	14	2	0	4	10	25	0	210	
11:45 AM	2	32	17	0	31	39	15	0	11	16	3	0	12	11	56	0	245	
11:50 AM	1	37	16	0	40	49	15	0	8	13	2	0	6	14	45	0	246	
11:55 AM	2	62	12	0	33	54	11	0	3	16	7	0	5	13	40	0	258	2837
12:00 PM	2	47	20	1	38	47	17	0	5	13	2	0	8	11	46	0	257	2829
12:05 PM	2	50	25	0	35	43	14	0	6	15	0	0	4	6	43	0	243	2847
12:10 PM	4	34	22	0	33	41	6	0	11	19	1	0	4	8	46	0	229	2850
12:15 PM	3	40	13	0	34	57	14	0	8	10	3	0	11	12	49	0	254	2871
12:20 PM	3	52	26	2	35	40	9	0	10	12	3	0	7	10	47	0	256	2881
12:25 PM	2	47	19	1	38	40	13	0	7	13	1	0	9	6	49	0	245	2907
12:30 PM	4	45	22	1	30	44	10	0	2	16	1	0	5	10	41	0	231	2918
12:35 PM	2	38	18	0	34	51	12	0	5	21	3	0	3	14	52	0	253	2927
12:40 PM	5	49	18	0	29	58	16	0	8	20	3	0	1	8	36	0	251	2968
12:45 PM	2	28	29	1	35	53	8	0	6	15	3	0	1	10	39	0	230	2953
12:50 PM	1	35	12	0	38	38	14	0	6	18	0	0	7	14	35	0	218	2925
12:55 PM	4	44	25	0	42	45	12	0	10	15	4	0	5	10	45	0	261	2928
1:00 PM	4	45	17	0	34	38	9	0	9	16	0	0	8	10	38	0	228	2899
1:05 PM	1	64	19	1	40	42	8	0	2	17	1	0	2	11	39	0	247	2903
1:10 PM	4	39	23	0	38	45	6	0	6	13	3	0	5	14	40	0	236	2910
1:15 PM	1	32	21	0	35	48	12	1	7	16	3	0	8	12	59	0	255	2911
1:20 PM	2	31	22	0	41	58	6	0	9	12	0	0	2	14	51	0	248	2903
1:25 PM	3	43	14	0	40	39	7	0	10	19	1	0	5	13	54	0	248	2906
1:30 PM	6	44	19	0	34	39	6	0	9	6	3	0	6	7	64	0	243	2918
1:35 PM	1	46	24	0	37	50	12	0	3	15	1	0	4	11	36	0	240	2905
1:40 PM	3	42	18	0	31	42	7	1	13	11	3	0	9	13	39	0	232	2886
1:45 PM	5	47	15	0	37	34	15	0	14	7	3	0	7	10	35	0	229	2885
1:50 PM	1	43	16	1	34	69	10	0	5	12	6	0	6	7	42	0	252	2919
1:55 PM	3	35	18	1	36	40	11	0	5	14	2	0	10	9	43	0	227	2885

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	584	192	4	444	600	172	0	64	168	44	0	76	152	524	0	3044
Heavy Trucks	0	8	0		4	12	8		0	8	0		0	0	4		44
Buses																	
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	12	0		12	0	0		0	0	0		24
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

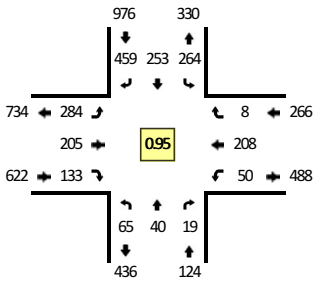
Type of peak hour being reported: Intersection Peak

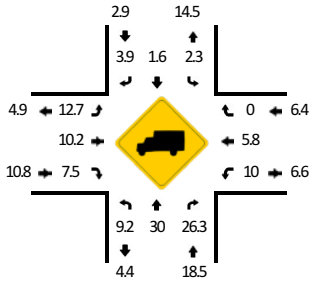
Method for determining peak hour: Total Entering Volume

LOCATION: Via Vera Cruz -- Grand Ave
CITY/STATE: San Marcos, CA

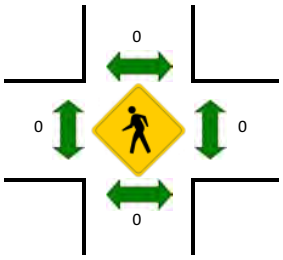
QC JOB #: 16384607
DATE: Thu, Nov 2 2023

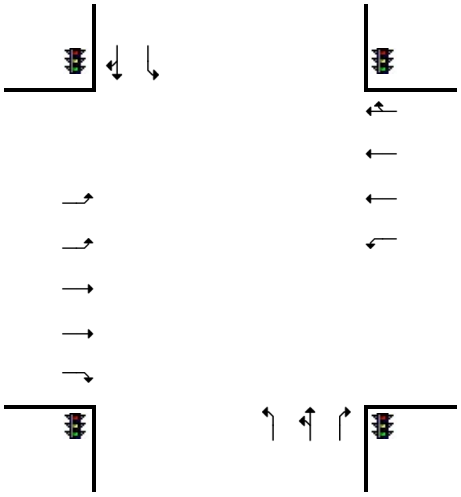
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:15 AM -- 8:30 AM

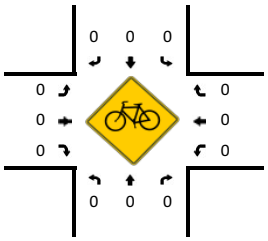


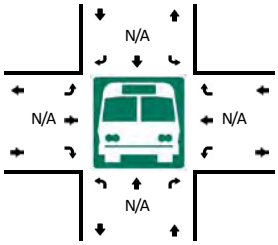


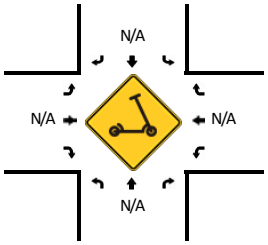
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Via Vera Cruz (Northbound)				Via Vera Cruz (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	1	0	0	4	19	27	0	31	11	10	0	1	7	0	0	115	
7:05 AM	1	5	0	0	6	16	20	0	26	6	6	0	1	6	0	0	93	
7:10 AM	2	5	0	0	6	15	37	0	24	7	7	0	0	6	0	0	109	
7:15 AM	4	2	0	0	5	15	38	0	27	10	6	0	2	11	1	0	121	
7:20 AM	3	4	0	0	11	16	49	0	22	8	11	0	3	8	0	0	135	
7:25 AM	1	4	1	0	19	13	24	0	14	10	9	0	0	11	0	0	106	
7:30 AM	2	1	1	0	22	16	32	0	25	8	7	0	1	19	1	0	135	
7:35 AM	2	1	2	0	17	16	29	0	19	15	12	0	3	19	1	0	136	
7:40 AM	7	4	1	0	22	15	31	0	23	12	6	0	2	18	0	0	141	
7:45 AM	1	2	5	0	28	15	28	0	14	18	13	0	3	21	0	0	148	
7:50 AM	1	1	0	0	20	17	38	0	21	22	8	0	5	16	0	0	149	
7:55 AM	4	6	0	0	30	29	46	0	16	18	15	0	4	10	0	0	178	1566
8:00 AM	4	1	1	0	18	23	57	0	20	7	11	0	6	9	0	0	157	1608
8:05 AM	5	3	0	0	26	21	40	0	21	10	7	0	8	19	1	0	161	1676
8:10 AM	7	3	2	0	19	20	43	0	18	15	14	0	1	17	0	0	159	1726
8:15 AM	4	3	0	0	15	17	43	0	33	27	10	1	5	15	0	0	173	1778
8:20 AM	4	2	2	0	28	16	28	0	20	17	8	1	2	23	0	0	151	1794
8:25 AM	7	2	3	0	26	22	46	0	28	21	11	0	7	24	1	0	198	1886
8:30 AM	4	6	3	0	20	28	33	0	18	16	9	0	5	15	1	0	158	1909
8:35 AM	4	1	1	0	19	17	31	0	32	18	7	0	4	20	3	0	157	1930
8:40 AM	13	5	2	0	23	24	19	0	29	21	15	0	3	18	1	0	173	1962
8:45 AM	4	4	4	0	21	16	31	0	25	16	9	0	1	19	1	0	151	1965
8:50 AM	5	4	1	0	19	20	42	0	22	19	17	0	4	19	0	0	172	1988
8:55 AM	7	8	3	0	12	27	23	0	22	18	12	0	6	22	2	0	162	1972

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	28	20	0	276	220	468	0	324	260	116	8	56	248	4	0	2088
Heavy Trucks	12	0	8		4	8	36		36	16	8		8	28	0		164
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

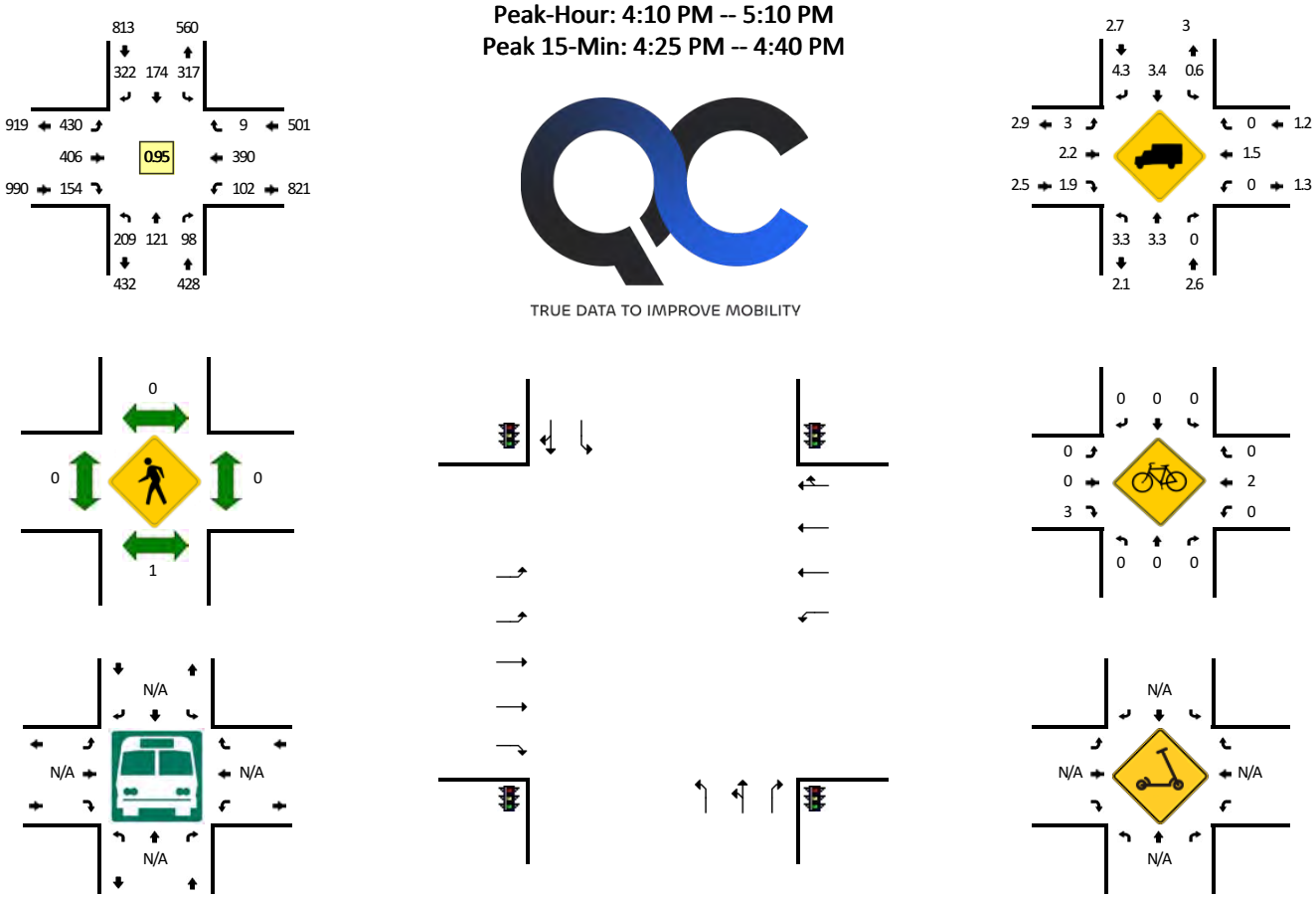
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Via Vera Cruz -- Grand Ave
CITY/STATE: San Marcos, CA

QC JOB #: 16384608
DATE: Thu, Nov 2 2023

Peak-Hour: 4:10 PM -- 5:10 PM
Peak 15-Min: 4:25 PM -- 4:40 PM



TRUE DATA TO IMPROVE MOBILITY

5-Min Count Period Beginning At	Via Vera Cruz (Northbound)				Via Vera Cruz (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	21	16	6	0	23	7	21	1	39	28	18	1	9	22	1	0	213	
4:05 PM	20	14	10	0	29	19	31	0	42	26	11	0	8	19	0	0	229	
4:10 PM	14	13	10	2	39	17	24	0	40	38	13	0	5	36	0	0	251	
4:15 PM	17	7	7	0	23	10	19	0	41	46	14	0	13	32	0	0	229	
4:20 PM	12	2	3	0	30	13	17	0	44	42	12	0	11	28	1	0	215	
4:25 PM	19	12	14	0	31	18	36	0	39	32	10	0	8	37	0	0	256	
4:30 PM	22	6	5	0	24	21	24	0	25	29	13	0	10	41	1	0	221	
4:35 PM	26	15	9	0	23	14	28	0	36	41	13	0	5	33	1	0	244	
4:40 PM	16	14	6	0	23	15	23	0	38	27	12	0	10	25	0	0	209	
4:45 PM	17	6	5	0	19	18	32	0	41	27	21	0	8	25	0	0	219	
4:50 PM	10	4	8	0	21	7	32	0	25	33	16	0	7	33	0	0	196	
4:55 PM	19	13	6	0	20	15	22	0	29	38	13	0	10	30	2	0	217	2699
5:00 PM	17	13	11	0	33	12	39	0	35	16	7	0	10	33	1	0	227	2713
5:05 PM	18	16	14	0	31	14	26	0	37	37	10	0	5	37	3	0	248	2732
5:10 PM	14	19	13	0	24	12	35	0	39	39	8	0	6	37	0	0	246	2727
5:15 PM	13	21	8	0	33	9	30	0	32	32	10	0	6	31	1	0	226	2724
5:20 PM	21	14	7	0	31	16	27	2	22	27	5	0	4	38	1	0	215	2724
5:25 PM	14	7	4	0	34	19	33	0	26	30	14	0	15	27	0	0	223	2691
5:30 PM	11	11	4	0	18	11	29	0	34	28	19	0	8	30	1	0	204	2674
5:35 PM	16	6	5	1	31	16	32	0	39	24	11	0	7	27	2	0	217	2647
5:40 PM	14	6	2	0	27	15	33	0	17	29	9	0	10	47	0	0	209	2647
5:45 PM	6	5	2	0	26	13	46	0	24	28	11	0	4	36	0	0	201	2629
5:50 PM	20	9	6	0	28	11	32	0	29	22	11	0	6	32	2	0	208	2641
5:55 PM	14	9	2	0	25	31	35	0	22	19	12	0	8	26	1	0	204	2628
6:00 PM	11	7	8	0	19	20	20	0	28	19	8	0	5	28	0	0	173	2574
6:05 PM	9	12	3	0	8	12	19	0	40	26	16	1	6	30	0	0	182	2508
6:10 PM	11	11	3	0	12	16	23	0	31	7	13	0	7	21	0	0	155	2417
6:15 PM	14	17	0	0	7	19	27	0	35	16	16	0	11	26	0	0	188	2379
6:20 PM	7	10	3	0	9	15	21	0	24	17	10	0	0	32	0	0	148	2312
6:25 PM	9	6	3	1	4	15	17	0	32	12	13	0	3	32	0	0	147	2236
6:30 PM	10	5	3	0	10	12	22	0	25	12	11	0	6	11	2	0	129	2161
6:35 PM	5	16	2	0	11	15	17	0	31	10	16	0	1	16	0	0	140	2084
6:40 PM	6	12	2	0	6	20	21	0	35	16	6	1	3	26	0	0	154	2029
6:45 PM	11	7	5	0	1	12	25	0	33	15	10	0	5	21	1	0	146	1974
6:50 PM	7	8	5	0	15	15	24	0	23	13	12	0	1	13	0	0	136	1902
6:55 PM	7	13	6	0	4	12	19	0	21	13	12	0	6	28	0	0	141	1839

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	268	132	112	0	312	212	352	0	400	408	144	0	92	444	8	0	2884
Heavy Trucks	12	8	0		4	0	24		16	8	0		0	16	0		88
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	4	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

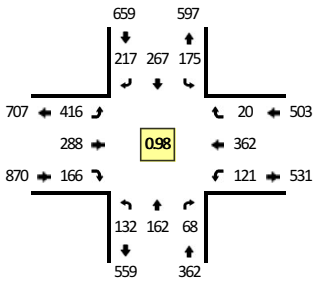
Type of peak hour being reported: Intersection Peak

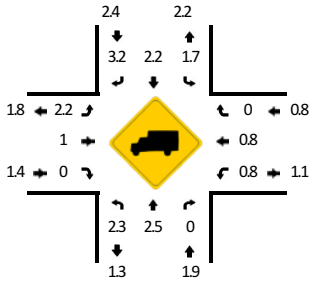
Method for determining peak hour: Total Entering Volume

LOCATION: Via Vera Cruz -- Grand Ave
CITY/STATE: San Marcos, CA

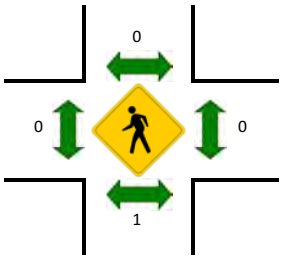
QC JOB #: 16384609
DATE: Sat, Nov 4 2023

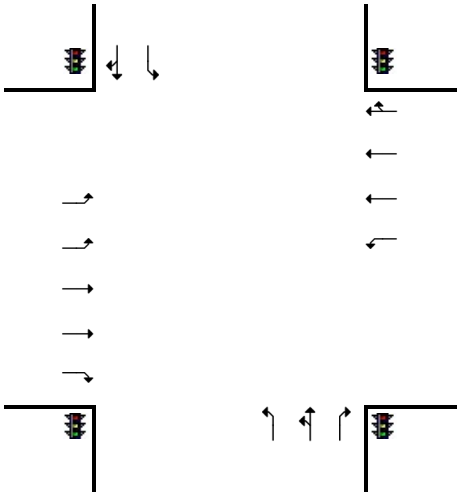
Peak-Hour: 12:10 PM -- 1:10 PM
Peak 15-Min: 12:45 PM -- 1:00 PM

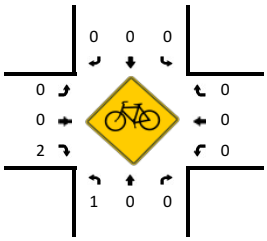


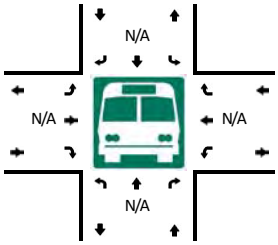


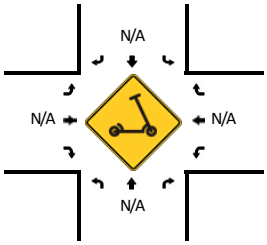
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Via Vera Cruz (Northbound)				Via Vera Cruz (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	11	11	7	0	11	25	25	0	37	26	17	0	8	26	0	0	204	
11:05 AM	8	19	3	0	14	24	19	0	34	19	12	0	9	28	2	0	191	
11:10 AM	15	8	5	0	7	25	13	0	43	16	13	1	14	17	3	0	180	
11:15 AM	5	11	4	0	12	21	17	0	33	22	21	0	9	31	1	0	187	
11:20 AM	11	15	5	0	20	22	24	0	25	13	18	0	5	24	0	0	182	
11:25 AM	7	8	1	0	10	17	19	0	29	30	14	0	5	29	5	0	174	
11:30 AM	6	5	5	0	13	13	13	0	33	14	5	0	6	29	2	0	144	
11:35 AM	13	12	6	0	15	22	18	0	25	25	12	0	5	31	2	0	186	
11:40 AM	7	6	1	0	9	16	21	0	34	13	18	0	6	26	1	0	158	
11:45 AM	11	10	5	0	13	22	25	0	27	17	17	0	7	34	3	0	191	
11:50 AM	12	12	1	0	12	26	15	0	31	23	18	1	13	32	0	0	196	
11:55 AM	10	17	2	0	10	28	20	0	37	19	9	0	13	31	1	0	197	2190
12:00 PM	10	15	4	0	11	25	24	0	31	23	15	0	8	30	3	0	199	2185
12:05 PM	14	10	6	0	14	22	16	0	33	24	13	0	6	27	2	0	187	2181
12:10 PM	8	17	3	0	28	21	23	0	43	26	10	0	9	27	1	0	216	2217
12:15 PM	18	12	8	0	11	14	25	0	29	19	13	0	10	29	2	0	190	2220
12:20 PM	17	11	7	0	14	24	21	0	30	25	18	0	5	26	1	0	199	2237
12:25 PM	8	12	5	0	14	28	21	0	28	28	15	0	9	34	2	0	204	2267
12:30 PM	8	12	6	0	14	27	14	0	35	25	12	0	11	36	3	0	203	2326
12:35 PM	8	20	6	0	9	21	16	0	35	21	13	0	15	38	1	0	203	2343
12:40 PM	9	10	6	0	13	12	17	0	37	15	15	0	9	27	1	0	171	2356
12:45 PM	8	19	8	0	15	31	11	0	41	22	13	0	9	29	0	0	206	2371
12:50 PM	14	16	4	0	20	22	17	0	32	26	17	1	10	19	1	0	199	2374
12:55 PM	13	10	8	3	12	23	20	0	31	32	14	0	10	31	1	0	208	2385
1:00 PM	8	10	2	1	15	16	20	0	40	21	10	0	11	28	6	0	188	2374
1:05 PM	8	13	5	1	10	28	12	0	34	28	16	0	13	38	1	0	207	2394
1:10 PM	13	18	6	0	7	7	9	0	39	29	7	0	12	28	0	0	175	2353
1:15 PM	12	9	5	0	14	20	26	0	38	19	12	2	14	39	0	0	210	2373
1:20 PM	20	10	10	0	13	21	15	0	36	28	10	1	15	34	4	0	217	2391
1:25 PM	19	7	8	0	8	20	17	0	35	16	17	0	8	44	0	0	199	2386
1:30 PM	11	6	5	0	18	25	22	0	28	27	13	0	6	35	0	0	196	2379
1:35 PM	9	22	8	0	13	10	11	0	39	26	16	0	11	35	1	0	201	2377
1:40 PM	8	17	3	0	14	23	23	0	27	19	11	0	6	23	3	0	177	2383
1:45 PM	15	11	4	0	6	23	16	0	28	17	10	0	8	29	0	0	167	2344
1:50 PM	8	8	4	0	12	20	22	0	33	19	14	0	14	26	1	0	181	2326
1:55 PM	11	14	3	0	10	24	16	0	26	26	14	0	11	27	1	0	183	2301

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	140	180	80	12	188	304	192	0	416	320	176	4	116	316	8	0	2452
Heavy Trucks	0	0	0		4	4	0		12	0	0		4	0	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	4		0	0	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

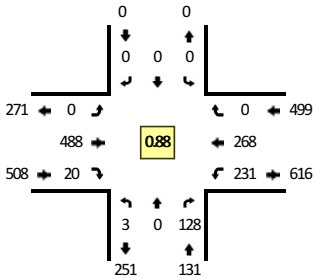
Type of peak hour being reported: Intersection Peak

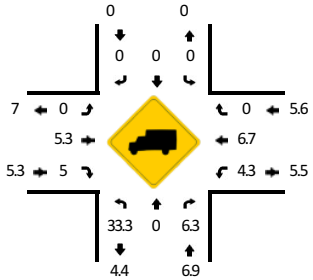
Method for determining peak hour: Total Entering Volume

LOCATION: Linda Vista Dr -- Grand Ave
CITY/STATE: San Marcos, CA

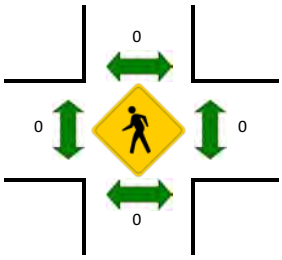
QC JOB #: 16384610
DATE: Thu, Nov 2 2023

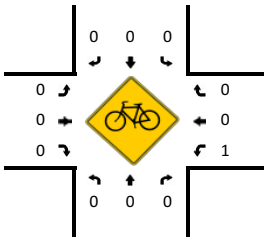
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 8:20 AM -- 8:35 AM

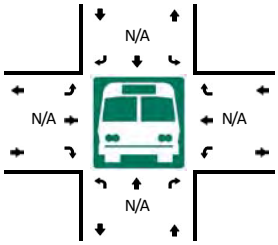


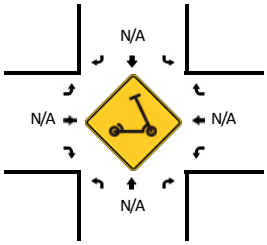


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	Linda Vista Dr (Northbound)				Linda Vista Dr (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	0	2	0	0	0	0	0	0	12	4	0	12	8	0	0	42	
7:05 AM	0	0	6	0	0	0	0	0	0	13	0	0	6	3	0	0	28	
7:10 AM	0	0	8	0	0	0	0	0	0	13	0	0	11	8	0	0	40	
7:15 AM	0	0	6	0	0	0	0	0	0	16	0	0	7	15	0	0	44	
7:20 AM	0	0	6	0	0	0	0	0	0	15	2	0	15	9	0	0	47	
7:25 AM	0	0	3	0	0	0	0	0	0	22	0	0	7	11	0	0	43	
7:30 AM	0	0	4	0	0	0	0	0	0	32	2	0	13	26	0	0	77	
7:35 AM	1	0	7	0	0	0	0	0	0	36	0	0	13	17	0	0	74	
7:40 AM	0	0	7	0	0	0	0	0	0	34	1	0	13	20	0	0	75	
7:45 AM	0	0	6	0	0	0	0	0	0	48	0	0	21	22	0	0	97	
7:50 AM	0	0	9	0	0	0	0	0	0	40	1	0	20	22	0	0	92	
7:55 AM	1	0	7	0	0	0	0	0	0	48	5	0	18	17	0	0	96	755
8:00 AM	0	0	7	0	0	0	0	0	0	26	2	0	29	19	0	0	83	796
8:05 AM	1	0	8	0	0	0	0	0	0	28	0	0	19	22	0	0	78	846
8:10 AM	0	0	8	0	0	0	0	0	0	38	1	0	22	20	0	0	89	895
8:15 AM	0	0	9	0	0	0	0	0	0	31	3	0	21	25	0	0	89	940
8:20 AM	0	0	11	0	0	0	0	0	0	55	0	0	19	29	0	0	114	1007
8:25 AM	1	0	15	0	0	0	0	0	0	48	1	0	14	20	0	0	99	1063
8:30 AM	0	0	19	0	0	0	0	0	0	38	5	0	20	28	0	0	110	1096
8:35 AM	0	0	17	0	0	0	0	0	0	43	0	0	14	23	0	0	97	1119
8:40 AM	0	0	12	0	0	0	0	0	0	45	2	0	14	21	0	0	94	1138
8:45 AM	1	0	9	0	0	0	0	0	0	43	0	0	17	22	0	0	92	1133
8:50 AM	0	0	6	0	0	0	0	0	0	34	3	0	11	27	0	0	81	1122
8:55 AM	0	0	13	0	0	0	0	0	0	35	0	0	5	25	0	0	78	1104

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	180	0	0	0	0	0	0	564	24	0	212	308	0	0	1292
Heavy Trucks	4	0	12		0	0	0		0	32	4		12	16	0		80
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

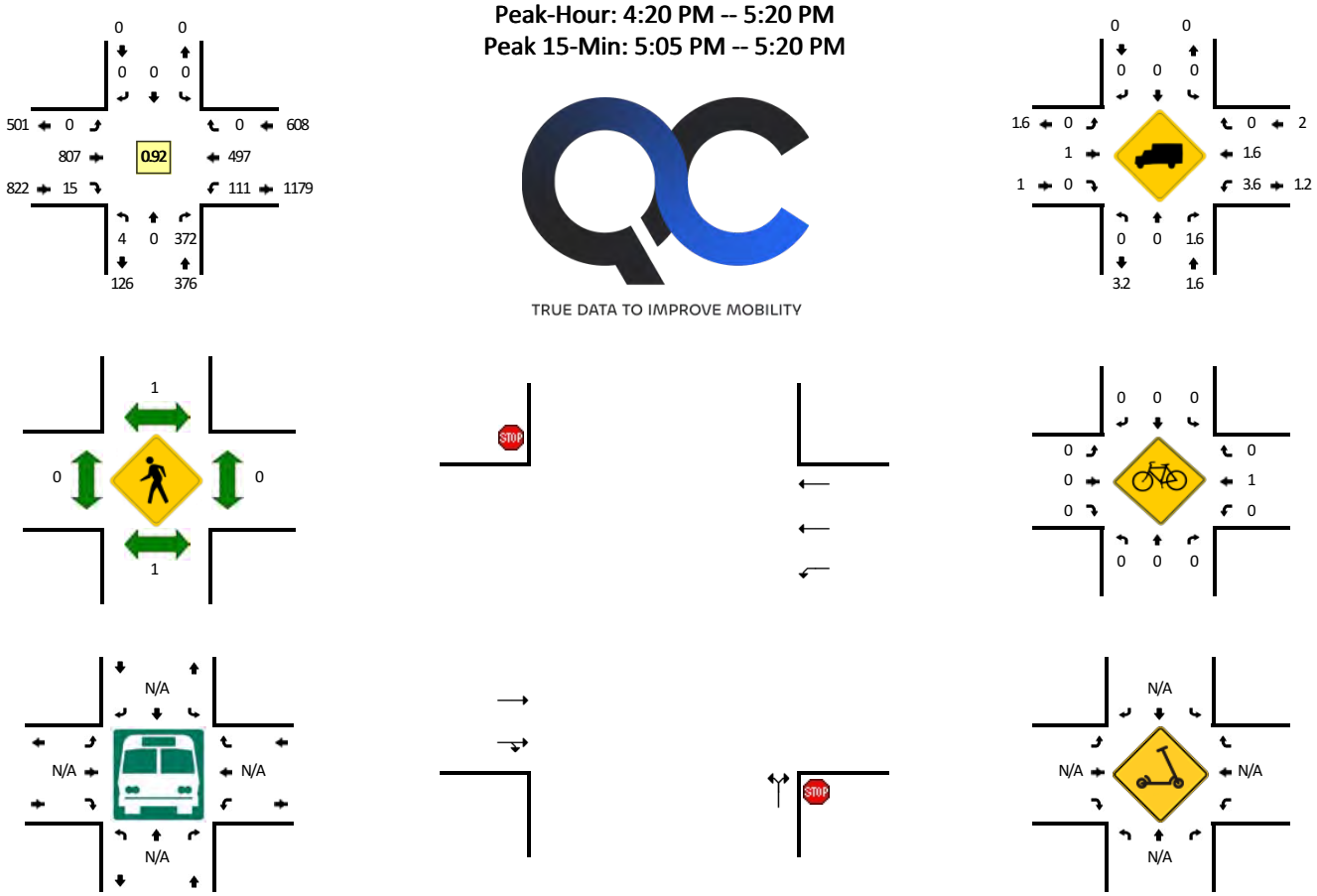
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Linda Vista Dr -- Grand Ave
CITY/STATE: San Marcos, CA

QC JOB #: 16384611
DATE: Thu, Nov 2 2023

Peak-Hour: 4:20 PM -- 5:20 PM
Peak 15-Min: 5:05 PM -- 5:20 PM



TRUE DATA TO IMPROVE MOBILITY

5-Min Count Period Beginning At	Linda Vista Dr (Northbound)				Linda Vista Dr (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	35	0	0	0	0	0	0	64	3	0	13	30	0	0	145	
4:05 PM	0	0	33	0	0	0	0	0	0	67	1	0	9	37	0	0	147	
4:10 PM	0	0	27	0	0	0	0	0	0	78	3	0	9	36	0	0	153	
4:15 PM	0	0	30	0	0	0	0	0	0	76	1	0	4	50	0	0	161	
4:20 PM	0	0	34	0	0	0	0	0	0	82	2	0	6	40	0	0	164	
4:25 PM	0	0	30	0	0	0	0	0	0	77	2	0	9	47	0	0	165	
4:30 PM	0	0	34	0	0	0	0	0	0	47	1	0	4	49	0	0	135	
4:35 PM	0	0	26	0	0	0	0	0	0	75	2	0	11	36	0	0	150	
4:40 PM	1	0	38	0	0	0	0	0	0	58	0	0	7	33	0	0	137	
4:45 PM	1	0	38	0	0	0	0	0	0	54	1	0	10	33	0	0	137	
4:50 PM	1	0	32	0	0	0	0	0	0	59	0	0	13	46	0	0	151	
4:55 PM	0	0	31	0	0	0	0	0	0	56	2	0	8	31	0	0	128	1773
5:00 PM	0	0	20	0	0	0	0	0	0	73	1	0	11	44	0	0	149	1777
5:05 PM	1	0	39	0	0	0	0	0	0	66	2	0	11	42	0	0	161	1791
5:10 PM	0	0	24	0	0	0	0	0	0	80	1	0	9	52	0	0	166	1804
5:15 PM	0	0	26	0	0	0	0	0	0	80	1	0	12	44	0	0	163	1806
5:20 PM	1	0	32	0	0	0	0	0	0	62	1	0	6	29	0	0	131	1773
5:25 PM	0	0	30	0	0	0	0	0	0	63	0	0	12	34	0	0	139	1747
5:30 PM	0	0	34	0	0	0	0	0	0	58	0	0	8	40	0	0	140	1752
5:35 PM	0	0	26	0	0	0	0	0	0	57	2	0	3	54	0	0	142	1744
5:40 PM	1	0	21	0	0	0	0	0	0	58	1	0	5	43	0	0	129	1736
5:45 PM	0	0	24	0	0	0	0	0	0	48	1	0	4	38	0	0	115	1714
5:50 PM	1	0	22	0	0	0	0	0	0	59	0	0	10	35	0	0	127	1690
5:55 PM	0	0	18	0	0	0	0	0	0	51	1	0	8	40	0	0	118	1680
6:00 PM	0	0	6	0	0	0	0	0	0	45	2	0	5	29	0	0	87	1618
6:05 PM	0	0	15	0	0	0	0	0	0	36	0	0	10	32	0	0	93	1550
6:10 PM	1	0	19	0	0	0	0	0	0	25	0	0	7	34	0	0	86	1470
6:15 PM	1	0	9	0	0	0	0	0	0	24	1	1	9	34	0	0	79	1386
6:20 PM	1	0	9	0	0	0	0	0	0	23	0	0	1	23	0	0	57	1312
6:25 PM	0	0	11	0	0	0	0	0	0	23	0	0	10	33	0	0	77	1250
6:30 PM	1	0	11	0	0	0	0	0	0	22	2	0	5	19	0	0	60	1170
6:35 PM	0	0	11	0	0	0	0	0	0	22	2	0	4	20	0	0	59	1087
6:40 PM	0	0	13	0	0	0	0	0	0	23	1	0	3	22	0	0	62	1020
6:45 PM	1	0	7	0	0	0	0	0	0	15	1	0	3	26	0	0	53	958
6:50 PM	0	0	12	0	0	0	0	0	0	39	1	0	6	30	0	0	88	919
6:55 PM	0	0	5	0	0	0	0	0	0	24	1	0	3	33	0	0	66	867

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	356	0	0	0	0	0	0	904	16	0	128	552	0	0	1960
Heavy Trucks	0	0	12		0	0	0		0	0	0		4	8	0		24
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

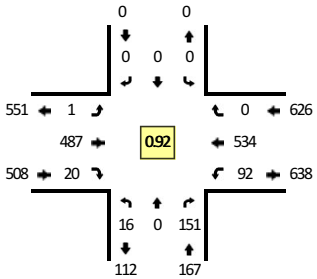
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

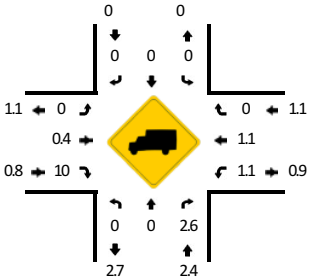
LOCATION: Linda Vista Dr -- Grand Ave
CITY/STATE: San Marcos, CA

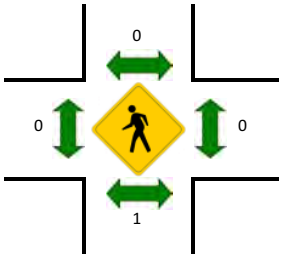
QC JOB #: 16384612
DATE: Sat, Nov 4 2023

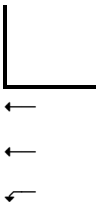
Peak-Hour: 12:25 PM -- 1:25 PM
Peak 15-Min: 12:55 PM -- 1:10 PM

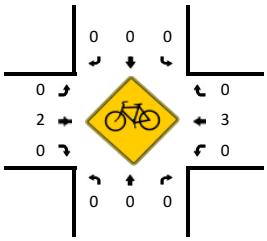


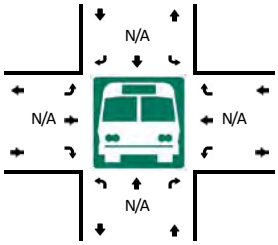
TRUE DATA TO IMPROVE MOBILITY

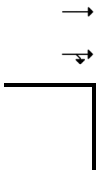


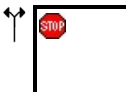


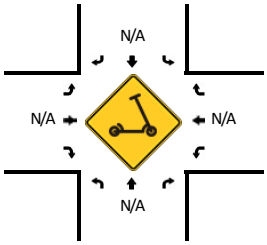












5-Min Count Period Beginning At	Linda Vista Dr (Northbound)				Linda Vista Dr (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	1	0	10	0	0	0	0	0	0	44	3	0	14	38	0	1	111	
11:05 AM	1	0	14	0	0	0	0	0	0	31	1	0	10	35	0	0	92	
11:10 AM	0	0	14	0	0	0	0	0	0	28	2	0	14	37	0	0	95	
11:15 AM	1	0	12	0	0	0	0	0	0	39	2	0	7	39	0	0	100	
11:20 AM	1	0	13	0	0	0	0	0	0	28	3	0	9	29	0	0	83	
11:25 AM	1	0	26	0	0	0	0	0	0	39	3	0	10	36	0	0	115	
11:30 AM	0	0	7	0	0	0	0	0	0	29	2	0	10	34	0	0	82	
11:35 AM	2	0	10	0	0	0	0	0	0	44	2	0	4	35	0	0	97	
11:40 AM	1	0	11	0	0	0	0	0	0	27	0	0	6	40	0	0	85	
11:45 AM	1	0	17	0	0	0	0	0	0	30	2	0	6	35	0	0	91	
11:50 AM	1	0	19	1	0	0	0	0	0	31	1	0	11	59	0	0	123	
11:55 AM	1	0	16	1	0	0	0	0	0	27	0	0	8	30	0	0	83	1157
12:00 PM	2	0	14	0	0	0	0	0	0	43	0	0	5	45	0	0	109	1155
12:05 PM	0	0	18	0	0	0	0	0	0	41	0	0	8	34	0	0	101	1164
12:10 PM	0	0	16	0	0	0	0	0	0	51	0	0	9	41	0	1	118	1187
12:15 PM	0	0	18	0	0	0	0	0	0	41	4	0	5	29	0	0	97	1184
12:20 PM	0	0	17	0	0	0	0	0	0	39	1	0	7	41	0	0	105	1206
12:25 PM	3	0	14	0	0	0	0	0	0	36	2	0	8	38	0	0	101	1192
12:30 PM	2	0	14	0	0	0	0	0	0	50	1	0	7	58	0	0	132	1242
12:35 PM	1	0	12	0	0	0	0	0	0	36	1	0	5	45	0	0	100	1245
12:40 PM	0	0	8	0	0	0	0	0	0	28	1	0	5	29	0	0	71	1231
12:45 PM	2	0	13	0	0	0	0	0	0	45	1	0	7	40	0	0	108	1248
12:50 PM	0	0	11	0	0	0	0	0	0	41	3	0	7	31	0	0	93	1218
12:55 PM	0	0	13	0	0	0	0	0	0	54	2	0	12	48	0	0	129	1264
1:00 PM	2	0	13	0	0	0	0	0	0	32	3	1	7	48	0	0	106	1261
1:05 PM	0	0	15	0	0	0	0	0	0	38	1	0	12	51	0	0	117	1277
1:10 PM	3	0	11	0	0	0	0	0	0	36	1	0	11	43	0	0	105	1264
1:15 PM	2	0	12	0	0	0	0	0	0	38	3	0	4	53	0	0	112	1279
1:20 PM	1	0	15	0	0	0	0	0	0	53	1	0	7	50	0	0	127	1301
1:25 PM	0	0	10	0	0	0	0	0	0	37	2	0	3	41	0	0	93	1293
1:30 PM	0	0	11	0	0	0	0	0	0	45	1	0	8	46	0	0	111	1272
1:35 PM	2	0	15	0	0	0	0	0	0	47	0	0	6	32	0	0	102	1274
1:40 PM	0	0	11	0	0	0	0	0	0	36	1	0	11	37	0	0	96	1299
1:45 PM	2	0	9	0	0	0	0	0	0	32	1	0	11	43	0	0	98	1289
1:50 PM	0	0	12	0	0	0	0	0	0	31	1	0	9	43	0	0	96	1292
1:55 PM	0	0	15	0	0	0	0	0	0	40	1	0	8	35	0	0	99	1262

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	164	0	0	0	0	0	0	496	24	4	124	588	0	0	1408
Heavy Trucks	0	0	12		0	0	0		0	0	0		4	8	0		24
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

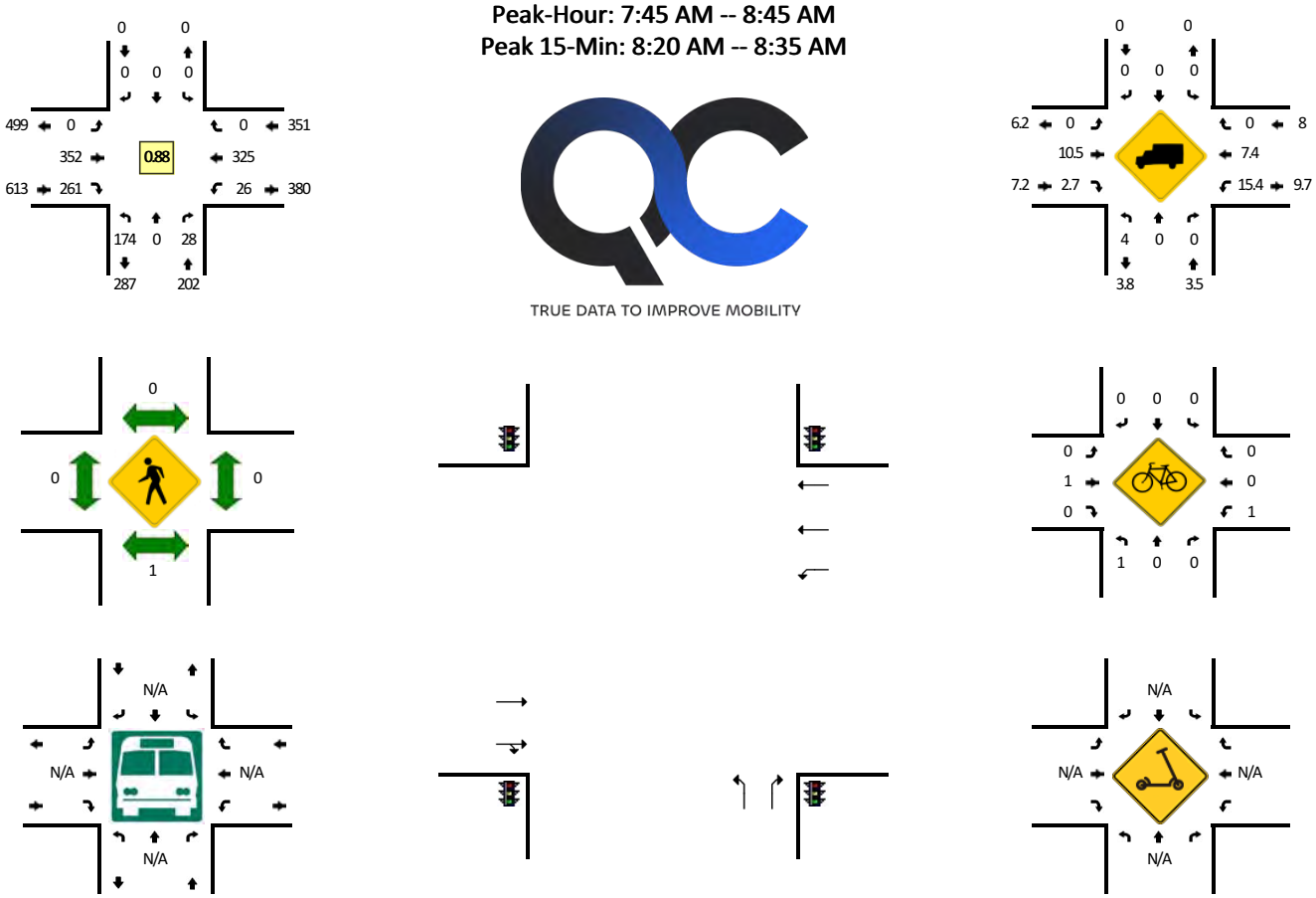
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Grand Ave
CITY/STATE: San Marcos, CA

QC JOB #: 16384613
DATE: Thu, Nov 2 2023

Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 8:20 AM -- 8:35 AM



TRUE DATA TO IMPROVE MOBILITY

5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	0	1	0	0	0	0	0	0	10	6	0	2	17	0	0	40	
7:05 AM	1	0	1	0	0	0	0	0	0	11	9	0	0	8	0	0	30	
7:10 AM	7	0	1	0	0	0	0	0	0	12	9	0	2	12	0	0	43	
7:15 AM	8	0	0	0	0	0	0	0	0	13	8	0	0	13	0	0	42	
7:20 AM	7	0	0	0	0	0	0	0	0	13	9	0	0	17	0	0	46	
7:25 AM	7	0	1	0	0	0	0	0	0	16	9	0	0	13	0	0	46	
7:30 AM	11	0	2	0	0	0	0	0	0	21	16	0	1	28	0	0	79	
7:35 AM	9	0	2	0	0	0	0	0	0	30	11	0	1	20	0	0	73	
7:40 AM	12	0	1	0	0	0	0	0	0	27	16	0	0	23	0	0	79	
7:45 AM	10	0	3	0	0	0	0	0	0	34	20	0	2	32	0	0	101	
7:50 AM	9	0	1	0	0	0	0	0	0	30	18	0	4	35	0	0	97	
7:55 AM	12	0	3	0	0	0	0	0	0	26	25	0	1	24	0	0	91	767
8:00 AM	13	0	2	0	0	0	0	0	0	19	18	0	1	31	0	0	84	811
8:05 AM	13	0	2	0	0	0	0	0	0	25	11	0	1	28	0	0	80	861
8:10 AM	16	0	1	0	0	0	0	0	0	24	21	0	4	28	0	0	94	912
8:15 AM	19	0	5	0	0	0	0	0	0	19	20	0	1	25	0	0	89	959
8:20 AM	24	0	1	0	0	0	0	0	0	42	22	0	2	27	0	0	118	1031
8:25 AM	12	0	2	0	0	0	0	0	0	37	29	0	4	20	0	0	104	1089
8:30 AM	19	0	4	0	0	0	0	0	0	29	28	0	2	28	0	0	110	1120
8:35 AM	13	0	2	0	0	0	0	0	0	34	24	0	3	25	0	0	101	1148
8:40 AM	14	0	2	0	0	0	0	0	0	33	25	0	1	22	0	0	97	1166
8:45 AM	8	0	6	0	0	0	0	0	0	30	23	0	0	29	0	0	96	1161
8:50 AM	18	0	5	0	0	0	0	0	0	18	21	0	2	20	0	0	84	1148
8:55 AM	16	0	0	0	0	0	0	0	0	29	19	0	1	14	0	0	79	1136

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	220	0	28	0	0	0	0	0	0	432	316	0	32	300	0	0	1328
Heavy Trucks	12	0	0		0	0	0		0	56	4		4	20	0		96
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

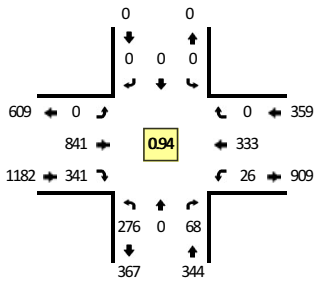
Type of peak hour being reported: Intersection Peak

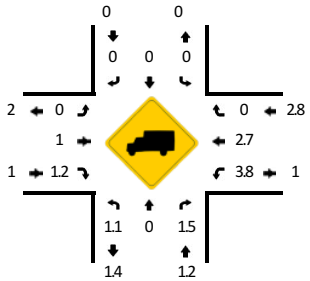
Method for determining peak hour: Total Entering Volume

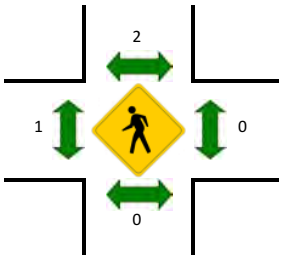
LOCATION: S Bent Ave -- Grand Ave
CITY/STATE: San Marcos, CA

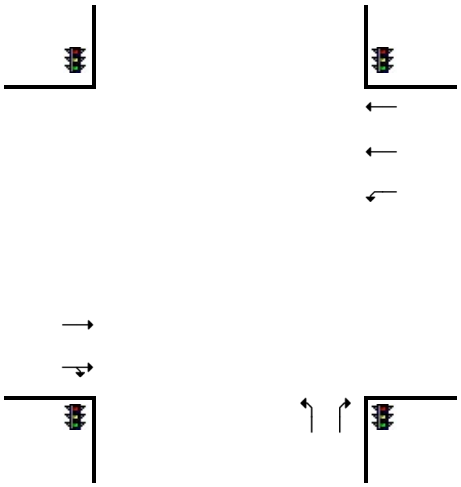
QC JOB #: 16384614
DATE: Thu, Nov 2 2023

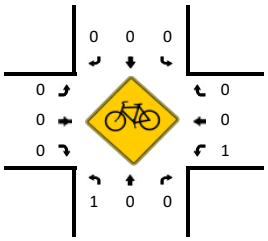
Peak-Hour: 4:20 PM -- 5:20 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

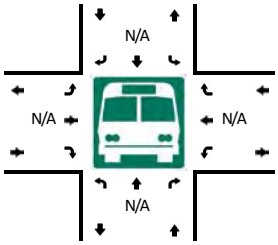


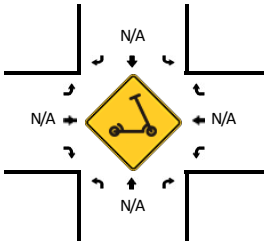












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	18	0	7	0	0	0	0	0	0	63	33	0	3	23	0	0	147	
4:05 PM	20	0	6	0	0	0	0	0	0	70	25	0	0	30	0	0	151	
4:10 PM	17	0	5	0	0	0	0	0	0	76	33	0	4	24	0	0	159	
4:15 PM	31	0	6	0	0	0	0	0	0	70	35	0	1	24	0	0	167	
4:20 PM	20	0	5	0	0	0	0	0	0	73	46	0	3	27	0	0	174	
4:25 PM	27	0	8	0	0	0	0	0	0	90	24	0	0	26	0	0	175	
4:30 PM	29	0	5	0	0	0	0	0	0	50	20	0	3	29	0	0	136	
4:35 PM	20	0	6	0	0	0	0	0	0	66	40	0	0	27	0	0	159	
4:40 PM	17	0	8	0	0	0	0	0	0	64	30	0	1	18	0	0	138	
4:45 PM	17	0	5	0	0	0	0	0	0	72	25	0	4	28	0	0	151	
4:50 PM	31	0	6	0	0	0	0	0	0	68	24	0	3	27	0	0	159	
4:55 PM	13	0	8	0	0	0	0	0	0	68	22	0	1	30	0	0	142	1858
5:00 PM	29	0	3	0	0	0	0	0	0	63	27	0	4	24	0	0	150	1861
5:05 PM	16	0	3	0	0	0	0	0	0	77	28	0	1	37	0	0	162	1872
5:10 PM	33	0	8	0	0	0	0	0	0	71	27	0	1	30	0	0	170	1883
5:15 PM	24	0	3	0	0	0	0	0	0	79	28	0	5	30	0	0	169	1885
5:20 PM	14	0	8	0	0	0	0	0	0	77	21	0	3	23	0	0	146	1857
5:25 PM	18	0	5	0	0	0	0	0	0	69	23	0	0	29	0	0	144	1826
5:30 PM	23	0	5	0	0	0	0	0	0	70	24	0	1	21	0	0	144	1834
5:35 PM	24	0	2	0	0	0	0	0	0	58	27	0	1	33	0	0	145	1820
5:40 PM	20	0	5	0	0	0	0	0	0	55	18	0	2	30	0	0	130	1812
5:45 PM	16	0	2	0	0	0	0	0	0	59	19	0	2	25	0	0	123	1784
5:50 PM	19	0	3	0	0	0	0	0	0	60	21	0	3	28	0	0	134	1759
5:55 PM	22	0	4	0	0	0	0	0	0	40	23	0	1	26	0	0	116	1733
6:00 PM	15	0	4	0	0	0	0	0	0	41	14	0	3	17	0	0	94	1677
6:05 PM	21	0	1	0	0	0	0	0	0	35	16	0	0	26	0	0	99	1614
6:10 PM	15	0	5	0	0	0	0	0	0	29	17	0	0	28	0	0	94	1538
6:15 PM	21	0	2	0	0	0	0	0	0	21	11	0	1	19	0	0	75	1444
6:20 PM	9	0	0	0	0	0	0	0	0	25	8	0	0	16	0	0	58	1356
6:25 PM	15	0	1	0	0	0	0	0	0	22	11	0	0	27	0	0	76	1288
6:30 PM	8	0	1	0	0	0	0	0	0	23	11	0	1	16	0	0	60	1204
6:35 PM	11	0	0	0	0	0	0	0	0	24	8	0	0	14	0	0	57	1116
6:40 PM	12	0	0	0	0	0	0	0	0	28	9	0	1	12	0	0	62	1048
6:45 PM	6	0	1	0	0	0	0	0	0	16	6	0	0	22	0	0	51	976
6:50 PM	12	0	1	0	0	0	0	0	0	29	15	0	0	24	0	0	81	923
6:55 PM	15	0	0	0	0	0	0	0	0	27	6	0	0	21	0	0	69	876

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	292	0	56	0	0	0	0	0	0	908	332	0	28	388	0	0	2004
Heavy Trucks	0	0	4		0	0	0		0	8	4		0	12	0		28
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

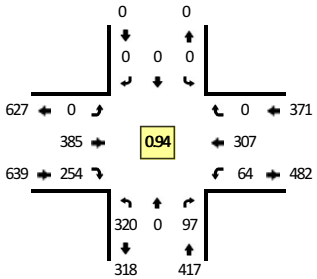
Type of peak hour being reported: Intersection Peak

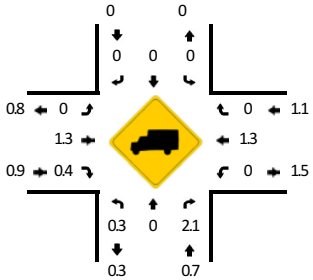
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Grand Ave
CITY/STATE: San Marcos, CA

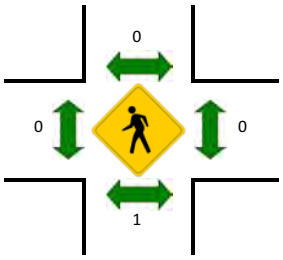
QC JOB #: 16384615
DATE: Sat, Nov 4 2023

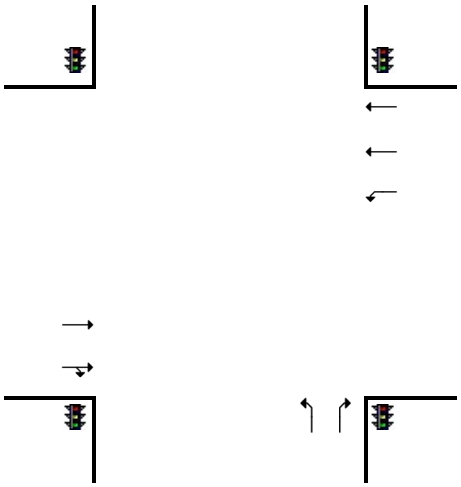
Peak-Hour: 12:25 PM -- 1:25 PM
Peak 15-Min: 12:55 PM -- 1:10 PM

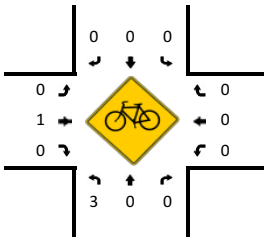


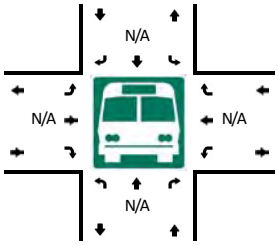


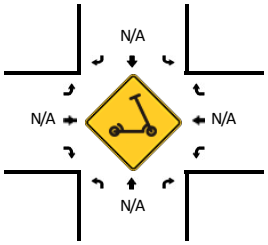
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Grand Ave (Eastbound)				Grand Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	27	0	5	0	0	0	0	0	0	30	26	0	1	24	0	0	113	
11:05 AM	15	0	6	0	0	0	0	0	0	23	21	0	4	30	0	0	99	
11:10 AM	15	0	9	0	0	0	0	0	0	31	14	0	3	34	0	0	106	
11:15 AM	21	0	6	0	0	0	0	0	0	30	20	0	6	26	0	0	109	
11:20 AM	18	0	8	0	0	0	0	0	0	23	17	0	4	21	0	0	91	
11:25 AM	17	0	2	0	0	0	0	0	0	46	21	0	2	27	0	0	115	
11:30 AM	27	0	5	0	0	0	0	0	0	21	15	0	5	17	0	0	90	
11:35 AM	18	0	4	0	0	0	0	0	0	29	23	0	1	22	0	0	97	
11:40 AM	31	0	4	0	0	0	0	0	0	17	19	0	2	17	0	0	90	
11:45 AM	18	0	5	0	0	0	0	0	0	27	24	0	2	21	0	0	97	
11:50 AM	36	0	8	0	0	0	0	0	0	28	21	0	1	33	0	0	127	
11:55 AM	16	0	6	0	0	0	0	0	0	22	17	0	5	24	0	0	90	1224
12:00 PM	24	0	6	0	0	0	0	0	0	34	24	0	4	24	0	0	116	1227
12:05 PM	15	0	8	0	0	0	0	0	0	44	18	0	2	28	0	0	115	1243
12:10 PM	21	0	5	0	0	0	0	0	0	37	29	0	3	29	0	0	124	1261
12:15 PM	11	0	3	0	0	0	0	0	0	38	21	0	1	23	0	0	97	1249
12:20 PM	21	0	6	0	0	0	0	0	0	39	20	0	2	24	0	0	112	1270
12:25 PM	28	0	10	0	0	0	0	0	0	26	17	0	7	19	0	0	107	1262
12:30 PM	28	0	10	0	0	0	0	0	0	38	31	0	9	37	0	0	153	1325
12:35 PM	20	0	7	0	0	0	0	0	0	30	17	0	5	31	0	0	110	1338
12:40 PM	12	0	7	0	0	0	0	0	0	25	12	0	5	21	0	0	82	1330
12:45 PM	26	0	7	0	0	0	0	0	0	37	22	0	5	20	0	0	117	1350
12:50 PM	24	0	7	0	0	0	0	0	0	31	20	0	7	16	0	0	105	1328
12:55 PM	30	0	11	0	0	0	0	0	0	38	26	0	4	28	0	0	137	1375
1:00 PM	30	0	8	0	0	0	0	0	0	31	18	0	3	28	0	0	118	1377
1:05 PM	36	0	6	0	0	0	0	0	0	31	24	0	4	24	0	0	125	1387
1:10 PM	33	0	11	0	0	0	0	0	0	26	15	0	6	22	0	0	113	1376
1:15 PM	25	0	5	0	0	0	0	0	0	31	25	0	3	32	0	0	121	1400
1:20 PM	28	0	8	0	0	0	0	0	0	41	27	0	6	29	0	0	139	1427
1:25 PM	21	0	6	0	0	0	0	0	0	24	23	0	3	24	0	0	101	1421
1:30 PM	25	0	5	0	0	0	0	0	0	24	26	0	4	30	0	0	114	1382
1:35 PM	17	0	11	0	0	0	0	0	0	34	33	0	4	22	0	0	121	1393
1:40 PM	12	0	7	0	0	0	0	0	0	25	22	0	0	34	0	0	100	1411
1:45 PM	25	0	7	0	0	0	0	0	0	20	22	0	5	31	0	0	110	1404
1:50 PM	22	0	6	0	0	0	0	0	0	27	15	0	5	28	0	0	103	1402
1:55 PM	21	0	4	0	0	0	0	0	0	31	21	0	4	21	0	0	102	1367

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	384	0	100	0	0	0	0	0	0	400	272	0	44	320	0	0	1520
Heavy Trucks	4	0	0		0	0	0		0	8	4		0	4	0		20
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

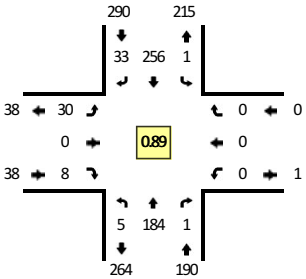
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

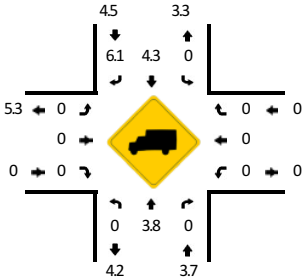
LOCATION: S Bent Ave -- Northern Costco Dwy
CITY/STATE: San Marcos, CA

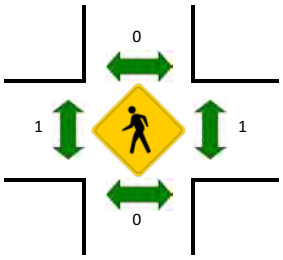
QC JOB #: 16384616
DATE: Thu, Nov 2 2023

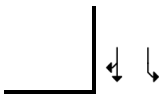
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:15 AM -- 8:30 AM

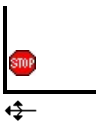


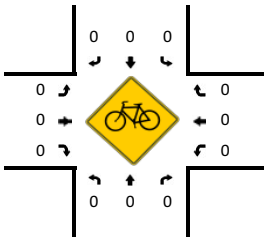
TRUE DATA TO IMPROVE MOBILITY

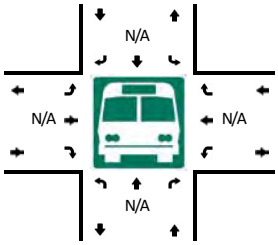


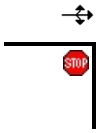


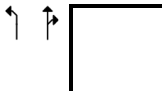


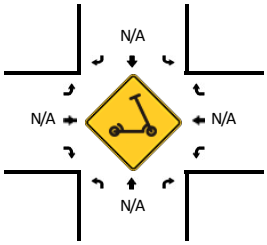












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Northern Costco Dwy (Eastbound)				Northern Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	5	0	0	0	5	4	0	0	0	0	0	0	0	0	0	14	
7:05 AM	0	2	0	0	0	6	2	0	0	0	0	0	0	0	0	0	10	
7:10 AM	0	8	0	0	0	7	5	0	1	0	0	0	0	0	0	0	21	
7:15 AM	0	5	0	0	0	8	0	0	3	0	0	0	0	0	0	0	16	
7:20 AM	1	5	0	0	0	4	4	0	2	0	1	0	0	0	0	0	17	
7:25 AM	0	9	0	0	0	9	1	0	2	0	2	0	0	0	0	0	23	
7:30 AM	0	8	0	0	0	17	0	0	2	0	1	0	0	0	0	0	28	
7:35 AM	0	14	0	0	0	11	1	0	1	0	1	0	0	0	0	0	28	
7:40 AM	1	7	0	0	0	13	3	0	2	0	0	0	0	0	0	0	26	
7:45 AM	0	16	0	0	0	20	1	0	2	0	0	0	0	0	0	0	39	
7:50 AM	1	6	0	0	0	21	2	0	0	0	0	0	0	0	0	0	30	
7:55 AM	1	12	0	0	0	23	2	0	2	0	1	0	0	0	0	0	41	293
8:00 AM	0	15	0	0	0	19	2	0	0	0	0	0	0	0	0	0	36	315
8:05 AM	0	20	0	0	0	12	0	0	2	0	1	0	0	0	0	0	35	340
8:10 AM	1	10	0	0	0	19	5	0	1	0	0	0	0	0	0	0	36	355
8:15 AM	1	23	0	0	0	18	3	0	7	0	2	0	0	0	0	0	54	393
8:20 AM	0	19	0	0	0	18	4	0	0	0	0	0	0	0	0	0	41	417
8:25 AM	0	16	0	0	0	32	2	0	0	0	1	0	0	0	0	0	51	445
8:30 AM	0	17	0	0	0	28	4	0	4	0	1	0	0	0	0	0	54	471
8:35 AM	0	12	0	0	0	25	0	1	1	0	0	0	0	0	0	0	39	482
8:40 AM	1	12	0	0	0	23	4	0	7	0	2	0	0	0	0	0	49	505
8:45 AM	0	10	1	0	0	21	2	0	3	0	0	0	0	0	0	0	37	503
8:50 AM	1	18	0	0	0	18	5	0	3	0	0	0	0	0	0	0	45	518
8:55 AM	0	16	1	0	0	16	2	0	2	0	0	0	0	0	0	0	37	514

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	232	0	0	0	272	36	0	28	0	12	0	0	0	0	0	584
Heavy Trucks	0	8	0		0	8	0		0	0	0		0	0	0		16
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

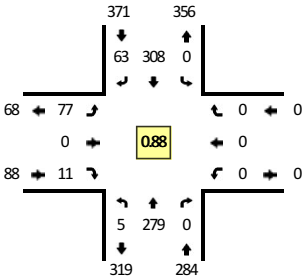
Type of peak hour being reported: Intersection Peak

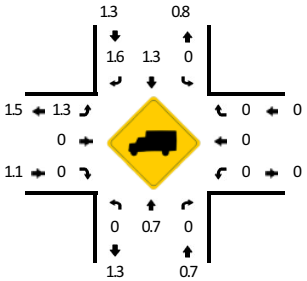
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Northern Costco Dwy
CITY/STATE: San Marcos, CA

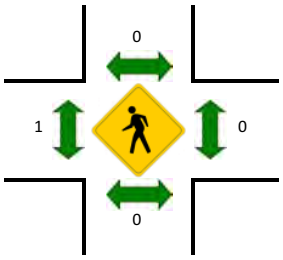
QC JOB #: 16384617
DATE: Thu, Nov 2 2023

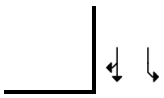
Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

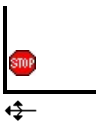


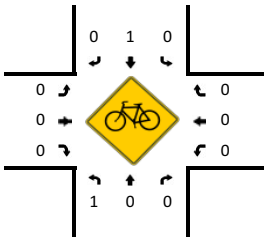


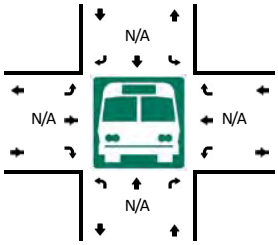
TRUE DATA TO IMPROVE MOBILITY

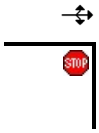


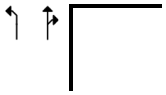


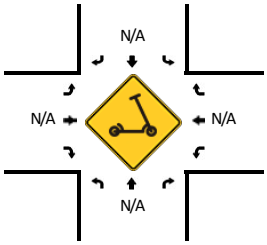












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Northern Costco Dwy (Eastbound)				Northern Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	21	0	0	0	28	8	0	5	0	0	0	0	0	0	0	62	
4:05 PM	0	22	0	0	0	24	2	0	3	0	2	0	0	0	0	0	53	
4:10 PM	0	22	0	0	0	33	4	0	2	0	1	0	0	0	0	0	62	
4:15 PM	0	30	0	0	0	27	9	0	7	0	1	0	0	0	0	0	74	
4:20 PM	0	19	0	0	0	40	9	0	4	0	1	0	0	0	0	0	73	
4:25 PM	0	30	0	0	0	21	2	0	10	0	2	0	0	0	0	0	65	
4:30 PM	0	24	0	0	0	20	3	0	5	0	1	0	0	0	0	0	53	
4:35 PM	1	23	0	0	0	36	4	0	6	0	0	0	0	0	0	0	70	
4:40 PM	3	24	0	0	0	29	2	0	5	0	0	0	0	0	0	0	63	
4:45 PM	1	19	0	0	0	26	4	0	4	0	2	0	0	0	0	0	56	
4:50 PM	0	23	0	0	0	18	7	0	9	0	0	0	0	0	0	0	57	
4:55 PM	0	16	0	0	0	25	1	0	9	0	1	0	0	0	0	0	52	740
5:00 PM	0	20	0	0	0	21	7	0	7	0	2	0	0	0	0	0	57	735
5:05 PM	0	21	0	0	0	22	9	0	4	0	0	0	0	0	0	0	56	738
5:10 PM	0	30	0	0	0	23	6	0	7	0	1	0	0	0	0	0	67	743
5:15 PM	0	22	0	0	0	27	7	0	2	0	0	0	0	0	0	0	58	727
5:20 PM	0	21	0	0	0	22	2	0	7	0	2	0	0	0	0	0	54	708
5:25 PM	0	18	0	0	0	16	7	0	2	0	3	0	0	0	0	0	46	689
5:30 PM	0	22	0	0	0	18	5	0	6	0	0	0	0	0	0	0	51	687
5:35 PM	0	21	0	0	0	24	6	0	5	0	0	0	0	0	0	0	56	673
5:40 PM	0	20	0	0	0	18	2	0	2	0	0	0	0	0	0	0	42	652
5:45 PM	0	14	0	0	0	15	6	0	5	0	1	0	0	0	0	0	41	637
5:50 PM	2	17	0	0	0	21	3	0	4	0	0	0	0	0	0	0	47	627
5:55 PM	0	25	0	0	0	20	4	0	3	0	1	0	0	0	0	0	53	628
6:00 PM	1	13	0	0	0	16	1	0	4	0	0	0	0	0	0	0	35	606
6:05 PM	0	18	0	0	0	15	0	0	5	0	0	0	0	0	0	0	38	588
6:10 PM	0	15	0	0	0	16	1	0	5	0	2	0	0	0	0	0	39	560
6:15 PM	0	20	0	0	0	10	1	0	2	0	1	0	0	0	0	0	34	536
6:20 PM	0	9	0	0	0	9	0	0	0	0	1	0	0	0	0	0	19	501
6:25 PM	0	13	0	0	0	12	0	0	3	0	0	0	0	0	0	0	28	483
6:30 PM	0	8	0	0	0	11	1	0	1	0	0	0	0	0	0	0	21	453
6:35 PM	0	11	0	0	0	4	0	0	1	0	1	0	0	0	0	0	17	414
6:40 PM	0	10	0	0	0	14	0	0	1	0	0	0	0	0	0	0	25	397
6:45 PM	0	8	0	0	0	6	0	0	0	0	0	0	0	0	0	0	14	370
6:50 PM	0	11	0	0	0	15	0	0	1	0	1	0	0	0	0	0	28	351
6:55 PM	0	16	0	0	0	6	0	0	0	0	0	0	0	0	0	0	22	320

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	316	0	0	0	352	80	0	84	0	16	0	0	0	0	0	848
Heavy Trucks	0	0	0		0	8	0		4	0	0		0	0	0		12
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	4	0	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

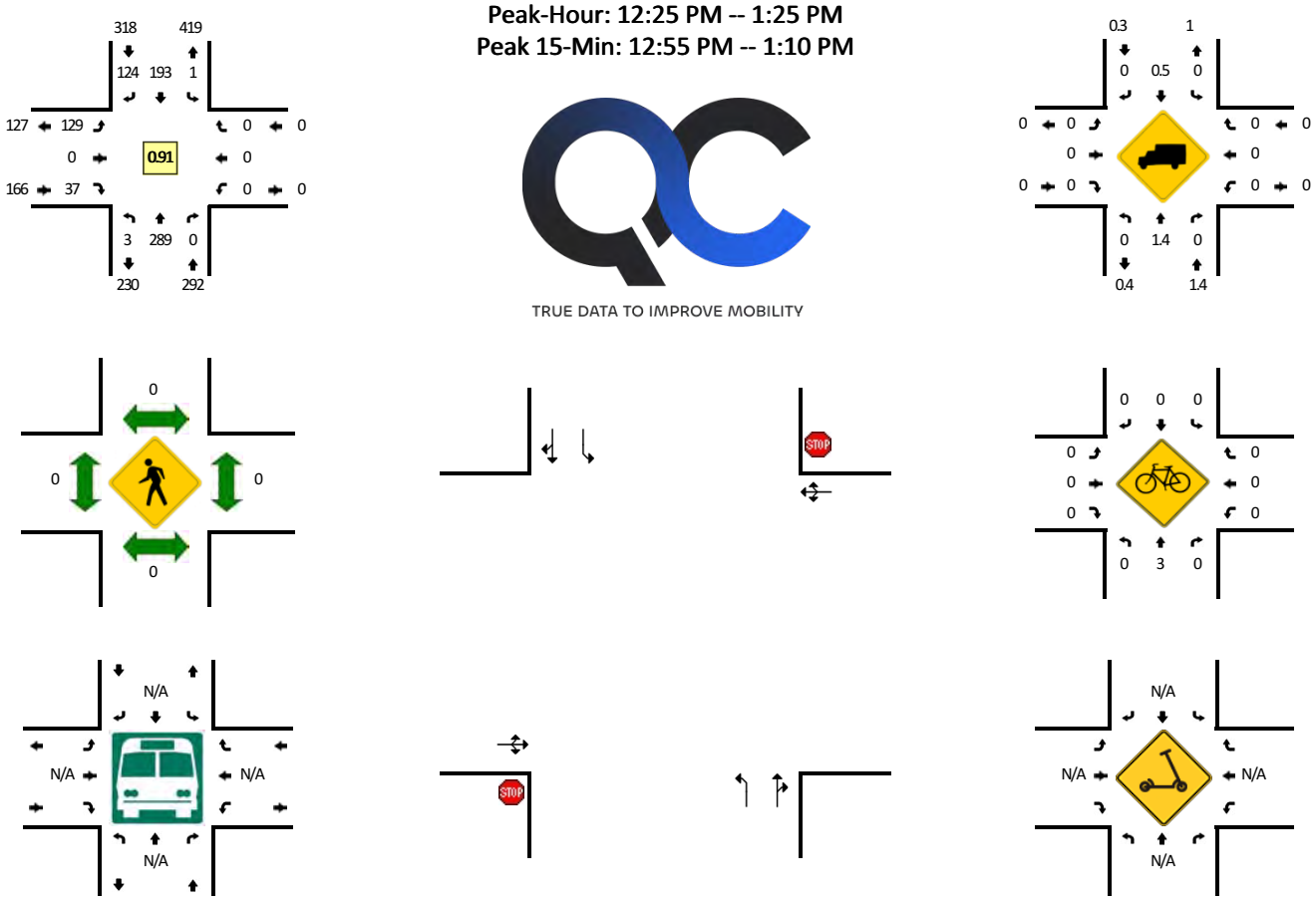
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Northern Costco Dwy
CITY/STATE: San Marcos, CA

QC JOB #: 16384618
DATE: Sat, Nov 4 2023

Peak-Hour: 12:25 PM -- 1:25 PM
Peak 15-Min: 12:55 PM -- 1:10 PM

TRUE DATA TO IMPROVE MOBILITY



5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Northern Costco Dwy (Eastbound)				Northern Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	21	0	0	0	19	8	0	9	0	2	0	0	0	0	0	59	
11:05 AM	0	14	0	0	0	15	10	0	11	0	1	0	0	0	0	0	51	
11:10 AM	1	14	0	0	0	9	8	0	8	0	5	0	0	0	0	0	45	
11:15 AM	0	21	0	0	0	15	10	0	7	0	2	0	0	0	0	0	55	
11:20 AM	0	16	0	0	0	14	9	0	8	0	2	0	0	0	0	0	49	
11:25 AM	2	15	0	0	0	13	8	0	9	0	1	0	0	0	0	0	48	
11:30 AM	0	20	0	0	0	9	11	0	8	0	2	0	0	0	0	0	50	
11:35 AM	0	15	0	0	0	17	7	1	9	0	0	0	0	0	0	0	49	
11:40 AM	0	16	0	0	0	13	7	0	15	0	6	0	0	0	0	0	57	
11:45 AM	0	18	0	0	0	14	11	0	7	0	4	0	0	0	0	0	54	
11:50 AM	1	34	0	0	0	12	10	0	9	0	3	0	0	0	0	0	69	
11:55 AM	1	17	0	0	0	13	11	0	5	0	3	0	0	0	0	0	50	636
12:00 PM	0	20	0	0	0	16	11	0	9	0	2	0	0	0	0	0	58	635
12:05 PM	0	20	0	0	0	10	9	0	7	0	4	0	0	0	0	0	50	634
12:10 PM	1	17	0	0	0	21	10	0	5	0	4	0	0	0	0	0	58	647
12:15 PM	1	10	0	0	0	12	11	0	7	0	3	0	0	0	0	0	44	636
12:20 PM	1	22	0	0	0	16	8	0	8	0	2	0	0	0	0	0	57	644
12:25 PM	0	22	0	0	0	11	14	0	12	0	2	0	0	0	0	0	61	657
12:30 PM	2	26	0	0	0	23	15	0	13	0	2	0	0	0	0	0	81	688
12:35 PM	0	21	0	0	0	8	14	0	10	0	1	0	0	0	0	0	54	693
12:40 PM	1	13	0	0	0	13	5	0	5	0	4	0	0	0	0	0	41	677
12:45 PM	0	22	0	0	0	17	8	0	9	0	5	0	0	0	0	0	61	684
12:50 PM	0	23	0	0	0	18	11	1	10	0	1	0	0	0	0	0	64	679
12:55 PM	0	23	0	0	0	14	15	0	18	0	6	0	0	0	0	0	76	705
1:00 PM	0	24	0	0	0	17	4	0	11	0	4	0	0	0	0	0	60	707
1:05 PM	0	35	0	0	0	22	6	0	11	0	4	0	0	0	0	0	78	735
1:10 PM	0	32	0	0	0	13	8	0	6	0	1	0	0	0	0	0	60	737
1:15 PM	0	22	0	0	0	20	9	0	11	0	2	0	0	0	0	0	64	757
1:20 PM	0	26	0	0	0	17	15	0	13	0	5	0	0	0	0	0	76	776
1:25 PM	0	12	0	0	0	14	12	0	10	0	0	0	0	0	0	0	48	763
1:30 PM	0	20	0	0	0	15	16	0	9	0	2	0	0	0	0	0	62	744
1:35 PM	0	24	0	0	0	19	18	0	7	0	4	0	0	0	0	0	72	762
1:40 PM	0	11	0	0	0	9	12	0	8	0	1	0	0	0	0	0	41	762
1:45 PM	0	18	0	0	0	18	9	0	12	0	2	0	0	0	0	0	59	760
1:50 PM	0	19	0	0	0	10	9	1	10	0	5	0	0	0	0	0	54	750
1:55 PM	0	22	0	0	0	11	13	0	7	0	3	0	0	0	0	0	56	730

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	328	0	0	0	212	100	0	160	0	56	0	0	0	0	0	856
Heavy Trucks	0	4	0		0	4	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

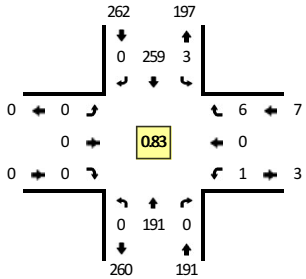
Type of peak hour being reported: Intersection Peak

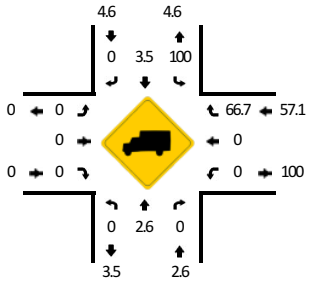
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Industrial Dwy
CITY/STATE: San Marcos, CA

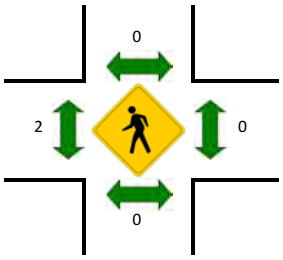
QC JOB #: 16384619
DATE: Thu, Nov 2 2023

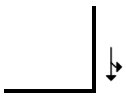
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:25 AM -- 8:40 AM

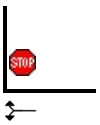


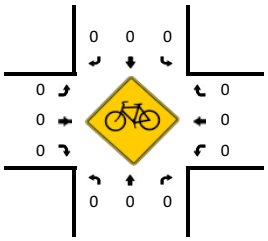


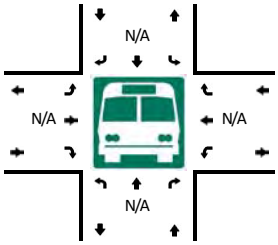
TRUE DATA TO IMPROVE MOBILITY

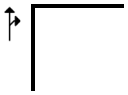


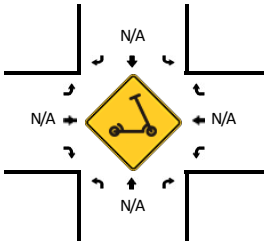












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Industrial Dwy (Eastbound)				Industrial Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	4	0	0	1	4	0	0	0	0	0	0	0	0	1	0	10	
7:05 AM	0	1	0	0	0	6	0	0	0	0	0	0	1	0	1	0	9	
7:10 AM	0	7	1	0	0	7	0	0	0	0	0	0	0	0	1	0	16	
7:15 AM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	13	
7:20 AM	0	6	0	0	0	5	0	0	0	0	0	0	0	0	0	0	11	
7:25 AM	0	9	0	0	0	11	0	0	0	0	0	0	0	0	0	0	20	
7:30 AM	0	8	0	0	0	17	0	0	0	0	0	0	1	0	0	0	26	
7:35 AM	0	14	0	0	0	13	0	0	0	0	0	0	0	0	0	0	27	
7:40 AM	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0	0	22	
7:45 AM	0	15	0	0	0	18	0	0	0	0	0	0	0	0	1	0	34	
7:50 AM	0	7	0	0	0	20	0	0	0	0	0	0	1	0	0	0	28	
7:55 AM	0	14	0	0	0	22	0	0	0	0	0	0	0	0	0	0	36	252
8:00 AM	0	15	0	0	0	17	0	0	0	0	0	0	0	0	0	0	32	274
8:05 AM	0	20	0	0	0	15	0	0	0	0	0	0	0	0	2	0	37	302
8:10 AM	0	9	0	0	0	19	0	0	0	0	0	0	0	0	1	0	29	315
8:15 AM	0	23	0	0	0	20	0	0	0	0	0	0	0	0	0	0	43	345
8:20 AM	0	19	0	0	0	17	0	0	0	0	0	0	0	0	0	0	36	370
8:25 AM	0	16	0	0	1	33	0	0	0	0	0	0	0	0	0	0	50	400
8:30 AM	0	16	0	0	1	27	0	0	0	0	0	0	0	0	2	0	46	420
8:35 AM	0	15	0	0	0	26	0	0	0	0	0	0	1	0	1	0	43	436
8:40 AM	0	14	0	0	0	25	0	0	0	0	0	0	0	0	0	0	39	453
8:45 AM	0	12	0	0	0	19	0	0	0	0	0	0	0	0	0	0	31	450
8:50 AM	0	18	0	0	1	19	0	0	0	0	0	0	0	0	0	0	38	460
8:55 AM	0	18	0	0	1	15	0	0	0	0	0	0	0	0	0	0	34	458

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	188	0	0	8	344	0	0	0	0	0	0	4	0	12	0	556
Heavy Trucks	0	0	0		8	12	0		0	0	0		0	0	12		32
Buses																	
Pedestrians		0				0				8				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

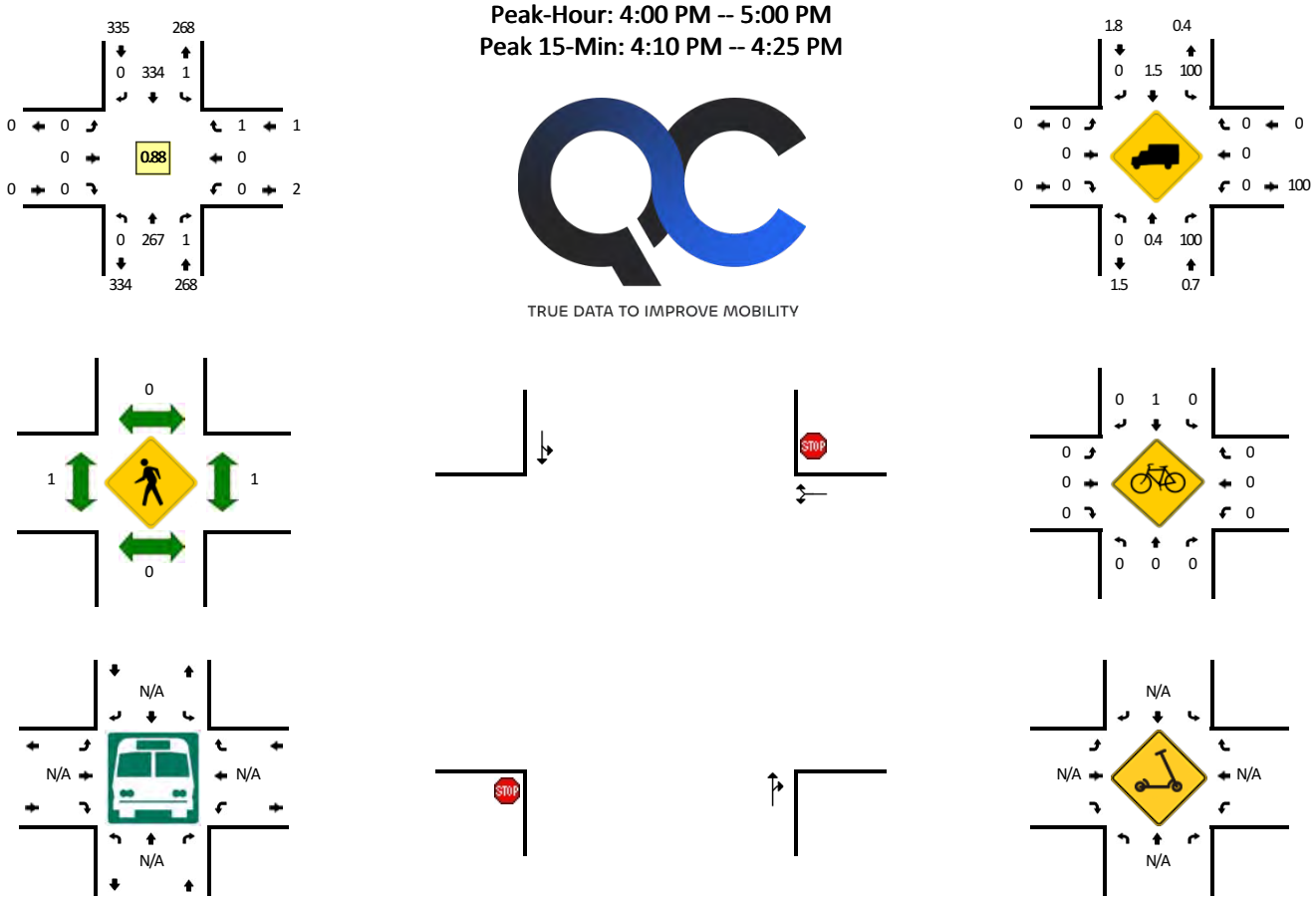
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Industrial Dwy
CITY/STATE: San Marcos, CA

QC JOB #: 16384620
DATE: Thu, Nov 2 2023

Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:10 PM -- 4:25 PM

TRUE DATA TO IMPROVE MOBILITY



5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Industrial Dwy (Eastbound)				Industrial Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	19	0	0	0	27	0	0	0	0	0	0	0	0	1	0	47	
4:05 PM	0	22	0	0	0	25	0	0	0	0	0	0	0	0	0	0	47	
4:10 PM	0	22	0	0	0	33	0	0	0	0	0	0	0	0	0	0	55	
4:15 PM	0	29	0	0	0	28	0	0	0	0	0	0	0	0	0	0	57	
4:20 PM	0	19	0	0	1	39	0	0	0	0	0	0	0	0	0	0	59	
4:25 PM	0	28	0	0	0	25	0	0	0	0	0	0	0	0	0	0	53	
4:30 PM	0	23	0	0	0	20	0	0	0	0	0	0	0	0	0	0	43	
4:35 PM	0	24	0	0	0	37	0	0	0	0	0	0	0	0	0	0	61	
4:40 PM	0	25	0	0	0	29	0	0	0	0	0	0	0	0	0	0	54	
4:45 PM	0	20	0	0	0	28	0	0	0	0	0	0	0	0	0	0	48	
4:50 PM	0	22	0	0	0	18	0	0	0	0	0	0	0	0	0	0	40	
4:55 PM	0	14	1	0	0	25	0	0	0	0	0	0	0	0	0	0	40	604
5:00 PM	0	19	0	0	0	24	0	0	0	0	0	0	0	0	0	0	43	600
5:05 PM	0	20	0	0	0	22	0	0	0	0	0	0	0	0	1	0	43	596
5:10 PM	0	29	0	0	0	24	0	0	0	0	0	0	0	0	1	0	54	595
5:15 PM	0	21	0	0	0	25	0	0	0	0	0	0	0	0	1	0	47	585
5:20 PM	0	20	0	0	0	24	0	0	0	0	0	0	0	0	1	0	45	571
5:25 PM	0	19	0	0	0	18	0	0	0	0	0	0	0	0	0	0	37	555
5:30 PM	0	20	0	0	1	19	0	0	0	0	0	0	0	0	1	0	41	553
5:35 PM	0	21	1	0	0	22	0	0	0	0	0	0	0	0	0	0	44	536
5:40 PM	0	21	0	0	1	19	0	0	0	0	0	0	0	0	0	0	41	523
5:45 PM	0	13	0	0	0	15	0	0	0	0	0	0	0	0	0	0	28	503
5:50 PM	0	19	0	0	1	21	0	0	0	0	0	0	0	0	0	0	41	504
5:55 PM	0	26	0	0	0	21	0	0	0	0	0	0	0	0	0	0	47	511
6:00 PM	0	12	0	0	0	16	0	0	0	0	0	0	1	0	1	0	30	498
6:05 PM	0	17	0	0	0	15	0	0	0	0	0	0	0	0	1	0	33	488
6:10 PM	0	15	0	0	0	17	0	0	0	0	0	0	0	0	0	0	32	466
6:15 PM	0	19	0	0	0	12	0	0	0	0	0	0	0	0	1	0	32	451
6:20 PM	0	9	0	0	0	10	0	0	0	0	0	0	0	0	0	0	19	425
6:25 PM	0	13	0	0	0	12	0	0	0	0	0	0	0	0	0	0	25	413
6:30 PM	0	8	0	0	0	11	0	0	0	0	0	0	0	0	0	0	19	391
6:35 PM	0	11	0	0	0	4	0	0	0	0	0	0	0	0	0	0	15	362
6:40 PM	0	9	0	0	0	15	0	0	0	0	0	0	0	0	1	0	25	346
6:45 PM	0	8	0	0	0	6	0	0	0	0	0	0	0	0	0	0	14	332
6:50 PM	0	11	0	0	0	16	0	0	0	0	0	0	0	0	0	0	27	318
6:55 PM	0	16	0	0	0	6	0	0	0	0	0	0	0	0	0	0	22	293

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	280	0	0	4	400	0	0	0	0	0	0	0	0	0	0	684
Heavy Trucks	0	0	0		4	4	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

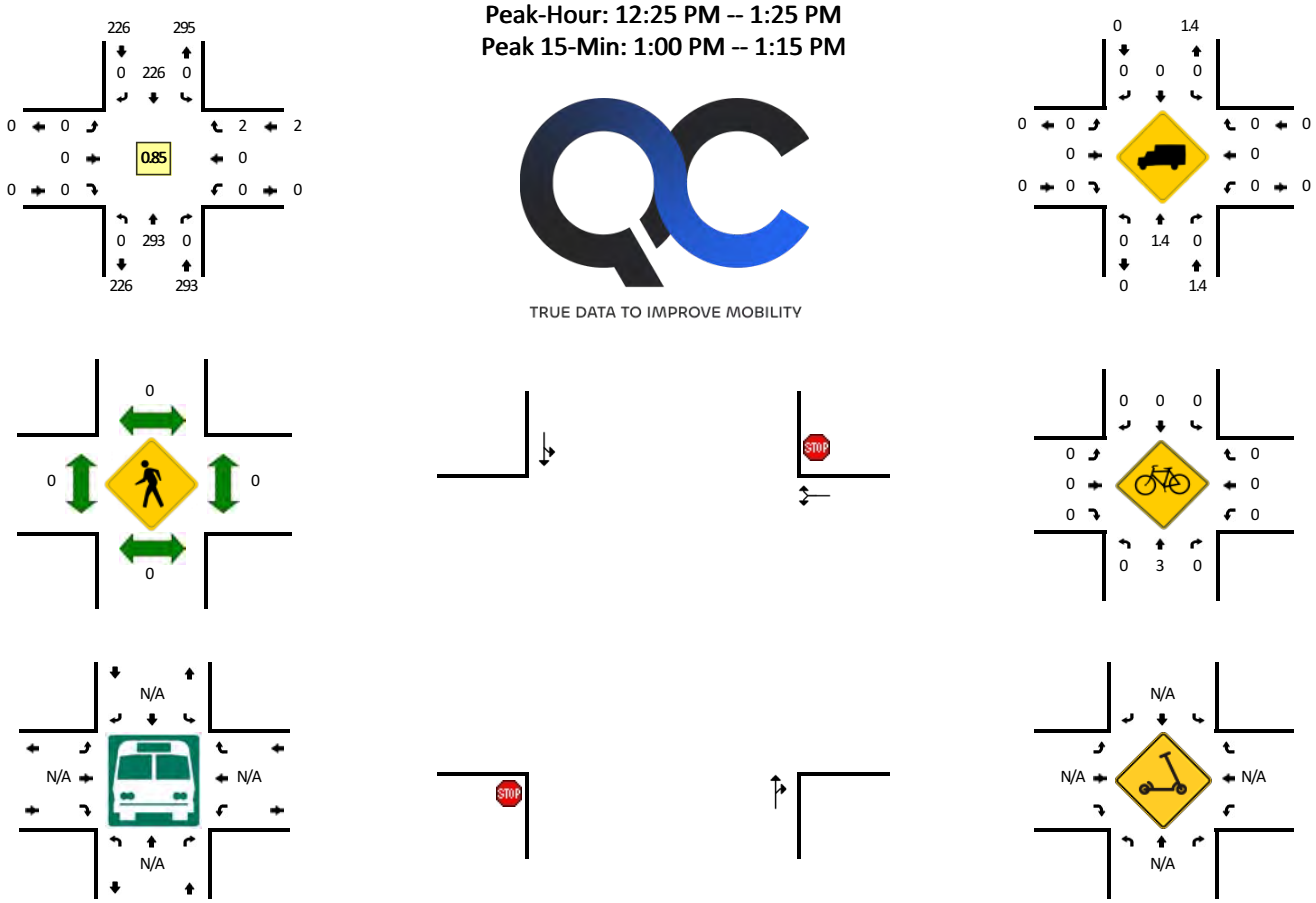
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Industrial Dwy
CITY/STATE: San Marcos, CA

QC JOB #: 16384621
DATE: Sat, Nov 4 2023

Peak-Hour: 12:25 PM -- 1:25 PM
Peak 15-Min: 1:00 PM -- 1:15 PM



TRUE DATA TO IMPROVE MOBILITY

5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Industrial Dwy (Eastbound)				Industrial Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	20	0	0	0	21	0	0	0	0	0	0	0	0	0	0	41	
11:05 AM	0	14	0	0	0	15	0	0	0	0	0	0	0	0	0	0	29	
11:10 AM	0	16	0	0	0	11	0	0	0	0	0	0	0	0	0	0	27	
11:15 AM	0	22	0	0	0	19	0	0	0	0	0	0	0	0	0	0	41	
11:20 AM	0	15	0	0	0	16	0	0	0	0	0	0	0	0	0	0	31	
11:25 AM	0	18	0	0	0	14	0	0	0	0	0	0	0	0	0	0	32	
11:30 AM	0	19	0	0	0	11	0	0	0	0	0	0	0	0	0	0	30	
11:35 AM	0	16	0	0	0	14	0	0	0	0	0	0	0	0	0	0	30	
11:40 AM	0	15	0	0	0	20	0	0	0	0	0	0	0	0	0	0	35	
11:45 AM	0	20	0	0	0	19	0	0	0	0	0	0	0	0	0	0	39	
11:50 AM	0	34	0	0	0	16	0	0	0	0	0	0	0	0	0	0	50	
11:55 AM	0	17	0	0	0	17	0	0	0	0	0	0	0	0	0	0	34	419
12:00 PM	0	21	0	0	0	18	0	0	0	0	0	0	0	0	0	0	39	417
12:05 PM	0	20	0	0	0	13	0	0	0	0	0	0	1	0	0	0	34	422
12:10 PM	0	18	0	0	0	24	0	0	0	0	0	0	0	0	0	0	42	437
12:15 PM	0	11	0	0	0	17	0	0	0	0	0	0	0	0	0	0	28	424
12:20 PM	0	22	0	0	0	17	0	0	0	0	0	0	0	0	0	0	39	432
12:25 PM	0	25	0	0	0	13	0	0	0	0	0	0	0	0	0	0	38	438
12:30 PM	0	28	0	0	0	25	0	0	0	0	0	0	0	0	0	0	53	461
12:35 PM	0	20	0	0	0	9	0	0	0	0	0	0	0	0	0	0	29	460
12:40 PM	0	14	0	0	0	16	0	0	0	0	0	0	0	0	0	0	30	455
12:45 PM	0	23	0	0	0	22	0	0	0	0	0	0	0	0	0	0	45	461
12:50 PM	0	23	0	0	0	19	0	0	0	0	0	0	0	0	0	0	42	453
12:55 PM	0	22	0	0	0	20	0	0	0	0	0	0	0	0	0	0	42	461
1:00 PM	0	23	0	0	0	22	0	0	0	0	0	0	0	0	1	0	46	468
1:05 PM	0	37	0	0	0	24	0	0	0	0	0	0	0	0	0	0	61	495
1:10 PM	0	33	0	0	0	14	0	0	0	0	0	0	0	0	0	0	47	500
1:15 PM	0	20	0	0	0	22	0	0	0	0	0	0	0	0	1	0	43	515
1:20 PM	0	25	0	0	0	20	0	0	0	0	0	0	0	0	0	0	45	521
1:25 PM	0	11	0	0	0	17	0	0	0	0	0	0	0	0	0	0	28	511
1:30 PM	0	19	0	0	0	17	0	0	0	0	0	0	0	0	1	0	37	495
1:35 PM	0	24	0	0	0	23	0	0	0	0	0	0	0	0	0	0	47	513
1:40 PM	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	20	503
1:45 PM	0	20	0	0	0	19	0	0	0	0	0	0	0	0	0	0	39	497
1:50 PM	0	19	0	0	0	16	0	0	0	0	0	0	0	0	0	0	35	490
1:55 PM	0	23	0	0	0	12	0	0	0	0	0	0	0	0	0	0	35	483

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	372	0	0	0	240	0	0	0	0	0	0	0	0	4	0	616
Heavy Trucks	0	8	0		0	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

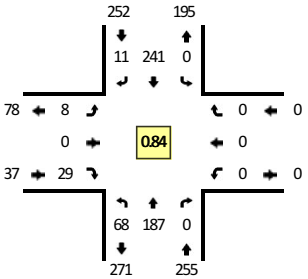
Method for determining peak hour: Total Entering Volume

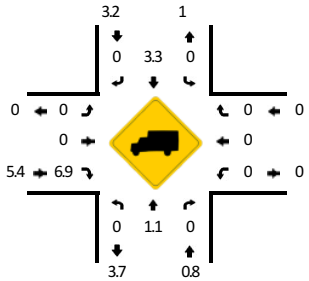
LOCATION: S Bent Ave -- Middle Costco Dwy
CITY/STATE: San Marcos, CA

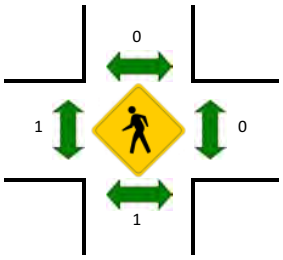
QC JOB #: 16384622
DATE: Thu, Nov 2 2023

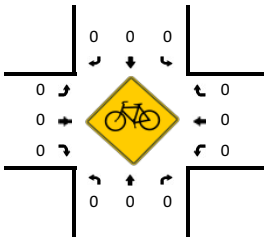
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:25 AM -- 8:40 AM

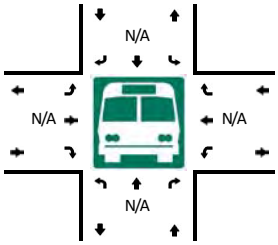
TRUE DATA TO IMPROVE MOBILITY

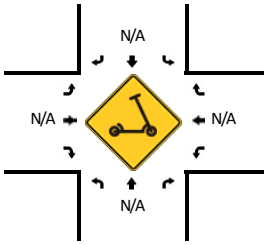












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Middle Costco Dwy (Eastbound)				Middle Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	9	
7:05 AM	3	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	11	
7:10 AM	2	7	0	0	0	7	0	0	1	0	1	0	0	0	0	0	18	
7:15 AM	0	5	0	0	0	8	0	0	0	0	1	0	0	0	0	0	14	
7:20 AM	2	6	0	0	0	5	0	0	0	0	0	0	0	0	0	0	13	
7:25 AM	2	8	0	0	0	10	1	0	1	0	6	0	0	0	0	0	28	
7:30 AM	2	7	0	0	0	18	0	0	1	0	1	0	0	0	0	0	29	
7:35 AM	2	13	0	1	0	12	0	0	1	0	2	0	0	0	0	0	31	
7:40 AM	1	8	0	0	0	13	0	0	1	0	1	0	0	0	0	0	24	
7:45 AM	4	13	0	0	0	18	0	0	2	0	2	0	0	0	0	0	39	
7:50 AM	3	6	0	0	0	20	1	0	1	0	3	0	0	0	0	0	34	
7:55 AM	2	14	0	0	0	20	0	0	0	0	1	0	0	0	0	0	37	287
8:00 AM	6	16	0	0	0	17	0	0	0	0	1	0	0	0	0	0	40	318
8:05 AM	7	19	0	0	0	14	0	0	0	0	4	0	0	0	0	0	44	351
8:10 AM	6	7	0	0	0	19	1	0	2	0	1	0	0	0	0	0	36	369
8:15 AM	3	23	0	1	0	20	0	0	0	0	2	0	0	0	0	0	49	404
8:20 AM	4	19	0	0	0	17	0	0	0	0	0	0	0	0	0	0	40	431
8:25 AM	7	18	0	0	0	30	3	0	0	0	2	0	0	0	0	0	60	463
8:30 AM	6	15	0	0	0	26	1	0	1	0	4	0	0	0	0	0	53	487
8:35 AM	8	14	0	0	0	26	0	0	0	0	0	0	0	0	0	0	48	504
8:40 AM	3	12	0	0	0	23	2	0	1	0	4	0	0	0	0	0	45	525
8:45 AM	8	12	0	0	0	18	1	0	0	0	3	0	0	0	0	0	42	528
8:50 AM	5	15	0	0	0	18	1	0	3	0	5	0	0	0	0	0	47	541
8:55 AM	4	17	0	0	0	13	2	0	1	0	3	0	0	0	0	0	40	544

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	84	188	0	0	0	328	16	0	4	0	24	0	0	0	0	0	644
Heavy Trucks	0	0	0		0	12	0		0	0	4		0	0	0		16
Buses																	
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

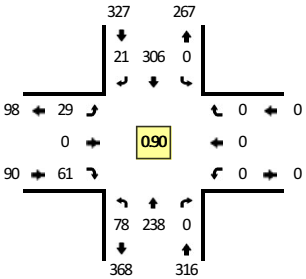
Type of peak hour being reported: Intersection Peak

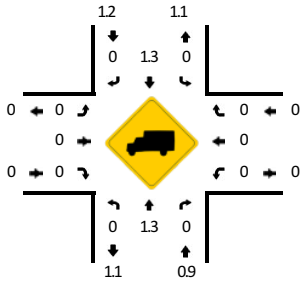
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Middle Costco Dwy
CITY/STATE: San Marcos, CA

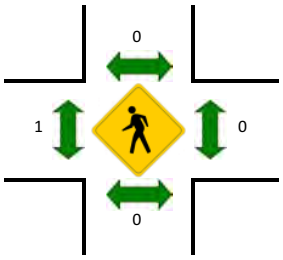
QC JOB #: 16384623
DATE: Thu, Nov 2 2023

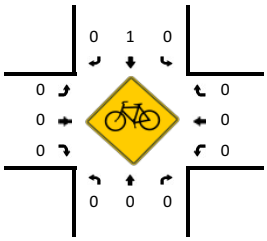
Peak-Hour: 4:10 PM -- 5:10 PM
Peak 15-Min: 4:10 PM -- 4:25 PM

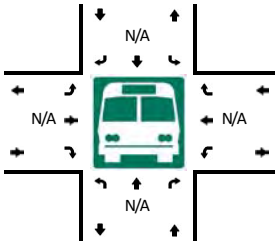


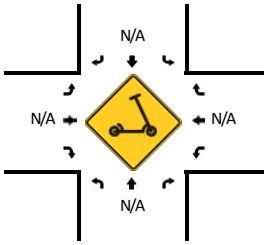


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Middle Costco Dwy (Eastbound)				Middle Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	17	0	0	0	25	2	0	2	0	4	0	0	0	0	0	55	
4:05 PM	3	19	0	0	0	24	1	0	3	0	4	0	0	0	0	0	54	
4:10 PM	7	17	0	1	0	30	2	0	5	0	8	0	0	0	0	0	70	
4:15 PM	4	26	0	0	0	26	3	0	3	0	3	0	0	0	0	0	65	
4:20 PM	6	19	0	0	0	36	3	0	0	0	4	0	0	0	0	0	68	
4:25 PM	6	22	0	0	0	24	0	0	7	0	6	0	0	0	0	0	65	
4:30 PM	5	20	0	0	0	18	2	0	2	0	5	0	0	0	0	0	52	
4:35 PM	8	22	0	0	0	36	1	0	2	0	6	0	0	0	0	0	75	
4:40 PM	8	23	0	0	0	29	0	0	2	0	6	0	0	0	0	0	68	
4:45 PM	7	21	0	0	0	26	1	0	0	0	2	0	0	0	0	0	57	
4:50 PM	8	19	0	0	0	18	1	0	2	0	3	0	0	0	0	0	51	
4:55 PM	6	14	0	0	0	20	5	0	2	0	3	0	0	0	0	0	50	730
5:00 PM	5	17	0	0	0	21	3	0	2	0	7	0	0	0	0	0	55	730
5:05 PM	7	18	0	0	0	22	0	0	2	0	8	0	0	0	0	0	57	733
5:10 PM	3	27	0	0	0	23	1	0	2	0	7	0	0	0	0	0	63	726
5:15 PM	2	20	0	0	0	22	3	0	1	0	4	0	0	0	0	0	52	713
5:20 PM	6	18	0	0	0	21	3	0	2	0	5	0	0	0	0	0	55	700
5:25 PM	7	17	0	0	0	18	0	0	2	0	9	0	0	0	0	0	53	688
5:30 PM	7	18	0	0	0	19	0	0	2	0	4	0	0	0	0	0	50	686
5:35 PM	6	20	0	0	0	21	0	0	2	0	6	0	0	0	0	0	55	666
5:40 PM	6	18	0	0	0	17	3	0	3	0	7	0	0	0	0	0	54	652
5:45 PM	2	11	0	0	0	13	2	0	2	0	7	0	0	0	0	0	37	632
5:50 PM	6	19	0	0	0	20	1	1	0	0	7	0	0	0	0	0	54	635
5:55 PM	0	23	0	0	0	21	0	0	2	0	5	0	0	0	0	0	51	636
6:00 PM	0	14	0	0	0	17	1	0	1	0	4	0	0	0	0	0	37	618
6:05 PM	0	16	0	0	0	14	1	0	0	0	6	0	0	0	0	0	37	598
6:10 PM	0	14	0	0	0	17	0	0	1	0	6	0	0	0	0	0	38	573
6:15 PM	0	16	0	1	0	11	0	0	3	0	4	0	0	0	0	0	35	556
6:20 PM	1	9	0	0	0	11	0	0	0	0	2	0	0	0	0	0	23	524
6:25 PM	1	13	0	0	0	12	0	0	0	0	1	0	0	0	0	0	27	498
6:30 PM	0	8	0	0	0	11	0	0	0	0	2	0	0	0	0	0	21	469
6:35 PM	0	10	0	0	0	4	0	0	1	0	2	0	0	0	0	0	17	431
6:40 PM	1	9	0	0	0	14	1	0	0	0	0	0	0	0	0	0	25	402
6:45 PM	0	8	0	0	0	6	0	0	0	0	1	0	0	0	0	0	15	380
6:50 PM	1	12	0	0	0	15	1	0	0	0	0	0	0	0	0	0	29	355
6:55 PM	0	15	0	0	0	6	0	0	0	0	0	0	0	0	0	0	21	325

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	68	248	0	4	0	368	32	0	32	0	60	0	0	0	0	0	812
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

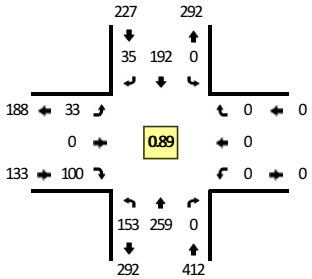
Type of peak hour being reported: Intersection Peak

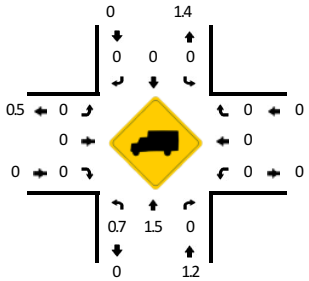
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Middle Costco Dwy
CITY/STATE: San Marcos, CA

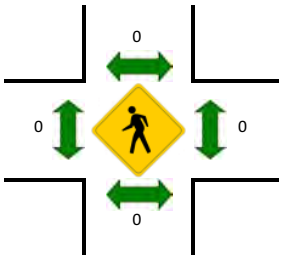
QC JOB #: 16384624
DATE: Sat, Nov 4 2023

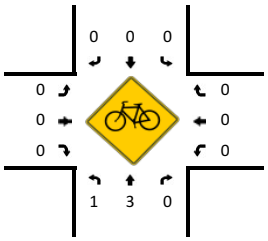
Peak-Hour: 12:25 PM -- 1:25 PM
Peak 15-Min: 1:00 PM -- 1:15 PM

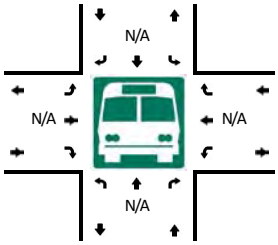


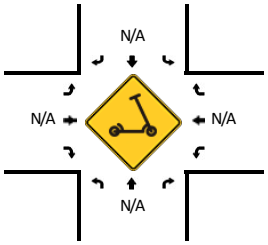


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Middle Costco Dwy (Eastbound)				Middle Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	10	16	0	0	0	19	2	0	4	0	9	0	0	0	0	0	60	
11:05 AM	16	12	0	0	0	9	6	0	2	0	5	0	0	0	0	0	50	
11:10 AM	13	12	0	0	0	9	2	0	3	0	4	0	0	0	0	0	43	
11:15 AM	13	18	0	1	0	16	3	0	4	0	5	0	0	0	0	0	60	
11:20 AM	13	12	0	0	0	13	3	0	3	0	8	0	0	0	0	0	52	
11:25 AM	8	17	0	0	0	9	5	0	1	0	9	0	0	0	0	0	49	
11:30 AM	15	15	0	0	0	10	1	0	4	0	9	0	0	0	0	0	54	
11:35 AM	13	14	0	0	0	13	1	0	2	0	9	0	0	0	0	0	52	
11:40 AM	13	15	0	0	0	17	3	0	1	0	8	0	0	0	0	0	57	
11:45 AM	14	19	0	0	0	17	2	0	1	0	7	0	0	0	0	0	60	
11:50 AM	11	29	0	0	0	15	0	0	4	0	10	0	0	0	0	0	69	
11:55 AM	12	17	0	0	0	14	3	0	0	0	15	0	0	0	0	0	61	667
12:00 PM	22	16	0	0	0	16	2	0	5	0	13	0	0	0	0	0	74	681
12:05 PM	10	19	0	0	0	21	3	0	1	0	10	0	0	0	0	0	64	695
12:10 PM	12	17	0	0	0	20	3	0	2	0	6	0	0	0	0	0	60	712
12:15 PM	14	8	0	0	0	17	1	0	2	0	10	0	0	0	0	0	52	704
12:20 PM	8	19	0	0	0	12	5	0	3	0	8	0	0	0	0	0	55	707
12:25 PM	14	20	0	0	0	11	2	0	4	0	6	0	0	0	0	0	57	715
12:30 PM	24	26	0	0	0	20	5	0	3	0	11	0	0	0	0	0	89	750
12:35 PM	10	18	0	0	0	6	3	0	1	0	6	0	0	0	0	0	44	742
12:40 PM	13	12	0	0	0	13	3	0	2	0	9	0	0	0	0	0	52	737
12:45 PM	14	21	0	0	0	20	2	0	2	0	9	0	0	0	0	0	68	745
12:50 PM	13	20	0	0	0	17	2	0	3	0	8	0	0	0	0	0	63	739
12:55 PM	9	20	0	0	0	17	3	0	3	0	4	0	0	0	0	0	56	734
1:00 PM	13	17	0	0	0	19	3	0	5	0	7	0	0	0	0	0	64	724
1:05 PM	7	38	0	0	0	21	4	0	0	0	16	0	0	0	0	0	86	746
1:10 PM	14	26	0	0	0	12	2	0	6	0	6	0	0	0	0	0	66	752
1:15 PM	11	19	0	0	0	19	3	0	2	0	9	0	0	0	0	0	63	763
1:20 PM	11	22	0	0	0	17	3	0	2	0	9	0	0	0	0	0	64	772
1:25 PM	15	10	0	0	0	16	1	0	1	0	8	0	0	0	0	0	51	766
1:30 PM	15	17	0	1	0	15	2	0	2	0	13	0	0	0	0	0	65	742
1:35 PM	10	20	0	0	0	20	3	0	5	0	16	0	0	0	0	0	74	772
1:40 PM	11	7	0	0	0	8	2	0	2	0	5	0	0	0	0	0	35	755
1:45 PM	20	17	0	0	0	16	3	0	3	0	9	0	0	0	0	0	68	755
1:50 PM	10	15	0	1	0	14	2	0	4	0	5	0	0	0	0	0	51	743
1:55 PM	8	18	0	0	0	10	2	0	4	0	7	0	0	0	0	0	49	736

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	136	324	0	0	0	208	36	0	44	0	116	0	0	0	0	0	864
Heavy Trucks	0	8	0		0	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

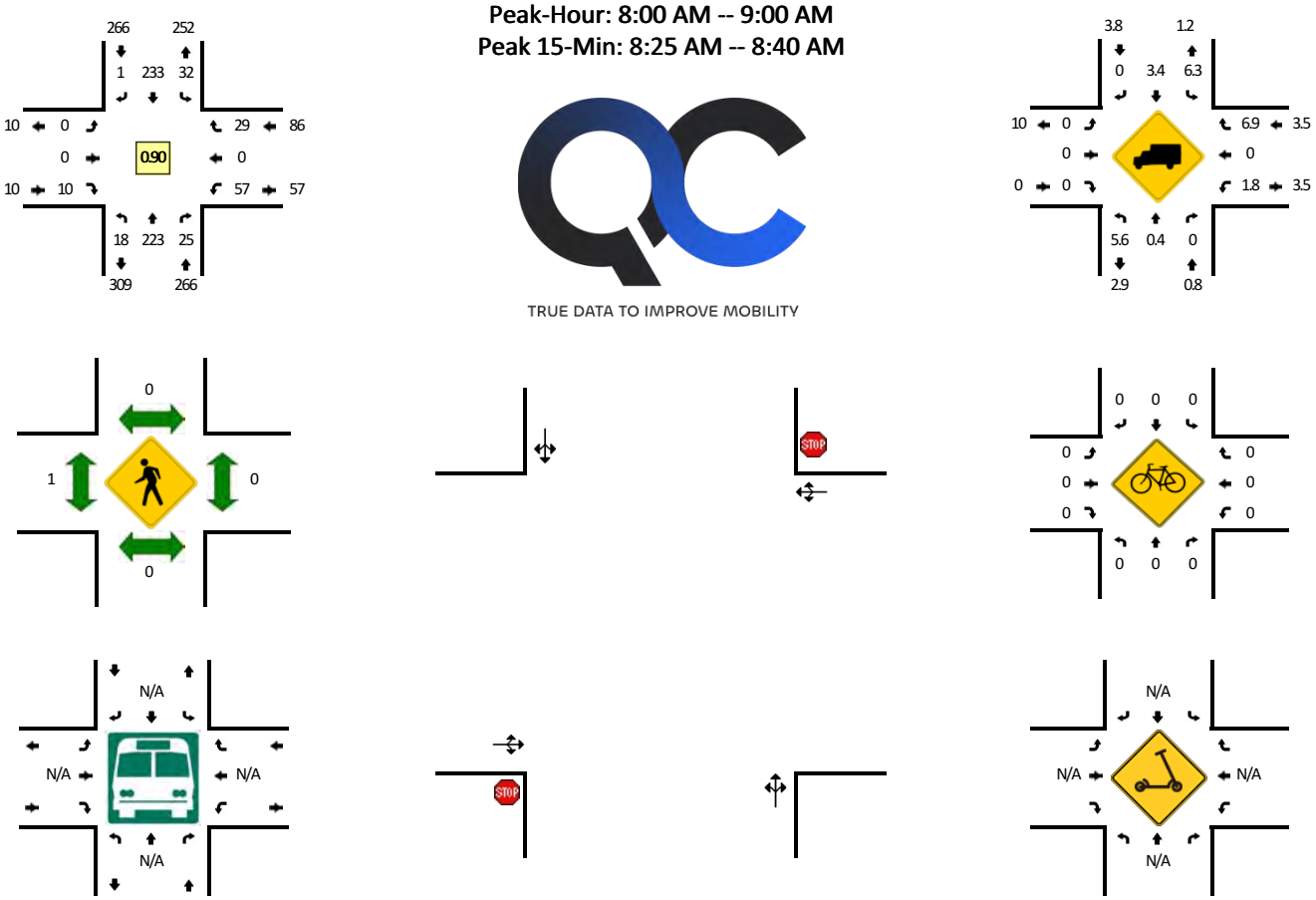
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- Southern Costco Dwy
CITY/STATE: San Marcos, CA

QC JOB #: 16384625
DATE: Thu, Nov 2 2023

Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:25 AM -- 8:40 AM

TRUE DATA TO IMPROVE MOBILITY



5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Southern Costco Dwy (Eastbound)				Southern Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	4	0	0	1	3	0	0	0	0	0	0	0	0	1	0	10	
7:05 AM	0	4	0	0	1	7	0	0	0	0	0	0	2	0	0	0	14	
7:10 AM	0	8	3	0	0	7	0	0	0	0	0	0	2	0	2	0	22	
7:15 AM	0	2	0	0	0	10	0	0	0	0	0	0	2	0	2	0	16	
7:20 AM	0	7	0	0	0	5	0	0	0	0	1	0	0	0	0	0	13	
7:25 AM	0	9	0	0	2	14	0	0	0	0	0	0	2	1	1	0	29	
7:30 AM	0	8	0	0	0	19	0	0	0	0	0	0	0	0	1	0	28	
7:35 AM	0	14	0	0	0	13	0	0	0	0	0	1	5	0	2	0	35	
7:40 AM	0	9	0	0	0	16	0	0	0	0	0	0	2	0	0	0	27	
7:45 AM	0	16	1	0	1	18	0	0	0	0	0	0	3	0	1	0	40	
7:50 AM	0	9	0	0	0	23	0	0	0	0	0	0	3	0	0	0	35	
7:55 AM	0	15	3	1	3	18	0	0	0	0	0	0	2	1	2	0	45	314
8:00 AM	1	19	0	2	2	16	0	0	0	0	0	0	7	0	3	0	50	354
8:05 AM	2	23	3	1	0	17	0	0	0	0	0	0	1	0	2	0	49	389
8:10 AM	1	11	1	1	2	18	0	0	0	0	0	0	11	0	2	0	47	414
8:15 AM	0	26	1	0	1	21	0	0	0	0	0	0	10	0	1	0	60	458
8:20 AM	1	19	3	2	3	16	0	0	0	0	2	0	3	0	3	0	52	497
8:25 AM	1	22	1	0	4	25	0	0	0	0	4	0	1	0	1	0	59	527
8:30 AM	1	16	1	1	6	23	1	0	0	0	1	0	5	0	5	0	60	559
8:35 AM	0	21	1	1	4	22	0	0	0	0	0	0	5	0	2	0	56	580
8:40 AM	1	12	2	1	4	21	0	0	0	0	1	0	0	0	3	0	45	598
8:45 AM	0	19	3	0	2	21	0	0	0	0	0	0	3	0	1	0	49	607
8:50 AM	0	15	2	0	2	20	0	0	0	0	0	0	3	0	5	0	47	619
8:55 AM	1	20	7	0	2	13	0	0	0	0	2	0	8	0	1	0	54	628

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	236	12	8	56	280	4	0	0	0	20	0	44	0	32	0	700
Heavy Trucks	0	0	0		4	12	0		0	0	0		0	0	4		20
Buses																	
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

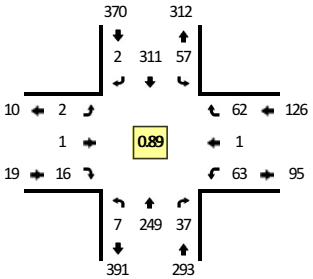
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

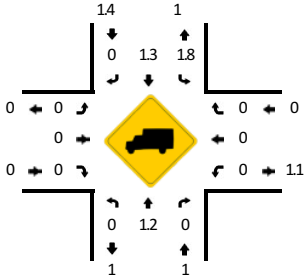
LOCATION: S Bent Ave -- Southern Costco Dwy
CITY/STATE: San Marcos, CA

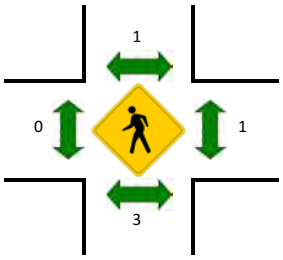
QC JOB #: 16384626
DATE: Thu, Nov 2 2023

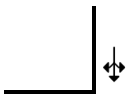
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

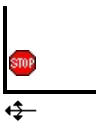


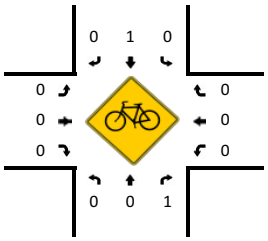
TRUE DATA TO IMPROVE MOBILITY

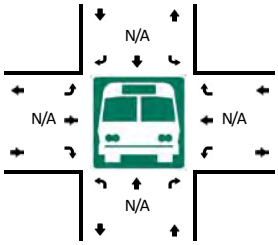


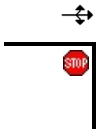


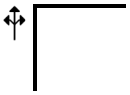


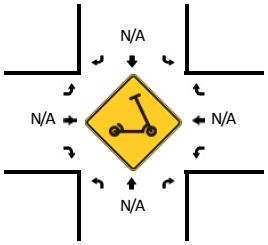












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Southern Costco Dwy (Eastbound)				Southern Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	17	2	0	7	25	1	0	1	0	5	0	4	0	4	0	66	
4:05 PM	2	17	2	0	5	22	0	0	0	0	2	0	2	0	3	0	55	
4:10 PM	1	20	5	0	5	30	0	0	0	0	1	0	4	0	5	0	71	
4:15 PM	0	28	5	0	6	27	0	0	0	1	1	0	3	1	3	0	75	
4:20 PM	0	18	4	0	5	30	0	0	0	0	2	0	7	0	6	0	72	
4:25 PM	0	20	2	0	5	30	1	0	0	0	0	1	12	0	9	0	80	
4:30 PM	0	18	3	0	3	20	0	0	0	0	2	0	5	0	5	0	56	
4:35 PM	0	25	3	0	6	32	0	0	0	0	1	0	4	0	5	0	76	
4:40 PM	0	24	1	0	4	32	0	0	0	0	0	0	5	0	10	0	76	
4:45 PM	0	22	5	0	6	23	0	0	0	0	1	0	8	0	5	0	70	
4:50 PM	1	22	4	0	2	19	0	0	0	0	1	0	4	0	6	0	59	
4:55 PM	2	18	1	1	3	21	0	0	0	0	0	0	5	0	1	0	52	808
5:00 PM	0	18	2	0	6	19	0	0	0	0	0	0	5	0	4	0	54	796
5:05 PM	0	21	2	1	3	29	0	0	0	0	0	0	3	0	5	0	64	805
5:10 PM	0	26	2	0	3	30	0	0	0	0	0	0	4	0	6	0	71	805
5:15 PM	0	20	1	1	1	23	0	0	0	0	1	0	2	0	2	0	51	781
5:20 PM	1	23	0	0	1	25	0	0	0	0	1	0	9	0	1	0	61	770
5:25 PM	0	20	4	0	1	26	0	0	0	0	2	0	4	0	4	0	61	751
5:30 PM	0	21	1	0	3	20	0	0	0	0	0	0	6	0	6	0	57	752
5:35 PM	0	20	2	0	2	24	0	0	0	0	1	0	3	0	3	0	55	731
5:40 PM	1	19	2	0	1	22	0	0	0	0	0	0	6	0	6	0	57	712
5:45 PM	0	10	3	0	1	19	0	0	0	0	2	0	3	0	2	0	40	682
5:50 PM	0	25	1	0	6	24	0	0	0	0	0	0	2	0	0	0	58	681
5:55 PM	0	22	0	1	2	26	0	0	0	0	1	0	4	0	3	0	59	688
6:00 PM	0	9	2	0	4	16	0	0	0	0	1	0	0	0	3	0	35	669
6:05 PM	0	13	3	0	5	15	0	0	0	0	1	0	7	0	3	0	47	652
6:10 PM	0	12	3	0	1	22	0	0	0	0	0	0	2	0	2	0	42	623
6:15 PM	0	14	1	1	4	12	0	0	0	0	0	0	4	0	4	0	40	612
6:20 PM	0	6	3	1	1	13	0	0	0	0	0	0	6	0	5	0	35	586
6:25 PM	0	10	2	0	0	13	0	0	0	0	1	0	3	0	5	0	34	559
6:30 PM	0	7	3	0	3	9	0	0	0	0	0	0	2	0	1	0	25	527
6:35 PM	0	9	1	2	0	6	0	0	0	0	1	0	2	0	2	0	23	495
6:40 PM	0	7	1	0	3	11	0	0	0	0	0	0	3	0	3	0	28	466
6:45 PM	0	6	1	0	1	6	0	0	0	0	0	0	3	0	3	0	20	446
6:50 PM	1	11	0	0	2	12	0	0	0	0	0	0	2	0	2	0	30	418
6:55 PM	0	13	1	0	0	7	0	0	0	0	0	0	3	0	1	0	25	384

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	264	44	0	64	348	4	0	0	4	12	4	88	4	72	0	908
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		12				0				0				0			12
Bicycles	0	0	4		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

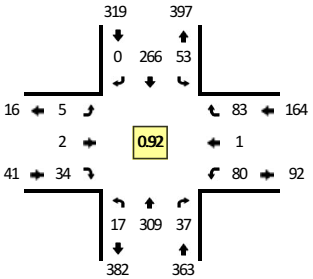
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

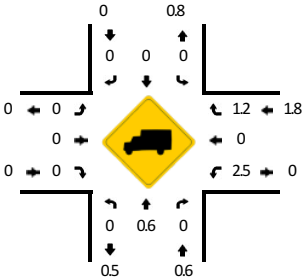
LOCATION: S Bent Ave -- Southern Costco Dwy
CITY/STATE: San Marcos, CA

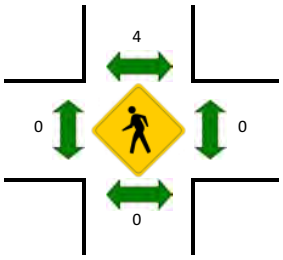
QC JOB #: 16384627
DATE: Sat, Nov 4 2023

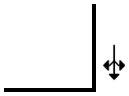
Peak-Hour: 12:40 PM -- 1:40 PM
Peak 15-Min: 1:05 PM -- 1:20 PM

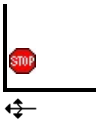


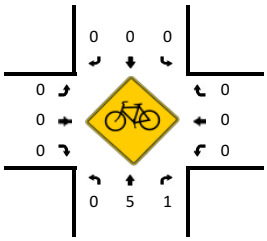
TRUE DATA TO IMPROVE MOBILITY

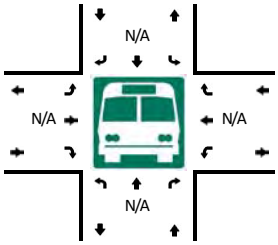


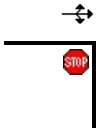


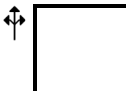


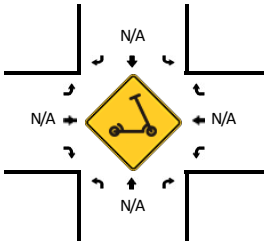












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				Southern Costco Dwy (Eastbound)				Southern Costco Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	1	20	2	0	7	23	0	0	0	0	0	0	1	0	6	0	60	
11:05 AM	0	26	5	0	3	11	0	0	0	0	1	0	8	1	2	0	57	
11:10 AM	0	20	2	0	3	9	0	0	0	0	3	0	10	1	5	0	53	
11:15 AM	4	29	8	0	1	20	0	0	0	0	2	0	11	0	3	0	78	
11:20 AM	0	20	3	1	7	15	0	0	1	0	2	0	4	1	4	0	58	
11:25 AM	5	21	4	0	4	14	0	0	0	0	2	0	8	0	5	0	63	
11:30 AM	0	19	2	1	2	17	0	0	0	0	3	0	4	0	12	0	60	
11:35 AM	0	21	1	0	8	13	1	0	0	0	1	0	2	0	5	0	52	
11:40 AM	0	21	1	0	5	19	0	0	0	0	1	0	7	0	6	0	60	
11:45 AM	3	31	3	0	1	24	0	0	0	0	3	0	8	0	3	0	76	
11:50 AM	2	26	6	0	1	20	0	0	0	0	2	0	6	1	13	0	77	
11:55 AM	2	26	5	0	2	29	0	0	0	0	4	0	2	0	4	0	74	768
12:00 PM	0	26	2	0	3	25	0	0	0	1	5	0	6	0	11	0	79	787
12:05 PM	3	23	0	0	2	19	0	0	0	1	1	0	9	1	7	0	66	796
12:10 PM	2	24	3	0	4	24	0	0	0	0	1	0	8	0	5	0	71	814
12:15 PM	1	20	4	0	5	22	0	0	0	1	4	0	9	0	2	0	68	804
12:20 PM	0	25	4	0	7	13	0	0	0	0	5	0	4	0	2	0	60	806
12:25 PM	1	35	3	0	3	15	0	0	0	0	4	0	7	0	5	1	74	817
12:30 PM	0	37	1	0	5	22	0	0	0	2	3	0	8	0	9	0	87	844
12:35 PM	0	19	10	0	1	16	0	0	0	0	1	0	7	0	7	0	61	853
12:40 PM	3	22	1	0	3	19	0	0	0	1	2	0	5	0	5	0	61	854
12:45 PM	0	25	6	0	8	21	0	0	1	0	3	0	9	0	9	0	82	860
12:50 PM	1	30	3	0	3	22	0	0	0	0	3	0	8	0	3	0	73	856
12:55 PM	1	24	3	0	3	18	0	0	0	0	2	0	11	1	6	0	69	851
1:00 PM	2	24	4	0	5	20	0	0	0	0	1	0	6	0	6	0	68	840
1:05 PM	1	35	2	0	5	31	0	0	0	0	3	0	4	0	10	0	91	865
1:10 PM	1	32	0	1	4	15	0	0	0	0	3	0	9	0	9	0	74	868
1:15 PM	1	26	4	1	4	24	0	0	0	0	3	0	7	0	5	0	75	875
1:20 PM	0	21	2	0	4	20	0	0	0	1	4	0	5	0	9	0	66	881
1:25 PM	1	24	6	0	5	20	0	0	1	0	2	0	6	0	2	0	67	874
1:30 PM	1	25	2	0	3	21	0	0	1	0	2	0	6	0	9	0	70	857
1:35 PM	3	21	4	0	6	35	0	0	2	0	6	0	4	0	10	0	91	887
1:40 PM	1	11	6	0	1	16	0	0	0	0	1	0	8	0	4	0	48	874
1:45 PM	1	28	4	0	5	19	0	0	0	0	2	0	4	0	9	0	72	864
1:50 PM	1	22	0	0	2	19	0	0	0	0	0	0	6	0	5	0	55	846
1:55 PM	1	18	0	0	4	12	0	0	0	0	3	0	5	0	8	0	51	828

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	372	24	8	52	280	0	0	0	0	36	0	80	0	96	0	960
Heavy Trucks	0	8	0		0	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				8				0				0			8
Bicycles	0	12	4		0	0	0		0	0	0		0	0	0		16
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

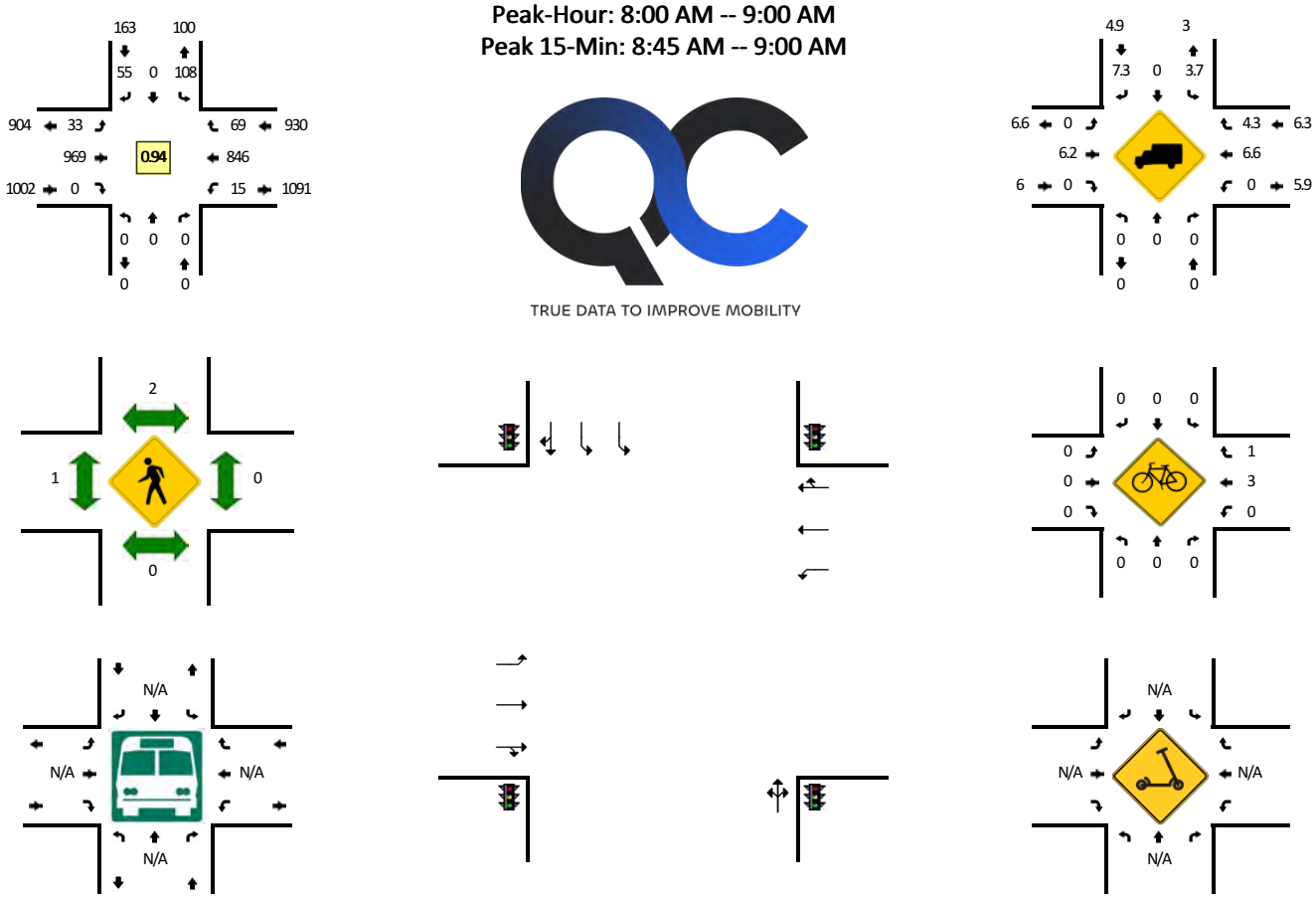
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Via Vera Cruz -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

QC JOB #: 16384628
DATE: Thu, Nov 2 2023

Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:45 AM -- 9:00 AM



TRUE DATA TO IMPROVE MOBILITY

5-Min Count Period Beginning At	Via Vera Cruz (Northbound)				Via Vera Cruz (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	3	0	1	0	0	44	0	0	0	83	4	0	135	
7:05 AM	0	0	0	0	2	0	2	0	1	46	0	0	0	91	3	1	146	
7:10 AM	0	0	0	0	5	0	2	0	0	62	0	0	0	99	6	0	174	
7:15 AM	0	0	0	0	4	0	1	0	0	62	0	1	0	80	7	2	157	
7:20 AM	0	0	0	0	4	0	1	0	0	80	0	0	0	107	4	0	196	
7:25 AM	0	0	0	0	5	0	2	0	1	42	0	0	0	86	3	0	139	
7:30 AM	0	0	0	0	1	0	5	0	3	51	0	0	0	94	9	0	163	
7:35 AM	0	0	0	0	5	0	5	0	2	73	0	0	0	108	5	0	198	
7:40 AM	0	0	0	0	3	0	8	0	4	80	0	1	0	85	2	0	183	
7:45 AM	0	0	0	0	9	0	0	0	6	73	0	0	0	86	6	0	180	
7:50 AM	0	0	0	0	3	0	4	0	4	76	0	0	0	73	2	0	162	
7:55 AM	0	0	0	0	5	0	4	0	1	61	0	0	0	71	2	1	145	1978
8:00 AM	0	0	0	0	11	0	9	0	1	79	0	0	0	70	2	0	172	2015
8:05 AM	0	0	0	0	8	0	6	1	1	62	0	0	0	76	2	0	156	2025
8:10 AM	0	0	0	0	7	0	9	0	4	78	0	0	0	69	4	4	175	2026
8:15 AM	0	0	0	0	11	0	5	0	0	81	0	0	0	68	3	0	168	2037
8:20 AM	0	0	0	0	10	0	5	0	2	95	0	1	0	77	5	0	195	2036
8:25 AM	0	0	0	0	11	0	4	0	7	62	0	1	0	65	3	2	155	2052
8:30 AM	0	0	0	0	5	0	5	0	1	98	0	0	0	60	5	5	179	2068
8:35 AM	0	0	0	0	13	0	1	0	4	71	0	0	0	69	9	0	167	2037
8:40 AM	0	0	0	0	8	0	3	0	2	82	0	0	0	71	6	1	173	2027
8:45 AM	0	0	0	0	6	0	4	0	1	93	0	0	0	78	10	1	193	2040
8:50 AM	0	0	0	0	10	0	2	0	4	86	0	0	0	56	10	2	170	2048
8:55 AM	0	0	0	0	7	0	2	0	3	82	0	1	0	87	10	0	192	2095

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	92	0	32	0	32	1044	0	4	0	884	120	12	2220
Heavy Trucks	0	0	0		4	0	4		0	64	0		0	48	4		124
Buses																	
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	4	4		8
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

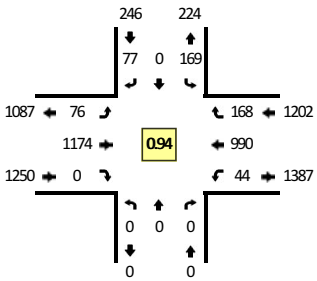
Type of peak hour being reported: Intersection Peak

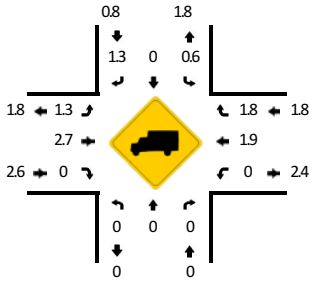
Method for determining peak hour: Total Entering Volume

LOCATION: Via Vera Cruz -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

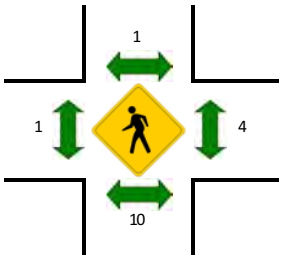
QC JOB #: 16384629
DATE: Thu, Nov 2 2023

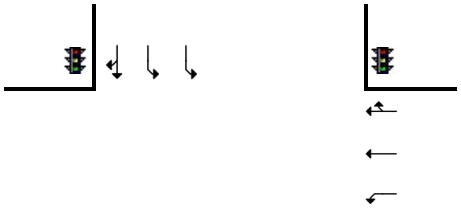
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

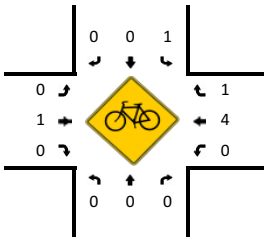


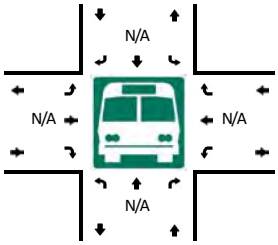


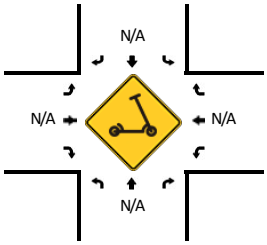
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Via Vera Cruz (Northbound)				Via Vera Cruz (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	15	0	7	0	5	108	0	1	0	77	14	6	233	
4:05 PM	0	0	0	0	19	0	5	0	5	92	0	0	0	74	12	2	209	
4:10 PM	0	0	0	0	22	0	3	0	6	88	0	0	0	78	8	5	210	
4:15 PM	0	0	0	0	13	0	8	0	4	93	0	0	0	81	9	1	209	
4:20 PM	0	0	0	0	12	0	3	0	6	85	0	0	0	74	12	6	198	
4:25 PM	0	0	0	0	12	0	4	0	3	109	0	0	0	81	14	3	226	
4:30 PM	0	0	0	0	12	0	6	0	9	91	0	5	0	92	14	5	234	
4:35 PM	0	0	0	0	13	0	11	0	5	104	0	4	0	89	16	3	245	
4:40 PM	0	0	0	0	12	0	5	0	10	67	0	1	0	60	8	1	164	
4:45 PM	0	0	0	0	12	0	6	0	3	129	0	0	0	120	13	8	291	
4:50 PM	0	0	0	0	13	0	4	0	4	93	0	1	0	87	11	2	215	
4:55 PM	0	0	0	0	11	0	8	0	1	94	0	1	0	73	17	10	215	2649
5:00 PM	0	0	0	0	11	0	6	0	4	105	0	3	0	72	28	4	233	2649
5:05 PM	0	0	0	0	21	0	7	0	7	81	0	2	0	57	13	2	190	2630
5:10 PM	0	0	0	0	20	0	7	0	2	99	0	1	0	94	14	2	239	2659
5:15 PM	0	0	0	0	10	0	5	0	3	110	0	1	0	97	7	0	233	2683
5:20 PM	0	0	0	0	22	0	8	0	5	92	0	1	0	68	13	4	213	2698
5:25 PM	0	0	0	0	10	0	3	0	9	86	0	1	0	94	11	3	217	2689
5:30 PM	0	0	0	0	15	0	6	0	1	108	0	0	0	81	4	5	220	2675
5:35 PM	0	0	0	0	19	0	6	0	6	93	0	2	0	84	10	2	222	2652
5:40 PM	0	0	0	0	12	0	3	0	3	99	0	0	0	64	7	3	191	2679
5:45 PM	0	0	0	0	12	0	8	0	2	92	0	1	0	57	12	0	184	2572
5:50 PM	0	0	0	0	14	0	2	0	6	96	0	1	0	121	13	1	254	2611
5:55 PM	0	0	0	0	21	0	7	0	7	84	0	4	0	85	8	2	218	2614
6:00 PM	0	0	0	0	17	0	6	0	1	85	0	0	0	102	6	1	218	2599
6:05 PM	0	0	0	0	21	0	4	1	9	102	0	3	0	75	18	1	234	2643
6:10 PM	0	0	0	0	19	0	4	0	2	90	0	0	0	82	13	2	212	2616
6:15 PM	0	0	0	0	15	0	6	0	7	89	0	1	0	74	10	3	205	2588
6:20 PM	0	0	0	0	13	0	2	0	2	98	0	1	0	77	11	5	209	2584
6:25 PM	0	0	0	0	13	0	4	0	0	66	0	0	0	81	15	1	180	2547
6:30 PM	0	0	0	0	17	0	6	0	7	107	0	1	0	73	9	2	222	2549
6:35 PM	0	0	0	0	13	0	3	0	0	77	0	0	0	77	6	1	177	2504
6:40 PM	0	0	0	0	13	0	7	0	0	83	0	2	0	66	8	0	179	2492
6:45 PM	0	0	0	0	12	0	5	0	0	80	0	0	0	80	9	0	186	2494
6:50 PM	0	0	0	0	15	0	8	0	5	69	0	1	0	41	11	2	152	2392
6:55 PM	0	0	0	0	12	0	7	0	1	53	0	1	0	70	10	0	154	2328

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	144	0	72	0	32	1264	0	8	0	1120	164	80	2884
Heavy Trucks	0	0	0		0	0	0		0	40	0		0	28	0		68
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		4	0	0		0	0	0		0	4	0		8
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

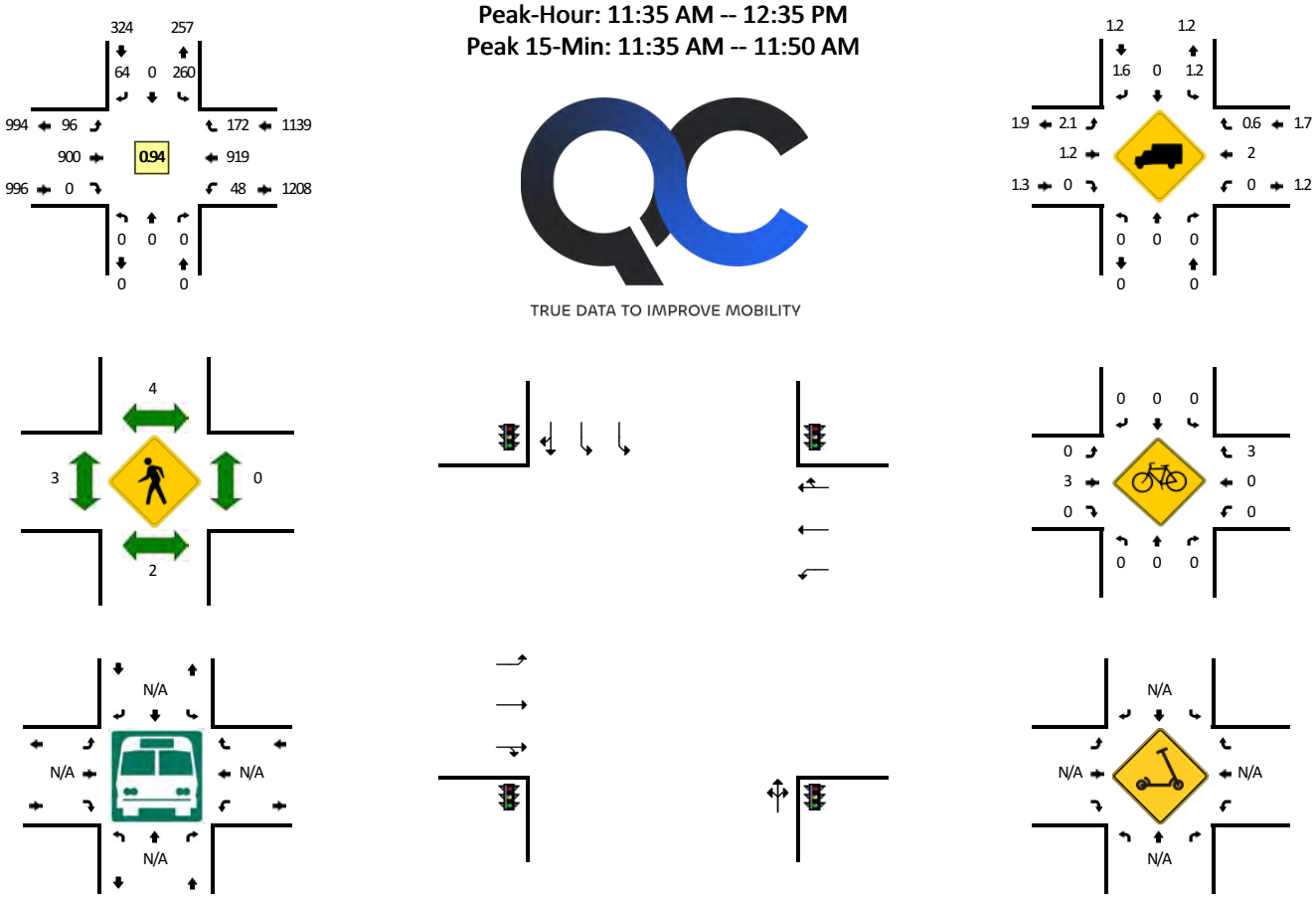
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Via Vera Cruz -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

QC JOB #: 16384630
DATE: Sat, Nov 4 2023

Peak-Hour: 11:35 AM -- 12:35 PM
Peak 15-Min: 11:35 AM -- 11:50 AM



TRUE DATA TO IMPROVE MOBILITY

5-Min Count Period Beginning At	Via Vera Cruz (Northbound)				Via Vera Cruz (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	0	0	22	0	4	0	4	64	0	4	0	79	17	9	203	
11:05 AM	0	0	0	0	15	0	5	0	1	76	0	1	0	67	17	0	182	
11:10 AM	0	0	0	0	18	0	4	0	1	51	0	3	0	84	12	3	176	
11:15 AM	0	0	0	0	17	0	5	0	4	84	0	0	0	88	12	2	212	
11:20 AM	0	0	0	0	14	0	4	0	6	56	0	3	0	74	15	4	176	
11:25 AM	0	0	0	0	14	0	6	0	2	88	0	1	0	72	7	1	191	
11:30 AM	0	0	0	0	16	0	1	0	5	38	0	5	0	51	9	3	128	
11:35 AM	0	0	0	0	23	0	4	0	8	106	0	0	0	105	23	7	276	
11:40 AM	0	0	0	0	25	0	2	0	3	88	0	0	0	60	11	3	192	
11:45 AM	0	0	0	0	16	0	5	0	12	64	0	0	0	77	9	0	183	
11:50 AM	0	0	0	0	30	0	5	0	7	48	0	1	0	79	13	5	188	
11:55 AM	0	0	0	0	18	0	4	0	5	78	0	0	0	78	16	2	201	2308
12:00 PM	0	0	0	0	23	0	7	0	9	70	0	2	0	65	10	4	190	2295
12:05 PM	0	0	0	0	22	0	7	0	8	65	0	2	0	92	16	4	216	2329
12:10 PM	0	0	0	0	18	0	12	0	9	75	0	2	0	73	10	5	204	2357
12:15 PM	0	0	0	0	24	0	6	0	6	89	0	2	0	80	14	4	225	2370
12:20 PM	0	0	0	0	26	0	4	0	4	58	0	0	0	65	15	6	178	2372
12:25 PM	0	0	0	0	21	0	6	0	6	80	0	1	0	88	21	3	226	2407
12:30 PM	0	0	0	0	14	0	2	0	8	79	0	1	0	57	14	5	180	2459
12:35 PM	0	0	0	0	17	0	7	0	4	50	0	1	0	80	16	1	176	2359
12:40 PM	0	0	0	0	10	0	4	0	7	100	0	0	0	75	15	4	215	2382
12:45 PM	0	0	0	0	9	0	7	0	3	83	0	0	0	72	11	2	187	2386
12:50 PM	0	0	0	0	18	0	5	0	4	92	0	1	0	74	16	1	211	2409
12:55 PM	0	0	0	0	17	0	10	0	3	73	0	1	0	69	9	2	184	2392
1:00 PM	0	0	0	0	20	0	3	0	4	82	0	2	0	75	10	5	201	2403
1:05 PM	0	0	0	0	12	0	13	0	2	71	0	2	0	74	16	1	191	2378
1:10 PM	0	0	0	0	14	0	6	0	6	90	0	1	0	76	14	1	208	2382
1:15 PM	0	0	0	0	9	0	5	0	6	58	0	1	0	86	16	5	186	2343
1:20 PM	0	0	0	0	16	0	7	0	4	63	0	1	0	56	11	6	164	2329
1:25 PM	0	0	0	0	13	0	5	0	3	84	0	1	0	78	13	2	199	2302
1:30 PM	0	0	0	0	19	0	3	0	5	63	0	1	0	75	12	4	182	2304
1:35 PM	0	0	0	0	17	0	5	0	5	75	0	1	0	75	19	3	200	2328
1:40 PM	0	0	0	0	13	0	5	0	2	71	0	2	0	66	6	6	171	2284
1:45 PM	0	0	0	0	14	0	7	0	1	67	0	1	0	81	12	3	186	2283
1:50 PM	0	0	0	0	10	0	4	0	1	81	0	3	0	75	9	1	184	2256
1:55 PM	0	0	0	0	10	0	3	0	0	56	0	0	0	80	12	3	164	2236

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	256	0	44	0	92	1032	0	0	0	968	172	40	2604
Heavy Trucks	0	0	0		0	0	0		4	8	0		0	20	0		32
Buses																	
Pedestrians		0				4				4				0			8
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

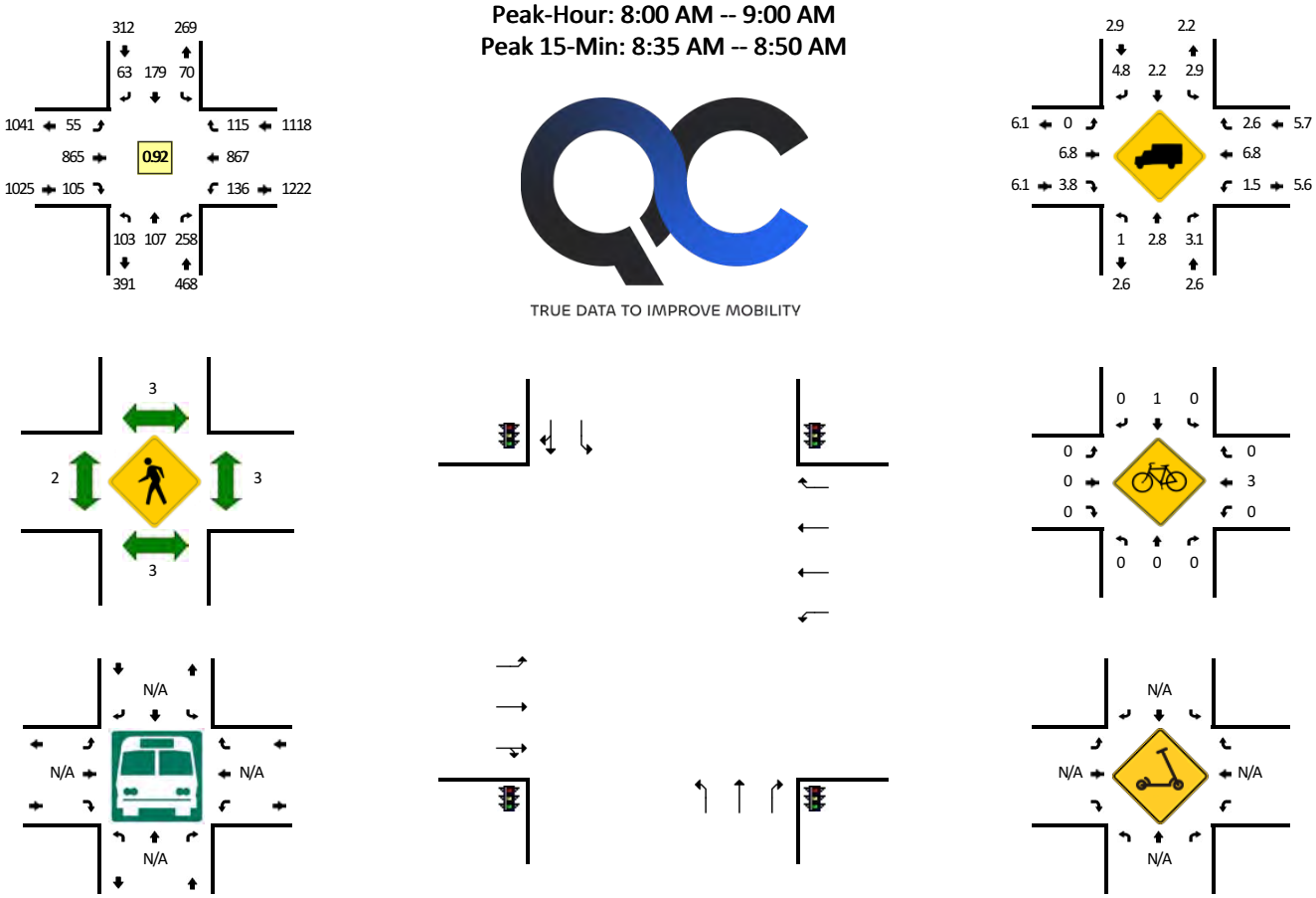
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

QC JOB #: 16384631
DATE: Thu, Nov 2 2023

Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:35 AM -- 8:50 AM



TRUE DATA TO IMPROVE MOBILITY

5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	4	17	0	0	2	2	0	0	50	0	1	2	85	4	0	171	
7:05 AM	9	2	20	0	3	5	1	0	0	42	6	1	8	92	2	2	193	
7:10 AM	5	5	10	0	1	8	1	0	2	64	5	0	2	91	3	0	197	
7:15 AM	7	0	12	0	1	4	1	0	0	57	5	2	6	119	1	1	216	
7:20 AM	6	4	20	0	3	7	1	0	1	63	5	0	4	73	4	3	194	
7:25 AM	9	6	18	0	8	5	1	0	1	46	5	0	6	111	0	2	218	
7:30 AM	4	7	17	0	5	17	4	0	1	53	2	0	4	83	6	0	203	
7:35 AM	7	8	19	0	3	6	8	0	1	55	9	0	13	131	5	4	269	
7:40 AM	11	8	31	0	2	15	2	0	1	56	3	2	5	57	4	1	198	
7:45 AM	10	10	25	0	6	11	5	0	0	88	2	1	13	100	7	1	279	
7:50 AM	6	4	14	0	4	19	6	0	1	71	11	0	4	45	6	0	191	
7:55 AM	13	6	19	0	0	17	3	0	2	52	5	1	9	85	9	3	224	2553
8:00 AM	15	8	13	0	6	15	6	0	7	68	2	1	4	54	11	2	212	2594
8:05 AM	8	14	17	0	3	10	4	0	5	60	8	0	10	89	9	3	240	2641
8:10 AM	12	3	17	0	4	18	12	0	5	68	14	0	7	43	8	0	211	2655
8:15 AM	5	14	23	0	10	16	6	0	1	80	7	1	5	62	12	1	243	2682
8:20 AM	8	13	29	0	4	17	2	0	3	75	12	1	12	78	13	2	269	2757
8:25 AM	7	8	26	0	3	19	5	0	2	57	6	0	16	78	12	1	240	2779
8:30 AM	7	9	15	0	4	22	7	0	3	72	4	1	9	57	8	1	219	2795
8:35 AM	8	5	31	0	8	14	3	0	6	82	16	1	12	75	7	3	271	2797
8:40 AM	10	5	23	0	5	16	3	0	5	67	16	0	6	82	5	3	246	2845
8:45 AM	6	9	20	0	8	12	3	0	2	86	6	1	11	94	16	3	277	2843
8:50 AM	13	8	22	0	6	12	8	0	1	86	6	2	5	58	7	4	238	2890
8:55 AM	4	11	22	0	9	8	4	0	7	64	8	0	10	97	7	6	257	2923

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	96	76	296	0	84	168	36	0	52	940	152	8	116	1004	112	36	3176
Heavy Trucks	0	0	8		4	8	0		0	80	8		8	60	0		176
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	4	0		0	0	0		0	8	0		12
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

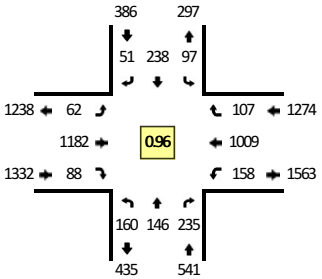
Type of peak hour being reported: Intersection Peak

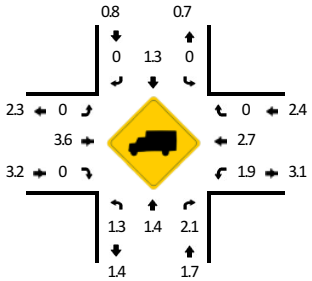
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

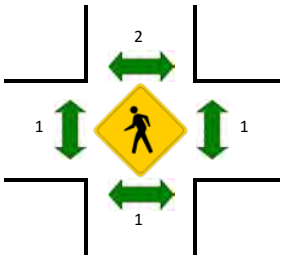
QC JOB #: 16384632
DATE: Thu, Nov 2 2023

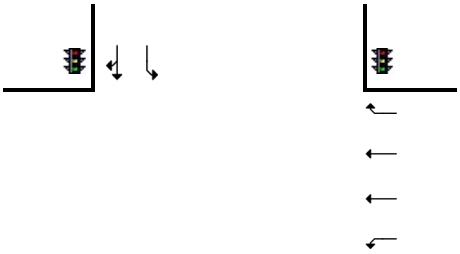
Peak-Hour: 4:10 PM -- 5:10 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

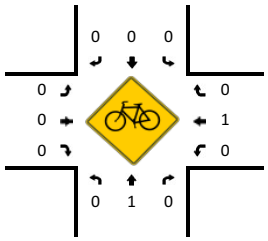


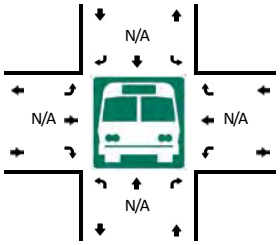


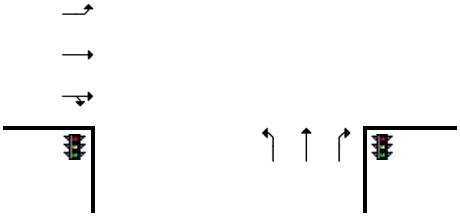
TRUE DATA TO IMPROVE MOBILITY

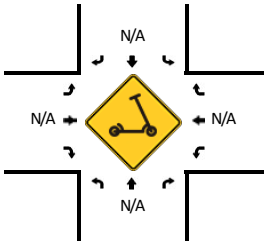












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	6	11	20	0	5	21	5	0	3	101	10	3	7	66	6	5	269	
4:05 PM	13	12	22	0	11	17	4	0	3	97	6	0	8	77	7	7	284	
4:10 PM	10	10	23	0	10	18	6	0	6	92	11	0	10	86	11	5	298	
4:15 PM	16	20	20	0	6	21	3	0	2	88	7	1	11	60	8	6	269	
4:20 PM	13	11	18	0	11	23	3	0	3	95	5	0	10	91	8	3	294	
4:25 PM	13	10	18	0	8	25	9	0	5	102	10	1	5	85	9	4	304	
4:30 PM	15	5	14	0	11	16	2	0	4	100	8	4	7	88	10	8	292	
4:35 PM	17	17	25	0	11	24	3	0	2	88	5	0	11	101	11	3	318	
4:40 PM	6	10	25	0	8	25	3	0	1	107	7	4	8	84	11	2	301	
4:45 PM	13	15	20	0	8	19	9	0	5	92	8	0	6	96	8	6	305	
4:50 PM	14	13	14	0	5	17	3	0	2	111	4	1	11	90	10	4	299	
4:55 PM	11	10	21	0	9	13	3	0	4	97	8	0	13	73	9	3	274	3507
5:00 PM	17	11	22	0	4	15	2	0	6	106	12	2	8	74	6	1	286	3524
5:05 PM	15	14	15	0	6	22	5	0	4	104	3	5	9	81	6	4	293	3533
5:10 PM	12	15	15	0	8	22	7	0	2	96	7	0	8	82	7	4	285	3520
5:15 PM	9	13	12	0	9	12	2	0	2	101	5	4	8	88	10	7	282	3533
5:20 PM	11	13	21	0	8	21	4	0	3	102	9	0	7	77	9	3	288	3527
5:25 PM	14	12	20	0	7	24	8	0	4	100	5	4	5	93	6	4	306	3529
5:30 PM	6	12	18	0	9	17	1	0	2	98	17	1	7	80	5	9	282	3519
5:35 PM	15	11	17	0	4	18	4	0	2	101	8	0	12	76	10	3	281	3482
5:40 PM	10	15	22	0	8	18	2	0	3	94	5	3	18	82	2	2	284	3465
5:45 PM	6	9	15	0	10	12	4	0	1	82	10	1	21	73	11	4	259	3419
5:50 PM	14	16	18	0	9	19	2	0	1	90	8	5	14	98	4	2	300	3420
5:55 PM	18	12	25	0	6	21	3	0	0	88	9	2	14	85	10	2	295	3441
6:00 PM	8	5	17	0	3	14	5	0	3	100	5	1	18	95	5	4	283	3438
6:05 PM	5	12	25	0	7	8	1	0	1	97	6	2	8	77	1	8	258	3403
6:10 PM	13	12	19	0	7	13	3	0	3	92	9	0	5	78	5	5	264	3382
6:15 PM	6	4	10	0	5	13	3	0	2	93	12	1	14	81	7	5	256	3356
6:20 PM	10	6	17	0	10	8	2	0	0	109	12	4	15	80	1	3	277	3345
6:25 PM	4	10	14	0	4	11	2	0	2	79	6	1	13	81	2	6	235	3274
6:30 PM	12	5	15	0	2	10	0	0	0	83	5	0	17	74	5	9	237	3229
6:35 PM	9	4	10	0	1	7	1	0	3	109	7	2	12	76	5	3	249	3197
6:40 PM	8	5	13	0	7	10	0	0	3	91	3	1	14	65	2	2	224	3137
6:45 PM	9	3	14	0	5	2	2	0	2	70	9	5	9	68	3	2	203	3081
6:50 PM	5	4	9	0	2	9	1	0	3	79	8	0	13	54	4	5	196	2977
6:55 PM	10	8	12	0	1	7	1	0	1	61	12	2	14	72	3	5	209	2891

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	144	168	280	0	108	272	60	0	32	1148	80	16	100	1124	120	44	3696
Heavy Trucks	0	0	8		0	4	0		0	28	0		0	44	0		84
Buses																	
Pedestrians		4				0				0				4			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

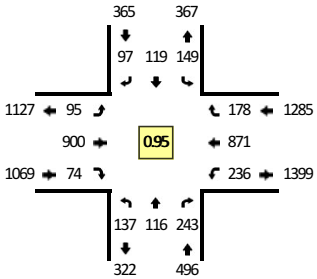
Type of peak hour being reported: Intersection Peak

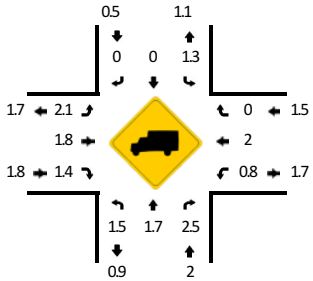
Method for determining peak hour: Total Entering Volume

LOCATION: S Bent Ave -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

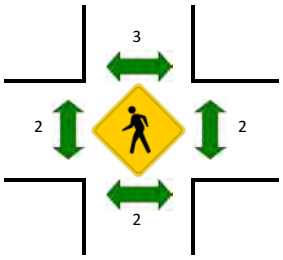
QC JOB #: 16384633
DATE: Sat, Nov 4 2023

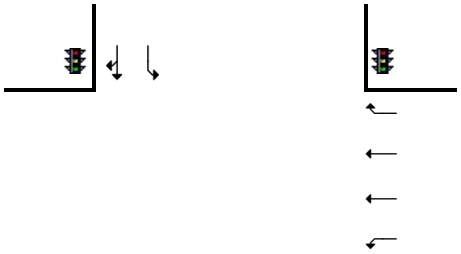
Peak-Hour: 11:45 AM -- 12:45 PM
Peak 15-Min: 12:00 PM -- 12:15 PM

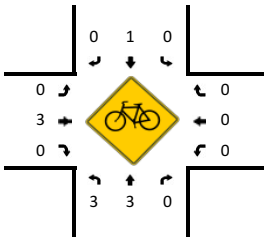


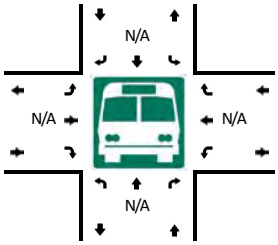


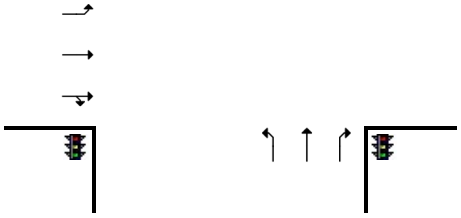
TRUE DATA TO IMPROVE MOBILITY

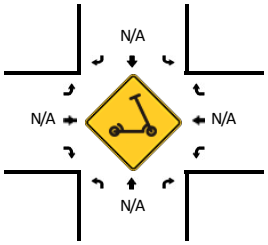












5-Min Count Period Beginning At	S Bent Ave (Northbound)				S Bent Ave (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	12	13	19	0	7	9	3	0	1	86	7	0	11	90	10	11	279	
11:05 AM	11	9	29	0	8	9	7	0	6	54	7	0	9	80	14	6	249	
11:10 AM	11	4	20	0	11	7	3	0	10	96	13	1	8	71	10	5	270	
11:15 AM	9	14	19	0	14	10	9	0	9	64	5	1	10	64	18	9	255	
11:20 AM	11	7	18	0	11	7	7	0	4	88	6	2	12	90	13	9	285	
11:25 AM	7	9	29	0	8	14	3	0	8	55	1	1	18	59	11	10	233	
11:30 AM	16	4	21	0	7	3	6	0	4	84	4	4	18	93	15	6	285	
11:35 AM	16	5	28	0	11	9	5	0	4	67	6	2	22	78	12	7	272	
11:40 AM	13	11	21	0	12	10	1	0	0	91	2	1	11	61	11	12	257	
11:45 AM	10	19	26	0	16	11	11	0	7	53	6	1	16	67	13	11	267	
11:50 AM	13	13	29	0	12	12	8	0	4	82	2	0	12	84	19	5	295	
11:55 AM	16	10	22	0	10	5	15	0	10	44	1	1	16	51	12	7	220	3167
12:00 PM	10	9	22	0	17	12	9	0	4	79	9	1	13	76	14	9	284	3172
12:05 PM	13	10	26	0	13	10	6	0	5	65	6	2	8	68	13	8	253	3176
12:10 PM	13	5	27	0	12	12	6	0	7	88	11	3	6	93	15	7	305	3211
12:15 PM	7	6	13	0	13	18	6	0	7	73	6	3	8	74	11	11	256	3212
12:20 PM	10	10	13	0	7	5	12	0	4	92	8	1	5	69	15	6	257	3184
12:25 PM	17	14	19	0	15	8	8	0	1	58	8	4	9	62	17	16	256	3207
12:30 PM	9	4	16	0	14	9	1	0	7	91	9	0	10	84	27	8	289	3211
12:35 PM	5	9	19	0	15	11	8	0	11	62	5	4	19	65	9	9	251	3190
12:40 PM	14	7	11	0	5	6	7	0	6	113	3	2	7	78	13	10	282	3215
12:45 PM	9	16	13	0	17	13	11	0	3	54	2	3	10	51	13	12	227	3175
12:50 PM	11	9	19	0	14	9	7	0	10	85	6	6	12	84	16	10	298	3178
12:55 PM	11	12	28	0	12	14	7	0	6	61	1	2	16	59	9	15	253	3211
1:00 PM	17	11	16	0	11	6	6	0	3	87	7	1	5	83	16	9	278	3205
1:05 PM	6	12	15	0	16	18	11	0	6	52	4	4	12	52	23	5	236	3188
1:10 PM	10	8	17	0	15	5	6	0	4	92	7	2	11	97	18	5	297	3180
1:15 PM	9	12	19	0	14	14	11	0	5	56	5	0	11	65	15	14	250	3174
1:20 PM	6	10	12	0	9	4	7	0	3	82	4	2	7	74	10	13	243	3160
1:25 PM	11	13	20	0	8	19	7	0	7	63	8	3	13	57	12	6	247	3151
1:30 PM	10	10	11	0	13	6	2	0	7	84	5	1	9	77	11	7	253	3115
1:35 PM	15	6	18	0	21	19	9	0	7	55	8	2	9	66	15	15	265	3129
1:40 PM	7	2	11	0	14	6	5	0	7	99	4	2	7	83	11	7	265	3112
1:45 PM	9	10	17	0	10	11	9	0	9	66	6	4	15	52	11	9	238	3123
1:50 PM	11	6	9	0	10	8	6	0	4	90	5	1	5	82	13	8	258	3083
1:55 PM	10	6	12	0	12	3	3	0	5	72	9	1	9	81	8	9	240	3070

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	144	96	300	0	168	136	84	0	64	928	104	24	108	948	168	96	3368
Heavy Trucks	0	4	4		4	0	0		4	24	0		4	12	0		56
Buses																	
Pedestrians		4				4				8				0			16
Bicycles	4	0	0		0	0	0		0	4	0		0	0	0		8
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

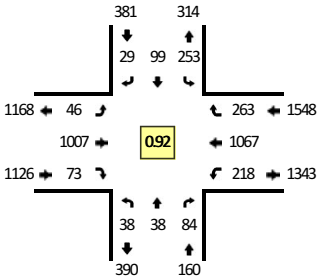
Type of peak hour being reported: Intersection Peak

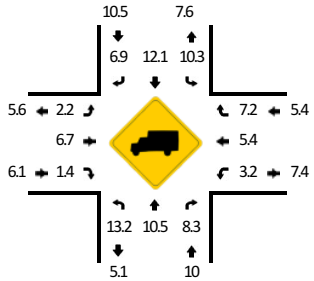
Method for determining peak hour: Total Entering Volume

LOCATION: Grand Ave -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

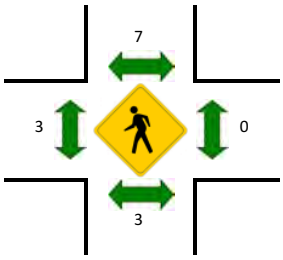
QC JOB #: 16384634
DATE: Thu, Nov 2 2023

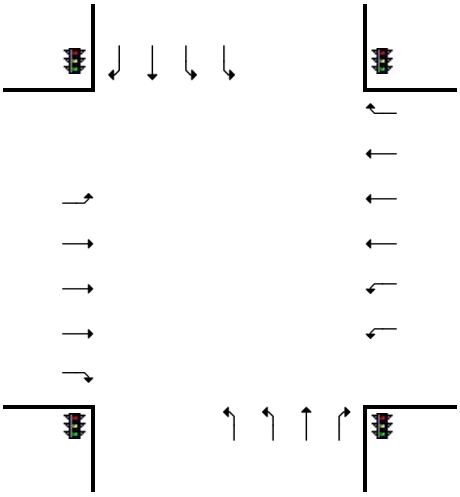
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:20 AM -- 8:35 AM

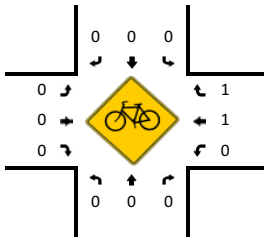


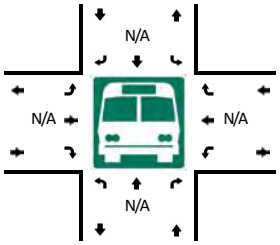


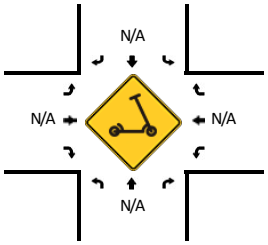
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Grand Ave (Northbound)				Grand Ave (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	2	3	0	14	3	2	0	0	50	1	4	12	76	20	0	190	
7:05 AM	0	1	6	0	10	4	3	0	2	66	2	1	11	93	7	0	206	
7:10 AM	7	1	7	0	7	0	1	0	2	63	2	1	12	108	12	0	223	
7:15 AM	0	1	6	0	11	5	2	0	1	70	2	3	19	100	14	0	234	
7:20 AM	4	6	8	0	10	3	3	0	0	87	2	3	9	101	11	0	247	
7:25 AM	1	1	2	0	12	4	1	0	2	77	2	1	5	105	13	0	226	
7:30 AM	2	7	8	0	12	1	4	0	0	72	1	0	8	136	21	0	272	
7:35 AM	6	2	7	1	21	5	1	0	1	58	3	3	8	99	16	0	231	
7:40 AM	2	3	8	0	19	6	2	0	0	80	4	1	6	118	16	0	265	
7:45 AM	1	1	8	0	24	0	4	0	8	72	4	1	11	89	32	0	255	
7:50 AM	1	0	3	0	21	3	0	0	1	109	5	3	10	85	33	0	274	
7:55 AM	1	2	3	0	29	10	1	0	1	64	3	2	17	100	26	0	259	2882
8:00 AM	2	2	6	0	13	8	2	1	0	92	3	2	14	80	30	0	255	2947
8:05 AM	3	3	3	0	20	8	3	0	1	76	3	2	9	92	20	0	243	2984
8:10 AM	2	5	4	0	14	4	1	0	0	66	3	3	16	90	28	0	236	2997
8:15 AM	0	2	1	0	23	12	2	0	2	79	7	2	27	73	25	0	255	3018
8:20 AM	2	4	4	0	25	6	5	0	1	113	8	0	11	100	28	0	307	3078
8:25 AM	0	5	10	0	31	15	0	0	0	73	4	3	28	97	17	0	283	3135
8:30 AM	5	5	5	0	22	10	4	0	1	94	8	3	14	83	25	0	279	3142
8:35 AM	4	0	8	0	26	7	1	0	1	75	8	6	20	74	20	0	250	3161
8:40 AM	6	5	7	0	18	7	2	0	1	100	7	2	11	84	19	0	269	3165
8:45 AM	4	3	7	0	29	8	3	0	2	72	3	7	21	90	19	0	268	3178
8:50 AM	6	2	15	0	10	8	4	0	1	99	8	2	17	117	21	0	310	3214
8:55 AM	4	2	14	0	21	6	2	0	2	68	11	2	30	87	11	0	260	3215

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	56	76	0	312	124	36	0	8	1120	80	24	212	1120	280	0	3476
Heavy Trucks	4	12	4		36	12	4		0	60	0		12	72	24		240
Buses																	
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

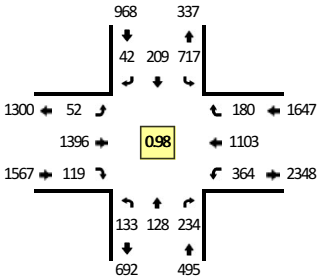
Type of peak hour being reported: Intersection Peak

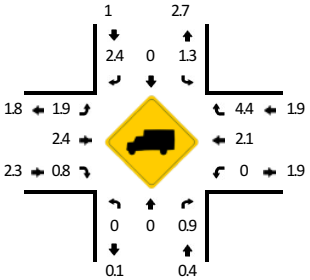
Method for determining peak hour: Total Entering Volume

LOCATION: Grand Ave -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

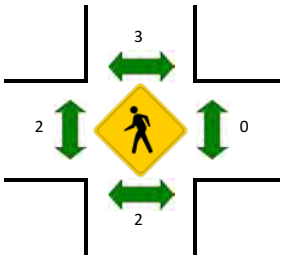
QC JOB #: 16384635
DATE: Thu, Nov 2 2023

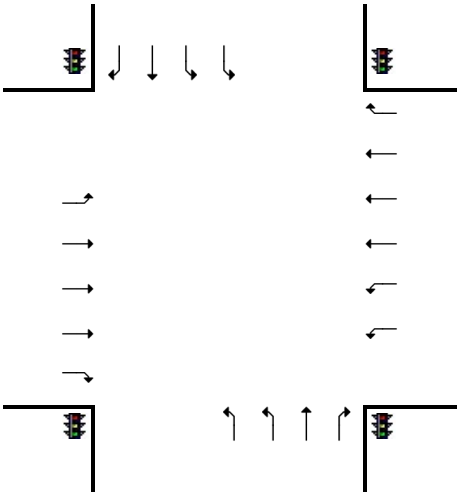
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

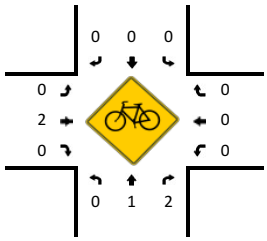


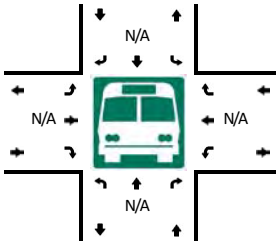


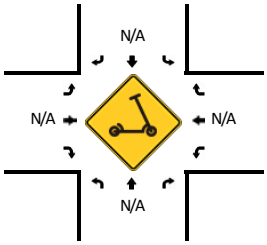
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Grand Ave (Northbound)				Grand Ave (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	6	6	18	0	60	18	6	0	4	117	8	2	35	72	14	0	366	
4:05 PM	10	15	24	0	51	14	6	0	1	114	12	2	31	89	12	0	381	
4:10 PM	18	11	15	0	57	13	3	0	3	118	15	2	25	99	14	1	394	
4:15 PM	8	11	23	0	58	18	2	0	1	111	10	3	25	69	10	0	349	
4:20 PM	12	12	20	0	64	17	2	0	2	102	8	3	23	93	11	0	369	
4:25 PM	11	6	18	0	48	22	5	0	2	121	8	2	27	87	22	0	379	
4:30 PM	15	10	17	0	60	21	2	0	2	117	13	3	31	95	19	0	405	
4:35 PM	13	13	16	0	57	13	4	0	5	116	8	1	38	104	10	0	398	
4:40 PM	5	3	25	0	61	9	4	0	4	117	23	1	31	101	9	0	393	
4:45 PM	10	6	19	0	54	17	0	0	2	115	10	1	35	100	19	0	388	
4:50 PM	16	12	22	0	54	17	4	0	0	106	4	2	29	95	18	0	379	
4:55 PM	10	16	19	0	80	21	5	0	3	135	8	2	17	87	10	0	413	4614
5:00 PM	15	16	19	0	49	24	4	0	3	104	13	2	30	73	16	0	368	4616
5:05 PM	8	13	21	0	59	15	2	0	3	131	9	3	26	94	16	0	400	4635
5:10 PM	9	10	31	0	65	10	3	0	0	111	5	2	30	82	15	0	373	4614
5:15 PM	9	10	17	0	60	28	4	0	1	116	9	1	36	97	16	0	404	4669
5:20 PM	14	9	14	0	57	15	6	0	3	120	5	1	29	74	15	1	363	4663
5:25 PM	8	10	14	1	61	19	4	0	3	108	12	4	31	101	17	0	393	4677
5:30 PM	10	11	18	0	54	18	1	0	3	124	5	1	34	87	11	0	377	4649
5:35 PM	9	12	25	0	46	17	2	0	1	118	4	1	34	82	18	0	369	4620
5:40 PM	4	12	27	0	44	16	2	0	2	115	6	0	34	100	17	0	379	4606
5:45 PM	7	6	29	0	40	17	4	0	3	107	9	1	30	97	18	0	368	4586
5:50 PM	14	9	23	0	47	20	2	0	0	110	8	3	39	108	12	1	396	4603
5:55 PM	8	11	16	0	36	17	2	0	5	109	15	2	47	101	14	0	383	4573
6:00 PM	12	9	22	0	31	12	6	0	5	102	10	0	42	103	8	1	363	4568
6:05 PM	5	9	19	0	27	13	2	0	0	96	10	3	45	78	8	1	316	4484
6:10 PM	11	7	22	0	24	14	2	0	1	126	8	2	37	79	17	0	350	4461
6:15 PM	11	9	26	0	18	11	2	0	2	107	5	4	31	86	11	0	323	4380
6:20 PM	12	6	17	0	13	15	2	0	2	126	15	2	46	93	11	0	360	4377
6:25 PM	14	13	16	0	15	8	0	0	4	103	6	4	38	84	3	0	308	4292
6:30 PM	8	11	22	0	15	6	1	0	0	97	11	3	42	88	7	0	311	4226
6:35 PM	11	3	21	0	19	12	1	0	5	108	15	1	36	82	6	1	321	4178
6:40 PM	7	8	18	0	18	13	2	0	0	83	14	0	37	77	4	0	281	4080
6:45 PM	15	7	23	0	9	9	0	0	2	103	13	0	33	61	13	0	288	4000
6:50 PM	11	13	24	0	16	15	2	0	2	74	11	0	37	74	8	0	287	3891
6:55 PM	12	9	12	0	15	15	1	0	5	81	6	1	38	75	9	0	279	3787

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	132	104	232	0	712	172	40	0	44	1400	176	20	400	1200	152	0	4784
Heavy Trucks	0	0	4		12	0	0		0	28	4		0	40	8		96
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	0	0		0	4	0		0	0	0		8
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

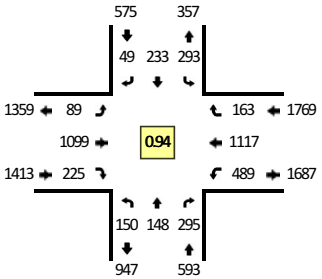
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

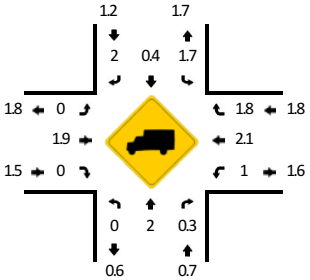
LOCATION: Grand Ave -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

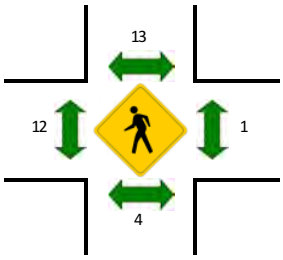
QC JOB #: 16384636
DATE: Sat, Nov 4 2023

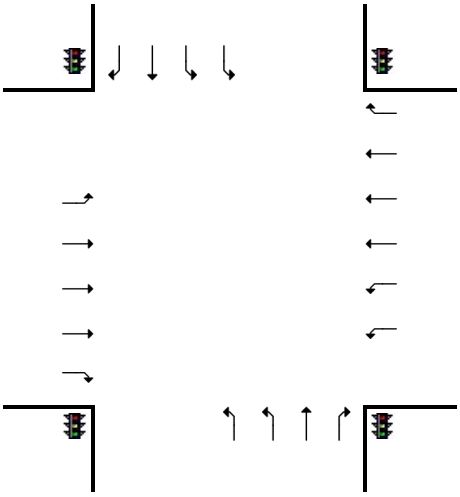
Peak-Hour: 12:05 PM -- 1:05 PM
Peak 15-Min: 12:30 PM -- 12:45 PM

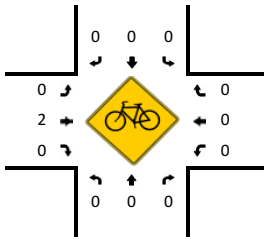


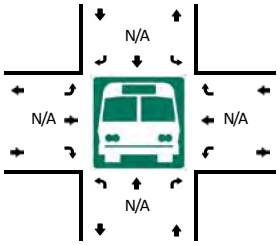
TRUE DATA TO IMPROVE MOBILITY

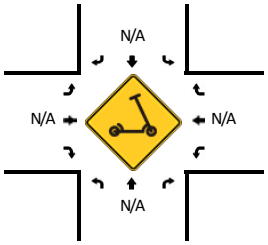












5-Min Count Period Beginning At	Grand Ave (Northbound)				Grand Ave (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	7	6	18	0	15	11	3	0	5	116	11	11	53	117	17	0	390	
11:05 AM	9	9	17	0	24	15	10	0	11	79	16	0	51	77	16	0	334	
11:10 AM	11	11	15	0	19	12	2	0	4	112	11	5	48	105	22	0	377	
11:15 AM	15	7	35	0	27	14	7	0	3	80	13	4	35	85	13	0	338	
11:20 AM	14	4	19	0	17	5	4	0	6	105	20	6	53	100	15	0	368	
11:25 AM	16	10	24	0	41	27	2	0	3	68	14	4	28	77	13	0	327	
11:30 AM	10	5	25	0	12	10	5	0	1	110	13	4	50	132	15	0	392	
11:35 AM	16	11	15	0	18	15	2	0	2	79	5	5	51	70	12	0	301	
11:40 AM	10	6	18	0	14	8	5	0	2	112	20	8	56	106	17	0	382	
11:45 AM	11	6	23	0	12	10	3	0	2	75	12	5	32	89	10	0	290	
11:50 AM	9	14	18	0	19	17	8	0	6	115	23	2	49	113	21	0	414	
11:55 AM	13	6	30	0	26	13	2	0	4	61	14	4	38	68	13	0	292	4205
12:00 PM	7	11	19	0	14	11	1	0	7	104	9	6	54	105	16	0	364	4179
12:05 PM	22	11	25	0	33	24	5	0	4	76	19	3	30	86	8	0	346	4191
12:10 PM	7	15	20	0	17	14	3	0	5	112	22	5	48	101	4	0	373	4187
12:15 PM	8	13	33	0	28	29	1	0	3	84	19	0	34	70	7	0	329	4178
12:20 PM	9	9	17	0	19	16	5	0	6	90	23	3	49	119	21	0	386	4196
12:25 PM	12	15	29	0	34	27	5	0	6	71	20	2	30	85	14	0	350	4219
12:30 PM	9	13	23	0	24	11	4	0	4	119	18	6	55	116	17	0	419	4246
12:35 PM	16	17	22	0	25	19	2	0	1	68	14	1	36	77	14	0	312	4257
12:40 PM	11	10	31	0	20	10	7	0	4	118	20	5	50	122	20	0	428	4303
12:45 PM	14	11	27	0	28	30	4	0	2	73	20	5	28	55	12	0	309	4322
12:50 PM	12	8	18	0	18	15	2	0	4	103	17	3	50	111	13	0	374	4282
12:55 PM	16	11	29	0	25	19	5	0	4	81	15	4	32	63	12	0	316	4306
1:00 PM	14	15	21	0	22	19	6	0	3	104	18	6	47	112	21	0	408	4350
1:05 PM	14	9	25	0	23	23	6	0	2	67	13	5	32	77	8	0	304	4308
1:10 PM	15	8	24	0	21	14	0	0	10	113	12	3	52	121	16	0	409	4344
1:15 PM	15	19	28	0	25	24	1	0	4	78	19	2	34	69	9	0	327	4342
1:20 PM	10	11	22	0	20	13	3	0	3	110	17	1	53	95	13	0	371	4327
1:25 PM	19	15	38	0	34	19	1	0	1	67	23	2	36	69	12	0	336	4313
1:30 PM	7	13	23	0	15	16	1	0	3	100	13	6	46	97	10	0	350	4244
1:35 PM	21	18	33	0	25	16	3	0	3	64	26	2	40	61	13	0	325	4257
1:40 PM	14	8	25	0	18	9	0	0	4	109	18	5	53	99	16	0	378	4207
1:45 PM	24	14	36	0	23	16	1	0	1	82	15	0	40	61	22	0	335	4233
1:50 PM	17	12	25	0	20	15	1	0	5	101	16	2	46	115	20	0	395	4254
1:55 PM	14	10	35	0	28	17	1	0	1	71	15	1	26	67	15	0	301	4239

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	144	160	304	0	276	160	52	0	36	1220	208	48	564	1260	204	0	4636
Heavy Trucks	0	8	0		0	0	0		0	20	0		8	20	0		56
Buses																	
Pedestrians		4				8				4				0			16
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

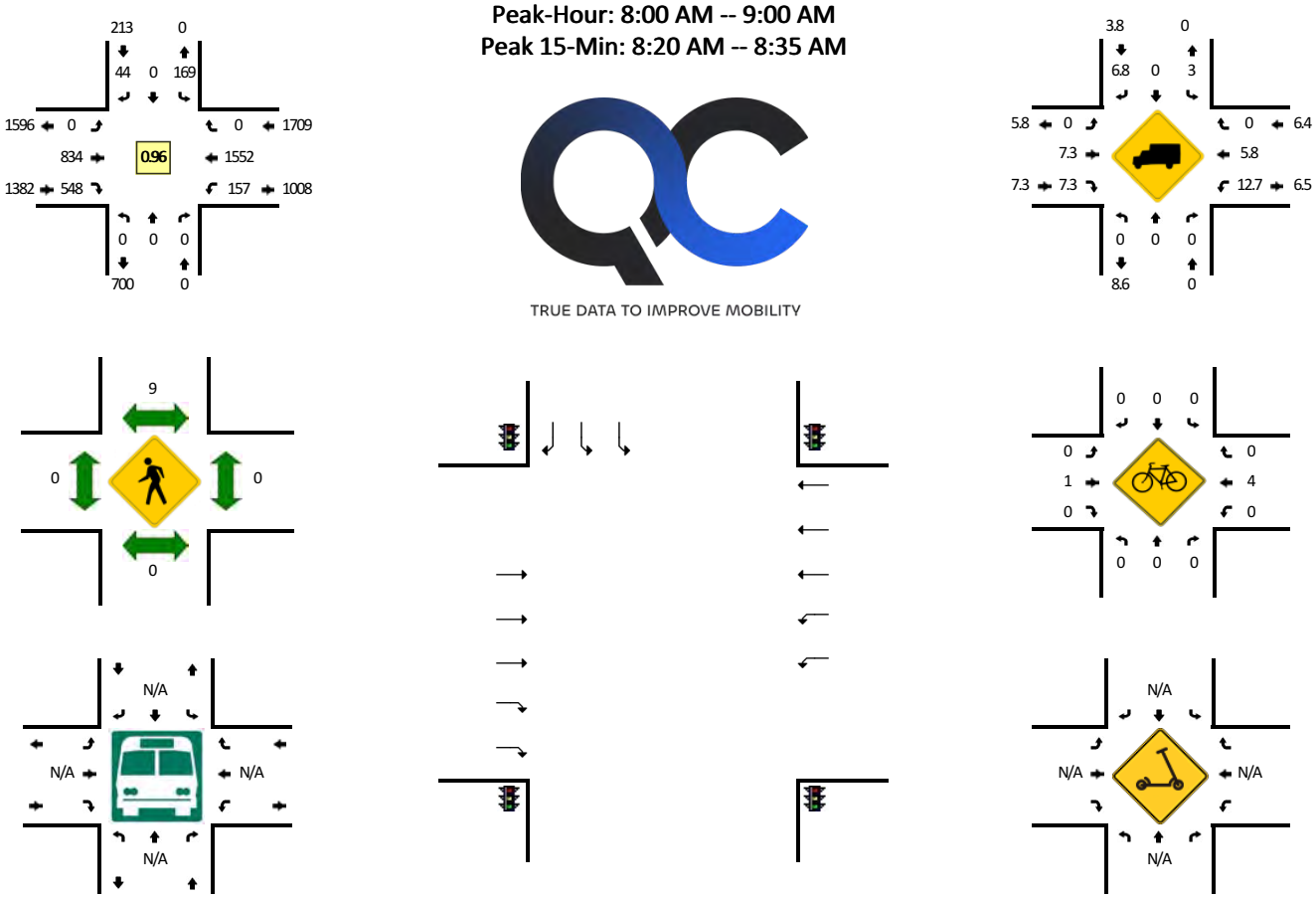
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SR-78 EB Ramps -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

QC JOB #: 16384637
DATE: Thu, Nov 2 2023

Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:20 AM -- 8:35 AM



5-Min Count Period Beginning At	SR-78 EB Ramps (Northbound)				SR-78 EB Ramps (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	13	0	4	0	0	35	43	0	14	110	0	0	219	
7:05 AM	0	0	0	0	6	0	6	0	0	30	56	0	16	117	0	0	231	
7:10 AM	0	0	0	0	13	0	6	0	0	35	54	0	16	121	0	0	245	
7:15 AM	0	0	0	0	6	0	2	0	0	43	54	0	17	142	0	0	264	
7:20 AM	0	0	0	0	25	0	3	0	0	50	63	0	9	116	0	0	266	
7:25 AM	0	0	0	0	2	0	3	0	0	50	43	0	17	127	0	0	242	
7:30 AM	0	0	0	0	10	0	2	0	0	47	46	0	14	173	0	2	294	
7:35 AM	0	0	0	0	13	0	1	0	0	53	38	0	14	146	0	0	265	
7:40 AM	0	0	0	0	17	0	0	0	0	68	42	0	7	150	0	0	284	
7:45 AM	0	0	0	0	10	0	1	0	0	70	36	0	9	127	0	0	253	
7:50 AM	0	0	0	0	19	0	1	0	0	68	55	0	3	139	0	0	285	
7:55 AM	0	0	0	0	5	0	4	0	0	60	40	0	7	126	0	1	243	3091
8:00 AM	0	0	0	0	17	0	1	0	0	60	50	0	6	150	0	0	284	3156
8:05 AM	0	0	0	0	15	0	3	0	0	60	47	0	10	106	0	0	241	3166
8:10 AM	0	0	0	0	19	0	2	0	0	48	42	0	16	146	0	0	273	3194
8:15 AM	0	0	0	0	13	0	2	0	0	72	44	0	13	120	0	0	264	3194
8:20 AM	0	0	0	0	18	0	7	0	0	78	58	0	7	134	0	1	303	3231
8:25 AM	0	0	0	0	15	0	2	0	0	70	36	0	18	142	0	0	283	3272
8:30 AM	0	0	0	0	11	0	2	0	0	81	46	0	11	121	0	0	272	3250
8:35 AM	0	0	0	0	13	0	4	0	0	70	42	0	22	116	0	0	267	3252
8:40 AM	0	0	0	0	12	0	4	0	0	70	50	0	7	115	0	2	260	3228
8:45 AM	0	0	0	0	14	0	4	0	0	70	44	0	17	136	0	2	287	3262
8:50 AM	0	0	0	0	11	0	9	0	0	79	41	0	9	134	0	0	283	3260
8:55 AM	0	0	0	0	11	0	4	0	0	76	48	0	16	132	0	0	287	3304

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	176	0	44	0	0	916	560	0	144	1588	0	4	3432
Heavy Trucks	0	0	0		4	0	0		0	68	48		20	124	0		264
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

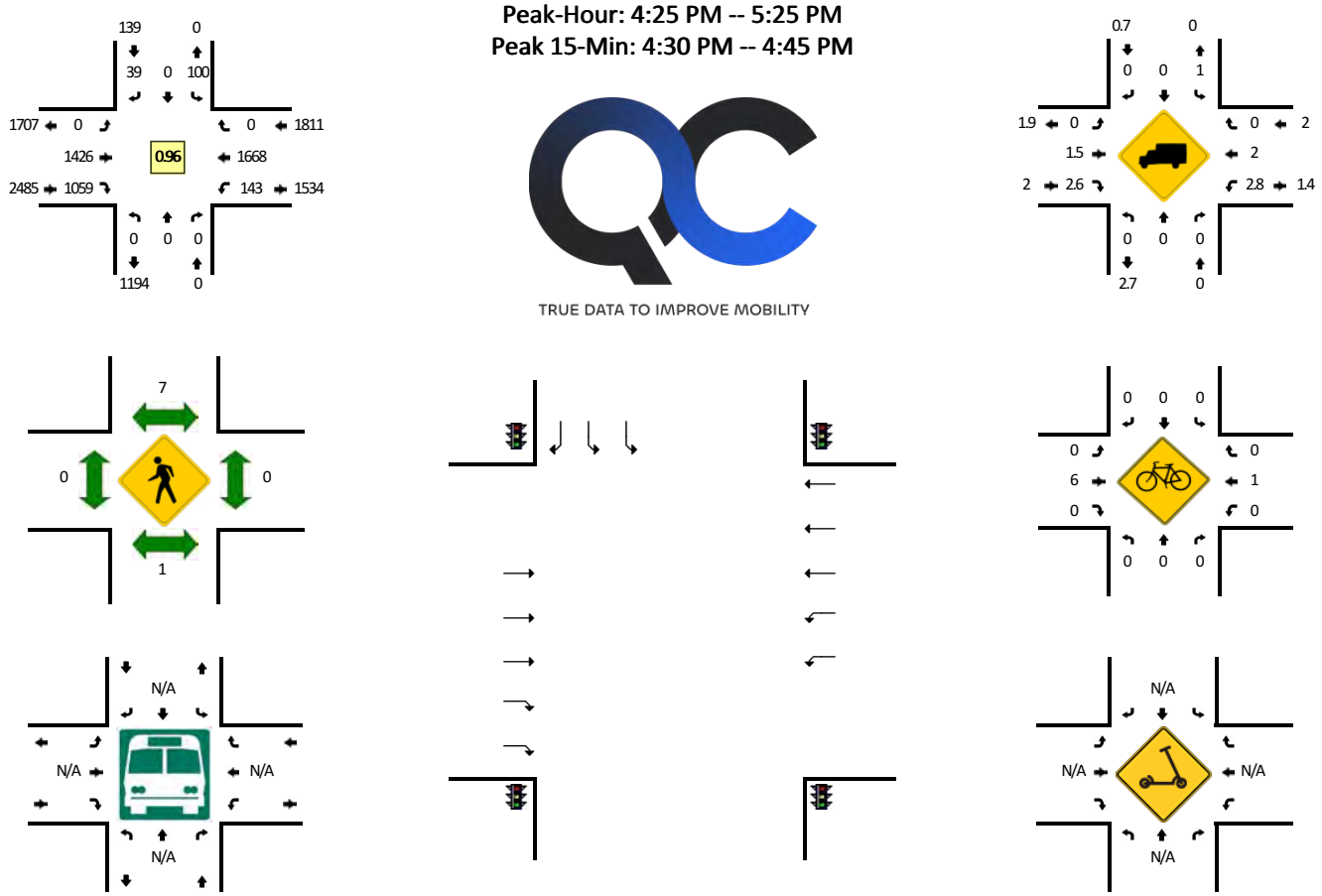
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SR-78 EB Ramps -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

QC JOB #: 16384638
DATE: Thu, Nov 2 2023

Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 4:30 PM -- 4:45 PM



TRUE DATA TO IMPROVE MOBILITY

5-Min Count Period Beginning At	SR-78 EB Ramps (Northbound)				SR-78 EB Ramps (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	10	0	4	0	0	117	95	0	21	128	0	1	376	
4:05 PM	0	0	0	0	7	0	3	0	0	121	92	0	18	129	0	0	370	
4:10 PM	0	0	0	0	7	0	5	0	0	111	103	0	13	135	0	0	374	
4:15 PM	0	0	0	0	15	0	3	0	0	122	97	0	10	96	0	0	343	
4:20 PM	0	0	0	0	2	0	1	0	0	118	88	0	12	129	0	0	350	
4:25 PM	0	0	0	0	10	0	3	0	0	107	88	0	11	148	0	2	369	
4:30 PM	0	0	0	0	8	0	5	0	0	116	99	0	3	148	0	1	380	
4:35 PM	0	0	0	0	8	0	2	0	0	111	94	0	16	149	0	0	380	
4:40 PM	0	0	0	0	10	0	7	0	0	127	96	0	11	139	0	0	390	
4:45 PM	0	0	0	0	7	0	1	0	0	123	82	0	9	153	0	1	376	
4:50 PM	0	0	0	0	8	0	2	0	0	118	91	0	13	135	0	0	367	
4:55 PM	0	0	0	0	6	0	2	0	0	121	79	0	17	112	0	0	337	4412
5:00 PM	0	0	0	0	10	0	2	0	0	104	81	0	15	137	0	1	350	4386
5:05 PM	0	0	0	0	11	0	3	0	0	134	90	0	8	128	0	0	374	4390
5:10 PM	0	0	0	0	7	0	6	0	0	130	82	0	11	133	0	0	369	4385
5:15 PM	0	0	0	0	8	0	3	0	0	117	90	0	13	143	0	3	377	4419
5:20 PM	0	0	0	0	7	0	3	0	0	118	87	0	8	143	0	0	366	4435
5:25 PM	0	0	0	0	11	0	3	0	0	111	85	0	5	151	0	0	366	4432
5:30 PM	0	0	0	0	13	0	2	0	0	119	90	0	9	135	0	0	368	4420
5:35 PM	0	0	0	0	8	0	4	0	0	125	76	0	9	131	0	0	353	4393
5:40 PM	0	0	0	0	9	0	3	0	0	116	84	0	6	146	0	0	364	4367
5:45 PM	0	0	0	0	9	0	5	0	0	102	89	0	9	156	0	0	370	4361
5:50 PM	0	0	0	0	14	0	5	0	0	106	96	0	4	156	0	0	381	4375
5:55 PM	0	0	0	0	7	0	9	0	0	98	86	0	14	155	0	0	369	4407
6:00 PM	0	0	0	0	12	0	6	0	0	92	81	0	7	134	0	0	332	4389
6:05 PM	0	0	0	0	21	0	5	0	0	97	69	0	19	134	0	0	345	4360
6:10 PM	0	0	0	0	25	0	5	0	0	96	90	0	14	124	0	2	356	4347
6:15 PM	0	0	0	0	20	0	5	0	0	90	82	0	20	142	0	1	360	4330
6:20 PM	0	0	0	0	13	0	10	0	0	78	97	0	10	148	0	1	357	4321
6:25 PM	0	0	0	0	10	0	12	0	0	79	79	0	8	119	0	0	307	4262
6:30 PM	0	0	0	0	12	0	23	0	0	69	78	0	15	118	0	0	315	4209
6:35 PM	0	0	0	0	17	0	14	0	0	85	85	0	13	114	0	1	329	4185
6:40 PM	0	0	0	0	21	0	15	0	0	70	72	0	15	103	0	0	296	4117
6:45 PM	0	0	0	0	26	0	9	0	0	76	74	0	12	106	0	0	303	4050
6:50 PM	0	0	0	0	27	0	12	0	0	69	68	0	10	103	0	0	289	3958
6:55 PM	0	0	0	0	14	0	11	0	0	57	60	0	11	110	0	0	263	3852

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	104	0	56	0	0	1416	1156	0	120	1744	0	4	4600
Heavy Trucks	0	0	0		4	0	0		0	24	28		8	48	0		112
Buses																	
Pedestrians		4				16				0				0			20
Bicycles	0	0	0		0	0	0		0	8	0		0	0	0		8
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

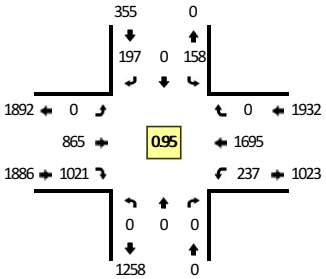
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

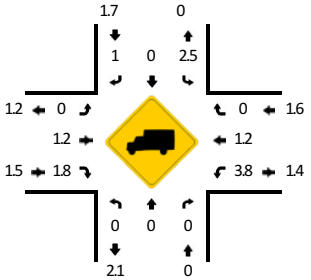
LOCATION: SR-78 EB Ramps -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

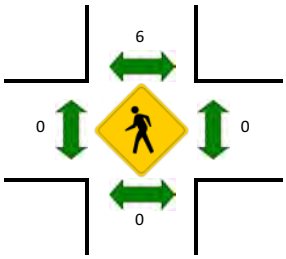
QC JOB #: 16384639
DATE: Sat, Nov 4 2023

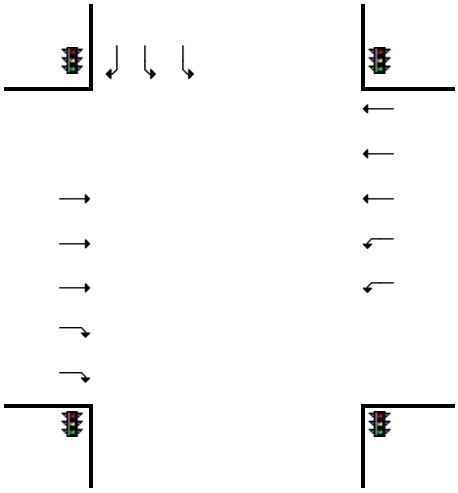
Peak-Hour: 11:45 AM -- 12:45 PM
Peak 15-Min: 12:30 PM -- 12:45 PM

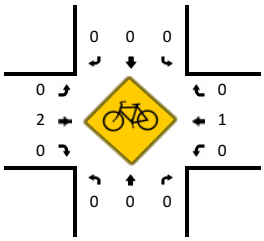


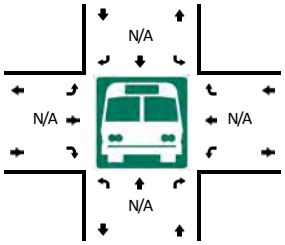
TRUE DATA TO IMPROVE MOBILITY

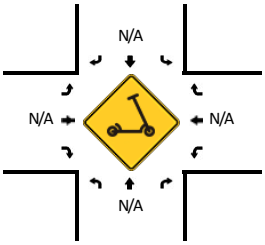












5-Min Count Period Beginning At	SR-78 EB Ramps (Northbound)				SR-78 EB Ramps (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	0	0	0	0	15	0	13	0	0	73	93	0	19	167	0	1	381	
11:05 AM	0	0	0	0	14	0	18	0	0	59	84	0	5	138	0	0	318	
11:10 AM	0	0	0	0	14	0	15	0	0	65	88	0	9	158	0	1	350	
11:15 AM	0	0	0	0	14	0	19	0	0	78	78	0	18	121	0	0	328	
11:20 AM	0	0	0	0	9	0	9	0	0	97	82	0	7	157	0	1	362	
11:25 AM	0	0	0	0	16	0	20	0	0	73	63	0	18	134	0	1	325	
11:30 AM	0	0	0	0	12	0	14	0	0	96	86	0	11	147	0	0	366	
11:35 AM	0	0	0	0	23	0	22	0	0	71	75	0	22	139	0	0	352	
11:40 AM	0	0	0	0	8	0	11	0	0	73	74	0	15	160	0	0	341	
11:45 AM	0	0	0	0	11	0	25	0	0	62	72	0	39	141	0	0	350	
11:50 AM	0	0	0	0	10	0	7	0	0	96	85	0	23	148	0	0	369	
11:55 AM	0	0	0	0	15	0	24	0	0	65	69	0	17	116	0	0	306	4148
12:00 PM	0	0	0	0	12	0	10	0	0	80	74	0	23	143	0	0	342	4109
12:05 PM	0	0	0	0	24	0	20	0	0	54	92	0	18	133	0	0	341	4132
12:10 PM	0	0	0	0	7	0	13	0	0	85	83	0	17	149	0	0	354	4136
12:15 PM	0	0	0	0	20	0	16	0	0	68	96	0	14	121	0	0	335	4143
12:20 PM	0	0	0	0	10	0	9	0	0	61	91	0	10	160	0	0	341	4122
12:25 PM	0	0	0	0	15	0	17	0	0	55	90	0	23	136	0	0	336	4133
12:30 PM	0	0	0	0	10	0	19	0	0	88	91	0	15	162	0	0	385	4152
12:35 PM	0	0	0	0	14	0	24	0	0	60	68	0	22	131	0	0	319	4119
12:40 PM	0	0	0	0	10	0	13	0	0	91	110	0	16	155	0	0	395	4173
12:45 PM	0	0	0	0	20	0	14	0	0	72	77	0	19	102	0	0	304	4127
12:50 PM	0	0	0	0	13	0	11	0	0	79	86	0	10	144	0	1	344	4102
12:55 PM	0	0	0	0	21	0	12	0	0	67	77	0	18	122	0	0	317	4113
1:00 PM	0	0	0	0	15	0	13	0	0	68	109	0	13	174	0	0	392	4163
1:05 PM	0	0	0	0	21	0	18	0	0	51	78	0	16	123	0	1	308	4130
1:10 PM	0	0	0	0	11	0	11	0	0	84	83	0	14	157	0	0	360	4136
1:15 PM	0	0	0	0	25	0	14	0	0	69	88	0	23	115	0	0	334	4135
1:20 PM	0	0	0	0	8	0	12	0	0	88	82	0	17	141	0	1	349	4143
1:25 PM	0	0	0	0	12	0	22	0	0	63	96	0	18	115	0	0	326	4133
1:30 PM	0	0	0	0	8	0	10	0	0	78	87	0	8	126	0	0	317	4065
1:35 PM	0	0	0	0	14	0	17	0	0	69	83	0	17	120	0	0	320	4066
1:40 PM	0	0	0	0	11	0	10	0	0	85	100	0	11	125	0	0	342	4013
1:45 PM	0	0	0	0	16	0	14	0	0	67	85	0	23	143	0	1	349	4058
1:50 PM	0	0	0	0	13	0	9	0	0	86	112	0	15	149	0	1	385	4099
1:55 PM	0	0	0	0	15	0	16	0	0	70	90	0	14	127	0	0	332	4114

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	136	0	224	0	0	956	1076	0	212	1792	0	0	4396
Heavy Trucks	0	0	0		0	0	0		0	8	12		20	24	0		64
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

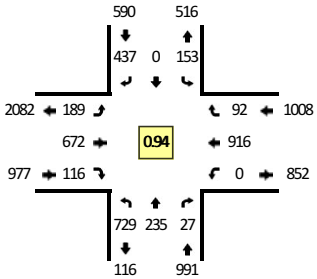
Type of peak hour being reported: Intersection Peak

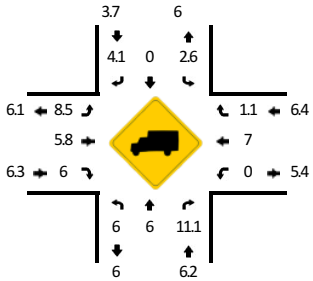
Method for determining peak hour: Total Entering Volume

LOCATION: Knoll Rd -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

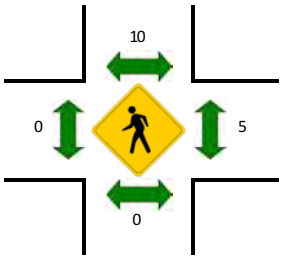
QC JOB #: 16384640
DATE: Thu, Nov 2 2023

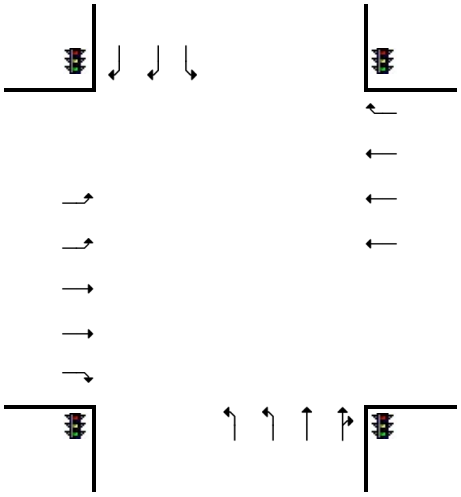
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

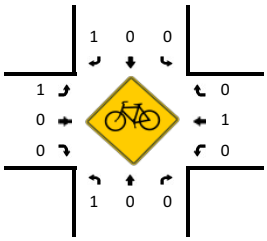


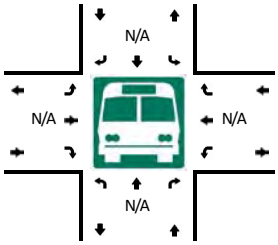


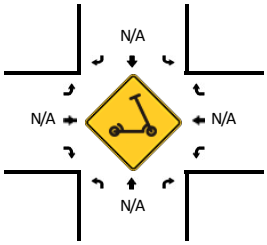
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Knoll Rd (Northbound)				Knoll Rd (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	64	16	6	0	5	0	24	0	20	23	6	0	0	60	8	0	232	
7:05 AM	64	25	6	0	7	0	30	0	10	18	7	0	0	59	10	0	236	
7:10 AM	53	21	4	0	12	0	39	0	12	23	7	0	0	66	8	0	245	
7:15 AM	71	32	5	0	12	0	39	0	16	27	5	0	0	52	7	0	266	
7:20 AM	38	20	5	0	5	0	46	0	25	38	11	0	0	86	7	0	281	
7:25 AM	81	23	2	0	8	0	27	0	18	28	9	0	0	55	3	0	254	
7:30 AM	71	19	3	0	6	0	37	0	19	42	12	0	0	99	8	0	316	
7:35 AM	79	28	2	0	8	0	30	0	6	32	7	0	0	73	6	0	271	
7:40 AM	48	21	1	0	15	0	53	0	22	68	12	0	0	99	7	0	346	
7:45 AM	68	12	3	0	12	0	34	0	17	60	8	0	0	76	7	0	297	
7:50 AM	76	31	3	0	11	0	26	0	9	57	12	0	0	73	7	0	305	
7:55 AM	44	16	1	0	13	0	47	0	15	64	9	0	0	63	3	0	275	3324
8:00 AM	73	16	1	0	12	0	28	0	6	46	9	0	0	74	7	0	272	3364
8:05 AM	72	31	2	0	16	0	39	0	17	53	5	0	0	46	7	0	288	3416
8:10 AM	54	20	3	0	14	0	47	0	18	61	11	0	0	64	7	0	299	3470
8:15 AM	46	12	3	0	19	0	30	0	18	61	10	0	0	99	12	0	310	3514
8:20 AM	58	15	4	0	9	0	27	0	22	65	14	0	0	64	12	0	290	3523
8:25 AM	40	14	1	0	18	0	39	0	20	63	7	0	0	86	9	0	297	3566
8:30 AM	35	27	3	0	4	0	46	0	18	71	13	0	0	61	16	0	294	3544
8:35 AM	48	18	2	0	13	0	37	0	21	54	10	0	0	63	7	0	273	3546
8:40 AM	67	15	2	0	12	0	23	0	6	59	16	0	0	69	12	0	281	3481
8:45 AM	60	12	1	0	14	0	41	0	20	62	10	0	0	71	7	0	298	3482
8:50 AM	67	21	3	0	6	0	44	0	19	67	8	0	0	63	7	0	305	3482
8:55 AM	68	20	3	0	7	0	24	0	22	44	8	0	0	57	11	0	264	3471

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	768	256	28	0	152	0	452	0	192	740	128	0	0	992	84	0	3792
Heavy Trucks	44	12	8		8	0	20		20	40	0		0	64	0		216
Buses																	
Pedestrians		0				8				0				8			16
Bicycles	4	0	0		0	0	0		0	0	0		0	4	0		8
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

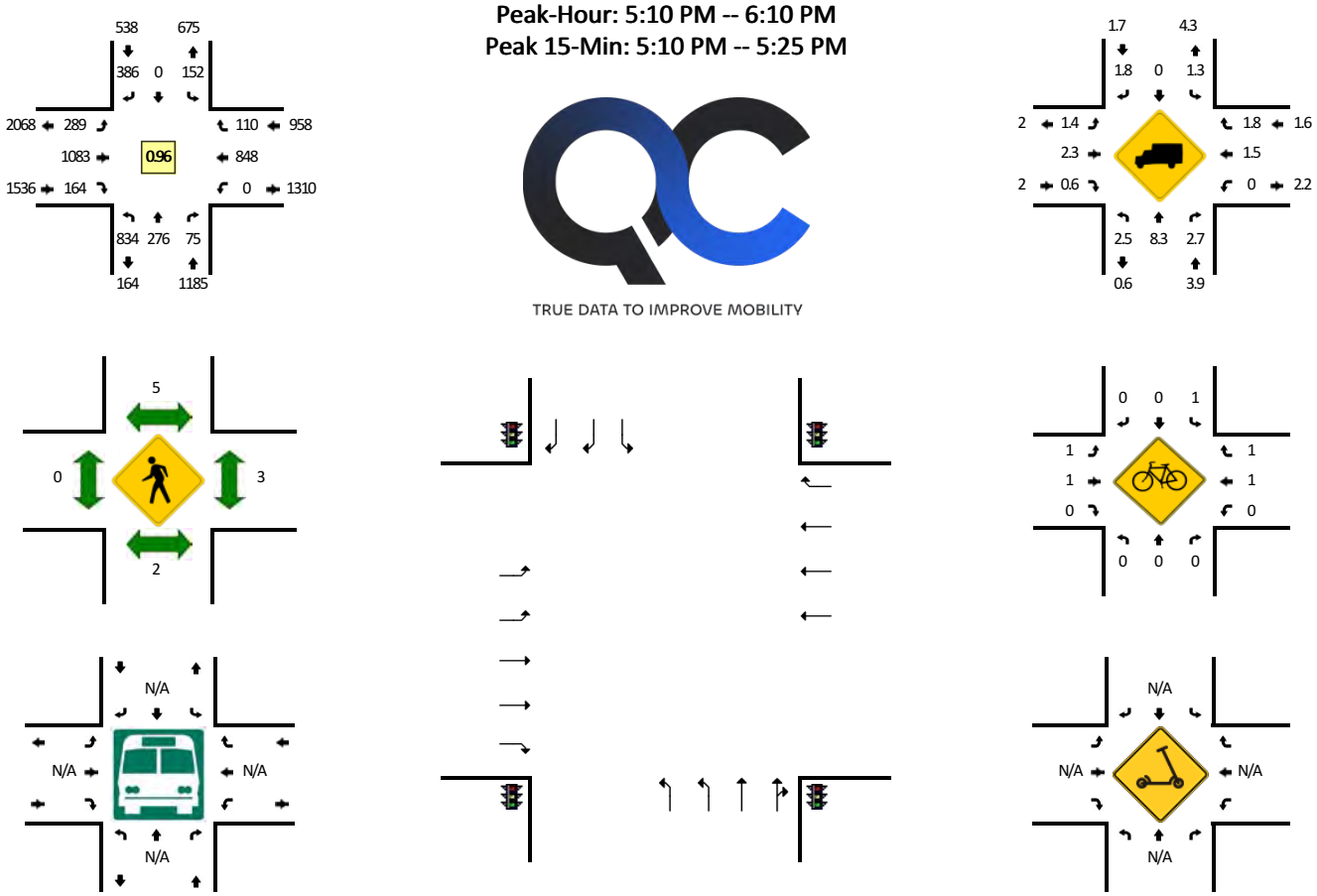
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Knoll Rd -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

QC JOB #: 16384641
DATE: Thu, Nov 2 2023

Peak-Hour: 5:10 PM -- 6:10 PM
Peak 15-Min: 5:10 PM -- 5:25 PM



5-Min Count Period Beginning At	Knoll Rd (Northbound)				Knoll Rd (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	58	15	2	0	19	0	36	0	21	68	10	0	0	87	8	0	324	
4:05 PM	47	11	8	0	6	0	43	0	30	109	12	0	0	88	10	0	364	
4:10 PM	74	16	5	0	13	0	32	0	23	67	17	0	0	55	7	0	309	
4:15 PM	39	13	1	0	14	0	16	0	20	103	12	0	0	70	12	0	300	
4:20 PM	56	25	6	0	3	0	31	0	24	94	15	0	0	60	6	0	320	
4:25 PM	84	23	5	0	16	0	24	0	20	77	10	0	0	70	4	0	333	
4:30 PM	60	14	6	0	12	0	33	0	17	115	9	0	0	78	9	0	353	
4:35 PM	99	23	9	0	18	0	33	0	23	74	15	0	0	55	11	0	360	
4:40 PM	78	33	6	0	12	0	39	0	20	83	17	0	0	62	6	0	356	
4:45 PM	68	22	2	0	4	0	33	0	38	119	16	0	0	85	4	0	391	
4:50 PM	69	15	6	0	13	0	25	0	21	85	10	0	0	67	3	0	314	
4:55 PM	50	15	5	0	6	0	45	0	29	107	10	0	0	49	10	0	326	4050
5:00 PM	68	19	3	0	20	0	43	0	22	59	9	0	0	69	7	0	319	4045
5:05 PM	69	11	6	0	6	0	38	0	27	103	13	0	0	36	8	0	317	3998
5:10 PM	61	14	7	0	18	0	32	0	14	118	11	0	0	91	9	0	375	4064
5:15 PM	68	35	5	0	13	0	47	0	22	113	16	0	0	59	3	0	381	4145
5:20 PM	68	16	9	0	6	0	15	0	26	98	11	0	0	86	9	0	344	4169
5:25 PM	90	26	8	0	14	0	17	0	22	74	11	0	0	64	9	0	335	4171
5:30 PM	70	26	6	0	14	0	39	0	33	98	14	0	0	58	13	0	371	4189
5:35 PM	51	14	6	0	17	0	26	0	21	101	15	0	0	74	10	0	335	4164
5:40 PM	61	24	4	0	11	0	37	0	21	106	20	0	0	73	9	0	366	4174
5:45 PM	89	30	6	0	19	0	31	0	21	54	15	0	0	60	2	0	327	4110
5:50 PM	66	13	6	0	14	0	36	0	26	99	11	0	0	89	16	0	376	4172
5:55 PM	86	36	3	0	6	0	34	0	21	73	11	0	0	61	11	0	342	4188
6:00 PM	66	19	5	0	8	0	30	0	31	78	10	0	0	68	11	0	326	4195
6:05 PM	58	23	10	0	12	0	42	0	31	71	19	0	0	65	8	0	339	4217
6:10 PM	65	24	4	0	5	0	37	0	25	86	14	0	0	54	11	0	325	4167
6:15 PM	81	15	7	0	12	0	33	0	21	76	7	0	0	69	3	0	324	4110
6:20 PM	64	14	4	0	6	0	38	0	33	57	15	0	0	66	6	0	303	4069
6:25 PM	68	19	3	0	12	0	16	0	22	55	14	0	0	55	3	0	267	4001
6:30 PM	64	17	5	0	2	0	30	0	23	49	8	0	0	58	7	0	263	3893
6:35 PM	53	20	5	0	10	0	31	0	27	76	12	0	0	48	3	0	285	3843
6:40 PM	55	13	3	0	12	0	28	0	17	68	14	0	0	51	5	0	266	3743
6:45 PM	45	12	4	0	10	0	36	0	23	67	8	0	0	38	7	0	250	3666
6:50 PM	54	18	8	0	7	0	30	0	34	60	9	0	0	43	5	0	268	3558
6:55 PM	61	12	8	0	4	0	29	0	16	55	7	0	0	59	6	0	257	3473

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	788	260	84	0	148	0	376	0	248	1316	152	0	0	944	84	0	4400
Heavy Trucks	28	24	4		0	0	8		4	28	0		0	12	4		112
Buses																	
Pedestrians		4				4				0				4			12
Bicycles	0	0	0		0	0	0		0	4	0		0	0	4		8
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

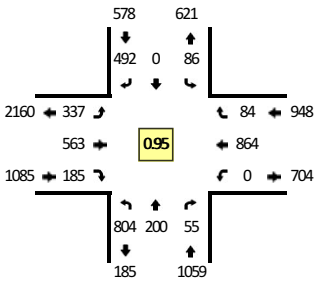
Type of peak hour being reported: Intersection Peak

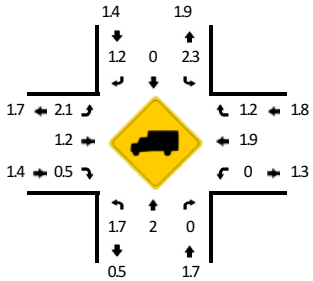
Method for determining peak hour: Total Entering Volume

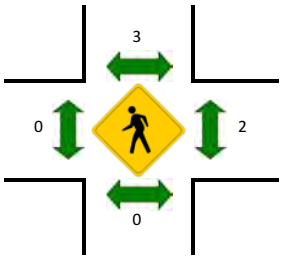
LOCATION: Knoll Rd -- W San Marcos Blvd
CITY/STATE: San Marcos, CA

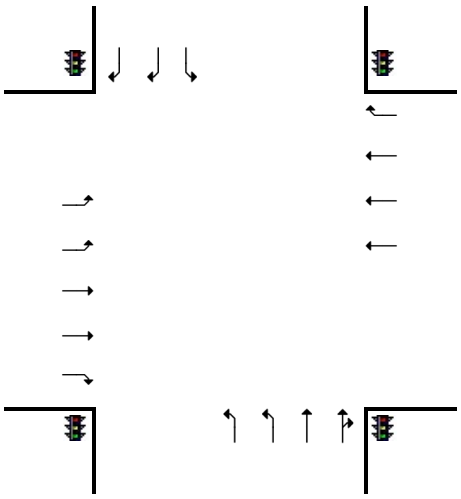
QC JOB #: 16384642
DATE: Sat, Nov 4 2023

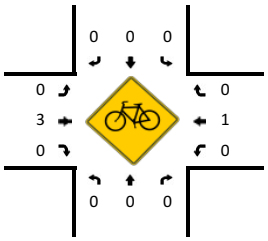
Peak-Hour: 11:25 AM -- 12:25 PM
Peak 15-Min: 11:40 AM -- 11:55 AM

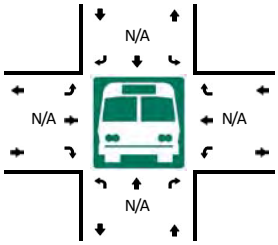


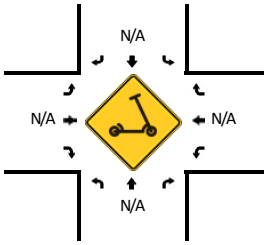












5-Min Count Period Beginning At	Knoll Rd (Northbound)				Knoll Rd (Southbound)				W San Marcos Blvd (Eastbound)				W San Marcos Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
11:00 AM	87	22	6	0	7	0	36	0	21	37	18	0	0	76	6	0	316	
11:05 AM	62	13	8	0	7	0	30	0	32	41	15	0	0	81	6	0	295	
11:10 AM	96	13	7	0	9	0	22	0	11	39	13	1	0	67	6	0	284	
11:15 AM	63	13	6	0	4	0	39	0	27	65	20	0	0	59	2	0	298	
11:20 AM	61	14	4	0	5	0	35	0	27	63	13	0	0	81	5	0	308	
11:25 AM	75	19	6	0	6	0	39	0	36	55	10	0	0	64	8	0	318	
11:30 AM	66	18	3	0	9	0	34	0	28	53	18	0	0	61	13	0	303	
11:35 AM	55	13	1	0	9	0	46	0	35	45	16	0	0	74	3	0	297	
11:40 AM	114	25	1	0	7	0	36	0	23	36	18	0	0	66	5	0	331	
11:45 AM	51	14	4	0	5	0	53	0	27	54	14	0	0	94	7	0	323	
11:50 AM	63	23	6	0	5	0	51	0	27	49	20	0	0	62	9	0	315	
11:55 AM	58	15	6	0	7	0	32	0	27	41	15	0	0	65	3	0	269	3657
12:00 PM	55	15	5	0	7	0	45	0	26	53	17	0	0	80	5	0	308	3649
12:05 PM	78	14	4	0	9	0	27	0	18	41	10	0	0	69	7	0	277	3631
12:10 PM	53	14	7	0	4	0	53	0	31	58	18	0	0	74	6	0	318	3665
12:15 PM	76	17	3	0	8	0	30	0	32	32	13	0	0	61	10	0	282	3649
12:20 PM	60	13	9	0	10	0	46	0	27	46	16	0	0	94	8	0	329	3670
12:25 PM	81	15	7	0	14	0	47	0	17	40	19	0	0	53	5	0	298	3650
12:30 PM	71	12	8	0	9	0	53	0	25	53	20	0	0	68	1	0	320	3667
12:35 PM	62	7	4	0	8	0	38	0	20	46	16	0	0	78	13	0	292	3662
12:40 PM	75	14	10	0	5	0	47	0	28	57	18	0	0	66	5	0	325	3656
12:45 PM	73	16	7	0	9	0	27	0	22	39	21	0	0	43	5	0	262	3595
12:50 PM	49	10	5	0	11	0	32	0	27	56	20	0	0	74	2	0	286	3566
12:55 PM	68	18	4	0	6	0	35	0	27	59	14	0	0	61	6	0	298	3595
1:00 PM	97	17	3	0	2	0	45	0	20	44	18	0	0	59	13	0	318	3605
1:05 PM	65	15	5	0	7	0	32	0	26	40	12	0	0	92	10	0	304	3632
1:10 PM	90	29	2	0	7	0	28	0	23	40	15	0	0	69	5	0	308	3622
1:15 PM	63	22	5	0	5	0	34	0	28	29	18	0	0	79	9	0	292	3632
1:20 PM	57	13	5	0	4	0	33	0	32	43	25	0	0	70	9	0	291	3594
1:25 PM	62	15	6	0	3	0	29	0	24	48	16	0	0	67	6	0	276	3572
1:30 PM	64	18	6	0	4	0	25	0	26	41	12	0	0	52	6	0	254	3506
1:35 PM	76	18	3	0	6	0	29	0	12	41	20	0	0	62	4	0	271	3485
1:40 PM	59	11	6	0	7	0	36	0	37	51	25	0	0	54	6	0	292	3452
1:45 PM	79	20	8	0	7	0	46	0	24	51	17	0	0	50	2	0	304	3494
1:50 PM	52	8	4	0	9	0	32	0	30	48	18	0	0	88	11	0	300	3508
1:55 PM	95	24	6	0	1	0	36	0	34	47	18	0	0	41	3	0	305	3515

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	912	248	44	0	68	0	560	0	308	556	208	0	0	888	84	0	3876
Heavy Trucks	8	8	0		0	0	16		4	4	0		0	12	0		52
Buses																	
Pedestrians		0				4				0				4			8
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 11/27/2023 4:31 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Las Posas Rd & Via Vera Cruz
QC JOB #: 16384644
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				3		3			3	
01:00 AM				29		29			29	
02:00 AM				35		35			35	
03:00 AM				35		35			35	
04:00 AM				66		66			66	
05:00 AM				179		179			179	
06:00 AM				379		379			379	
07:00 AM				503		503			503	
08:00 AM				626		626			626	
09:00 AM				651		651			651	
10:00 AM				669		669			669	
11:00 AM				**826**		**826**			**826**	
12:00 PM				845		845			845	
01:00 PM				854		854			854	
02:00 PM				865		865			865	
03:00 PM				**998**		**998**			**998**	
04:00 PM				988		988			988	
05:00 PM				806		806			806	
06:00 PM				653		653			653	
07:00 PM				481		481			481	
08:00 PM				457		457			457	
09:00 PM				292		292			292	
10:00 PM				123		123			123	
11:00 PM				80		80			80	
Day Total				11443		11443			11443	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 826		11:00 AM 826			11:00 AM 826	
PM Peak Volume				3:00 PM 998		3:00 PM 998			3:00 PM 998	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Las Posas Rd & Via Vera Cruz
QC JOB #: 16384644
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
01:00 AM				59		59			59	
02:00 AM				55		55			55	
03:00 AM				71		71			71	
04:00 AM				166		166			166	
05:00 AM				322		322			322	
06:00 AM				697		697			697	
07:00 AM				1083		1083			1083	
08:00 AM				1357		1357			1357	
09:00 AM				1325		1325			1325	
10:00 AM				1337		1337			1337	
11:00 AM				**1533**		**1533**			**1533**	
12:00 PM				1622		1622			1622	
01:00 PM				1584		1584			1584	
02:00 PM				1683		1683			1683	
03:00 PM				1819		1819			1819	
04:00 PM				**1873**		**1873**			**1873**	
05:00 PM				1782		1782			1782	
06:00 PM				1320		1320			1320	
07:00 PM				979		979			979	
08:00 PM				796		796			796	
09:00 PM				568		568			568	
10:00 PM				300		300			300	
11:00 PM				170		170			170	
Day Total				22505		22505			22505	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 1533		11:00 AM 1533			11:00 AM 1533	
PM Peak Volume				4:00 PM 1873		4:00 PM 1873			4:00 PM 1873	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Las Posas Rd & Via Vera Cruz
QC JOB #: 16384644
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				1		1			1	
01:00 AM				30		30			30	
02:00 AM				20		20			20	
03:00 AM				36		36			36	
04:00 AM				100		100			100	
05:00 AM				143		143			143	
06:00 AM				318		318			318	
07:00 AM				580		580			580	
08:00 AM				**731**		**731**			**731**	
09:00 AM				674		674			674	
10:00 AM				668		668			668	
11:00 AM				707		707			707	
12:00 PM				777		777			777	
01:00 PM				730		730			730	
02:00 PM				818		818			818	
03:00 PM				821		821			821	
04:00 PM				885		885			885	
05:00 PM				**976**		**976**			**976**	
06:00 PM				667		667			667	
07:00 PM				498		498			498	
08:00 PM				339		339			339	
09:00 PM				276		276			276	
10:00 PM				177		177			177	
11:00 PM				90		90			90	
Day Total				11062		11062			11062	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 731		8:00 AM 731			8:00 AM 731	
PM Peak Volume				5:00 PM 976		5:00 PM 976			5:00 PM 976	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Via Vera Cruz and Linda Vista Dr
QC JOB #: 16384645
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				21		21			21	
01:00 AM				10		10			10	
02:00 AM				9		9			9	
03:00 AM				4		4			4	
04:00 AM				14		14			14	
05:00 AM				55		55			55	
06:00 AM				145		145			145	
07:00 AM				345		345			345	
08:00 AM				**479**		**479**			**479**	
09:00 AM				314		314			314	
10:00 AM				334		334			334	
11:00 AM				365		365			365	
12:00 PM				400		400			400	
01:00 PM				433		433			433	
02:00 PM				557		557			557	
03:00 PM				773		773			773	
04:00 PM				**797**		**797**			**797**	
05:00 PM				741		741			741	
06:00 PM				325		325			325	
07:00 PM				188		188			188	
08:00 PM				169		169			169	
09:00 PM				103		103			103	
10:00 PM				49		49			49	
11:00 PM				26		26			26	
Day Total				6656		6656			6656	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 479		8:00 AM 479			8:00 AM 479	
PM Peak Volume				4:00 PM 797		4:00 PM 797			4:00 PM 797	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Via Vera Cruz and Linda Vista Dr
QC JOB #: 16384645
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				59		59			59	
01:00 AM				22		22			22	
02:00 AM				12		12			12	
03:00 AM				10		10			10	
04:00 AM				25		25			25	
05:00 AM				113		113			113	
06:00 AM				243		243			243	
07:00 AM				529		529			529	
08:00 AM				**768**		**768**			**768**	
09:00 AM				616		616			616	
10:00 AM				701		701			701	
11:00 AM				759		759			759	
12:00 PM				865		865			865	
01:00 PM				883		883			883	
02:00 PM				962		962			962	
03:00 PM				1185		1185			1185	
04:00 PM				**1274**		**1274**			**1274**	
05:00 PM				1235		1235			1235	
06:00 PM				672		672			672	
07:00 PM				429		429			429	
08:00 PM				338		338			338	
09:00 PM				222		222			222	
10:00 PM				101		101			101	
11:00 PM				62		62			62	
Day Total				12085		12085			12085	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 768		8:00 AM 768			8:00 AM 768	
PM Peak Volume				4:00 PM 1274		4:00 PM 1274			4:00 PM 1274	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Via Vera Cruz and Linda Vista Dr
QC JOB #: 16384645
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				38		38			38	
01:00 AM				12		12			12	
02:00 AM				3		3			3	
03:00 AM				6		6			6	
04:00 AM				11		11			11	
05:00 AM				58		58			58	
06:00 AM				98		98			98	
07:00 AM				184		184			184	
08:00 AM				289		289			289	
09:00 AM				302		302			302	
10:00 AM				367		367			367	
11:00 AM				**394**		**394**			**394**	
12:00 PM				465		465			465	
01:00 PM				450		450			450	
02:00 PM				405		405			405	
03:00 PM				412		412			412	
04:00 PM				477		477			477	
05:00 PM				**494**		**494**			**494**	
06:00 PM				347		347			347	
07:00 PM				241		241			241	
08:00 PM				169		169			169	
09:00 PM				119		119			119	
10:00 PM				52		52			52	
11:00 PM				36		36			36	
Day Total				5429		5429			5429	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 394		11:00 AM 394			11:00 AM 394	
PM Peak Volume				5:00 PM 494		5:00 PM 494			5:00 PM 494	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Linda Vista Dr and S Bent Ave
QC JOB #: 16384646
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				28		28			28	
01:00 AM				11		11			11	
02:00 AM				12		12			12	
03:00 AM				4		4			4	
04:00 AM				24		24			24	
05:00 AM				82		82			82	
06:00 AM				210		210			210	
07:00 AM				444		444			444	
08:00 AM				**656**		**656**			**656**	
09:00 AM				463		463			463	
10:00 AM				535		535			535	
11:00 AM				545		545			545	
12:00 PM				604		604			604	
01:00 PM				653		653			653	
02:00 PM				882		882			882	
03:00 PM				1193		1193			1193	
04:00 PM				**1256**		**1256**			**1256**	
05:00 PM				1112		1112			1112	
06:00 PM				475		475			475	
07:00 PM				274		274			274	
08:00 PM				210		210			210	
09:00 PM				135		135			135	
10:00 PM				75		75			75	
11:00 PM				33		33			33	
Day Total				9916		9916			9916	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 656		8:00 AM 656			8:00 AM 656	
PM Peak Volume				4:00 PM 1256		4:00 PM 1256			4:00 PM 1256	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Linda Vista Dr and S Bent Ave
QC JOB #: 16384646
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				69		69			69	
01:00 AM				24		24			24	
02:00 AM				18		18			18	
03:00 AM				12		12			12	
04:00 AM				62		62			62	
05:00 AM				224		224			224	
06:00 AM				421		421			421	
07:00 AM				793		793			793	
08:00 AM				**1144**		**1144**			**1144**	
09:00 AM				864		864			864	
10:00 AM				995		995			995	
11:00 AM				1048		1048			1048	
12:00 PM				1152		1152			1152	
01:00 PM				1194		1194			1194	
02:00 PM				1382		1382			1382	
03:00 PM				1739		1739			1739	
04:00 PM				**1831**		**1831**			**1831**	
05:00 PM				1705		1705			1705	
06:00 PM				869		869			869	
07:00 PM				546		546			546	
08:00 PM				402		402			402	
09:00 PM				264		264			264	
10:00 PM				142		142			142	
11:00 PM				70		70			70	
Day Total				16970		16970			16970	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 1144		8:00 AM 1144			8:00 AM 1144	
PM Peak Volume				4:00 PM 1831		4:00 PM 1831			4:00 PM 1831	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Linda Vista Dr and S Bent Ave
QC JOB #: 16384646
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				41		41			41	
01:00 AM				13		13			13	
02:00 AM				6		6			6	
03:00 AM				8		8			8	
04:00 AM				38		38			38	
05:00 AM				142		142			142	
06:00 AM				211		211			211	
07:00 AM				349		349			349	
08:00 AM				488		488			488	
09:00 AM				401		401			401	
10:00 AM				460		460			460	
11:00 AM				**503**		**503**			**503**	
12:00 PM				548		548			548	
01:00 PM				541		541			541	
02:00 PM				500		500			500	
03:00 PM				546		546			546	
04:00 PM				575		575			575	
05:00 PM				**593**		**593**			**593**	
06:00 PM				394		394			394	
07:00 PM				272		272			272	
08:00 PM				192		192			192	
09:00 PM				129		129			129	
10:00 PM				67		67			67	
11:00 PM				37		37			37	
Day Total				7054		7054			7054	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 503		11:00 AM 503			11:00 AM 503	
PM Peak Volume				5:00 PM 593		5:00 PM 593			5:00 PM 593	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Bent Ave and W San Marcos Blvd
QC JOB #: 16384647
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				22		22			22	
01:00 AM				7		7			7	
02:00 AM				10		10			10	
03:00 AM				4		4			4	
04:00 AM				12		12			12	
05:00 AM				52		52			52	
06:00 AM				126		126			126	
07:00 AM				269		269			269	
08:00 AM				**365**		**365**			**365**	
09:00 AM				285		285			285	
10:00 AM				349		349			349	
11:00 AM				355		355			355	
12:00 PM				426		426			426	
01:00 PM				446		446			446	
02:00 PM				572		572			572	
03:00 PM				819		819			819	
04:00 PM				**899**		**899**			**899**	
05:00 PM				822		822			822	
06:00 PM				342		342			342	
07:00 PM				209		209			209	
08:00 PM				157		157			157	
09:00 PM				100		100			100	
10:00 PM				47		47			47	
11:00 PM				26		26			26	
Day Total				6721		6721			6721	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 365		8:00 AM 365			8:00 AM 365	
PM Peak Volume				4:00 PM 899		4:00 PM 899			4:00 PM 899	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Bent Ave and W San Marcos Blvd
QC JOB #: 16384647
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				56		56			56	
01:00 AM				26		26			26	
02:00 AM				16		16			16	
03:00 AM				12		12			12	
04:00 AM				58		58			58	
05:00 AM				194		194			194	
06:00 AM				317		317			317	
07:00 AM				531		531			531	
08:00 AM				690		690			690	
09:00 AM				540		540			540	
10:00 AM				638		638			638	
11:00 AM				**727**		**727**			**727**	
12:00 PM				860		860			860	
01:00 PM				856		856			856	
02:00 PM				909		909			909	
03:00 PM				1167		1167			1167	
04:00 PM				**1256**		**1256**			**1256**	
05:00 PM				1191		1191			1191	
06:00 PM				592		592			592	
07:00 PM				414		414			414	
08:00 PM				300		300			300	
09:00 PM				208		208			208	
10:00 PM				97		97			97	
11:00 PM				55		55			55	
Day Total				11710		11710			11710	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 727		11:00 AM 727			11:00 AM 727	
PM Peak Volume				4:00 PM 1256		4:00 PM 1256			4:00 PM 1256	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Bent Ave and W San Marcos Blvd
QC JOB #: 16384647
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				34		34			34	
01:00 AM				19		19			19	
02:00 AM				6		6			6	
03:00 AM				8		8			8	
04:00 AM				46		46			46	
05:00 AM				142		142			142	
06:00 AM				191		191			191	
07:00 AM				262		262			262	
08:00 AM				325		325			325	
09:00 AM				255		255			255	
10:00 AM				289		289			289	
11:00 AM				**372**		**372**			**372**	
12:00 PM				**434**		**434**			**434**	
01:00 PM				410		410			410	
02:00 PM				337		337			337	
03:00 PM				348		348			348	
04:00 PM				357		357			357	
05:00 PM				369		369			369	
06:00 PM				250		250			250	
07:00 PM				205		205			205	
08:00 PM				143		143			143	
09:00 PM				108		108			108	
10:00 PM				50		50			50	
11:00 PM				29		29			29	
Day Total				4989		4989			4989	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 372		11:00 AM 372			11:00 AM 372	
PM Peak Volume				12:00 PM 434		12:00 PM 434			12:00 PM 434	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: S Bent Ave btwn Grand Ave and W San Marcos Blvd
QC JOB #: 16384648
SPECIFIC LOCATION:
DIRECTION: NB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				23		23			23	
01:00 AM				11		11			11	
02:00 AM				11		11			11	
03:00 AM				2		2			2	
04:00 AM				8		8			8	
05:00 AM				12		12			12	
06:00 AM				63		63			63	
07:00 AM				150		150			150	
08:00 AM				**322**		**322**			**322**	
09:00 AM				235		235			235	
10:00 AM				267		267			267	
11:00 AM				279		279			279	
12:00 PM				265		265			265	
01:00 PM				307		307			307	
02:00 PM				308		308			308	
03:00 PM				310		310			310	
04:00 PM				**356**		**356**			**356**	
05:00 PM				321		321			321	
06:00 PM				174		174			174	
07:00 PM				91		91			91	
08:00 PM				64		64			64	
09:00 PM				35		35			35	
10:00 PM				19		19			19	
11:00 PM				13		13			13	
Day Total				3646		3646			3646	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 322		8:00 AM 322			8:00 AM 322	
PM Peak Volume				4:00 PM 356		4:00 PM 356			4:00 PM 356	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: S Bent Ave btwn Grand Ave and W San Marcos Blvd
QC JOB #: 16384648
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				29		29			29	
01:00 AM				14		14			14	
02:00 AM				13		13			13	
03:00 AM				6		6			6	
04:00 AM				20		20			20	
05:00 AM				25		25			25	
06:00 AM				103		103			103	
07:00 AM				301		301			301	
08:00 AM				**565**		**565**			**565**	
09:00 AM				409		409			409	
10:00 AM				483		483			483	
11:00 AM				486		486			486	
12:00 PM				487		487			487	
01:00 PM				536		536			536	
02:00 PM				628		628			628	
03:00 PM				686		686			686	
04:00 PM				**694**		**694**			**694**	
05:00 PM				627		627			627	
06:00 PM				350		350			350	
07:00 PM				166		166			166	
08:00 PM				116		116			116	
09:00 PM				84		84			84	
10:00 PM				43		43			43	
11:00 PM				23		23			23	
Day Total				6894		6894			6894	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 565		8:00 AM 565			8:00 AM 565	
PM Peak Volume				4:00 PM 694		4:00 PM 694			4:00 PM 694	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: S Bent Ave btwn Grand Ave and W San Marcos Blvd
QC JOB #: 16384648
SPECIFIC LOCATION:
DIRECTION: SB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				6		6			6	
01:00 AM				3		3			3	
02:00 AM				2		2			2	
03:00 AM				4		4			4	
04:00 AM				12		12			12	
05:00 AM				13		13			13	
06:00 AM				40		40			40	
07:00 AM				151		151			151	
08:00 AM				**243**		**243**			**243**	
09:00 AM				174		174			174	
10:00 AM				216		216			216	
11:00 AM				207		207			207	
12:00 PM				222		222			222	
01:00 PM				229		229			229	
02:00 PM				320		320			320	
03:00 PM				**376**		**376**			**376**	
04:00 PM				338		338			338	
05:00 PM				306		306			306	
06:00 PM				176		176			176	
07:00 PM				75		75			75	
08:00 PM				52		52			52	
09:00 PM				49		49			49	
10:00 PM				24		24			24	
11:00 PM				10		10			10	
Day Total				3248		3248			3248	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 243		8:00 AM 243			8:00 AM 243	
PM Peak Volume				3:00 PM 376		3:00 PM 376			3:00 PM 376	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Via Vera Cruz and S Bent Ave
QC JOB #: 16384649
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				165		165			165	
01:00 AM				84		84			84	
02:00 AM				71		71			71	
03:00 AM				95		95			95	
04:00 AM				167		167			167	
05:00 AM				336		336			336	
06:00 AM				760		760			760	
07:00 AM				1306		1306			1306	
08:00 AM				**1798**		**1798**			**1798**	
09:00 AM				1623		1623			1623	
10:00 AM				1471		1471			1471	
11:00 AM				1146		1146			1146	
12:00 PM				1398		1398			1398	
01:00 PM				1442		1442			1442	
02:00 PM				1527		1527			1527	
03:00 PM				1787		1787			1787	
04:00 PM				2028		2028			2028	
05:00 PM				**2241**		**2241**			**2241**	
06:00 PM				2014		2014			2014	
07:00 PM				1476		1476			1476	
08:00 PM				1120		1120			1120	
09:00 PM				832		832			832	
10:00 PM				535		535			535	
11:00 PM				376		376			376	
Day Total				25798		25798			25798	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 1798		8:00 AM 1798			8:00 AM 1798	
PM Peak Volume				5:00 PM 2241		5:00 PM 2241			5:00 PM 2241	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Via Vera Cruz and S Bent Ave
QC JOB #: 16384649
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				242		242			242	
01:00 AM				166		166			166	
02:00 AM				144		144			144	
03:00 AM				237		237			237	
04:00 AM				534		534			534	
05:00 AM				1100		1100			1100	
06:00 AM				1815		1815			1815	
07:00 AM				2597		2597			2597	
08:00 AM				**2926**		**2926**			**2926**	
09:00 AM				2925		2925			2925	
10:00 AM				2786		2786			2786	
11:00 AM				2447		2447			2447	
12:00 PM				2706		2706			2706	
01:00 PM				2605		2605			2605	
02:00 PM				2714		2714			2714	
03:00 PM				2923		2923			2923	
04:00 PM				3296		3296			3296	
05:00 PM				**3469**		**3469**			**3469**	
06:00 PM				3169		3169			3169	
07:00 PM				2252		2252			2252	
08:00 PM				1675		1675			1675	
09:00 PM				1258		1258			1258	
10:00 PM				792		792			792	
11:00 PM				492		492			492	
Day Total				45270		45270			45270	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 2926		8:00 AM 2926			8:00 AM 2926	
PM Peak Volume				5:00 PM 3469		5:00 PM 3469			5:00 PM 3469	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Via Vera Cruz and S Bent Ave
QC JOB #: 16384649
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				77		77			77	
01:00 AM				82		82			82	
02:00 AM				73		73			73	
03:00 AM				142		142			142	
04:00 AM				367		367			367	
05:00 AM				764		764			764	
06:00 AM				1055		1055			1055	
07:00 AM				1291		1291			1291	
08:00 AM				1128		1128			1128	
09:00 AM				1302		1302			1302	
10:00 AM				**1315**		**1315**			**1315**	
11:00 AM				1301		1301			1301	
12:00 PM				**1308**		**1308**			**1308**	
01:00 PM				1163		1163			1163	
02:00 PM				1187		1187			1187	
03:00 PM				1136		1136			1136	
04:00 PM				1268		1268			1268	
05:00 PM				1228		1228			1228	
06:00 PM				1155		1155			1155	
07:00 PM				776		776			776	
08:00 PM				555		555			555	
09:00 PM				426		426			426	
10:00 PM				257		257			257	
11:00 PM				116		116			116	
Day Total				19472		19472			19472	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				10:00 AM 1315		10:00 AM 1315			10:00 AM 1315	
PM Peak Volume				12:00 PM 1308		12:00 PM 1308			12:00 PM 1308	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn S Bent Ave and Grand Ave
QC JOB #: 16384650
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				95		95			95	
01:00 AM				97		97			97	
02:00 AM				93		93			93	
03:00 AM				161		161			161	
04:00 AM				434		434			434	
05:00 AM				911		911			911	
06:00 AM				1332		1332			1332	
07:00 AM				1546		1546			1546	
08:00 AM				1537		1537			1537	
09:00 AM				1634		1634			1634	
10:00 AM				1688		1688			1688	
11:00 AM				**1720**		**1720**			**1720**	
12:00 PM				**1783**		**1783**			**1783**	
01:00 PM				1586		1586			1586	
02:00 PM				1604		1604			1604	
03:00 PM				1567		1567			1567	
04:00 PM				1625		1625			1625	
05:00 PM				1691		1691			1691	
06:00 PM				1575		1575			1575	
07:00 PM				1118		1118			1118	
08:00 PM				851		851			851	
09:00 PM				610		610			610	
10:00 PM				324		324			324	
11:00 PM				191		191			191	
Day Total				25773		25773			25773	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 1720		11:00 AM 1720			11:00 AM 1720	
PM Peak Volume				12:00 PM 1783		12:00 PM 1783			12:00 PM 1783	

Comments:

Report generated on 11/27/2023 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn S Bent Ave and Grand Ave
QC JOB #: 16384650
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				233		233			233	
01:00 AM				182		182			182	
02:00 AM				160		160			160	
03:00 AM				239		239			239	
04:00 AM				565		565			565	
05:00 AM				1199		1199			1199	
06:00 AM				1982		1982			1982	
07:00 AM				2677		2677			2677	
08:00 AM				2886		2886			2886	
09:00 AM				2799		2799			2799	
10:00 AM				3030		3030			3030	
11:00 AM				**3266**		**3266**			**3266**	
12:00 PM				3491		3491			3491	
01:00 PM				3312		3312			3312	
02:00 PM				3523		3523			3523	
03:00 PM				3762		3762			3762	
04:00 PM				**3958**		**3958**			**3958**	
05:00 PM				3949		3949			3949	
06:00 PM				3228		3228			3228	
07:00 PM				2457		2457			2457	
08:00 PM				1863		1863			1863	
09:00 PM				1402		1402			1402	
10:00 PM				847		847			847	
11:00 PM				528		528			528	
Day Total				51538		51538			51538	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 3266		11:00 AM 3266			11:00 AM 3266	
PM Peak Volume				4:00 PM 3958		4:00 PM 3958			4:00 PM 3958	

Comments:

Report generated on 11/27/2023 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn S Bent Ave and Grand Ave
QC JOB #: 16384650
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				138		138			138	
01:00 AM				85		85			85	
02:00 AM				67		67			67	
03:00 AM				78		78			78	
04:00 AM				131		131			131	
05:00 AM				288		288			288	
06:00 AM				650		650			650	
07:00 AM				1131		1131			1131	
08:00 AM				1349		1349			1349	
09:00 AM				1165		1165			1165	
10:00 AM				1342		1342			1342	
11:00 AM				**1546**		**1546**			**1546**	
12:00 PM				1708		1708			1708	
01:00 PM				1726		1726			1726	
02:00 PM				1919		1919			1919	
03:00 PM				2195		2195			2195	
04:00 PM				**2333**		**2333**			**2333**	
05:00 PM				2258		2258			2258	
06:00 PM				1653		1653			1653	
07:00 PM				1339		1339			1339	
08:00 PM				1012		1012			1012	
09:00 PM				792		792			792	
10:00 PM				523		523			523	
11:00 PM				337		337			337	
Day Total				25765		25765			25765	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 1546		11:00 AM 1546			11:00 AM 1546	
PM Peak Volume				4:00 PM 2333		4:00 PM 2333			4:00 PM 2333	

Comments:

Report generated on 11/27/2023 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Grand Ave and SR-78 EB Ramps
QC JOB #: 16384651
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				60		60			60	
01:00 AM				97		97			97	
02:00 AM				93		93			93	
03:00 AM				161		161			161	
04:00 AM				434		434			434	
05:00 AM				911		911			911	
06:00 AM				1332		1332			1332	
07:00 AM				1546		1546			1546	
08:00 AM				1537		1537			1537	
09:00 AM				1634		1634			1634	
10:00 AM				1688		1688			1688	
11:00 AM				**1720**		**1720**			**1720**	
12:00 PM				**1783**		**1783**			**1783**	
01:00 PM				1586		1586			1586	
02:00 PM				1604		1604			1604	
03:00 PM				1567		1567			1567	
04:00 PM				1624		1624			1624	
05:00 PM				1691		1691			1691	
06:00 PM				1575		1575			1575	
07:00 PM				1118		1118			1118	
08:00 PM				851		851			851	
09:00 PM				609		609			609	
10:00 PM				324		324			324	
11:00 PM				191		191			191	
Day Total				25736		25736			25736	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 1720		11:00 AM 1720			11:00 AM 1720	
PM Peak Volume				12:00 PM 1783		12:00 PM 1783			12:00 PM 1783	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Grand Ave and SR-78 EB Ramps
QC JOB #: 16384651
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				171		171			171	
01:00 AM				182		182			182	
02:00 AM				160		160			160	
03:00 AM				239		239			239	
04:00 AM				565		565			565	
05:00 AM				1199		1199			1199	
06:00 AM				1982		1982			1982	
07:00 AM				2677		2677			2677	
08:00 AM				2886		2886			2886	
09:00 AM				2799		2799			2799	
10:00 AM				3030		3030			3030	
11:00 AM				**3266**		**3266**			**3266**	
12:00 PM				3491		3491			3491	
01:00 PM				3312		3312			3312	
02:00 PM				3523		3523			3523	
03:00 PM				3762		3762			3762	
04:00 PM				**3956**		**3956**			**3956**	
05:00 PM				3949		3949			3949	
06:00 PM				3228		3228			3228	
07:00 PM				2457		2457			2457	
08:00 PM				1863		1863			1863	
09:00 PM				1400		1400			1400	
10:00 PM				847		847			847	
11:00 PM				528		528			528	
Day Total				51472		51472			51472	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 3266		11:00 AM 3266			11:00 AM 3266	
PM Peak Volume				4:00 PM 3956		4:00 PM 3956			4:00 PM 3956	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Grand Ave and SR-78 EB Ramps
QC JOB #: 16384651
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				111		111			111	
01:00 AM				85		85			85	
02:00 AM				67		67			67	
03:00 AM				78		78			78	
04:00 AM				131		131			131	
05:00 AM				288		288			288	
06:00 AM				650		650			650	
07:00 AM				1131		1131			1131	
08:00 AM				1349		1349			1349	
09:00 AM				1165		1165			1165	
10:00 AM				1342		1342			1342	
11:00 AM				**1546**		**1546**			**1546**	
12:00 PM				1708		1708			1708	
01:00 PM				1726		1726			1726	
02:00 PM				1919		1919			1919	
03:00 PM				2195		2195			2195	
04:00 PM				**2332**		**2332**			**2332**	
05:00 PM				2258		2258			2258	
06:00 PM				1653		1653			1653	
07:00 PM				1339		1339			1339	
08:00 PM				1012		1012			1012	
09:00 PM				791		791			791	
10:00 PM				523		523			523	
11:00 PM				337		337			337	
Day Total				25736		25736			25736	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 1546		11:00 AM 1546			11:00 AM 1546	
PM Peak Volume				4:00 PM 2332		4:00 PM 2332			4:00 PM 2332	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Rd btwn SR-78 EB Ramps and Knoll Rd
QC JOB #: 16384652
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				105		105			105	
01:00 AM				115		115			115	
02:00 AM				125		125			125	
03:00 AM				211		211			211	
04:00 AM				526		526			526	
05:00 AM				1136		1136			1136	
06:00 AM				1672		1672			1672	
07:00 AM				**2042**		**2042**			**2042**	
08:00 AM				1935		1935			1935	
09:00 AM				1954		1954			1954	
10:00 AM				1946		1946			1946	
11:00 AM				1986		1986			1986	
12:00 PM				**2065**		**2065**			**2065**	
01:00 PM				1812		1812			1812	
02:00 PM				1873		1873			1873	
03:00 PM				1896		1896			1896	
04:00 PM				1988		1988			1988	
05:00 PM				2045		2045			2045	
06:00 PM				1775		1775			1775	
07:00 PM				1324		1324			1324	
08:00 PM				1015		1015			1015	
09:00 PM				771		771			771	
10:00 PM				433		433			433	
11:00 PM				248		248			248	
Day Total				30998		30998			30998	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				7:00 AM 2042		7:00 AM 2042			7:00 AM 2042	
PM Peak Volume				12:00 PM 2065		12:00 PM 2065			12:00 PM 2065	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Rd btwn SR-78 EB Ramps and Knoll Rd
QC JOB #: 16384652
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				203		203			203	
01:00 AM				174		174			174	
02:00 AM				175		175			175	
03:00 AM				253		253			253	
04:00 AM				611		611			611	
05:00 AM				1294		1294			1294	
06:00 AM				2029		2029			2029	
07:00 AM				2813		2813			2813	
08:00 AM				**2960**		**2960**			**2960**	
09:00 AM				2765		2765			2765	
10:00 AM				2726		2726			2726	
11:00 AM				2854		2854			2854	
12:00 PM				3102		3102			3102	
01:00 PM				2847		2847			2847	
02:00 PM				3148		3148			3148	
03:00 PM				3353		3353			3353	
04:00 PM				**3559**		**3559**			**3559**	
05:00 PM				3536		3536			3536	
06:00 PM				3014		3014			3014	
07:00 PM				2301		2301			2301	
08:00 PM				1756		1756			1756	
09:00 PM				1390		1390			1390	
10:00 PM				802		802			802	
11:00 PM				471		471			471	
Day Total				48136		48136			48136	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 2960		8:00 AM 2960			8:00 AM 2960	
PM Peak Volume				4:00 PM 3559		4:00 PM 3559			4:00 PM 3559	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Rd btwn SR-78 EB Ramps and Knoll Rd
QC JOB #: 16384652
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				98		98			98	
01:00 AM				59		59			59	
02:00 AM				50		50			50	
03:00 AM				42		42			42	
04:00 AM				85		85			85	
05:00 AM				158		158			158	
06:00 AM				357		357			357	
07:00 AM				771		771			771	
08:00 AM				**1025**		**1025**			**1025**	
09:00 AM				811		811			811	
10:00 AM				780		780			780	
11:00 AM				868		868			868	
12:00 PM				1037		1037			1037	
01:00 PM				1035		1035			1035	
02:00 PM				1275		1275			1275	
03:00 PM				1457		1457			1457	
04:00 PM				**1571**		**1571**			**1571**	
05:00 PM				1491		1491			1491	
06:00 PM				1239		1239			1239	
07:00 PM				977		977			977	
08:00 PM				741		741			741	
09:00 PM				619		619			619	
10:00 PM				369		369			369	
11:00 PM				223		223			223	
Day Total				17138		17138			17138	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 1025		8:00 AM 1025			8:00 AM 1025	
PM Peak Volume				4:00 PM 1571		4:00 PM 1571			4:00 PM 1571	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: S Las Posas Rd btwn SR-78 WB Ramps and Grand Ave
QC JOB #: 16384653
SPECIFIC LOCATION:
DIRECTION: NB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							130		130	
01:00 AM							85		85	
02:00 AM							59		59	
03:00 AM							37		37	
04:00 AM							45		45	
05:00 AM							78		78	
06:00 AM							120		120	
07:00 AM							306		306	
08:00 AM							466		466	
09:00 AM							683		683	
10:00 AM							911		911	
11:00 AM							**1063**		1063	
12:00 PM							1121		1121	
01:00 PM							**1141**		1141	
02:00 PM							1131		1131	
03:00 PM							1112		1112	
04:00 PM							1030		1030	
05:00 PM							972		972	
06:00 PM							853		853	
07:00 PM							649		649	
08:00 PM							591		591	
09:00 PM							457		457	
10:00 PM							249		249	
11:00 PM							213		213	
Day Total							13502		13502	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1063		11:00 AM 1063	
PM Peak Volume							1:00 PM 1141		1:00 PM 1141	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: S Las Posas Rd btwn SR-78 WB Ramps and Grand Ave
QC JOB #: 16384653
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							196		196	
01:00 AM							145		145	
02:00 AM							114		114	
03:00 AM							87		87	
04:00 AM							126		126	
05:00 AM							210		210	
06:00 AM							406		406	
07:00 AM							801		801	
08:00 AM							1206		1206	
09:00 AM							1606		1606	
10:00 AM							1948		1948	
11:00 AM							**2194**		2194	
12:00 PM							**2234**		2234	
01:00 PM							2232		2232	
02:00 PM							2063		2063	
03:00 PM							2047		2047	
04:00 PM							1950		1950	
05:00 PM							1788		1788	
06:00 PM							1586		1586	
07:00 PM							1206		1206	
08:00 PM							992		992	
09:00 PM							768		768	
10:00 PM							435		435	
11:00 PM							331		331	
Day Total							26671		26671	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 2194		11:00 AM 2194	
PM Peak Volume							12:00 PM 2234		12:00 PM 2234	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: S Las Posas Rd btwn SR-78 WB Ramps and Grand Ave
QC JOB #: 16384653
SPECIFIC LOCATION:
DIRECTION: SB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							66		66	
01:00 AM							60		60	
02:00 AM							55		55	
03:00 AM							50		50	
04:00 AM							81		81	
05:00 AM							132		132	
06:00 AM							286		286	
07:00 AM							495		495	
08:00 AM							740		740	
09:00 AM							923		923	
10:00 AM							1037		1037	
11:00 AM							**1131**		1131	
12:00 PM							**1113**		1113	
01:00 PM							1091		1091	
02:00 PM							932		932	
03:00 PM							935		935	
04:00 PM							920		920	
05:00 PM							816		816	
06:00 PM							733		733	
07:00 PM							557		557	
08:00 PM							401		401	
09:00 PM							311		311	
10:00 PM							186		186	
11:00 PM							118		118	
Day Total							13169		13169	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1131		11:00 AM 1131	
PM Peak Volume							12:00 PM 1113		12:00 PM 1113	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Las Posas Rd & Via Vera Cruz
QC JOB #: 16384654
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							54		54	
01:00 AM							30		30	
02:00 AM							34		34	
03:00 AM							40		40	
04:00 AM							32		32	
05:00 AM							69		69	
06:00 AM							143		143	
07:00 AM							280		280	
08:00 AM							447		447	
09:00 AM							614		614	
10:00 AM							723		723	
11:00 AM							**790**		790	
12:00 PM							**863**		863	
01:00 PM							830		830	
02:00 PM							743		743	
03:00 PM							702		702	
04:00 PM							627		627	
05:00 PM							551		551	
06:00 PM							601		601	
07:00 PM							396		396	
08:00 PM							329		329	
09:00 PM							233		233	
10:00 PM							156		156	
11:00 PM							87		87	
Day Total							9374		9374	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 790		11:00 AM 790	
PM Peak Volume							12:00 PM 863		12:00 PM 863	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Las Posas Rd & Via Vera Cruz
QC JOB #: 16384654
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							140		140	
01:00 AM							86		86	
02:00 AM							84		84	
03:00 AM							67		67	
04:00 AM							80		80	
05:00 AM							138		138	
06:00 AM							241		241	
07:00 AM							531		531	
08:00 AM							821		821	
09:00 AM							1098		1098	
10:00 AM							1334		1334	
11:00 AM							**1473**		1473	
12:00 PM							**1574**		1574	
01:00 PM							1571		1571	
02:00 PM							1377		1377	
03:00 PM							1393		1393	
04:00 PM							1247		1247	
05:00 PM							1147		1147	
06:00 PM							1097		1097	
07:00 PM							790		790	
08:00 PM							658		658	
09:00 PM							496		496	
10:00 PM							309		309	
11:00 PM							225		225	
Day Total							17977		17977	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1473		11:00 AM 1473	
PM Peak Volume							12:00 PM 1574		12:00 PM 1574	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Las Posas Rd & Via Vera Cruz
QC JOB #: 16384654
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							86		86	
01:00 AM							56		56	
02:00 AM							50		50	
03:00 AM							27		27	
04:00 AM							48		48	
05:00 AM							69		69	
06:00 AM							98		98	
07:00 AM							251		251	
08:00 AM							374		374	
09:00 AM							484		484	
10:00 AM							611		611	
11:00 AM							**683**		683	
12:00 PM							711		711	
01:00 PM							**741**		741	
02:00 PM							634		634	
03:00 PM							691		691	
04:00 PM							620		620	
05:00 PM							596		596	
06:00 PM							496		496	
07:00 PM							394		394	
08:00 PM							329		329	
09:00 PM							263		263	
10:00 PM							153		153	
11:00 PM							138		138	
Day Total							8603		8603	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 683		11:00 AM 683	
PM Peak Volume							1:00 PM 741		1:00 PM 741	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Via Vera Cruz and Linda Vista Dr
QC JOB #: 16384655
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							15		15	
01:00 AM							8		8	
02:00 AM							10		10	
03:00 AM							11		11	
04:00 AM							20		20	
05:00 AM							27		27	
06:00 AM							62		62	
07:00 AM							118		118	
08:00 AM							211		211	
09:00 AM							272		272	
10:00 AM							399		399	
11:00 AM							**418**		418	
12:00 PM							**510**		510	
01:00 PM							472		472	
02:00 PM							446		446	
03:00 PM							376		376	
04:00 PM							447		447	
05:00 PM							342		342	
06:00 PM							268		268	
07:00 PM							162		162	
08:00 PM							133		133	
09:00 PM							102		102	
10:00 PM							67		67	
11:00 PM							42		42	
Day Total							4938		4938	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 418		11:00 AM 418	
PM Peak Volume							12:00 PM 510		12:00 PM 510	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Via Vera Cruz and Linda Vista Dr
QC JOB #: 16384655
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							48		48	
01:00 AM							25		25	
02:00 AM							30		30	
03:00 AM							15		15	
04:00 AM							39		39	
05:00 AM							48		48	
06:00 AM							97		97	
07:00 AM							232		232	
08:00 AM							394		394	
09:00 AM							564		564	
10:00 AM							754		754	
11:00 AM							**874**		874	
12:00 PM							998		998	
01:00 PM							**1005**		1005	
02:00 PM							853		853	
03:00 PM							801		801	
04:00 PM							851		851	
05:00 PM							695		695	
06:00 PM							545		545	
07:00 PM							375		375	
08:00 PM							299		299	
09:00 PM							217		217	
10:00 PM							126		126	
11:00 PM							101		101	
Day Total							9986		9986	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 874		11:00 AM 874	
PM Peak Volume							1:00 PM 1005		1:00 PM 1005	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Via Vera Cruz and Linda Vista Dr
QC JOB #: 16384655
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							33		33	
01:00 AM							17		17	
02:00 AM							20		20	
03:00 AM							4		4	
04:00 AM							19		19	
05:00 AM							21		21	
06:00 AM							35		35	
07:00 AM							114		114	
08:00 AM							183		183	
09:00 AM							292		292	
10:00 AM							355		355	
11:00 AM							**456**		456	
12:00 PM							488		488	
01:00 PM							**533**		533	
02:00 PM							407		407	
03:00 PM							425		425	
04:00 PM							404		404	
05:00 PM							353		353	
06:00 PM							277		277	
07:00 PM							213		213	
08:00 PM							166		166	
09:00 PM							115		115	
10:00 PM							59		59	
11:00 PM							59		59	
Day Total							5048		5048	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 456		11:00 AM 456	
PM Peak Volume							1:00 PM 533		1:00 PM 533	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Linda Vista Dr and S Bent Ave
QC JOB #: 16384656
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							20		20	
01:00 AM							14		14	
02:00 AM							13		13	
03:00 AM							12		12	
04:00 AM							30		30	
05:00 AM							43		43	
06:00 AM							82		82	
07:00 AM							163		163	
08:00 AM							290		290	
09:00 AM							403		403	
10:00 AM							519		519	
11:00 AM							**608**		608	
12:00 PM							**696**		696	
01:00 PM							627		627	
02:00 PM							622		622	
03:00 PM							546		546	
04:00 PM							596		596	
05:00 PM							449		449	
06:00 PM							351		351	
07:00 PM							213		213	
08:00 PM							163		163	
09:00 PM							132		132	
10:00 PM							87		87	
11:00 PM							41		41	
Day Total							6720		6720	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 608		11:00 AM 608	
PM Peak Volume							12:00 PM 696		12:00 PM 696	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Linda Vista Dr and S Bent Ave
QC JOB #: 16384656
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							54		54	
01:00 AM							37		37	
02:00 AM							34		34	
03:00 AM							18		18	
04:00 AM							66		66	
05:00 AM							80		80	
06:00 AM							143		143	
07:00 AM							327		327	
08:00 AM							535		535	
09:00 AM							755		755	
10:00 AM							945		945	
11:00 AM							**1158**		1158	
12:00 PM							**1260**		1260	
01:00 PM							1251		1251	
02:00 PM							1100		1100	
03:00 PM							1033		1033	
04:00 PM							1037		1037	
05:00 PM							858		858	
06:00 PM							669		669	
07:00 PM							456		456	
08:00 PM							351		351	
09:00 PM							256		256	
10:00 PM							155		155	
11:00 PM							102		102	
Day Total							12680		12680	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1158		11:00 AM 1158	
PM Peak Volume							12:00 PM 1260		12:00 PM 1260	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn Linda Vista Dr and S Bent Ave
QC JOB #: 16384656
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							34		34	
01:00 AM							23		23	
02:00 AM							21		21	
03:00 AM							6		6	
04:00 AM							36		36	
05:00 AM							37		37	
06:00 AM							61		61	
07:00 AM							164		164	
08:00 AM							245		245	
09:00 AM							352		352	
10:00 AM							426		426	
11:00 AM							**550**		550	
12:00 PM							564		564	
01:00 PM							**624**		624	
02:00 PM							478		478	
03:00 PM							487		487	
04:00 PM							441		441	
05:00 PM							409		409	
06:00 PM							318		318	
07:00 PM							243		243	
08:00 PM							188		188	
09:00 PM							124		124	
10:00 PM							68		68	
11:00 PM							61		61	
Day Total							5960		5960	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 550		11:00 AM 550	
PM Peak Volume							1:00 PM 624		1:00 PM 624	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Bent Ave and W San Marcos Blvd
QC JOB #: 16384657
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							18		18	
01:00 AM							11		11	
02:00 AM							9		9	
03:00 AM							9		9	
04:00 AM							25		25	
05:00 AM							28		28	
06:00 AM							44		44	
07:00 AM							97		97	
08:00 AM							169		169	
09:00 AM							244		244	
10:00 AM							339		339	
11:00 AM							**402**		402	
12:00 PM							**503**		503	
01:00 PM							431		431	
02:00 PM							444		444	
03:00 PM							368		368	
04:00 PM							431		431	
05:00 PM							347		347	
06:00 PM							272		272	
07:00 PM							177		177	
08:00 PM							120		120	
09:00 PM							97		97	
10:00 PM							66		66	
11:00 PM							25		25	
Day Total							4676		4676	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 402		11:00 AM 402	
PM Peak Volume							12:00 PM 503		12:00 PM 503	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Bent Ave and W San Marcos Blvd
QC JOB #: 16384657
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							46		46	
01:00 AM							30		30	
02:00 AM							27		27	
03:00 AM							15		15	
04:00 AM							60		60	
05:00 AM							63		63	
06:00 AM							101		101	
07:00 AM							208		208	
08:00 AM							289		289	
09:00 AM							450		450	
10:00 AM							603		603	
11:00 AM							**768**		768	
12:00 PM							**915**		915	
01:00 PM							866		866	
02:00 PM							830		830	
03:00 PM							681		681	
04:00 PM							713		713	
05:00 PM							610		610	
06:00 PM							497		497	
07:00 PM							364		364	
08:00 PM							263		263	
09:00 PM							196		196	
10:00 PM							118		118	
11:00 PM							72		72	
Day Total							8785		8785	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 768		11:00 AM 768	
PM Peak Volume							12:00 PM 915		12:00 PM 915	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Grand Ave btwn S Bent Ave and W San Marcos Blvd
QC JOB #: 16384657
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							28		28	
01:00 AM							19		19	
02:00 AM							18		18	
03:00 AM							6		6	
04:00 AM							35		35	
05:00 AM							35		35	
06:00 AM							57		57	
07:00 AM							111		111	
08:00 AM							120		120	
09:00 AM							206		206	
10:00 AM							264		264	
11:00 AM							**366**		366	
12:00 PM							412		412	
01:00 PM							**435**		435	
02:00 PM							386		386	
03:00 PM							313		313	
04:00 PM							282		282	
05:00 PM							263		263	
06:00 PM							225		225	
07:00 PM							187		187	
08:00 PM							143		143	
09:00 PM							99		99	
10:00 PM							52		52	
11:00 PM							47		47	
Day Total							4109		4109	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 366		11:00 AM 366	
PM Peak Volume							1:00 PM 435		1:00 PM 435	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: S Bent Ave btwn Grand Ave and W San Marcos Blvd
QC JOB #: 16384658
SPECIFIC LOCATION:
DIRECTION: NB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							7		7	
01:00 AM							9		9	
02:00 AM							14		14	
03:00 AM							4		4	
04:00 AM							10		10	
05:00 AM							9		9	
06:00 AM							46		46	
07:00 AM							104		104	
08:00 AM							231		231	
09:00 AM							265		265	
10:00 AM							303		303	
11:00 AM							**379**		379	
12:00 PM							389		389	
01:00 PM							**417**		417	
02:00 PM							322		322	
03:00 PM							287		287	
04:00 PM							262		262	
05:00 PM							231		231	
06:00 PM							137		137	
07:00 PM							79		79	
08:00 PM							62		62	
09:00 PM							41		41	
10:00 PM							21		21	
11:00 PM							14		14	
Day Total							3643		3643	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 379		11:00 AM 379	
PM Peak Volume							1:00 PM 417		1:00 PM 417	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: S Bent Ave btwn Grand Ave and W San Marcos Blvd
QC JOB #: 16384658
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							11		11	
01:00 AM							11		11	
02:00 AM							23		23	
03:00 AM							6		6	
04:00 AM							15		15	
05:00 AM							20		20	
06:00 AM							71		71	
07:00 AM							175		175	
08:00 AM							337		337	
09:00 AM							441		441	
10:00 AM							523		523	
11:00 AM							**631**		631	
12:00 PM							682		682	
01:00 PM							**699**		699	
02:00 PM							578		578	
03:00 PM							548		548	
04:00 PM							504		504	
05:00 PM							390		390	
06:00 PM							247		247	
07:00 PM							139		139	
08:00 PM							110		110	
09:00 PM							79		79	
10:00 PM							38		38	
11:00 PM							30		30	
Day Total							6308		6308	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 631		11:00 AM 631	
PM Peak Volume							1:00 PM 699		1:00 PM 699	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: S Bent Ave btwn Grand Ave and W San Marcos Blvd
QC JOB #: 16384658
SPECIFIC LOCATION:
DIRECTION: SB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							4		4	
01:00 AM							2		2	
02:00 AM							9		9	
03:00 AM							2		2	
04:00 AM							5		5	
05:00 AM							11		11	
06:00 AM							25		25	
07:00 AM							71		71	
08:00 AM							106		106	
09:00 AM							176		176	
10:00 AM							220		220	
11:00 AM							**252**		252	
12:00 PM							**293**		293	
01:00 PM							282		282	
02:00 PM							256		256	
03:00 PM							261		261	
04:00 PM							242		242	
05:00 PM							159		159	
06:00 PM							110		110	
07:00 PM							60		60	
08:00 PM							48		48	
09:00 PM							38		38	
10:00 PM							17		17	
11:00 PM							16		16	
Day Total							2665		2665	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 252		11:00 AM 252	
PM Peak Volume							12:00 PM 293		12:00 PM 293	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Via Vera Cruz and S Bent Ave
QC JOB #: 16384659
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							344		344	
01:00 AM							203		203	
02:00 AM							113		113	
03:00 AM							104		104	
04:00 AM							114		114	
05:00 AM							193		193	
06:00 AM							439		439	
07:00 AM							821		821	
08:00 AM							1232		1232	
09:00 AM							1600		1600	
10:00 AM							**1884**		1884	
11:00 AM							1289		1289	
12:00 PM							1127		1127	
01:00 PM							1052		1052	
02:00 PM							1072		1072	
03:00 PM							1385		1385	
04:00 PM							**1851**		1851	
05:00 PM							1787		1787	
06:00 PM							1467		1467	
07:00 PM							1254		1254	
08:00 PM							1096		1096	
09:00 PM							914		914	
10:00 PM							742		742	
11:00 PM							548		548	
Day Total							22631		22631	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							10:00 AM 1884		10:00 AM 1884	
PM Peak Volume							4:00 PM 1851		4:00 PM 1851	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Via Vera Cruz and S Bent Ave
QC JOB #: 16384659
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							476		476	
01:00 AM							306		306	
02:00 AM							195		195	
03:00 AM							213		213	
04:00 AM							231		231	
05:00 AM							483		483	
06:00 AM							882		882	
07:00 AM							1675		1675	
08:00 AM							2274		2274	
09:00 AM							2755		2755	
10:00 AM							**3097**		3097	
11:00 AM							2583		2583	
12:00 PM							2376		2376	
01:00 PM							2284		2284	
02:00 PM							2267		2267	
03:00 PM							2521		2521	
04:00 PM							**2942**		2942	
05:00 PM							2855		2855	
06:00 PM							2473		2473	
07:00 PM							2021		2021	
08:00 PM							1627		1627	
09:00 PM							1325		1325	
10:00 PM							1082		1082	
11:00 PM							759		759	
Day Total							39702		39702	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							10:00 AM 3097		10:00 AM 3097	
PM Peak Volume							4:00 PM 2942		4:00 PM 2942	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Via Vera Cruz and S Bent Ave
QC JOB #: 16384659
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							132		132	
01:00 AM							103		103	
02:00 AM							82		82	
03:00 AM							109		109	
04:00 AM							117		117	
05:00 AM							290		290	
06:00 AM							443		443	
07:00 AM							854		854	
08:00 AM							1042		1042	
09:00 AM							1155		1155	
10:00 AM							1213		1213	
11:00 AM							**1294**		1294	
12:00 PM							**1249**		1249	
01:00 PM							1232		1232	
02:00 PM							1195		1195	
03:00 PM							1136		1136	
04:00 PM							1091		1091	
05:00 PM							1068		1068	
06:00 PM							1006		1006	
07:00 PM							767		767	
08:00 PM							531		531	
09:00 PM							411		411	
10:00 PM							340		340	
11:00 PM							211		211	
Day Total							17071		17071	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1294		11:00 AM 1294	
PM Peak Volume							12:00 PM 1249		12:00 PM 1249	

Comments:

Report generated on 11/14/2023 11:48 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn S Bent Ave and Grand Ave
QC JOB #: 16384660
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							179		179	
01:00 AM							135		135	
02:00 AM							121		121	
03:00 AM							116		116	
04:00 AM							163		163	
05:00 AM							353		353	
06:00 AM							577		577	
07:00 AM							1018		1018	
08:00 AM							1330		1330	
09:00 AM							1573		1573	
10:00 AM							1749		1749	
11:00 AM							**1870**		1870	
12:00 PM							**1764**		1764	
01:00 PM							1709		1709	
02:00 PM							1647		1647	
03:00 PM							1610		1610	
04:00 PM							1519		1519	
05:00 PM							1449		1449	
06:00 PM							1449		1449	
07:00 PM							1100		1100	
08:00 PM							781		781	
09:00 PM							645		645	
10:00 PM							475		475	
11:00 PM							327		327	
Day Total							23659		23659	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1870		11:00 AM 1870	
PM Peak Volume							12:00 PM 1764		12:00 PM 1764	

Comments:

Report generated on 11/27/2023 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn S Bent Ave and Grand Ave
QC JOB #: 16384660
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							439		439	
01:00 AM							317		317	
02:00 AM							214		214	
03:00 AM							202		202	
04:00 AM							253		253	
05:00 AM							506		506	
06:00 AM							908		908	
07:00 AM							1642		1642	
08:00 AM							2238		2238	
09:00 AM							2768		2768	
10:00 AM							3142		3142	
11:00 AM							**3455**		3455	
12:00 PM							**3431**		3431	
01:00 PM							3364		3364	
02:00 PM							3239		3239	
03:00 PM							3176		3176	
04:00 PM							3154		3154	
05:00 PM							3001		3001	
06:00 PM							2643		2643	
07:00 PM							2163		2163	
08:00 PM							1771		1771	
09:00 PM							1393		1393	
10:00 PM							1106		1106	
11:00 PM							773		773	
Day Total							45298		45298	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 3455		11:00 AM 3455	
PM Peak Volume							12:00 PM 3431		12:00 PM 3431	

Comments:

Report generated on 11/27/2023 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn S Bent Ave and Grand Ave
QC JOB #: 16384660
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							260		260	
01:00 AM							182		182	
02:00 AM							93		93	
03:00 AM							86		86	
04:00 AM							90		90	
05:00 AM							153		153	
06:00 AM							331		331	
07:00 AM							624		624	
08:00 AM							908		908	
09:00 AM							1195		1195	
10:00 AM							1393		1393	
11:00 AM							**1585**		1585	
12:00 PM							**1667**		1667	
01:00 PM							1655		1655	
02:00 PM							1592		1592	
03:00 PM							1566		1566	
04:00 PM							1635		1635	
05:00 PM							1552		1552	
06:00 PM							1194		1194	
07:00 PM							1063		1063	
08:00 PM							990		990	
09:00 PM							748		748	
10:00 PM							631		631	
11:00 PM							446		446	
Day Total							21639		21639	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1585		11:00 AM 1585	
PM Peak Volume							12:00 PM 1667		12:00 PM 1667	

Comments:

Report generated on 11/27/2023 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Grand Ave and SR-78 EB Ramps
QC JOB #: 16384661
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							179		179	
01:00 AM							135		135	
02:00 AM							121		121	
03:00 AM							116		116	
04:00 AM							163		163	
05:00 AM							353		353	
06:00 AM							577		577	
07:00 AM							1018		1018	
08:00 AM							1330		1330	
09:00 AM							1573		1573	
10:00 AM							1749		1749	
11:00 AM							**1870**		1870	
12:00 PM							**1764**		1764	
01:00 PM							1709		1709	
02:00 PM							1647		1647	
03:00 PM							1610		1610	
04:00 PM							1519		1519	
05:00 PM							1449		1449	
06:00 PM							1449		1449	
07:00 PM							1099		1099	
08:00 PM							781		781	
09:00 PM							645		645	
10:00 PM							475		475	
11:00 PM							327		327	
Day Total							23658		23658	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1870		11:00 AM 1870	
PM Peak Volume							12:00 PM 1764		12:00 PM 1764	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Grand Ave and SR-78 EB Ramps
QC JOB #: 16384661
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							439		439	
01:00 AM							317		317	
02:00 AM							214		214	
03:00 AM							202		202	
04:00 AM							253		253	
05:00 AM							506		506	
06:00 AM							908		908	
07:00 AM							1642		1642	
08:00 AM							2238		2238	
09:00 AM							2768		2768	
10:00 AM							3142		3142	
11:00 AM							**3455**		3455	
12:00 PM							**3431**		3431	
01:00 PM							3364		3364	
02:00 PM							3239		3239	
03:00 PM							3176		3176	
04:00 PM							3154		3154	
05:00 PM							3001		3001	
06:00 PM							2643		2643	
07:00 PM							2161		2161	
08:00 PM							1771		1771	
09:00 PM							1393		1393	
10:00 PM							1106		1106	
11:00 PM							773		773	
Day Total							45296		45296	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 3455		11:00 AM 3455	
PM Peak Volume							12:00 PM 3431		12:00 PM 3431	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Blvd btwn Grand Ave and SR-78 EB Ramps
QC JOB #: 16384661
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 4 2023 - Nov 4 2023

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat 4 Nov 23	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM							260		260	
01:00 AM							182		182	
02:00 AM							93		93	
03:00 AM							86		86	
04:00 AM							90		90	
05:00 AM							153		153	
06:00 AM							331		331	
07:00 AM							624		624	
08:00 AM							908		908	
09:00 AM							1195		1195	
10:00 AM							1393		1393	
11:00 AM							**1585**		1585	
12:00 PM							**1667**		1667	
01:00 PM							1655		1655	
02:00 PM							1592		1592	
03:00 PM							1566		1566	
04:00 PM							1635		1635	
05:00 PM							1552		1552	
06:00 PM							1194		1194	
07:00 PM							1062		1062	
08:00 PM							990		990	
09:00 PM							748		748	
10:00 PM							631		631	
11:00 PM							446		446	
Day Total							21638		21638	
% Weekday Average										
% Week Average						0%	100%			
AM Peak Volume							11:00 AM 1585		11:00 AM 1585	
PM Peak Volume							12:00 PM 1667		12:00 PM 1667	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Rd btwn SR-78 EB Ramps and Knoll Rd
QC JOB #: 16384662
SPECIFIC LOCATION:
DIRECTION: EB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				223		223			223	
01:00 AM				194		194			194	
02:00 AM				165		165			165	
03:00 AM				163		163			163	
04:00 AM				222		222			222	
05:00 AM				444		444			444	
06:00 AM				758		758			758	
07:00 AM				1310		1310			1310	
08:00 AM				1599		1599			1599	
09:00 AM				1909		1909			1909	
10:00 AM				2044		2044			2044	
11:00 AM				**2133**		**2133**			**2133**	
12:00 PM				**2098**		**2098**			**2098**	
01:00 PM				2033		2033			2033	
02:00 PM				1926		1926			1926	
03:00 PM				1876		1876			1876	
04:00 PM				1736		1736			1736	
05:00 PM				1800		1800			1800	
06:00 PM				1685		1685			1685	
07:00 PM				1286		1286			1286	
08:00 PM				989		989			989	
09:00 PM				799		799			799	
10:00 PM				612		612			612	
11:00 PM				414		414			414	
Day Total				28418		28418			28418	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 2133		11:00 AM 2133			11:00 AM 2133	
PM Peak Volume				12:00 PM 2098		12:00 PM 2098			12:00 PM 2098	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Rd btwn SR-78 EB Ramps and Knoll Rd
QC JOB #: 16384662
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				433		433			433	
01:00 AM				315		315			315	
02:00 AM				236		236			236	
03:00 AM				229		229			229	
04:00 AM				288		288			288	
05:00 AM				541		541			541	
06:00 AM				964		964			964	
07:00 AM				1689		1689			1689	
08:00 AM				2172		2172			2172	
09:00 AM				2636		2636			2636	
10:00 AM				2972		2972			2972	
11:00 AM				**3223**		**3223**			**3223**	
12:00 PM				**3173**		**3173**			**3173**	
01:00 PM				3115		3115			3115	
02:00 PM				3037		3037			3037	
03:00 PM				2987		2987			2987	
04:00 PM				2872		2872			2872	
05:00 PM				2956		2956			2956	
06:00 PM				2655		2655			2655	
07:00 PM				2067		2067			2067	
08:00 PM				1721		1721			1721	
09:00 PM				1355		1355			1355	
10:00 PM				1075		1075			1075	
11:00 PM				730		730			730	
Day Total				43441		43441			43441	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 3223		11:00 AM 3223			11:00 AM 3223	
PM Peak Volume				12:00 PM 3173		12:00 PM 3173			12:00 PM 3173	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: W San Marcos Rd btwn SR-78 EB Ramps and Knoll Rd
QC JOB #: 16384662
SPECIFIC LOCATION:
DIRECTION: WB
CITY/STATE: San Marcos, CA
DATE: Nov 2 2023 - Nov 2 2023

Start Time	Mon	Tue	Wed	Thu 2 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				210		210			210	
01:00 AM				121		121			121	
02:00 AM				71		71			71	
03:00 AM				66		66			66	
04:00 AM				66		66			66	
05:00 AM				97		97			97	
06:00 AM				206		206			206	
07:00 AM				379		379			379	
08:00 AM				573		573			573	
09:00 AM				727		727			727	
10:00 AM				928		928			928	
11:00 AM				**1090**		**1090**			**1090**	
12:00 PM				1075		1075			1075	
01:00 PM				1082		1082			1082	
02:00 PM				1111		1111			1111	
03:00 PM				1111		1111			1111	
04:00 PM				1136		1136			1136	
05:00 PM				**1156**		**1156**			**1156**	
06:00 PM				970		970			970	
07:00 PM				781		781			781	
08:00 PM				732		732			732	
09:00 PM				556		556			556	
10:00 PM				463		463			463	
11:00 PM				316		316			316	
Day Total				15023		15023			15023	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 1090		11:00 AM 1090			11:00 AM 1090	
PM Peak Volume				5:00 PM 1156		5:00 PM 1156			5:00 PM 1156	

Comments:

Report generated on 11/27/2023 11:30 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Appendix G
Year 2023 Existing Conditions Operations Worksheets

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	520	1	198	182	788	0	0	1154	324
Future Volume (veh/h)	0	0	0	520	1	198	182	788	0	0	1154	324
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1796	1900	1826	1737	1841	0	0	1841	1870
Adj Flow Rate, veh/h				390	245	215	198	857	0	0	1254	352
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				7	0	5	11	4	0	0	4	2
Cap, veh/h				397	217	190	201	3254	0	0	1857	521
Arrive On Green				0.23	0.23	0.23	0.12	0.65	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1711	933	819	1654	5191	0	0	4044	1087
Grp Volume(v), veh/h				390	0	460	198	857	0	0	1083	523
Grp Sat Flow(s),veh/h/ln				1711	0	1753	1654	1675	0	0	1675	1616
Q Serve(g_s), s				22.4	0.0	23.0	11.8	7.2	0.0	0.0	24.7	24.7
Cycle Q Clear(g_c), s				22.4	0.0	23.0	11.8	7.2	0.0	0.0	24.7	24.7
Prop In Lane				1.00		0.47	1.00		0.00	0.00		0.67
Lane Grp Cap(c), veh/h				397	0	407	201	3254	0	0	1604	774
V/C Ratio(X)				0.98	0.00	1.13	0.99	0.26	0.00	0.00	0.68	0.68
Avail Cap(c_a), veh/h				397	0	407	201	3254	0	0	1604	774
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	1.00	0.88	0.88	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				37.8	0.0	38.0	43.4	7.4	0.0	0.0	19.9	19.9
Incr Delay (d2), s/veh				39.9	0.0	84.9	55.8	0.2	0.0	0.0	2.3	4.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				19.8	0.0	28.4	12.0	3.9	0.0	0.0	14.1	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				77.7	0.0	122.9	99.2	7.6	0.0	0.0	22.2	24.6
LnGrp LOS				E	A	F	F	A	A	A	C	C
Approach Vol, veh/h					850			1055			1606	
Approach Delay, s/veh					102.2			24.8			23.0	
Approach LOS					F			C			C	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	70.9		16.7	54.2		28.1				
Change Period (Y+Rc), s	6.8		* 4.7	6.8		5.1				
Max Green Setting (Gmax), s	64.0		* 12	47.0		23.0				
Max Q Clear Time (g_c+I1), s	9.2		13.8	26.7		25.0				
Green Ext Time (p_c), s	3.9		0.0	7.3		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	157	213	25	99	165	463	27	382	80	328	735	559
Future Volume (veh/h)	157	213	25	99	165	463	27	382	80	328	735	559
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
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	1826	1678	1781	1841	1796	1826	1737	1826	1693	1796	1826	1826
Adj Flow Rate, veh/h	173	234	27	109	181	509	30	420	88	360	808	614
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	5	15	8	4	7	5	11	5	14	7	5	5
Cap, veh/h	301	608	69	150	372	563	65	1308	265	423	1401	604
Arrive On Green	0.09	0.21	0.21	0.09	0.21	0.21	0.04	0.32	0.32	0.13	0.40	0.40
Sat Flow, veh/h	3374	2882	329	1753	1796	2715	1654	4138	839	3319	3469	1494
Grp Volume(v), veh/h	173	128	133	109	181	509	30	335	173	360	808	614
Grp Sat Flow(s),veh/h/ln	1687	1594	1617	1753	1796	1358	1654	1662	1654	1659	1735	1494
Q Serve(g_s), s	4.9	6.9	7.1	6.1	8.9	18.3	1.8	7.7	8.0	10.6	18.1	40.4
Cycle Q Clear(g_c), s	4.9	6.9	7.1	6.1	8.9	18.3	1.8	7.7	8.0	10.6	18.1	40.4
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	301	336	341	150	372	563	65	1050	523	423	1401	604
V/C Ratio(X)	0.57	0.38	0.39	0.73	0.49	0.90	0.46	0.32	0.33	0.85	0.58	1.02
Avail Cap(c_a), veh/h	320	343	348	167	386	584	157	1050	523	448	1401	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	0.49	0.49	0.49
Uniform Delay (d), s/veh	43.7	33.9	33.9	44.6	34.9	38.7	47.0	26.0	26.1	42.7	23.2	29.8
Incr Delay (d2), s/veh	2.2	0.7	0.7	11.7	0.9	15.6	4.9	0.8	1.7	7.4	0.9	30.0
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	3.7	4.7	4.9	5.4	6.8	11.1	1.4	5.4	5.8	7.1	10.1	23.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	34.6	34.6	56.3	35.8	54.3	51.9	26.8	27.8	50.1	24.0	59.8
LnGrp LOS	D	C	C	E	D	D	D	C	C	D	C	F
Approach Vol, veh/h		434			799			538			1782	
Approach Delay, s/veh		39.1			50.4			28.5			41.6	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	38.1	15.1	27.6	10.5	46.9	15.4	27.2
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	29.5	9.5	21.5	9.5	33.5	9.5	21.5
Max Q Clear Time (g_c+I1), s	12.6	10.0	8.1	9.1	3.8	42.4	6.9	20.3
Green Ext Time (p_c), s	0.1	2.8	0.0	1.0	0.0	0.0	0.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Edition methodology expects strict NEMA phasing.

Queues
3: Via Vera Cruz & Grand Ave

02/09/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	299	216	140	53	227	54	56	20	278	749
v/c Ratio	0.60	0.38	0.25	0.29	0.50	0.30	0.34	0.07	0.38	1.00
Control Delay	43.7	39.8	4.0	44.4	45.6	44.3	46.0	0.5	22.2	59.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	39.8	4.0	44.4	45.6	44.3	46.0	0.5	22.2	59.9
Queue Length 50th (ft)	89	65	0	31	49	32	34	0	118	~411
Queue Length 95th (ft)	135	104	30	68	75	71	74	0	186	#671
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	500	568	606	251	453	241	219	325	724	746
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.38	0.23	0.21	0.50	0.22	0.26	0.06	0.38	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	284	205	133	50	208	8	65	40	19	264	253	459
Future Volume (vph)	284	205	133	50	208	8	65	40	19	264	253	459
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3099	3282	1495	1641	4877		1573	1429	1282	1770	1662	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3099	3282	1495	1641	4877		1573	1429	1282	1770	1662	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	299	216	140	53	219	8	68	42	20	278	266	483
RTOR Reduction (vph)	0	0	101	0	4	0	0	0	18	0	67	0
Lane Group Flow (vph)	299	216	39	53	223	0	54	56	2	278	682	0
Heavy Vehicles (%)	13%	10%	8%	10%	6%	0%	9%	30%	26%	2%	2%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	15.8	16.0	27.2	8.8	9.0		11.2	11.2	11.2	40.0	40.0	
Effective Green, g (s)	15.8	16.0	27.2	8.8	9.0		11.2	11.2	11.2	40.0	40.0	
Actuated g/C Ratio	0.16	0.16	0.28	0.09	0.09		0.11	0.11	0.11	0.41	0.41	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	501	537	416	147	449		180	163	146	724	680	
v/s Ratio Prot	c0.10	c0.07	0.01	0.03	0.05		0.03	c0.04		0.16	c0.41	
v/s Ratio Perm			0.02						0.00			
v/c Ratio	0.60	0.40	0.09	0.36	0.50		0.30	0.34	0.02	0.38	1.00	
Uniform Delay, d1	38.0	36.6	26.1	41.8	42.2		39.7	39.9	38.4	20.2	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.2	2.2	0.0	0.6	3.9		0.3	0.5	0.0	0.1	35.3	
Delay (s)	43.2	38.8	26.2	42.4	46.1		40.0	40.3	38.4	20.3	64.2	
Level of Service	D	D	C	D	D		D	D	D	C	E	
Approach Delay (s)		38.1			45.4			39.9			52.3	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	46.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	488	20	231	268	3	128
Future Vol, veh/h	488	20	231	268	3	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	5	5	4	7	33	6
Mvmt Flow	555	23	263	305	3	145

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	578	0	1246	289
Stage 1	-	-	-	-	567	-
Stage 2	-	-	-	-	679	-
Critical Hdwy	-	-	4.18	-	7.46	7.02
Critical Hdwy Stg 1	-	-	-	-	6.46	-
Critical Hdwy Stg 2	-	-	-	-	6.46	-
Follow-up Hdwy	-	-	2.24	-	3.83	3.36
Pot Cap-1 Maneuver	-	-	978	-	128	696
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	390	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	978	-	94	696
Mov Cap-2 Maneuver	-	-	-	-	200	-
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	285	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	659	-	-	978	-
HCM Lane V/C Ratio	0.226	-	-	0.268	-
HCM Control Delay (s)	12.1	-	-	10	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.9	-	-	1.1	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	352	261	26	325	174	28
Future Volume (veh/h)	352	261	26	325	174	28
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1737	1856	1678	1796	1841	1900
Adj Flow Rate, veh/h	400	297	30	369	198	32
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	11	3	15	7	4	0
Cap, veh/h	692	508	68	1913	288	264
Arrive On Green	0.39	0.39	0.04	0.56	0.16	0.16
Sat Flow, veh/h	1883	1318	1598	3503	1753	1610
Grp Volume(v), veh/h	367	330	30	369	198	32
Grp Sat Flow(s),veh/h/ln	1650	1464	1598	1706	1753	1610
Q Serve(g_s), s	6.9	7.0	0.7	2.1	4.2	0.7
Cycle Q Clear(g_c), s	6.9	7.0	0.7	2.1	4.2	0.7
Prop In Lane		0.90	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	635	564	68	1913	288	264
V/C Ratio(X)	0.58	0.59	0.44	0.19	0.69	0.12
Avail Cap(c_a), veh/h	968	859	245	1913	1118	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	9.6	18.3	4.2	15.4	14.0
Incr Delay (d2), s/veh	0.8	1.0	4.4	0.0	2.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	2.7	0.5	0.5	2.8	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.4	10.5	22.7	4.3	18.4	14.2
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	697			399	230	
Approach Delay, s/veh	10.4			5.7	17.8	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	6.9	20.9				27.8	11.4
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	23.0				16.7	25.0
Max Q Clear Time (g_c+I1), s	2.7	9.0				4.1	6.2
Green Ext Time (p_c), s	0.0	3.5				1.7	0.6

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

* HCM 6th 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)	33	969	8	59	846	69	33	4	8	108	37	55
Future Volume (veh/h)	33	969	8	59	846	69	33	4	8	108	37	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1811	1900	1900	1796	1841	1900	1900	1900	1841	1900	1796
Adj Flow Rate, veh/h	35	1031	9	63	900	73	35	4	9	115	39	59
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, %	0	6	0	0	7	4	0	0	0	4	0	7
Cap, veh/h	62	2152	19	82	2001	162	83	117	104	194	55	83
Arrive On Green	0.03	0.62	0.62	0.02	0.21	0.21	0.05	0.07	0.07	0.06	0.08	0.08
Sat Flow, veh/h	1810	3496	31	1810	3193	259	1810	1805	1603	3401	681	1030
Grp Volume(v), veh/h	35	507	533	63	481	492	35	4	9	115	0	98
Grp Sat Flow(s),veh/h/ln	1810	1721	1806	1810	1706	1745	1810	1805	1603	1700	0	1710
Q Serve(g_s), s	2.3	19.3	19.3	4.2	29.6	29.6	2.3	0.2	0.6	4.0	0.0	6.7
Cycle Q Clear(g_c), s	2.3	19.3	19.3	4.2	29.6	29.6	2.3	0.2	0.6	4.0	0.0	6.7
Prop In Lane	1.00		0.02	1.00		0.15	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	62	1059	1112	82	1070	1094	83	117	104	194	0	137
V/C Ratio(X)	0.56	0.48	0.48	0.76	0.45	0.45	0.42	0.03	0.09	0.59	0.00	0.71
Avail Cap(c_a), veh/h	234	1059	1112	234	1070	1094	241	384	341	439	0	371
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.0	12.6	12.6	58.5	29.5	29.5	55.7	52.6	52.7	55.2	0.0	53.8
Incr Delay (d2), s/veh	7.7	1.6	1.5	10.4	1.0	1.0	3.4	0.1	0.4	2.9	0.0	6.7
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	2.1	11.5	11.9	3.9	19.0	19.4	2.0	0.2	0.5	3.1	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	14.1	14.1	68.9	30.5	30.5	59.1	52.7	53.1	58.1	0.0	60.5
LnGrp LOS	E	B	B	E	C	C	E	D	D	E	A	E
Approach Vol, veh/h		1075			1036			48			213	
Approach Delay, s/veh		15.7			32.8			57.4			59.2	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	80.4	11.5	16.1	10.6	81.7	13.3	14.3
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	15.5	16.0	* 26	15.5	37.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	6.3	21.3	4.3	8.7	4.3	31.6	6.0	2.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.4	0.0	2.9	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	55	865	105	136	867	115	103	107	258	70	179	63
Future Volume (veh/h)	55	865	105	136	867	115	103	107	258	70	179	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
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	1900	1796	1841	1885	1796	1856	1885	1856	1856	1856	1870	1826
Adj Flow Rate, veh/h	60	940	114	148	942	125	112	116	280	76	195	68
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, %	0	7	4	1	7	3	1	3	3	3	2	5
Cap, veh/h	79	1877	227	175	1630	829	142	373	314	108	247	86
Arrive On Green	0.01	0.14	0.14	0.19	0.96	0.96	0.08	0.20	0.20	0.06	0.19	0.19
Sat Flow, veh/h	1810	4431	536	1795	3413	1533	1795	1856	1565	1767	1318	460
Grp Volume(v), veh/h	60	693	361	148	942	125	112	116	280	76	0	263
Grp Sat Flow(s),veh/h/ln	1810	1635	1698	1795	1706	1533	1795	1856	1565	1767	0	1778
Q Serve(g_s), s	4.0	23.5	23.6	9.5	3.3	0.5	7.4	6.4	20.9	5.1	0.0	16.9
Cycle Q Clear(g_c), s	4.0	23.5	23.6	9.5	3.3	0.5	7.4	6.4	20.9	5.1	0.0	16.9
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	79	1385	719	175	1630	829	142	373	314	108	0	333
V/C Ratio(X)	0.76	0.50	0.50	0.85	0.58	0.15	0.79	0.31	0.89	0.70	0.00	0.79
Avail Cap(c_a), veh/h	264	1385	719	322	1630	829	239	433	365	228	0	422
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.5	39.9	39.9	47.4	1.5	1.1	54.3	40.9	46.7	55.2	0.0	46.5
Incr Delay (d2), s/veh	12.5	1.1	2.2	9.7	1.4	0.4	9.4	0.5	20.8	7.9	0.0	7.7
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	3.8	15.5	16.3	7.5	1.6	0.4	6.7	5.4	15.2	4.5	0.0	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	41.0	42.1	57.2	2.8	1.5	63.6	41.3	67.4	63.2	0.0	54.2
LnGrp LOS	E	D	D	E	A	A	E	D	E	E	A	D
Approach Vol, veh/h		1114			1215			508			339	
Approach Delay, s/veh		43.0			9.3			60.6			56.2	
Approach LOS		D			A			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	56.8	15.5	29.5	11.7	63.3	13.9	31.1
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	21.5	29.0	16.0	* 29	17.5	16.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	11.5	25.6	9.4	18.9	6.0	5.3	7.1	22.9
Green Ext Time (p_c), s	0.2	2.0	0.1	1.0	0.1	4.9	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	46	1007	73	218	1067	263	38	38	84	253	99	29
Future Volume (veh/h)	46	1007	73	218	1067	263	38	38	84	253	99	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
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	1796	1885	1856	1826	1796	1707	1737	1781	1752	1722	1796
Adj Flow Rate, veh/h	50	1095	79	237	1160	286	41	41	91	275	108	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	7	1	3	5	7	13	11	8	10	12	7
Cap, veh/h	84	1721	935	229	2631	955	263	152	131	181	368	170
Arrive On Green	0.09	1.00	1.00	0.07	0.53	0.53	0.08	0.09	0.09	0.11	0.11	0.11
Sat Flow, veh/h	1781	3413	1591	3428	4985	1497	3155	1737	1494	1668	3272	1510
Grp Volume(v), veh/h	50	1095	79	237	1160	286	41	41	91	275	108	32
Grp Sat Flow(s),veh/h/ln	1781	1706	1591	1714	1662	1497	1577	1737	1494	1668	1636	1510
Q Serve(g_s), s	3.2	0.0	0.0	8.0	17.2	10.3	1.4	2.6	7.1	13.0	3.6	2.3
Cycle Q Clear(g_c), s	3.2	0.0	0.0	8.0	17.2	10.3	1.4	2.6	7.1	13.0	3.6	2.3
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	84	1721	935	229	2631	955	263	152	131	181	368	170
V/C Ratio(X)	0.59	0.64	0.08	1.04	0.44	0.30	0.16	0.27	0.70	1.52	0.29	0.19
Avail Cap(c_a), veh/h	126	1721	935	229	2631	955	263	521	448	181	1063	491
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.80	0.80	0.80	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	0.0	0.0	56.0	17.4	9.8	51.1	51.2	53.2	53.5	48.9	48.3
Incr Delay (d2), s/veh	5.2	1.4	0.1	63.2	0.4	0.6	0.3	0.9	6.5	260.8	0.4	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	2.7	0.6	0.1	8.9	10.0	6.3	1.1	2.2	5.3	29.3	2.7	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	1.4	0.1	119.2	17.9	10.5	51.4	52.1	59.8	314.3	49.3	48.8
LnGrp LOS	E	A	A	F	B	B	D	D	E	F	D	D
Approach Vol, veh/h		1224			1683			173			415	
Approach Delay, s/veh		3.7			30.9			56.0			224.9	
Approach LOS		A			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	70.3	17.0	20.5	15.0	67.5	20.0	17.5
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	8.5	35.0	10.0	39.0	8.0	* 36	13.0	36.0
Max Q Clear Time (g_c+I1), s	5.2	19.2	3.4	5.6	10.0	2.0	15.0	9.1
Green Ext Time (p_c), s	0.0	7.9	0.0	0.7	0.0	9.5	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

Notes

* HCM 6th 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)	0	834	548	157	1552	0	0	0	0	169	0	44
Future Volume (veh/h)	0	834	548	157	1552	0	0	0	0	169	0	44
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1796	1796	1707	1811	0				1856	0	1796
Adj Flow Rate, veh/h	0	869	571	164	1617	0				176	0	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	7	7	13	6	0				3	0	7
Cap, veh/h	0	1531	819	332	2772	0				394	0	175
Arrive On Green	0.00	0.31	0.31	0.11	0.56	0.00				0.11	0.00	0.11
Sat Flow, veh/h	0	5065	2622	3155	5107	0				3428	0	1522
Grp Volume(v), veh/h	0	869	571	164	1617	0				176	0	46
Grp Sat Flow(s),veh/h/ln	0	1635	1311	1577	1648	0				1714	0	1522
Q Serve(g_s), s	0.0	5.9	7.6	2.0	8.5	0.0				1.9	0.0	1.1
Cycle Q Clear(g_c), s	0.0	5.9	7.6	2.0	8.5	0.0				1.9	0.0	1.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1531	819	332	2772	0				394	0	175
V/C Ratio(X)	0.00	0.57	0.70	0.49	0.58	0.00				0.45	0.00	0.26
Avail Cap(c_a), veh/h	0	4315	2308	1348	4351	0				2155	0	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.4	12.0	16.8	5.7	0.0				16.4	0.0	16.1
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.4	0.1	0.0				0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	2.7	2.9	1.1	2.2	0.0				1.2	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.6	12.4	17.2	5.8	0.0				16.7	0.0	16.4
LnGrp LOS	A	B	B	B	A	A				B	A	B
Approach Vol, veh/h		1440			1781						222	
Approach Delay, s/veh		11.9			6.8						16.6	
Approach LOS		B			A						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.9	19.2		10.7		29.1
Change Period (Y+Rc), s*	5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s*	13.3	35.0		25.0		35.0
Max Q Clear Time (g_c+I1), s	4.0	9.6		3.9		10.5
Green Ext Time (p_c), s	0.1	2.8		0.3		4.9

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	672	116	0	916	92	729	235	27	153	0	437
Future Volume (veh/h)	189	672	116	0	916	92	729	235	27	153	0	437
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	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	1781	1811	1811	0	1796	1885	1811	1811	1737	1856	0	1841
Adj Flow Rate, veh/h	201	715	123	0	974	98	776	250	29	163	0	465
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, %	8	6	6	0	7	1	6	6	11	3	0	4
Cap, veh/h	500	1684	743	0	1295	412	897	404	46	242	0	0
Arrive On Green	0.15	0.49	0.49	0.00	0.26	0.26	0.27	0.13	0.13	0.14	0.00	0.00
Sat Flow, veh/h	3291	3441	1519	0	5065	1559	3346	3106	356	1767	163	
Grp Volume(v), veh/h	201	715	123	0	974	98	776	137	142	163	37.3	
Grp Sat Flow(s),veh/h/ln	1646	1721	1519	0	1635	1559	1673	1721	1742	1767	D	
Q Serve(g_s), s	4.3	10.4	3.5	0.0	14.2	3.8	17.2	5.9	6.0	6.8		
Cycle Q Clear(g_c), s	4.3	10.4	3.5	0.0	14.2	3.8	17.2	5.9	6.0	6.8		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.20	1.00		
Lane Grp Cap(c), veh/h	500	1684	743	0	1295	412	897	224	226	242		
V/C Ratio(X)	0.40	0.42	0.17	0.00	0.75	0.24	0.86	0.61	0.63	0.67		
Avail Cap(c_a), veh/h	507	1684	743	0	2013	640	1932	662	671	249		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	29.8	12.8	11.1	0.0	26.3	22.5	27.2	32.1	32.1	32.0		
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.3	0.1	1.0	1.0	1.1	5.4		
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		
%ile BackOfQ(95%),veh/ln	2.9	6.3	2.0	0.0	8.9	2.5	11.1	4.5	4.6	5.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	12.9	11.1	0.0	26.7	22.6	28.2	33.1	33.2	37.3		
LnGrp LOS	C	B	B	A	C	C	C	C	C	D		
Approach Vol, veh/h		1039			1072			1055				
Approach Delay, s/veh		16.0			26.3			29.5				
Approach LOS		B			C			C				

Timer - Assigned Phs	2	3	5	6	7	8
Phs Duration (G+Y+Rc), s	44.9	27.0	17.5	27.4	16.8	16.2
Change Period (Y+Rc), s	6.8	6.1	* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s	31.0	45.0	* 12	32.0	11.0	30.0
Max Q Clear Time (g_c+I1), s	12.4	19.2	6.3	16.2	8.8	8.0
Green Ext Time (p_c), s	3.1	1.7	0.2	4.2	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	8	5	184	256	33
Future Vol, veh/h	30	8	5	184	256	33
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	4	4	6
Mvmt Flow	34	9	6	207	288	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	527	308	326	0	-	0
Stage 1	308	-	-	-	-	-
Stage 2	219	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	515	737	1245	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	511	736	1244	-	-	-
Mov Cap-2 Maneuver	588	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1244	-	614	-	-
HCM Lane V/C Ratio	0.005	-	0.07	-	-
HCM Control Delay (s)	7.9	-	11.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	6	191	0	3	259
Future Vol, veh/h	1	6	191	0	3	259
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	83	83	83	83	83	83
Heavy Vehicles, %	0	67	3	0	100	3
Mvmt Flow	1	7	230	0	4	312

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	550	230	0	0	230	0
Stage 1	230	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Critical Hdwy	6.4	6.87	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.903	-	-	3.1	-
Pot Cap-1 Maneuver	500	672	-	-	924	-
Stage 1	813	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	498	672	-	-	924	-
Mov Cap-2 Maneuver	579	-	-	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	657	924	-
HCM Lane V/C Ratio	-	-	0.013	0.004	-
HCM Control Delay (s)	-	-	10.6	8.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	29	68	187	241	11
Future Vol, veh/h	8	29	68	187	241	11
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	7	0	1	3	0
Mvmt Flow	10	35	81	223	287	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	680	296	301	0	-	0
Stage 1	295	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.4	6.27	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	2.2	-	-	-
Pot Cap-1 Maneuver	420	732	1272	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	392	731	1271	-	-	-
Mov Cap-2 Maneuver	499	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	691	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	2.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1271	-	664	-	-
HCM Lane V/C Ratio	0.064	-	0.066	-	-
HCM Control Delay (s)	8	-	10.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	57	0	29	18	223	25	32	233	1
Future Vol, veh/h	0	0	10	57	0	29	18	223	25	32	233	1
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	2	0	7	6	0	0	6	3	0
Mvmt Flow	0	0	11	63	0	32	20	248	28	36	259	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	651	649	261	639	635	262	261	0	0	276	0	0
Stage 1	333	333	-	302	302	-	-	-	-	-	-	-
Stage 2	318	316	-	337	333	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.27	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.363	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	384	391	783	389	399	765	1280	-	-	1264	-	-
Stage 1	685	647	-	707	668	-	-	-	-	-	-	-
Stage 2	698	659	-	677	647	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	355	373	782	371	381	765	1279	-	-	1264	-	-
Mov Cap-2 Maneuver	355	373	-	371	381	-	-	-	-	-	-	-
Stage 1	673	628	-	696	657	-	-	-	-	-	-	-
Stage 2	658	648	-	648	628	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	15.2	0.5	1
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1279	-	-	782	449	1264	-	-
HCM Lane V/C Ratio	0.016	-	-	0.014	0.213	0.028	-	-
HCM Control Delay (s)	7.9	-	-	9.7	15.2	7.9	-	-
HCM Lane LOS	A	-	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.8	0.1	-	-

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	251	2	203	390	1513	0	0	877	383
Future Volume (veh/h)	0	0	0	251	2	203	390	1513	0	0	877	383
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1678	1900	1885	1885	1841	0	0	1856	1885
Adj Flow Rate, veh/h				235	36	209	402	1560	0	0	904	395
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				15	0	1	1	4	0	0	3	1
Cap, veh/h				265	40	233	433	3642	0	0	1506	657
Arrive On Green				0.17	0.17	0.17	0.24	0.72	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1598	242	1405	1795	5191	0	0	3584	1490
Grp Volume(v), veh/h				235	0	245	402	1560	0	0	893	406
Grp Sat Flow(s),veh/h/ln				1598	0	1647	1795	1675	0	0	1689	1530
Q Serve(g_s), s				15.7	0.0	15.9	23.9	13.5	0.0	0.0	21.9	22.0
Cycle Q Clear(g_c), s				15.7	0.0	15.9	23.9	13.5	0.0	0.0	21.9	22.0
Prop In Lane				1.00		0.85	1.00		0.00	0.00		0.97
Lane Grp Cap(c), veh/h				265	0	273	433	3642	0	0	1488	674
V/C Ratio(X)				0.89	0.00	0.90	0.93	0.43	0.00	0.00	0.60	0.60
Avail Cap(c_a), veh/h				279	0	287	560	3642	0	0	1488	674
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	1.00	0.60	0.60	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				44.4	0.0	44.5	40.4	6.0	0.0	0.0	23.2	23.2
Incr Delay (d2), s/veh				25.2	0.0	26.5	11.5	0.2	0.0	0.0	1.8	3.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.7	0.0	13.3	15.7	6.1	0.0	0.0	13.3	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				69.6	0.0	71.0	52.0	6.2	0.0	0.0	25.0	27.1
LnGrp LOS				E	A	E	D	A	A	A	C	C
Approach Vol, veh/h					480			1962			1299	
Approach Delay, s/veh					70.3			15.6			25.7	
Approach LOS					E			B			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	85.8	31.0	54.8	23.2
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	78.0	* 34	39.0	19.0
Max Q Clear Time (g_c+I1), s	15.5	25.9	24.0	17.9
Green Ext Time (p_c), s	9.1	0.4	5.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	317	455	28	46	154	699	47	850	219	309	537	289
Future Volume (veh/h)	317	455	28	46	154	699	47	850	219	309	537	289
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.96
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	1900	1796	1826	1856	1870	1856	1885	1870	1826	1618
Adj Flow Rate, veh/h	323	464	29	47	157	713	48	867	223	315	548	295
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, %	3	3	0	7	5	3	2	3	1	2	5	19
Cap, veh/h	358	739	46	107	324	488	87	1479	378	387	1502	571
Arrive On Green	0.10	0.22	0.22	0.06	0.18	0.18	0.05	0.37	0.37	0.11	0.43	0.43
Sat Flow, veh/h	3428	3369	210	1711	1826	2754	1781	3999	1022	3456	3469	1319
Grp Volume(v), veh/h	323	242	251	47	157	713	48	731	359	315	548	295
Grp Sat Flow(s),veh/h/ln	1714	1763	1817	1711	1826	1377	1781	1689	1644	1728	1735	1319
Q Serve(g_s), s	10.2	13.7	13.8	2.9	8.5	19.5	2.9	19.2	19.3	9.8	11.7	18.0
Cycle Q Clear(g_c), s	10.2	13.7	13.8	2.9	8.5	19.5	2.9	19.2	19.3	9.8	11.7	18.0
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	358	387	399	107	324	488	87	1249	608	387	1502	571
V/C Ratio(X)	0.90	0.63	0.63	0.44	0.49	1.46	0.55	0.59	0.59	0.81	0.36	0.52
Avail Cap(c_a), veh/h	358	387	399	179	324	488	219	1249	608	550	1502	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.41	0.41	0.41	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	48.7	38.8	38.9	49.7	40.7	45.3	51.1	27.9	27.9	47.7	21.0	22.8
Incr Delay (d2), s/veh	24.8	3.2	3.1	1.2	0.5	212.0	5.3	2.0	4.2	4.3	0.5	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.3	10.1	10.4	2.2	5.8	30.3	2.5	12.2	12.5	7.1	7.5	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	42.0	42.0	50.9	41.2	257.2	56.4	29.9	32.1	52.0	21.5	25.0
LnGrp LOS	E	D	D	D	D	F	E	C	C	D	C	C
Approach Vol, veh/h		816			917			1138			1158	
Approach Delay, s/veh		54.5			209.7			31.7			30.7	
Approach LOS		D			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	47.2	13.4	30.6	11.9	54.1	18.0	26.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	11.5	19.5	13.5	39.5	11.5	19.5
Max Q Clear Time (g_c+I1), s	11.8	21.3	4.9	15.8	4.9	20.0	12.2	21.5
Green Ext Time (p_c), s	0.5	5.8	0.0	0.9	0.0	4.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	76.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Edition methodology expects strict NEMA phasing.

Queues
3: Via Vera Cruz & Grand Ave

02/09/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	453	427	162	107	420	169	178	103	334	522
v/c Ratio	0.40	0.38	0.20	0.53	0.89	0.75	0.76	0.27	0.81	1.17
Control Delay	29.1	30.6	2.0	54.6	70.1	64.6	64.9	1.8	55.4	130.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	30.6	2.0	54.6	70.1	64.6	64.9	1.8	55.4	130.8
Queue Length 50th (ft)	123	118	0	72	106	118	125	0	219	~386
Queue Length 95th (ft)	173	177	20	124	#168	#195	#204	0	#360	#596
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	1146	1123	847	251	472	262	272	410	414	446
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.38	0.19	0.43	0.89	0.65	0.65	0.25	0.81	1.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	430	406	154	102	390	9	209	121	98	317	174	322
Future Volume (vph)	430	406	154	102	390	9	209	121	98	317	174	322
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3400	3539	1558	1805	5069		1665	1728	1615	1787	1655	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3400	3539	1558	1805	5069		1665	1728	1615	1787	1655	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	453	427	162	107	411	9	220	127	103	334	183	339
RTOR Reduction (vph)	0	0	88	0	2	0	0	0	89	0	62	0
Lane Group Flow (vph)	453	427	74	107	418	0	169	178	14	334	460	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	3%	2%	2%	0%	2%	0%	3%	3%	0%	1%	3%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	36.3	34.2	48.9	12.1	10.0		14.7	14.7	14.7	25.0	25.0	
Effective Green, g (s)	36.3	34.2	48.9	12.1	10.0		14.7	14.7	14.7	25.0	25.0	
Actuated g/C Ratio	0.34	0.32	0.45	0.11	0.09		0.14	0.14	0.14	0.23	0.23	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	1145	1123	707	202	470		227	235	220	414	384	
v/s Ratio Prot	c0.13	0.12	0.01	c0.06	c0.08		0.10	c0.10		0.19	c0.28	
v/s Ratio Perm			0.03						0.01			
v/c Ratio	0.40	0.38	0.10	0.53	0.89		0.74	0.76	0.06	0.81	1.20	
Uniform Delay, d1	27.3	28.5	16.8	45.1	48.3		44.7	44.8	40.5	39.1	41.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.0	1.0	0.0	1.2	21.5		11.0	11.7	0.0	10.4	111.5	
Delay (s)	28.3	29.5	16.9	46.3	69.9		55.7	56.5	40.6	49.4	152.8	
Level of Service	C	C	B	D	E		E	E	D	D	F	
Approach Delay (s)		27.0			65.1			52.5			112.5	
Approach LOS		C			E			D			F	

Intersection Summary			
HCM 2000 Control Delay	63.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	807	15	111	497	4	372
Future Vol, veh/h	807	15	111	497	4	372
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	4	2	0	2
Mvmt Flow	877	16	121	540	4	404

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	894	0	1398	448
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	512	-
Critical Hdwy	-	-	4.18	-	6.8	6.94
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.24	-	3.5	3.32
Pot Cap-1 Maneuver	-	-	742	-	134	558
Stage 1	-	-	-	-	368	-
Stage 2	-	-	-	-	572	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	741	-	112	557
Mov Cap-2 Maneuver	-	-	-	-	240	-
Stage 1	-	-	-	-	368	-
Stage 2	-	-	-	-	479	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	28.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	549	-	-	741	-
HCM Lane V/C Ratio	0.744	-	-	0.163	-
HCM Control Delay (s)	28.2	-	-	10.8	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	6.4	-	-	0.6	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	841	341	26	333	276	68
Future Volume (veh/h)	841	341	26	333	276	68
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1841	1856	1885	1885
Adj Flow Rate, veh/h	895	363	28	354	294	72
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	4	3	1	1
Cap, veh/h	1063	429	68	2010	382	340
Arrive On Green	0.43	0.43	0.04	0.57	0.21	0.21
Sat Flow, veh/h	2585	1004	1753	3618	1795	1598
Grp Volume(v), veh/h	642	616	28	354	294	72
Grp Sat Flow(s),veh/h/ln	1791	1704	1753	1763	1795	1598
Q Serve(g_s), s	15.9	16.1	0.8	2.4	7.7	1.8
Cycle Q Clear(g_c), s	15.9	16.1	0.8	2.4	7.7	1.8
Prop In Lane		0.59	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	764	727	68	2010	382	340
V/C Ratio(X)	0.84	0.85	0.41	0.18	0.77	0.21
Avail Cap(c_a), veh/h	829	789	212	2010	903	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.7	12.8	23.3	5.1	18.4	16.1
Incr Delay (d2), s/veh	7.3	8.0	4.0	0.0	3.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.8	9.8	0.6	0.9	5.5	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.0	20.8	27.3	5.1	21.7	16.4
LnGrp LOS	B	C	C	A	C	B
Approach Vol, veh/h	1258			382	366	
Approach Delay, s/veh	20.4			6.8	20.7	
Approach LOS	C			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.1	27.0				34.1	15.6
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	23.0				16.7	25.0
Max Q Clear Time (g_c+I1), s	2.8	18.1				4.4	9.7
Green Ext Time (p_c), s	0.0	3.1				1.6	1.0

Intersection Summary	
HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

* HCM 6th 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)	76	1174	8	142	990	168	70	53	74	169	88	77
Future Volume (veh/h)	76	1174	8	142	990	168	70	53	74	169	88	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.99
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	1856	1900	1900	1870	1870	1900	1900	1900	1885	1900	1885
Adj Flow Rate, veh/h	81	1249	9	151	1053	179	74	56	79	180	94	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	3	0	0	2	2	0	0	0	1	0	1
Cap, veh/h	102	1979	14	172	1788	303	94	207	182	228	123	107
Arrive On Green	0.06	0.55	0.55	0.19	1.00	1.00	0.05	0.11	0.11	0.07	0.13	0.13
Sat Flow, veh/h	1795	3587	26	1810	3030	514	1810	1805	1593	3483	932	813
Grp Volume(v), veh/h	81	614	644	151	617	615	74	56	79	180	0	176
Grp Sat Flow(s),veh/h/ln	1795	1763	1850	1810	1777	1766	1810	1805	1593	1742	0	1745
Q Serve(g_s), s	6.7	35.9	35.9	12.2	0.0	0.0	6.1	4.3	6.9	7.6	0.0	14.6
Cycle Q Clear(g_c), s	6.7	35.9	35.9	12.2	0.0	0.0	6.1	4.3	6.9	7.6	0.0	14.6
Prop In Lane	1.00		0.01	1.00		0.29	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	102	973	1021	172	1049	1042	94	207	182	228	0	230
V/C Ratio(X)	0.80	0.63	0.63	0.88	0.59	0.59	0.79	0.27	0.43	0.79	0.00	0.77
Avail Cap(c_a), veh/h	221	973	1021	199	1049	1042	169	439	388	313	0	430
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.9	23.1	23.1	59.9	0.0	0.0	70.3	60.7	61.9	69.1	0.0	62.9
Incr Delay (d2), s/veh	13.2	3.1	3.0	23.1	1.7	1.7	13.7	0.7	1.6	9.0	0.0	5.3
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(95%),veh/ln	6.1	21.4	22.3	9.5	0.9	0.9	5.7	3.6	5.2	6.6	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.1	26.2	26.1	83.0	1.7	1.7	84.1	61.4	63.5	78.1	0.0	68.2
LnGrp LOS	F	C	C	F	A	A	F	E	E	E	A	E
Approach Vol, veh/h		1339			1383			209			356	
Approach Delay, s/veh		29.6			10.6			70.2			73.2	
Approach LOS		C			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	89.3	13.8	26.2	15.0	95.0	16.3	23.7
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	16.5	57.5	14.0	* 37	18.5	35.5	13.5	36.5
Max Q Clear Time (g_c+I1), s	14.2	37.9	8.1	16.6	8.7	2.0	9.6	8.9
Green Ext Time (p_c), s	0.1	7.8	0.1	0.9	0.1	9.8	0.2	0.7

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Notes

* HCM 6th 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)	62	1182	88	158	1009	107	160	146	235	97	238	51
Future Volume (veh/h)	62	1182	88	158	1009	107	160	146	235	97	238	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1841	1900	1870	1856	1900	1885	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	65	1231	92	165	1051	111	167	152	245	101	248	53
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, %	0	4	0	2	3	0	1	1	2	0	1	0
Cap, veh/h	82	2109	158	185	1764	897	189	401	333	123	269	58
Arrive On Green	0.09	0.88	0.88	0.21	1.00	1.00	0.11	0.21	0.21	0.07	0.18	0.18
Sat Flow, veh/h	1810	4769	356	1781	3526	1574	1795	1885	1562	1810	1505	322
Grp Volume(v), veh/h	65	865	458	165	1051	111	167	152	245	101	0	301
Grp Sat Flow(s),veh/h/ln	1810	1675	1776	1781	1763	1574	1795	1885	1562	1810	0	1827
Q Serve(g_s), s	5.3	9.3	9.3	13.5	0.0	0.0	13.8	10.4	22.0	8.3	0.0	24.3
Cycle Q Clear(g_c), s	5.3	9.3	9.3	13.5	0.0	0.0	13.8	10.4	22.0	8.3	0.0	24.3
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	82	1481	785	185	1764	897	189	401	333	123	0	327
V/C Ratio(X)	0.79	0.58	0.58	0.89	0.60	0.12	0.88	0.38	0.74	0.82	0.00	0.92
Avail Cap(c_a), veh/h	103	1481	785	196	1764	897	192	401	333	187	0	359
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.87	0.87	0.87	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.5	5.4	5.4	58.7	0.0	0.0	66.2	50.5	55.1	69.0	0.0	60.5
Incr Delay (d2), s/veh	19.4	1.1	2.1	32.1	1.3	0.2	34.9	0.6	8.3	15.7	0.0	27.1
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	5.0	3.8	4.4	11.1	0.6	0.1	12.9	8.7	14.6	7.8	0.0	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.9	6.5	7.5	90.8	1.3	0.2	101.1	51.1	63.4	84.7	0.0	87.6
LnGrp LOS	F	A	A	F	A	A	F	D	E	F	A	F
Approach Vol, veh/h		1388			1327			564			402	
Approach Delay, s/veh		10.6			12.3			71.3			86.9	
Approach LOS		B			B			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	72.3	21.8	33.9	13.3	81.1	16.7	38.9
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	16.5	48.0	16.0	* 30	8.5	71.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	15.3	11.3	15.8	26.3	7.3	2.0	10.3	24.0
Green Ext Time (p_c), s	0.0	10.9	0.0	0.5	0.0	9.9	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	52	1396	119	364	1103	180	133	128	234	717	209	42
Future Volume (veh/h)	52	1396	119	364	1103	180	133	128	234	717	209	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	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	1885	1900	1870	1841	1900	1900	1885	1885	1900	1870
Adj Flow Rate, veh/h	53	1424	121	371	1126	184	136	131	239	732	213	43
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	1	0	2	4	0	0	1	1	0	2
Cap, veh/h	74	1872	936	257	2869	1239	234	177	146	419	939	411
Arrive On Green	0.08	1.00	1.00	0.07	0.56	0.56	0.07	0.09	0.09	0.23	0.26	0.26
Sat Flow, veh/h	1781	3554	1574	3510	5106	1557	3510	1900	1565	1795	3610	1581
Grp Volume(v), veh/h	53	1424	121	371	1126	184	136	131	239	732	213	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1574	1755	1702	1557	1755	1900	1565	1795	1805	1581
Q Serve(g_s), s	4.4	0.0	0.0	11.0	18.6	4.1	5.6	10.1	14.0	35.0	7.0	3.1
Cycle Q Clear(g_c), s	4.4	0.0	0.0	11.0	18.6	4.1	5.6	10.1	14.0	35.0	7.0	3.1
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	74	1872	936	257	2869	1239	234	177	146	419	939	411
V/C Ratio(X)	0.72	0.76	0.13	1.44	0.39	0.15	0.58	0.74	1.64	1.75	0.23	0.10
Avail Cap(c_a), veh/h	232	1872	936	257	2869	1239	257	177	146	419	939	411
HCM Platoon Ratio	2.00	2.00	2.00	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	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	0.0	0.0	69.5	18.5	3.6	68.0	66.2	68.0	57.5	43.6	42.2
Incr Delay (d2), s/veh	8.9	2.2	0.2	217.3	0.4	0.2	2.7	15.0	315.3	346.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	1.0	0.1	20.3	11.5	2.3	4.8	9.6	29.6	86.1	5.6	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	2.2	0.2	286.8	18.8	3.8	70.7	81.2	383.3	403.6	43.8	42.3
LnGrp LOS	E	A	A	F	B	A	E	F	F	F	D	D
Approach Vol, veh/h		1598			1681			506			988	
Approach Delay, s/veh		4.5			76.3			221.1			310.3	
Approach LOS		A			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	91.8	17.0	46.0	18.0	86.5	42.0	21.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	19.5	36.0	11.0	38.0	11.0	* 63	35.0	14.0
Max Q Clear Time (g_c+I1), s	6.4	20.6	7.6	9.0	13.0	2.0	37.0	16.0
Green Ext Time (p_c), s	0.1	7.2	0.1	1.3	0.0	16.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	116.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	1426	1059	143	1668	0	0	0	0	100	0	39
Future Volume (veh/h)	0	1426	1059	143	1668	0	0	0	0	100	0	39
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1856	1856	1870	0				1885	0	1900
Adj Flow Rate, veh/h	0	1485	1103	149	1738	0				104	0	41
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	1	3	3	2	0				1	0	0
Cap, veh/h	0	2867	1503	253	3684	0				255	0	118
Arrive On Green	0.00	0.56	0.56	0.07	0.72	0.00				0.07	0.00	0.07
Sat Flow, veh/h	0	5316	2699	3428	5274	0				3483	0	1610
Grp Volume(v), veh/h	0	1485	1103	149	1738	0				104	0	41
Grp Sat Flow(s),veh/h/ln	0	1716	1349	1714	1702	0				1742	0	1610
Q Serve(g_s), s	0.0	11.3	19.2	2.6	9.0	0.0				1.8	0.0	1.5
Cycle Q Clear(g_c), s	0.0	11.3	19.2	2.6	9.0	0.0				1.8	0.0	1.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2867	1503	253	3684	0				255	0	118
V/C Ratio(X)	0.00	0.52	0.73	0.59	0.47	0.00				0.41	0.00	0.35
Avail Cap(c_a), veh/h	0	2867	1503	928	3684	0				1386	0	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.7	10.4	28.2	3.7	0.0				27.8	0.0	27.7
Incr Delay (d2), s/veh	0.0	0.7	3.2	0.8	0.4	0.0				0.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	5.8	8.3	1.9	2.7	0.0				1.3	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.3	13.6	29.0	4.1	0.0				28.2	0.0	28.3
LnGrp LOS	A	A	B	C	A	A				C	A	C
Approach Vol, veh/h		2588			1887						145	
Approach Delay, s/veh		11.2			6.1						28.2	
Approach LOS		B			A						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.3	41.8		10.7		52.1
Change Period (Y+Rc), s*	5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	13.3	35.0		25.0		35.0
Max Q Clear Time (g_c+I1), s	4.6	21.2		3.8		11.0
Green Ext Time (p_c), s	0.1	5.2		0.2		5.3

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	1083	164	0	848	110	834	276	75	152	0	386
Future Volume (veh/h)	289	1083	164	0	848	110	834	276	75	152	0	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	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	1870	1885	0	1870	1870	1856	1781	1856	1885	0	1870
Adj Flow Rate, veh/h	301	1128	171	0	883	115	869	288	78	158	0	402
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, %	1	2	1	0	2	2	3	8	3	1	0	2
Cap, veh/h	535	1650	722	0	1214	370	995	411	109	245	0	0
Arrive On Green	0.15	0.46	0.46	0.00	0.24	0.24	0.29	0.16	0.16	0.14	0.00	0.00
Sat Flow, veh/h	3483	3554	1556	0	5274	1555	3428	2641	702	1795	158	
Grp Volume(v), veh/h	301	1128	171	0	883	115	869	183	183	158	35.9	
Grp Sat Flow(s),veh/h/ln	1742	1777	1556	0	1702	1555	1714	1692	1650	1795	D	
Q Serve(g_s), s	6.2	19.4	5.2	0.0	12.4	4.8	18.8	8.0	8.2	6.5		
Cycle Q Clear(g_c), s	6.2	19.4	5.2	0.0	12.4	4.8	18.8	8.0	8.2	6.5		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	535	1650	722	0	1214	370	995	264	257	245		
V/C Ratio(X)	0.56	0.68	0.24	0.00	0.73	0.31	0.87	0.69	0.71	0.65		
Avail Cap(c_a), veh/h	536	1650	722	0	2094	638	1977	651	634	253		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	30.6	16.4	12.6	0.0	27.4	24.5	26.3	31.2	31.3	31.9		
Incr Delay (d2), s/veh	0.8	1.0	0.1	0.0	0.3	0.2	1.0	1.2	1.4	4.0		
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	4.7	11.9	3.0	0.0	8.3	3.1	11.9	5.8	5.9	5.4		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	17.4	12.6	0.0	27.7	24.7	27.3	32.4	32.7	35.9		
LnGrp LOS	C	B	B	A	C	C	C	C	C	D		
Approach Vol, veh/h		1600			998			1235				
Approach Delay, s/veh		19.5			27.4			28.9				
Approach LOS		B			C			C				

Timer - Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		43.0	28.7		17.7	25.3	16.7	18.3
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s		31.0	45.0		* 12	32.0	11.0	30.0
Max Q Clear Time (g_c+I1), s		21.4	20.8		8.2	14.4	8.5	10.2
Green Ext Time (p_c), s		4.3	1.8		0.2	3.9	0.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	77	11	5	279	308	63
Future Vol, veh/h	77	11	5	279	308	63
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	1	1	2
Mvmt Flow	88	13	6	317	350	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	716	387	423	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	398	665	1147	-	-	-
Stage 1	688	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	395	664	1146	-	-	-
Mov Cap-2 Maneuver	502	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	730	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1146	-	518	-	-
HCM Lane V/C Ratio	0.005	-	0.193	-	-
HCM Control Delay (s)	8.2	-	13.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	267	1	1	334
Future Vol, veh/h	0	1	267	1	1	334
Conflicting Peds, #/hr	0	0	0	1	1	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	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	100	100	1
Mvmt Flow	0	1	303	1	1	380

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	687	305	0	0	305	0
Stage 1	305	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	3.1	-
Pot Cap-1 Maneuver	416	740	-	-	857	-
Stage 1	752	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	415	739	-	-	856	-
Mov Cap-2 Maneuver	518	-	-	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	693	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	739	856	-
HCM Lane V/C Ratio	-	-	0.002	0.001	-
HCM Control Delay (s)	-	-	9.9	9.2	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	61	78	238	306	21
Future Vol, veh/h	29	61	78	238	306	21
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	32	68	87	264	340	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	791	353	364	0	-	0
Stage 1	353	-	-	-	-	-
Stage 2	438	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	361	695	1206	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	334	694	1205	-	-	-
Mov Cap-2 Maneuver	453	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	654	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1205	-	592	-	-
HCM Lane V/C Ratio	0.072	-	0.169	-	-
HCM Control Delay (s)	8.2	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	16	63	1	62	7	249	37	57	311	2
Future Vol, veh/h	2	1	16	63	1	62	7	249	37	57	311	2
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	2	1	0
Mvmt Flow	2	1	18	71	1	70	8	280	42	64	349	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	832	817	353	809	797	303	351	0	0	323	0	0
Stage 1	478	478	-	318	318	-	-	-	-	-	-	-
Stage 2	354	339	-	491	479	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	291	313	695	301	322	741	1219	-	-	1237	-	-
Stage 1	572	559	-	698	657	-	-	-	-	-	-	-
Stage 2	667	643	-	563	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	251	294	693	278	303	740	1219	-	-	1236	-	-
Mov Cap-2 Maneuver	251	294	-	278	303	-	-	-	-	-	-	-
Stage 1	568	530	-	692	652	-	-	-	-	-	-	-
Stage 2	599	638	-	517	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	18.7	0.2	1.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1219	-	-	551	402	1236	-	-
HCM Lane V/C Ratio	0.006	-	-	0.039	0.352	0.052	-	-
HCM Control Delay (s)	8	-	-	11.8	18.7	8.1	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.6	0.2	-	-

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	358	9	172	410	760	0	0	793	276
Future Volume (veh/h)	0	0	0	358	9	172	410	760	0	0	793	276
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1841	1885	1870	0	0	1870	1856
Adj Flow Rate, veh/h				278	137	177	423	784	0	0	818	285
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				3	0	4	1	2	0	0	2	3
Cap, veh/h				359	153	197	452	3455	0	0	1399	483
Arrive On Green				0.20	0.20	0.20	0.25	0.68	0.00	0.00	0.38	0.38
Sat Flow, veh/h				1767	752	971	1795	5274	0	0	3876	1281
Grp Volume(v), veh/h				278	0	314	423	784	0	0	750	353
Grp Sat Flow(s),veh/h/ln				1767	0	1723	1795	1702	0	0	1702	1585
Q Serve(g_s), s				14.7	0.0	17.6	22.8	5.8	0.0	0.0	17.4	17.6
Cycle Q Clear(g_c), s				14.7	0.0	17.6	22.8	5.8	0.0	0.0	17.4	17.6
Prop In Lane				1.00		0.56	1.00		0.00	0.00		0.81
Lane Grp Cap(c), veh/h				359	0	350	452	3455	0	0	1284	598
V/C Ratio(X)				0.77	0.00	0.90	0.94	0.23	0.00	0.00	0.58	0.59
Avail Cap(c_a), veh/h				393	0	383	472	3455	0	0	1284	598
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	1.00	0.86	0.86	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				37.3	0.0	38.4	36.2	6.1	0.0	0.0	24.6	24.7
Incr Delay (d2), s/veh				7.4	0.0	20.7	22.6	0.1	0.0	0.0	1.9	4.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				11.5	0.0	14.4	17.6	3.1	0.0	0.0	11.2	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.7	0.0	59.1	58.9	6.2	0.0	0.0	26.6	28.9
LnGrp LOS				D	A	E	E	A	A	A	C	C
Approach Vol, veh/h					592			1207			1103	
Approach Delay, s/veh					52.3			24.7			27.3	
Approach LOS					D			C			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	73.8	29.6	44.2	25.2
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	65.0	* 26	34.0	22.0
Max Q Clear Time (g_c+I1), s	7.8	24.8	19.6	19.6
Green Ext Time (p_c), s	3.5	0.1	4.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	84	184	29	75	123	550	37	533	228	410	563	152
Future Volume (veh/h)	84	184	29	75	123	550	37	533	228	410	563	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
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	1856	1900	1885	1885	1870	1900	1885	1885	1885	1870	1841
Adj Flow Rate, veh/h	86	188	30	77	126	561	38	544	233	418	574	155
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	3	0	1	1	2	0	1	1	1	2	4
Cap, veh/h	285	700	110	143	428	624	83	1034	428	488	1371	581
Arrive On Green	0.08	0.23	0.23	0.08	0.23	0.23	0.05	0.29	0.29	0.14	0.39	0.39
Sat Flow, veh/h	3483	3052	479	1795	1885	2750	1810	3550	1470	3483	3554	1507
Grp Volume(v), veh/h	86	107	111	77	126	561	38	525	252	418	574	155
Grp Sat Flow(s),veh/h/ln	1742	1763	1769	1795	1885	1375	1810	1716	1589	1742	1777	1507
Q Serve(g_s), s	2.3	5.0	5.1	4.1	5.5	19.8	2.0	12.8	13.4	11.7	11.8	7.0
Cycle Q Clear(g_c), s	2.3	5.0	5.1	4.1	5.5	19.8	2.0	12.8	13.4	11.7	11.8	7.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	285	404	405	143	428	624	83	999	463	488	1371	581
V/C Ratio(X)	0.30	0.27	0.27	0.54	0.29	0.90	0.46	0.53	0.54	0.86	0.42	0.27
Avail Cap(c_a), veh/h	366	450	451	171	462	674	172	999	463	540	1371	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.59	0.59	0.59	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	43.2	31.6	31.7	44.3	32.0	37.5	46.5	29.7	29.9	42.0	22.5	21.0
Incr Delay (d2), s/veh	0.6	0.3	0.4	1.9	0.2	9.3	3.9	2.0	4.5	8.7	0.7	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	1.8	3.7	3.9	3.3	4.4	10.5	1.8	9.0	9.2	8.6	7.7	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	32.0	32.0	46.1	32.2	46.8	50.5	31.6	34.4	50.7	23.2	21.8
LnGrp LOS	D	C	C	D	C	D	D	C	C	D	C	C
Approach Vol, veh/h		304			764			815			1147	
Approach Delay, s/veh		35.4			44.4			33.4			33.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.5	35.6	14.4	29.4	11.1	45.1	14.7	29.2
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	23.5	9.5	25.5	9.5	29.5	10.5	24.5
Max Q Clear Time (g_c+I1), s	13.7	15.4	6.1	7.1	4.0	13.8	4.3	21.8
Green Ext Time (p_c), s	0.3	2.9	0.0	1.0	0.0	3.6	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Edition methodology expects strict NEMA phasing.

Queues
3: Via Vera Cruz & Grand Ave

02/09/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	424	294	169	123	389	121	179	69	179	493
v/c Ratio	0.50	0.39	0.24	0.55	0.81	0.52	0.73	0.19	0.34	0.90
Control Delay	35.4	36.6	3.0	49.0	56.6	46.7	57.9	1.2	27.5	50.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	36.6	3.0	49.0	56.6	46.7	57.9	1.2	27.5	50.1
Queue Length 50th (ft)	121	84	0	73	85	72	111	0	82	255
Queue Length 95th (ft)	174	134	27	126	#134	131	#196	0	137	#422
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	842	759	717	277	480	260	273	379	585	602
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.39	0.24	0.44	0.81	0.47	0.66	0.18	0.31	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	416	288	166	121	362	20	132	162	68	175	267	217
Future Volume (vph)	416	288	166	121	362	20	132	162	68	175	267	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3574	1593	1787	5099		1681	1763	1615	1770	1730	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3574	1593	1787	5099		1681	1763	1615	1770	1730	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	424	294	169	123	369	20	135	165	69	179	272	221
RTOR Reduction (vph)	0	0	110	0	6	0	0	0	59	0	32	0
Lane Group Flow (vph)	424	294	59	123	383	0	121	179	10	179	461	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	1%	0%	1%	1%	0%	2%	2%	0%	2%	2%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	23.7	20.5	33.9	12.2	9.0		13.4	13.4	13.4	28.9	28.9	
Effective Green, g (s)	23.7	20.5	33.9	12.2	9.0		13.4	13.4	13.4	28.9	28.9	
Actuated g/C Ratio	0.25	0.21	0.35	0.13	0.09		0.14	0.14	0.14	0.30	0.30	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	841	757	558	225	474		232	244	223	528	517	
v/s Ratio Prot	c0.12	0.08	0.01	0.07	c0.08		0.07	c0.10		0.10	c0.27	
v/s Ratio Perm			0.02						0.01			
v/c Ratio	0.50	0.39	0.11	0.55	0.81		0.52	0.73	0.04	0.34	0.89	
Uniform Delay, d1	31.4	32.7	21.2	39.7	43.0		38.7	39.9	36.1	26.4	32.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	1.5	0.0	1.5	13.7		1.0	9.4	0.0	0.1	17.1	
Delay (s)	33.6	34.2	21.2	41.1	56.7		39.7	49.4	36.1	26.6	49.5	
Level of Service	C	C	C	D	E		D	D	D	C	D	
Approach Delay (s)		31.4			53.0			43.7			43.4	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	487	20	92	534	16	151
Future Vol, veh/h	487	20	92	534	16	151
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	10	1	1	0	3
Mvmt Flow	529	22	100	580	17	164

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	552	0	1031	277
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	490	-
Critical Hdwy	-	-	4.12	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	1021	-	232	717
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	587	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1020	-	209	716
Mov Cap-2 Maneuver	-	-	-	-	342	-
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	529	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	648	-	-	1020	-
HCM Lane V/C Ratio	0.28	-	-	0.098	-
HCM Control Delay (s)	12.7	-	-	8.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	1.1	-	-	0.3	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	385	254	64	307	320	97
Future Volume (veh/h)	385	254	64	307	320	97
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	410	270	68	327	340	103
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	0	1	0	2
Cap, veh/h	680	442	137	1861	442	387
Arrive On Green	0.33	0.33	0.08	0.52	0.24	0.24
Sat Flow, veh/h	2153	1340	1810	3676	1810	1585
Grp Volume(v), veh/h	356	324	68	327	340	103
Grp Sat Flow(s),veh/h/ln	1791	1607	1810	1791	1810	1585
Q Serve(g_s), s	7.6	7.7	1.7	2.2	8.0	2.4
Cycle Q Clear(g_c), s	7.6	7.7	1.7	2.2	8.0	2.4
Prop In Lane		0.83	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	591	531	137	1861	442	387
V/C Ratio(X)	0.60	0.61	0.50	0.18	0.77	0.27
Avail Cap(c_a), veh/h	900	808	237	1861	989	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	12.9	20.3	5.8	16.1	14.0
Incr Delay (d2), s/veh	1.0	1.1	2.7	0.0	2.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	3.9	1.2	0.8	5.5	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.8	14.0	23.0	5.9	18.9	14.3
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	680			395	443	
Approach Delay, s/veh	13.9			8.8	17.9	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.7	20.9				29.6	16.2
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	23.0				16.7	25.0
Max Q Clear Time (g_c+I1), s	3.7	9.7				4.2	10.0
Green Ext Time (p_c), s	0.0	3.3				1.5	1.2

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

* HCM 6th 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)	96	900	8	146	919	172	70	53	74	260	88	64
Future Volume (veh/h)	96	900	8	146	919	172	70	53	74	260	88	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
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	1885	1900	1900	1870	1885	1900	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	102	957	9	155	978	183	74	56	79	277	94	68
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	1	0	0	2	1	0	0	0	1	0	2
Cap, veh/h	128	1818	17	185	1585	296	110	150	133	340	127	92
Arrive On Green	0.07	0.50	0.50	0.07	0.36	0.36	0.06	0.08	0.08	0.10	0.12	0.12
Sat Flow, veh/h	1781	3635	34	1810	2987	558	1810	1805	1593	3483	1022	739
Grp Volume(v), veh/h	102	472	494	155	581	580	74	56	79	277	0	162
Grp Sat Flow(s),veh/h/ln	1781	1791	1878	1810	1777	1768	1810	1805	1593	1742	0	1761
Q Serve(g_s), s	6.8	21.4	21.4	10.2	32.4	32.5	4.8	3.5	5.7	9.4	0.0	10.7
Cycle Q Clear(g_c), s	6.8	21.4	21.4	10.2	32.4	32.5	4.8	3.5	5.7	9.4	0.0	10.7
Prop In Lane	1.00		0.02	1.00		0.32	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	128	896	939	185	943	939	110	150	133	340	0	219
V/C Ratio(X)	0.80	0.53	0.53	0.84	0.62	0.62	0.67	0.37	0.59	0.81	0.00	0.74
Avail Cap(c_a), veh/h	260	896	939	264	943	939	241	384	338	450	0	381
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.73	0.73	0.73	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.9	20.3	20.3	54.9	28.6	28.6	55.2	52.0	53.0	53.1	0.0	50.7
Incr Delay (d2), s/veh	10.8	2.2	2.1	11.3	2.2	2.2	6.8	1.5	4.2	8.4	0.0	4.9
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	6.0	13.8	14.3	8.5	20.3	20.3	4.3	3.0	4.4	7.9	0.0	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	22.5	22.4	66.2	30.8	30.8	62.0	53.6	57.3	61.5	0.0	55.6
LnGrp LOS	E	C	C	E	C	C	E	D	E	E	A	E
Approach Vol, veh/h		1068			1316			209			439	
Approach Delay, s/veh		26.6			35.0			57.9			59.3	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	66.5	13.3	21.4	15.1	70.2	18.2	16.5
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	16.0	* 26	17.5	35.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	12.3	23.4	6.8	12.7	8.8	34.5	11.4	7.7
Green Ext Time (p_c), s	0.2	4.4	0.1	0.6	0.1	0.7	0.4	0.6

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	95	900	74	236	871	178	137	116	243	149	119	97
Future Volume (veh/h)	95	900	74	236	871	178	137	116	243	149	119	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		0.98
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	1885	1885	1870	1900	1885	1870	1870	1885	1900	1900
Adj Flow Rate, veh/h	100	947	78	248	917	187	144	122	256	157	125	102
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	2	0	1	2	2	1	0	0
Cap, veh/h	126	1662	136	262	1497	842	174	351	292	186	190	155
Arrive On Green	0.02	0.11	0.11	0.29	0.84	0.84	0.10	0.19	0.19	0.10	0.20	0.20
Sat Flow, veh/h	1781	4796	394	1795	3554	1604	1795	1870	1555	1795	960	784
Grp Volume(v), veh/h	100	671	354	248	917	187	144	122	256	157	0	227
Grp Sat Flow(s),veh/h/ln	1781	1702	1786	1795	1777	1604	1795	1870	1555	1795	0	1744
Q Serve(g_s), s	6.7	22.4	22.5	16.2	10.1	2.4	9.4	6.8	19.2	10.3	0.0	14.4
Cycle Q Clear(g_c), s	6.7	22.4	22.5	16.2	10.1	2.4	9.4	6.8	19.2	10.3	0.0	14.4
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	126	1179	619	262	1497	842	174	351	292	186	0	346
V/C Ratio(X)	0.79	0.57	0.57	0.95	0.61	0.22	0.83	0.35	0.88	0.85	0.00	0.66
Avail Cap(c_a), veh/h	260	1179	619	262	1497	842	269	436	363	262	0	429
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.77	0.77	0.77	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	44.7	44.7	42.0	6.3	3.8	53.2	42.4	47.4	52.9	0.0	44.3
Incr Delay (d2), s/veh	8.0	1.5	2.8	35.1	1.5	0.5	11.6	0.6	17.9	16.0	0.0	2.6
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	6.0	15.0	16.0	12.6	4.4	1.4	8.5	5.8	13.8	9.3	0.0	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	46.1	47.5	77.2	7.7	4.3	64.8	42.9	65.3	68.9	0.0	46.9
LnGrp LOS	E	D	D	E	A	A	E	D	E	E	A	D
Approach Vol, veh/h		1125			1352			522			384	
Approach Delay, s/veh		48.3			20.0			59.9			55.9	
Approach LOS		D			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	47.6	17.6	30.8	15.0	56.6	18.9	29.5
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	17.5	30.0	18.0	* 30	17.5	30.0	17.5	28.0
Max Q Clear Time (g_c+I1), s	18.2	24.5	11.4	16.4	8.7	12.1	12.3	21.2
Green Ext Time (p_c), s	0.0	2.9	0.2	1.0	0.1	6.5	0.2	0.9

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

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	89	1099	225	489	1117	163	150	148	295	293	233	49
Future Volume (veh/h)	89	1099	225	489	1117	163	150	148	295	293	233	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
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	1900	1870	1900	1885	1870	1870	1900	1870	1900	1870	1900	1870
Adj Flow Rate, veh/h	95	1169	239	520	1188	173	160	157	314	312	248	52
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, %	0	2	0	1	2	2	0	2	0	2	0	2
Cap, veh/h	119	1629	856	319	2494	1032	293	358	303	297	993	430
Arrive On Green	0.13	0.92	0.92	0.09	0.49	0.49	0.08	0.19	0.19	0.17	0.28	0.28
Sat Flow, veh/h	1810	3554	1576	3483	5106	1572	3510	1870	1580	1781	3610	1564
Grp Volume(v), veh/h	95	1169	239	520	1188	173	160	157	314	312	248	52
Grp Sat Flow(s),veh/h/ln	1810	1777	1576	1742	1702	1572	1755	1870	1580	1781	1805	1564
Q Serve(g_s), s	6.1	9.6	1.8	11.0	18.6	5.1	5.3	8.9	23.0	20.0	6.4	3.0
Cycle Q Clear(g_c), s	6.1	9.6	1.8	11.0	18.6	5.1	5.3	8.9	23.0	20.0	6.4	3.0
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	119	1629	856	319	2494	1032	293	358	303	297	993	430
V/C Ratio(X)	0.80	0.72	0.28	1.63	0.48	0.17	0.55	0.44	1.04	1.05	0.25	0.12
Avail Cap(c_a), veh/h	249	1629	856	319	2494	1032	293	358	303	297	993	430
HCM Platoon Ratio	2.00	2.00	2.00	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	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	3.1	2.0	54.5	20.5	8.0	52.8	42.8	48.5	50.0	33.9	32.6
Incr Delay (d2), s/veh	8.6	2.0	0.6	294.7	0.6	0.3	2.1	0.8	61.6	66.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.2	3.3	1.1	28.1	11.2	3.2	4.4	7.6	20.9	20.7	5.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	5.1	2.6	349.2	21.0	8.3	55.0	43.6	110.1	116.2	34.0	32.7
LnGrp LOS	E	A	A	F	C	A	D	D	F	F	C	C
Approach Vol, veh/h		1503			1881			631			612	
Approach Delay, s/veh		8.2			110.6			79.6			75.8	
Approach LOS		A			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	66.1	17.0	40.0	18.0	62.5	27.0	30.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	16.5	33.0	10.0	33.0	11.0	* 39	20.0	23.0
Max Q Clear Time (g_c+I1), s	8.1	20.6	7.3	8.4	13.0	11.6	22.0	25.0
Green Ext Time (p_c), s	0.1	6.6	0.1	1.5	0.0	10.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	68.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	865	1021	237	1695	0	0	0	0	158	0	197
Future Volume (veh/h)	0	865	1021	237	1695	0	0	0	0	158	0	197
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1870	1841	1885	0				1856	0	1885
Adj Flow Rate, veh/h	0	911	1075	249	1784	0				166	0	207
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	4	1	0				3	0	1
Cap, veh/h	0	2489	1320	343	3414	0				543	0	253
Arrive On Green	0.00	0.48	0.48	0.10	0.66	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	5316	2730	3401	5316	0				3428	0	1598
Grp Volume(v), veh/h	0	911	1075	249	1784	0				166	0	207
Grp Sat Flow(s),veh/h/ln	0	1716	1365	1700	1716	0				1714	0	1598
Q Serve(g_s), s	0.0	8.0	24.3	5.1	12.9	0.0				3.1	0.0	9.1
Cycle Q Clear(g_c), s	0.0	8.0	24.3	5.1	12.9	0.0				3.1	0.0	9.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2489	1320	343	3414	0				543	0	253
V/C Ratio(X)	0.00	0.37	0.81	0.73	0.52	0.00				0.31	0.00	0.82
Avail Cap(c_a), veh/h	0	2489	1320	799	3414	0				1184	0	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.7	15.9	31.6	6.3	0.0				26.9	0.0	29.4
Incr Delay (d2), s/veh	0.0	0.4	5.6	1.1	0.6	0.0				0.1	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	4.8	11.7	3.7	5.9	0.0				2.3	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.1	21.5	32.7	6.9	0.0				27.0	0.0	31.9
LnGrp LOS	A	B	C	C	A	A				C	A	C
Approach Vol, veh/h		1986			2033						373	
Approach Delay, s/veh		17.2			10.0						29.8	
Approach LOS		B			B						C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.0	41.8		17.6		54.8
Change Period (Y+Rc), s*	5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	7.3	35.0		25.0		35.0
Max Q Clear Time (g_c+I1), s	7.1	26.3		11.1		14.9
Green Ext Time (p_c), s	0.2	2.9		0.4		5.3

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	337	563	185	0	864	84	804	200	55	86	0	492
Future Volume (veh/h)	337	563	185	0	864	84	804	200	55	86	0	492
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	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	1885	1885	0	1870	1885	1870	1870	1900	1870	0	1885
Adj Flow Rate, veh/h	355	593	195	0	909	88	846	211	58	91	0	518
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	2	1	2	2	0	2	0	1
Cap, veh/h	570	1758	764	0	1264	389	981	334	90	227	0	0
Arrive On Green	0.16	0.49	0.49	0.00	0.25	0.25	0.28	0.12	0.12	0.13	0.00	0.00
Sat Flow, veh/h	3456	3582	1557	0	5274	1571	3456	2767	742	1781	91	
Grp Volume(v), veh/h	355	593	195	0	909	88	846	134	135	91	29.6	
Grp Sat Flow(s),veh/h/ln	1728	1791	1557	0	1702	1571	1728	1777	1732	1781	C	
Q Serve(g_s), s	7.0	7.3	5.3	0.0	11.9	3.2	16.9	5.2	5.4	3.4		
Cycle Q Clear(g_c), s	7.0	7.3	5.3	0.0	11.9	3.2	16.9	5.2	5.4	3.4		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	570	1758	764	0	1264	389	981	215	209	227		
V/C Ratio(X)	0.62	0.34	0.26	0.00	0.72	0.23	0.86	0.62	0.65	0.40		
Avail Cap(c_a), veh/h	570	1758	764	0	2246	691	2138	733	715	269		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	28.3	11.3	10.8	0.0	25.0	21.8	24.7	30.4	30.5	29.2		
Incr Delay (d2), s/veh	1.6	0.0	0.1	0.0	0.3	0.1	0.9	1.1	1.3	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		
%ile BackOfQ(95%),veh/ln	5.2	4.7	3.0	0.0	7.8	2.1	10.8	4.0	4.1	2.6		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	11.3	10.8	0.0	25.3	21.9	25.6	31.5	31.8	29.6		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1143			997			1115				
Approach Delay, s/veh		17.0			25.0			27.0				
Approach LOS		B			C			C				

Timer - Assigned Phs	2	3	5	6	7	8
Phs Duration (G+Y+Rc), s	42.5	26.8	17.7	24.8	15.4	14.9
Change Period (Y+Rc), s	6.8	6.1	* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s	31.0	45.0	* 12	32.0	11.0	30.0
Max Q Clear Time (g_c+I1), s	9.3	18.9	9.0	13.9	5.4	7.4
Green Ext Time (p_c), s	3.1	1.8	0.2	4.0	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	129	37	3	289	193	124
Future Vol, veh/h	129	37	3	289	193	124
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	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	142	41	3	318	212	136

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	604	280	348	0	-	0
Stage 1	280	-	-	-	-	-
Stage 2	324	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	465	764	1222	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	738	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	464	764	1222	-	-	-
Mov Cap-2 Maneuver	555	-	-	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	738	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1222	-	591	-	-
HCM Lane V/C Ratio	0.003	-	0.309	-	-
HCM Control Delay (s)	8	-	13.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	1.3	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	293	0	0	226
Future Vol, veh/h	0	2	293	0	0	226
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	85	85	85	85	85	85
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	2	345	0	0	266

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	611	345	0	0	-	-
Stage 1	345	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	460	702	-	-	0	-
Stage 1	722	-	-	-	0	-
Stage 2	783	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	460	702	-	-	-	-
Mov Cap-2 Maneuver	552	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	702	-
HCM Lane V/C Ratio	-	-	0.003	-
HCM Control Delay (s)	-	-	10.1	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	100	153	259	192	35
Future Vol, veh/h	33	100	153	259	192	35
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	37	112	172	291	216	39

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	871	236	255	0	-	0
Stage 1	236	-	-	-	-	-
Stage 2	635	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	324	808	1316	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	282	808	1316	-	-	-
Mov Cap-2 Maneuver	400	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	532	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1316	-	645	-	-
HCM Lane V/C Ratio	0.131	-	0.232	-	-
HCM Control Delay (s)	8.1	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	-	-

Intersection	
Int Delay, s/veh	5.3

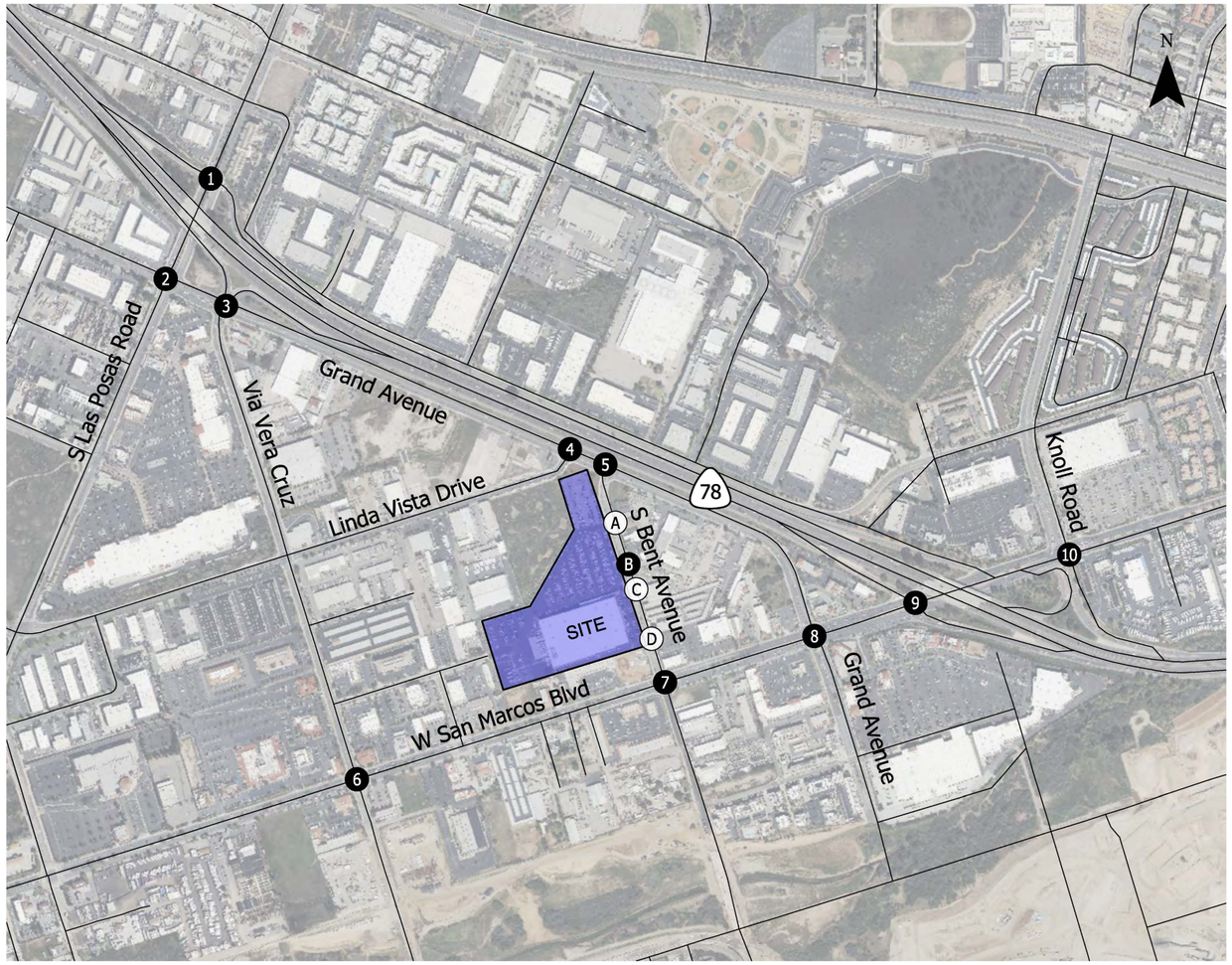
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	34	80	1	83	17	309	37	53	266	0
Future Vol, veh/h	5	2	34	80	1	83	17	309	37	53	266	0
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	0	1	0	1	0	0	0	0
Mvmt Flow	5	2	37	87	1	90	18	336	40	58	289	0

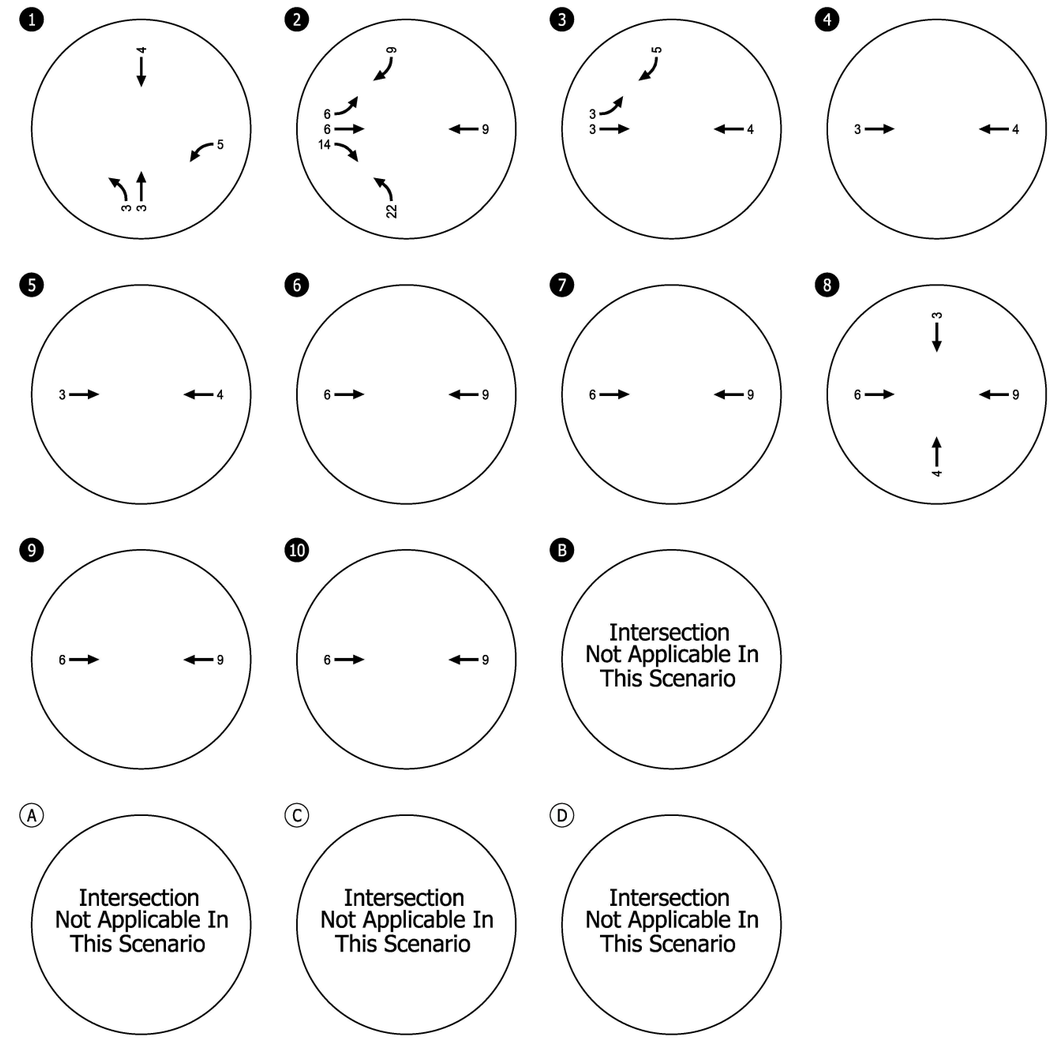
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	847	817	289	817	797	360	289	0	0	376	0	0
Stage 1	405	405	-	392	392	-	-	-	-	-	-	-
Stage 2	442	412	-	425	405	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	284	313	755	295	322	687	1284	-	-	1194	-	-
Stage 1	626	602	-	633	610	-	-	-	-	-	-	-
Stage 2	598	598	-	607	602	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	233	294	755	266	302	684	1284	-	-	1194	-	-
Mov Cap-2 Maneuver	233	294	-	266	302	-	-	-	-	-	-	-
Stage 1	617	573	-	624	601	-	-	-	-	-	-	-
Stage 2	509	590	-	547	573	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	22.1	0.4	1.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1284	-	-	559	386	1194	-	-
HCM Lane V/C Ratio	0.014	-	-	0.08	0.462	0.048	-	-
HCM Control Delay (s)	7.8	-	-	12	22.1	8.2	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2.4	0.2	-	-

Appendix H
In-Process Developments Trip Assignments



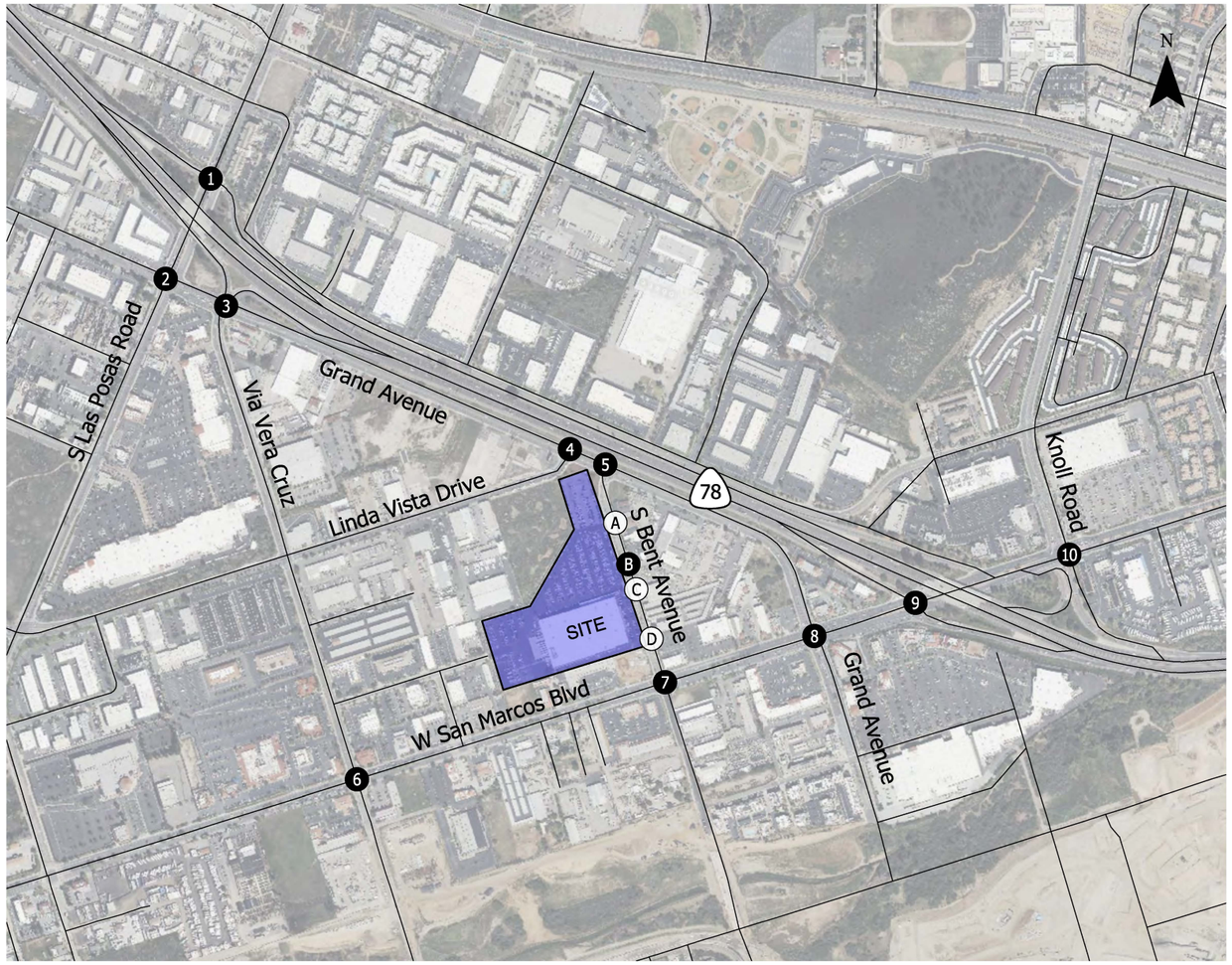


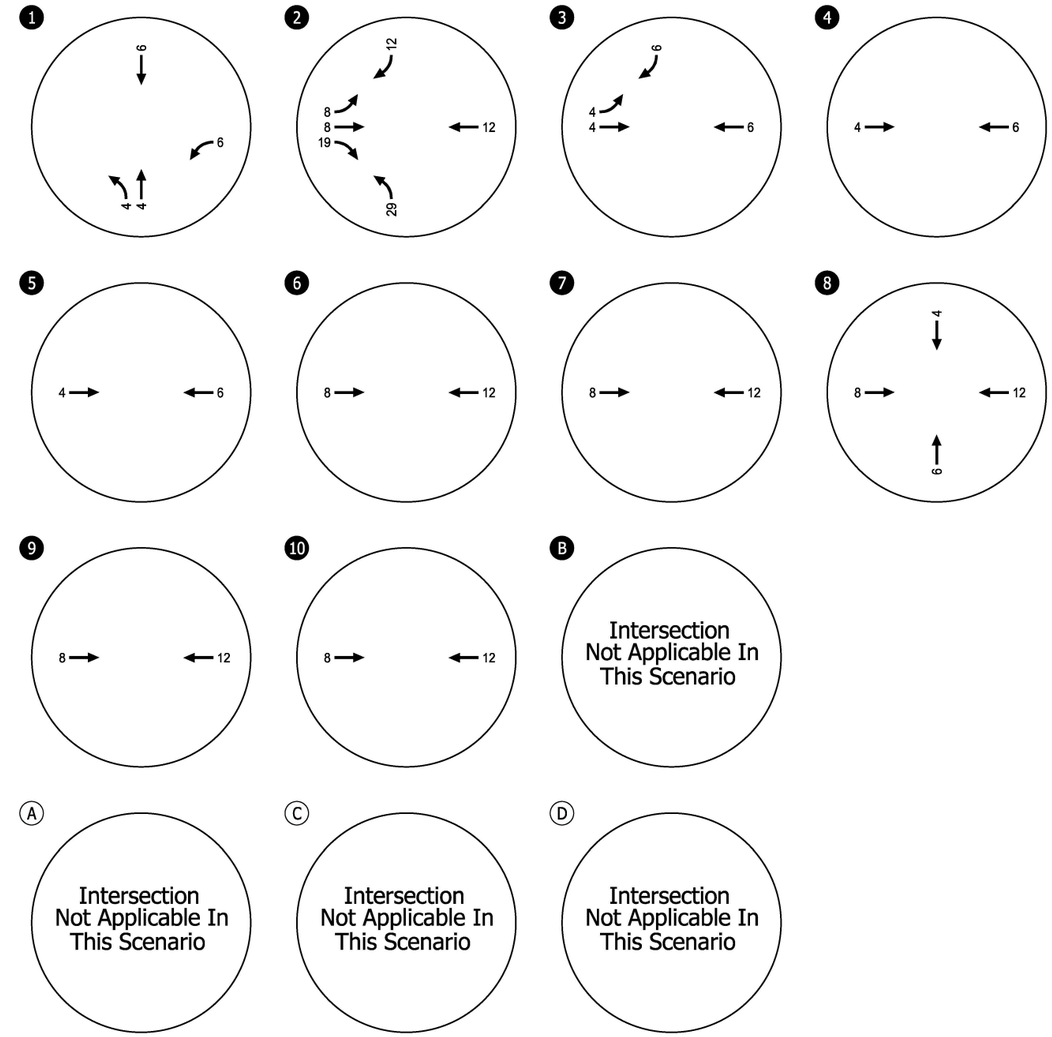
● - Study Intersection
Ⓐ - Site Access Intersection

In-Process Trip Assignment: Pacific Commercial
Weekday AM Peak Hour
San Marcos, CA

Figure
H-1A

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H1A. Pacific Commercial AM



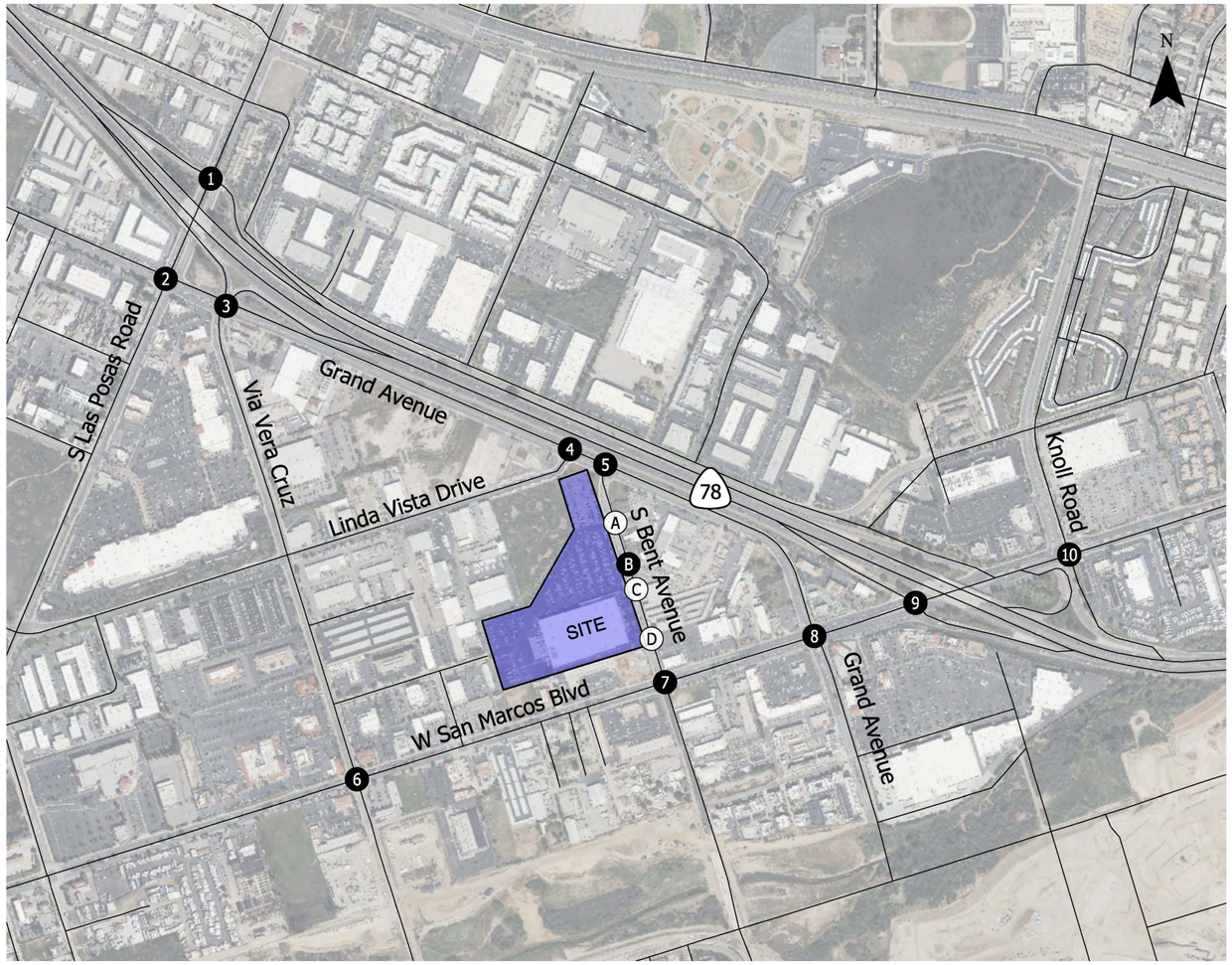


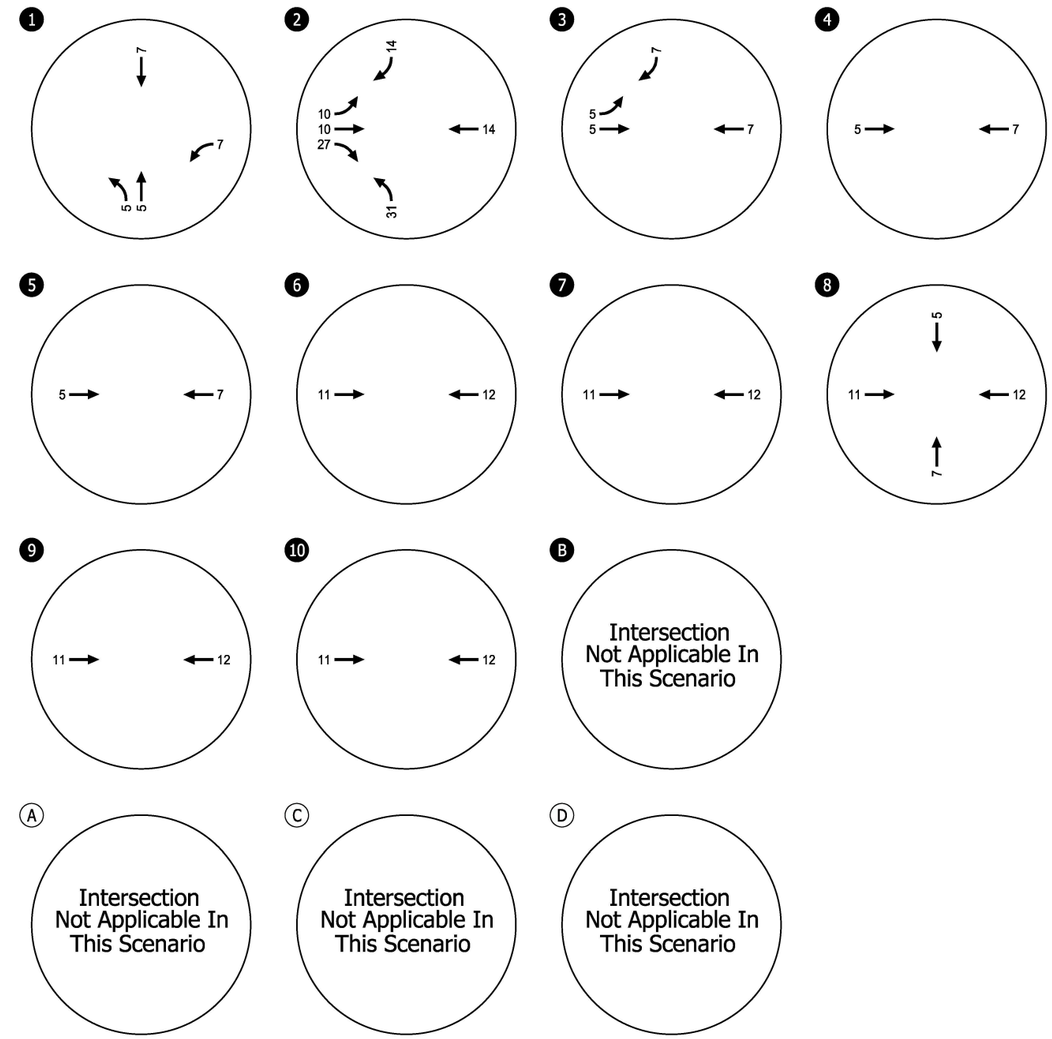
● - Study Intersection
Ⓐ - Site Access Intersection

In-Process Trip Assignment: Pacific Commercial
Weekday PM Peak Hour
San Marcos, CA

Figure
H-1B

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H1B. Pacific Commercial PM





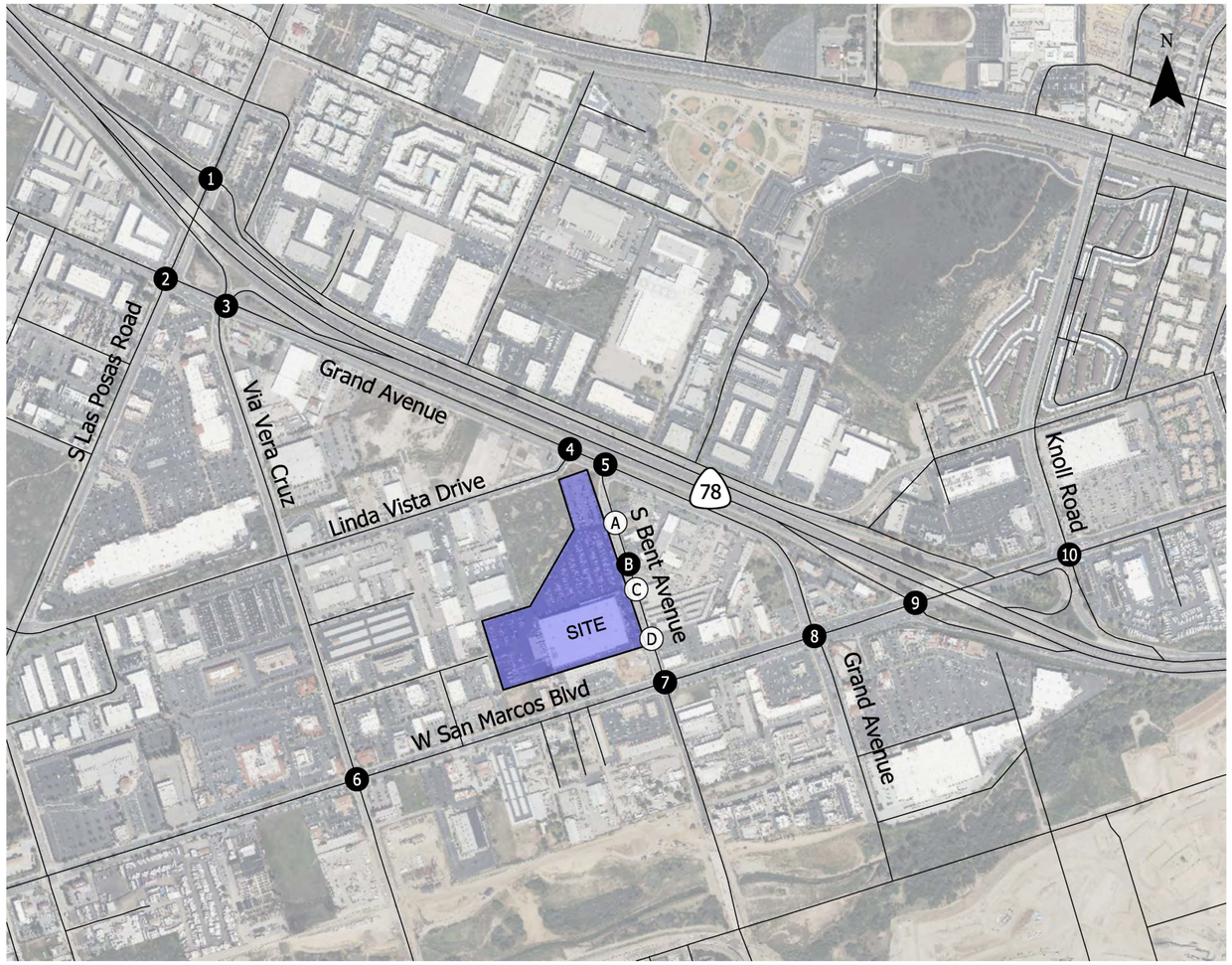
(#) - Study Intersection
(#) - Site Access Intersection

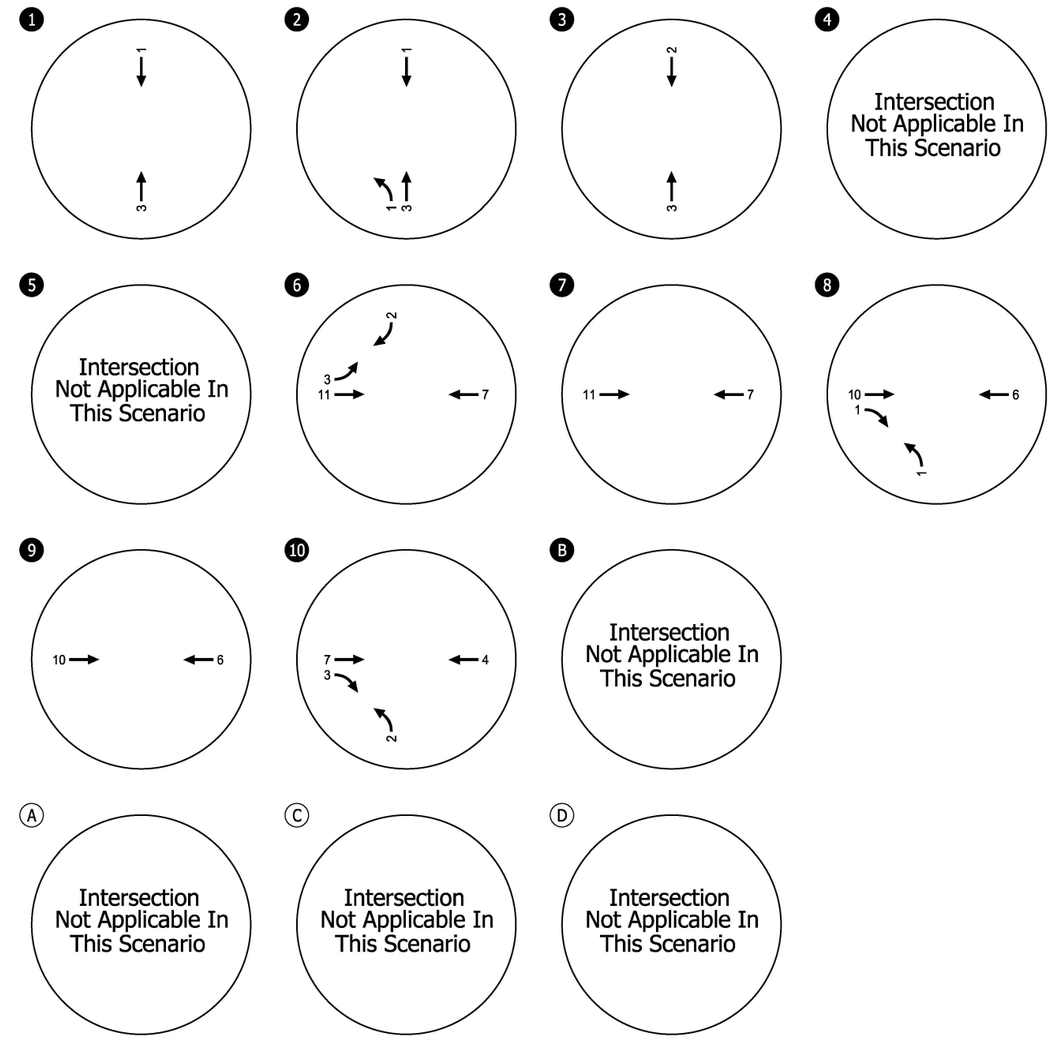
In-Process Trip Assignment: Pacific Commercial
Saturday Midday Peak Hour
San Marcos, CA

Figure
H-1C

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H1C. Pacific Commercial SAT





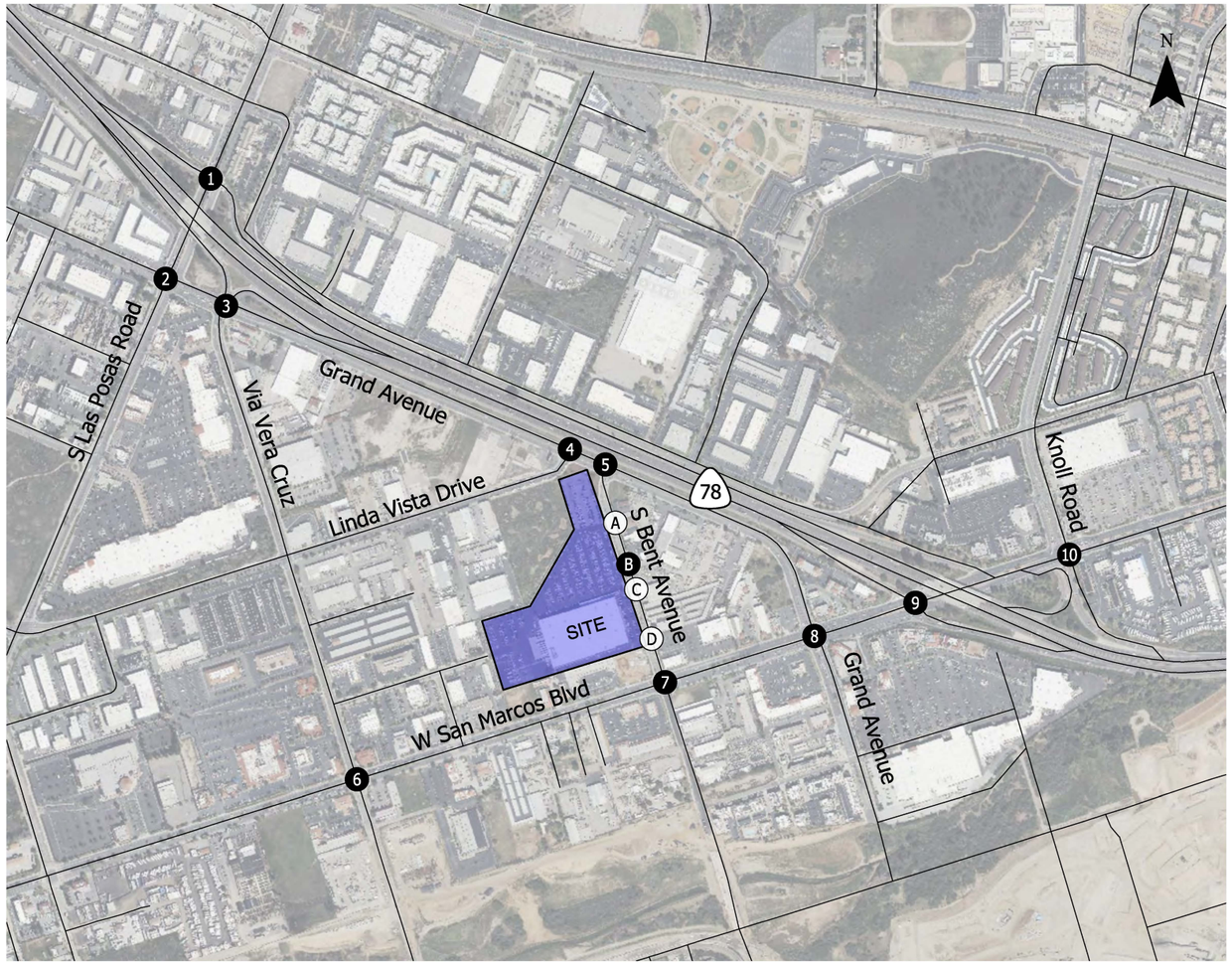
● - Study Intersection
Ⓐ - Site Access Intersection

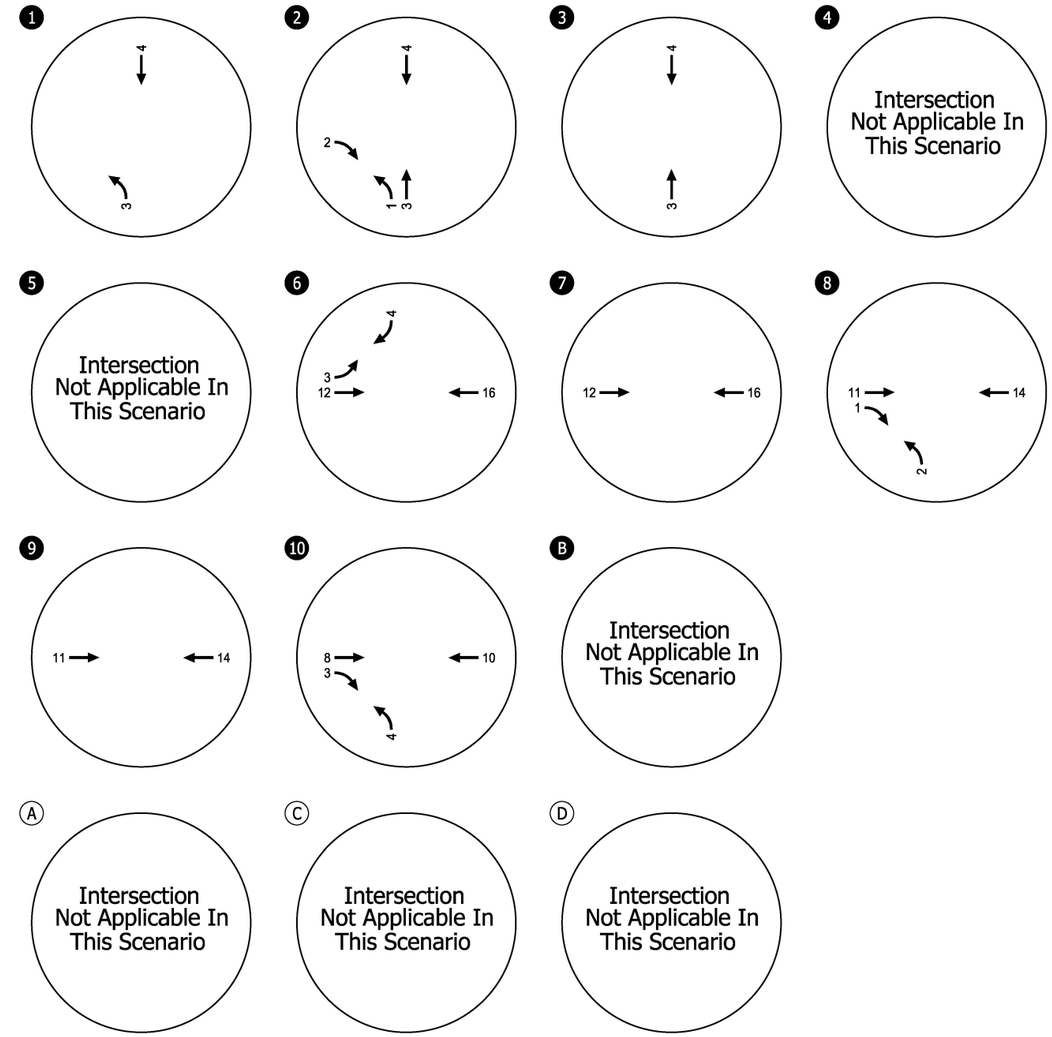
In-Process Trip Assignment: MacDonald Group
Weekday AM Peak Hour
San Marcos, CA

Figure
H-2A

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H2A. MacDonald Group AM





● - Study Intersection

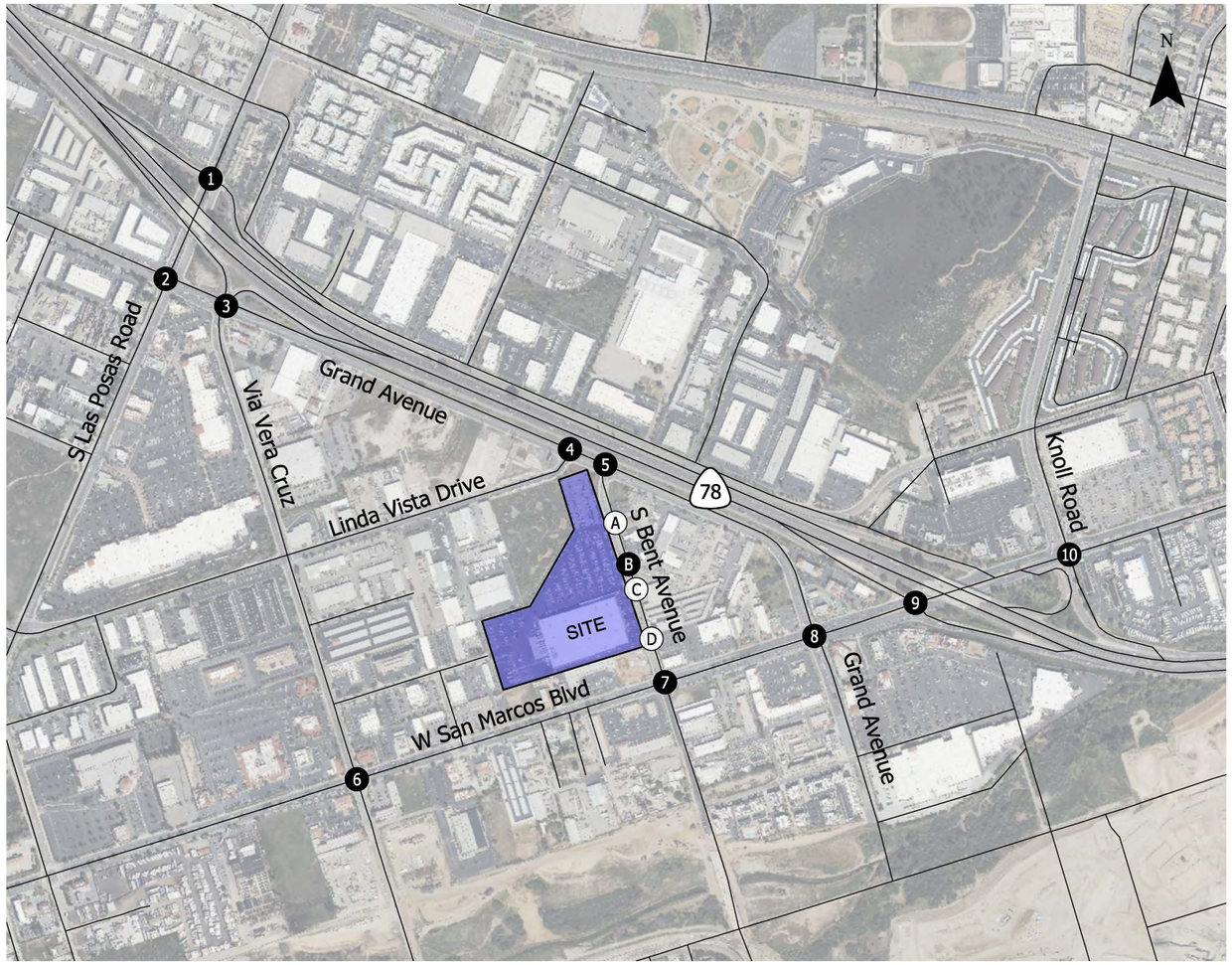
Ⓐ - Site Access Intersection

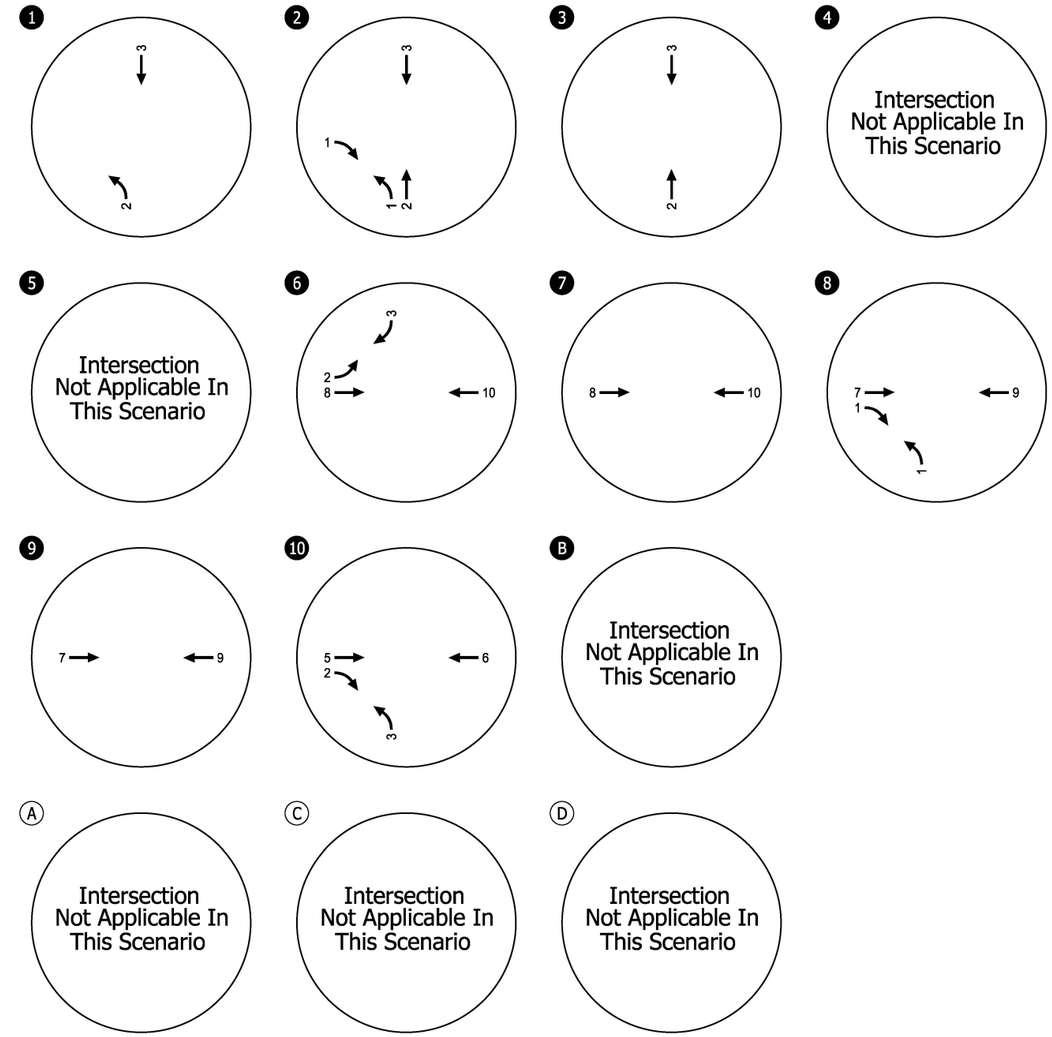
In-Process Trip Assignment: MacDonald Group
Weekday PM Peak Hour
San Marcos, CA

Figure
H-2B

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H2B. MacDonald Group PM



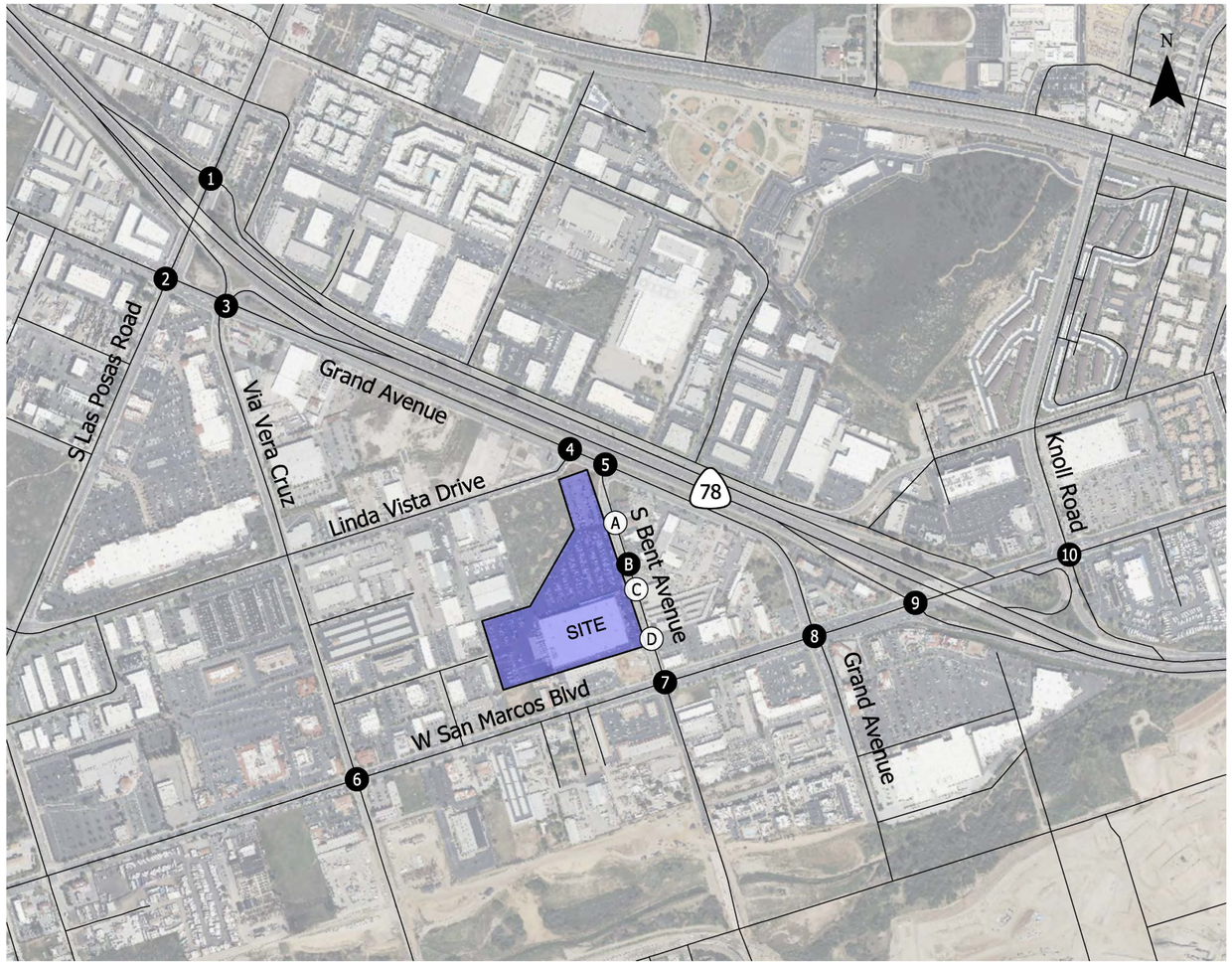


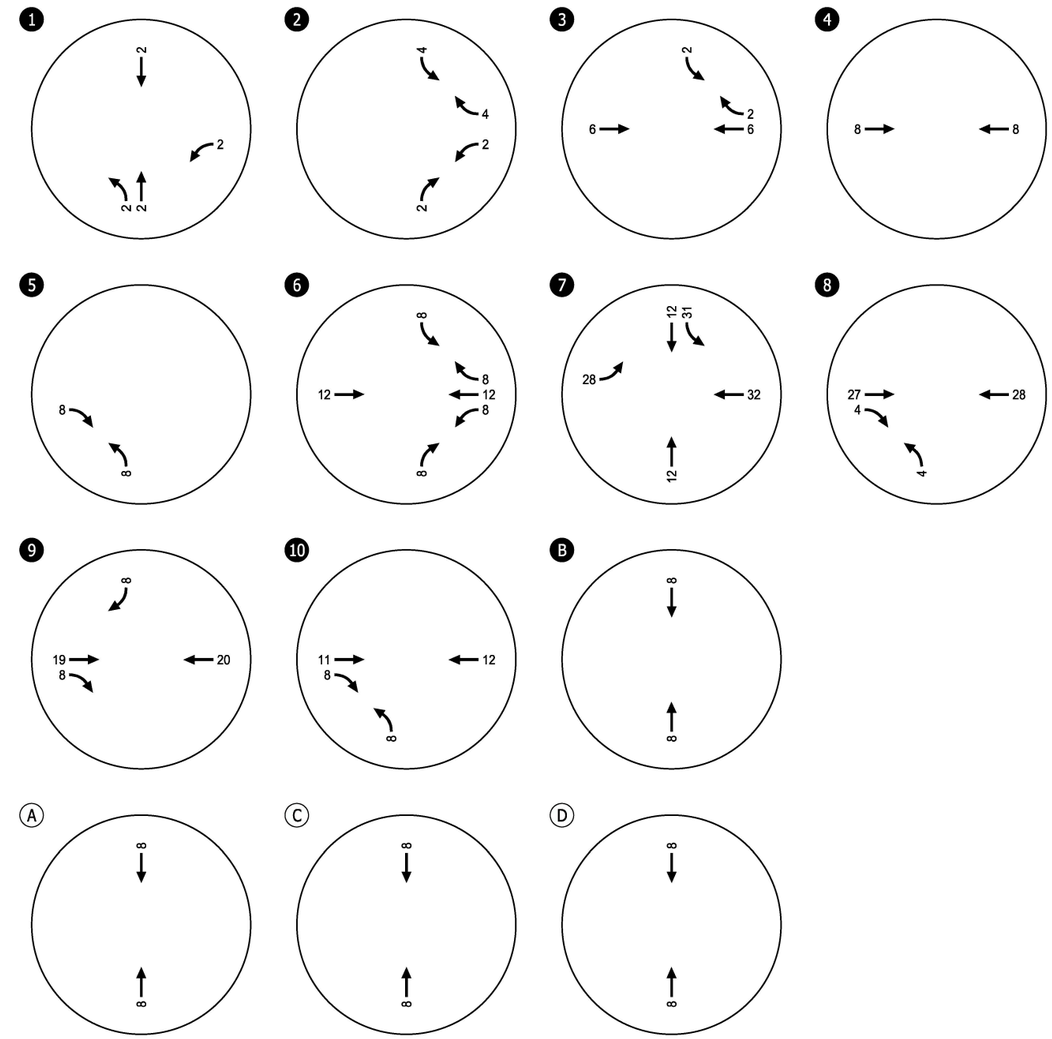
● - Study Intersection
Ⓐ - Site Access Intersection

In-Process Trip Assignment: MacDonald Group
Saturday Midday Peak Hour
San Marcos, CA

Figure
H-2C

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H2C. MacDonald Group SAT





- Study Intersection

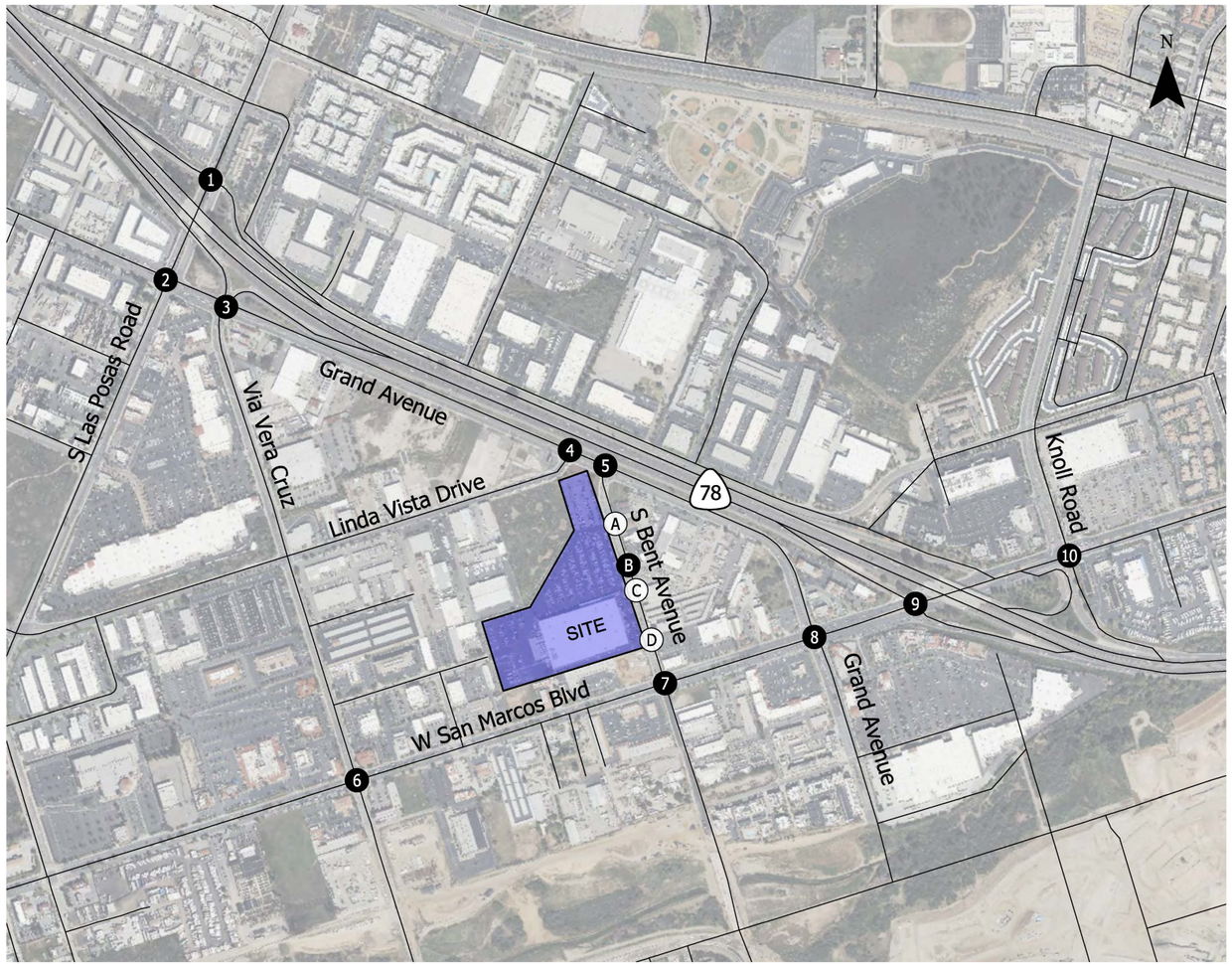
- Site Access Intersection

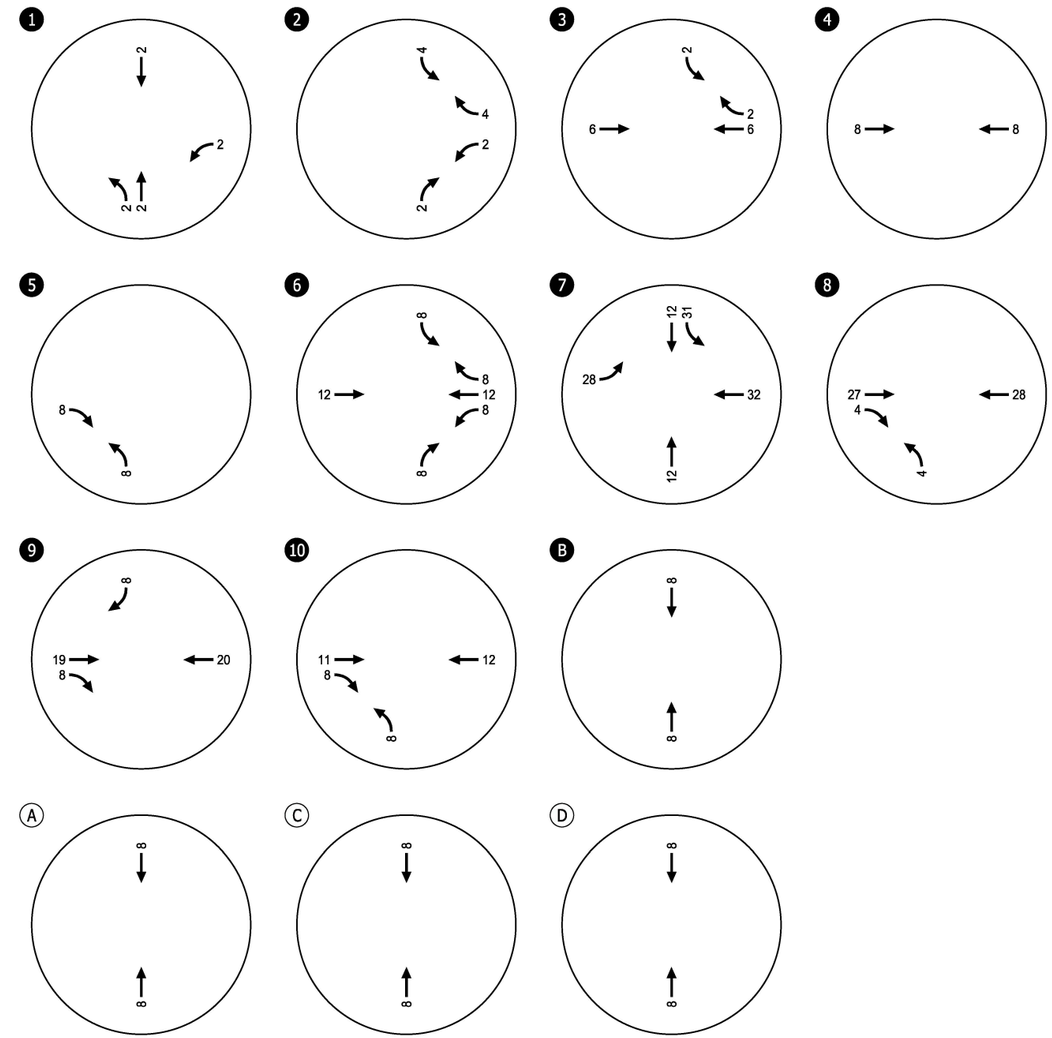
In-Process Trip Assignment: Jump Ball LLC
Weekday AM Peak Hour
San Marcos, CA

Figure
H-3A

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H3A. Jump Ball LLC AM





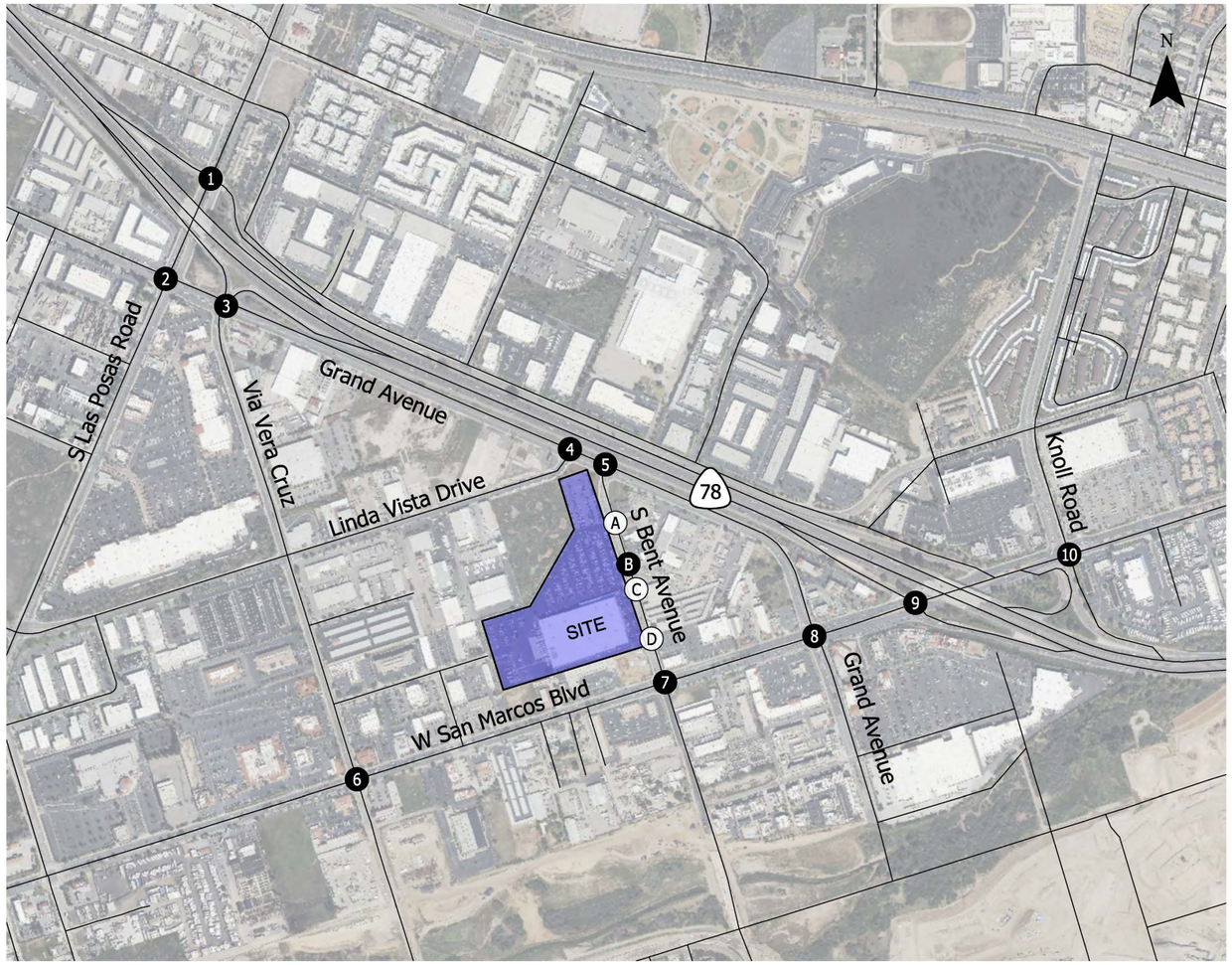
- Study Intersection

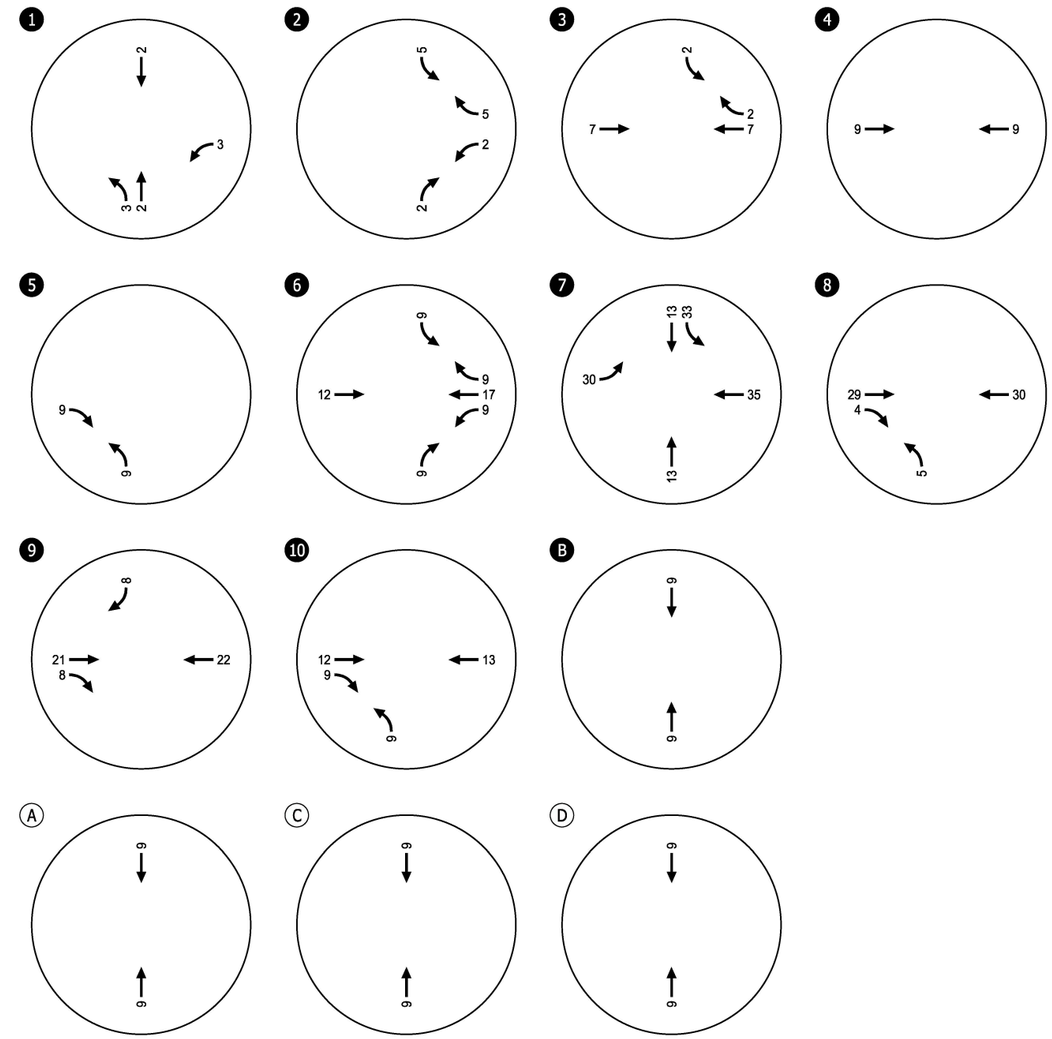
(#) - Site Access Intersection

In-Process Trip Assignment: Jump Ball LLC
Weekday PM Peak Hour
San Marcos, CA

Figure
H-3B

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H3B. Jump Ball LLC PM





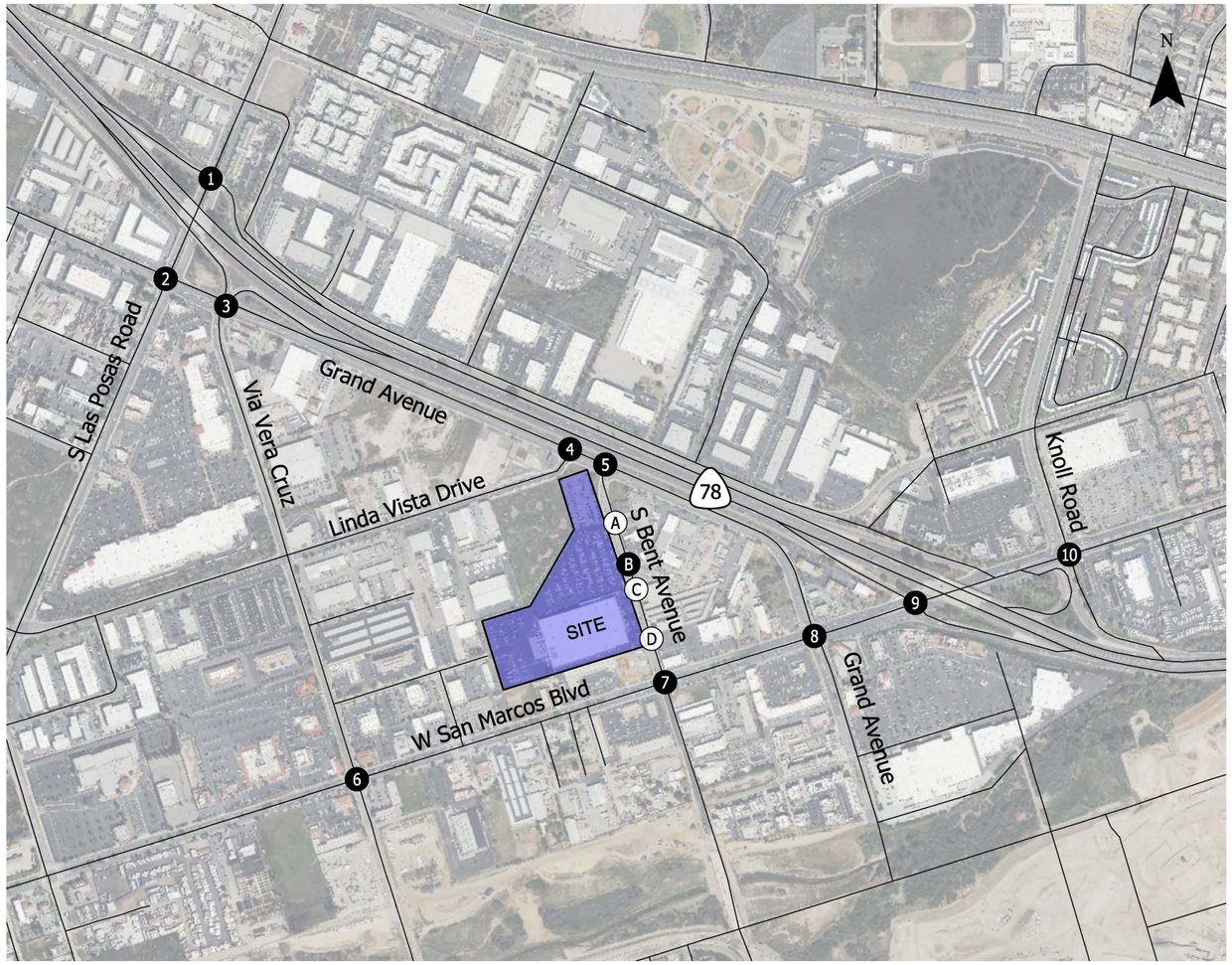
- Study Intersection

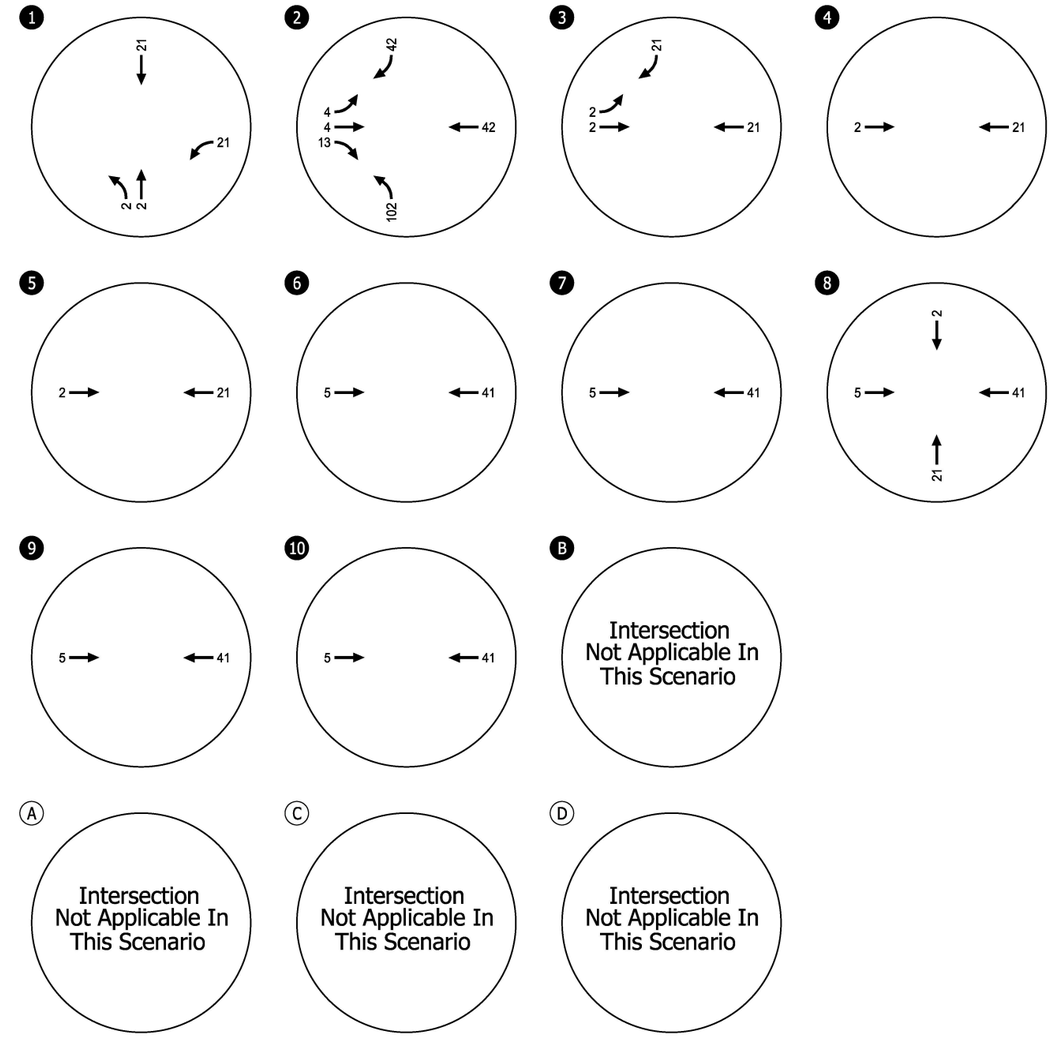
(#) - Site Access Intersection

In-Process Trip Assignment: Jump Ball LLC
Saturday Midday Peak Hour
San Marcos, CA

Figure
H-3C

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H3C. Jump Ball LLC SAT



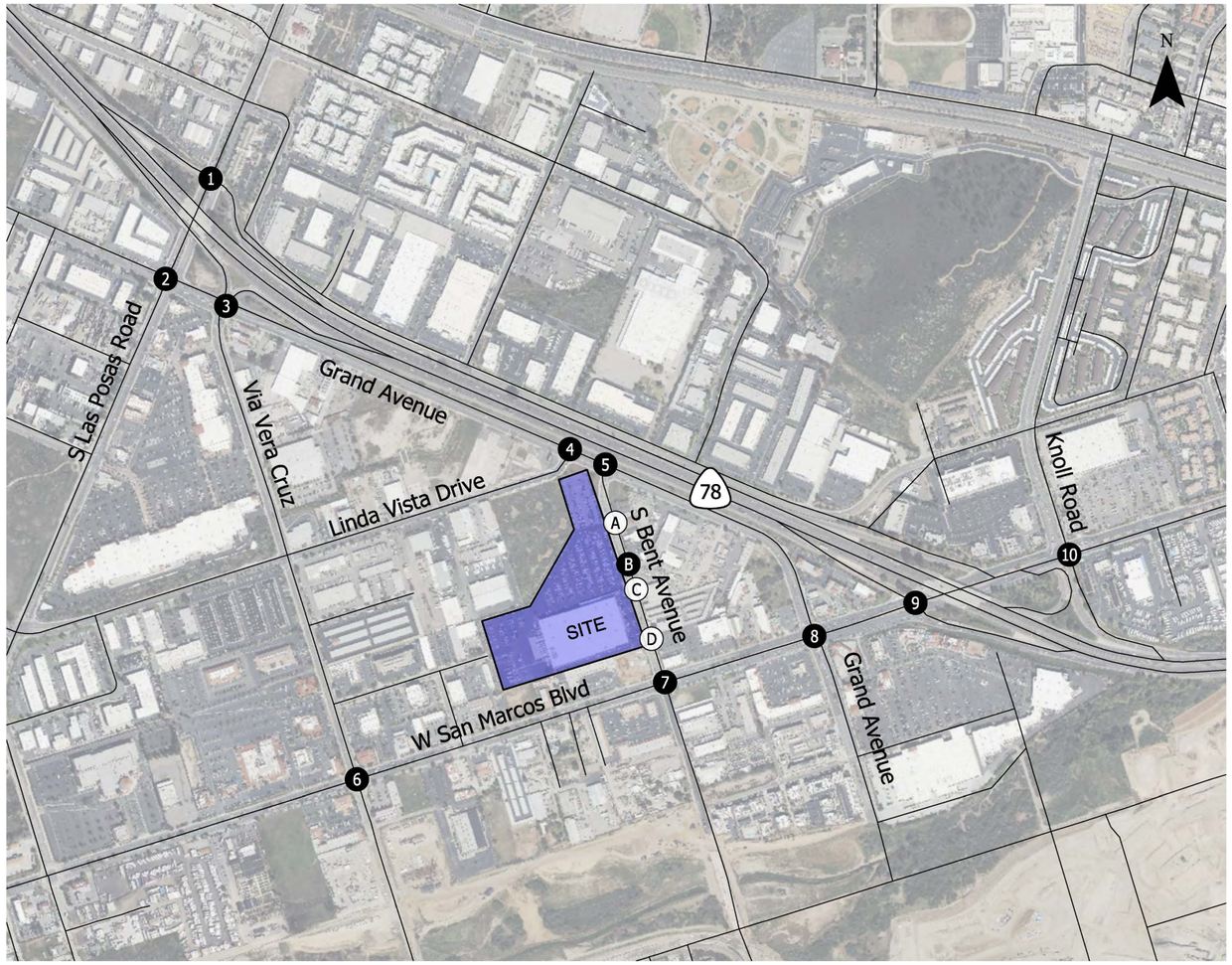


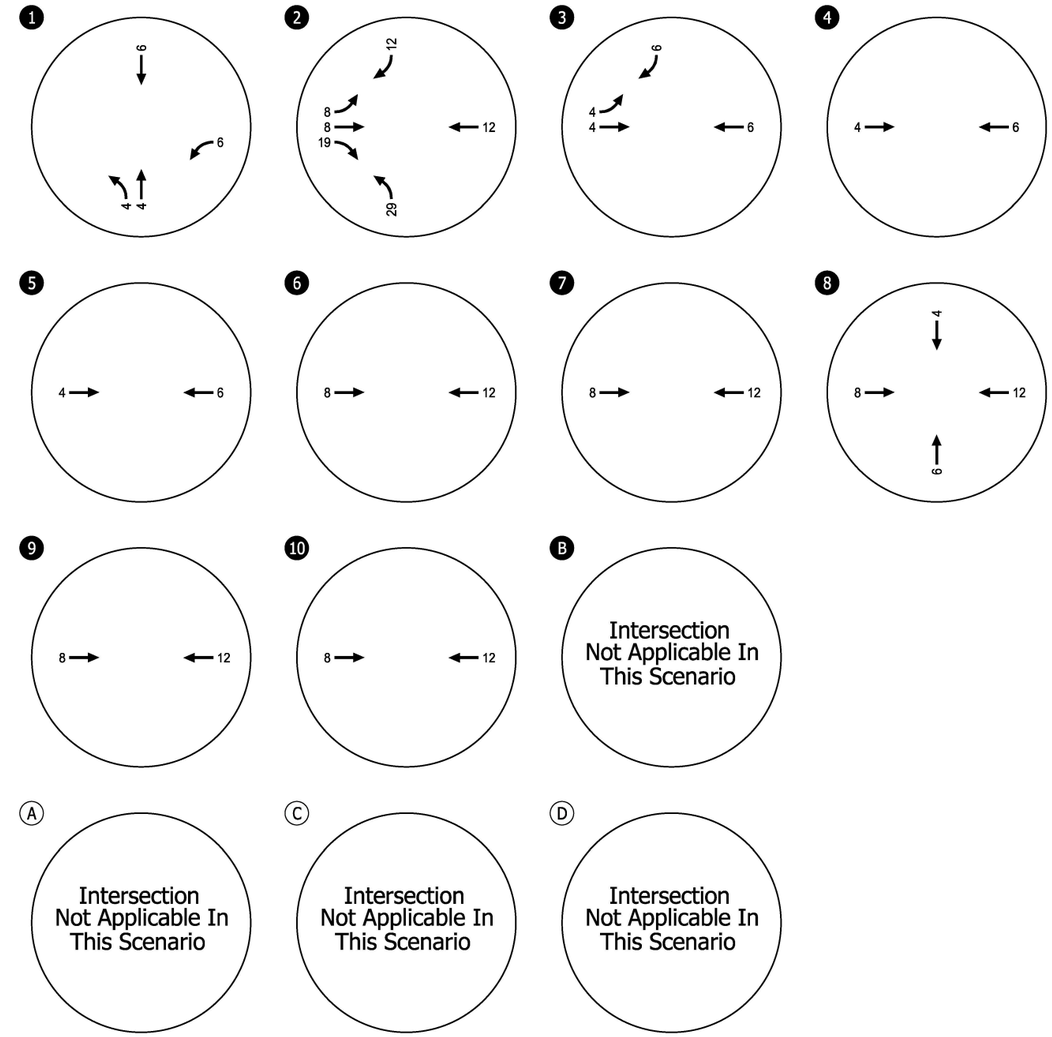
● - Study Intersection
Ⓐ - Site Access Intersection

In-Process Trip Assignment: Pacific Grand Ventures, LP
Weekday AM Peak Hour
San Marcos, CA

Figure
H-4A

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H4A. Pacific Grand AM



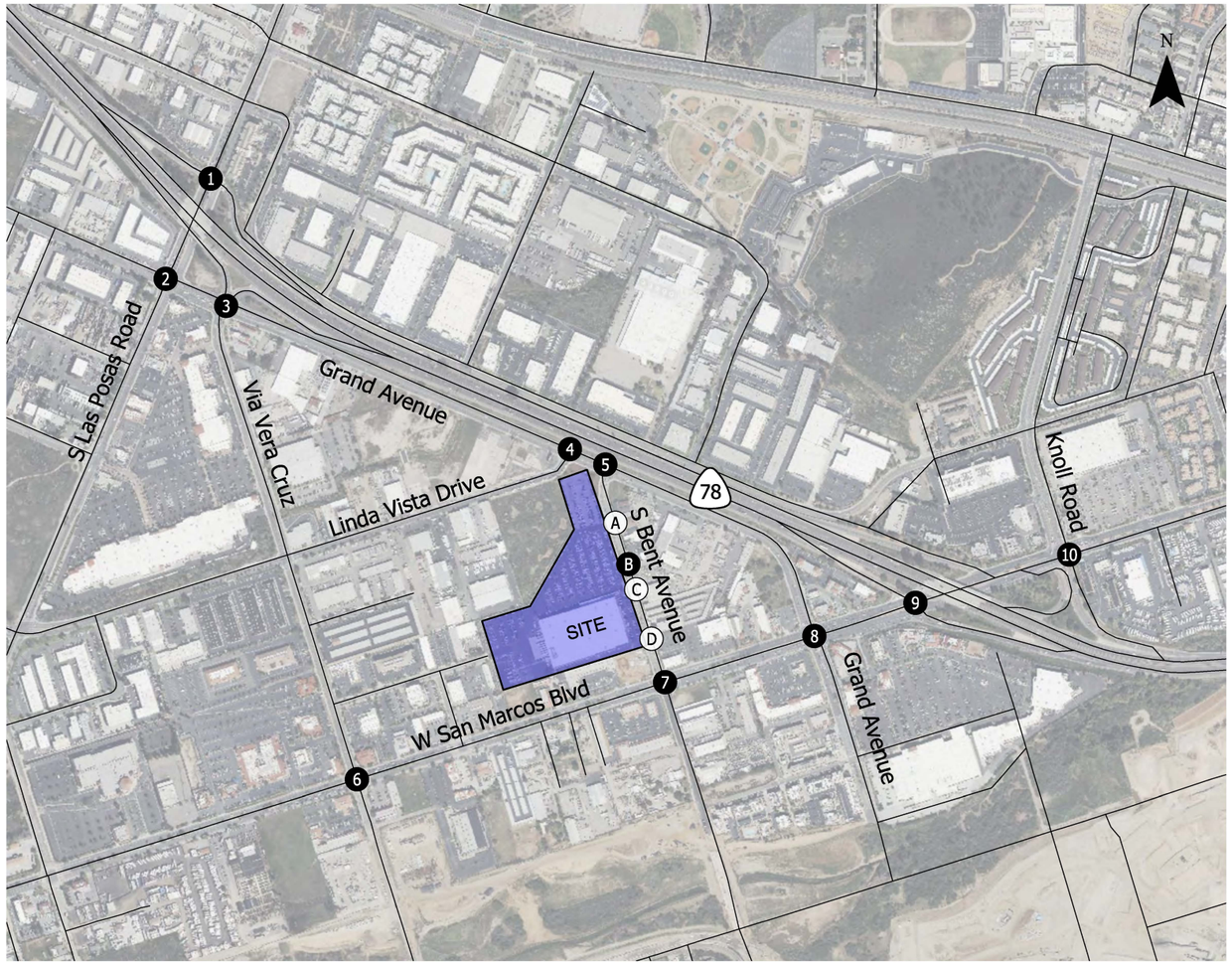


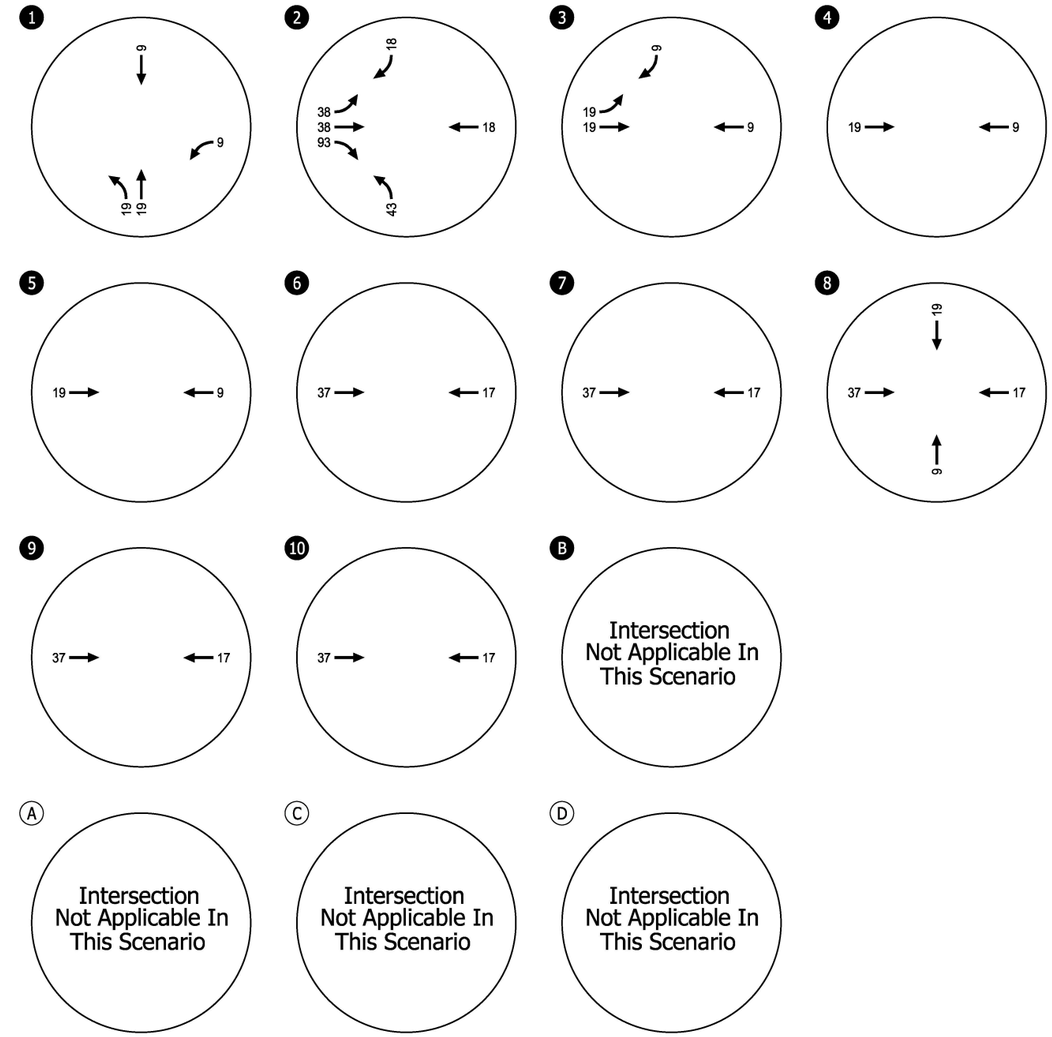
● - Study Intersection
Ⓐ - Site Access Intersection

In-Process Trip Assignment: Pacific Grand Ventures, LP
Weekday PM Peak Hour
San Marcos, CA

Figure
H-4B

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H4B. Pacific Grand PM





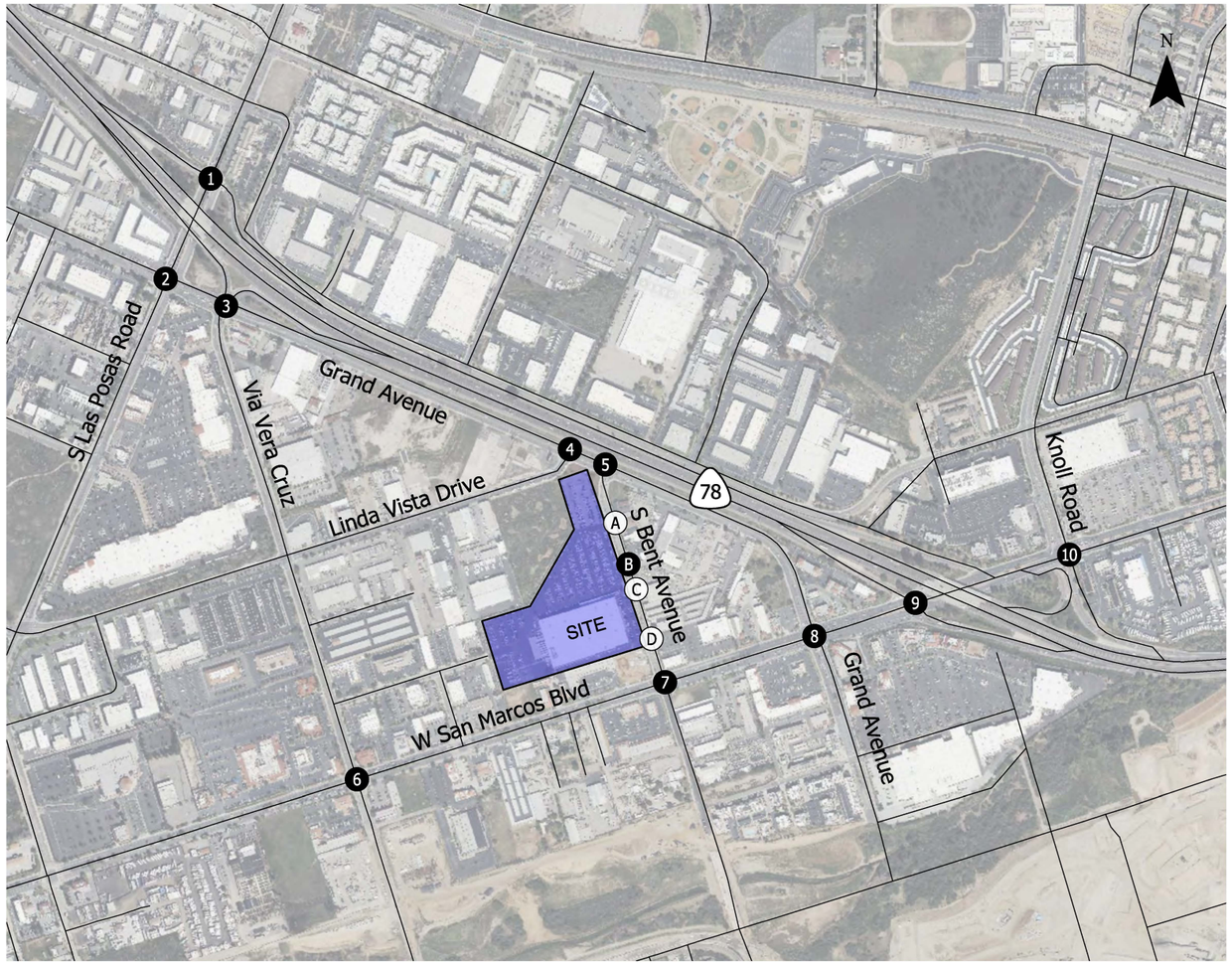
- Study Intersection

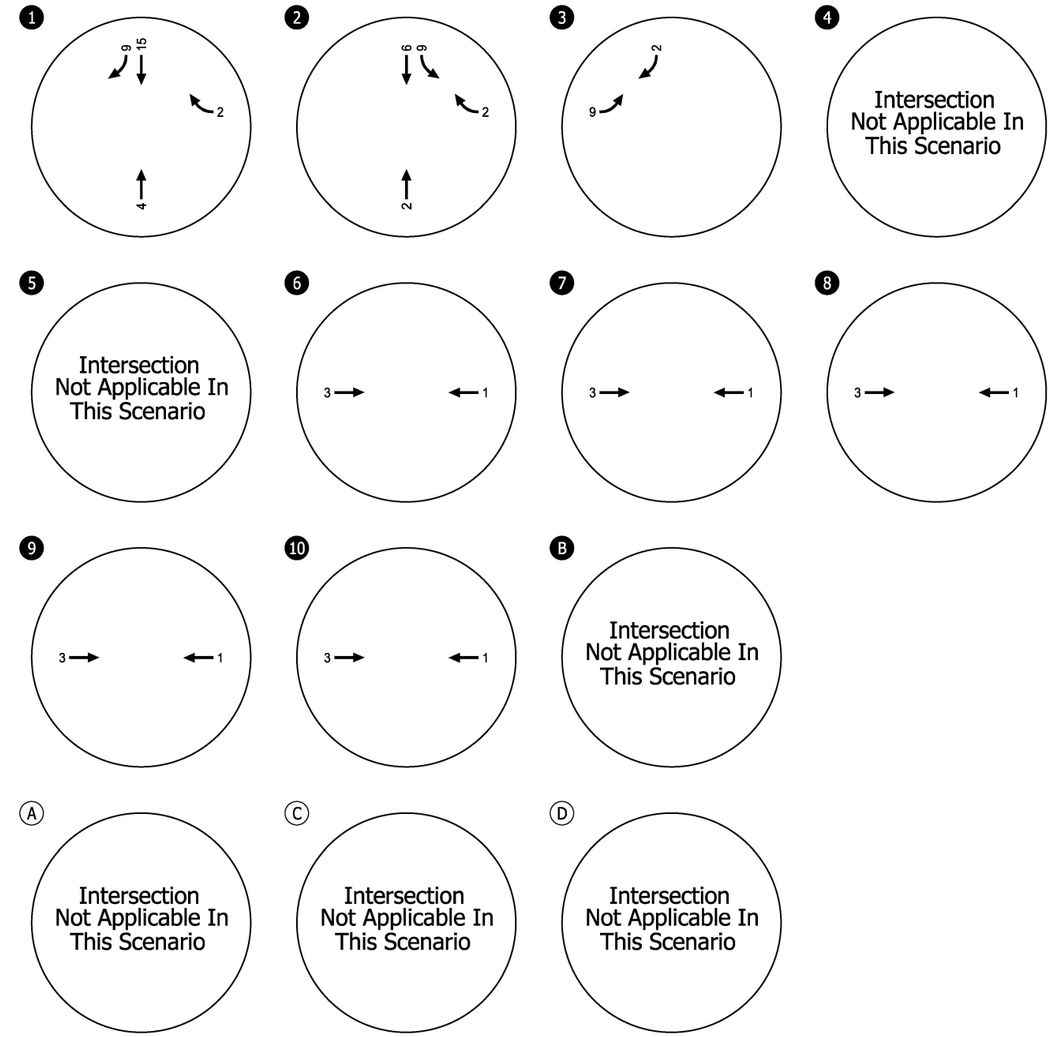
(#) - Site Access Intersection

In-Process Trip Assignment: Pacific Grand Ventures, LP
Saturday Midday Peak Hour
San Marcos, CA

Figure
H-4C

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H4C. Pacific Grand SAT



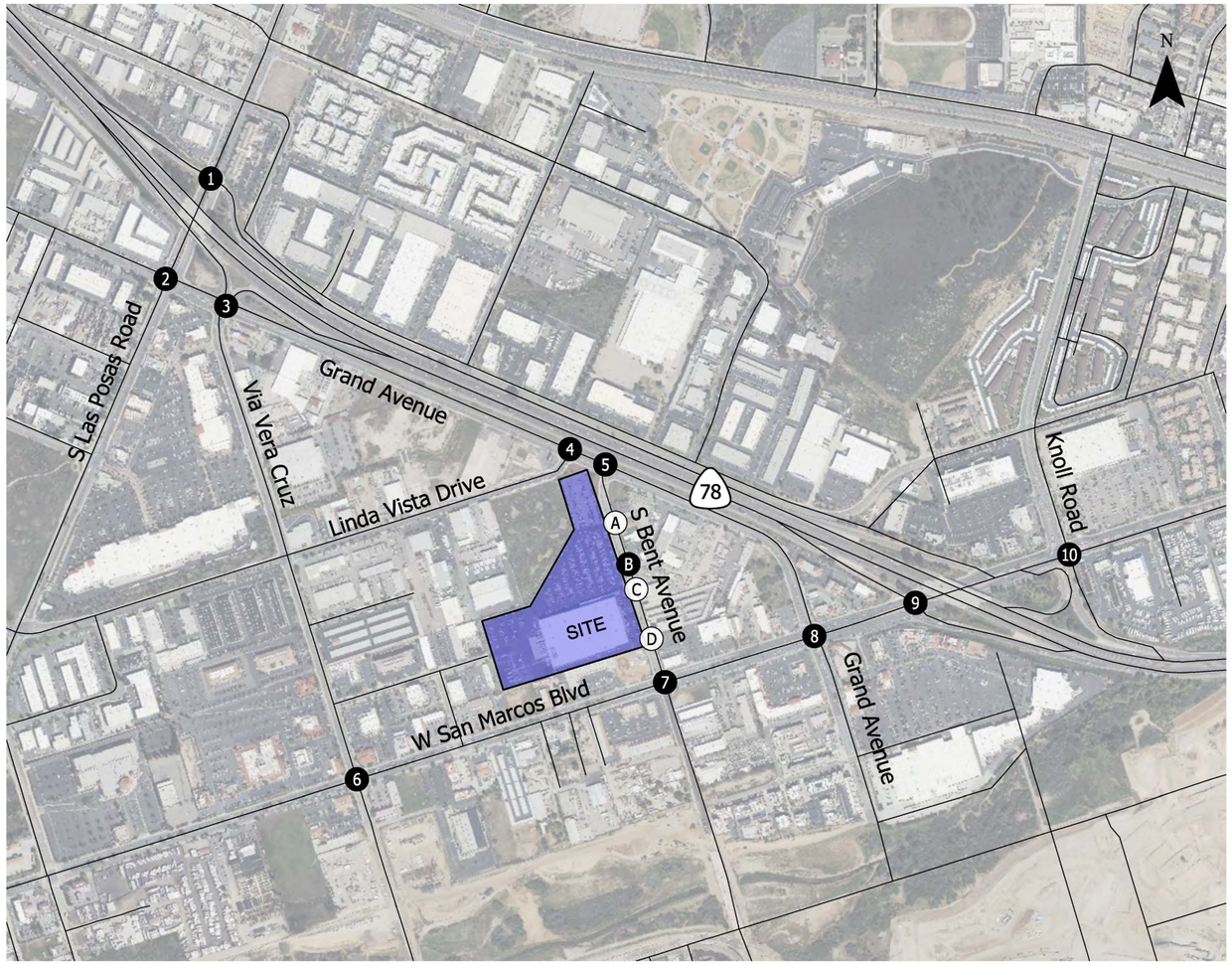


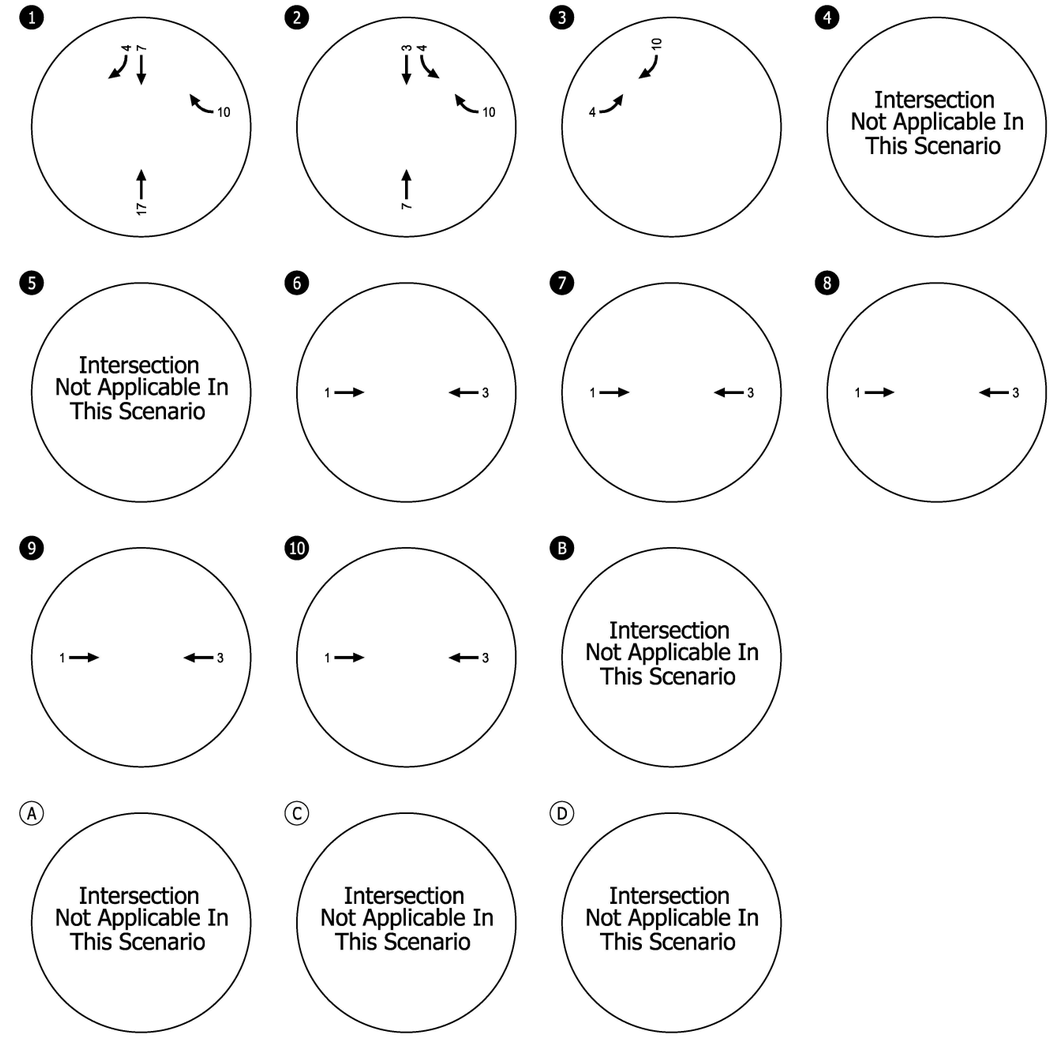
● - Study Intersection
Ⓐ - Site Access Intersection

In-Process Trip Assignment: Gran Vista
Weekday AM Peak Hour
San Marcos, CA

Figure
H-5A

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H5A. Gran Vista AM





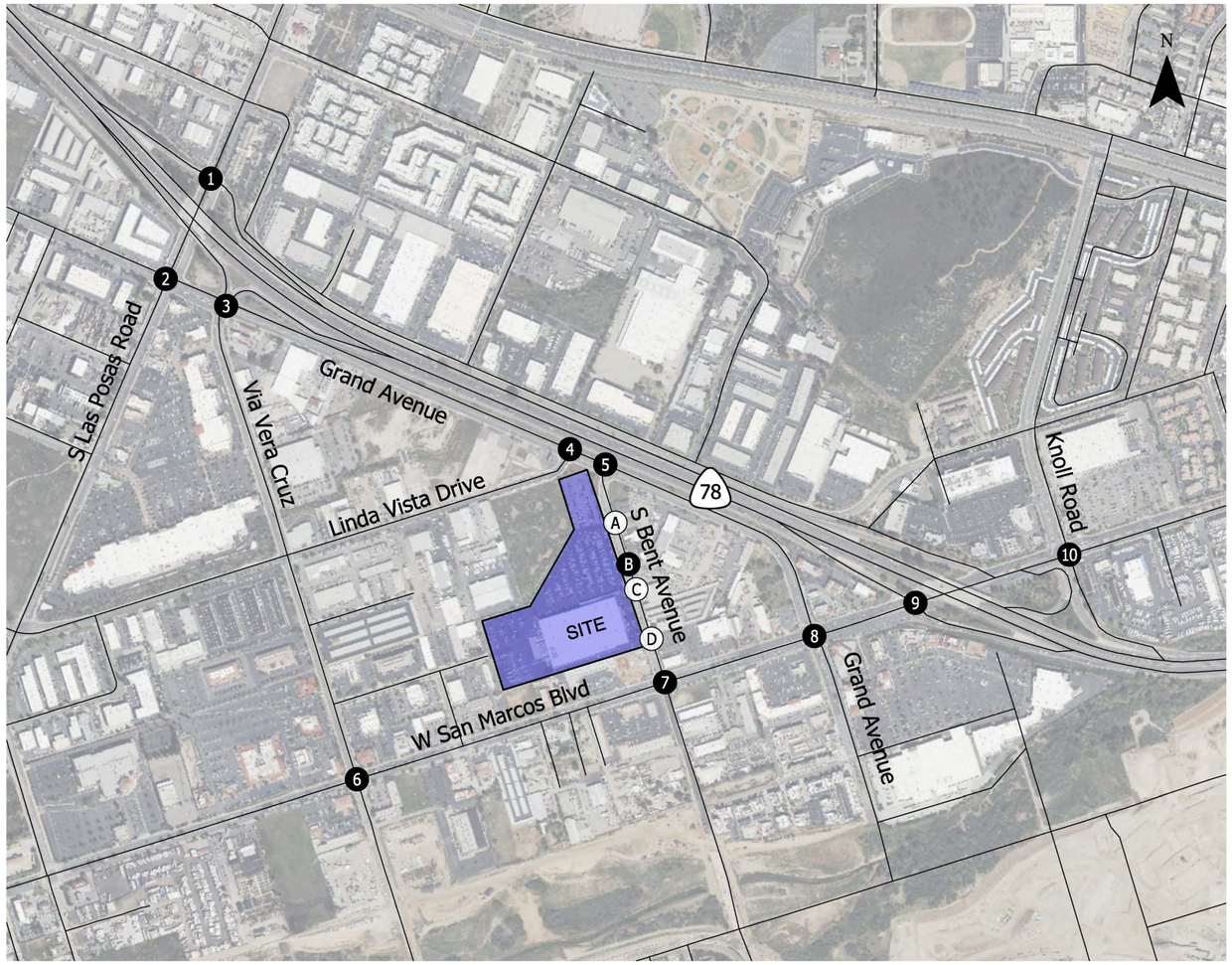
● - Study Intersection
Ⓐ - Site Access Intersection

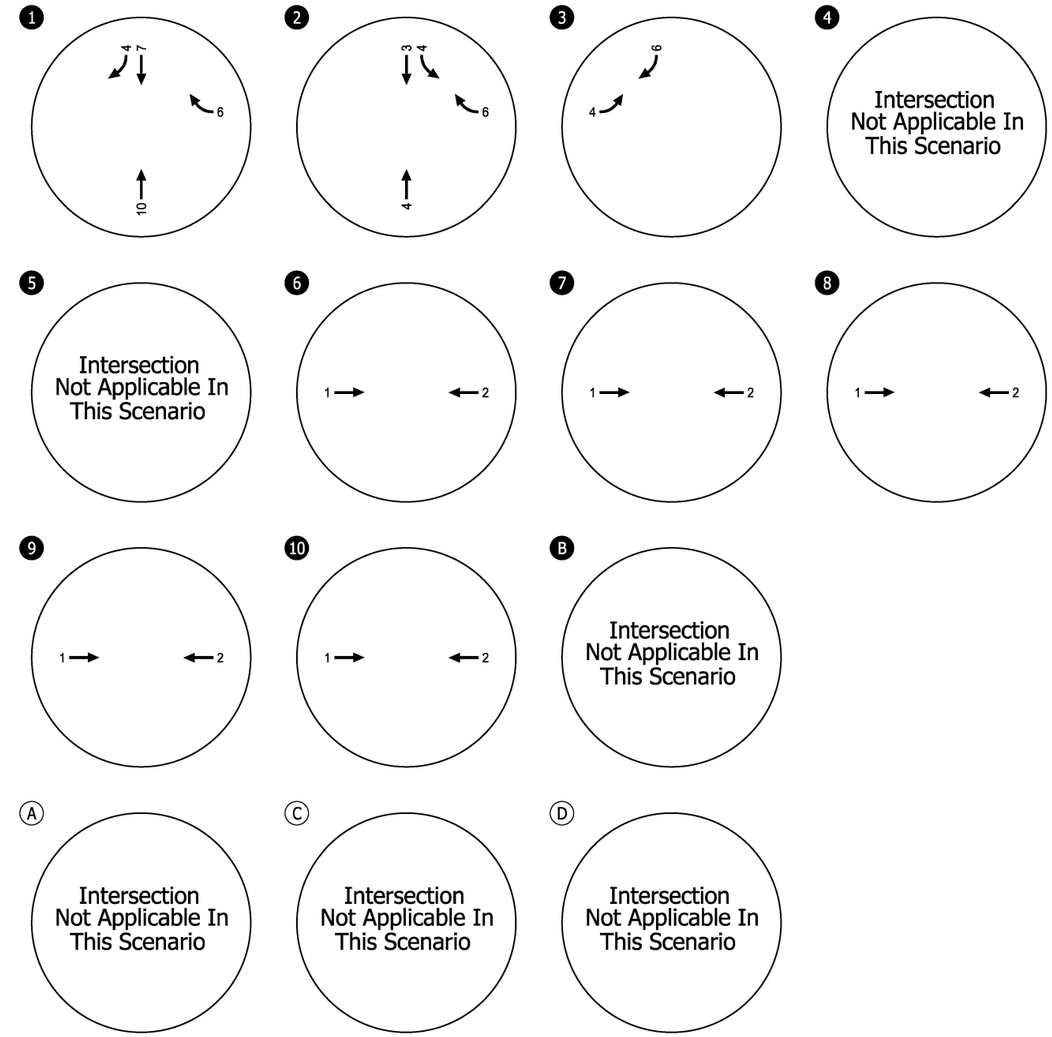
In-Process Trip Assignment: Gran Vista
Weekday PM Peak Hour
San Marcos, CA

Figure
H-5B

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H5B. Gran Vista PM





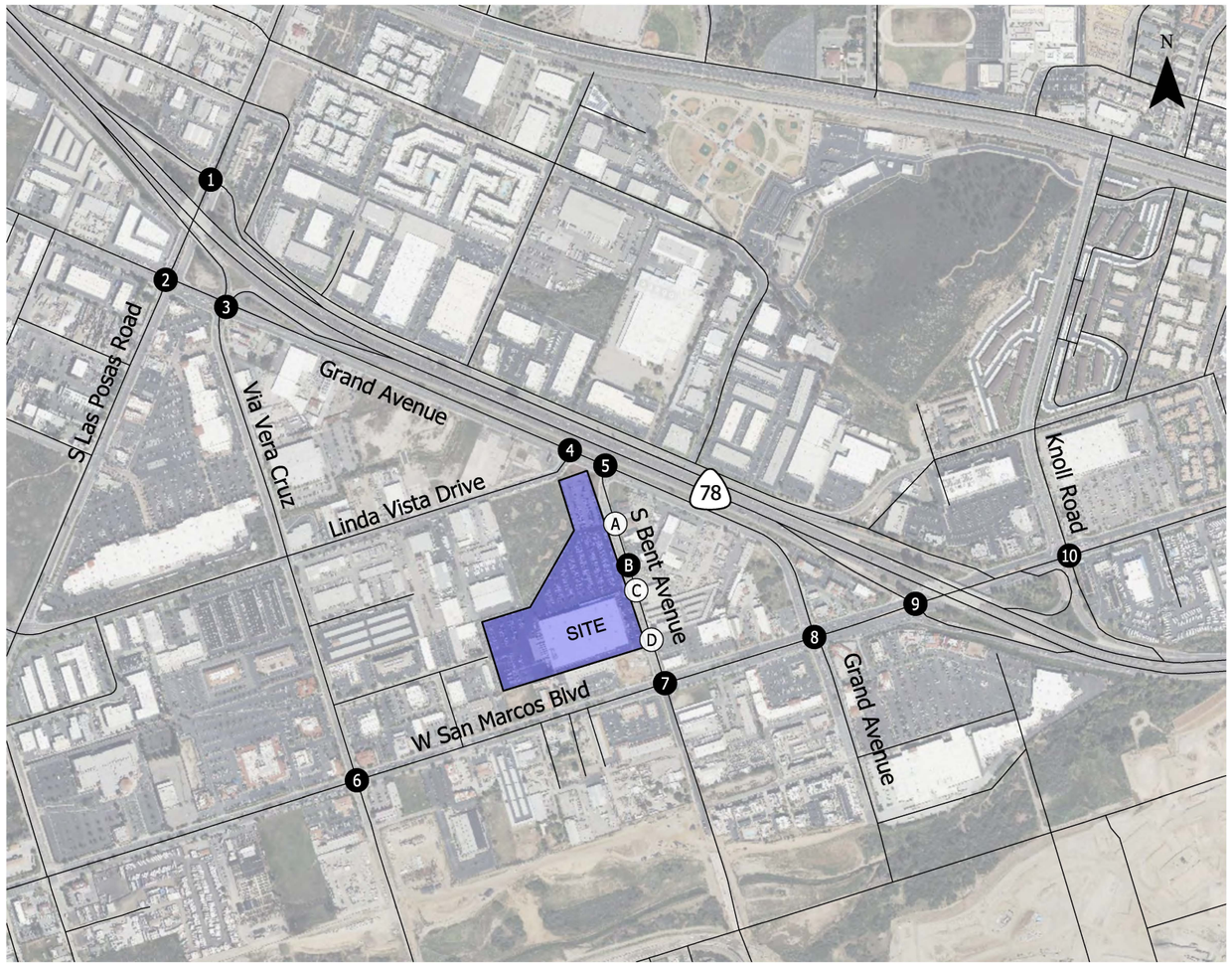
● - Study Intersection
Ⓐ - Site Access Intersection

In-Process Trip Assignment: Gran Vista
Saturday Midday Peak Hour
San Marcos, CA

Figure
H-5C

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 2:59pm - rhoffman Layout Tab: H5C. Gran Vista SAT



1 — 13 ↓ 13 ↑

2 — 13 ↓ 13 ↑

3 — Intersection Not Applicable In This Scenario

4 — Intersection Not Applicable In This Scenario

5 — Intersection Not Applicable In This Scenario

6 — Intersection Not Applicable In This Scenario

7 — Intersection Not Applicable In This Scenario

8 — Intersection Not Applicable In This Scenario

9 — Intersection Not Applicable In This Scenario

10 — Intersection Not Applicable In This Scenario

B — Intersection Not Applicable In This Scenario

A — Intersection Not Applicable In This Scenario

C — Intersection Not Applicable In This Scenario

D — Intersection Not Applicable In This Scenario

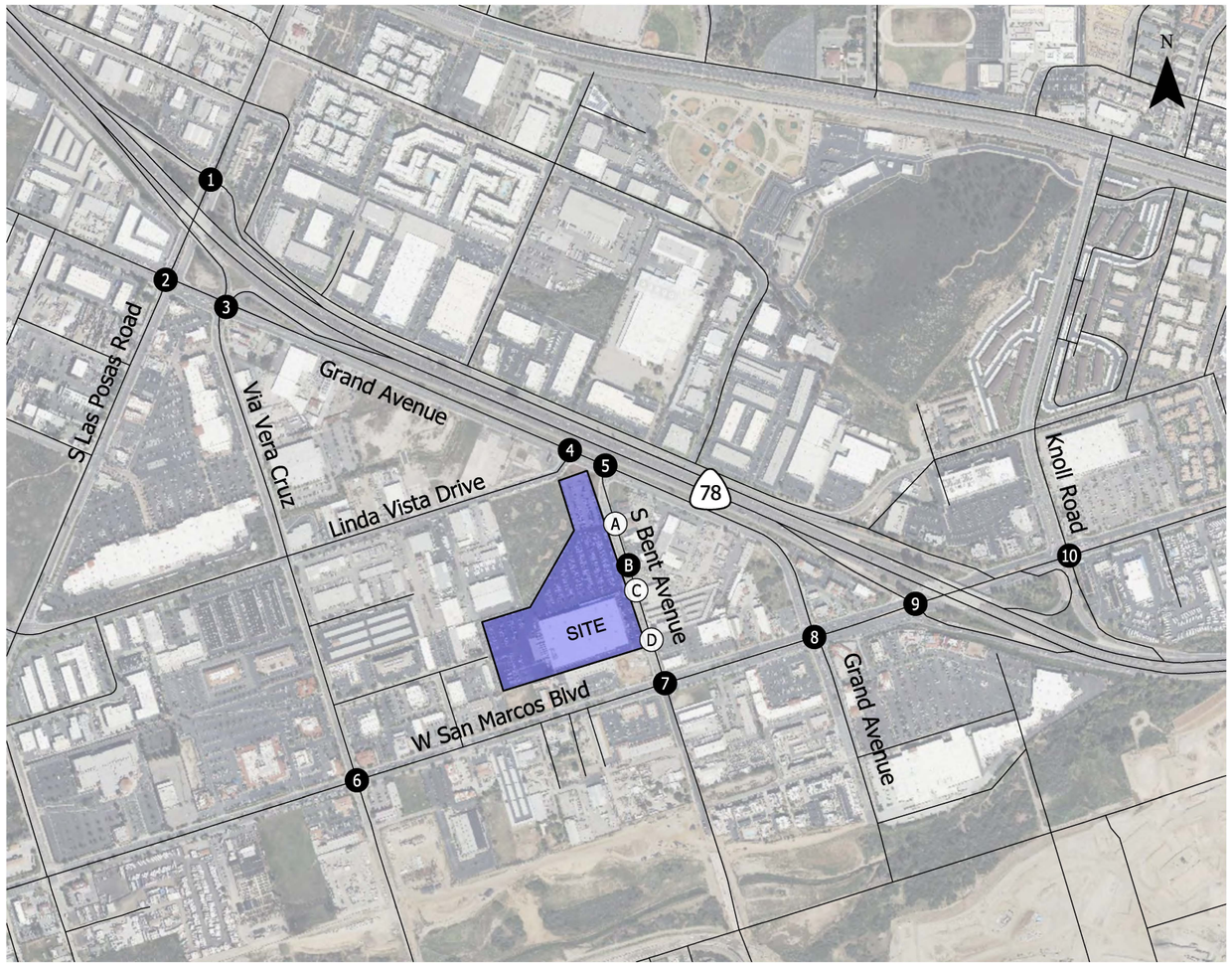
● # - Study Intersection

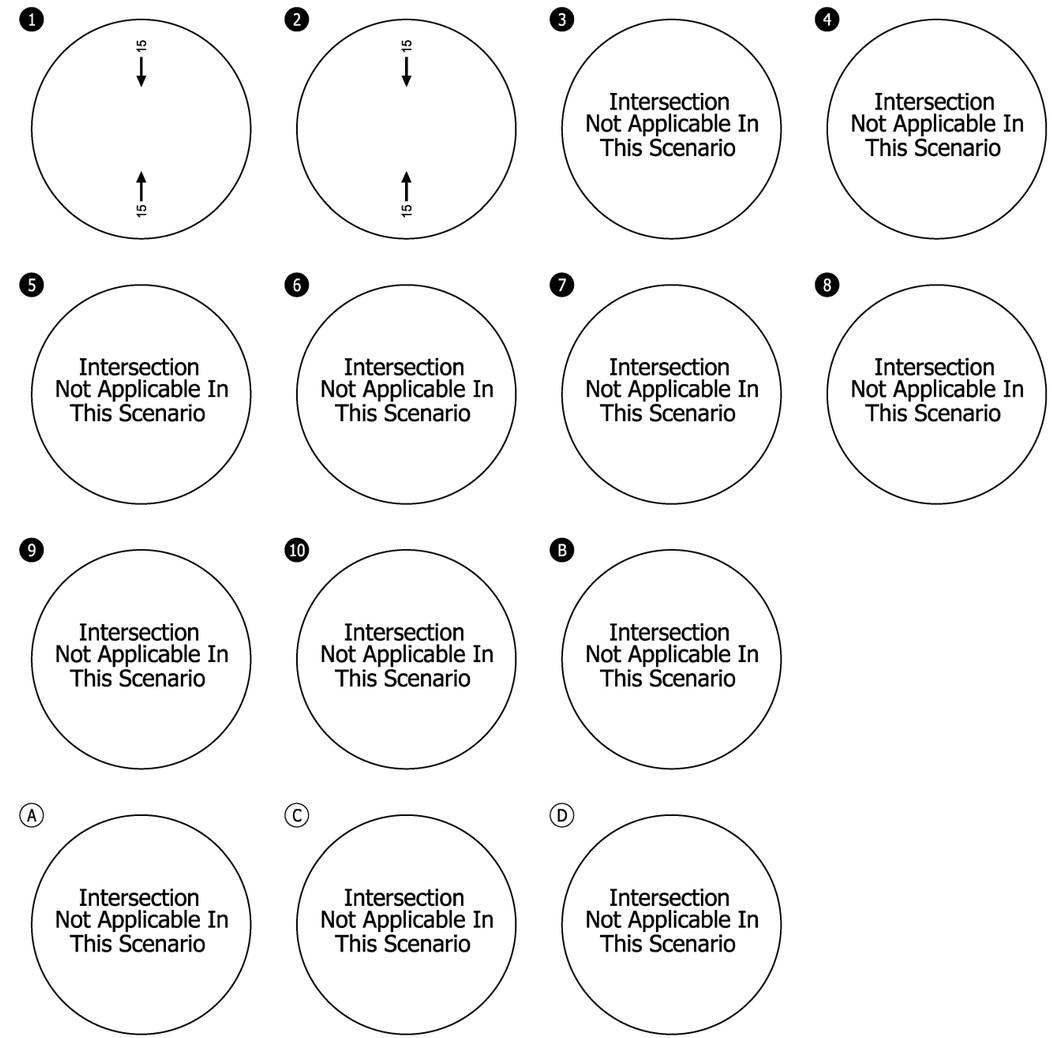
(#) - Site Access Intersection

In-Process Trip Assignment: Arco
Weekday AM Peak Hour
San Marcos, CA

Figure
H-6A

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 3:00pm - rhoffman Layout Tab: H6A. Arco AM



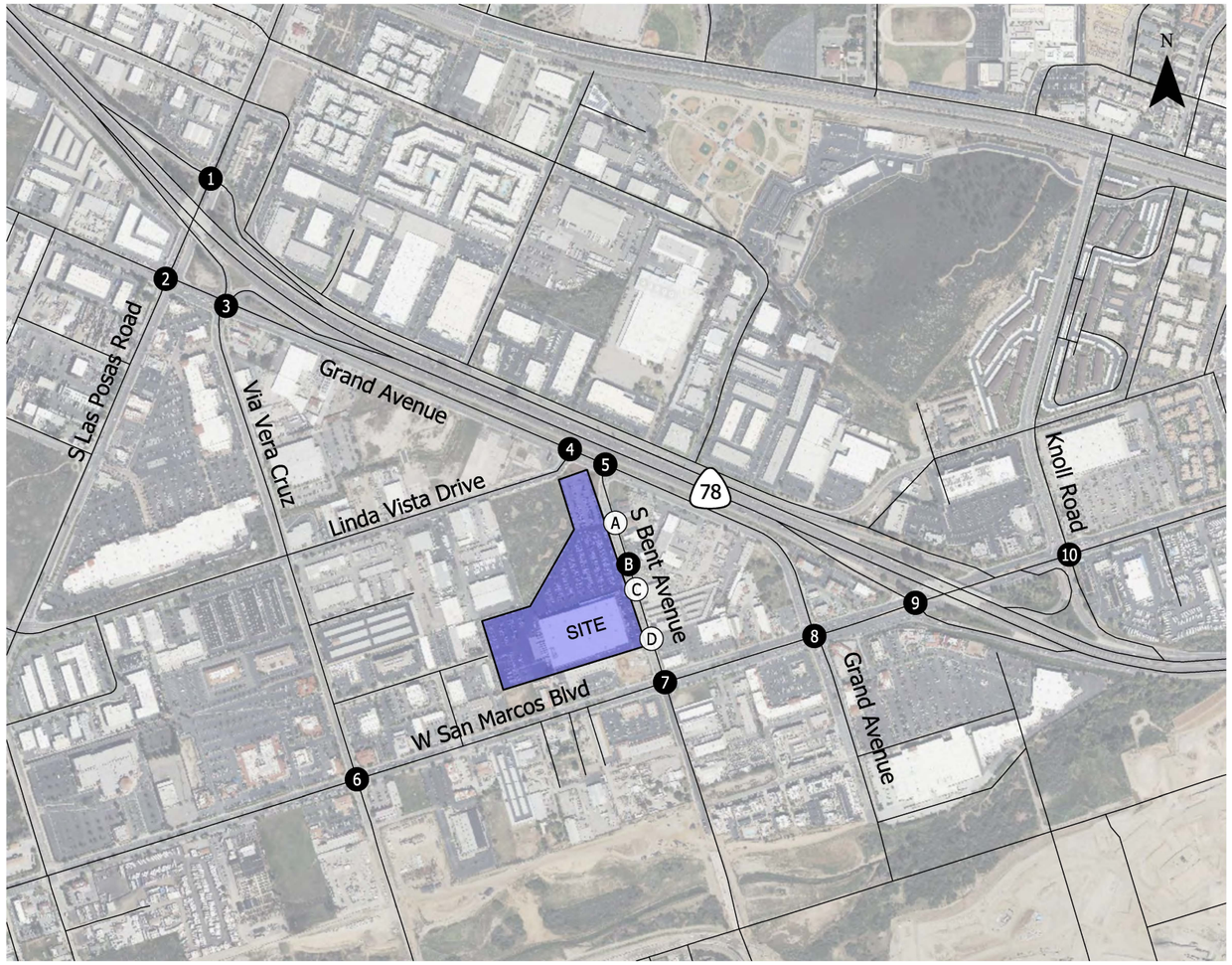


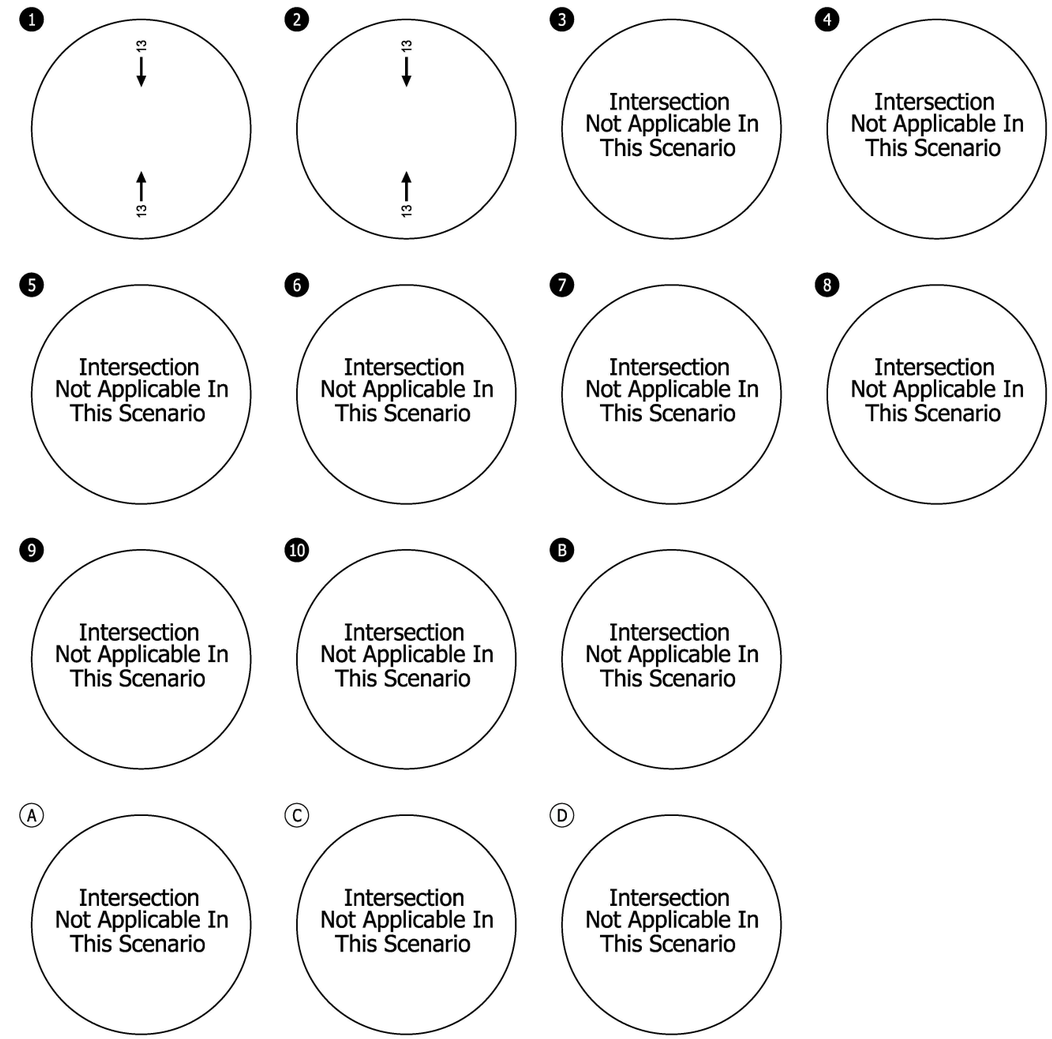
● - Study Intersection
Ⓐ - Site Access Intersection

In-Process Trip Assignment: Arco
Weekday PM Peak Hour
San Marcos, CA

Figure
H-6B

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 3:00pm - rhoffman Layout Tab: H6B. Arco PM





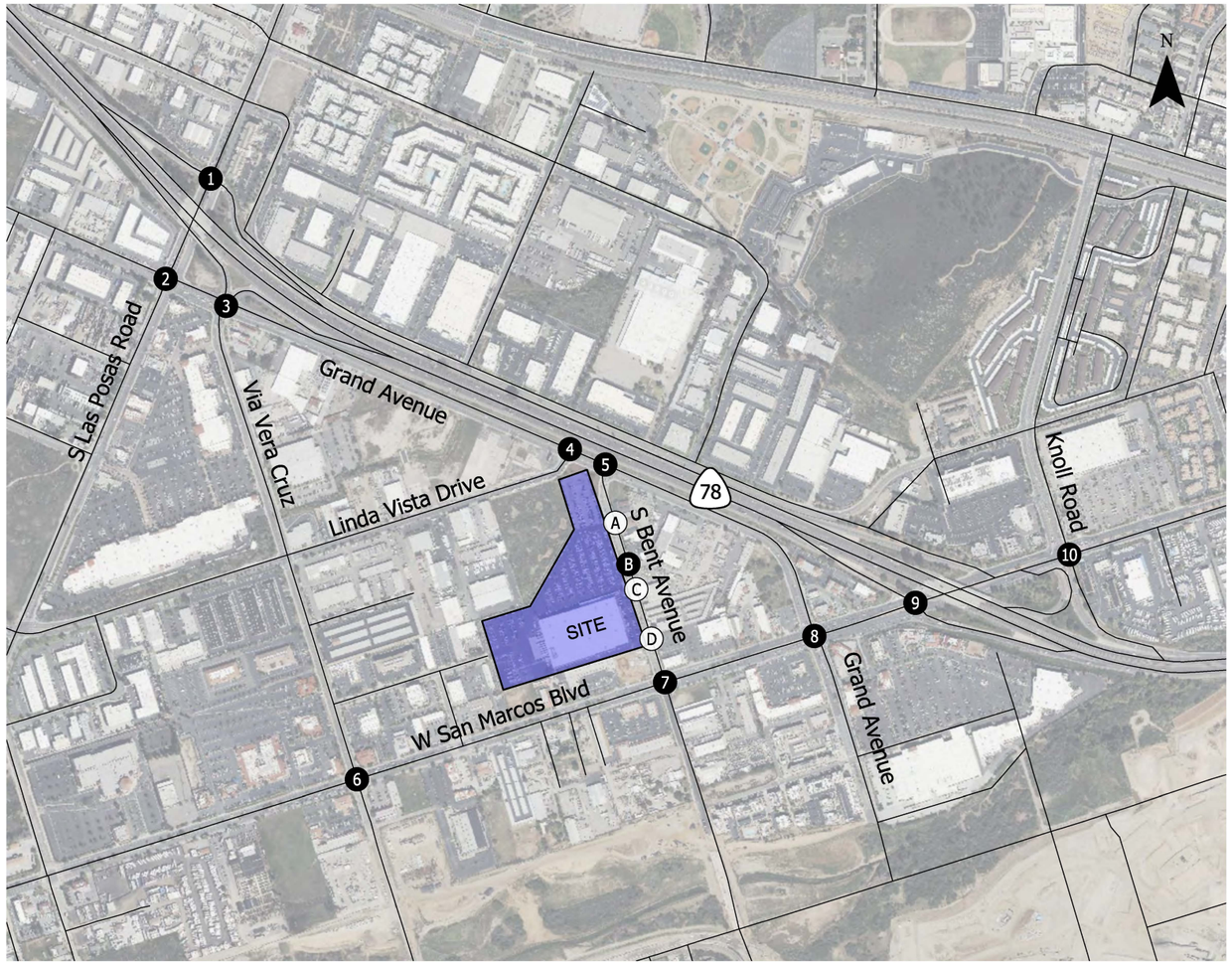
● - Study Intersection
Ⓐ - Site Access Intersection

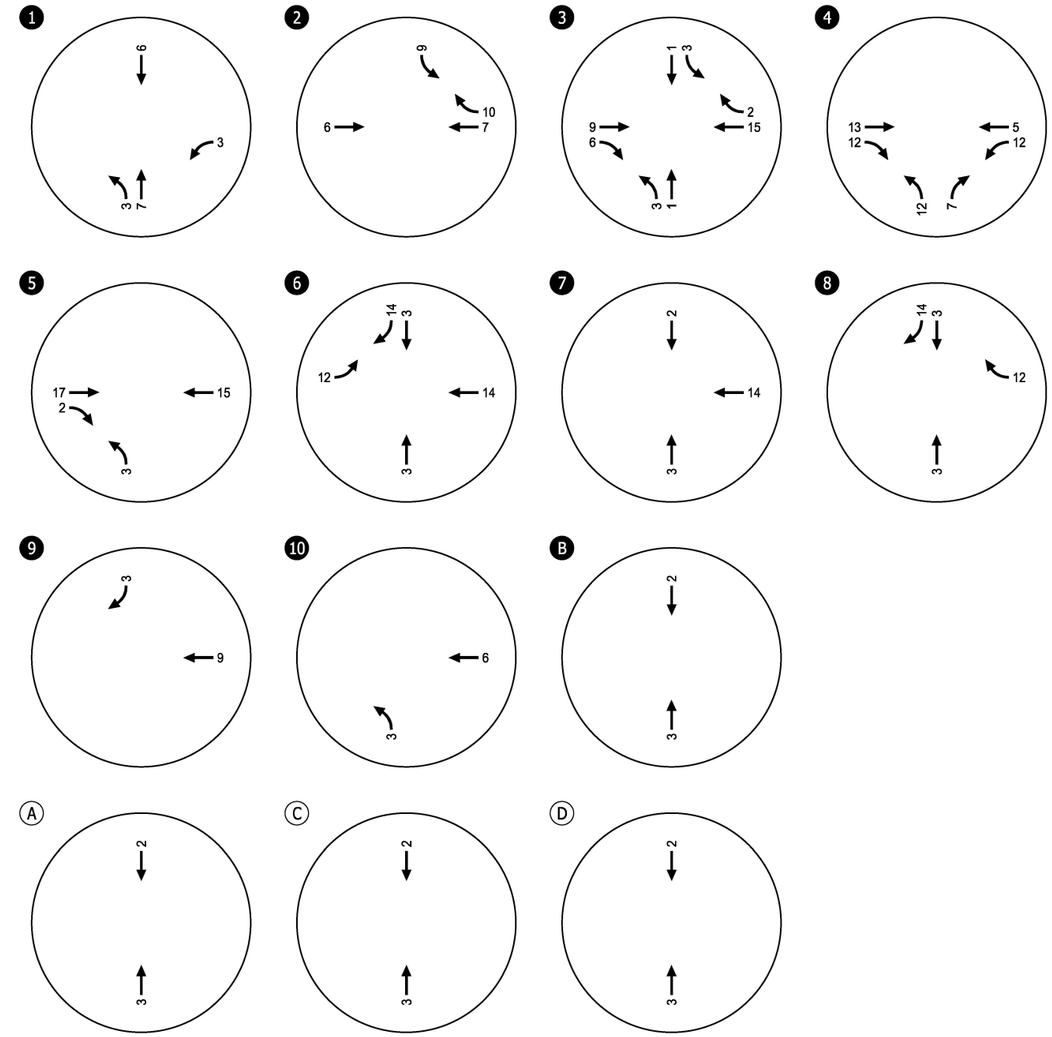
In-Process Trip Assignment: Arco
Saturday Midday Peak Hour
San Marcos, CA

Figure
H-6C

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 3:00pm - rhoffman Layout Tab: H6C. Arco SAT





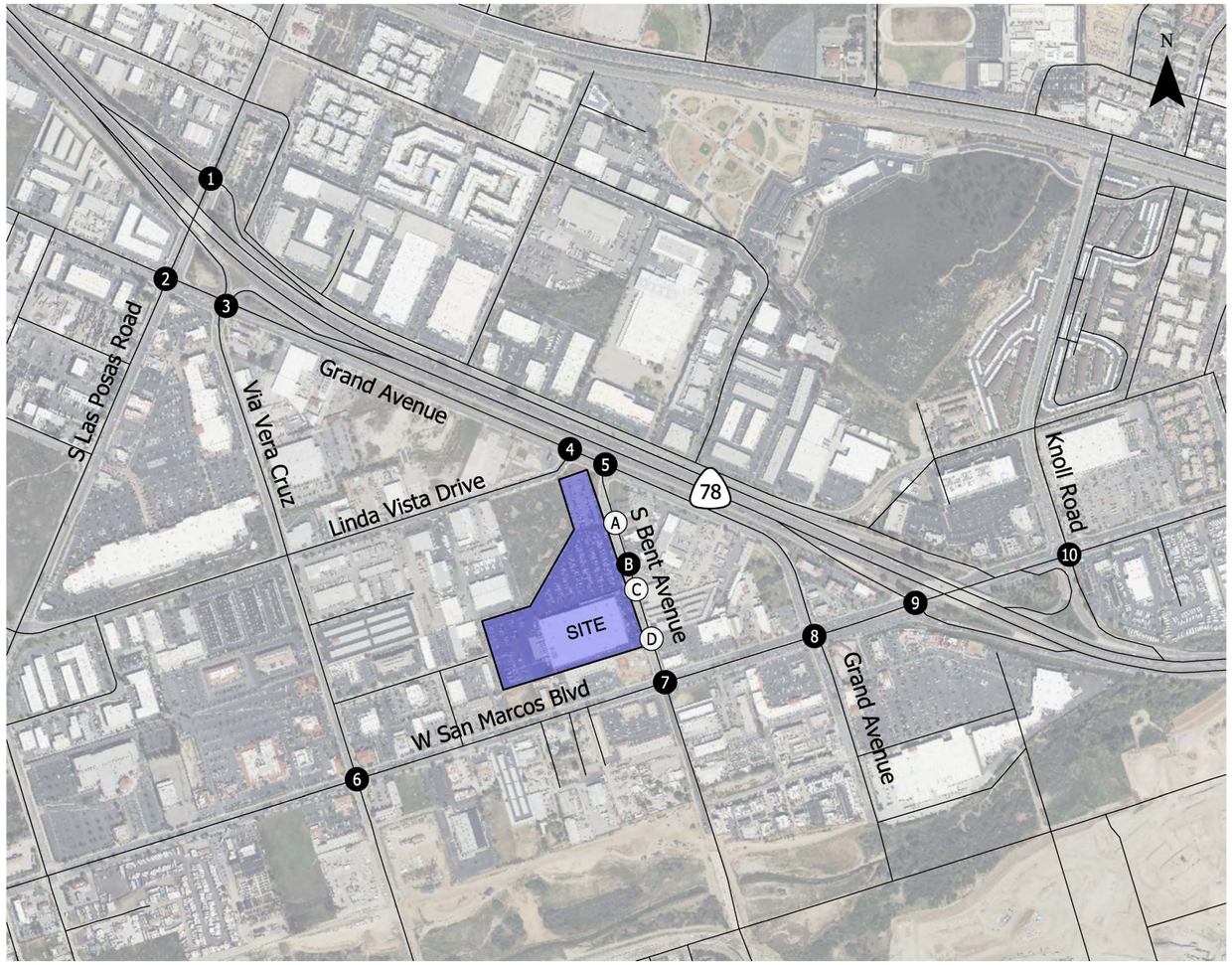
- # - Study Intersection
- (#) - Site Access Intersection

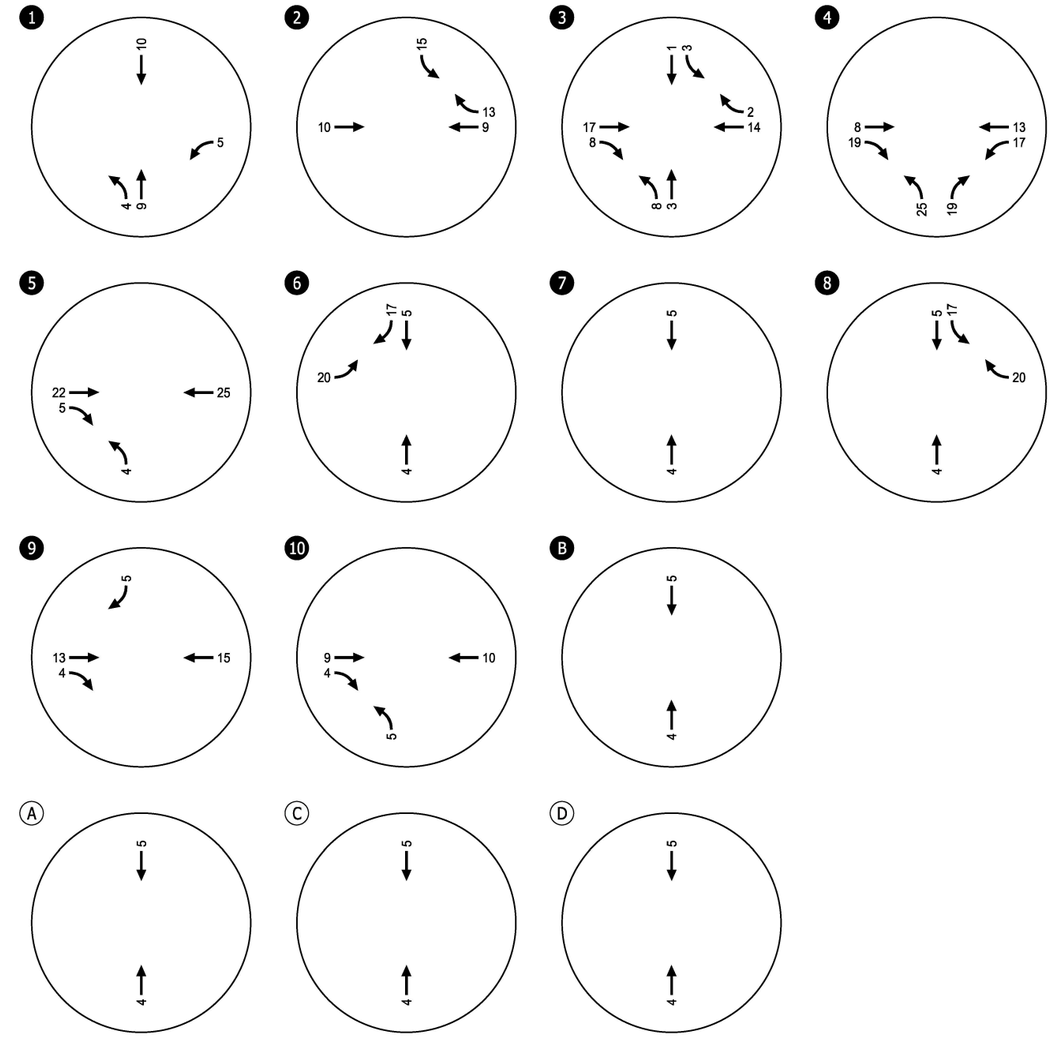
In-Process Trip Assignment: Artists Village
Weekday AM Peak Hour
San Marcos, CA

Figure
H-7A

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 3:00pm - rhoffman Layout Tab: H7A. Artists Village AM





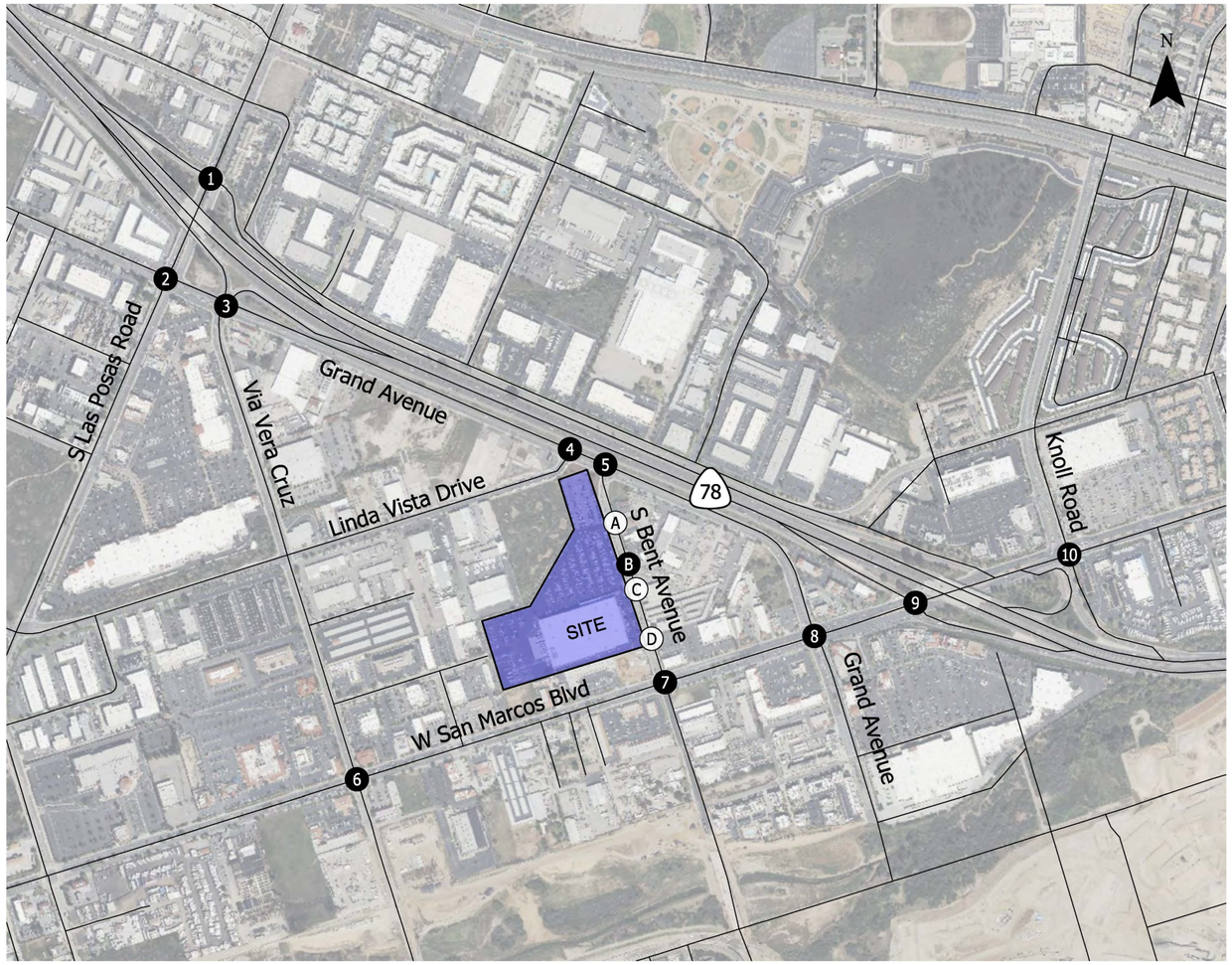
- Study Intersection

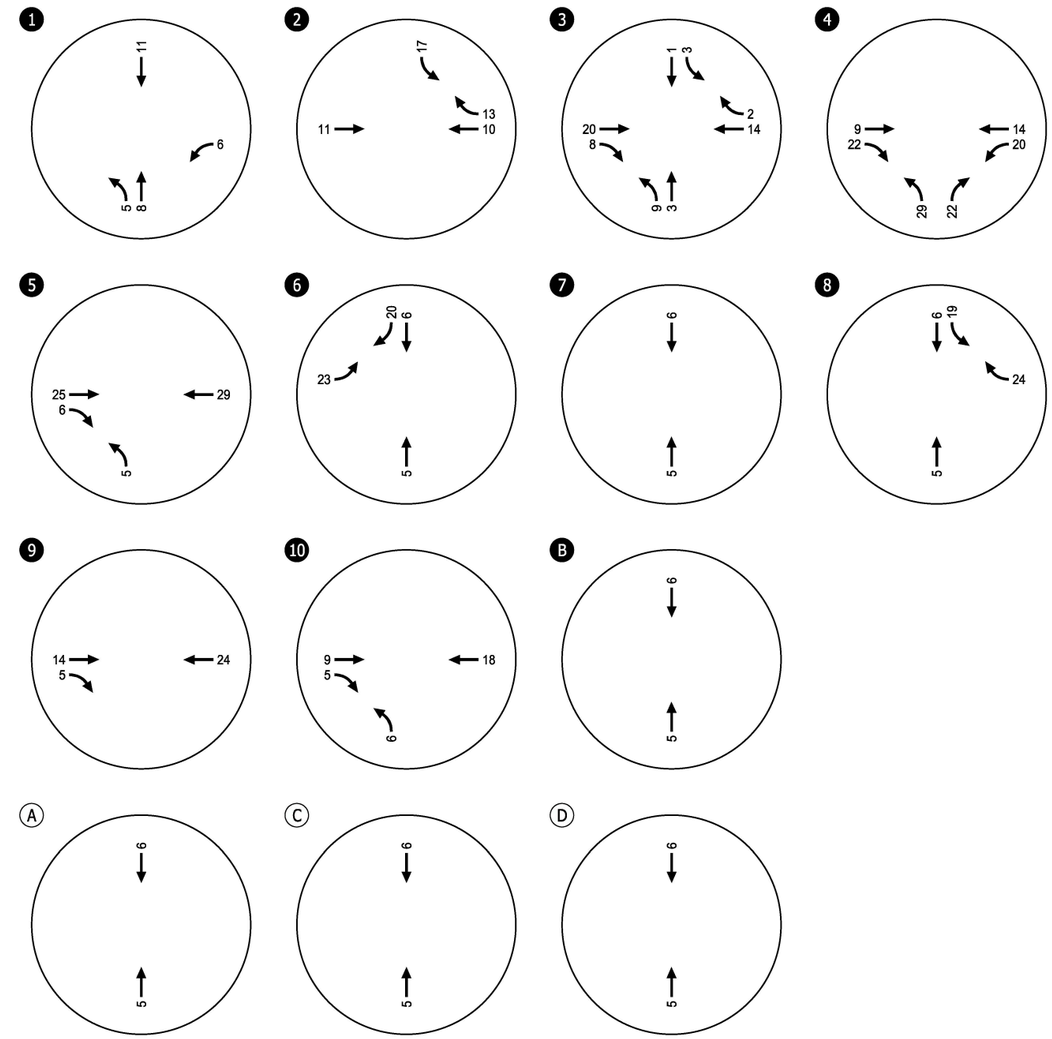
(#) - Site Access Intersection

In-Process Trip Assignment: Artists Village
Weekday PM Peak Hour
San Marcos, CA

Figure
H-7B

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 3:00pm - rhoffman Layout Tab: H7B. Artists Village PM





- Study Intersection

- Site Access Intersection

In-Process Trip Assignment: Artists Village
Saturday Midday Peak Hour
San Marcos, CA

Figure
H-7C

KITTELSON & ASSOCIATES

C:\Users\rhoffman\appdata\local\temp\AcPublish_30168\27900_San Marcos Report Figures_36.dwg Dec 19, 2024 - 3:00pm - rhoffman Layout Tab: H7C. Artists Village SAT

Appendix I
Year 2025 Near-Term Without Project Operations Worksheets

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	551	1	200	192	822	0	0	1216	333
Future Volume (veh/h)	0	0	0	551	1	200	192	822	0	0	1216	333
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1796	1900	1826	1737	1841	0	0	1841	1870
Adj Flow Rate, veh/h				396	259	211	202	865	0	0	1280	351
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				7	0	5	11	4	0	0	4	2
Cap, veh/h				397	225	183	201	3254	0	0	1868	511
Arrive On Green				0.23	0.23	0.23	0.12	0.65	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1711	969	789	1654	5191	0	0	4067	1068
Grp Volume(v), veh/h				396	0	470	202	865	0	0	1099	532
Grp Sat Flow(s),veh/h/ln				1711	0	1758	1654	1675	0	0	1675	1620
Q Serve(g_s), s				22.9	0.0	23.0	12.0	7.3	0.0	0.0	25.2	25.2
Cycle Q Clear(g_c), s				22.9	0.0	23.0	12.0	7.3	0.0	0.0	25.2	25.2
Prop In Lane				1.00		0.45	1.00		0.00	0.00		0.66
Lane Grp Cap(c), veh/h				397	0	408	201	3254	0	0	1604	775
V/C Ratio(X)				1.00	0.00	1.15	1.01	0.27	0.00	0.00	0.69	0.69
Avail Cap(c_a), veh/h				397	0	408	201	3254	0	0	1604	775
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	1.00	0.89	0.89	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.0	0.0	38.0	43.5	7.4	0.0	0.0	20.0	20.0
Incr Delay (d2), s/veh				44.1	0.0	92.5	61.9	0.2	0.0	0.0	2.4	4.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				20.6	0.0	29.9	12.6	4.0	0.0	0.0	14.4	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				82.1	0.0	130.5	105.4	7.6	0.0	0.0	22.4	24.9
LnGrp LOS				F	A	F	F	A	A	A	C	C
Approach Vol, veh/h					866			1067			1631	
Approach Delay, s/veh					108.4			26.1			23.2	
Approach LOS					F			C			C	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	70.9		16.7	54.2		28.1				
Change Period (Y+Rc), s	6.8		* 4.7	6.8		5.1				
Max Green Setting (Gmax), s	64.0		* 12	47.0		23.0				
Max Q Clear Time (g_c+I1), s	9.3		14.0	27.2		25.0				
Green Ext Time (p_c), s	4.0		0.0	7.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	167	229	52	101	223	479	152	400	82	350	755	610
Future Volume (veh/h)	167	229	52	101	223	479	152	400	82	350	755	610
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.96
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	1826	1678	1781	1841	1796	1826	1737	1826	1693	1796	1826	1826
Adj Flow Rate, veh/h	176	241	55	106	235	504	160	421	86	368	795	642
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, %	5	15	8	4	7	5	11	5	14	7	5	5
Cap, veh/h	301	544	122	149	371	560	157	1309	259	430	1212	521
Arrive On Green	0.09	0.21	0.21	0.09	0.21	0.21	0.09	0.31	0.31	0.13	0.35	0.35
Sat Flow, veh/h	3374	2586	579	1753	1796	2715	1654	4158	823	3319	3469	1491
Grp Volume(v), veh/h	176	147	149	106	235	504	160	334	173	368	795	642
Grp Sat Flow(s),veh/h/ln	1687	1594	1572	1753	1796	1358	1654	1662	1658	1659	1735	1491
Q Serve(g_s), s	5.0	8.0	8.3	5.9	11.9	18.1	9.5	7.6	8.0	10.9	19.3	34.9
Cycle Q Clear(g_c), s	5.0	8.0	8.3	5.9	11.9	18.1	9.5	7.6	8.0	10.9	19.3	34.9
Prop In Lane	1.00		0.37	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	301	335	331	149	371	560	157	1046	522	430	1212	521
V/C Ratio(X)	0.58	0.44	0.45	0.71	0.63	0.90	1.02	0.32	0.33	0.86	0.66	1.23
Avail Cap(c_a), veh/h	320	343	338	167	386	584	157	1046	522	448	1212	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	43.7	34.3	34.4	44.5	36.2	38.7	45.3	26.1	26.2	42.6	27.5	32.5
Incr Delay (d2), s/veh	2.4	0.9	1.0	9.4	2.6	13.8	76.6	0.8	1.7	7.7	1.3	112.8
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	3.8	5.5	5.6	5.1	8.6	10.6	11.5	5.4	5.8	7.2	10.9	38.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	35.2	35.4	54.0	38.8	52.5	121.9	26.9	27.9	50.3	28.8	145.3
LnGrp LOS	D	D	D	D	D	D	F	C	C	D	C	F
Approach Vol, veh/h		472			845			667			1805	
Approach Delay, s/veh		39.4			48.9			49.9			74.6	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.5	38.0	15.0	27.5	16.0	41.4	15.4	27.1
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	29.5	9.5	21.5	9.5	33.5	9.5	21.5
Max Q Clear Time (g_c+I1), s	12.9	10.0	7.9	10.3	11.5	36.9	7.0	20.1
Green Ext Time (p_c), s	0.1	2.8	0.0	1.1	0.0	0.0	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	60.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Edition methodology expects strict NEMA phasing.

Queues
3: Via Vera Cruz & Grand Ave

02/09/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	314	237	146	53	280	58	60	20	283	782
v/c Ratio	0.63	0.42	0.26	0.29	0.62	0.32	0.37	0.07	0.39	1.04
Control Delay	44.8	40.5	4.0	44.4	48.2	44.7	46.6	0.5	22.3	70.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	40.5	4.0	44.4	48.2	44.7	46.6	0.5	22.3	70.7
Queue Length 50th (ft)	94	72	0	31	61	35	36	0	121	~484
Queue Length 95th (ft)	142	114	31	68	90	75	77	0	189	#714
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	497	565	608	251	454	241	218	325	724	749
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.42	0.24	0.21	0.62	0.24	0.28	0.06	0.39	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	298	225	139	50	254	12	68	44	19	269	256	487
Future Volume (vph)	298	225	139	50	254	12	68	44	19	269	256	487
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3099	3282	1495	1641	4872		1573	1426	1282	1770	1658	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3099	3282	1495	1641	4872		1573	1426	1282	1770	1658	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	314	237	146	53	267	13	72	46	20	283	269	513
RTOR Reduction (vph)	0	0	105	0	5	0	0	0	18	0	70	0
Lane Group Flow (vph)	314	237	41	53	275	0	58	60	2	283	712	0
Heavy Vehicles (%)	13%	10%	8%	10%	6%	0%	9%	30%	26%	2%	2%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	15.7	15.9	27.2	8.8	9.0		11.3	11.3	11.3	40.0	40.0	
Effective Green, g (s)	15.7	15.9	27.2	8.8	9.0		11.3	11.3	11.3	40.0	40.0	
Actuated g/C Ratio	0.16	0.16	0.28	0.09	0.09		0.12	0.12	0.12	0.41	0.41	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	497	534	416	147	448		181	164	148	724	678	
v/s Ratio Prot	c0.10	0.07	0.01	0.03	c0.06		0.04	c0.04		0.16	c0.43	
v/s Ratio Perm			0.02						0.00			
v/c Ratio	0.63	0.44	0.10	0.36	0.61		0.32	0.37	0.02	0.39	1.05	
Uniform Delay, d1	38.3	36.9	26.1	41.8	42.7		39.7	39.9	38.3	20.3	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.0	2.7	0.0	0.6	6.1		0.4	0.5	0.0	0.1	48.3	
Delay (s)	44.3	39.6	26.2	42.4	48.8		40.0	40.4	38.3	20.4	77.2	
Level of Service	D	D	C	D	D		D	D	D	C	E	
Approach Delay (s)		38.9			47.8			39.9			62.1	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	51.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	514	32	243	306	15	135
Future Vol, veh/h	514	32	243	306	15	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	5	4	7	33	6
Mvmt Flow	541	34	256	322	16	142

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	575	0	1231	288
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	673	-
Critical Hdwy	-	-	4.18	-	7.46	7.02
Critical Hdwy Stg 1	-	-	-	-	6.46	-
Critical Hdwy Stg 2	-	-	-	-	6.46	-
Follow-up Hdwy	-	-	2.24	-	3.83	3.36
Pot Cap-1 Maneuver	-	-	981	-	132	697
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	393	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	981	-	98	697
Mov Cap-2 Maneuver	-	-	-	-	204	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	290	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.4	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	561	-	-	981	-
HCM Lane V/C Ratio	0.281	-	-	0.261	-
HCM Control Delay (s)	13.9	-	-	10	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	1.1	-	-	1	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	374	271	26	365	185	28
Future Volume (veh/h)	374	271	26	365	185	28
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1737	1856	1678	1796	1841	1900
Adj Flow Rate, veh/h	394	285	27	384	195	29
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	15	7	4	0
Cap, veh/h	704	503	62	1909	287	264
Arrive On Green	0.39	0.39	0.04	0.56	0.16	0.16
Sat Flow, veh/h	1906	1299	1598	3503	1753	1610
Grp Volume(v), veh/h	357	322	27	384	195	29
Grp Sat Flow(s),veh/h/ln	1650	1468	1598	1706	1753	1610
Q Serve(g_s), s	6.6	6.7	0.6	2.2	4.1	0.6
Cycle Q Clear(g_c), s	6.6	6.7	0.6	2.2	4.1	0.6
Prop In Lane		0.88	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	639	568	62	1909	287	264
V/C Ratio(X)	0.56	0.57	0.43	0.20	0.68	0.11
Avail Cap(c_a), veh/h	1066	949	279	3256	989	909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	9.4	18.3	4.3	15.3	13.9
Incr Delay (d2), s/veh	0.8	0.9	4.7	0.1	2.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	2.6	0.5	0.5	2.8	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	10.3	23.0	4.3	18.2	14.1
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	679			411	224	
Approach Delay, s/veh	10.2			5.5	17.6	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	6.7	20.9				27.6	11.4
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6.8	25.2				37.2	22.0
Max Q Clear Time (g_c+I1), s	2.6	8.7				4.2	6.1
Green Ext Time (p_c), s	0.0	3.7				2.4	0.5

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Notes

* HCM 6th 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)	48	1006	8	67	930	77	33	7	16	116	40	71
Future Volume (veh/h)	48	1006	8	67	930	77	33	7	16	116	40	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1811	1900	1900	1796	1841	1900	1900	1900	1841	1900	1796
Adj Flow Rate, veh/h	51	1059	8	71	979	81	35	7	17	122	42	75
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, %	0	6	0	0	7	4	0	0	0	4	0	7
Cap, veh/h	74	2096	16	92	1940	161	83	138	122	195	56	100
Arrive On Green	0.04	0.60	0.60	0.03	0.41	0.41	0.05	0.08	0.08	0.06	0.09	0.09
Sat Flow, veh/h	1810	3500	26	1810	3187	264	1810	1805	1604	3401	610	1090
Grp Volume(v), veh/h	51	521	546	71	524	536	35	7	17	122	0	117
Grp Sat Flow(s),veh/h/ln	1810	1721	1806	1810	1706	1744	1810	1805	1604	1700	0	1700
Q Serve(g_s), s	3.3	20.9	20.9	4.7	27.5	27.5	2.3	0.4	1.2	4.2	0.0	8.1
Cycle Q Clear(g_c), s	3.3	20.9	20.9	4.7	27.5	27.5	2.3	0.4	1.2	4.2	0.0	8.1
Prop In Lane	1.00		0.01	1.00		0.15	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	74	1030	1081	92	1039	1062	83	138	122	195	0	156
V/C Ratio(X)	0.69	0.51	0.51	0.77	0.50	0.50	0.42	0.05	0.14	0.63	0.00	0.75
Avail Cap(c_a), veh/h	234	1030	1081	234	1039	1062	241	384	341	439	0	368
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.62	0.62	0.62	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.8	13.9	13.9	57.3	22.0	22.0	55.7	51.4	51.7	55.3	0.0	53.1
Incr Delay (d2), s/veh	10.8	1.8	1.7	8.1	1.1	1.1	3.4	0.2	0.5	3.3	0.0	7.0
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	3.1	12.4	12.9	4.2	16.3	16.6	2.0	0.4	0.9	3.4	0.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	15.6	15.5	65.4	23.1	23.1	59.1	51.5	52.3	58.6	0.0	60.1
LnGrp LOS	E	B	B	E	C	C	E	D	D	E	A	E
Approach Vol, veh/h		1118			1131			59			239	
Approach Delay, s/veh		18.0			25.8			56.2			59.3	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	78.3	11.5	17.5	11.4	79.6	13.4	15.7
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	15.5	16.0	* 26	15.5	37.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	6.3	22.9	4.3	10.1	5.3	29.5	6.2	3.2
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	3.9	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	83	890	105	136	971	115	103	122	258	101	193	63
Future Volume (veh/h)	83	890	105	136	971	115	103	122	258	101	193	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
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	1900	1796	1841	1885	1796	1856	1885	1856	1856	1856	1870	1826
Adj Flow Rate, veh/h	87	937	111	143	1022	121	108	128	272	106	203	66
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, %	0	7	4	1	7	3	1	3	3	3	2	5
Cap, veh/h	112	1851	219	172	1537	807	138	365	308	132	267	87
Arrive On Green	0.02	0.14	0.14	0.13	0.60	0.60	0.08	0.20	0.20	0.07	0.20	0.20
Sat Flow, veh/h	1810	4444	525	1795	3413	1532	1795	1856	1565	1767	1345	437
Grp Volume(v), veh/h	87	689	359	143	1022	121	108	128	272	106	0	269
Grp Sat Flow(s),veh/h/ln	1810	1635	1700	1795	1706	1532	1795	1856	1565	1767	0	1782
Q Serve(g_s), s	5.7	23.4	23.5	9.3	24.0	3.7	7.1	7.1	20.3	7.1	0.0	17.1
Cycle Q Clear(g_c), s	5.7	23.4	23.5	9.3	24.0	3.7	7.1	7.1	20.3	7.1	0.0	17.1
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	112	1362	708	172	1537	807	138	365	308	132	0	354
V/C Ratio(X)	0.78	0.51	0.51	0.83	0.67	0.15	0.78	0.35	0.88	0.81	0.00	0.76
Avail Cap(c_a), veh/h	264	1362	708	322	1537	807	239	433	365	228	0	423
HCM Platoon Ratio	0.33	0.33	0.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.89	0.89	0.89	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.0	40.3	40.3	51.4	18.0	10.5	54.4	41.6	46.8	54.7	0.0	45.4
Incr Delay (d2), s/veh	9.5	1.2	2.2	9.0	2.0	0.4	9.3	0.6	19.3	10.9	0.0	6.5
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	5.3	15.4	16.2	7.7	12.4	2.4	6.5	6.1	14.7	6.3	0.0	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	41.5	42.6	60.5	20.1	10.9	63.7	42.1	66.2	65.6	0.0	51.9
LnGrp LOS	E	D	D	E	C	B	E	D	E	E	A	D
Approach Vol, veh/h		1135			1286			508			375	
Approach Delay, s/veh		43.8			23.7			59.6			55.8	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	56.0	15.2	30.8	13.9	60.0	15.4	30.6
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	21.5	29.0	16.0	* 29	17.5	16.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	11.3	25.5	9.1	19.1	7.7	26.0	9.1	22.3
Green Ext Time (p_c), s	0.2	2.0	0.1	1.0	0.1	0.0	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	39.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	46	1058	78	218	1152	275	43	66	84	253	107	43
Future Volume (veh/h)	46	1058	78	218	1152	275	43	66	84	253	107	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
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	1796	1885	1856	1826	1796	1707	1737	1781	1752	1722	1796
Adj Flow Rate, veh/h	48	1114	82	229	1213	289	45	69	88	266	113	45
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	1	3	5	7	13	11	8	10	12	7
Cap, veh/h	83	1721	935	229	2635	956	263	152	131	181	368	170
Arrive On Green	0.09	1.00	1.00	0.07	0.53	0.53	0.08	0.09	0.09	0.11	0.11	0.11
Sat Flow, veh/h	1781	3413	1591	3428	4985	1497	3155	1737	1494	1668	3272	1510
Grp Volume(v), veh/h	48	1114	82	229	1213	289	45	69	88	266	113	45
Grp Sat Flow(s),veh/h/ln	1781	1706	1591	1714	1662	1497	1577	1737	1494	1668	1636	1510
Q Serve(g_s), s	3.1	0.0	0.0	8.0	18.2	10.4	1.6	4.5	6.9	13.0	3.8	3.3
Cycle Q Clear(g_c), s	3.1	0.0	0.0	8.0	18.2	10.4	1.6	4.5	6.9	13.0	3.8	3.3
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	83	1721	935	229	2635	956	263	152	131	181	368	170
V/C Ratio(X)	0.58	0.65	0.09	1.00	0.46	0.30	0.17	0.45	0.67	1.47	0.31	0.27
Avail Cap(c_a), veh/h	126	1721	935	229	2635	956	263	521	448	181	1063	491
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	0.0	0.0	56.0	17.6	9.8	51.1	52.0	53.1	53.5	49.0	48.7
Incr Delay (d2), s/veh	4.9	1.5	0.1	52.7	0.4	0.6	0.3	2.1	5.9	239.8	0.5	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	2.6	0.6	0.1	8.3	10.4	6.3	1.2	3.8	5.1	27.6	2.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	1.5	0.1	108.7	18.1	10.4	51.5	54.2	59.0	293.3	49.4	49.5
LnGrp LOS	E	A	A	F	B	B	D	D	E	F	D	D
Approach Vol, veh/h		1244			1731			202			424	
Approach Delay, s/veh		3.6			28.8			55.7			202.4	
Approach LOS		A			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	70.4	17.0	20.5	15.0	67.5	20.0	17.5
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	8.5	35.0	10.0	39.0	8.0	* 36	13.0	36.0
Max Q Clear Time (g_c+I1), s	5.1	20.2	3.6	5.8	10.0	2.0	15.0	8.9
Green Ext Time (p_c), s	0.0	8.0	0.0	0.8	0.0	9.7	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

* HCM 6th 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)	0	877	556	157	1638	0	0	0	0	169	0	55
Future Volume (veh/h)	0	877	556	157	1638	0	0	0	0	169	0	55
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1796	1796	1707	1811	0				1856	0	1796
Adj Flow Rate, veh/h	0	914	579	164	1706	0				176	0	57
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	7	7	13	6	0				3	0	7
Cap, veh/h	0	1557	832	330	2787	0				395	0	175
Arrive On Green	0.00	0.32	0.32	0.10	0.56	0.00				0.12	0.00	0.12
Sat Flow, veh/h	0	5065	2622	3155	5107	0				3428	0	1522
Grp Volume(v), veh/h	0	914	579	164	1706	0				176	0	57
Grp Sat Flow(s),veh/h/ln	0	1635	1311	1577	1648	0				1714	0	1522
Q Serve(g_s), s	0.0	6.3	7.8	2.0	9.2	0.0				1.9	0.0	1.4
Cycle Q Clear(g_c), s	0.0	6.3	7.8	2.0	9.2	0.0				1.9	0.0	1.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1557	832	330	2787	0				395	0	175
V/C Ratio(X)	0.00	0.59	0.70	0.50	0.61	0.00				0.45	0.00	0.33
Avail Cap(c_a), veh/h	0	5101	2728	1123	7604	0				1783	0	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.5	12.0	17.0	5.8	0.0				16.6	0.0	16.3
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.4	0.1	0.0				0.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	2.9	2.9	1.1	2.4	0.0				1.2	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.6	12.4	17.4	5.9	0.0				16.9	0.0	16.7
LnGrp LOS	A	B	B	B	A	A				B	A	B
Approach Vol, veh/h		1493			1870						233	
Approach Delay, s/veh		11.9			6.9						16.8	
Approach LOS		B			A						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.9	19.6		10.7		29.5
Change Period (Y+Rc), s*	5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	14.0*	41.8		20.9		61.8
Max Q Clear Time (g_c+I1), s	4.0	9.8		3.9		11.2
Green Ext Time (p_c), s	0.1	3.0		0.3		5.5

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	704	127	0	989	92	742	235	27	153	0	437
Future Volume (veh/h)	189	704	127	0	989	92	742	235	27	153	0	437
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	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	1781	1811	1811	0	1796	1885	1811	1811	1737	1856	0	1841
Adj Flow Rate, veh/h	199	741	134	0	1041	97	781	247	28	161	0	460
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, %	8	6	6	0	7	1	6	6	11	3	0	4
Cap, veh/h	494	1707	754	0	1342	427	901	399	45	239	0	0
Arrive On Green	0.15	0.50	0.50	0.00	0.27	0.27	0.27	0.13	0.13	0.14	0.00	0.00
Sat Flow, veh/h	3291	3441	1519	0	5065	1560	3346	3115	349	1767	161	
Grp Volume(v), veh/h	199	741	134	0	1041	97	781	135	140	161	34.2	
Grp Sat Flow(s),veh/h/ln	1646	1721	1519	0	1635	1560	1673	1721	1743	1767	C	
Q Serve(g_s), s	4.3	10.9	3.8	0.0	15.4	3.8	17.6	5.9	6.0	6.8		
Cycle Q Clear(g_c), s	4.3	10.9	3.8	0.0	15.4	3.8	17.6	5.9	6.0	6.8		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.20	1.00		
Lane Grp Cap(c), veh/h	494	1707	754	0	1342	427	901	220	223	239		
V/C Ratio(X)	0.40	0.43	0.18	0.00	0.78	0.23	0.87	0.61	0.63	0.67		
Avail Cap(c_a), veh/h	505	2084	920	0	1864	593	2077	632	641	311		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	30.3	12.8	11.0	0.0	26.4	22.2	27.5	32.6	32.6	32.5		
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.9	0.1	1.0	1.0	1.1	1.7		
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		
%ile BackOfQ(95%),veh/ln	2.9	6.6	2.2	0.0	9.5	2.5	11.2	4.5	4.6	5.3		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	12.8	11.0	0.0	27.3	22.3	28.5	33.6	33.7	34.2		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1074			1138			1056				
Approach Delay, s/veh		15.9			26.9			29.8				
Approach LOS		B			C			C				

Timer - Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		46.0	27.4		17.5	28.4	16.8	16.2
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s		47.8	49.0		* 12	30.0	13.9	29.0
Max Q Clear Time (g_c+I1), s		12.9	19.6		6.3	17.4	8.8	8.0
Green Ext Time (p_c), s		3.6	1.7		0.2	4.1	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	8	5	195	266	33
Future Vol, veh/h	30	8	5	195	266	33
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	0
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	4	6
Mvmt Flow	32	8	5	205	280	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	496	281	316	0	-	0
Stage 1	281	-	-	-	-	-
Stage 2	215	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	537	763	1256	-	-	-
Stage 1	771	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	534	762	1255	-	-	-
Mov Cap-2 Maneuver	606	-	-	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1255	-	633	-	-
HCM Lane V/C Ratio	0.004	-	0.063	-	-
HCM Control Delay (s)	7.9	-	11.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	6	202	0	3	269
Future Vol, veh/h	1	6	202	0	3	269
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, %	0	67	3	0	100	3
Mvmt Flow	1	6	213	0	3	283

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	502	213	0	0	213	0
Stage 1	213	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Critical Hdwy	6.4	6.87	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.903	-	-	3.1	-
Pot Cap-1 Maneuver	533	688	-	-	940	-
Stage 1	827	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	531	688	-	-	940	-
Mov Cap-2 Maneuver	603	-	-	-	-	-
Stage 1	827	-	-	-	-	-
Stage 2	762	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	674	940	-
HCM Lane V/C Ratio	-	-	0.011	0.003	-
HCM Control Delay (s)	-	-	10.4	8.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	29	68	198	251	11
Future Vol, veh/h	8	29	68	198	251	11
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	7	0	1	3	0
Mvmt Flow	8	31	72	208	264	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	623	272	277	0	-	0
Stage 1	271	-	-	-	-	-
Stage 2	352	-	-	-	-	-
Critical Hdwy	6.4	6.27	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	2.2	-	-	-
Pot Cap-1 Maneuver	453	755	1298	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	427	754	1297	-	-	-
Mov Cap-2 Maneuver	526	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1297	-	689	-	-
HCM Lane V/C Ratio	0.055	-	0.057	-	-
HCM Control Delay (s)	7.9	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	57	0	29	18	234	25	32	243	1
Future Vol, veh/h	0	0	10	57	0	29	18	234	25	32	243	1
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	0	7	6	0	0	6	3	0
Mvmt Flow	0	0	11	60	0	31	19	246	26	34	256	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	639	636	258	627	623	259	258	0	0	272	0	0
Stage 1	326	326	-	297	297	-	-	-	-	-	-	-
Stage 2	313	310	-	330	326	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.27	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.363	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	392	398	786	396	405	768	1284	-	-	1269	-	-
Stage 1	691	652	-	712	671	-	-	-	-	-	-	-
Stage 2	702	663	-	683	652	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	364	381	785	379	388	768	1283	-	-	1269	-	-
Mov Cap-2 Maneuver	364	381	-	379	388	-	-	-	-	-	-	-
Stage 1	680	634	-	701	661	-	-	-	-	-	-	-
Stage 2	664	653	-	656	634	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	14.8	0.5	0.9
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1283	-	-	785	457	1269	-	-
HCM Lane V/C Ratio	0.015	-	-	0.013	0.198	0.027	-	-
HCM Control Delay (s)	7.8	-	-	9.6	14.8	7.9	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.7	0.1	-	-

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	270	2	213	407	1564	0	0	927	387
Future Volume (veh/h)	0	0	0	270	2	213	407	1564	0	0	927	387
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1678	1900	1885	1885	1841	0	0	1856	1885
Adj Flow Rate, veh/h				250	41	220	420	1612	0	0	956	399
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				15	0	1	1	4	0	0	3	1
Cap, veh/h				278	45	242	450	3603	0	0	1468	612
Arrive On Green				0.17	0.17	0.17	0.25	0.72	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1598	259	1391	1795	5191	0	0	3636	1447
Grp Volume(v), veh/h				250	0	261	420	1612	0	0	931	424
Grp Sat Flow(s),veh/h/ln				1598	0	1650	1795	1675	0	0	1689	1538
Q Serve(g_s), s				16.7	0.0	16.9	24.9	14.6	0.0	0.0	23.9	24.0
Cycle Q Clear(g_c), s				16.7	0.0	16.9	24.9	14.6	0.0	0.0	23.9	24.0
Prop In Lane				1.00		0.84	1.00		0.00	0.00		0.94
Lane Grp Cap(c), veh/h				278	0	287	450	3603	0	0	1429	651
V/C Ratio(X)				0.90	0.00	0.91	0.93	0.45	0.00	0.00	0.65	0.65
Avail Cap(c_a), veh/h				279	0	288	560	3603	0	0	1429	651
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	1.00	0.55	0.55	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				44.1	0.0	44.2	39.9	6.4	0.0	0.0	25.0	25.0
Incr Delay (d2), s/veh				28.9	0.0	30.3	11.8	0.2	0.0	0.0	2.3	5.0
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				13.7	0.0	14.4	16.2	6.5	0.0	0.0	14.4	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				73.0	0.0	74.4	51.8	6.6	0.0	0.0	27.4	30.1
LnGrp LOS				E	A	E	D	A	A	A	C	C
Approach Vol, veh/h					511			2032			1355	
Approach Delay, s/veh					73.7			16.0			28.2	
Approach LOS					E			B			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	85.0	32.0	52.9	24.0
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	78.0	* 34	39.0	19.0
Max Q Clear Time (g_c+I1), s	16.6	26.9	26.0	18.9
Green Ext Time (p_c), s	9.6	0.4	5.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	333	481	68	48	187	726	106	875	221	332	559	313
Future Volume (veh/h)	333	481	68	48	187	726	106	875	221	332	559	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.96
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	1900	1796	1826	1856	1870	1856	1885	1870	1826	1618
Adj Flow Rate, veh/h	340	491	69	49	191	741	108	893	226	339	570	319
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, %	3	3	0	7	5	3	2	3	1	2	5	19
Cap, veh/h	358	678	95	109	324	488	135	1457	367	411	1409	535
Arrive On Green	0.10	0.22	0.22	0.06	0.18	0.18	0.08	0.36	0.36	0.12	0.41	0.41
Sat Flow, veh/h	3428	3104	434	1711	1826	2754	1781	4013	1010	3456	3469	1317
Grp Volume(v), veh/h	340	278	282	49	191	741	108	751	368	339	570	319
Grp Sat Flow(s),veh/h/ln	1714	1763	1775	1711	1826	1377	1781	1689	1646	1728	1735	1317
Q Serve(g_s), s	10.8	16.1	16.2	3.0	10.6	19.5	6.6	20.0	20.2	10.5	12.8	20.9
Cycle Q Clear(g_c), s	10.8	16.1	16.2	3.0	10.6	19.5	6.6	20.0	20.2	10.5	12.8	20.9
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	358	385	388	109	324	488	135	1226	597	411	1409	535
V/C Ratio(X)	0.95	0.72	0.73	0.45	0.59	1.52	0.80	0.61	0.62	0.83	0.40	0.60
Avail Cap(c_a), veh/h	358	385	388	179	324	488	219	1226	597	550	1409	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.28	0.28	0.28	1.00	1.00	1.00	0.60	0.60	0.60
Uniform Delay (d), s/veh	49.0	39.9	40.0	49.7	41.6	45.3	50.0	28.7	28.7	47.4	23.2	25.6
Incr Delay (d2), s/veh	34.3	6.5	6.8	0.8	0.8	236.1	10.4	2.3	4.7	4.7	0.5	2.9
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	10.3	11.9	12.0	2.3	6.5	32.0	5.8	12.7	13.1	7.4	7.9	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.3	46.4	46.7	50.5	42.4	281.4	60.4	31.0	33.5	52.0	23.7	28.5
LnGrp LOS	F	D	D	D	D	F	E	C	C	D	C	C
Approach Vol, veh/h		900			981			1227			1228	
Approach Delay, s/veh		60.4			223.3			34.3			32.8	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	46.4	13.5	30.5	14.8	51.2	18.0	26.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	11.5	19.5	13.5	39.5	11.5	19.5
Max Q Clear Time (g_c+I1), s	12.5	22.2	5.0	18.2	8.6	22.9	12.8	21.5
Green Ext Time (p_c), s	0.5	5.7	0.0	0.4	0.1	4.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	82.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Edition methodology expects strict NEMA phasing.

Queues
3: Via Vera Cruz & Grand Ave

02/09/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	465	460	171	107	458	178	184	103	339	550
v/c Ratio	0.41	0.41	0.21	0.53	0.97	0.77	0.77	0.27	0.82	1.23
Control Delay	29.4	31.2	2.0	54.6	83.7	67.0	65.7	1.7	56.5	153.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	31.2	2.0	54.6	83.7	67.0	65.7	1.7	56.5	153.5
Queue Length 50th (ft)	128	131	0	72	116	125	129	0	223	~425
Queue Length 95th (ft)	177	191	21	124	#190	#217	#221	0	#368	#639
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	1139	1116	849	251	472	262	273	410	414	447
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.41	0.20	0.43	0.97	0.68	0.67	0.25	0.82	1.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	442	437	162	102	422	13	217	127	98	322	179	344
Future Volume (vph)	442	437	162	102	422	13	217	127	98	322	179	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3400	3539	1558	1805	5062		1665	1729	1615	1787	1652	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3400	3539	1558	1805	5062		1665	1729	1615	1787	1652	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	465	460	171	107	444	14	228	134	103	339	188	362
RTOR Reduction (vph)	0	0	93	0	3	0	0	0	89	0	65	0
Lane Group Flow (vph)	465	460	78	107	455	0	178	184	14	339	485	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	3%	2%	2%	0%	2%	0%	3%	3%	0%	1%	3%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	36.1	34.0	48.9	12.1	10.0		14.9	14.9	14.9	25.0	25.0	
Effective Green, g (s)	36.1	34.0	48.9	12.1	10.0		14.9	14.9	14.9	25.0	25.0	
Actuated g/C Ratio	0.34	0.32	0.45	0.11	0.09		0.14	0.14	0.14	0.23	0.23	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	1139	1117	707	202	470		230	239	223	414	383	
v/s Ratio Prot	c0.14	0.13	0.02	c0.06	c0.09		c0.11	0.11		0.19	c0.29	
v/s Ratio Perm			0.03						0.01			
v/c Ratio	0.41	0.41	0.11	0.53	0.97		0.77	0.77	0.06	0.82	1.27	
Uniform Delay, d1	27.6	29.0	16.9	45.1	48.7		44.8	44.7	40.3	39.2	41.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	1.1	0.0	1.2	34.4		13.7	12.6	0.0	11.4	139.6	
Delay (s)	28.7	30.1	16.9	46.3	83.1		58.5	57.3	40.4	50.6	181.0	
Level of Service	C	C	B	D	F		E	E	D	D	F	
Approach Delay (s)		27.4			76.1			54.0			131.2	
Approach LOS		C			E			D			F	

Intersection Summary			
HCM 2000 Control Delay	71.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	10.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	831	34	128	530	29	391
Future Vol, veh/h	831	34	128	530	29	391
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	4	2	0	2
Mvmt Flow	875	36	135	558	31	412

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	912	0	1443	457
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	549	-
Critical Hdwy	-	-	4.18	-	6.8	6.94
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.24	-	3.5	3.32
Pot Cap-1 Maneuver	-	-	730	-	125	551
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	548	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	729	-	102	550
Mov Cap-2 Maneuver	-	-	-	-	229	-
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	447	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	45.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	501	-	-	729	-
HCM Lane V/C Ratio	0.882	-	-	0.185	-
HCM Control Delay (s)	45.3	-	-	11.1	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	9.7	-	-	0.7	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	871	354	26	370	288	68
Future Volume (veh/h)	871	354	26	370	288	68
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1841	1856	1885	1885
Adj Flow Rate, veh/h	917	373	27	389	303	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	4	3	1	1
Cap, veh/h	1138	459	65	2080	378	336
Arrive On Green	0.46	0.46	0.04	0.59	0.21	0.21
Sat Flow, veh/h	2584	1005	1753	3618	1795	1598
Grp Volume(v), veh/h	658	632	27	389	303	72
Grp Sat Flow(s),veh/h/ln	1791	1704	1753	1763	1795	1598
Q Serve(g_s), s	17.1	17.3	0.8	2.8	8.7	2.0
Cycle Q Clear(g_c), s	17.1	17.3	0.8	2.8	8.7	2.0
Prop In Lane		0.59	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	818	779	65	2080	378	336
V/C Ratio(X)	0.80	0.81	0.42	0.19	0.80	0.21
Avail Cap(c_a), veh/h	959	913	194	2617	630	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	12.7	25.5	5.1	20.3	17.7
Incr Delay (d2), s/veh	4.4	4.9	4.2	0.0	4.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.7	9.6	0.7	1.0	6.5	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.0	17.6	29.7	5.2	24.3	18.0
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	1290			416	375	
Approach Delay, s/veh	17.3			6.8	23.1	
Approach LOS	B			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.2	30.6				37.8	16.4
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	29.0				40.2	19.0
Max Q Clear Time (g_c+I1), s	2.8	19.3				4.8	10.7
Green Ext Time (p_c), s	0.0	5.4				2.4	0.8

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

* HCM 6th 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)	99	1215	8	150	1045	176	70	57	82	177	93	98
Future Volume (veh/h)	99	1215	8	150	1045	176	70	57	82	177	93	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.99
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	1856	1900	1900	1870	1870	1900	1900	1900	1885	1900	1885
Adj Flow Rate, veh/h	104	1279	8	158	1100	185	74	60	86	186	98	103
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	3	0	0	2	2	0	0	0	1	0	1
Cap, veh/h	126	1921	12	178	1709	287	94	227	201	234	122	128
Arrive On Green	0.07	0.53	0.53	0.20	1.00	1.00	0.05	0.13	0.13	0.07	0.14	0.14
Sat Flow, veh/h	1795	3591	22	1810	3035	509	1810	1805	1595	3483	844	887
Grp Volume(v), veh/h	104	628	659	158	642	643	74	60	86	186	0	201
Grp Sat Flow(s),veh/h/ln	1795	1763	1851	1810	1777	1767	1810	1805	1595	1742	0	1732
Q Serve(g_s), s	8.6	38.6	38.6	12.7	0.0	0.0	6.1	4.5	7.5	7.9	0.0	16.8
Cycle Q Clear(g_c), s	8.6	38.6	38.6	12.7	0.0	0.0	6.1	4.5	7.5	7.9	0.0	16.8
Prop In Lane	1.00		0.01	1.00		0.29	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	126	943	990	178	1001	995	94	227	201	234	0	251
V/C Ratio(X)	0.82	0.67	0.67	0.89	0.64	0.65	0.79	0.26	0.43	0.80	0.00	0.80
Avail Cap(c_a), veh/h	221	943	990	199	1001	995	169	439	388	313	0	427
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.60	0.60	0.60	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	68.8	25.2	25.2	59.4	0.0	0.0	70.3	59.3	60.6	68.9	0.0	62.1
Incr Delay (d2), s/veh	12.4	3.7	3.5	22.2	1.9	2.0	13.7	0.6	1.4	9.8	0.0	5.9
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	7.7	23.0	24.0	9.5	1.0	1.0	5.7	3.8	5.6	6.9	0.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.2	28.9	28.7	81.6	1.9	2.0	84.1	59.9	62.0	78.7	0.0	67.9
LnGrp LOS	F	C	C	F	A	A	F	E	E	E	A	E
Approach Vol, veh/h		1391			1443			220			387	
Approach Delay, s/veh		32.7			10.7			68.8			73.1	
Approach LOS		C			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	86.7	13.8	28.2	17.1	91.0	16.6	25.4
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	16.5	57.5	14.0	* 37	18.5	35.5	13.5	36.5
Max Q Clear Time (g_c+I1), s	14.7	40.6	8.1	18.8	10.6	2.0	9.9	9.5
Green Ext Time (p_c), s	0.1	7.5	0.1	1.0	0.1	10.4	0.2	0.8

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

* HCM 6th 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)	90	1211	88	158	1084	107	160	162	235	128	255	51
Future Volume (veh/h)	90	1211	88	158	1084	107	160	162	235	128	255	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1841	1900	1870	1856	1900	1885	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	94	1261	92	165	1129	111	167	169	245	133	266	53
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, %	0	4	0	2	3	0	1	1	2	0	1	0
Cap, veh/h	103	2074	151	185	1695	895	189	383	317	156	286	57
Arrive On Green	0.11	0.87	0.87	0.21	0.96	0.96	0.11	0.20	0.20	0.09	0.19	0.19
Sat Flow, veh/h	1810	4779	349	1781	3526	1573	1795	1885	1562	1810	1526	304
Grp Volume(v), veh/h	94	884	469	165	1129	111	167	169	245	133	0	319
Grp Sat Flow(s),veh/h/ln	1810	1675	1777	1781	1763	1573	1795	1885	1562	1810	0	1830
Q Serve(g_s), s	7.7	11.1	11.1	13.5	5.1	0.4	13.8	11.8	22.2	10.9	0.0	25.7
Cycle Q Clear(g_c), s	7.7	11.1	11.1	13.5	5.1	0.4	13.8	11.8	22.2	10.9	0.0	25.7
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	103	1454	771	185	1695	895	189	383	317	156	0	343
V/C Ratio(X)	0.92	0.61	0.61	0.89	0.67	0.12	0.88	0.44	0.77	0.85	0.00	0.93
Avail Cap(c_a), veh/h	103	1454	771	196	1695	895	192	383	317	187	0	360
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.84	0.84	0.84	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.1	6.3	6.3	58.7	1.6	1.0	66.2	52.3	56.5	67.6	0.0	60.0
Incr Delay (d2), s/veh	46.0	1.2	2.2	31.3	1.8	0.2	34.9	0.8	11.2	26.5	0.0	29.8
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	7.4	4.4	5.0	11.0	2.1	0.3	12.9	9.7	15.0	10.2	0.0	21.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.2	7.5	8.5	90.0	3.3	1.3	101.1	53.1	67.6	94.1	0.0	89.8
LnGrp LOS	F	A	A	F	A	A	F	D	E	F	A	F
Approach Vol, veh/h		1447			1405			581			452	
Approach Delay, s/veh		14.6			13.4			73.0			91.0	
Approach LOS		B			B			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	71.1	21.8	35.1	15.0	78.1	19.4	37.5
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	16.5	48.0	16.0	* 30	8.5	71.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	15.5	13.1	15.8	27.7	9.7	7.1	12.9	24.2
Green Ext Time (p_c), s	0.0	11.1	0.0	0.3	0.0	11.0	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	52	1451	124	364	1172	200	139	144	234	734	222	42
Future Volume (veh/h)	52	1451	124	364	1172	200	139	144	234	734	222	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	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	1885	1900	1870	1841	1900	1900	1885	1885	1900	1870
Adj Flow Rate, veh/h	53	1481	127	371	1196	204	142	147	239	749	227	43
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	1	0	2	4	0	0	1	1	0	2
Cap, veh/h	74	1872	936	257	2869	1239	234	177	146	419	939	411
Arrive On Green	0.08	1.00	1.00	0.07	0.56	0.56	0.07	0.09	0.09	0.23	0.26	0.26
Sat Flow, veh/h	1781	3554	1574	3510	5106	1557	3510	1900	1565	1795	3610	1581
Grp Volume(v), veh/h	53	1481	127	371	1196	204	142	147	239	749	227	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1574	1755	1702	1557	1755	1900	1565	1795	1805	1581
Q Serve(g_s), s	4.4	0.0	0.0	11.0	20.1	4.6	5.9	11.4	14.0	35.0	7.4	3.1
Cycle Q Clear(g_c), s	4.4	0.0	0.0	11.0	20.1	4.6	5.9	11.4	14.0	35.0	7.4	3.1
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	74	1872	936	257	2869	1239	234	177	146	419	939	411
V/C Ratio(X)	0.72	0.79	0.14	1.44	0.42	0.16	0.61	0.83	1.64	1.79	0.24	0.10
Avail Cap(c_a), veh/h	232	1872	936	257	2869	1239	257	177	146	419	939	411
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	0.0	0.0	69.5	18.8	3.6	68.1	66.8	68.0	57.5	43.8	42.2
Incr Delay (d2), s/veh	8.6	2.5	0.2	217.3	0.4	0.3	3.5	26.7	315.3	364.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	1.1	0.1	20.3	12.2	2.6	5.0	11.2	29.6	89.5	6.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.5	2.5	0.2	286.8	19.2	3.9	71.5	93.5	383.3	421.5	44.0	42.3
LnGrp LOS	E	A	A	F	B	A	E	F	F	F	D	D
Approach Vol, veh/h		1661			1771			528			1019	
Approach Delay, s/veh		4.6			73.5			218.8			321.4	
Approach LOS		A			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	91.8	17.0	46.0	18.0	86.5	42.0	21.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	19.5	36.0	11.0	38.0	11.0	* 63	35.0	14.0
Max Q Clear Time (g_c+I1), s	6.4	22.1	7.9	9.4	13.0	2.0	37.0	16.0
Green Ext Time (p_c), s	0.1	7.3	0.1	1.4	0.0	17.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	116.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	1486	1071	143	1744	0	0	0	0	100	0	52
Future Volume (veh/h)	0	1486	1071	143	1744	0	0	0	0	100	0	52
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1856	1856	1870	0				1885	0	1900
Adj Flow Rate, veh/h	0	1548	1116	149	1817	0				104	0	54
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	1	3	3	2	0				1	0	0
Cap, veh/h	0	3366	1766	223	4020	0				203	0	94
Arrive On Green	0.00	0.65	0.65	0.07	0.79	0.00				0.06	0.00	0.06
Sat Flow, veh/h	0	5316	2701	3428	5274	0				3483	0	1610
Grp Volume(v), veh/h	0	1548	1116	149	1817	0				104	0	54
Grp Sat Flow(s),veh/h/ln	0	1716	1350	1714	1702	0				1742	0	1610
Q Serve(g_s), s	0.0	12.4	20.4	3.6	9.8	0.0				2.4	0.0	2.7
Cycle Q Clear(g_c), s	0.0	12.4	20.4	3.6	9.8	0.0				2.4	0.0	2.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3366	1766	223	4020	0				203	0	94
V/C Ratio(X)	0.00	0.46	0.63	0.67	0.45	0.00				0.51	0.00	0.58
Avail Cap(c_a), veh/h	0	3366	1766	423	4020	0				704	0	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.2	8.5	38.2	2.9	0.0				38.2	0.0	38.3
Incr Delay (d2), s/veh	0.0	0.5	1.7	1.3	0.4	0.0				0.7	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.5	8.5	2.6	3.0	0.0				1.9	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.6	10.3	39.5	3.3	0.0				38.9	0.0	40.4
LnGrp LOS	A	A	B	D	A	A				D	A	D
Approach Vol, veh/h		2664			1966						158	
Approach Delay, s/veh		8.7			6.0						39.4	
Approach LOS		A			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.1	61.5		11.0		72.6
Change Period (Y+Rc), s*	5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s*	16	49.8		16.9		65.8
Max Q Clear Time (g_c+I1), s	5.6	22.4		4.7		11.8
Green Ext Time (p_c), s	0.1	6.5		0.1		6.1

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	1128	179	0	907	110	851	276	75	152	0	386
Future Volume (veh/h)	289	1128	179	0	907	110	851	276	75	152	0	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	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	1870	1885	0	1870	1870	1856	1781	1856	1885	0	1870
Adj Flow Rate, veh/h	301	1175	186	0	945	115	886	288	78	158	0	402
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, %	1	2	1	0	2	2	3	8	3	1	0	2
Cap, veh/h	529	1668	730	0	1252	381	1011	410	109	242	0	0
Arrive On Green	0.15	0.47	0.47	0.00	0.25	0.25	0.29	0.16	0.16	0.13	0.00	0.00
Sat Flow, veh/h	3483	3554	1556	0	5274	1555	3428	2641	702	1795	158	
Grp Volume(v), veh/h	301	1175	186	0	945	115	886	183	183	158	33.5	
Grp Sat Flow(s),veh/h/ln	1742	1777	1556	0	1702	1555	1714	1692	1650	1795	C	
Q Serve(g_s), s	6.3	20.7	5.7	0.0	13.5	4.8	19.4	8.1	8.3	6.6		
Cycle Q Clear(g_c), s	6.3	20.7	5.7	0.0	13.5	4.8	19.4	8.1	8.3	6.6		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	529	1668	730	0	1252	381	1011	262	256	242		
V/C Ratio(X)	0.57	0.70	0.25	0.00	0.75	0.30	0.88	0.70	0.72	0.65		
Avail Cap(c_a), veh/h	587	2107	923	0	1798	548	2172	622	606	339		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.1	16.6	12.6	0.0	27.6	24.3	26.5	31.6	31.7	32.4		
Incr Delay (d2), s/veh	0.5	0.5	0.1	0.0	0.6	0.2	1.0	1.2	1.4	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		
%ile BackOfQ(95%),veh/ln	4.7	12.4	3.3	0.0	8.9	3.1	12.2	5.9	6.0	5.1		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	17.1	12.7	0.0	28.2	24.4	27.4	32.8	33.1	33.5		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1662			1060			1252				
Approach Delay, s/veh		19.2			27.7			29.1				
Approach LOS		B			C			C				

Timer - Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		43.8	29.4		17.7	26.2	16.8	18.3
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s		46.8	50.0		* 13	27.8	14.9	29.0
Max Q Clear Time (g_c+I1), s		22.7	21.4		8.3	15.5	8.6	10.3
Green Ext Time (p_c), s		6.9	1.9		0.3	3.7	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	77	11	5	291	321	63
Future Vol, veh/h	77	11	5	291	321	63
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	0
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	1	1	2
Mvmt Flow	81	12	5	306	338	66

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	655	339	405	0	-	0
Stage 1	339	-	-	-	-	-
Stage 2	316	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	432	708	1165	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	429	707	1164	-	-	-
Mov Cap-2 Maneuver	529	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1164	-	546	-	-
HCM Lane V/C Ratio	0.005	-	0.17	-	-
HCM Control Delay (s)	8.1	-	12.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	279	1	1	347
Future Vol, veh/h	0	1	279	1	1	347
Conflicting Peds, #/hr	0	0	0	1	1	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, %	0	0	0	100	100	1
Mvmt Flow	0	1	294	1	1	365

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	663	296	0	0	296	0
Stage 1	296	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	3.1	-
Pot Cap-1 Maneuver	429	748	-	-	865	-
Stage 1	759	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	428	747	-	-	864	-
Mov Cap-2 Maneuver	528	-	-	-	-	-
Stage 1	758	-	-	-	-	-
Stage 2	704	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	747	864	-
HCM Lane V/C Ratio	-	-	0.001	0.001	-
HCM Control Delay (s)	-	-	9.8	9.2	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	61	78	250	319	21
Future Vol, veh/h	29	61	78	250	319	21
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	31	64	82	263	336	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	775	348	359	0	-	0
Stage 1	348	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	369	700	1211	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	662	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	343	699	1210	-	-	-
Mov Cap-2 Maneuver	460	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	661	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1210	-	599	-	-
HCM Lane V/C Ratio	0.068	-	0.158	-	-
HCM Control Delay (s)	8.2	-	12.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	16	63	1	62	7	261	37	57	324	2
Future Vol, veh/h	2	1	16	63	1	62	7	261	37	57	324	2
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	2	1	0
Mvmt Flow	2	1	17	66	1	65	7	275	39	60	341	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	805	791	345	784	773	297	343	0	0	315	0	0
Stage 1	462	462	-	310	310	-	-	-	-	-	-	-
Stage 2	343	329	-	474	463	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	303	324	702	313	332	747	1227	-	-	1245	-	-
Stage 1	584	568	-	705	663	-	-	-	-	-	-	-
Stage 2	676	650	-	575	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	264	306	700	291	314	746	1227	-	-	1244	-	-
Mov Cap-2 Maneuver	264	306	-	291	314	-	-	-	-	-	-	-
Stage 1	580	541	-	700	658	-	-	-	-	-	-	-
Stage 2	612	645	-	532	541	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	17.7	0.2	1.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1227	-	-	564	416	1244	-	-
HCM Lane V/C Ratio	0.006	-	-	0.035	0.319	0.048	-	-
HCM Control Delay (s)	8	-	-	11.6	17.7	8	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.4	0.2	-	-

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	383	9	178	444	817	0	0	845	280
Future Volume (veh/h)	0	0	0	383	9	178	444	817	0	0	845	280
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1841	1885	1870	0	0	1870	1856
Adj Flow Rate, veh/h				294	150	184	458	842	0	0	871	289
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				3	0	4	1	2	0	0	2	3
Cap, veh/h				375	165	202	472	3408	0	0	1342	443
Arrive On Green				0.21	0.21	0.21	0.26	0.67	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1767	776	951	1795	5274	0	0	3925	1240
Grp Volume(v), veh/h				294	0	334	458	842	0	0	789	371
Grp Sat Flow(s),veh/h/ln				1767	0	1727	1795	1702	0	0	1702	1592
Q Serve(g_s), s				15.6	0.0	18.7	25.0	6.5	0.0	0.0	19.2	19.3
Cycle Q Clear(g_c), s				15.6	0.0	18.7	25.0	6.5	0.0	0.0	19.2	19.3
Prop In Lane				1.00		0.55	1.00		0.00	0.00		0.78
Lane Grp Cap(c), veh/h				375	0	367	472	3408	0	0	1216	569
V/C Ratio(X)				0.78	0.00	0.91	0.97	0.25	0.00	0.00	0.65	0.65
Avail Cap(c_a), veh/h				393	0	384	472	3408	0	0	1216	569
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	1.00	0.82	0.82	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.8	0.0	38.1	36.1	6.6	0.0	0.0	26.6	26.7
Incr Delay (d2), s/veh				8.6	0.0	23.8	30.1	0.1	0.0	0.0	2.7	5.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.1	0.0	15.5	19.8	3.4	0.0	0.0	12.2	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.4	0.0	61.9	66.3	6.7	0.0	0.0	29.3	32.4
LnGrp LOS				D	A	E	E	A	A	A	C	C
Approach Vol, veh/h					628			1300			1160	
Approach Delay, s/veh					54.2			27.7			30.3	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	72.9		30.7	42.2		26.1				
Change Period (Y+Rc), s	6.8		* 4.7	6.8		5.1				
Max Green Setting (Gmax), s	65.0		* 26	34.0		22.0				
Max Q Clear Time (g_c+I1), s	8.5		27.0	21.3		20.7				
Green Ext Time (p_c), s	3.8		0.0	4.1		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	132	243	150	77	165	574	112	552	230	436	582	184
Future Volume (veh/h)	132	243	150	77	165	574	112	552	230	436	582	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.96
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	1856	1900	1885	1885	1870	1900	1885	1885	1885	1870	1841
Adj Flow Rate, veh/h	135	248	153	79	168	586	114	563	235	445	594	188
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	3	0	1	1	2	0	1	1	1	2	4
Cap, veh/h	306	514	306	144	441	644	143	970	392	512	1206	510
Arrive On Green	0.09	0.24	0.24	0.08	0.23	0.23	0.08	0.27	0.27	0.15	0.34	0.34
Sat Flow, veh/h	3483	2125	1264	1795	1885	2750	1810	3577	1447	3483	3554	1504
Grp Volume(v), veh/h	135	204	197	79	168	586	114	539	259	445	594	188
Grp Sat Flow(s),veh/h/ln	1742	1763	1626	1795	1885	1375	1810	1716	1593	1742	1777	1504
Q Serve(g_s), s	3.7	9.9	10.4	4.2	7.5	20.7	6.2	13.6	14.1	12.5	13.3	9.4
Cycle Q Clear(g_c), s	3.7	9.9	10.4	4.2	7.5	20.7	6.2	13.6	14.1	12.5	13.3	9.4
Prop In Lane	1.00		0.78	1.00		1.00	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	306	427	394	144	441	644	143	930	432	512	1206	510
V/C Ratio(X)	0.44	0.48	0.50	0.55	0.38	0.91	0.80	0.58	0.60	0.87	0.49	0.37
Avail Cap(c_a), veh/h	366	450	415	171	462	674	172	930	432	540	1206	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.47	0.47	0.47	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	43.3	32.5	32.7	44.3	32.2	37.3	45.3	31.5	31.7	41.7	26.2	24.9
Incr Delay (d2), s/veh	1.0	0.8	1.0	1.5	0.3	8.7	19.6	2.6	6.0	9.0	0.9	1.3
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(95%),veh/ln	2.8	7.4	7.2	3.4	5.3	10.4	6.2	9.6	9.8	8.9	8.4	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	33.3	33.7	45.8	32.5	46.0	64.9	34.1	37.7	50.7	27.1	26.2
LnGrp LOS	D	C	C	D	C	D	E	C	D	D	C	C
Approach Vol, veh/h		536			833			912			1227	
Approach Delay, s/veh		36.2			43.2			39.0			35.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.2	33.6	14.5	30.7	14.4	40.4	15.3	29.9
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	23.5	9.5	25.5	9.5	29.5	10.5	24.5
Max Q Clear Time (g_c+I1), s	14.5	16.1	6.2	12.4	8.2	15.3	5.7	22.7
Green Ext Time (p_c), s	0.2	2.8	0.0	1.8	0.0	3.7	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Edition methodology expects strict NEMA phasing.

Queues
3: Via Vera Cruz & Grand Ave

02/09/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	453	346	178	123	431	130	184	69	184	521
v/c Ratio	0.56	0.48	0.26	0.55	0.90	0.55	0.74	0.19	0.34	0.92
Control Delay	37.1	38.6	3.1	49.0	65.8	47.8	58.6	1.2	27.1	52.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	38.6	3.1	49.0	65.8	47.8	58.6	1.2	27.1	52.8
Queue Length 50th (ft)	132	102	0	73	96	77	114	0	84	273
Queue Length 95th (ft)	186	157	28	126	#157	140	#205	0	140	#461
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	804	720	707	277	480	260	273	379	585	603
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.48	0.25	0.44	0.90	0.50	0.67	0.18	0.31	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	444	339	174	121	399	24	141	167	68	180	271	239
Future Volume (vph)	444	339	174	121	399	24	141	167	68	180	271	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3574	1594	1787	5096		1681	1763	1615	1770	1724	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3574	1594	1787	5096		1681	1763	1615	1770	1724	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	453	346	178	123	407	24	144	170	69	184	277	244
RTOR Reduction (vph)	0	0	117	0	6	0	0	0	59	0	34	0
Lane Group Flow (vph)	453	346	61	123	425	0	130	184	10	184	487	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	1%	0%	1%	1%	0%	2%	2%	0%	2%	2%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	22.7	19.4	33.0	12.2	8.9		13.6	13.6	13.6	29.8	29.8	
Effective Green, g (s)	22.7	19.4	33.0	12.2	8.9		13.6	13.6	13.6	29.8	29.8	
Actuated g/C Ratio	0.23	0.20	0.34	0.13	0.09		0.14	0.14	0.14	0.31	0.31	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	805	717	543	225	469		236	247	227	545	531	
v/s Ratio Prot	c0.13	0.10	0.02	0.07	c0.08		0.08	c0.10		0.10	c0.28	
v/s Ratio Perm			0.02						0.01			
v/c Ratio	0.56	0.48	0.11	0.55	0.91		0.55	0.74	0.04	0.34	0.92	
Uniform Delay, d1	32.6	34.2	21.8	39.7	43.5		38.7	39.9	35.9	25.8	32.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.8	2.3	0.0	1.5	23.6		1.6	10.2	0.0	0.1	20.4	
Delay (s)	35.5	36.5	21.8	41.1	67.1		40.3	50.1	36.0	26.0	52.6	
Level of Service	D	D	C	D	E		D	D	D	C	D	
Approach Delay (s)		33.4			61.3			44.2			45.7	
Approach LOS		C			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	44.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	529	42	112	573	45	173
Future Vol, veh/h	529	42	112	573	45	173
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	10	1	1	0	3
Mvmt Flow	557	44	118	603	47	182

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	602	0	1118	302
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	538	-
Critical Hdwy	-	-	4.12	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	978	-	204	691
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	555	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	977	-	179	690
Mov Cap-2 Maneuver	-	-	-	-	313	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	488	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	553	-	-	977	-
HCM Lane V/C Ratio	0.415	-	-	0.121	-
HCM Control Delay (s)	16	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	2	-	-	0.4	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	434	269	64	352	334	97
Future Volume (veh/h)	434	269	64	352	334	97
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	457	283	67	371	352	102
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	1	0	2
Cap, veh/h	691	425	136	1847	452	396
Arrive On Green	0.33	0.33	0.07	0.52	0.25	0.25
Sat Flow, veh/h	2204	1297	1810	3676	1810	1585
Grp Volume(v), veh/h	387	353	67	371	352	102
Grp Sat Flow(s),veh/h/ln	1791	1616	1810	1791	1810	1585
Q Serve(g_s), s	8.6	8.6	1.6	2.6	8.3	2.4
Cycle Q Clear(g_c), s	8.6	8.6	1.6	2.6	8.3	2.4
Prop In Lane		0.80	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	587	530	136	1847	452	396
V/C Ratio(X)	0.66	0.67	0.49	0.20	0.78	0.26
Avail Cap(c_a), veh/h	933	842	236	2736	942	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	13.3	20.5	6.0	16.1	13.8
Incr Delay (d2), s/veh	1.3	1.4	2.8	0.1	2.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.9	4.5	1.2	1.0	5.8	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.6	14.8	23.2	6.1	19.0	14.2
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	740			438	454	
Approach Delay, s/veh	14.7			8.7	17.9	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.7	20.9				29.6	16.5
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	24.0				35.2	24.0
Max Q Clear Time (g_c+I1), s	3.6	10.6				4.6	10.3
Green Ext Time (p_c), s	0.0	3.6				2.3	1.2

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

* HCM 6th 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)	121	969	8	155	977	181	70	58	83	269	94	87
Future Volume (veh/h)	121	969	8	155	977	181	70	58	83	269	94	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
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	1885	1900	1900	1870	1885	1900	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	127	1020	8	163	1028	191	74	61	87	283	99	92
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	0	0	2	1	0	0	0	1	0	2
Cap, veh/h	155	1758	14	193	1503	279	110	171	151	346	124	115
Arrive On Green	0.09	0.48	0.48	0.07	0.34	0.34	0.06	0.09	0.09	0.10	0.14	0.14
Sat Flow, veh/h	1781	3641	29	1810	2991	555	1810	1805	1595	3483	903	839
Grp Volume(v), veh/h	127	502	526	163	610	609	74	61	87	283	0	191
Grp Sat Flow(s),veh/h/ln	1781	1791	1879	1810	1777	1769	1810	1805	1595	1742	0	1742
Q Serve(g_s), s	8.4	24.2	24.2	10.7	35.5	35.6	4.8	3.8	6.3	9.6	0.0	12.7
Cycle Q Clear(g_c), s	8.4	24.2	24.2	10.7	35.5	35.6	4.8	3.8	6.3	9.6	0.0	12.7
Prop In Lane	1.00		0.02	1.00		0.31	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	155	864	907	193	893	889	110	171	151	346	0	239
V/C Ratio(X)	0.82	0.58	0.58	0.85	0.68	0.69	0.67	0.36	0.58	0.82	0.00	0.80
Avail Cap(c_a), veh/h	260	864	907	264	893	889	241	384	339	450	0	378
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.9	22.3	22.3	54.7	31.6	31.6	55.2	50.9	52.0	53.0	0.0	50.2
Incr Delay (d2), s/veh	10.3	2.8	2.7	10.8	2.6	2.6	6.8	1.3	3.4	8.9	0.0	6.3
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(95%),veh/ln	7.4	15.4	16.0	8.5	21.6	21.6	4.3	3.2	4.7	8.0	0.0	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	25.1	25.0	65.5	34.2	34.3	62.0	52.1	55.4	61.9	0.0	56.5
LnGrp LOS	E	C	C	E	C	C	E	D	E	E	A	E
Approach Vol, veh/h		1155			1382			222			474	
Approach Delay, s/veh		29.4			37.9			56.7			59.7	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	64.4	13.3	23.0	16.9	66.8	18.4	17.9
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	16.0	* 26	17.5	35.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	12.7	26.2	6.8	14.7	10.4	37.6	11.6	8.3
Green Ext Time (p_c), s	0.2	4.1	0.1	0.7	0.2	0.0	0.4	0.7

Intersection Summary	
HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
7: S Bent Ave & W San Marcos Blvd

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	957	74	236	947	178	137	134	243	182	138	97
Future Volume (veh/h)	125	957	74	236	947	178	137	134	243	182	138	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		0.98
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	1885	1885	1870	1900	1885	1870	1870	1885	1900	1900
Adj Flow Rate, veh/h	132	1007	78	248	997	187	144	141	256	192	145	102
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	2	0	1	2	2	1	0	0
Cap, veh/h	161	1575	122	262	1357	810	174	352	293	220	225	158
Arrive On Green	0.03	0.11	0.11	0.29	0.76	0.76	0.10	0.19	0.19	0.12	0.22	0.22
Sat Flow, veh/h	1781	4822	373	1795	3554	1604	1795	1870	1555	1795	1031	725
Grp Volume(v), veh/h	132	710	375	248	997	187	144	141	256	192	0	247
Grp Sat Flow(s),veh/h/ln	1781	1702	1791	1795	1777	1604	1795	1870	1555	1795	0	1756
Q Serve(g_s), s	8.8	24.0	24.1	16.2	18.1	3.5	9.4	7.9	19.2	12.6	0.0	15.4
Cycle Q Clear(g_c), s	8.8	24.0	24.1	16.2	18.1	3.5	9.4	7.9	19.2	12.6	0.0	15.4
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	161	1112	585	262	1357	810	174	352	293	220	0	383
V/C Ratio(X)	0.82	0.64	0.64	0.95	0.73	0.23	0.83	0.40	0.87	0.87	0.00	0.65
Avail Cap(c_a), veh/h	260	1112	585	262	1357	810	269	436	363	262	0	432
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.72	0.72	0.72	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.2	46.7	46.8	42.0	10.9	5.9	53.2	42.8	47.3	51.7	0.0	42.7
Incr Delay (d2), s/veh	7.3	2.0	3.7	33.7	2.6	0.5	11.6	0.7	17.6	23.1	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	15.8	16.9	12.3	7.0	2.1	8.5	6.8	13.8	11.4	0.0	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	48.7	50.5	75.7	13.5	6.4	64.8	43.5	64.9	74.8	0.0	45.5
LnGrp LOS	E	D	D	E	B	A	E	D	E	E	A	D
Approach Vol, veh/h		1217			1432			541			439	
Approach Delay, s/veh		51.0			23.3			59.3			58.3	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	45.2	17.6	33.2	17.4	51.8	21.2	29.6
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	17.5	30.0	18.0	* 30	17.5	30.0	17.5	28.0
Max Q Clear Time (g_c+I1), s	18.2	26.1	11.4	17.4	10.8	20.1	14.6	21.2
Green Ext Time (p_c), s	0.0	2.3	0.2	1.1	0.2	5.0	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	89	1184	230	489	1187	187	156	169	295	312	263	49
Future Volume (veh/h)	89	1184	230	489	1187	187	156	169	295	312	263	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
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	1900	1870	1900	1885	1870	1870	1900	1870	1900	1870	1900	1870
Adj Flow Rate, veh/h	94	1246	242	515	1249	197	164	178	311	328	277	52
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, %	0	2	0	1	2	2	0	2	0	2	0	2
Cap, veh/h	118	1629	856	319	2497	1033	293	358	303	297	993	430
Arrive On Green	0.13	0.92	0.92	0.09	0.49	0.49	0.08	0.19	0.19	0.17	0.28	0.28
Sat Flow, veh/h	1810	3554	1576	3483	5106	1572	3510	1870	1580	1781	3610	1564
Grp Volume(v), veh/h	94	1246	242	515	1249	197	164	178	311	328	277	52
Grp Sat Flow(s),veh/h/ln	1810	1777	1576	1742	1702	1572	1755	1870	1580	1781	1805	1564
Q Serve(g_s), s	6.1	11.7	1.9	11.0	19.9	5.9	5.4	10.2	23.0	20.0	7.2	3.0
Cycle Q Clear(g_c), s	6.1	11.7	1.9	11.0	19.9	5.9	5.4	10.2	23.0	20.0	7.2	3.0
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	118	1629	856	319	2497	1033	293	358	303	297	993	430
V/C Ratio(X)	0.80	0.76	0.28	1.61	0.50	0.19	0.56	0.50	1.03	1.10	0.28	0.12
Avail Cap(c_a), veh/h	249	1629	856	319	2497	1033	293	358	303	297	993	430
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	3.2	2.0	54.5	20.7	8.1	52.9	43.3	48.5	50.0	34.2	32.6
Incr Delay (d2), s/veh	7.9	2.3	0.5	287.8	0.6	0.3	2.4	1.1	58.8	83.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	3.6	1.1	27.6	11.9	3.7	4.5	8.5	20.5	23.0	5.6	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	5.5	2.6	342.3	21.3	8.5	55.3	44.4	107.3	133.3	34.3	32.7
LnGrp LOS	E	A	A	F	C	A	E	D	F	F	C	C
Approach Vol, veh/h		1582			1961			653			657	
Approach Delay, s/veh		8.3			104.3			77.1			83.6	
Approach LOS		A			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	66.2	17.0	40.0	18.0	62.5	27.0	30.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	16.5	33.0	10.0	33.0	11.0	* 39	20.0	23.0
Max Q Clear Time (g_c+I1), s	8.1	21.9	7.4	9.2	13.0	13.7	22.0	25.0
Green Ext Time (p_c), s	0.1	6.5	0.1	1.7	0.0	10.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	66.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	956	1034	237	1781	0	0	0	0	158	0	205
Future Volume (veh/h)	0	956	1034	237	1781	0	0	0	0	158	0	205
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1870	1841	1885	0				1856	0	1885
Adj Flow Rate, veh/h	0	1006	1088	249	1875	0				166	0	216
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	4	1	0				3	0	1
Cap, veh/h	0	2764	1466	324	3586	0				541	0	252
Arrive On Green	0.00	0.54	0.54	0.10	0.70	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	5316	2730	3401	5316	0				3428	0	1598
Grp Volume(v), veh/h	0	1006	1088	249	1875	0				166	0	216
Grp Sat Flow(s),veh/h/ln	0	1716	1365	1700	1716	0				1714	0	1598
Q Serve(g_s), s	0.0	10.0	27.2	6.3	15.4	0.0				3.8	0.0	11.7
Cycle Q Clear(g_c), s	0.0	10.0	27.2	6.3	15.4	0.0				3.8	0.0	11.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2764	1466	324	3586	0				541	0	252
V/C Ratio(X)	0.00	0.36	0.74	0.77	0.52	0.00				0.31	0.00	0.86
Avail Cap(c_a), veh/h	0	2764	1466	510	3586	0				808	0	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.8	15.8	39.2	6.4	0.0				33.1	0.0	36.4
Incr Delay (d2), s/veh	0.0	0.4	3.4	1.4	0.5	0.0				0.1	0.0	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.2	12.6	4.7	7.6	0.0				2.9	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.2	19.2	40.6	7.0	0.0				33.2	0.0	44.5
LnGrp LOS	A	B	B	D	A	A				C	A	D
Approach Vol, veh/h		2094			2124						382	
Approach Delay, s/veh		15.9			10.9						39.6	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.2	54.4		20.1		68.6
Change Period (Y+Rc), s*	5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s*	13	42.8		20.9		61.8
Max Q Clear Time (g_c+I1), s	8.3	29.2		13.7		17.4
Green Ext Time (p_c), s	0.1	3.6		0.3		6.4

Intersection Summary	
HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	337	638	201	0	932	84	822	200	55	86	0	492
Future Volume (veh/h)	337	638	201	0	932	84	822	200	55	86	0	492
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	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	1885	1885	0	1870	1885	1870	1870	1900	1870	0	1885
Adj Flow Rate, veh/h	355	672	212	0	981	88	865	211	58	91	0	518
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	2	1	2	2	0	2	0	1
Cap, veh/h	560	1781	775	0	1318	406	999	332	89	224	0	0
Arrive On Green	0.16	0.50	0.50	0.00	0.26	0.26	0.29	0.12	0.12	0.13	0.00	0.00
Sat Flow, veh/h	3456	3582	1557	0	5274	1572	3456	2767	742	1781	91	
Grp Volume(v), veh/h	355	672	212	0	981	88	865	134	135	91	30.2	
Grp Sat Flow(s),veh/h/ln	1728	1791	1557	0	1702	1572	1728	1777	1732	1781	C	
Q Serve(g_s), s	7.1	8.6	5.9	0.0	13.0	3.3	17.6	5.3	5.5	3.5		
Cycle Q Clear(g_c), s	7.1	8.6	5.9	0.0	13.0	3.3	17.6	5.3	5.5	3.5		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	560	1781	775	0	1318	406	999	213	208	224		
V/C Ratio(X)	0.63	0.38	0.27	0.00	0.74	0.22	0.87	0.63	0.65	0.41		
Avail Cap(c_a), veh/h	761	2455	1067	0	1981	610	2154	697	679	265		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	28.9	11.5	10.8	0.0	25.2	21.6	24.9	31.0	31.1	29.8		
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.0	0.3	0.1	0.9	1.1	1.3	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		
%ile BackOfQ(95%),veh/ln	5.2	5.5	3.3	0.0	8.5	2.1	11.2	4.1	4.1	2.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	11.6	10.9	0.0	25.5	21.7	25.9	32.1	32.4	30.2		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1239			1069			1134				
Approach Delay, s/veh		16.5			25.2			27.4				
Approach LOS		B			C			C				

Timer - Assigned Phs	2	3	5	6	7	8
Phs Duration (G+Y+Rc), s	43.6	27.5	17.7	25.9	15.4	15.0
Change Period (Y+Rc), s	6.8	6.1	* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s	50.7	46.1	* 16	28.7	11.0	29.0
Max Q Clear Time (g_c+I1), s	10.6	19.6	9.1	15.0	5.5	7.5
Green Ext Time (p_c), s	3.8	1.8	0.4	4.0	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	129	37	3	303	208	124
Future Vol, veh/h	129	37	3	303	208	124
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	-	50	-	-	0
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	136	39	3	319	219	131

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	544	219	350	0	-	0
Stage 1	219	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	504	826	1220	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	503	826	1220	-	-	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1220	-	623	-	-
HCM Lane V/C Ratio	0.003	-	0.28	-	-
HCM Control Delay (s)	8	-	13	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	1.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	307	0	0	241
Future Vol, veh/h	0	2	307	0	0	241
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, %	0	0	1	0	0	0
Mvmt Flow	0	2	323	0	0	254

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	577	323	0	0	-	-
Stage 1	323	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	482	723	-	-	0	-
Stage 1	738	-	-	-	0	-
Stage 2	793	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	482	723	-	-	-	-
Mov Cap-2 Maneuver	568	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	723	-
HCM Lane V/C Ratio	-	-	0.003	-
HCM Control Delay (s)	-	-	10	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	100	153	273	207	35
Future Vol, veh/h	33	100	153	273	207	35
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	35	105	161	287	218	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	846	237	255	0	-	0
Stage 1	237	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	335	807	1316	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	294	807	1316	-	-	-
Mov Cap-2 Maneuver	412	-	-	-	-	-
Stage 1	709	-	-	-	-	-
Stage 2	547	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	2.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1316	-	652	-	-
HCM Lane V/C Ratio	0.122	-	0.215	-	-
HCM Control Delay (s)	8.1	-	12	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.8	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	34	80	1	83	17	323	37	53	281	0
Future Vol, veh/h	5	2	34	80	1	83	17	323	37	53	281	0
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	0	1	0	1	0	0	0	0
Mvmt Flow	5	2	36	84	1	87	18	340	39	56	296	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	852	823	296	823	804	364	296	0	0	379	0	0
Stage 1	408	408	-	396	396	-	-	-	-	-	-	-
Stage 2	444	415	-	427	408	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	282	311	748	292	319	683	1277	-	-	1191	-	-
Stage 1	624	600	-	629	607	-	-	-	-	-	-	-
Stage 2	597	596	-	606	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	233	292	748	264	300	680	1277	-	-	1191	-	-
Mov Cap-2 Maneuver	233	292	-	264	300	-	-	-	-	-	-	-
Stage 1	615	572	-	620	599	-	-	-	-	-	-	-
Stage 2	510	588	-	548	572	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	21.9	0.4	1.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1277	-	-	556	383	1191	-	-
HCM Lane V/C Ratio	0.014	-	-	0.078	0.451	0.047	-	-
HCM Control Delay (s)	7.9	-	-	12	21.9	8.2	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2.3	0.1	-	-

Appendix J
Year 2025 Near-Term With Project Operations Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	551	1	200	262	829	0	0	1223	333
Future Volume (veh/h)	0	0	0	551	1	200	262	829	0	0	1223	333
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1796	1900	1826	1737	1841	0	0	1841	1870
Adj Flow Rate, veh/h				396	259	211	276	873	0	0	1287	351
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				7	0	5	11	4	0	0	4	2
Cap, veh/h				397	225	183	201	3254	0	0	1871	509
Arrive On Green				0.23	0.23	0.23	0.12	0.65	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1711	969	789	1654	5191	0	0	4072	1064
Grp Volume(v), veh/h				396	0	470	276	873	0	0	1103	535
Grp Sat Flow(s),veh/h/ln				1711	0	1758	1654	1675	0	0	1675	1621
Q Serve(g_s), s				22.9	0.0	23.0	12.0	7.3	0.0	0.0	25.3	25.4
Cycle Q Clear(g_c), s				22.9	0.0	23.0	12.0	7.3	0.0	0.0	25.3	25.4
Prop In Lane				1.00		0.45	1.00		0.00	0.00		0.66
Lane Grp Cap(c), veh/h				397	0	408	201	3254	0	0	1604	776
V/C Ratio(X)				1.00	0.00	1.15	1.38	0.27	0.00	0.00	0.69	0.69
Avail Cap(c_a), veh/h				397	0	408	201	3254	0	0	1604	776
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	1.00	0.87	0.87	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.0	0.0	38.0	43.5	7.4	0.0	0.0	20.1	20.1
Incr Delay (d2), s/veh				44.1	0.0	92.5	194.3	0.2	0.0	0.0	2.4	5.0
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				20.6	0.0	29.9	24.3	4.0	0.0	0.0	14.4	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				82.1	0.0	130.5	237.8	7.6	0.0	0.0	22.5	25.0
LnGrp LOS				F	A	F	F	A	A	A	C	C
Approach Vol, veh/h					866			1149			1638	
Approach Delay, s/veh					108.4			62.9			23.3	
Approach LOS					F			E			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	70.9	16.7	54.2	28.1
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	64.0	* 12	47.0	23.0
Max Q Clear Time (g_c+I1), s	9.3	14.0	27.4	25.0
Green Ext Time (p_c), s	4.0	0.0	7.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	55.9
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	167	244	52	101	237	556	152	400	82	357	755	610
Future Volume (veh/h)	167	244	52	101	237	556	152	400	82	357	755	610
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.96
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	1826	1678	1781	1841	1796	1826	1737	1826	1693	1796	1826	1826
Adj Flow Rate, veh/h	176	257	55	106	249	585	160	421	86	376	795	642
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, %	5	15	8	4	7	5	11	5	14	7	5	5
Cap, veh/h	301	574	121	149	386	584	157	1264	250	437	1182	508
Arrive On Green	0.09	0.22	0.22	0.09	0.22	0.22	0.09	0.30	0.30	0.13	0.34	0.34
Sat Flow, veh/h	3374	2619	551	1753	1796	2716	1654	4158	823	3319	3469	1490
Grp Volume(v), veh/h	176	155	157	106	249	585	160	334	173	376	795	642
Grp Sat Flow(s),veh/h/ln	1687	1594	1577	1753	1796	1358	1654	1662	1658	1659	1735	1490
Q Serve(g_s), s	5.0	8.4	8.7	5.9	12.6	21.5	9.5	7.8	8.1	11.1	19.6	34.1
Cycle Q Clear(g_c), s	5.0	8.4	8.7	5.9	12.6	21.5	9.5	7.8	8.1	11.1	19.6	34.1
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	301	349	345	149	386	584	157	1011	504	437	1182	508
V/C Ratio(X)	0.58	0.44	0.46	0.71	0.64	1.00	1.02	0.33	0.34	0.86	0.67	1.26
Avail Cap(c_a), veh/h	320	349	345	167	386	584	157	1011	504	448	1182	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	43.7	33.8	33.9	44.5	35.8	39.3	45.3	26.9	27.0	42.5	28.2	33.0
Incr Delay (d2), s/veh	2.4	0.9	0.9	6.7	2.1	28.3	76.6	0.9	1.9	8.1	1.5	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	3.8	5.7	5.9	4.8	8.4	12.8	11.5	5.5	6.0	7.4	11.0	41.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	34.7	34.8	51.3	37.8	67.6	121.9	27.8	28.9	50.6	29.7	159.6
LnGrp LOS	D	C	C	D	D	F	F	C	C	D	C	F
Approach Vol, veh/h		488			940			667			1813	
Approach Delay, s/veh		38.9			57.9			50.7			80.0	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	36.9	15.0	28.4	16.0	40.6	15.4	28.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	29.5	9.5	21.5	9.5	33.5	9.5	21.5
Max Q Clear Time (g_c+I1), s	13.1	10.1	7.9	10.7	11.5	36.1	7.0	23.5
Green Ext Time (p_c), s	0.1	2.8	0.0	1.2	0.0	0.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	64.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	314	260	146	53	376	58	60	20	357	782
v/c Ratio	0.63	0.46	0.26	0.29	0.83	0.32	0.37	0.07	0.49	1.04
Control Delay	44.8	41.1	4.0	44.4	60.0	44.7	46.6	0.5	24.3	70.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	41.1	4.0	44.4	60.0	44.7	46.6	0.5	24.3	70.7
Queue Length 50th (ft)	94	80	0	31	84	35	36	0	161	~484
Queue Length 95th (ft)	142	124	31	68	#136	75	77	0	244	#714
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	497	565	608	251	452	241	218	325	724	749
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.46	0.24	0.21	0.83	0.24	0.28	0.06	0.49	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	298	247	139	50	345	12	68	44	19	339	256	487
Future Volume (vph)	298	247	139	50	345	12	68	44	19	339	256	487
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3099	3282	1495	1641	4878		1573	1426	1282	1770	1658	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3099	3282	1495	1641	4878		1573	1426	1282	1770	1658	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	314	260	146	53	363	13	72	46	20	357	269	513
RTOR Reduction (vph)	0	0	105	0	4	0	0	0	18	0	70	0
Lane Group Flow (vph)	314	260	41	53	372	0	58	60	2	357	712	0
Heavy Vehicles (%)	13%	10%	8%	10%	6%	0%	9%	30%	26%	2%	2%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	15.7	15.9	27.2	8.8	9.0		11.3	11.3	11.3	40.0	40.0	
Effective Green, g (s)	15.7	15.9	27.2	8.8	9.0		11.3	11.3	11.3	40.0	40.0	
Actuated g/C Ratio	0.16	0.16	0.28	0.09	0.09		0.12	0.12	0.12	0.41	0.41	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	497	534	416	147	449		181	164	148	724	678	
v/s Ratio Prot	c0.10	0.08	0.01	0.03	c0.08		0.04	c0.04		0.20	c0.43	
v/s Ratio Perm			0.02						0.00			
v/c Ratio	0.63	0.49	0.10	0.36	0.83		0.32	0.37	0.02	0.49	1.05	
Uniform Delay, d1	38.3	37.2	26.1	41.8	43.6		39.7	39.9	38.3	21.3	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.0	3.2	0.0	0.6	16.1		0.4	0.5	0.0	0.2	48.3	
Delay (s)	44.3	40.3	26.2	42.4	59.7		40.0	40.4	38.3	21.5	77.2	
Level of Service	D	D	C	D	E		D	D	D	C	E	
Approach Delay (s)		39.2			57.6			39.9			59.7	
Approach LOS		D			E			D			E	

Intersection Summary			
HCM 2000 Control Delay	52.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	606	32	244	397	15	136
Future Vol, veh/h	606	32	244	397	15	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	5	4	7	33	6
Mvmt Flow	638	34	257	418	16	143

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	672	0	1378	336
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	723	-
Critical Hdwy	-	-	4.18	-	7.46	7.02
Critical Hdwy Stg 1	-	-	-	-	6.46	-
Critical Hdwy Stg 2	-	-	-	-	6.46	-
Follow-up Hdwy	-	-	2.24	-	3.83	3.36
Pot Cap-1 Maneuver	-	-	901	-	103	648
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	368	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	901	-	74	648
Mov Cap-2 Maneuver	-	-	-	-	177	-
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	263	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	513	-	-	901	-
HCM Lane V/C Ratio	0.31	-	-	0.285	-
HCM Control Delay (s)	15.1	-	-	10.6	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.3	-	-	1.2	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	364	374	36	355	287	38
Future Volume (veh/h)	364	374	36	355	287	38
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1737	1856	1678	1796	1841	1900
Adj Flow Rate, veh/h	383	394	38	374	302	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	15	7	4	0
Cap, veh/h	610	532	81	1830	390	358
Arrive On Green	0.37	0.37	0.05	0.54	0.22	0.22
Sat Flow, veh/h	1737	1439	1598	3503	1753	1610
Grp Volume(v), veh/h	383	394	38	374	302	40
Grp Sat Flow(s),veh/h/ln	1650	1439	1598	1706	1753	1610
Q Serve(g_s), s	8.5	10.6	1.0	2.6	7.2	0.9
Cycle Q Clear(g_c), s	8.5	10.6	1.0	2.6	7.2	0.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	610	532	81	1830	390	358
V/C Ratio(X)	0.63	0.74	0.47	0.20	0.78	0.11
Avail Cap(c_a), veh/h	930	811	243	2839	862	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	12.2	20.7	5.4	16.3	13.9
Incr Delay (d2), s/veh	1.1	2.1	4.2	0.1	3.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	4.7	0.7	0.8	5.0	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.6	14.3	24.9	5.5	19.7	14.0
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	777			412	342	
Approach Delay, s/veh	13.5			7.2	19.0	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.5	22.3				29.8	14.9
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6.8	25.2				37.2	22.0
Max Q Clear Time (g_c+I1), s	3.0	12.6				4.6	9.2
Green Ext Time (p_c), s	0.0	3.8				2.3	0.8

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

* HCM 6th 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)	48	1024	8	69	948	77	33	7	18	116	40	71
Future Volume (veh/h)	48	1024	8	69	948	77	33	7	18	116	40	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1811	1900	1900	1796	1841	1900	1900	1900	1841	1900	1796
Adj Flow Rate, veh/h	51	1078	8	73	998	81	35	7	19	122	42	75
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, %	0	6	0	0	7	4	0	0	0	4	0	7
Cap, veh/h	74	2091	16	95	1944	158	83	138	122	195	56	100
Arrive On Green	0.04	0.60	0.60	0.04	0.41	0.41	0.05	0.08	0.08	0.06	0.09	0.09
Sat Flow, veh/h	1810	3501	26	1810	3193	259	1810	1805	1604	3401	610	1090
Grp Volume(v), veh/h	51	530	556	73	533	546	35	7	19	122	0	117
Grp Sat Flow(s),veh/h/ln	1810	1721	1806	1810	1706	1745	1810	1805	1604	1700	0	1700
Q Serve(g_s), s	3.3	21.5	21.5	4.8	28.1	28.1	2.3	0.4	1.3	4.2	0.0	8.1
Cycle Q Clear(g_c), s	3.3	21.5	21.5	4.8	28.1	28.1	2.3	0.4	1.3	4.2	0.0	8.1
Prop In Lane	1.00		0.01	1.00		0.15	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	74	1028	1079	95	1039	1063	83	138	122	195	0	156
V/C Ratio(X)	0.69	0.52	0.52	0.77	0.51	0.51	0.42	0.05	0.16	0.63	0.00	0.75
Avail Cap(c_a), veh/h	234	1028	1079	234	1039	1063	241	384	341	439	0	368
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.51	0.51	0.51	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.8	14.1	14.1	57.2	22.2	22.2	55.7	51.4	51.8	55.3	0.0	53.1
Incr Delay (d2), s/veh	10.8	1.8	1.8	6.6	0.9	0.9	3.4	0.2	0.6	3.3	0.0	7.0
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	3.1	12.8	13.2	4.2	16.2	16.5	2.0	0.4	1.0	3.4	0.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	15.9	15.8	63.8	23.1	23.1	59.1	51.5	52.4	58.6	0.0	60.1
LnGrp LOS	E	B	B	E	C	C	E	D	D	E	A	E
Approach Vol, veh/h		1137			1152			61			239	
Approach Delay, s/veh		18.2			25.7			56.1			59.3	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	78.2	11.5	17.5	11.4	79.6	13.4	15.7
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	15.5	16.0	* 26	15.5	37.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	6.8	23.5	4.3	10.1	5.3	30.1	6.2	3.3
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	3.8	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	137	856	105	136	924	237	103	126	258	210	197	130
Future Volume (veh/h)	137	856	105	136	924	237	103	126	258	210	197	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
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	1900	1796	1841	1885	1796	1856	1885	1856	1856	1856	1870	1826
Adj Flow Rate, veh/h	144	901	111	143	973	249	108	133	272	221	207	137
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, %	0	7	4	1	7	3	1	3	3	3	2	5
Cap, veh/h	174	1597	196	172	1232	755	138	365	308	228	264	175
Arrive On Green	0.03	0.12	0.12	0.10	0.36	0.36	0.08	0.20	0.20	0.13	0.25	0.25
Sat Flow, veh/h	1810	4422	543	1795	3413	1530	1795	1856	1565	1767	1043	690
Grp Volume(v), veh/h	144	665	347	143	973	249	108	133	272	221	0	344
Grp Sat Flow(s),veh/h/ln	1810	1635	1696	1795	1706	1530	1795	1856	1565	1767	0	1733
Q Serve(g_s), s	9.5	23.1	23.2	9.4	30.6	11.9	7.1	7.4	20.3	14.9	0.0	22.2
Cycle Q Clear(g_c), s	9.5	23.1	23.2	9.4	30.6	11.9	7.1	7.4	20.3	14.9	0.0	22.2
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	174	1181	613	172	1232	755	138	365	308	228	0	439
V/C Ratio(X)	0.83	0.56	0.57	0.83	0.79	0.33	0.78	0.36	0.88	0.97	0.00	0.78
Avail Cap(c_a), veh/h	264	1181	613	322	1232	755	239	433	365	228	0	439
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.87	0.87	0.87	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	43.9	44.0	53.3	34.3	18.6	54.4	41.7	46.8	52.0	0.0	41.7
Incr Delay (d2), s/veh	10.6	1.7	3.2	8.6	4.6	1.0	9.3	0.6	19.3	50.4	0.0	9.0
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	8.4	15.2	16.1	7.8	18.5	7.7	6.5	6.3	14.7	14.9	0.0	15.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	45.6	47.2	61.9	38.8	19.7	63.7	42.3	66.1	102.4	0.0	50.7
LnGrp LOS	E	D	D	E	D	B	E	D	E	F	A	D
Approach Vol, veh/h		1156			1365			513			565	
Approach Delay, s/veh		48.8			37.8			59.4			70.9	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	49.3	15.2	37.4	18.1	49.3	22.0	30.6
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	21.5	29.0	16.0	* 29	17.5	16.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	11.4	25.2	9.1	24.2	11.5	32.6	16.9	22.3
Green Ext Time (p_c), s	0.2	2.1	0.1	0.8	0.2	0.0	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	49.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	46	1133	78	218	1227	275	43	66	84	253	107	43
Future Volume (veh/h)	46	1133	78	218	1227	275	43	66	84	253	107	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
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	1796	1885	1856	1826	1796	1707	1737	1781	1752	1722	1796
Adj Flow Rate, veh/h	48	1193	82	229	1292	289	45	69	88	266	113	45
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	1	3	5	7	13	11	8	10	12	7
Cap, veh/h	83	1721	935	229	2635	956	263	152	131	181	368	170
Arrive On Green	0.09	1.00	1.00	0.07	0.53	0.53	0.08	0.09	0.09	0.11	0.11	0.11
Sat Flow, veh/h	1781	3413	1591	3428	4985	1497	3155	1737	1494	1668	3272	1510
Grp Volume(v), veh/h	48	1193	82	229	1292	289	45	69	88	266	113	45
Grp Sat Flow(s),veh/h/ln	1781	1706	1591	1714	1662	1497	1577	1737	1494	1668	1636	1510
Q Serve(g_s), s	3.1	0.0	0.0	8.0	19.8	10.4	1.6	4.5	6.9	13.0	3.8	3.3
Cycle Q Clear(g_c), s	3.1	0.0	0.0	8.0	19.8	10.4	1.6	4.5	6.9	13.0	3.8	3.3
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	83	1721	935	229	2635	956	263	152	131	181	368	170
V/C Ratio(X)	0.58	0.69	0.09	1.00	0.49	0.30	0.17	0.45	0.67	1.47	0.31	0.27
Avail Cap(c_a), veh/h	126	1721	935	229	2635	956	263	521	448	181	1063	491
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	0.0	0.0	56.0	18.0	9.8	51.1	52.0	53.1	53.5	49.0	48.7
Incr Delay (d2), s/veh	4.3	1.6	0.1	51.7	0.5	0.6	0.3	2.1	5.9	239.8	0.5	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	2.6	0.7	0.1	8.2	11.1	6.2	1.2	3.8	5.1	27.6	2.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	1.6	0.1	107.7	18.5	10.4	51.5	54.2	59.0	293.3	49.4	49.5
LnGrp LOS	E	A	A	F	B	B	D	D	E	F	D	D
Approach Vol, veh/h		1323			1810			202			424	
Approach Delay, s/veh		3.6			28.5			55.7			202.4	
Approach LOS		A			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	70.4	17.0	20.5	15.0	67.5	20.0	17.5
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	8.5	35.0	10.0	39.0	8.0	* 36	13.0	36.0
Max Q Clear Time (g_c+I1), s	5.1	21.8	3.6	5.8	10.0	2.0	15.0	8.9
Green Ext Time (p_c), s	0.0	7.8	0.0	0.8	0.0	10.7	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Notes

* HCM 6th 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)	0	888	620	157	1713	0	0	0	0	169	0	55
Future Volume (veh/h)	0	888	620	157	1713	0	0	0	0	169	0	55
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1796	1796	1707	1811	0				1856	0	1796
Adj Flow Rate, veh/h	0	925	646	164	1784	0				176	0	57
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	7	7	13	6	0				3	0	7
Cap, veh/h	0	1661	889	322	2857	0				384	0	171
Arrive On Green	0.00	0.34	0.34	0.10	0.58	0.00				0.11	0.00	0.11
Sat Flow, veh/h	0	5065	2623	3155	5107	0				3428	0	1522
Grp Volume(v), veh/h	0	925	646	164	1784	0				176	0	57
Grp Sat Flow(s),veh/h/ln	0	1635	1311	1577	1648	0				1714	0	1522
Q Serve(g_s), s	0.0	6.4	9.0	2.0	9.9	0.0				2.0	0.0	1.4
Cycle Q Clear(g_c), s	0.0	6.4	9.0	2.0	9.9	0.0				2.0	0.0	1.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1661	889	322	2857	0				384	0	171
V/C Ratio(X)	0.00	0.56	0.73	0.51	0.62	0.00				0.46	0.00	0.33
Avail Cap(c_a), veh/h	0	4927	2635	1084	7344	0				1722	0	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.2	12.1	17.7	5.8	0.0				17.3	0.0	17.0
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.5	0.1	0.0				0.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.0	3.4	1.1	2.6	0.0				1.3	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.3	12.5	18.2	5.9	0.0				17.6	0.0	17.5
LnGrp LOS	A	B	B	B	A	A				B	A	B
Approach Vol, veh/h		1571			1948						233	
Approach Delay, s/veh		11.8			6.9						17.6	
Approach LOS		B			A						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.9	20.9		10.8		30.8
Change Period (Y+Rc), s	* 5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	* 14	41.8		20.9		61.8
Max Q Clear Time (g_c+I1), s	4.0	11.0		4.0		11.9
Green Ext Time (p_c), s	0.1	3.1		0.3		6.0

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	715	127	0	1000	92	806	235	27	153	0	437
Future Volume (veh/h)	189	715	127	0	1000	92	806	235	27	153	0	437
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	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	1781	1811	1811	0	1796	1885	1811	1811	1737	1856	0	1841
Adj Flow Rate, veh/h	199	753	134	0	1053	97	848	247	28	161	0	460
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, %	8	6	6	0	7	1	6	6	11	3	0	4
Cap, veh/h	493	1711	756	0	1352	430	970	398	45	238	0	0
Arrive On Green	0.15	0.50	0.50	0.00	0.28	0.28	0.29	0.13	0.13	0.13	0.00	0.00
Sat Flow, veh/h	3291	3441	1519	0	5065	1560	3346	3115	349	1767	161	
Grp Volume(v), veh/h	199	753	134	0	1053	97	848	135	140	161	34.4	
Grp Sat Flow(s),veh/h/ln	1646	1721	1519	0	1635	1560	1673	1721	1743	1767	C	
Q Serve(g_s), s	4.3	11.2	3.9	0.0	15.7	3.8	19.1	5.9	6.0	6.9		
Cycle Q Clear(g_c), s	4.3	11.2	3.9	0.0	15.7	3.8	19.1	5.9	6.0	6.9		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.20	1.00		
Lane Grp Cap(c), veh/h	493	1711	756	0	1352	430	970	220	223	238		
V/C Ratio(X)	0.40	0.44	0.18	0.00	0.78	0.23	0.87	0.61	0.63	0.68		
Avail Cap(c_a), veh/h	503	2077	917	0	1858	591	2071	630	638	310		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	30.5	12.8	11.0	0.0	26.5	22.2	26.7	32.7	32.7	32.6		
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.9	0.1	1.0	1.0	1.1	1.8		
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		
%ile BackOfQ(95%),veh/ln	3.0	6.7	2.2	0.0	9.7	2.5	12.0	4.5	4.6	5.3		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	12.9	11.0	0.0	27.4	22.2	27.8	33.7	33.8	34.4		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1086			1150			1123				
Approach Delay, s/veh		15.9			27.0			29.2				
Approach LOS		B			C			C				

Timer - Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		46.2	29.1		17.5	28.6	16.8	16.2
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s		47.8	49.0		* 12	30.0	13.9	29.0
Max Q Clear Time (g_c+I1), s		13.2	21.1		6.3	17.7	8.9	8.0
Green Ext Time (p_c), s		3.7	1.9		0.2	4.1	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	191	202	195	266	146
Future Vol, veh/h	142	191	202	195	266	146
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	4	6
Mvmt Flow	149	201	213	205	280	154

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	989	358	435	0	-	0
Stage 1	358	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	276	691	1135	-	-	-
Stage 1	712	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	690	1134	-	-	-
Mov Cap-2 Maneuver	355	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	533	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.6	4.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1134	-	355	690	-	-
HCM Lane V/C Ratio	0.188	-	0.421	0.291	-	-
HCM Control Delay (s)	8.9	-	22.3	12.3	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.7	-	2	1.2	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	6	399	0	3	452
Future Vol, veh/h	1	6	399	0	3	452
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, %	0	67	3	0	100	3
Mvmt Flow	1	6	420	0	3	476

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	902	420	0	0	420	0
Stage 1	420	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Critical Hdwy	6.4	6.87	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.903	-	-	3.1	-
Pot Cap-1 Maneuver	311	515	-	-	763	-
Stage 1	667	-	-	-	-	-
Stage 2	625	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	309	515	-	-	763	-
Mov Cap-2 Maneuver	434	-	-	-	-	-
Stage 1	667	-	-	-	-	-
Stage 2	622	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	502	763	-
HCM Lane V/C Ratio	-	-	0.015	0.004	-
HCM Control Delay (s)	-	-	12.3	9.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	26	51	395	434	11
Future Vol, veh/h	8	26	51	395	434	11
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	7	0	1	3	0
Mvmt Flow	8	27	54	416	457	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	988	465	470	0	-	0
Stage 1	464	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Critical Hdwy	6.4	6.27	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	2.2	-	-	-
Pot Cap-1 Maneuver	276	587	1102	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	262	586	1101	-	-	-
Mov Cap-2 Maneuver	394	-	-	-	-	-
Stage 1	605	-	-	-	-	-
Stage 2	597	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1101	-	526	-	-
HCM Lane V/C Ratio	0.049	-	0.068	-	-
HCM Control Delay (s)	8.4	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	57	0	29	18	414	25	32	423	1
Future Vol, veh/h	0	0	10	57	0	29	18	414	25	32	423	1
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	0	7	6	0	0	6	3	0
Mvmt Flow	0	0	11	60	0	31	19	436	26	34	445	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1018	1015	447	1006	1002	449	447	0	0	462	0	0
Stage 1	515	515	-	487	487	-	-	-	-	-	-	-
Stage 2	503	500	-	519	515	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.27	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.363	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	218	240	616	220	244	600	1092	-	-	1078	-	-
Stage 1	546	538	-	562	554	-	-	-	-	-	-	-
Stage 2	555	546	-	540	538	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	228	615	208	232	600	1091	-	-	1078	-	-
Mov Cap-2 Maneuver	199	228	-	208	232	-	-	-	-	-	-	-
Stage 1	536	520	-	552	545	-	-	-	-	-	-	-
Stage 2	518	537	-	514	520	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	25.2	0.3	0.6
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1091	-	-	615	267	1078	-	-
HCM Lane V/C Ratio	0.017	-	-	0.017	0.339	0.031	-	-
HCM Control Delay (s)	8.4	-	-	11	25.2	8.4	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	1.4	0.1	-	-

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

04/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	270	2	213	513	1574	0	0	937	387
Future Volume (veh/h)	0	0	0	270	2	213	513	1574	0	0	937	387
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1678	1900	1885	1885	1841	0	0	1856	1885
Adj Flow Rate, veh/h				250	41	220	529	1623	0	0	966	399
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				15	0	1	1	4	0	0	3	1
Cap, veh/h				278	45	242	553	3603	0	0	1273	525
Arrive On Green				0.17	0.17	0.17	0.31	0.72	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1598	259	1391	1795	5191	0	0	3646	1436
Grp Volume(v), veh/h				250	0	261	529	1623	0	0	938	427
Grp Sat Flow(s),veh/h/ln				1598	0	1650	1795	1675	0	0	1689	1537
Q Serve(g_s), s				16.7	0.0	16.9	31.5	14.7	0.0	0.0	26.6	26.6
Cycle Q Clear(g_c), s				16.7	0.0	16.9	31.5	14.7	0.0	0.0	26.6	26.6
Prop In Lane				1.00		0.84	1.00		0.00	0.00		0.93
Lane Grp Cap(c), veh/h				278	0	287	553	3603	0	0	1236	563
V/C Ratio(X)				0.90	0.00	0.91	0.96	0.45	0.00	0.00	0.76	0.76
Avail Cap(c_a), veh/h				279	0	288	560	3603	0	0	1236	563
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	1.00	0.45	0.45	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				44.1	0.0	44.2	37.0	6.4	0.0	0.0	30.3	30.3
Incr Delay (d2), s/veh				28.9	0.0	30.3	16.0	0.2	0.0	0.0	4.4	9.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				13.7	0.0	14.4	19.8	6.3	0.0	0.0	16.3	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				73.0	0.0	74.4	53.0	6.6	0.0	0.0	34.7	39.6
LnGrp LOS				E	A	E	D	A	A	A	C	D
Approach Vol, veh/h					511			2152			1365	
Approach Delay, s/veh					73.7			18.0			36.3	
Approach LOS					E			B			D	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	85.0		38.3	46.7		24.0
Change Period (Y+Rc), s	6.8		* 4.7	6.8		5.1
Max Green Setting (Gmax), s	78.0		* 34	39.0		19.0
Max Q Clear Time (g_c+I1), s	16.7		33.5	28.6		18.9
Green Ext Time (p_c), s	9.8		0.1	4.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	333	501	68	48	207	842	106	875	221	342	559	313
Future Volume (veh/h)	333	501	68	48	207	842	106	875	221	342	559	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.96
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	1900	1796	1826	1856	1870	1856	1885	1870	1826	1618
Adj Flow Rate, veh/h	340	511	69	49	211	859	108	893	226	349	570	319
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, %	3	3	0	7	5	3	2	3	1	2	5	19
Cap, veh/h	358	681	92	109	324	488	135	1445	364	420	1409	535
Arrive On Green	0.10	0.22	0.22	0.06	0.18	0.18	0.08	0.36	0.36	0.12	0.41	0.41
Sat Flow, veh/h	3428	3121	420	1711	1826	2754	1781	4013	1010	3456	3469	1317
Grp Volume(v), veh/h	340	288	292	49	211	859	108	751	368	349	570	319
Grp Sat Flow(s),veh/h/ln	1714	1763	1778	1711	1826	1377	1781	1689	1646	1728	1735	1317
Q Serve(g_s), s	10.8	16.8	16.9	3.0	11.8	19.5	6.6	20.1	20.3	10.9	12.8	20.9
Cycle Q Clear(g_c), s	10.8	16.8	16.9	3.0	11.8	19.5	6.6	20.1	20.3	10.9	12.8	20.9
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	358	385	388	109	324	488	135	1216	593	420	1409	535
V/C Ratio(X)	0.95	0.75	0.75	0.45	0.65	1.76	0.80	0.62	0.62	0.83	0.40	0.60
Avail Cap(c_a), veh/h	358	385	388	179	324	488	219	1216	593	550	1409	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.50	0.50	0.50
Uniform Delay (d), s/veh	49.0	40.2	40.2	49.7	42.1	45.3	50.0	28.9	29.0	47.2	23.2	25.6
Incr Delay (d2), s/veh	34.3	7.8	8.1	0.3	0.4	342.7	10.4	2.4	4.8	4.2	0.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.3	12.4	12.6	1.8	6.3	41.1	5.8	12.8	13.1	7.3	7.7	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.3	48.0	48.3	49.9	42.5	387.9	60.4	31.3	33.8	51.5	23.6	28.1
LnGrp LOS	F	D	D	D	D	F	E	C	C	D	C	C
Approach Vol, veh/h		920			1119			1227			1238	
Approach Delay, s/veh		61.1			308.0			34.6			32.6	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	46.1	13.5	30.5	14.8	51.2	18.0	26.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	11.5	19.5	13.5	39.5	11.5	19.5
Max Q Clear Time (g_c+I1), s	12.9	22.3	5.0	18.9	8.6	22.9	12.8	21.5
Green Ext Time (p_c), s	0.5	5.7	0.0	0.2	0.1	4.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	107.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	465	492	171	107	601	178	184	103	433	550
v/c Ratio	0.41	0.44	0.21	0.53	1.27	0.77	0.77	0.27	1.05	1.23
Control Delay	29.4	31.7	2.0	54.6	177.8	67.0	65.7	1.7	97.8	153.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	31.7	2.0	54.6	177.8	67.0	65.7	1.7	97.8	153.5
Queue Length 50th (ft)	128	141	0	72	~192	125	129	0	~325	~425
Queue Length 95th (ft)	177	204	21	124	#273	#217	#221	0	#520	#639
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	1139	1116	849	251	473	262	273	410	414	447
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.44	0.20	0.43	1.27	0.68	0.67	0.25	1.05	1.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	442	467	162	102	558	13	217	127	98	411	179	344
Future Volume (vph)	442	467	162	102	558	13	217	127	98	411	179	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3400	3539	1558	1805	5068		1665	1729	1615	1787	1652	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3400	3539	1558	1805	5068		1665	1729	1615	1787	1652	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	465	492	171	107	587	14	228	134	103	433	188	362
RTOR Reduction (vph)	0	0	93	0	3	0	0	0	89	0	65	0
Lane Group Flow (vph)	465	492	78	107	598	0	178	184	14	433	485	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	3%	2%	2%	0%	2%	0%	3%	3%	0%	1%	3%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	36.1	34.0	48.9	12.1	10.0		14.9	14.9	14.9	25.0	25.0	
Effective Green, g (s)	36.1	34.0	48.9	12.1	10.0		14.9	14.9	14.9	25.0	25.0	
Actuated g/C Ratio	0.34	0.32	0.45	0.11	0.09		0.14	0.14	0.14	0.23	0.23	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	1139	1117	707	202	470		230	239	223	414	383	
v/s Ratio Prot	0.14	c0.14	0.02	c0.06	c0.12		c0.11	0.11		0.24	c0.29	
v/s Ratio Perm			0.03						0.01			
v/c Ratio	0.41	0.44	0.11	0.53	1.27		0.77	0.77	0.06	1.05	1.27	
Uniform Delay, d1	27.6	29.3	16.9	45.1	48.9		44.8	44.7	40.3	41.4	41.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	1.3	0.0	1.2	138.6		13.7	12.6	0.0	56.7	139.6	
Delay (s)	28.7	30.6	16.9	46.3	187.5		58.5	57.3	40.4	98.1	181.0	
Level of Service	C	C	B	D	F		E	E	D	F	F	
Approach Delay (s)		27.7			166.2			54.0			144.5	
Approach LOS		C			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	96.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	13.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	950	34	130	666	29	393
Future Vol, veh/h	950	34	130	666	29	393
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	4	2	0	2
Mvmt Flow	1000	36	137	701	31	414

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1037	0	1644	519
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	625	-
Critical Hdwy	-	-	4.18	-	6.8	6.94
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.24	-	3.5	3.32
Pot Cap-1 Maneuver	-	-	654	-	92	502
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	653	-	73	502
Mov Cap-2 Maneuver	-	-	-	-	193	-
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	396	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	68.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	452	-	-	653	-
HCM Lane V/C Ratio	0.983	-	-	0.21	-
HCM Control Delay (s)	68.6	-	-	12	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	12.4	-	-	0.8	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	850	496	33	363	433	89
Future Volume (veh/h)	850	496	33	363	433	89
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1841	1856	1885	1885
Adj Flow Rate, veh/h	895	522	35	382	456	94
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	4	3	1	1
Cap, veh/h	959	548	75	1968	500	445
Arrive On Green	0.44	0.44	0.04	0.56	0.28	0.28
Sat Flow, veh/h	2290	1255	1753	3618	1795	1598
Grp Volume(v), veh/h	727	690	35	382	456	94
Grp Sat Flow(s),veh/h/ln	1791	1659	1753	1763	1795	1598
Q Serve(g_s), s	25.5	26.6	1.3	3.6	16.3	3.0
Cycle Q Clear(g_c), s	25.5	26.6	1.3	3.6	16.3	3.0
Prop In Lane		0.76	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	782	725	75	1968	500	445
V/C Ratio(X)	0.93	0.95	0.46	0.19	0.91	0.21
Avail Cap(c_a), veh/h	785	727	159	2141	515	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	18.0	30.9	7.2	23.1	18.3
Incr Delay (d2), s/veh	17.3	22.4	4.4	0.0	20.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	17.8	18.4	1.1	1.8	13.9	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.9	40.4	35.3	7.3	43.3	18.5
LnGrp LOS	C	D	D	A	D	B
Approach Vol, veh/h	1417			417	550	
Approach Delay, s/veh	37.6			9.6	39.1	
Approach LOS	D			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.0	34.7				42.8	23.4
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	29.0				40.2	19.0
Max Q Clear Time (g_c+I1), s	3.3	28.6				5.6	18.3
Green Ext Time (p_c), s	0.0	0.3				2.4	0.2

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

* HCM 6th 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)	99	1240	8	153	1070	176	70	57	85	177	93	98
Future Volume (veh/h)	99	1240	8	153	1070	176	70	57	85	177	93	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.99
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	1856	1900	1900	1870	1870	1900	1900	1900	1885	1900	1885
Adj Flow Rate, veh/h	104	1305	8	161	1126	185	74	60	89	186	98	103
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	3	0	0	2	2	0	0	0	1	0	1
Cap, veh/h	126	1916	12	181	1716	281	94	227	201	234	122	128
Arrive On Green	0.07	0.53	0.53	0.20	1.00	1.00	0.05	0.13	0.13	0.07	0.14	0.14
Sat Flow, veh/h	1795	3592	22	1810	3047	499	1810	1805	1595	3483	844	887
Grp Volume(v), veh/h	104	640	673	161	655	656	74	60	89	186	0	201
Grp Sat Flow(s),veh/h/ln	1795	1763	1851	1810	1777	1769	1810	1805	1595	1742	0	1732
Q Serve(g_s), s	8.6	39.9	40.0	13.0	0.0	0.0	6.1	4.5	7.7	7.9	0.0	16.8
Cycle Q Clear(g_c), s	8.6	39.9	40.0	13.0	0.0	0.0	6.1	4.5	7.7	7.9	0.0	16.8
Prop In Lane	1.00		0.01	1.00		0.28	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	126	940	987	181	1001	996	94	227	201	234	0	251
V/C Ratio(X)	0.82	0.68	0.68	0.89	0.65	0.66	0.79	0.26	0.44	0.80	0.00	0.80
Avail Cap(c_a), veh/h	221	940	987	199	1001	996	169	439	388	313	0	427
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	68.8	25.6	25.7	59.2	0.0	0.0	70.3	59.3	60.7	68.9	0.0	62.1
Incr Delay (d2), s/veh	12.4	4.0	3.8	19.2	1.6	1.7	13.7	0.6	1.5	9.8	0.0	5.9
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	7.7	23.8	24.7	9.1	0.8	0.8	5.7	3.8	5.8	6.9	0.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.2	29.6	29.5	78.4	1.6	1.7	84.1	59.9	62.2	78.7	0.0	67.9
LnGrp LOS	F	C	C	E	A	A	F	E	E	E	A	E
Approach Vol, veh/h		1417			1472			223			387	
Approach Delay, s/veh		33.3			10.0			68.8			73.1	
Approach LOS		C			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	86.5	13.8	28.2	17.1	91.0	16.6	25.4
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	16.5	57.5	14.0	* 37	18.5	35.5	13.5	36.5
Max Q Clear Time (g_c+I1), s	15.0	42.0	8.1	18.8	10.6	2.0	9.9	9.7
Green Ext Time (p_c), s	0.1	7.3	0.1	1.0	0.1	10.8	0.2	0.8

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

* HCM 6th 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)	180	1149	88	158	1034	268	160	168	235	284	261	129
Future Volume (veh/h)	180	1149	88	158	1034	268	160	168	235	284	261	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1841	1900	1870	1856	1900	1885	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	188	1197	92	165	1077	279	167	175	245	296	272	134
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, %	0	4	0	2	3	0	1	1	2	0	1	0
Cap, veh/h	103	2020	155	185	1662	908	189	368	305	187	234	115
Arrive On Green	0.11	0.85	0.85	0.21	0.94	0.94	0.11	0.20	0.20	0.10	0.20	0.20
Sat Flow, veh/h	1810	4758	366	1781	3526	1573	1795	1885	1562	1810	1191	587
Grp Volume(v), veh/h	188	843	446	165	1077	279	167	175	245	296	0	406
Grp Sat Flow(s),veh/h/ln	1810	1675	1774	1781	1763	1573	1795	1885	1562	1810	0	1778
Q Serve(g_s), s	8.5	11.5	11.5	13.5	6.7	1.9	13.8	12.4	22.5	15.5	0.0	29.5
Cycle Q Clear(g_c), s	8.5	11.5	11.5	13.5	6.7	1.9	13.8	12.4	22.5	15.5	0.0	29.5
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	103	1422	753	185	1662	908	189	368	305	187	0	350
V/C Ratio(X)	1.83	0.59	0.59	0.89	0.65	0.31	0.88	0.48	0.80	1.58	0.00	1.16
Avail Cap(c_a), veh/h	103	1422	753	196	1669	911	192	368	305	187	0	350
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.80	0.80	0.80	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.5	7.4	7.4	58.7	2.5	1.5	66.2	53.6	57.6	67.3	0.0	60.3
Incr Delay (d2), s/veh	396.6	1.1	2.0	30.3	1.6	0.7	34.9	1.0	14.4	286.3	0.0	99.4
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	23.0	4.7	5.2	10.8	2.7	1.1	12.9	10.1	15.4	34.5	0.0	33.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	463.1	8.5	9.4	88.9	4.0	2.2	101.1	54.5	72.0	353.6	0.0	159.6
LnGrp LOS	F	A	A	F	A	A	F	D	E	F	A	F
Approach Vol, veh/h		1477			1521			587			702	
Approach Delay, s/veh		66.6			12.9			75.1			241.4	
Approach LOS		E			B			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	69.7	21.8	36.5	15.0	76.7	22.0	36.3
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	16.5	48.0	16.0	* 30	8.5	71.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	15.5	13.5	15.8	31.5	10.5	8.7	17.5	24.5
Green Ext Time (p_c), s	0.0	10.3	0.0	0.0	0.0	11.4	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	77.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	52	1545	124	364	1283	200	139	144	234	734	222	42
Future Volume (veh/h)	52	1545	124	364	1283	200	139	144	234	734	222	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	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	1885	1900	1870	1841	1900	1900	1885	1885	1900	1870
Adj Flow Rate, veh/h	53	1577	127	371	1309	204	142	147	239	749	227	43
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	1	0	2	4	0	0	1	1	0	2
Cap, veh/h	74	1872	936	257	2869	1239	234	177	146	419	939	411
Arrive On Green	0.08	1.00	1.00	0.07	0.56	0.56	0.07	0.09	0.09	0.23	0.26	0.26
Sat Flow, veh/h	1781	3554	1574	3510	5106	1557	3510	1900	1565	1795	3610	1581
Grp Volume(v), veh/h	53	1577	127	371	1309	204	142	147	239	749	227	43
Grp Sat Flow(s),veh/h/ln	1781	1777	1574	1755	1702	1557	1755	1900	1565	1795	1805	1581
Q Serve(g_s), s	4.4	0.0	0.0	11.0	22.7	4.6	5.9	11.4	14.0	35.0	7.4	3.1
Cycle Q Clear(g_c), s	4.4	0.0	0.0	11.0	22.7	4.6	5.9	11.4	14.0	35.0	7.4	3.1
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	74	1872	936	257	2869	1239	234	177	146	419	939	411
V/C Ratio(X)	0.72	0.84	0.14	1.44	0.46	0.16	0.61	0.83	1.64	1.79	0.24	0.10
Avail Cap(c_a), veh/h	232	1872	936	257	2869	1239	257	177	146	419	939	411
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	0.0	0.0	69.5	19.4	3.6	68.1	66.8	68.0	57.5	43.8	42.2
Incr Delay (d2), s/veh	6.9	2.7	0.2	217.1	0.5	0.3	3.5	26.7	315.3	364.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	1.3	0.1	20.3	13.5	2.6	5.0	11.2	29.6	89.5	6.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.8	2.7	0.2	286.6	19.8	3.9	71.5	93.5	383.3	421.5	44.0	42.3
LnGrp LOS	E	A	A	F	B	A	E	F	F	F	D	D
Approach Vol, veh/h		1757			1884			528			1019	
Approach Delay, s/veh		4.7			70.6			218.8			321.4	
Approach LOS		A			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	91.8	17.0	46.0	18.0	86.5	42.0	21.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	19.5	36.0	11.0	38.0	11.0	* 63	35.0	14.0
Max Q Clear Time (g_c+I1), s	6.4	24.7	7.9	9.4	13.0	2.0	37.0	16.0
Green Ext Time (p_c), s	0.1	6.8	0.1	1.4	0.0	19.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	112.6
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	1501	1150	143	1855	0	0	0	0	100	0	52
Future Volume (veh/h)	0	1501	1150	143	1855	0	0	0	0	100	0	52
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1856	1856	1870	0				1885	0	1900
Adj Flow Rate, veh/h	0	1564	1198	149	1932	0				104	0	54
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	1	3	3	2	0				1	0	0
Cap, veh/h	0	3366	1766	223	4020	0				203	0	94
Arrive On Green	0.00	0.65	0.65	0.07	0.79	0.00				0.06	0.00	0.06
Sat Flow, veh/h	0	5316	2701	3428	5274	0				3483	0	1610
Grp Volume(v), veh/h	0	1564	1198	149	1932	0				104	0	54
Grp Sat Flow(s),veh/h/ln	0	1716	1350	1714	1702	0				1742	0	1610
Q Serve(g_s), s	0.0	12.6	23.0	3.6	10.8	0.0				2.4	0.0	2.7
Cycle Q Clear(g_c), s	0.0	12.6	23.0	3.6	10.8	0.0				2.4	0.0	2.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3366	1766	223	4020	0				203	0	94
V/C Ratio(X)	0.00	0.46	0.68	0.67	0.48	0.00				0.51	0.00	0.58
Avail Cap(c_a), veh/h	0	3366	1766	423	4020	0				704	0	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.2	9.0	38.2	3.0	0.0				38.2	0.0	38.3
Incr Delay (d2), s/veh	0.0	0.5	2.1	1.3	0.4	0.0				0.7	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.6	9.5	2.6	3.3	0.0				1.9	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.6	11.1	39.5	3.5	0.0				38.9	0.0	40.4
LnGrp LOS	A	A	B	D	A	A				D	A	D
Approach Vol, veh/h		2762			2081						158	
Approach Delay, s/veh		9.1			6.0						39.4	
Approach LOS		A			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.1	61.5		11.0		72.6
Change Period (Y+Rc), s	* 5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	* 10	49.8		16.9		65.8
Max Q Clear Time (g_c+I1), s	5.6	25.0		4.7		12.8
Green Ext Time (p_c), s	0.1	6.7		0.1		6.8

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	1143	179	0	922	110	947	276	75	152	0	386
Future Volume (veh/h)	289	1143	179	0	922	110	947	276	75	152	0	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	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	1870	1885	0	1870	1870	1856	1781	1856	1885	0	1870
Adj Flow Rate, veh/h	301	1191	186	0	960	115	986	288	78	158	0	402
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, %	1	2	1	0	2	2	3	8	3	1	0	2
Cap, veh/h	527	1673	733	0	1265	385	1114	409	109	241	0	0
Arrive On Green	0.15	0.47	0.47	0.00	0.25	0.25	0.32	0.15	0.15	0.13	0.00	0.00
Sat Flow, veh/h	3483	3554	1556	0	5274	1555	3428	2641	702	1795	158	
Grp Volume(v), veh/h	301	1191	186	0	960	115	986	183	183	158	33.7	
Grp Sat Flow(s),veh/h/ln	1742	1777	1556	0	1702	1555	1714	1692	1650	1795	C	
Q Serve(g_s), s	6.4	21.1	5.7	0.0	13.8	4.8	21.6	8.1	8.4	6.6		
Cycle Q Clear(g_c), s	6.4	21.1	5.7	0.0	13.8	4.8	21.6	8.1	8.4	6.6		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	527	1673	733	0	1265	385	1114	262	256	241		
V/C Ratio(X)	0.57	0.71	0.25	0.00	0.76	0.30	0.89	0.70	0.72	0.65		
Avail Cap(c_a), veh/h	584	2098	919	0	1791	545	2163	619	604	338		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.3	16.7	12.6	0.0	27.6	24.2	25.4	31.7	31.8	32.6		
Incr Delay (d2), s/veh	0.5	0.5	0.1	0.0	0.7	0.2	1.0	1.3	1.4	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		
%ile BackOfQ(95%),veh/ln	4.7	12.6	3.3	0.0	9.1	3.1	13.2	6.0	6.0	5.2		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	17.2	12.7	0.0	28.3	24.4	26.3	33.0	33.3	33.7		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1678			1075			1352				
Approach Delay, s/veh		19.3			27.9			28.2				
Approach LOS		B			C			C				

Timer - Assigned Phs	2	3	5	6	7	8
Phs Duration (G+Y+Rc), s	44.1	31.9	17.7	26.4	16.8	18.4
Change Period (Y+Rc), s	6.8	6.1	* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s	46.8	50.0	* 13	27.8	14.9	29.0
Max Q Clear Time (g_c+I1), s	23.1	23.6	8.4	15.8	8.6	10.4
Green Ext Time (p_c), s	7.0	2.2	0.3	3.7	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	21.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	243	257	284	291	321	212
Future Vol, veh/h	243	257	284	291	321	212
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	1	1	2
Mvmt Flow	256	271	299	306	338	223

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1355	451	562	0	-	0
Stage 1	451	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 166	613	1019	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 117	612	1018	-	-	-
Mov Cap-2 Maneuver	~ 246	-	-	-	-	-
Stage 1	454	-	-	-	-	-
Stage 2	397	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	62.3	4.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1018	-	246	612	-	-
HCM Lane V/C Ratio	0.294	-	1.04	0.442	-	-
HCM Control Delay (s)	10	-	111.8	15.5	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.2	-	10.4	2.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	558	1	1	593
Future Vol, veh/h	0	1	558	1	1	593
Conflicting Peds, #/hr	0	0	0	1	1	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, %	0	0	0	100	100	1
Mvmt Flow	0	1	587	1	1	624

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1215	589	0	0	589	0
Stage 1	589	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	3.1	-
Pot Cap-1 Maneuver	202	512	-	-	643	-
Stage 1	558	-	-	-	-	-
Stage 2	537	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	201	512	-	-	642	-
Mov Cap-2 Maneuver	341	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	512	642	-
HCM Lane V/C Ratio	-	-	0.002	0.002	-
HCM Control Delay (s)	-	-	12	10.6	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	55	57	529	565	21
Future Vol, veh/h	29	55	57	529	565	21
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	31	58	60	557	595	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1284	607	618	0	-	0
Stage 1	607	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	184	500	972	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	172	500	971	-	-	-
Mov Cap-2 Maneuver	311	-	-	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.1	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	971	-	413	-	-
HCM Lane V/C Ratio	0.062	-	0.214	-	-
HCM Control Delay (s)	9	-	16.1	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.8	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	16	63	1	62	7	518	37	57	564	2
Future Vol, veh/h	2	1	16	63	1	62	7	518	37	57	564	2
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	2	1	0
Mvmt Flow	2	1	17	66	1	65	7	545	39	60	594	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1328	1314	598	1307	1296	567	596	0	0	585	0	0
Stage 1	715	715	-	580	580	-	-	-	-	-	-	-
Stage 2	613	599	-	727	716	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	133	160	506	138	164	527	990	-	-	990	-	-
Stage 1	425	438	-	504	503	-	-	-	-	-	-	-
Stage 2	483	494	-	419	437	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	110	149	505	125	153	526	990	-	-	989	-	-
Mov Cap-2 Maneuver	110	149	-	125	153	-	-	-	-	-	-	-
Stage 1	422	411	-	500	499	-	-	-	-	-	-	-
Stage 2	419	490	-	378	410	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.4	52.1	0.1	0.8
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	990	-	-	336	201	989	-	-
HCM Lane V/C Ratio	0.007	-	-	0.06	0.66	0.061	-	-
HCM Control Delay (s)	8.7	-	-	16.4	52.1	8.9	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	4	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	383	9	178	532	829	0	0	857	280
Future Volume (veh/h)	0	0	0	383	9	178	532	829	0	0	857	280
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1841	1885	1870	0	0	1870	1856
Adj Flow Rate, veh/h				294	150	184	548	855	0	0	884	289
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				3	0	4	1	2	0	0	2	3
Cap, veh/h				375	165	202	472	3408	0	0	1348	438
Arrive On Green				0.21	0.21	0.21	0.26	0.67	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1767	776	951	1795	5274	0	0	3941	1227
Grp Volume(v), veh/h				294	0	334	548	855	0	0	797	376
Grp Sat Flow(s),veh/h/ln				1767	0	1727	1795	1702	0	0	1702	1595
Q Serve(g_s), s				15.6	0.0	18.7	26.0	6.6	0.0	0.0	19.5	19.6
Cycle Q Clear(g_c), s				15.6	0.0	18.7	26.0	6.6	0.0	0.0	19.5	19.6
Prop In Lane				1.00		0.55	1.00		0.00	0.00		0.77
Lane Grp Cap(c), veh/h				375	0	367	472	3408	0	0	1216	570
V/C Ratio(X)				0.78	0.00	0.91	1.16	0.25	0.00	0.00	0.66	0.66
Avail Cap(c_a), veh/h				393	0	384	472	3408	0	0	1216	570
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	1.00	0.76	0.76	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.8	0.0	38.1	36.5	6.6	0.0	0.0	26.7	26.7
Incr Delay (d2), s/veh				8.6	0.0	23.8	89.9	0.1	0.0	0.0	2.8	5.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.1	0.0	15.5	31.9	3.5	0.0	0.0	12.4	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.4	0.0	61.9	126.4	6.7	0.0	0.0	29.5	32.6
LnGrp LOS				D	A	E	F	A	A	A	C	C
Approach Vol, veh/h					628			1403			1173	
Approach Delay, s/veh					54.2			53.5			30.5	
Approach LOS					D			D			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	72.9	30.7	42.2	26.1
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	65.0	* 26	34.0	22.0
Max Q Clear Time (g_c+I1), s	8.6	28.0	21.6	20.7
Green Ext Time (p_c), s	3.9	0.0	4.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	132	267	150	77	189	674	112	552	230	448	582	184
Future Volume (veh/h)	132	267	150	77	189	674	112	552	230	448	582	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.96
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	1856	1900	1885	1885	1870	1900	1885	1885	1885	1870	1841
Adj Flow Rate, veh/h	135	272	153	79	193	688	114	563	235	457	594	188
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	3	0	1	1	2	0	1	1	1	2	4
Cap, veh/h	306	556	304	144	462	674	143	920	372	522	1167	494
Arrive On Green	0.09	0.25	0.25	0.08	0.25	0.25	0.08	0.26	0.26	0.15	0.33	0.33
Sat Flow, veh/h	3483	2200	1201	1795	1885	2750	1810	3576	1447	3483	3554	1503
Grp Volume(v), veh/h	135	216	209	79	193	688	114	539	259	457	594	188
Grp Sat Flow(s),veh/h/ln	1742	1763	1638	1795	1885	1375	1810	1716	1592	1742	1777	1503
Q Serve(g_s), s	3.7	10.4	10.9	4.2	8.6	24.5	6.2	13.9	14.4	12.8	13.5	9.6
Cycle Q Clear(g_c), s	3.7	10.4	10.9	4.2	8.6	24.5	6.2	13.9	14.4	12.8	13.5	9.6
Prop In Lane	1.00		0.73	1.00		1.00	1.00		0.91	1.00		1.00
Lane Grp Cap(c), veh/h	306	446	414	144	462	674	143	883	410	522	1167	494
V/C Ratio(X)	0.44	0.49	0.50	0.55	0.42	1.02	0.80	0.61	0.63	0.88	0.51	0.38
Avail Cap(c_a), veh/h	366	450	418	171	462	674	172	883	410	540	1167	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	43.3	31.8	32.0	44.3	31.8	37.8	45.3	32.7	32.9	41.6	27.1	25.8
Incr Delay (d2), s/veh	1.0	0.8	0.9	0.3	0.1	16.3	19.6	3.1	7.2	7.8	0.8	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	2.8	7.8	7.6	2.5	4.7	11.0	6.2	9.8	10.1	8.6	8.2	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	32.6	32.9	44.6	31.8	54.0	64.9	35.9	40.1	49.4	27.8	26.9
LnGrp LOS	D	C	C	D	C	F	E	D	D	D	C	C
Approach Vol, veh/h		560			960			912			1239	
Approach Delay, s/veh		35.5			48.8			40.7			35.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	32.2	14.5	31.8	14.4	39.3	15.3	31.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	23.5	9.5	25.5	9.5	29.5	10.5	24.5
Max Q Clear Time (g_c+I1), s	14.8	16.4	6.2	12.9	8.2	15.5	5.7	26.5
Green Ext Time (p_c), s	0.1	2.8	0.0	1.8	0.0	3.7	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	453	383	178	123	558	130	184	69	273	521
v/c Ratio	0.56	0.53	0.26	0.55	1.16	0.55	0.74	0.19	0.50	0.92
Control Delay	37.1	39.7	3.1	49.0	134.6	47.8	58.6	1.2	30.5	52.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	39.7	3.1	49.0	134.6	47.8	58.6	1.2	30.5	52.8
Queue Length 50th (ft)	132	115	0	73	~149	77	114	0	132	273
Queue Length 95th (ft)	186	#190	28	126	#226	140	#205	0	207	#461
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	804	720	707	277	479	260	273	379	585	603
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.53	0.25	0.44	1.16	0.50	0.67	0.18	0.47	0.86

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	444	375	174	121	523	24	141	167	68	268	271	239
Future Volume (vph)	444	375	174	121	523	24	141	167	68	268	271	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3574	1594	1787	5105		1681	1763	1615	1770	1724	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3574	1594	1787	5105		1681	1763	1615	1770	1724	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	453	383	178	123	534	24	144	170	69	273	277	244
RTOR Reduction (vph)	0	0	117	0	5	0	0	0	59	0	34	0
Lane Group Flow (vph)	453	383	61	123	553	0	130	184	10	273	487	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	1%	0%	1%	1%	0%	2%	2%	0%	2%	2%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	22.7	19.4	33.0	12.2	8.9		13.6	13.6	13.6	29.8	29.8	
Effective Green, g (s)	22.7	19.4	33.0	12.2	8.9		13.6	13.6	13.6	29.8	29.8	
Actuated g/C Ratio	0.23	0.20	0.34	0.13	0.09		0.14	0.14	0.14	0.31	0.31	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	805	717	543	225	469		236	247	227	545	531	
v/s Ratio Prot	c0.13	0.11	0.02	0.07	c0.11		0.08	c0.10		0.15	c0.28	
v/s Ratio Perm			0.02						0.01			
v/c Ratio	0.56	0.53	0.11	0.55	1.18		0.55	0.74	0.04	0.50	0.92	
Uniform Delay, d1	32.6	34.6	21.8	39.7	43.9		38.7	39.9	35.9	27.4	32.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.8	2.8	0.0	1.5	101.2		1.6	10.2	0.0	0.3	20.4	
Delay (s)	35.5	37.4	21.8	41.1	145.1		40.3	50.1	36.0	27.6	52.6	
Level of Service	D	D	C	D	F		D	D	D	C	D	
Approach Delay (s)		33.8			126.3			44.2			44.0	
Approach LOS		C			F			D			D	

Intersection Summary			
HCM 2000 Control Delay	60.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	653	42	114	697	45	175
Future Vol, veh/h	653	42	114	697	45	175
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	10	1	1	0	3
Mvmt Flow	687	44	120	734	47	184

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	732	0	1317	367
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	607	-
Critical Hdwy	-	-	4.12	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	875	-	152	627
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	874	-	131	626
Mov Cap-2 Maneuver	-	-	-	-	264	-
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	442	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	18.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	489	-	-	874	-
HCM Lane V/C Ratio	0.474	-	-	0.137	-
HCM Control Delay (s)	18.8	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	2.5	-	-	0.5	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	420	409	77	339	473	111
Future Volume (veh/h)	420	409	77	339	473	111
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	442	431	81	357	498	117
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	1	0	2
Cap, veh/h	606	528	135	1796	570	500
Arrive On Green	0.34	0.34	0.07	0.50	0.32	0.32
Sat Flow, veh/h	1885	1562	1810	3676	1810	1585
Grp Volume(v), veh/h	442	431	81	357	498	117
Grp Sat Flow(s),veh/h/ln	1791	1562	1810	1791	1810	1585
Q Serve(g_s), s	12.8	14.9	2.6	3.3	15.3	3.2
Cycle Q Clear(g_c), s	12.8	14.9	2.6	3.3	15.3	3.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	606	528	135	1796	570	500
V/C Ratio(X)	0.73	0.82	0.60	0.20	0.87	0.23
Avail Cap(c_a), veh/h	730	637	184	2141	738	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	17.8	26.4	8.1	19.0	14.9
Incr Delay (d2), s/veh	3.0	6.9	4.2	0.1	9.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	9.1	2.0	1.7	11.4	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	24.7	30.6	8.2	28.2	15.1
LnGrp LOS	C	C	C	A	C	B
Approach Vol, veh/h	873			438	615	
Approach Delay, s/veh	22.4			12.3	25.7	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.6	25.7				35.3	23.6
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	24.0				35.2	24.0
Max Q Clear Time (g_c+I1), s	4.6	16.9				5.3	17.3
Green Ext Time (p_c), s	0.0	3.0				2.2	1.3

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

* HCM 6th 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)	121	998	8	159	1007	181	70	58	87	269	94	87
Future Volume (veh/h)	121	998	8	159	1007	181	70	58	87	269	94	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
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	1885	1900	1900	1870	1885	1900	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	127	1051	8	167	1060	191	74	61	92	283	99	92
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	0	0	2	1	0	0	0	1	0	2
Cap, veh/h	155	1750	13	197	1511	272	110	171	151	346	124	115
Arrive On Green	0.09	0.48	0.48	0.07	0.34	0.34	0.06	0.09	0.09	0.10	0.14	0.14
Sat Flow, veh/h	1781	3642	28	1810	3008	541	1810	1805	1595	3483	903	839
Grp Volume(v), veh/h	127	517	542	167	625	626	74	61	92	283	0	191
Grp Sat Flow(s),veh/h/ln	1781	1791	1879	1810	1777	1772	1810	1805	1595	1742	0	1742
Q Serve(g_s), s	8.4	25.3	25.3	10.9	36.6	36.8	4.8	3.8	6.6	9.6	0.0	12.7
Cycle Q Clear(g_c), s	8.4	25.3	25.3	10.9	36.6	36.8	4.8	3.8	6.6	9.6	0.0	12.7
Prop In Lane	1.00		0.01	1.00		0.31	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	155	860	903	197	893	890	110	171	151	346	0	239
V/C Ratio(X)	0.82	0.60	0.60	0.85	0.70	0.70	0.67	0.36	0.61	0.82	0.00	0.80
Avail Cap(c_a), veh/h	260	860	903	264	893	890	241	384	339	450	0	378
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.43	0.43	0.43	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.9	22.8	22.8	54.6	32.0	32.0	55.2	50.9	52.2	53.0	0.0	50.2
Incr Delay (d2), s/veh	10.3	3.1	2.9	8.3	2.0	2.0	6.8	1.3	3.9	8.9	0.0	6.3
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(95%),veh/ln	7.4	16.1	16.7	8.0	21.2	21.2	4.3	3.2	5.1	8.0	0.0	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	25.9	25.7	63.0	33.9	34.1	62.0	52.1	56.1	61.9	0.0	56.5
LnGrp LOS	E	C	C	E	C	C	E	D	E	E	A	E
Approach Vol, veh/h		1186			1418			227			474	
Approach Delay, s/veh		29.9			37.4			56.9			59.7	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	64.2	13.3	23.0	16.9	66.8	18.4	17.9
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	16.0	* 26	17.5	35.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	12.9	27.3	6.8	14.7	10.4	38.8	11.6	8.6
Green Ext Time (p_c), s	0.2	3.8	0.1	0.7	0.2	0.0	0.4	0.7

Intersection Summary	
HCM 6th Ctrl Delay	39.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	210	905	74	236	895	323	137	140	243	327	144	183
Future Volume (veh/h)	210	905	74	236	895	323	137	140	243	327	144	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		0.98
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	1885	1885	1870	1900	1885	1870	1870	1885	1900	1900
Adj Flow Rate, veh/h	221	953	78	248	942	340	144	147	256	344	152	193
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	2	0	1	2	2	1	0	0
Cap, veh/h	250	1456	119	262	1098	730	174	352	293	262	182	231
Arrive On Green	0.05	0.10	0.10	0.19	0.41	0.41	0.10	0.19	0.19	0.15	0.24	0.24
Sat Flow, veh/h	1781	4799	392	1795	3554	1602	1795	1870	1555	1795	753	957
Grp Volume(v), veh/h	221	675	356	248	942	340	144	147	256	344	0	345
Grp Sat Flow(s),veh/h/ln	1781	1702	1786	1795	1777	1602	1795	1870	1555	1795	0	1710
Q Serve(g_s), s	14.8	22.9	23.0	16.4	28.9	16.5	9.4	8.3	19.2	17.5	0.0	23.0
Cycle Q Clear(g_c), s	14.8	22.9	23.0	16.4	28.9	16.5	9.4	8.3	19.2	17.5	0.0	23.0
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	250	1033	542	262	1098	730	174	352	293	262	0	413
V/C Ratio(X)	0.88	0.65	0.66	0.95	0.86	0.47	0.83	0.42	0.87	1.31	0.00	0.84
Avail Cap(c_a), veh/h	260	1033	542	262	1098	730	269	436	363	262	0	420
HCM Platoon Ratio	0.33	0.33	0.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.67	0.67	0.67	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.3	47.9	48.0	47.9	33.0	19.0	53.2	42.9	47.3	51.2	0.0	43.3
Incr Delay (d2), s/veh	20.1	2.1	4.1	32.2	6.1	1.4	11.6	0.8	17.5	165.7	0.0	13.5
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	12.3	15.1	16.2	13.2	16.6	9.2	8.5	7.1	13.8	30.4	0.0	16.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.3	50.1	52.1	80.1	39.0	20.5	64.8	43.7	64.8	217.0	0.0	56.8
LnGrp LOS	E	D	D	F	D	C	E	D	E	F	A	E
Approach Vol, veh/h		1252			1530			547			689	
Approach Delay, s/veh		55.3			41.6			59.2			136.8	
Approach LOS		E			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	42.4	17.6	36.0	23.3	43.1	24.0	29.6
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	17.5	30.0	18.0	* 30	17.5	30.0	17.5	28.0
Max Q Clear Time (g_c+I1), s	18.4	25.0	11.4	25.0	16.8	30.9	19.5	21.2
Green Ext Time (p_c), s	0.0	2.7	0.2	0.8	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	64.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	89	1277	230	489	1280	187	156	169	295	312	263	49
Future Volume (veh/h)	89	1277	230	489	1280	187	156	169	295	312	263	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
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	1900	1870	1900	1885	1870	1870	1900	1870	1900	1870	1900	1870
Adj Flow Rate, veh/h	94	1344	242	515	1347	197	164	178	311	328	277	52
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, %	0	2	0	1	2	2	0	2	0	2	0	2
Cap, veh/h	118	1629	856	319	2497	1033	293	358	303	297	993	430
Arrive On Green	0.13	0.92	0.92	0.09	0.49	0.49	0.08	0.19	0.19	0.17	0.28	0.28
Sat Flow, veh/h	1810	3554	1576	3483	5106	1572	3510	1870	1580	1781	3610	1564
Grp Volume(v), veh/h	94	1344	242	515	1347	197	164	178	311	328	277	52
Grp Sat Flow(s),veh/h/ln	1810	1777	1576	1742	1702	1572	1755	1870	1580	1781	1805	1564
Q Serve(g_s), s	6.1	15.5	1.9	11.0	22.0	5.9	5.4	10.2	23.0	20.0	7.2	3.0
Cycle Q Clear(g_c), s	6.1	15.5	1.9	11.0	22.0	5.9	5.4	10.2	23.0	20.0	7.2	3.0
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	118	1629	856	319	2497	1033	293	358	303	297	993	430
V/C Ratio(X)	0.80	0.83	0.28	1.61	0.54	0.19	0.56	0.50	1.03	1.10	0.28	0.12
Avail Cap(c_a), veh/h	249	1629	856	319	2497	1033	293	358	303	297	993	430
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	3.4	2.0	54.5	21.3	8.1	52.9	43.3	48.5	50.0	34.2	32.6
Incr Delay (d2), s/veh	5.7	2.3	0.4	287.5	0.7	0.3	2.4	1.1	58.8	83.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	3.8	1.0	27.5	12.8	3.7	4.5	8.5	20.5	23.0	5.6	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	5.7	2.4	342.0	22.0	8.5	55.3	44.4	107.3	133.3	34.3	32.7
LnGrp LOS	E	A	A	F	C	A	E	D	F	F	C	C
Approach Vol, veh/h		1680			2059			653			657	
Approach Delay, s/veh		8.1			100.7			77.1			83.6	
Approach LOS		A			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	66.2	17.0	40.0	18.0	62.5	27.0	30.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	16.5	33.0	10.0	33.0	11.0	* 39	20.0	23.0
Max Q Clear Time (g_c+I1), s	8.1	24.0	7.4	9.2	13.0	17.5	22.0	25.0
Green Ext Time (p_c), s	0.1	5.9	0.1	1.7	0.0	10.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	64.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	974	1109	237	1874	0	0	0	0	158	0	205
Future Volume (veh/h)	0	974	1109	237	1874	0	0	0	0	158	0	205
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1870	1841	1885	0				1856	0	1885
Adj Flow Rate, veh/h	0	1025	1167	249	1973	0				166	0	216
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	4	1	0				3	0	1
Cap, veh/h	0	2764	1466	324	3586	0				541	0	252
Arrive On Green	0.00	0.54	0.54	0.10	0.70	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	5316	2730	3401	5316	0				3428	0	1598
Grp Volume(v), veh/h	0	1025	1167	249	1973	0				166	0	216
Grp Sat Flow(s),veh/h/ln	0	1716	1365	1700	1716	0				1714	0	1598
Q Serve(g_s), s	0.0	10.2	30.7	6.3	16.7	0.0				3.8	0.0	11.7
Cycle Q Clear(g_c), s	0.0	10.2	30.7	6.3	16.7	0.0				3.8	0.0	11.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2764	1466	324	3586	0				541	0	252
V/C Ratio(X)	0.00	0.37	0.80	0.77	0.55	0.00				0.31	0.00	0.86
Avail Cap(c_a), veh/h	0	2764	1466	510	3586	0				808	0	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.9	16.6	39.2	6.6	0.0				33.1	0.0	36.4
Incr Delay (d2), s/veh	0.0	0.4	4.6	1.4	0.6	0.0				0.1	0.0	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.4	14.1	4.7	8.2	0.0				2.9	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.3	21.2	40.6	7.2	0.0				33.2	0.0	44.5
LnGrp LOS	A	B	C	D	A	A				C	A	D
Approach Vol, veh/h		2192			2222						382	
Approach Delay, s/veh		17.0			11.0						39.6	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.2	54.4		20.1		68.6
Change Period (Y+Rc), s	* 5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	* 13	42.8		20.9		61.8
Max Q Clear Time (g_c+I1), s	8.3	32.7		13.7		18.7
Green Ext Time (p_c), s	0.1	3.4		0.3		6.9

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

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	337	656	201	0	950	84	897	200	55	86	0	492
Future Volume (veh/h)	337	656	201	0	950	84	897	200	55	86	0	492
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	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	1885	1885	0	1870	1885	1870	1870	1900	1870	0	1885
Adj Flow Rate, veh/h	355	691	212	0	1000	88	944	211	58	91	0	518
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	2	1	2	2	0	2	0	1
Cap, veh/h	557	1789	778	0	1336	411	1080	332	89	223	0	0
Arrive On Green	0.16	0.50	0.50	0.00	0.26	0.26	0.31	0.12	0.12	0.13	0.00	0.00
Sat Flow, veh/h	3456	3582	1557	0	5274	1572	3456	2767	742	1781	91	
Grp Volume(v), veh/h	355	691	212	0	1000	88	944	134	135	91	30.4	
Grp Sat Flow(s),veh/h/ln	1728	1791	1557	0	1702	1572	1728	1777	1732	1781	C	
Q Serve(g_s), s	7.1	8.9	5.9	0.0	13.4	3.3	19.2	5.3	5.6	3.5		
Cycle Q Clear(g_c), s	7.1	8.9	5.9	0.0	13.4	3.3	19.2	5.3	5.6	3.5		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	557	1789	778	0	1336	411	1080	213	208	223		
V/C Ratio(X)	0.64	0.39	0.27	0.00	0.75	0.21	0.87	0.63	0.65	0.41		
Avail Cap(c_a), veh/h	757	2441	1062	0	1970	606	2142	693	675	263		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	29.2	11.5	10.8	0.0	25.2	21.5	24.2	31.2	31.3	30.0		
Incr Delay (d2), s/veh	0.5	0.1	0.1	0.0	0.4	0.1	0.9	1.1	1.3	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		
%ile BackOfQ(95%),veh/ln	5.2	5.8	3.3	0.0	8.7	2.1	12.0	4.1	4.2	2.7		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	11.6	10.9	0.0	25.6	21.6	25.1	32.3	32.6	30.4		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1258			1088			1213				
Approach Delay, s/veh		16.6			25.3			26.7				
Approach LOS		B			C			C				

Timer - Assigned Phs		2	3		5	6	7	8				
Phs Duration (G+Y+Rc), s		43.9	29.3		17.7	26.3	15.4	15.0				
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1				
Max Green Setting (Gmax), s		50.7	46.1		* 16	28.7	11.0	29.0				
Max Q Clear Time (g_c+I1), s		10.9	21.2		9.1	15.4	5.5	7.6				
Green Ext Time (p_c), s		3.9	2.0		0.4	4.0	0.0	1.0				

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	26.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	282	280	276	303	208	277
Future Vol, veh/h	282	280	276	303	208	277
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	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	297	295	291	319	219	292

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1266	365	511	0	-	0
Stage 1	365	-	-	-	-	-
Stage 2	901	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 188	685	1065	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 137	685	1065	-	-	-
Mov Cap-2 Maneuver	~ 266	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	400	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	72.9	4.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1065	-	266	685	-	-
HCM Lane V/C Ratio	0.273	-	1.116	0.43	-	-
HCM Control Delay (s)	9.6	-	131.1	14.2	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	1.1	-	12.7	2.2	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	580	0	0	484
Future Vol, veh/h	0	2	580	0	0	484
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, %	0	0	1	0	0	0
Mvmt Flow	0	2	611	0	0	509

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1120	611	0	0	-	-
Stage 1	611	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	231	497	-	-	0	-
Stage 1	546	-	-	-	0	-
Stage 2	608	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	231	497	-	-	-	-
Mov Cap-2 Maneuver	367	-	-	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	608	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	497	-
HCM Lane V/C Ratio	-	-	0.004	-
HCM Control Delay (s)	-	-	12.3	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	94	116	546	450	35
Future Vol, veh/h	33	94	116	546	450	35
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	35	99	122	575	474	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1312	493	511	0	-	0
Stage 1	493	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	177	580	1059	-	-	-
Stage 1	618	-	-	-	-	-
Stage 2	437	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	157	580	1059	-	-	-
Mov Cap-2 Maneuver	292	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	437	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.9	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1059	-	462	-	-
HCM Lane V/C Ratio	0.115	-	0.289	-	-
HCM Control Delay (s)	8.8	-	15.9	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.2	-	-

Intersection	
Int Delay, s/veh	11.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	34	80	1	83	17	559	37	53	518	0
Future Vol, veh/h	5	2	34	80	1	83	17	559	37	53	518	0
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	0	1	0	1	0	0	0	0
Mvmt Flow	5	2	36	84	1	87	18	588	39	56	545	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1349	1320	545	1320	1301	612	545	0	0	627	0	0
Stage 1	657	657	-	644	644	-	-	-	-	-	-	-
Stage 2	692	663	-	676	657	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	129	158	542	134	162	495	1034	-	-	965	-	-
Stage 1	457	465	-	461	471	-	-	-	-	-	-	-
Stage 2	437	462	-	443	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	99	146	542	117	150	493	1034	-	-	965	-	-
Mov Cap-2 Maneuver	99	146	-	117	150	-	-	-	-	-	-	-
Stage 1	449	438	-	453	463	-	-	-	-	-	-	-
Stage 2	351	454	-	388	438	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.9	92.4	0.2	0.8
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1034	-	-	323	191	965	-	-
HCM Lane V/C Ratio	0.017	-	-	0.134	0.904	0.058	-	-
HCM Control Delay (s)	8.5	-	-	17.9	92.4	9	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	7	0.2	-	-

Appendix K
Side-by-Side Operational Comparison

Weekday AM Peak Hour													
#	Intersection	Year 2024 Existing		Year 2025 Near-Term Without Project		Year 2025 Near-Term With Project			Horizon Year 2050 Without Project		Horizon Year 2050 With Project		
		LOS	Delay	LOS	Delay	LOS	Delay	Δ Delay	LOS	Delay	LOS	Delay	Δ Delay
1	S Las Posas Road / SR-78 WB Ramp	D	42.7	D	44.8	**E**	**55.9**	*11.1*	D	45.3	**E**	**56.4**	*11.1*
2	S Las Posas Road / Grand Avenue	D	41.3	**E**	**60.2**	**E**	**64.5**	*4.3*	D	50.2	**E**	**55.7**	*5.5*
3	Grand Avenue / Via Vera Cruz / SR-78 EB Ramp	D	46.2	D	51.4	D	52.1	*0.7*	**E**	**76.5**	**E**	**75.4**	*-1.1*
4	Grand Avenue / Linda Vista Drive	B	12.1	B	13.9	C	15.1	*1.2*	B	13.0	B	13.9	*0.9*
5	Grand Avenue / S Bent Avenue	B	10.3	B	10.0	B	13.0	*3.0*	B	11.0	B	14.7	*3.7*
A	S Bent Avenue / N Costco Driveway	B	11.3	B	11.1	C	16.6	*5.5*	B	11.5	C	17.8	*6.3*
B	S Bent Avenue / Industrial Driveway	B	10.6	B	10.4	B	12.3	*1.9*	B	10.6	B	12.6	*2.0*
C	S Bent Avenue / Middle Costco Driveway	B	10.8	B	10.5	B	12.3	*1.8*	B	10.9	B	12.8	*1.9*
D	S Bent Avenue / S Costco Driveway	C	15.2	B	14.8	D	25.2	*10.4*	C	16.2	D	29	*12.8*
6	W San Marcos Blvd / Via Vera Cruz	C	28.0	C	26.2	C	26.2	*0.0*	C	24.7	C	24.7	*0.0*
7	W San Marcos Blvd / S Bent Avenue	C	34.3	D	39.8	D	49.6	*9.8*	D	37.2	D	49.7	*12.5*
8	W San Marcos Blvd / Grand Avenue	D	45.6	D	42	D	40.8	*-1.2*	D	54.9	D	53.2	*-1.7*
9	W San Marcos Blvd / SR-78 EB Ramp	A	9.6	A	9.6	A	9.6	*0.0*	A	9.7	A	9.7	*0.0*
10	W San Marcos Blvd / Knoll Road	C	24.6	C	24.7	C	24.6	*-0.1*	C	25.0	C	24.9	*-0.1*

Weekday PM Peak Hour													
#	Intersection	Year 2024 Existing		Year 2025 Near-Term Without Project		Year 2025 Near-Term With Project			Horizon Year 2050 Without Project		Horizon Year 2050 With Project		
		LOS	Delay	LOS	Delay	LOS	Delay	Δ Delay	LOS	Delay	LOS	Delay	Δ Delay
1	S Las Posas Road / SR-78 WB Ramp	C	26.1	C	27.8	C	31.3	*3.5*	C	27.5	C	30.9	*3.4*
2	S Las Posas Road / Grand Avenue	**E**	**76.5**	**F**	**82.1**	**F**	**107.4**	*25.3*	**F**	**96.1**	**F**	**123.6**	*27.5*
3	Grand Avenue / Via Vera Cruz / SR-78 EB Ramp	**E**	**63.4**	**E**	**71.3**	**F**	**96.2**	*24.9*	**F**	**96.1**	**F**	**126.7**	*30.6*
4	Grand Avenue / Linda Vista Drive	D	28.2	**E**	**45.3**	**F**	**68.6**	*23.3*	**F**	**63.3**	**F**	**95.2**	*31.9*
5	Grand Avenue / S Bent Avenue	B	17.9	B	16.2	C	33.0	*16.8*	C	20.5	D	43.8	*23.3*
A	S Bent Avenue / N Costco Driveway	B	13.6	B	12.9	**F**	**62.3**	*49.4*	B	13.8	**F**	**78.4**	*64.6*
B	S Bent Avenue / Industrial Driveway	A	9.9	A	9.8	B	12.0	*2.2*	B	10.1	B	12.5	*2.4*
C	S Bent Avenue / Middle Costco Driveway	B	12.3	B	12.1	C	16.1	*4.0*	B	12.8	C	17	*4.2*
D	S Bent Avenue / S Costco Driveway	C	18.7	C	17.7	**F**	**52.1**	*34.4*	C	20.8	**F**	**70.1**	*49.3*
6	W San Marcos Blvd / Via Vera Cruz	C	28.9	C	30.3	C	30.2	*-0.1*	C	29.7	C	29.9	*0.2*
7	W San Marcos Blvd / S Bent Avenue	C	28.8	C	31.8	E	77.3	*45.5*	D	36.0	E	75.7	*39.7*
8	W San Marcos Blvd / Grand Avenue	**F**	**116.0**	**F**	**116.7**	**F**	**112.6**	*-4.1*	**F**	**148.0**	**F**	**143.1**	*-4.9*
9	W San Marcos Blvd / SR-78 EB Ramp	A	9.6	A	8.6	A	8.8	*0.2*	A	8.9	A	9.1	*0.2*
10	W San Marcos Blvd / Knoll Road	C	25	C	24.9	C	24.8	*-0.1*	C	25.4	C	25.3	*-0.1*

Saturday Midday Peak Hour													
#	Intersection	Year 2024 Existing		Year 2025 Near-Term Without Project		Year 2025 Near-Term With Project			Horizon Year 2050 Without Project		Horizon Year 2050 With Project		
		LOS	Delay	LOS	Delay	LOS	Delay	Δ Delay	LOS	Delay	LOS	Delay	Δ Delay
1	S Las Posas Road / SR-78 WB Ramp	C	31.3	C	34.0	D	45.2	*11.2*	C	33.1	D	43.5	*10.4*
2	S Las Posas Road / Grand Avenue	D	36.2	D	38.4	D	40.3	*1.9*	D	38.3	D	45.8	*7.5*
3	Grand Avenue / Via Vera Cruz / SR-78 EB Ramp	D	41.1	D	44.2	**E**	**60.0**	*15.8*	D	51.4	**E**	**68.9**	*17.5*
4	Grand Avenue / Linda Vista Drive	B	12.7	C	16.0	C	18.8	*2.8*	B	14.3	C	16.2	*1.9*
5	Grand Avenue / S Bent Avenue	B	13.7	B	14.0	C	21.2	*7.2*	B	15.7	C	26.9	*11.2*
A	S Bent Avenue / N Costco Driveway	B	13.8	B	13.0	F	72.9	*59.9*	B	13.5	**F**	**86.1**	*72.6*
B	S Bent Avenue / Industrial Driveway	B	10.1	B	10.0	B	12.3	*2.3*	B	10.3	B	12.7	*2.4*
C	S Bent Avenue / Middle Costco Driveway	B	12.3	B	12.0	C	15.9	*3.9*	B	12.4	C	16.6	*4.2*
D	S Bent Avenue / S Costco Driveway	C	22.1	C	21.9	**F**	**92.4**	*70.5*	D	26.4	**F**	**139.1**	*112.7*
6	W San Marcos Blvd / Via Vera Cruz	D	37.1	D	39.3	D	39.2	*-0.1*	D	38.3	C	34.7	*-3.6*
7	W San Marcos Blvd / S Bent Avenue	D	39.6	D	42.2	E	64.6	*22.4*	D	45.9	E	65.9	*20.0*
8	W San Marcos Blvd / Grand Avenue	E	68.5	E	66.6	E	64.6	*-2.00*	**F**	**86.3**	**F**	**83.7**	*-2.6*
9	W San Marcos Blvd / SR-78 EB Ramp	B	14.9	B	15.5	B	16.0	*0.5*	B	16.4	B	17.0	*0.6*
10	W San Marcos Blvd / Knoll Road	C	23.1	C	23.0	C	22.9	*-0.1*	C	23.4	C	23.2	*-0.2*

Daily																				
Roadway	Segment	Functional Classification	Roadway Capacity	Year 2024 Existing			Year 2025 Near-Term Without Project			Year 2025 Near-Term With Project				Horizon Year 2050 Without Project			Horizon Year 2050 With Project			
				ADT	v/c	LOS	ADT	v/c	LOS	ADT	v/c	Δ v/c	LOS	ADT	v/c	LOS	ADT	v/c	Δ v/c	LOS
S Las Posas Road	SR-78 WB Ramp to Grand Avenue	6-Lane Major Arterial	50,000	26,671	0.533	B	27,853	0.557	B	27,968	0.56	*0.003*	B	28,149	0.563	C	28,264	0.566	*0.003*	C
Grand Avenue	S Las Posas Road to Via Vera Cruz	4 Lane Secondary Arterial/Collector	30,000	22,505	0.75	D	23,263	0.775	D	23,414	0.781	*0.006*	D	27,096	0.903	E	27,247	0.909	*0.006*	E
Grand Avenue	Via Vera Cruz to Linda Vista Drive	4-Lane Secondary Arterial/Collector	30,000	12,085	0.403	B	12,534	0.418	B	12,766	0.426	*0.008*	B	14,550	0.485	C	14,782	0.494	*0.009*	C
Grand Avenue	Linda Vista Drive to S Bent Avenue	4-Lane Secondary Arterial/Connector	30,000	16,970	0.566	C	17,440	0.581	C	17,616	0.59	*0.009*	C	20,432	0.681	D	20,668	0.69	*0.009*	D
Grand Avenue	S Bent Avenue to W San Marcos Blvd	4-Lane Secondary Arterial/Connector	30,000	11,710	0.39	B	11,964	0.399	B	11,964	0.399	*0.000*	B	14,099	0.47	C	14,099	0.47	*0.000*	C
S Bent Avenue	Grand Avenue to W San Marcos Blvd	2-Lane Collector (Continuous Left-Turn Lane)	15,000	6,894	0.46	B	7,972	0.531	C	8,421	0.565	*0.033*	C	8,300	0.553	C	8,749	0.586	*0.033*	C
W San Marcos Blvd	Via Vera Cruz to S Bent Avenue	4-Lane Major Arterial	40,000	45,270	**1.132**	**F**	46,688	**1.167**	**F**	46,740	**1.169**	*0.001*	**F**	48,037	**1.201**	**F**	48,089	**1.202**	*0.001*	**F**
W San Marcos Blvd	S Bent Avenue to Grand Avenue	5-Lane Major Arterial	45,000	51,538	**1.145**	**F**	53,046	**1.179**	**F**	53,233	**1.183**	*0.004*	**F**	54,689	**1.215**	**F**	54,876	**1.220**	*0.005*	**F**
W San Marcos Blvd	Grand Avenue to SR-78 EB Ramp	6-Lane Major Arterial	50,000	51,472	**1.029**	**F**	52,888	**1.058**	**F**	53,075	**1.062**	*0.004*	**F**	54,619	**1.092**	**F**	54,806	**1.096**	*0.004*	**F**
W San Marcos Blvd	SR-78 EB Ramp to Knoll Road	6-Lane Major Arterial	50,000	48,136	**0.963**	**E**	49,337	**0.987**	**E**	49,453	**0.989**	*0.002*	**E**	51,079	**1.022**	**F**	51,195	**1.024**	*0.002*	**F**

Appendix L
Year 2025 Near-Term With Project Improved Operations Worksheets

HCM 6th Signalized Intersection Summary
2: S Las Posas Rd & Grand Ave

10/15/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	244	52	101	237	556	152	400	82	357	755	610
Future Volume (veh/h)	167	244	52	101	237	556	152	400	82	357	755	610
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.96
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	1826	1678	1781	1841	1796	1826	1737	1826	1693	1796	1826	1826
Adj Flow Rate, veh/h	176	257	55	106	249	585	160	421	86	376	795	642
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, %	5	15	8	4	7	5	11	5	14	7	5	5
Cap, veh/h	239	552	116	131	386	584	157	1310	259	462	1246	536
Arrive On Green	0.07	0.21	0.21	0.08	0.22	0.22	0.09	0.32	0.32	0.14	0.36	0.36
Sat Flow, veh/h	3374	2619	551	1753	1796	2716	1654	4158	823	3319	3469	1492
Grp Volume(v), veh/h	176	155	157	106	249	585	160	334	173	376	795	642
Grp Sat Flow(s),veh/h/ln	1687	1594	1577	1753	1796	1358	1654	1662	1658	1659	1735	1492
Q Serve(g_s), s	5.1	8.5	8.7	6.0	12.6	21.5	9.5	7.6	8.0	11.0	19.1	35.9
Cycle Q Clear(g_c), s	5.1	8.5	8.7	6.0	12.6	21.5	9.5	7.6	8.0	11.0	19.1	35.9
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	239	336	332	131	386	584	157	1047	522	462	1246	536
V/C Ratio(X)	0.74	0.46	0.47	0.81	0.64	1.00	1.02	0.32	0.33	0.81	0.64	1.20
Avail Cap(c_a), veh/h	253	343	339	131	386	584	157	1047	522	747	1246	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	45.5	34.5	34.6	45.5	35.8	39.3	45.3	26.1	26.2	41.8	26.6	32.0
Incr Delay (d2), s/veh	10.2	1.0	1.0	18.3	2.1	28.3	76.6	0.8	1.7	1.8	1.2	98.1
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	4.3	5.8	5.9	5.4	8.4	12.8	11.5	5.4	5.8	6.8	10.7	36.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	35.5	35.6	63.9	37.8	67.6	121.9	26.9	27.9	43.6	27.8	130.1
LnGrp LOS	E	D	D	E	D	F	F	C	C	D	C	F
Approach Vol, veh/h		488			940			667			1813	
Approach Delay, s/veh		42.8			59.3			49.9			67.3	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	38.0	14.0	27.6	16.0	42.4	13.6	28.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	22.5	22.5	7.5	21.5	9.5	35.5	7.5	21.5
Max Q Clear Time (g_c+I1), s	13.0	10.0	8.0	10.7	11.5	37.9	7.1	23.5
Green Ext Time (p_c), s	0.9	2.3	0.0	1.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	59.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
2: S Las Posas Rd & Grand Ave

10/15/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	333	501	68	48	207	842	106	875	221	342	559	313
Future Volume (veh/h)	333	501	68	48	207	842	106	875	221	342	559	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.96
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	1900	1796	1826	1856	1870	1856	1885	1870	1826	1618
Adj Flow Rate, veh/h	340	511	69	49	211	859	108	893	226	349	570	319
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, %	3	3	0	7	5	3	2	3	1	2	5	19
Cap, veh/h	358	795	107	109	390	589	135	1299	327	420	1283	486
Arrive On Green	0.10	0.25	0.25	0.06	0.21	0.21	0.08	0.32	0.32	0.12	0.37	0.37
Sat Flow, veh/h	3428	3121	420	1711	1826	2756	1781	4012	1010	3456	3469	1315
Grp Volume(v), veh/h	340	288	292	49	211	859	108	751	368	349	570	319
Grp Sat Flow(s),veh/h/ln	1714	1763	1778	1711	1826	1378	1781	1689	1644	1728	1735	1315
Q Serve(g_s), s	10.8	16.0	16.1	3.0	11.3	23.5	6.6	21.3	21.4	10.9	13.6	22.2
Cycle Q Clear(g_c), s	10.8	16.0	16.1	3.0	11.3	23.5	6.6	21.3	21.4	10.9	13.6	22.2
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	358	449	453	109	390	589	135	1094	533	420	1283	486
V/C Ratio(X)	0.95	0.64	0.65	0.45	0.54	1.46	0.80	0.69	0.69	0.83	0.44	0.66
Avail Cap(c_a), veh/h	358	449	453	241	390	589	219	1094	533	550	1283	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.50	0.50	0.50
Uniform Delay (d), s/veh	49.0	36.5	36.6	49.7	38.5	43.2	50.0	32.3	32.4	47.2	26.1	28.9
Incr Delay (d2), s/veh	34.3	3.1	3.1	0.3	0.1	207.4	10.4	3.5	7.2	4.2	0.6	3.5
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	10.3	11.3	11.5	1.8	6.0	33.1	5.8	13.7	14.1	7.3	8.2	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.3	39.6	39.7	49.9	38.6	250.7	60.4	35.9	39.6	51.5	26.7	32.3
LnGrp LOS	F	D	D	D	D	F	E	D	D	D	C	C
Approach Vol, veh/h		920			1119			1227			1238	
Approach Delay, s/veh		55.8			201.9			39.1			35.1	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	42.1	13.5	34.5	14.8	47.2	18.0	30.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	31.5	15.5	19.5	13.5	35.5	11.5	23.5
Max Q Clear Time (g_c+I1), s	12.9	23.4	5.0	18.1	8.6	24.2	12.8	25.5
Green Ext Time (p_c), s	0.5	4.1	0.0	0.5	0.1	3.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	81.9
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM Signalized Intersection Capacity Analysis
3: Via Vera Cruz & Grand Ave

10/15/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	442	467	162	102	558	13	217	127	98	411	179	344
Future Volume (vph)	442	467	162	102	558	13	217	127	98	411	179	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3400	3539	1560	1805	5068		1665	1729	1615	1787	1652	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3400	3539	1560	1805	5068		1665	1729	1615	1787	1652	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	465	492	171	107	587	14	228	134	103	433	188	362
RTOR Reduction (vph)	0	0	106	0	3	0	0	0	90	0	66	0
Lane Group Flow (vph)	465	492	65	107	598	0	178	184	13	433	484	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	3%	2%	2%	0%	2%	0%	3%	3%	0%	1%	3%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	21.6	26.9	40.8	11.0	16.3		13.9	13.9	13.9	34.2	34.2	
Effective Green, g (s)	21.6	26.9	40.8	11.0	16.3		13.9	13.9	13.9	34.2	34.2	
Actuated g/C Ratio	0.20	0.25	0.38	0.10	0.15		0.13	0.13	0.13	0.32	0.32	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	681	883	590	184	767		214	223	208	567	524	
v/s Ratio Prot	c0.14	0.14	0.01	0.06	c0.12		c0.11	0.11		0.24	c0.29	
v/s Ratio Perm			0.03						0.01			
v/c Ratio	0.68	0.56	0.11	0.58	0.78		0.83	0.83	0.06	0.76	0.92	
Uniform Delay, d1	39.9	35.2	21.7	46.2	44.0		45.8	45.7	41.2	33.1	35.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.5	2.5	0.0	3.0	7.7		22.3	20.4	0.0	5.5	21.7	
Delay (s)	45.4	37.7	21.7	49.2	51.7		68.1	66.2	41.2	38.6	57.2	
Level of Service	D	D	C	D	D		E	E	D	D	E	
Approach Delay (s)		38.5			51.3			61.4			49.0	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	47.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Edition methodology expects strict NEMA phasing.

HCM Signalized Intersection Capacity Analysis
3: Via Vera Cruz & Grand Ave

10/15/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	444	375	174	121	523	24	141	167	68	268	271	239
Future Volume (vph)	444	375	174	121	523	24	141	167	68	268	271	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3574	1592	1787	5105		1681	1763	1615	1770	1724	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3574	1592	1787	5105		1681	1763	1615	1770	1724	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	453	383	178	123	534	24	144	170	69	273	277	244
RTOR Reduction (vph)	0	0	114	0	5	0	0	0	60	0	33	0
Lane Group Flow (vph)	453	383	64	123	553	0	130	184	9	273	488	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	1%	0%	1%	1%	0%	2%	2%	0%	2%	2%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	19.2	22.1	34.6	11.0	13.9		12.5	12.5	12.5	29.4	29.4	
Effective Green, g (s)	19.2	22.1	34.6	11.0	13.9		12.5	12.5	12.5	29.4	29.4	
Actuated g/C Ratio	0.20	0.23	0.36	0.11	0.14		0.13	0.13	0.13	0.30	0.30	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	681	816	569	203	733		217	227	208	538	524	
v/s Ratio Prot	c0.13	0.11	0.01	0.07	c0.11		0.08	c0.10		0.15	c0.28	
v/s Ratio Perm			0.03						0.01			
v/c Ratio	0.67	0.47	0.11	0.61	0.75		0.60	0.81	0.04	0.51	0.93	
Uniform Delay, d1	35.8	32.2	20.8	40.8	39.8		39.7	40.9	36.9	27.7	32.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.1	1.9	0.0	3.5	7.1		3.0	18.4	0.0	0.3	23.1	
Delay (s)	40.9	34.2	20.8	44.3	46.8		42.7	59.3	36.9	28.0	55.8	
Level of Service	D	C	C	D	D		D	E	D	C	E	
Approach Delay (s)		34.8			46.4			49.6			46.2	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	42.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

HCM Signalized Intersection Capacity Analysis
3: Via Vera Cruz & Grand Ave

10/15/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	298	247	139	50	345	12	68	44	19	339	256	487
Future Volume (vph)	298	247	139	50	345	12	68	44	19	339	256	487
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	5.1
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3099	3282	1495	1641	4878		1573	1426	1282	1770	1863	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3099	3282	1495	1641	4878		1573	1426	1282	1770	1863	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	314	260	146	53	363	13	72	46	20	357	269	513
RTOR Reduction (vph)	0	0	88	0	4	0	0	0	18	0	0	365
Lane Group Flow (vph)	314	260	58	53	372	0	58	60	2	357	269	148
Heavy Vehicles (%)	13%	10%	8%	10%	6%	0%	9%	30%	26%	2%	2%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			7
Actuated Green, G (s)	27.5	27.7	39.0	8.8	9.0		11.3	11.3	11.3	28.2	28.2	28.2
Effective Green, g (s)	27.5	27.7	39.0	8.8	9.0		11.3	11.3	11.3	28.2	28.2	28.2
Actuated g/C Ratio	0.28	0.28	0.40	0.09	0.09		0.12	0.12	0.12	0.29	0.29	0.29
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	5.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	872	930	596	147	449		181	164	148	510	537	448
v/s Ratio Prot	c0.10	0.08	0.01	0.03	c0.08		0.04	c0.04		c0.20	0.14	
v/s Ratio Perm			0.03						0.00			0.10
v/c Ratio	0.36	0.28	0.10	0.36	0.83		0.32	0.37	0.02	0.70	0.50	0.33
Uniform Delay, d1	28.1	27.2	18.4	41.8	43.6		39.7	39.9	38.3	31.0	28.9	27.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	0.7	0.0	0.6	16.1		0.4	0.5	0.0	3.4	0.3	0.2
Delay (s)	29.2	28.0	18.4	42.4	59.7		40.0	40.4	38.3	34.4	29.2	27.5
Level of Service	C	C	B	D	E		D	D	D	C	C	C
Approach Delay (s)		26.6			57.6			39.9			30.0	
Approach LOS		C			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Edition methodology expects strict NEMA phasing.

HCM Signalized Intersection Capacity Analysis
3: Via Vera Cruz & Grand Ave

10/15/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	442	467	162	102	558	13	217	127	98	411	179	344
Future Volume (vph)	442	467	162	102	558	13	217	127	98	411	179	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	5.1
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3400	3539	1559	1805	5068		1665	1729	1615	1787	1845	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3400	3539	1559	1805	5068		1665	1729	1615	1787	1845	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	465	492	171	107	587	14	228	134	103	433	188	362
RTOR Reduction (vph)	0	0	100	0	3	0	0	0	89	0	0	257
Lane Group Flow (vph)	465	492	71	107	598	0	178	184	14	433	188	105
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	3%	2%	2%	0%	2%	0%	3%	3%	0%	1%	3%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			7
Actuated Green, G (s)	24.6	30.1	44.7	11.1	16.6		14.6	14.6	14.6	30.2	30.2	30.2
Effective Green, g (s)	24.6	30.1	44.7	11.1	16.6		14.6	14.6	14.6	30.2	30.2	30.2
Actuated g/C Ratio	0.23	0.28	0.42	0.10	0.15		0.14	0.14	0.14	0.28	0.28	0.28
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	5.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	776	989	647	186	781		225	234	218	501	517	435
v/s Ratio Prot	c0.14	0.14	0.01	0.06	c0.12		c0.11	0.11		c0.24	0.10	
v/s Ratio Perm			0.03						0.01			0.07
v/c Ratio	0.60	0.50	0.11	0.58	0.77		0.79	0.79	0.06	0.86	0.36	0.24
Uniform Delay, d1	37.1	32.5	19.3	46.1	43.7		45.1	45.0	40.6	36.8	31.1	29.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	1.8	0.0	2.7	7.1		16.0	14.7	0.0	13.9	0.2	0.1
Delay (s)	40.5	34.3	19.3	48.7	50.8		61.1	59.8	40.6	50.7	31.2	30.0
Level of Service	D	C	B	D	D		E	E	D	D	C	C
Approach Delay (s)		34.6			50.5			56.0			39.4	
Approach LOS		C			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	42.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Edition methodology expects strict NEMA phasing.

HCM Signalized Intersection Capacity Analysis
3: Via Vera Cruz & Grand Ave

10/15/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	444	375	174	121	523	24	141	167	68	268	271	239
Future Volume (vph)	444	375	174	121	523	24	141	167	68	268	271	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	5.1
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3574	1590	1787	5105		1681	1763	1615	1770	1863	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3574	1590	1787	5105		1681	1763	1615	1770	1863	1568
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	453	383	178	123	534	24	144	170	69	273	277	244
RTOR Reduction (vph)	0	0	97	0	5	0	0	0	59	0	0	195
Lane Group Flow (vph)	453	383	81	123	553	0	130	184	10	273	277	49
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	1%	0%	1%	1%	0%	2%	2%	0%	2%	2%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			7
Actuated Green, G (s)	26.9	29.8	44.1	11.5	14.4		14.3	14.3	14.3	19.4	19.4	19.4
Effective Green, g (s)	26.9	29.8	44.1	11.5	14.4		14.3	14.3	14.3	19.4	19.4	19.4
Actuated g/C Ratio	0.28	0.31	0.46	0.12	0.15		0.15	0.15	0.15	0.20	0.20	0.20
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	5.1
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Grp Cap (vph)	954	1101	725	212	760		248	260	238	355	373	314
v/s Ratio Prot	c0.13	0.11	0.02	c0.07	c0.11		0.08	c0.10		c0.15	0.15	
v/s Ratio Perm			0.03						0.01			0.03
v/c Ratio	0.47	0.35	0.11	0.58	0.73		0.52	0.71	0.04	0.77	0.74	0.16
Uniform Delay, d1	29.0	25.9	15.1	40.3	39.3		38.1	39.2	35.3	36.5	36.3	31.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	0.9	0.0	2.6	6.0		0.9	7.0	0.0	8.7	6.8	0.1
Delay (s)	30.7	26.8	15.1	42.9	45.3		39.0	46.2	35.4	45.3	43.1	32.0
Level of Service	C	C	B	D	D		D	D	D	D	D	C
Approach Delay (s)		26.5			44.9			41.8			40.4	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	36.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Edition methodology expects strict NEMA phasing.

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	606	32	244	397	15	136
Future Vol, veh/h	606	32	244	397	15	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	5	4	7	33	6
Mvmt Flow	638	34	257	418	16	143

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	672	0	1378	336
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	723	-
Critical Hdwy	-	-	4.18	-	7.46	7.02
Critical Hdwy Stg 1	-	-	-	-	6.46	-
Critical Hdwy Stg 2	-	-	-	-	6.46	-
Follow-up Hdwy	-	-	2.24	-	3.83	3.36
Pot Cap-1 Maneuver	-	-	901	-	103	648
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	368	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	901	-	74	648
Mov Cap-2 Maneuver	-	-	-	-	177	-
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	263	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	177	648	-	-	901	-
HCM Lane V/C Ratio	0.089	0.221	-	-	0.285	-
HCM Control Delay (s)	27.3	12.1	-	-	10.6	-
HCM Lane LOS	D	B	-	-	B	-
HCM 95th %tile Q(veh)	0.3	0.8	-	-	1.2	-

Intersection	
Int Delay, s/veh	7.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	950	34	130	666	29	393
Future Vol, veh/h	950	34	130	666	29	393
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	4	2	0	2
Mvmt Flow	1000	36	137	701	31	414

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1037	0	1644	519
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	625	-
Critical Hdwy	-	-	4.18	-	6.8	6.94
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.24	-	3.5	3.32
Pot Cap-1 Maneuver	-	-	654	-	92	502
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	653	-	73	502
Mov Cap-2 Maneuver	-	-	-	-	193	-
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	396	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	36.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	193	502	-	-	653	-
HCM Lane V/C Ratio	0.158	0.824	-	-	0.21	-
HCM Control Delay (s)	27.1	37.6	-	-	12	-
HCM Lane LOS	D	E	-	-	B	-
HCM 95th %tile Q(veh)	0.5	8.1	-	-	0.8	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	653	42	114	697	45	175
Future Vol, veh/h	653	42	114	697	45	175
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	10	1	1	0	3
Mvmt Flow	687	44	120	734	47	184

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	732	0	1317	367
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	607	-
Critical Hdwy	-	-	4.12	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	875	-	152	627
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	874	-	131	626
Mov Cap-2 Maneuver	-	-	-	-	264	-
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	442	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	14.8
HCM LOS			B

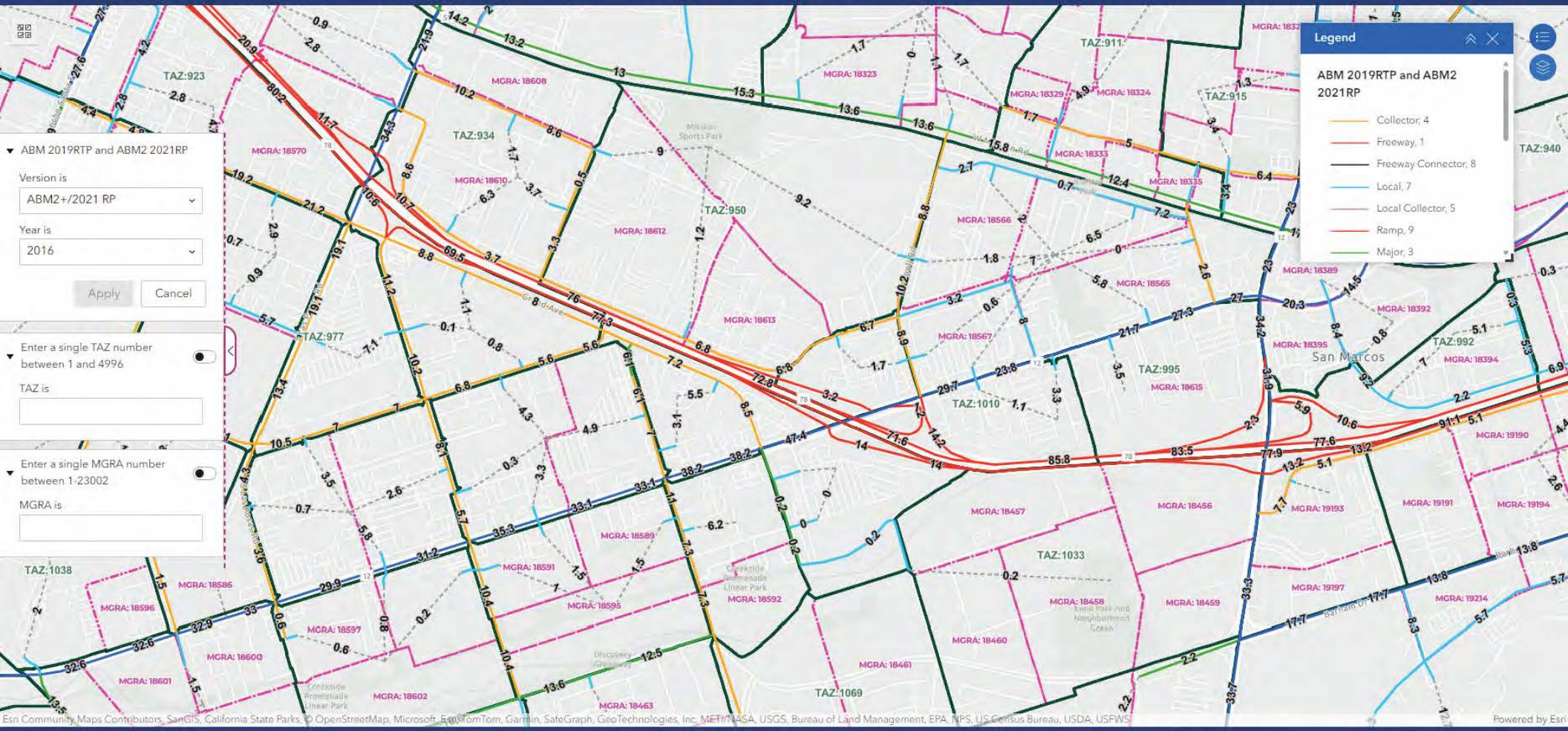
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	264	626	-	-	874	-
HCM Lane V/C Ratio	0.179	0.294	-	-	0.137	-
HCM Control Delay (s)	21.6	13.1	-	-	9.8	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	1.2	-	-	0.5	-

Appendix M
SANDAG TFIC Model Volumes

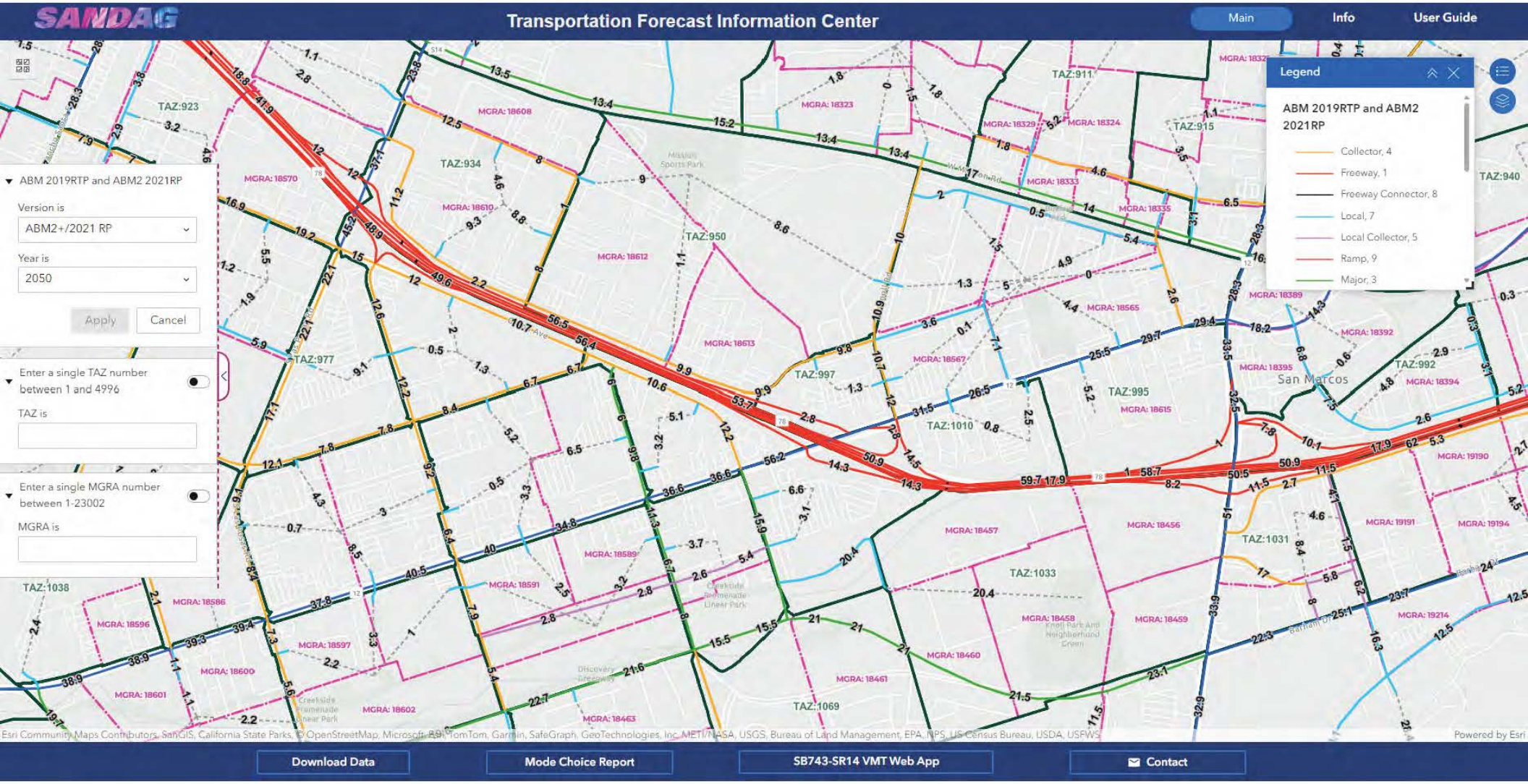
SANDAG

Transportation Forecast Information Center

Main | Info | User Guide



Download Data | Mode Choice Report | SB743-SR14 VMT Web App | Contact


SANDAG
Transportation Forecast Information Center
Main
Info
User Guide
Legend
ABM 2019RTP and ABM2 2021RP
Collector, 4
Freeway, 1
Freeway Connector, 8
Local, 7
Local Collector, 5
Ramp, 9
Major, 3
ABM 2019RTP and ABM2 2021RP
Version is
ABM2+/2021 RP
Year is
2050
Apply
Cancel
Enter a single TAZ number between 1 and 4996
TAZ is
Enter a single MGRA number between 1-23002
MGRA is
San Marcos
Esri Community Maps Contributors, SanGIS, California State Parks, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS
Powered by Esri
Download Data
Mode Choice Report
SB743-SR14 VMT Web App
Contact

Appendix N
Horizon Year 2050 Without Project Operations Worksheets

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	549	1	209	192	832	0	0	1218	342
Future Volume (veh/h)	0	0	0	549	1	209	192	832	0	0	1218	342
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1796	1900	1826	1737	1841	0	0	1841	1870
Adj Flow Rate, veh/h				400	251	220	202	876	0	0	1282	360
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				7	0	5	11	4	0	0	4	2
Cap, veh/h				397	217	190	201	3254	0	0	1857	521
Arrive On Green				0.23	0.23	0.23	0.12	0.65	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1711	934	819	1654	5191	0	0	4044	1087
Grp Volume(v), veh/h				400	0	471	202	876	0	0	1107	535
Grp Sat Flow(s),veh/h/ln				1711	0	1753	1654	1675	0	0	1675	1616
Q Serve(g_s), s				23.0	0.0	23.0	12.0	7.4	0.0	0.0	25.5	25.5
Cycle Q Clear(g_c), s				23.0	0.0	23.0	12.0	7.4	0.0	0.0	25.5	25.5
Prop In Lane				1.00		0.47	1.00		0.00	0.00		0.67
Lane Grp Cap(c), veh/h				397	0	407	201	3254	0	0	1604	774
V/C Ratio(X)				1.01	0.00	1.16	1.01	0.27	0.00	0.00	0.69	0.69
Avail Cap(c_a), veh/h				397	0	407	201	3254	0	0	1604	774
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	1.00	0.87	0.87	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.0	0.0	38.0	43.5	7.5	0.0	0.0	20.1	20.1
Incr Delay (d2), s/veh				46.8	0.0	94.8	61.2	0.2	0.0	0.0	2.5	5.0
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				21.1	0.0	30.2	12.5	4.0	0.0	0.0	14.5	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				84.8	0.0	132.8	104.7	7.6	0.0	0.0	22.5	25.1
LnGrp LOS				F	A	F	F	A	A	A	C	C
Approach Vol, veh/h					871			1078			1642	
Approach Delay, s/veh					110.7			25.8			23.4	
Approach LOS					F			C			C	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	70.9		16.7	54.2		28.1				
Change Period (Y+Rc), s	6.8		* 4.7	6.8		5.1				
Max Green Setting (Gmax), s	64.0		* 12	47.0		23.0				
Max Q Clear Time (g_c+I1), s	9.4		14.0	27.5		25.0				
Green Ext Time (p_c), s	4.0		0.0	7.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	177	256	28	112	199	523	31	403	90	371	776	632
Future Volume (veh/h)	177	256	28	112	199	523	31	403	90	371	776	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
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	1826	1678	1781	1841	1796	1826	1737	1826	1693	1796	1826	1826
Adj Flow Rate, veh/h	186	269	29	118	209	551	33	424	95	391	817	665
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, %	5	15	8	4	7	5	11	5	14	7	5	5
Cap, veh/h	302	633	68	152	386	584	69	1227	266	448	1365	588
Arrive On Green	0.09	0.22	0.22	0.09	0.22	0.22	0.04	0.30	0.30	0.14	0.39	0.39
Sat Flow, veh/h	3374	2904	310	1753	1796	2716	1654	4084	884	3319	3469	1494
Grp Volume(v), veh/h	186	147	151	118	209	551	33	342	177	391	817	665
Grp Sat Flow(s),veh/h/ln	1687	1594	1621	1753	1796	1358	1654	1662	1645	1659	1735	1494
Q Serve(g_s), s	5.3	7.9	8.1	6.6	10.3	20.0	1.9	8.0	8.4	11.6	18.7	39.4
Cycle Q Clear(g_c), s	5.3	7.9	8.1	6.6	10.3	20.0	1.9	8.0	8.4	11.6	18.7	39.4
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	302	347	353	152	386	584	69	999	494	448	1365	588
V/C Ratio(X)	0.62	0.42	0.43	0.78	0.54	0.94	0.47	0.34	0.36	0.87	0.60	1.13
Avail Cap(c_a), veh/h	320	347	353	167	386	584	157	999	494	448	1365	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	43.9	33.7	33.7	44.7	34.9	38.7	46.8	27.3	27.4	42.4	24.1	30.3
Incr Delay (d2), s/veh	3.2	0.8	0.8	15.7	1.2	20.9	5.0	0.9	2.0	9.1	0.9	69.8
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	4.1	5.4	5.6	6.2	7.6	12.2	1.6	5.7	6.2	7.7	10.3	32.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	34.5	34.6	60.4	36.1	59.6	51.8	28.2	29.4	51.5	25.0	100.1
LnGrp LOS	D	C	C	E	D	E	D	C	C	D	C	F
Approach Vol, veh/h		484			878			552			1873	
Approach Delay, s/veh		39.4			54.1			30.0			57.2	
Approach LOS		D			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	36.6	15.2	28.3	10.7	45.9	15.4	28.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	29.5	9.5	21.5	9.5	33.5	9.5	21.5
Max Q Clear Time (g_c+I1), s	13.6	10.4	8.6	10.1	3.9	41.4	7.3	22.0
Green Ext Time (p_c), s	0.0	2.9	0.0	1.1	0.0	0.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	50.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Edition methodology expects strict NEMA phasing.

Queues
3: Via Vera Cruz & Grand Ave

02/09/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	360	260	168	63	274	66	67	24	335	903
v/c Ratio	0.73	0.47	0.29	0.34	0.60	0.36	0.40	0.08	0.46	1.21
Control Delay	49.4	41.9	4.0	45.2	48.0	45.4	47.4	0.6	23.6	132.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	41.9	4.0	45.2	48.0	45.4	47.4	0.6	23.6	132.5
Queue Length 50th (ft)	110	80	0	37	60	41	41	0	148	~649
Queue Length 95th (ft)	#185	#134	33	77	89	83	85	0	227	#888
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	492	555	618	251	453	241	219	325	724	746
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.47	0.27	0.25	0.60	0.27	0.31	0.07	0.46	1.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	247	160	60	250	10	78	48	23	318	305	553
Future Volume (vph)	342	247	160	60	250	10	78	48	23	318	305	553
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3099	3282	1495	1641	4875		1573	1427	1282	1770	1662	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3099	3282	1495	1641	4875		1573	1427	1282	1770	1662	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	360	260	168	63	263	11	82	51	24	335	321	582
RTOR Reduction (vph)	0	0	122	0	5	0	0	0	21	0	67	0
Lane Group Flow (vph)	360	260	46	63	269	0	66	67	3	335	836	0
Heavy Vehicles (%)	13%	10%	8%	10%	6%	0%	9%	30%	26%	2%	2%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	15.5	15.5	27.0	9.0	9.0		11.5	11.5	11.5	40.0	40.0	
Effective Green, g (s)	15.5	15.5	27.0	9.0	9.0		11.5	11.5	11.5	40.0	40.0	
Actuated g/C Ratio	0.16	0.16	0.28	0.09	0.09		0.12	0.12	0.12	0.41	0.41	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	491	520	413	151	449		185	167	150	724	680	
v/s Ratio Prot	c0.12	c0.08	0.01	0.04	0.06		0.04	c0.05		0.19	c0.50	
v/s Ratio Perm			0.02						0.00			
v/c Ratio	0.73	0.50	0.11	0.42	0.60		0.36	0.40	0.02	0.46	1.23	
Uniform Delay, d1	39.1	37.6	26.4	41.9	42.6		39.7	39.9	38.1	21.0	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	9.3	3.4	0.0	0.7	5.8		0.4	0.6	0.0	0.2	116.0	
Delay (s)	48.5	41.0	26.4	42.6	48.4		40.1	40.5	38.1	21.2	144.9	
Level of Service	D	D	C	D	D		D	D	D	C	F	
Approach Delay (s)		41.3			47.3			40.0			111.4	
Approach LOS		D			D			D			F	

Intersection Summary			
HCM 2000 Control Delay	76.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	588	24	278	323	4	154
Future Vol, veh/h	588	24	278	323	4	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	5	4	7	33	6
Mvmt Flow	619	25	293	340	4	162

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	644	0	1388	322
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	756	-
Critical Hdwy	-	-	4.18	-	7.46	7.02
Critical Hdwy Stg 1	-	-	-	-	6.46	-
Critical Hdwy Stg 2	-	-	-	-	6.46	-
Follow-up Hdwy	-	-	2.24	-	3.83	3.36
Pot Cap-1 Maneuver	-	-	923	-	101	662
Stage 1	-	-	-	-	415	-
Stage 2	-	-	-	-	352	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	923	-	69	662
Mov Cap-2 Maneuver	-	-	-	-	167	-
Stage 1	-	-	-	-	415	-
Stage 2	-	-	-	-	240	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.9	13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	616	-	-	923	-
HCM Lane V/C Ratio	0.27	-	-	0.317	-
HCM Control Delay (s)	13	-	-	10.7	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	1.1	-	-	1.4	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	424	314	31	391	209	34
Future Volume (veh/h)	424	314	31	391	209	34
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1737	1856	1678	1796	1841	1900
Adj Flow Rate, veh/h	446	331	33	412	220	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	15	7	4	0
Cap, veh/h	678	501	74	1895	305	280
Arrive On Green	0.38	0.38	0.05	0.56	0.17	0.17
Sat Flow, veh/h	1879	1322	1598	3503	1753	1610
Grp Volume(v), veh/h	411	366	33	412	220	36
Grp Sat Flow(s),veh/h/ln	1650	1464	1598	1706	1753	1610
Q Serve(g_s), s	8.2	8.3	0.8	2.4	4.7	0.8
Cycle Q Clear(g_c), s	8.2	8.3	0.8	2.4	4.7	0.8
Prop In Lane		0.90	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	625	554	74	1895	305	280
V/C Ratio(X)	0.66	0.66	0.45	0.22	0.72	0.13
Avail Cap(c_a), veh/h	1043	925	273	3186	968	889
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	10.3	18.5	4.5	15.6	13.9
Incr Delay (d2), s/veh	1.2	1.4	4.2	0.1	3.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	3.3	0.6	0.6	3.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.4	11.6	22.7	4.5	18.8	14.1
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	777			445	256	
Approach Delay, s/veh	11.5			5.9	18.1	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.0	20.9				27.9	11.9
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6.8	25.2				37.2	22.0
Max Q Clear Time (g_c+I1), s	2.8	10.3				4.4	6.7
Green Ext Time (p_c), s	0.0	4.1				2.6	0.6

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

* HCM 6th 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)	35	1028	8	63	898	73	35	4	8	115	39	58
Future Volume (veh/h)	35	1028	8	63	898	73	35	4	8	115	39	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1811	1900	1900	1796	1841	1900	1900	1900	1841	1900	1796
Adj Flow Rate, veh/h	37	1082	8	66	945	77	37	4	8	121	41	61
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, %	0	6	0	0	7	4	0	0	0	4	0	7
Cap, veh/h	64	2136	16	86	1986	162	85	124	110	195	57	85
Arrive On Green	0.04	0.61	0.61	0.03	0.42	0.42	0.05	0.07	0.07	0.06	0.08	0.08
Sat Flow, veh/h	1810	3501	26	1810	3192	260	1810	1805	1603	3401	688	1023
Grp Volume(v), veh/h	37	532	558	66	505	517	37	4	8	121	0	102
Grp Sat Flow(s),veh/h/ln	1810	1721	1806	1810	1706	1745	1810	1805	1603	1700	0	1711
Q Serve(g_s), s	2.4	20.9	20.9	4.3	25.8	25.9	2.4	0.2	0.6	4.2	0.0	7.0
Cycle Q Clear(g_c), s	2.4	20.9	20.9	4.3	25.8	25.9	2.4	0.2	0.6	4.2	0.0	7.0
Prop In Lane	1.00		0.01	1.00		0.15	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	64	1050	1102	86	1062	1086	85	124	110	195	0	142
V/C Ratio(X)	0.58	0.51	0.51	0.77	0.48	0.48	0.43	0.03	0.07	0.62	0.00	0.72
Avail Cap(c_a), veh/h	234	1050	1102	234	1062	1086	241	384	341	439	0	371
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.0	13.2	13.2	57.4	20.8	20.8	55.6	52.2	52.3	55.3	0.0	53.7
Incr Delay (d2), s/veh	7.9	1.7	1.7	9.4	1.1	1.0	3.4	0.1	0.3	3.2	0.0	6.7
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	2.2	12.3	12.8	4.0	15.7	16.0	2.1	0.2	0.4	3.3	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	15.0	14.9	66.9	21.8	21.8	59.0	52.3	52.6	58.5	0.0	60.4
LnGrp LOS	E	B	B	E	C	C	E	D	D	E	A	E
Approach Vol, veh/h		1127			1088			49			223	
Approach Delay, s/veh		16.6			24.5			57.4			59.4	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	79.7	11.7	16.4	10.8	81.2	13.4	14.7
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	15.5	16.0	* 26	15.5	37.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	6.3	22.9	4.4	9.0	4.4	27.9	6.2	2.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.4	0.0	4.3	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	62	918	119	154	920	130	117	129	292	79	216	71
Future Volume (veh/h)	62	918	119	154	920	130	117	129	292	79	216	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
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	1900	1796	1841	1885	1796	1856	1885	1856	1856	1856	1870	1826
Adj Flow Rate, veh/h	65	966	125	162	968	137	123	136	307	83	227	75
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, %	0	7	4	1	7	3	1	3	3	3	2	5
Cap, veh/h	85	1760	227	189	1566	801	153	399	337	110	263	87
Arrive On Green	0.02	0.13	0.13	0.21	0.92	0.92	0.09	0.22	0.22	0.06	0.20	0.20
Sat Flow, veh/h	1810	4394	567	1795	3413	1532	1795	1856	1566	1767	1339	442
Grp Volume(v), veh/h	65	718	373	162	968	137	123	136	307	83	0	302
Grp Sat Flow(s),veh/h/ln	1810	1635	1692	1795	1706	1532	1795	1856	1566	1767	0	1781
Q Serve(g_s), s	4.3	24.7	24.8	10.4	6.5	1.0	8.1	7.4	23.0	5.5	0.0	19.7
Cycle Q Clear(g_c), s	4.3	24.7	24.8	10.4	6.5	1.0	8.1	7.4	23.0	5.5	0.0	19.7
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	85	1309	678	189	1566	801	153	399	337	110	0	350
V/C Ratio(X)	0.76	0.55	0.55	0.86	0.62	0.17	0.81	0.34	0.91	0.75	0.00	0.86
Avail Cap(c_a), veh/h	264	1309	678	322	1566	801	239	433	365	228	0	423
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.90	0.90	0.90	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.4	41.9	42.0	46.5	2.9	2.1	53.9	39.9	46.0	55.3	0.0	46.6
Incr Delay (d2), s/veh	11.5	1.4	2.8	9.9	1.7	0.4	10.4	0.5	25.2	9.8	0.0	14.4
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	4.1	16.1	16.9	8.0	2.7	0.7	7.4	6.3	16.9	5.0	0.0	15.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.9	43.3	44.7	56.4	4.6	2.5	64.3	40.4	71.2	65.1	0.0	61.0
LnGrp LOS	E	D	D	E	A	A	E	D	E	E	A	E
Approach Vol, veh/h		1156			1267			566			385	
Approach Delay, s/veh		45.3			11.0			62.3			61.9	
Approach LOS		D			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.1	54.1	16.2	30.6	12.1	61.0	14.0	32.8
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	21.5	29.0	16.0	* 29	17.5	16.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	12.4	26.8	10.1	21.7	6.3	8.5	7.5	25.0
Green Ext Time (p_c), s	0.3	1.4	0.1	0.9	0.1	3.9	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	52	1069	83	247	1132	298	43	46	95	287	119	33
Future Volume (veh/h)	52	1069	83	247	1132	298	43	46	95	287	119	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
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	1796	1885	1856	1826	1796	1707	1737	1781	1752	1722	1796
Adj Flow Rate, veh/h	55	1125	87	260	1192	314	45	48	100	302	125	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	1	3	5	7	13	11	8	10	12	7
Cap, veh/h	87	1711	931	229	2608	948	263	157	135	181	378	174
Arrive On Green	0.10	1.00	1.00	0.07	0.52	0.52	0.08	0.09	0.09	0.11	0.12	0.12
Sat Flow, veh/h	1781	3413	1591	3428	4985	1497	3155	1737	1495	1668	3272	1510
Grp Volume(v), veh/h	55	1125	87	260	1192	314	45	48	100	302	125	35
Grp Sat Flow(s),veh/h/ln	1781	1706	1591	1714	1662	1497	1577	1737	1495	1668	1636	1510
Q Serve(g_s), s	3.6	0.0	0.0	8.0	18.0	11.7	1.6	3.1	7.8	13.0	4.2	2.5
Cycle Q Clear(g_c), s	3.6	0.0	0.0	8.0	18.0	11.7	1.6	3.1	7.8	13.0	4.2	2.5
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	87	1711	931	229	2608	948	263	157	135	181	378	174
V/C Ratio(X)	0.63	0.66	0.09	1.14	0.46	0.33	0.17	0.31	0.74	1.67	0.33	0.20
Avail Cap(c_a), veh/h	126	1711	931	229	2608	948	263	521	448	181	1063	491
HCM Platoon Ratio	2.00	2.00	2.00	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	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	0.0	56.0	17.9	10.3	51.1	51.1	53.2	53.5	48.8	48.1
Incr Delay (d2), s/veh	5.3	1.4	0.1	95.0	0.5	0.7	0.3	1.1	7.7	324.9	0.5	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	0.6	0.1	10.5	10.4	6.9	1.2	2.5	5.9	34.4	3.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	1.4	0.1	151.0	18.4	11.0	51.5	52.1	60.9	378.4	49.3	48.6
LnGrp LOS	E	A	A	F	B	B	D	D	E	F	D	D
Approach Vol, veh/h		1267			1766			193			462	
Approach Delay, s/veh		3.8			36.6			56.5			264.4	
Approach LOS		A			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	69.8	17.0	20.8	15.0	67.2	20.0	17.8
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	8.5	35.0	10.0	39.0	8.0	* 36	13.0	36.0
Max Q Clear Time (g_c+I1), s	5.6	20.0	3.6	6.2	10.0	2.0	15.0	9.8
Green Ext Time (p_c), s	0.0	8.0	0.0	0.8	0.0	9.8	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

* HCM 6th 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)	0	885	581	167	1647	0	0	0	0	179	0	47
Future Volume (veh/h)	0	885	581	167	1647	0	0	0	0	179	0	47
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1796	1796	1707	1811	0				1856	0	1796
Adj Flow Rate, veh/h	0	922	605	174	1716	0				186	0	49
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	7	7	13	6	0				3	0	7
Cap, veh/h	0	1597	854	332	2821	0				390	0	173
Arrive On Green	0.00	0.33	0.33	0.11	0.57	0.00				0.11	0.00	0.11
Sat Flow, veh/h	0	5065	2623	3155	5107	0				3428	0	1522
Grp Volume(v), veh/h	0	922	605	174	1716	0				186	0	49
Grp Sat Flow(s),veh/h/ln	0	1635	1311	1577	1648	0				1714	0	1522
Q Serve(g_s), s	0.0	6.4	8.3	2.1	9.3	0.0				2.1	0.0	1.2
Cycle Q Clear(g_c), s	0.0	6.4	8.3	2.1	9.3	0.0				2.1	0.0	1.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1597	854	332	2821	0				390	0	173
V/C Ratio(X)	0.00	0.58	0.71	0.52	0.61	0.00				0.48	0.00	0.28
Avail Cap(c_a), veh/h	0	5016	2682	1104	7477	0				1753	0	779
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.4	12.1	17.3	5.8	0.0				17.0	0.0	16.6
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.5	0.1	0.0				0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.0	3.1	1.2	2.5	0.0				1.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.6	12.5	17.8	5.9	0.0				17.3	0.0	16.9
LnGrp LOS	A	B	B	B	A	A				B	A	B
Approach Vol, veh/h		1527			1890						235	
Approach Delay, s/veh		11.9			7.0						17.2	
Approach LOS		B			A						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.0	20.1		10.8		30.1
Change Period (Y+Rc), s*	5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	14	41.8		20.9		61.8
Max Q Clear Time (g_c+I1), s	4.1	10.3		4.1		11.3
Green Ext Time (p_c), s	0.1	3.0		0.3		5.6

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	713	123	0	972	98	774	249	29	162	0	464
Future Volume (veh/h)	201	713	123	0	972	98	774	249	29	162	0	464
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	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	1781	1811	1811	0	1796	1885	1811	1811	1737	1856	0	1841
Adj Flow Rate, veh/h	212	751	129	0	1023	103	815	262	31	171	0	488
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, %	8	6	6	0	7	1	6	6	11	3	0	4
Cap, veh/h	493	1691	747	0	1323	421	936	414	48	239	0	0
Arrive On Green	0.15	0.49	0.49	0.00	0.27	0.27	0.28	0.13	0.13	0.14	0.00	0.00
Sat Flow, veh/h	3291	3441	1519	0	5065	1560	3346	3099	363	1767	171	
Grp Volume(v), veh/h	212	751	129	0	1023	103	815	144	149	171	36.1	
Grp Sat Flow(s),veh/h/ln	1646	1721	1519	0	1635	1560	1673	1721	1741	1767	D	
Q Serve(g_s), s	4.6	11.3	3.7	0.0	15.3	4.1	18.4	6.3	6.4	7.3		
Cycle Q Clear(g_c), s	4.6	11.3	3.7	0.0	15.3	4.1	18.4	6.3	6.4	7.3		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.21	1.00		
Lane Grp Cap(c), veh/h	493	1691	747	0	1323	421	936	230	232	239		
V/C Ratio(X)	0.43	0.44	0.17	0.00	0.77	0.24	0.87	0.63	0.64	0.71		
Avail Cap(c_a), veh/h	502	2073	915	0	1855	590	2067	629	636	310		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	30.6	13.1	11.2	0.0	26.7	22.6	27.2	32.5	32.6	32.8		
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.8	0.1	1.0	1.1	1.1	3.2		
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		
%ile BackOfQ(95%),veh/ln	3.2	6.8	2.2	0.0	9.5	2.7	11.7	4.8	4.9	5.8		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	13.2	11.2	0.0	27.5	22.8	28.2	33.6	33.7	36.1		
LnGrp LOS	C	B	B	A	C	C	C	C	C	D		
Approach Vol, veh/h		1092			1126			1108				
Approach Delay, s/veh		16.4			27.1			29.7				
Approach LOS		B			C			C				

Timer - Assigned Phs	2	3	5	6	7	8
Phs Duration (G+Y+Rc), s	45.8	28.3	17.6	28.2	16.8	16.7
Change Period (Y+Rc), s	6.8	6.1	* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s	47.8	49.0	* 12	30.0	13.9	29.0
Max Q Clear Time (g_c+I1), s	13.3	20.4	6.6	17.3	9.3	8.4
Green Ext Time (p_c), s	3.6	1.8	0.2	4.1	0.1	1.1

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	8	5	222	308	33
Future Vol, veh/h	30	8	5	222	308	33
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	4	6
Mvmt Flow	32	8	5	234	324	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	587	343	360	0	-	0
Stage 1	343	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	475	704	1210	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	472	703	1209	-	-	-
Mov Cap-2 Maneuver	559	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	800	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1209	-	559	703	-	-
HCM Lane V/C Ratio	0.004	-	0.056	0.012	-	-
HCM Control Delay (s)	8	-	11.8	10.2	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	6	230	0	3	312
Future Vol, veh/h	1	6	230	0	3	312
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, %	0	67	3	0	100	3
Mvmt Flow	1	6	242	0	3	328

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	576	242	0	0	242	0
Stage 1	242	-	-	-	-	-
Stage 2	334	-	-	-	-	-
Critical Hdwy	6.4	6.87	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.903	-	-	3.1	-
Pot Cap-1 Maneuver	482	661	-	-	913	-
Stage 1	803	-	-	-	-	-
Stage 2	730	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	480	661	-	-	913	-
Mov Cap-2 Maneuver	566	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	646	913	-
HCM Lane V/C Ratio	-	-	0.011	0.003	-
HCM Control Delay (s)	-	-	10.6	9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	29	68	225	290	11
Future Vol, veh/h	8	29	68	225	290	11
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	7	0	1	3	0
Mvmt Flow	8	31	72	237	305	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	693	313	318	0	-	0
Stage 1	312	-	-	-	-	-
Stage 2	381	-	-	-	-	-
Critical Hdwy	6.4	6.27	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	2.2	-	-	-
Pot Cap-1 Maneuver	412	716	1253	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	387	715	1252	-	-	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	703	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1252	-	652	-	-
HCM Lane V/C Ratio	0.057	-	0.06	-	-
HCM Control Delay (s)	8.1	-	10.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	57	0	29	18	268	25	32	281	1
Future Vol, veh/h	0	0	10	57	0	29	18	268	25	32	281	1
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	0	7	6	0	0	6	3	0
Mvmt Flow	0	0	11	60	0	31	19	282	26	34	296	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	715	712	298	703	699	295	298	0	0	308	0	0
Stage 1	366	366	-	333	333	-	-	-	-	-	-	-
Stage 2	349	346	-	370	366	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.27	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.363	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	348	360	746	352	366	733	1241	-	-	1230	-	-
Stage 1	657	626	-	681	647	-	-	-	-	-	-	-
Stage 2	671	639	-	650	626	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	322	344	745	336	350	733	1240	-	-	1230	-	-
Mov Cap-2 Maneuver	322	344	-	336	350	-	-	-	-	-	-	-
Stage 1	646	608	-	671	637	-	-	-	-	-	-	-
Stage 2	633	629	-	623	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	16.2	0.5	0.8
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1240	-	-	745	411	1230	-	-
HCM Lane V/C Ratio	0.015	-	-	0.014	0.22	0.027	-	-
HCM Control Delay (s)	7.9	-	-	9.9	16.2	8	-	-
HCM Lane LOS	A	-	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.8	0.1	-	-

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

04/29/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	265	2	214	412	1597	0	0	926	404
Future Volume (veh/h)	0	0	0	265	2	214	412	1597	0	0	926	404
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1678	1900	1885	1885	1841	0	0	1856	1885
Adj Flow Rate, veh/h				248	37	221	425	1646	0	0	955	416
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				15	0	1	1	4	0	0	3	1
Cap, veh/h				276	41	243	455	3609	0	0	1441	627
Arrive On Green				0.17	0.17	0.17	0.25	0.72	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1598	236	1410	1795	5191	0	0	3585	1488
Grp Volume(v), veh/h				248	0	258	425	1646	0	0	943	428
Grp Sat Flow(s),veh/h/ln				1598	0	1646	1795	1675	0	0	1689	1529
Q Serve(g_s), s				16.6	0.0	16.8	25.2	15.0	0.0	0.0	24.4	24.5
Cycle Q Clear(g_c), s				16.6	0.0	16.8	25.2	15.0	0.0	0.0	24.4	24.5
Prop In Lane				1.00		0.86	1.00		0.00	0.00		0.97
Lane Grp Cap(c), veh/h				276	0	284	455	3609	0	0	1424	645
V/C Ratio(X)				0.90	0.00	0.91	0.93	0.46	0.00	0.00	0.66	0.66
Avail Cap(c_a), veh/h				279	0	287	560	3609	0	0	1424	645
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	1.00	0.45	0.45	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				44.2	0.0	44.2	39.8	6.4	0.0	0.0	25.3	25.3
Incr Delay (d2), s/veh				28.5	0.0	29.7	10.4	0.2	0.0	0.0	2.4	5.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				13.6	0.0	14.2	15.7	6.3	0.0	0.0	14.7	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				72.7	0.0	73.9	50.1	6.6	0.0	0.0	27.7	30.6
LnGrp LOS				E	A	E	D	A	A	A	C	C
Approach Vol, veh/h					506			2071			1371	
Approach Delay, s/veh					73.3			15.6			28.6	
Approach LOS					E			B			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	85.1	32.3	52.8	23.9
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	78.0	* 34	39.0	19.0
Max Q Clear Time (g_c+I1), s	17.0	27.2	26.5	18.8
Green Ext Time (p_c), s	10.0	0.4	5.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	358	548	32	52	185	790	53	897	247	349	567	326
Future Volume (veh/h)	358	548	32	52	185	790	53	897	247	349	567	326
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.96
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	1900	1796	1826	1856	1870	1856	1885	1870	1826	1618
Adj Flow Rate, veh/h	365	559	33	53	189	806	54	915	252	356	579	333
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, %	3	3	0	7	5	3	2	3	1	2	5	19
Cap, veh/h	358	731	43	112	324	488	92	1408	386	427	1493	568
Arrive On Green	0.10	0.22	0.22	0.07	0.18	0.18	0.05	0.36	0.36	0.12	0.43	0.43
Sat Flow, veh/h	3428	3382	199	1711	1826	2754	1781	3931	1078	3456	3469	1319
Grp Volume(v), veh/h	365	291	301	53	189	806	54	786	381	356	579	333
Grp Sat Flow(s),veh/h/ln	1714	1763	1819	1711	1826	1377	1781	1689	1632	1728	1735	1319
Q Serve(g_s), s	11.5	17.0	17.1	3.3	10.4	19.5	3.3	21.4	21.5	11.1	12.6	21.2
Cycle Q Clear(g_c), s	11.5	17.0	17.1	3.3	10.4	19.5	3.3	21.4	21.5	11.1	12.6	21.2
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	358	381	393	112	324	488	92	1210	585	427	1493	568
V/C Ratio(X)	1.02	0.76	0.77	0.47	0.58	1.65	0.59	0.65	0.65	0.83	0.39	0.59
Avail Cap(c_a), veh/h	358	381	393	179	324	488	219	1210	585	550	1493	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	49.3	40.5	40.5	49.6	41.5	45.3	51.0	29.5	29.6	47.1	21.4	23.9
Incr Delay (d2), s/veh	52.3	8.8	8.7	0.3	0.2	293.9	5.9	2.7	5.6	5.2	0.4	2.6
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	11.9	12.7	13.0	2.0	5.6	36.2	2.8	13.5	13.8	7.7	7.7	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.5	49.3	49.2	49.8	41.8	339.1	56.9	32.2	35.1	52.3	21.9	26.5
LnGrp LOS	F	D	D	D	D	F	E	C	D	D	C	C
Approach Vol, veh/h		957			1048			1221			1268	
Approach Delay, s/veh		69.2			270.9			34.2			31.6	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	45.9	13.7	30.3	12.2	53.8	18.0	26.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	11.5	19.5	13.5	39.5	11.5	19.5
Max Q Clear Time (g_c+I1), s	13.1	23.5	5.3	19.1	5.3	23.2	13.5	21.5
Green Ext Time (p_c), s	0.5	5.6	0.0	0.1	0.0	4.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	96.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	545	515	195	129	507	207	212	124	402	628
v/c Ratio	0.49	0.48	0.24	0.61	1.07	0.86	0.84	0.32	0.97	1.41
Control Delay	31.2	33.1	2.0	57.8	108.4	75.7	72.8	3.5	79.6	226.0
Queue Delay	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	33.7	2.0	57.8	108.4	75.7	72.8	3.5	79.6	226.0
Queue Length 50th (ft)	157	153	0	86	~142	146	149	0	277	~542
Queue Length 95th (ft)	209	214	22	146	#218	#270	#270	13	#471	#764
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	1115	1075	846	251	473	262	273	410	414	446
Starvation Cap Reductn	277	238	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.62	0.23	0.51	1.07	0.79	0.78	0.30	0.97	1.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	518	489	185	123	470	11	252	146	118	382	209	388
Future Volume (vph)	518	489	185	123	470	11	252	146	118	382	209	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3400	3539	1559	1805	5068		1665	1729	1615	1787	1654	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3400	3539	1559	1805	5068		1665	1729	1615	1787	1654	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	545	515	195	129	495	12	265	154	124	402	220	408
RTOR Reduction (vph)	0	0	107	0	3	0	0	0	106	0	62	0
Lane Group Flow (vph)	545	515	88	129	504	0	207	212	18	402	566	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	3%	2%	2%	0%	2%	0%	3%	3%	0%	1%	3%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	35.3	32.7	48.4	12.6	10.0		15.7	15.7	15.7	25.0	25.0	
Effective Green, g (s)	35.3	32.7	48.4	12.6	10.0		15.7	15.7	15.7	25.0	25.0	
Actuated g/C Ratio	0.33	0.30	0.45	0.12	0.09		0.15	0.15	0.15	0.23	0.23	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	1114	1074	700	211	470		242	252	235	414	383	
v/s Ratio Prot	c0.16	0.15	0.02	c0.07	c0.10		c0.12	0.12		0.22	c0.34	
v/s Ratio Perm			0.04						0.01			
v/c Ratio	0.49	0.48	0.13	0.61	1.07		0.86	0.84	0.08	0.97	1.48	
Uniform Delay, d1	29.0	30.6	17.3	45.2	48.9		44.9	44.8	39.7	41.0	41.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.5	1.5	0.0	3.7	62.4		23.6	20.9	0.1	36.4	228.5	
Delay (s)	30.5	32.1	17.3	48.9	111.3		68.5	65.6	39.8	77.4	269.8	
Level of Service	C	C	B	D	F		E	E	D	E	F	
Approach Delay (s)		29.1			98.6			60.8			194.7	
Approach LOS		C			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	96.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	88.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	13.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	972	18	134	598	5	448
Future Vol, veh/h	972	18	134	598	5	448
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	4	2	0	2
Mvmt Flow	1023	19	141	629	5	472

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1043	0	1631	522
Stage 1	-	-	-	-	1034	-
Stage 2	-	-	-	-	597	-
Critical Hdwy	-	-	4.18	-	6.8	6.94
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.24	-	3.5	3.32
Pot Cap-1 Maneuver	-	-	651	-	94	499
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	518	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	650	-	74	499
Mov Cap-2 Maneuver	-	-	-	-	193	-
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	406	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	63.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	490	-	-	650	-
HCM Lane V/C Ratio	0.973	-	-	0.217	-
HCM Control Delay (s)	63.3	-	-	12.1	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	12.6	-	-	0.8	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1013	411	31	401	332	82
Future Volume (veh/h)	1013	411	31	401	332	82
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1841	1856	1885	1885
Adj Flow Rate, veh/h	1066	433	33	422	349	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	4	3	1	1
Cap, veh/h	1275	508	71	2193	410	365
Arrive On Green	0.51	0.51	0.04	0.62	0.23	0.23
Sat Flow, veh/h	2595	996	1753	3618	1795	1598
Grp Volume(v), veh/h	757	742	33	422	349	86
Grp Sat Flow(s),veh/h/ln	1791	1706	1753	1763	1795	1598
Q Serve(g_s), s	25.9	27.2	1.3	3.7	13.4	3.2
Cycle Q Clear(g_c), s	25.9	27.2	1.3	3.7	13.4	3.2
Prop In Lane		0.58	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	913	870	71	2193	410	365
V/C Ratio(X)	0.83	0.85	0.47	0.19	0.85	0.24
Avail Cap(c_a), veh/h	1035	986	146	2584	654	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	15.4	33.9	5.9	26.7	22.7
Incr Delay (d2), s/veh	5.2	6.7	4.8	0.0	6.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.6	15.0	1.1	1.8	10.1	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.2	22.0	38.6	5.9	32.8	23.0
LnGrp LOS	C	C	D	A	C	C
Approach Vol, veh/h	1499			455	435	
Approach Delay, s/veh	21.1			8.3	30.9	
Approach LOS	C			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.1	42.6				50.7	21.5
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	41.7				52.9	26.3
Max Q Clear Time (g_c+I1), s	3.3	29.2				5.7	15.4
Green Ext Time (p_c), s	0.0	7.6				2.7	1.1

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

* HCM 6th 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)	81	1246	8	151	1051	178	74	56	79	179	93	82
Future Volume (veh/h)	81	1246	8	151	1051	178	74	56	79	179	93	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.99
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	1856	1900	1900	1870	1870	1900	1900	1900	1885	1900	1885
Adj Flow Rate, veh/h	85	1312	8	159	1106	187	78	59	83	188	98	86
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	3	0	0	2	2	0	0	0	1	0	1
Cap, veh/h	106	1944	12	179	1763	297	98	214	189	236	126	111
Arrive On Green	0.06	0.54	0.54	0.20	1.00	1.00	0.05	0.12	0.12	0.07	0.14	0.14
Sat Flow, veh/h	1795	3592	22	1810	3033	511	1810	1805	1594	3483	929	815
Grp Volume(v), veh/h	85	644	676	159	646	647	78	59	83	188	0	184
Grp Sat Flow(s),veh/h/ln	1795	1763	1851	1810	1777	1767	1810	1805	1594	1742	0	1745
Q Serve(g_s), s	7.0	39.6	39.6	12.8	0.0	0.0	6.4	4.5	7.3	8.0	0.0	15.3
Cycle Q Clear(g_c), s	7.0	39.6	39.6	12.8	0.0	0.0	6.4	4.5	7.3	8.0	0.0	15.3
Prop In Lane	1.00		0.01	1.00		0.29	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	106	954	1002	179	1033	1027	98	214	189	236	0	237
V/C Ratio(X)	0.80	0.67	0.68	0.89	0.63	0.63	0.80	0.28	0.44	0.80	0.00	0.78
Avail Cap(c_a), veh/h	221	954	1002	199	1033	1027	169	439	388	313	0	430
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.7	24.9	24.9	59.3	0.0	0.0	70.1	60.2	61.4	68.9	0.0	62.6
Incr Delay (d2), s/veh	13.0	3.8	3.6	21.5	1.6	1.7	13.5	0.7	1.6	10.1	0.0	5.5
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	6.4	23.5	24.5	9.4	0.8	0.9	6.0	3.8	5.4	6.9	0.0	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.7	28.7	28.5	80.9	1.6	1.7	83.6	60.9	63.0	79.0	0.0	68.1
LnGrp LOS	F	C	C	F	A	A	F	E	E	E	A	E
Approach Vol, veh/h		1405			1452			220			372	
Approach Delay, s/veh		31.9			10.3			69.8			73.6	
Approach LOS		C			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	87.7	14.1	26.8	15.4	93.7	16.7	24.3
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	16.5	57.5	14.0	* 37	18.5	35.5	13.5	36.5
Max Q Clear Time (g_c+I1), s	14.8	41.6	8.4	17.3	9.0	2.0	10.0	9.3
Green Ext Time (p_c), s	0.1	7.4	0.1	0.9	0.1	10.5	0.2	0.8

Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes

* HCM 6th 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)	70	1254	100	179	1071	121	181	176	266	110	287	58
Future Volume (veh/h)	70	1254	100	179	1071	121	181	176	266	110	287	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1841	1900	1870	1856	1900	1885	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	73	1306	104	186	1116	126	189	183	277	115	299	60
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, %	0	4	0	2	3	0	1	1	2	0	1	0
Cap, veh/h	91	1977	157	196	1679	872	192	422	350	137	300	60
Arrive On Green	0.10	0.83	0.83	0.22	0.95	0.95	0.11	0.22	0.22	0.08	0.20	0.20
Sat Flow, veh/h	1810	4744	378	1781	3526	1573	1795	1885	1562	1810	1524	306
Grp Volume(v), veh/h	73	922	488	186	1116	126	189	183	277	115	0	359
Grp Sat Flow(s),veh/h/ln	1810	1675	1772	1781	1763	1573	1795	1885	1562	1810	0	1830
Q Serve(g_s), s	5.9	15.3	15.3	15.4	6.1	0.6	15.8	12.5	25.1	9.4	0.0	29.4
Cycle Q Clear(g_c), s	5.9	15.3	15.3	15.4	6.1	0.6	15.8	12.5	25.1	9.4	0.0	29.4
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	91	1396	738	196	1679	872	192	422	350	137	0	360
V/C Ratio(X)	0.80	0.66	0.66	0.95	0.66	0.14	0.99	0.43	0.79	0.84	0.00	1.00
Avail Cap(c_a), veh/h	103	1396	738	196	1679	872	192	422	350	187	0	360
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.7	8.6	8.6	58.1	2.0	1.4	66.9	50.0	54.9	68.4	0.0	60.2
Incr Delay (d2), s/veh	21.2	1.5	2.8	44.5	1.7	0.3	61.1	0.7	11.7	20.7	0.0	46.8
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	5.4	5.6	6.2	12.8	2.5	0.5	15.9	10.1	16.6	8.9	0.0	25.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.0	10.1	11.4	102.6	3.7	1.7	128.0	50.7	66.6	89.1	0.0	107.0
LnGrp LOS	F	B	B	F	A	A	F	D	E	F	A	F
Approach Vol, veh/h		1483			1428			649			474	
Approach Delay, s/veh		14.3			16.4			80.0			102.7	
Approach LOS		B			B			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	68.5	22.0	36.5	14.0	77.5	17.9	40.6
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	16.5	48.0	16.0	* 30	8.5	71.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	17.4	17.3	17.8	31.4	7.9	8.1	11.4	27.1
Green Ext Time (p_c), s	0.0	11.3	0.0	0.0	0.0	10.9	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	36.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	59	1481	135	412	1170	204	151	154	265	812	252	48
Future Volume (veh/h)	59	1481	135	412	1170	204	151	154	265	812	252	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	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	1885	1900	1870	1841	1900	1900	1885	1885	1900	1870
Adj Flow Rate, veh/h	60	1511	138	420	1194	208	154	157	270	829	257	49
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	1	0	2	4	0	0	1	1	0	2
Cap, veh/h	77	1872	936	257	2861	1237	234	177	146	419	939	411
Arrive On Green	0.09	1.00	1.00	0.07	0.56	0.56	0.07	0.09	0.09	0.23	0.26	0.26
Sat Flow, veh/h	1781	3554	1574	3510	5106	1557	3510	1900	1565	1795	3610	1581
Grp Volume(v), veh/h	60	1511	138	420	1194	208	154	157	270	829	257	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1574	1755	1702	1557	1755	1900	1565	1795	1805	1581
Q Serve(g_s), s	5.0	0.0	0.0	11.0	20.1	4.8	6.4	12.3	14.0	35.0	8.5	3.5
Cycle Q Clear(g_c), s	5.0	0.0	0.0	11.0	20.1	4.8	6.4	12.3	14.0	35.0	8.5	3.5
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	77	1872	936	257	2861	1237	234	177	146	419	939	411
V/C Ratio(X)	0.78	0.81	0.15	1.63	0.42	0.17	0.66	0.89	1.85	1.98	0.27	0.12
Avail Cap(c_a), veh/h	232	1872	936	257	2861	1237	257	177	146	419	939	411
HCM Platoon Ratio	2.00	2.00	2.00	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	0.59	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	0.0	0.0	69.5	18.9	3.7	68.3	67.2	68.0	57.5	44.2	42.4
Incr Delay (d2), s/veh	9.8	2.3	0.2	299.6	0.4	0.3	5.3	37.3	407.2	449.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.3	1.1	0.1	24.9	12.3	2.7	5.6	12.4	35.5	105.6	6.8	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.7	2.3	0.2	369.1	19.3	4.0	73.6	104.5	475.2	506.5	44.4	42.5
LnGrp LOS	E	A	A	F	B	A	E	F	F	F	D	D
Approach Vol, veh/h		1709			1822			581			1135	
Approach Delay, s/veh		4.8			98.2			268.6			381.8	
Approach LOS		A			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	91.5	17.0	46.0	18.0	86.5	42.0	21.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	19.5	36.0	11.0	38.0	11.0	* 63	35.0	14.0
Max Q Clear Time (g_c+I1), s	7.0	22.1	8.4	10.5	13.0	2.0	37.0	16.0
Green Ext Time (p_c), s	0.1	7.3	0.1	1.6	0.0	18.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	148.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	1513	1124	152	1770	0	0	0	0	106	0	41
Future Volume (veh/h)	0	1513	1124	152	1770	0	0	0	0	106	0	41
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1856	1856	1870	0				1885	0	1900
Adj Flow Rate, veh/h	0	1576	1171	158	1844	0				110	0	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	1	3	3	2	0				1	0	0
Cap, veh/h	0	3352	1759	233	4021	0				202	0	94
Arrive On Green	0.00	0.65	0.65	0.07	0.79	0.00				0.06	0.00	0.06
Sat Flow, veh/h	0	5316	2701	3428	5274	0				3483	0	1610
Grp Volume(v), veh/h	0	1576	1171	158	1844	0				110	0	43
Grp Sat Flow(s),veh/h/ln	0	1716	1350	1714	1702	0				1742	0	1610
Q Serve(g_s), s	0.0	12.9	22.3	3.8	10.0	0.0				2.6	0.0	2.2
Cycle Q Clear(g_c), s	0.0	12.9	22.3	3.8	10.0	0.0				2.6	0.0	2.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3352	1759	233	4021	0				202	0	94
V/C Ratio(X)	0.00	0.47	0.67	0.68	0.46	0.00				0.54	0.00	0.46
Avail Cap(c_a), veh/h	0	3352	1759	423	4021	0				704	0	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.3	9.0	38.0	3.0	0.0				38.3	0.0	38.1
Incr Delay (d2), s/veh	0.0	0.5	2.0	1.3	0.4	0.0				0.8	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.7	9.2	2.8	3.0	0.0				2.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.8	11.0	39.3	3.3	0.0				39.1	0.0	39.4
LnGrp LOS	A	A	B	D	A	A				D	A	D
Approach Vol, veh/h		2747			2002						153	
Approach Delay, s/veh		9.2			6.2						39.2	
Approach LOS		A			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.4	61.2		11.0		72.6
Change Period (Y+Rc), s	* 5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	* 10	49.8		16.9		65.8
Max Q Clear Time (g_c+I1), s	5.8	24.3		4.6		12.0
Green Ext Time (p_c), s	0.1	6.7		0.1		6.2

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	307	1149	174	0	900	117	885	293	80	161	0	410
Future Volume (veh/h)	307	1149	174	0	900	117	885	293	80	161	0	410
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	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	1870	1885	0	1870	1870	1856	1781	1856	1885	0	1870
Adj Flow Rate, veh/h	320	1197	181	0	938	122	922	305	83	168	0	427
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, %	1	2	1	0	2	2	3	8	3	1	0	2
Cap, veh/h	524	1653	724	0	1242	378	1047	426	114	242	0	0
Arrive On Green	0.15	0.47	0.47	0.00	0.24	0.24	0.31	0.16	0.16	0.13	0.00	0.00
Sat Flow, veh/h	3483	3554	1556	0	5274	1555	3428	2637	705	1795	168	
Grp Volume(v), veh/h	320	1197	181	0	938	122	922	194	194	168	34.3	
Grp Sat Flow(s),veh/h/ln	1742	1777	1556	0	1702	1555	1714	1692	1650	1795	C	
Q Serve(g_s), s	6.8	21.6	5.6	0.0	13.6	5.1	20.4	8.6	8.9	7.1		
Cycle Q Clear(g_c), s	6.8	21.6	5.6	0.0	13.6	5.1	20.4	8.6	8.9	7.1		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	524	1653	724	0	1242	378	1047	274	267	242		
V/C Ratio(X)	0.61	0.72	0.25	0.00	0.76	0.32	0.88	0.71	0.73	0.69		
Avail Cap(c_a), veh/h	581	2087	914	0	1782	543	2151	616	600	336		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.7	17.2	12.9	0.0	28.0	24.8	26.3	31.6	31.7	32.9		
Incr Delay (d2), s/veh	0.9	0.6	0.1	0.0	0.6	0.2	1.0	1.3	1.4	1.4		
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		
%ile BackOfQ(95%),veh/ln	5.2	12.9	3.3	0.0	8.9	3.3	12.7	6.3	6.4	5.6		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	17.8	13.0	0.0	28.5	24.9	27.3	32.9	33.2	34.3		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1698			1060			1310				
Approach Delay, s/veh		20.1			28.1			29.0				
Approach LOS		C			C			C				

Timer - Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		43.9	30.4		17.7	26.2	16.8	19.0
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s		46.8	50.0		* 13	27.8	14.9	29.0
Max Q Clear Time (g_c+I1), s		23.6	22.4		8.8	15.6	9.1	10.9
Green Ext Time (p_c), s		7.0	2.0		0.3	3.7	0.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	77	11	5	336	371	63
Future Vol, veh/h	77	11	5	336	371	63
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	1	1	2
Mvmt Flow	81	12	5	354	391	66

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	789	425	458	0	-	0
Stage 1	425	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	361	634	1114	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	359	633	1113	-	-	-
Mov Cap-2 Maneuver	474	-	-	-	-	-
Stage 1	659	-	-	-	-	-
Stage 2	704	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1113	-	474	633	-	-
HCM Lane V/C Ratio	0.005	-	0.171	0.018	-	-
HCM Control Delay (s)	8.2	-	14.2	10.8	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	321	1	1	402
Future Vol, veh/h	0	1	321	1	1	402
Conflicting Peds, #/hr	0	0	0	1	1	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, %	0	0	0	100	100	1
Mvmt Flow	0	1	338	1	1	423

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	765	340	0	0	340	0
Stage 1	340	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	3.1	-
Pot Cap-1 Maneuver	374	707	-	-	828	-
Stage 1	725	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	373	706	-	-	827	-
Mov Cap-2 Maneuver	485	-	-	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	663	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	706	827	-
HCM Lane V/C Ratio	-	-	0.001	0.001	-
HCM Control Delay (s)	-	-	10.1	9.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	61	78	287	368	21
Future Vol, veh/h	29	61	78	287	368	21
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	31	64	82	302	387	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	865	399	410	0	-	0
Stage 1	399	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	327	655	1160	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	303	654	1159	-	-	-
Mov Cap-2 Maneuver	428	-	-	-	-	-
Stage 1	633	-	-	-	-	-
Stage 2	635	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1159	-	559	-	-
HCM Lane V/C Ratio	0.071	-	0.169	-	-
HCM Control Delay (s)	8.3	-	12.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	16	63	1	62	7	300	37	57	374	2
Future Vol, veh/h	2	1	16	63	1	62	7	300	37	57	374	2
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	2	1	0
Mvmt Flow	2	1	17	66	1	65	7	316	39	60	394	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	899	885	398	878	867	338	396	0	0	356	0	0
Stage 1	515	515	-	351	351	-	-	-	-	-	-	-
Stage 2	384	370	-	527	516	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	262	286	656	271	293	709	1174	-	-	1203	-	-
Stage 1	546	538	-	670	636	-	-	-	-	-	-	-
Stage 2	643	624	-	538	538	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	270	654	251	276	708	1174	-	-	1202	-	-
Mov Cap-2 Maneuver	227	270	-	251	276	-	-	-	-	-	-	-
Stage 1	543	511	-	665	632	-	-	-	-	-	-	-
Stage 2	579	620	-	496	511	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	20.2	0.2	1.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1174	-	-	514	368	1202	-	-
HCM Lane V/C Ratio	0.006	-	-	0.039	0.36	0.05	-	-
HCM Control Delay (s)	8.1	-	-	12.3	20.2	8.2	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.6	0.2	-	-

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

02/09/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	378	9	182	433	802	0	0	837	291
Future Volume (veh/h)	0	0	0	378	9	182	433	802	0	0	837	291
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1841	1885	1870	0	0	1870	1856
Adj Flow Rate, veh/h				294	144	188	446	827	0	0	863	300
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				3	0	4	1	2	0	0	2	3
Cap, veh/h				374	158	207	472	3410	0	0	1326	458
Arrive On Green				0.21	0.21	0.21	0.26	0.67	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1767	747	976	1795	5274	0	0	3875	1281
Grp Volume(v), veh/h				294	0	332	446	827	0	0	792	371
Grp Sat Flow(s),veh/h/ln				1767	0	1723	1795	1702	0	0	1702	1583
Q Serve(g_s), s				15.6	0.0	18.6	24.1	6.4	0.0	0.0	19.3	19.4
Cycle Q Clear(g_c), s				15.6	0.0	18.6	24.1	6.4	0.0	0.0	19.3	19.4
Prop In Lane				1.00		0.57	1.00		0.00	0.00		0.81
Lane Grp Cap(c), veh/h				374	0	365	472	3410	0	0	1218	566
V/C Ratio(X)				0.79	0.00	0.91	0.95	0.24	0.00	0.00	0.65	0.65
Avail Cap(c_a), veh/h				393	0	383	472	3410	0	0	1218	566
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	1.00	0.81	0.81	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.9	0.0	38.1	35.8	6.5	0.0	0.0	26.6	26.7
Incr Delay (d2), s/veh				8.7	0.0	23.7	24.3	0.1	0.0	0.0	2.7	5.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.1	0.0	15.5	18.4	3.4	0.0	0.0	12.3	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.5	0.0	61.8	60.1	6.7	0.0	0.0	29.3	32.5
LnGrp LOS				D	A	E	E	A	A	A	C	C
Approach Vol, veh/h					626			1273			1163	
Approach Delay, s/veh					54.2			25.4			30.3	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8				
Phs Duration (G+Y+Rc), s	72.9		30.7	42.2		26.1				
Change Period (Y+Rc), s	6.8		* 4.7	6.8		5.1				
Max Green Setting (Gmax), s	65.0		* 26	34.0		22.0				
Max Q Clear Time (g_c+I1), s	8.4		26.1	21.4		20.6				
Green Ext Time (p_c), s	3.7		0.0	4.1		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	33.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	95	222	33	85	148	621	42	563	258	463	594	172
Future Volume (veh/h)	95	222	33	85	148	621	42	563	258	463	594	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
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	1856	1900	1885	1885	1870	1900	1885	1885	1885	1870	1841
Adj Flow Rate, veh/h	97	227	34	87	151	634	43	574	263	472	606	176
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	3	0	1	1	2	0	1	1	1	2	4
Cap, veh/h	292	761	112	147	462	674	88	893	397	534	1287	545
Arrive On Green	0.08	0.25	0.25	0.08	0.25	0.25	0.05	0.26	0.26	0.15	0.36	0.36
Sat Flow, veh/h	3483	3081	455	1795	1885	2750	1810	3464	1540	3483	3554	1506
Grp Volume(v), veh/h	97	129	132	87	151	634	43	568	269	472	606	176
Grp Sat Flow(s),veh/h/ln	1742	1763	1773	1795	1885	1375	1810	1716	1574	1742	1777	1506
Q Serve(g_s), s	2.6	5.9	6.1	4.7	6.6	22.6	2.3	14.7	15.3	13.3	13.1	8.4
Cycle Q Clear(g_c), s	2.6	5.9	6.1	4.7	6.6	22.6	2.3	14.7	15.3	13.3	13.1	8.4
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	292	435	438	147	462	674	88	885	406	534	1287	545
V/C Ratio(X)	0.33	0.30	0.30	0.59	0.33	0.94	0.49	0.64	0.66	0.88	0.47	0.32
Avail Cap(c_a), veh/h	366	450	452	171	462	674	172	885	406	540	1287	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.34	0.34	0.34	1.00	1.00	1.00	0.63	0.63	0.63
Uniform Delay (d), s/veh	43.2	30.6	30.6	44.3	31.0	37.0	46.3	33.0	33.2	41.5	24.5	23.0
Incr Delay (d2), s/veh	0.7	0.4	0.4	1.4	0.1	9.6	4.1	3.6	8.2	10.8	0.8	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	2.0	4.4	4.6	3.4	4.5	10.8	2.0	10.3	10.6	9.5	8.3	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	31.0	31.0	45.7	31.1	46.7	50.4	36.6	41.5	52.3	25.3	24.0
LnGrp LOS	D	C	C	D	C	D	D	D	D	D	C	C
Approach Vol, veh/h		358			872			880			1254	
Approach Delay, s/veh		34.5			43.9			38.7			35.3	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.8	32.3	14.7	31.2	11.4	42.7	14.9	31.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	25.5	23.5	9.5	25.5	9.5	29.5	10.5	24.5
Max Q Clear Time (g_c+I1), s	15.3	17.3	6.7	8.1	4.3	15.1	4.6	24.6
Green Ext Time (p_c), s	0.0	2.6	0.0	1.2	0.0	3.7	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Edition methodology expects strict NEMA phasing.

Queues
3: Via Vera Cruz & Grand Ave

02/09/2024

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	511	354	204	149	469	146	215	84	215	594
v/c Ratio	0.72	0.59	0.31	0.63	0.98	0.60	0.84	0.23	0.37	0.99
Control Delay	42.9	42.8	3.2	52.0	80.1	49.3	68.0	1.7	26.9	64.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	42.8	3.2	52.0	80.1	49.3	68.0	1.7	26.9	64.8
Queue Length 50th (ft)	154	107	0	88	105	88	135	0	100	338
Queue Length 95th (ft)	211	#164	29	149	#177	154	#256	3	163	#568
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	707	598	676	277	480	260	273	379	585	602
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.59	0.30	0.54	0.98	0.56	0.79	0.22	0.37	0.99

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	501	347	200	146	436	24	159	195	82	211	321	261
Future Volume (vph)	501	347	200	146	436	24	159	195	82	211	321	261
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3574	1596	1787	5099		1681	1763	1615	1770	1730	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3574	1596	1787	5099		1681	1763	1615	1770	1730	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	511	354	204	149	445	24	162	199	84	215	328	266
RTOR Reduction (vph)	0	0	140	0	6	0	0	0	72	0	30	0
Lane Group Flow (vph)	511	354	64	149	463	0	146	215	12	215	564	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	1%	0%	1%	1%	0%	2%	2%	0%	2%	2%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	19.9	16.1	30.2	12.8	9.0		14.1	14.1	14.1	32.0	32.0	
Effective Green, g (s)	19.9	16.1	30.2	12.8	9.0		14.1	14.1	14.1	32.0	32.0	
Actuated g/C Ratio	0.21	0.17	0.31	0.13	0.09		0.15	0.15	0.15	0.33	0.33	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	706	595	498	236	474		245	257	235	585	572	
v/s Ratio Prot	c0.15	0.10	0.02	0.08	c0.09		0.09	c0.12		0.12	c0.33	
v/s Ratio Perm			0.02						0.01			
v/c Ratio	0.72	0.59	0.13	0.63	0.98		0.60	0.84	0.05	0.37	0.99	
Uniform Delay, d1	35.8	37.3	23.8	39.7	43.7		38.6	40.2	35.5	24.6	32.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.4	4.3	0.0	4.0	35.8		2.6	19.6	0.0	0.1	33.6	
Delay (s)	42.2	41.6	23.9	43.7	79.5		41.2	59.8	35.6	24.8	65.8	
Level of Service	D	D	C	D	E		D	E	D	C	E	
Approach Delay (s)		38.5			70.9			49.1			54.9	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM 2000 Control Delay	51.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	86.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	586	24	111	643	19	182
Future Vol, veh/h	586	24	111	643	19	182
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	10	1	1	0	3
Mvmt Flow	617	25	117	677	20	192

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	643	0	1204	322
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	573	-
Critical Hdwy	-	-	4.12	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	945	-	180	671
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	533	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	944	-	158	670
Mov Cap-2 Maneuver	-	-	-	-	292	-
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	467	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	597	-	-	944	-
HCM Lane V/C Ratio	0.354	-	-	0.124	-
HCM Control Delay (s)	14.3	-	-	9.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	1.6	-	-	0.4	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	464	306	77	370	385	117
Future Volume (veh/h)	464	306	77	370	385	117
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	488	322	81	389	405	123
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	1	0	2
Cap, veh/h	669	440	146	1828	498	437
Arrive On Green	0.33	0.33	0.08	0.51	0.28	0.28
Sat Flow, veh/h	2144	1347	1810	3676	1810	1585
Grp Volume(v), veh/h	426	384	81	389	405	123
Grp Sat Flow(s),veh/h/ln	1791	1606	1810	1791	1810	1585
Q Serve(g_s), s	10.6	10.7	2.2	3.0	10.5	3.1
Cycle Q Clear(g_c), s	10.6	10.7	2.2	3.0	10.5	3.1
Prop In Lane		0.84	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	584	524	146	1828	498	437
V/C Ratio(X)	0.73	0.73	0.55	0.21	0.81	0.28
Avail Cap(c_a), veh/h	853	765	215	2502	862	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	15.0	22.3	6.8	17.0	14.3
Incr Delay (d2), s/veh	1.8	2.0	3.3	0.1	3.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	5.9	1.7	1.3	7.4	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.8	17.1	25.5	6.8	20.3	14.7
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	810			470	528	
Approach Delay, s/veh	16.9			10.1	19.0	
Approach LOS	B			B	B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.3	22.2				31.5	18.9
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	24.0				35.2	24.0
Max Q Clear Time (g_c+I1), s	4.2	12.7				5.0	12.5
Green Ext Time (p_c), s	0.0	3.7				2.4	1.4

Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Notes

* HCM 6th 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)	102	955	8	155	975	183	74	56	79	276	93	68
Future Volume (veh/h)	102	955	8	155	975	183	74	56	79	276	93	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
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	1885	1900	1900	1870	1885	1900	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	107	1005	8	163	1026	193	78	59	83	291	98	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	0	0	2	1	0	0	0	1	0	2
Cap, veh/h	133	1782	14	193	1556	292	112	155	137	353	132	97
Arrive On Green	0.07	0.49	0.49	0.07	0.35	0.35	0.06	0.09	0.09	0.10	0.13	0.13
Sat Flow, veh/h	1781	3641	29	1810	2985	560	1810	1805	1593	3483	1014	745
Grp Volume(v), veh/h	107	494	519	163	610	609	78	59	83	291	0	170
Grp Sat Flow(s),veh/h/ln	1781	1791	1879	1810	1777	1768	1810	1805	1593	1742	0	1760
Q Serve(g_s), s	7.1	23.4	23.4	10.7	34.8	35.0	5.1	3.7	6.0	9.8	0.0	11.2
Cycle Q Clear(g_c), s	7.1	23.4	23.4	10.7	34.8	35.0	5.1	3.7	6.0	9.8	0.0	11.2
Prop In Lane	1.00		0.02	1.00		0.32	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	133	877	920	193	926	922	112	155	137	353	0	228
V/C Ratio(X)	0.80	0.56	0.56	0.85	0.66	0.66	0.70	0.38	0.61	0.82	0.00	0.74
Avail Cap(c_a), veh/h	260	877	920	264	926	922	241	384	339	450	0	381
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.6	21.6	21.6	54.7	30.0	30.1	55.2	51.8	52.9	52.9	0.0	50.3
Incr Delay (d2), s/veh	10.7	2.6	2.5	10.8	2.3	2.3	7.6	1.5	4.3	9.5	0.0	4.8
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	6.3	15.0	15.5	8.5	21.1	21.1	4.6	3.1	4.6	8.2	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	24.2	24.1	65.5	32.3	32.4	62.8	53.4	57.2	62.3	0.0	55.1
LnGrp LOS	E	C	C	E	C	C	E	D	E	E	A	E
Approach Vol, veh/h		1120			1382			220			461	
Approach Delay, s/veh		28.1			36.2			58.2			59.7	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	65.2	13.4	22.1	15.5	69.1	18.7	16.8
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	16.0	* 26	17.5	35.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	12.7	25.4	7.1	13.2	9.1	37.0	11.8	8.0
Green Ext Time (p_c), s	0.2	4.2	0.1	0.6	0.1	0.0	0.3	0.6

Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	108	955	84	267	924	202	155	140	275	169	143	110
Future Volume (veh/h)	108	955	84	267	924	202	155	140	275	169	143	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		0.98
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	1885	1885	1870	1900	1885	1870	1870	1885	1900	1900
Adj Flow Rate, veh/h	114	1005	88	281	973	213	163	147	289	178	151	116
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	2	0	1	2	2	1	0	0
Cap, veh/h	142	1508	132	262	1359	799	193	386	321	207	216	166
Arrive On Green	0.03	0.10	0.10	0.29	0.76	0.76	0.11	0.21	0.21	0.12	0.22	0.22
Sat Flow, veh/h	1781	4769	417	1795	3554	1604	1795	1870	1556	1795	989	760
Grp Volume(v), veh/h	114	717	376	281	973	213	163	147	289	178	0	267
Grp Sat Flow(s),veh/h/ln	1781	1702	1781	1795	1777	1604	1795	1870	1556	1795	0	1749
Q Serve(g_s), s	7.6	24.3	24.4	17.5	17.1	4.2	10.7	8.1	21.7	11.7	0.0	16.9
Cycle Q Clear(g_c), s	7.6	24.3	24.4	17.5	17.1	4.2	10.7	8.1	21.7	11.7	0.0	16.9
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	142	1076	563	262	1359	799	193	386	321	207	0	381
V/C Ratio(X)	0.80	0.67	0.67	1.07	0.72	0.27	0.85	0.38	0.90	0.86	0.00	0.70
Avail Cap(c_a), veh/h	260	1076	563	262	1359	799	269	436	363	262	0	430
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.69	0.69	0.69	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.5	47.6	47.7	42.5	10.7	6.2	52.6	41.0	46.4	52.2	0.0	43.3
Incr Delay (d2), s/veh	7.2	2.3	4.4	67.1	2.3	0.6	15.9	0.6	22.8	20.4	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.5	16.1	17.1	16.2	6.7	2.4	9.6	7.0	15.8	10.5	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	49.9	52.0	109.6	13.0	6.7	68.4	41.6	69.3	72.5	0.0	47.6
LnGrp LOS	E	D	D	F	B	A	E	D	E	E	A	D
Approach Vol, veh/h		1207			1467			599			445	
Approach Delay, s/veh		52.0			30.6			62.3			57.6	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	43.9	18.9	33.2	16.1	51.9	20.3	31.7
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	17.5	30.0	18.0	* 30	17.5	30.0	17.5	28.0
Max Q Clear Time (g_c+I1), s	19.5	26.4	12.7	18.9	9.6	19.1	13.7	23.7
Green Ext Time (p_c), s	0.0	2.1	0.2	1.1	0.1	5.3	0.2	0.8

Intersection Summary	
HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	101	1166	255	554	1185	185	170	178	334	332	281	55
Future Volume (veh/h)	101	1166	255	554	1185	185	170	178	334	332	281	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
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	1900	1870	1900	1885	1870	1870	1900	1870	1900	1870	1900	1870
Adj Flow Rate, veh/h	106	1227	268	583	1247	195	179	187	352	349	296	58
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, %	0	2	0	1	2	2	0	2	0	2	0	2
Cap, veh/h	131	1629	856	319	2461	1022	293	358	303	297	993	430
Arrive On Green	0.14	0.92	0.92	0.09	0.48	0.48	0.08	0.19	0.19	0.17	0.28	0.28
Sat Flow, veh/h	1810	3554	1576	3483	5106	1572	3510	1870	1580	1781	3610	1564
Grp Volume(v), veh/h	106	1227	268	583	1247	195	179	187	352	349	296	58
Grp Sat Flow(s),veh/h/ln	1810	1777	1576	1742	1702	1572	1755	1870	1580	1781	1805	1564
Q Serve(g_s), s	6.8	11.2	2.2	11.0	20.1	6.0	5.9	10.8	23.0	20.0	7.8	3.3
Cycle Q Clear(g_c), s	6.8	11.2	2.2	11.0	20.1	6.0	5.9	10.8	23.0	20.0	7.8	3.3
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	131	1629	856	319	2461	1022	293	358	303	297	993	430
V/C Ratio(X)	0.81	0.75	0.31	1.83	0.51	0.19	0.61	0.52	1.16	1.18	0.30	0.13
Avail Cap(c_a), veh/h	249	1629	856	319	2461	1022	293	358	303	297	993	430
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	3.2	2.0	54.5	21.3	8.5	53.1	43.6	48.5	50.0	34.4	32.8
Incr Delay (d2), s/veh	6.5	1.8	0.5	381.8	0.6	0.3	3.7	1.4	103.2	108.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.2	3.4	1.2	34.0	12.0	3.8	5.0	8.9	26.6	26.4	6.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	5.0	2.5	436.3	21.9	8.8	56.8	44.9	151.7	158.5	34.5	32.9
LnGrp LOS	E	A	A	F	C	A	E	D	F	F	C	C
Approach Vol, veh/h		1601			2025			718			703	
Approach Delay, s/veh		8.0			140.0			100.2			96.0	
Approach LOS		A			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	65.3	17.0	40.0	18.0	62.5	27.0	30.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	16.5	33.0	10.0	33.0	11.0	* 39	20.0	23.0
Max Q Clear Time (g_c+I1), s	8.8	22.1	7.9	9.8	13.0	13.2	22.0	25.0
Green Ext Time (p_c), s	0.1	6.4	0.1	1.8	0.0	10.9	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	86.3
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	918	1083	251	1799	0	0	0	0	168	0	209
Future Volume (veh/h)	0	918	1083	251	1799	0	0	0	0	168	0	209
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1870	1841	1885	0				1856	0	1885
Adj Flow Rate, veh/h	0	966	1140	264	1894	0				177	0	220
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	4	1	0				3	0	1
Cap, veh/h	0	2732	1449	339	3575	0				550	0	256
Arrive On Green	0.00	0.53	0.53	0.10	0.69	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	5316	2730	3401	5316	0				3428	0	1598
Grp Volume(v), veh/h	0	966	1140	264	1894	0				177	0	220
Grp Sat Flow(s),veh/h/ln	0	1716	1365	1700	1716	0				1714	0	1598
Q Serve(g_s), s	0.0	9.6	29.9	6.7	15.8	0.0				4.1	0.0	11.9
Cycle Q Clear(g_c), s	0.0	9.6	29.9	6.7	15.8	0.0				4.1	0.0	11.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2732	1449	339	3575	0				550	0	256
V/C Ratio(X)	0.00	0.35	0.79	0.78	0.53	0.00				0.32	0.00	0.86
Avail Cap(c_a), veh/h	0	2732	1449	508	3575	0				805	0	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.1	16.8	39.1	6.6	0.0				33.1	0.0	36.4
Incr Delay (d2), s/veh	0.0	0.4	4.4	2.1	0.6	0.0				0.1	0.0	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.1	13.9	5.0	7.8	0.0				3.1	0.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.4	21.2	41.2	7.1	0.0				33.2	0.0	45.3
LnGrp LOS	A	B	C	D	A	A				C	A	D
Approach Vol, veh/h		2106			2158						397	
Approach Delay, s/veh		17.2			11.3						39.9	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	54.0		20.4		68.6
Change Period (Y+Rc), s*	5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s*	13	42.8		20.9		61.8
Max Q Clear Time (g_c+I1), s	8.7	31.9		13.9		17.8
Green Ext Time (p_c), s	0.1	3.3		0.3		6.5

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	358	597	196	0	917	89	853	212	58	91	0	522
Future Volume (veh/h)	358	597	196	0	917	89	853	212	58	91	0	522
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	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	1885	1885	0	1870	1885	1870	1870	1900	1870	0	1885
Adj Flow Rate, veh/h	377	628	206	0	965	94	898	223	61	96	0	549
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	2	1	2	2	0	2	0	1
Cap, veh/h	557	1764	767	0	1300	400	1032	345	92	227	0	0
Arrive On Green	0.16	0.49	0.49	0.00	0.25	0.25	0.30	0.12	0.12	0.13	0.00	0.00
Sat Flow, veh/h	3456	3582	1557	0	5274	1572	3456	2770	740	1781	96	
Grp Volume(v), veh/h	377	628	206	0	965	94	898	141	143	96	30.4	
Grp Sat Flow(s),veh/h/ln	1728	1791	1557	0	1702	1572	1728	1777	1733	1781	C	
Q Serve(g_s), s	7.6	8.0	5.8	0.0	12.9	3.5	18.3	5.6	5.9	3.7		
Cycle Q Clear(g_c), s	7.6	8.0	5.8	0.0	12.9	3.5	18.3	5.6	5.9	3.7		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	557	1764	767	0	1300	400	1032	221	216	227		
V/C Ratio(X)	0.68	0.36	0.27	0.00	0.74	0.23	0.87	0.64	0.66	0.42		
Avail Cap(c_a), veh/h	757	2441	1061	0	1970	606	2142	693	676	263		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	29.4	11.6	11.0	0.0	25.5	22.0	24.7	31.0	31.1	29.9		
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.0	0.3	0.1	0.9	1.1	1.3	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		
%ile BackOfQ(95%),veh/ln	5.6	5.2	3.3	0.0	8.4	2.3	11.6	4.3	4.4	2.8		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	11.7	11.1	0.0	25.8	22.1	25.6	32.1	32.4	30.4		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1211			1059			1182				
Approach Delay, s/veh		17.2			25.5			27.2				
Approach LOS		B			C			C				

Timer - Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		43.4	28.3		17.7	25.7	15.6	15.4
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s		50.7	46.1		* 16	28.7	11.0	29.0
Max Q Clear Time (g_c+I1), s		10.0	20.3		9.6	14.9	5.7	7.9
Green Ext Time (p_c), s		3.5	1.9		0.5	3.9	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	129	37	3	348	232	124
Future Vol, veh/h	129	37	3	348	232	124
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	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	136	39	3	366	244	131

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	682	310	375	0	-	0
Stage 1	310	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	419	735	1195	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	418	735	1195	-	-	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1195	-	520	735	-	-
HCM Lane V/C Ratio	0.003	-	0.261	0.053	-	-
HCM Control Delay (s)	8	-	14.4	10.2	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	1	0.2	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	353	0	0	272
Future Vol, veh/h	0	2	353	0	0	272
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, %	0	0	1	0	0	0
Mvmt Flow	0	2	372	0	0	286

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	658	372	0	0	-	-
Stage 1	372	-	-	-	-	-
Stage 2	286	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	432	678	-	-	0	-
Stage 1	702	-	-	-	0	-
Stage 2	767	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	432	678	-	-	-	-
Mov Cap-2 Maneuver	531	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	678	-
HCM Lane V/C Ratio	-	-	0.003	-
HCM Control Delay (s)	-	-	10.3	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	100	153	312	231	35
Future Vol, veh/h	33	100	153	312	231	35
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	35	105	161	328	243	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	912	262	280	0	-	0
Stage 1	262	-	-	-	-	-
Stage 2	650	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	307	782	1288	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	269	782	1288	-	-	-
Mov Cap-2 Maneuver	390	-	-	-	-	-
Stage 1	688	-	-	-	-	-
Stage 2	523	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1288	-	626	-	-
HCM Lane V/C Ratio	0.125	-	0.224	-	-
HCM Control Delay (s)	8.2	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	34	80	1	83	17	372	37	53	320	0
Future Vol, veh/h	5	2	34	80	1	83	17	372	37	53	320	0
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	0	1	0	1	0	0	0	0
Mvmt Flow	5	2	36	84	1	87	18	392	39	56	337	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	945	916	337	916	897	416	337	0	0	431	0	0
Stage 1	449	449	-	448	448	-	-	-	-	-	-	-
Stage 2	496	467	-	468	449	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	244	274	710	253	281	639	1234	-	-	1139	-	-
Stage 1	593	576	-	590	576	-	-	-	-	-	-	-
Stage 2	559	565	-	575	576	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	257	710	227	263	637	1234	-	-	1139	-	-
Mov Cap-2 Maneuver	199	257	-	227	263	-	-	-	-	-	-	-
Stage 1	584	548	-	581	567	-	-	-	-	-	-	-
Stage 2	473	557	-	517	548	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	26.4	0.3	1.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1234	-	-	507	337	1139	-	-
HCM Lane V/C Ratio	0.015	-	-	0.085	0.512	0.049	-	-
HCM Control Delay (s)	8	-	-	12.8	26.4	8.3	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2.8	0.2	-	-

Appendix O
Horizon Year 2050 With Project Operations Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	549	1	209	262	839	0	0	1225	342
Future Volume (veh/h)	0	0	0	549	1	209	262	839	0	0	1225	342
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1796	1900	1826	1737	1841	0	0	1841	1870
Adj Flow Rate, veh/h				400	251	220	276	883	0	0	1289	360
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				7	0	5	11	4	0	0	4	2
Cap, veh/h				397	217	190	201	3254	0	0	1860	518
Arrive On Green				0.23	0.23	0.23	0.12	0.65	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1711	934	819	1654	5191	0	0	4050	1083
Grp Volume(v), veh/h				400	0	471	276	883	0	0	1112	537
Grp Sat Flow(s),veh/h/ln				1711	0	1753	1654	1675	0	0	1675	1617
Q Serve(g_s), s				23.0	0.0	23.0	12.0	7.4	0.0	0.0	25.6	25.7
Cycle Q Clear(g_c), s				23.0	0.0	23.0	12.0	7.4	0.0	0.0	25.6	25.7
Prop In Lane				1.00		0.47	1.00		0.00	0.00		0.67
Lane Grp Cap(c), veh/h				397	0	407	201	3254	0	0	1604	774
V/C Ratio(X)				1.01	0.00	1.16	1.38	0.27	0.00	0.00	0.69	0.69
Avail Cap(c_a), veh/h				397	0	407	201	3254	0	0	1604	774
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	1.00	0.84	0.84	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.0	0.0	38.0	43.5	7.5	0.0	0.0	20.1	20.1
Incr Delay (d2), s/veh				46.8	0.0	94.8	193.5	0.2	0.0	0.0	2.5	5.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				21.1	0.0	30.2	24.2	4.0	0.0	0.0	14.6	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				84.8	0.0	132.8	237.0	7.6	0.0	0.0	22.6	25.2
LnGrp LOS				F	A	F	F	A	A	A	C	C
Approach Vol, veh/h					871			1159			1649	
Approach Delay, s/veh					110.7			62.3			23.5	
Approach LOS					F			E			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	70.9	16.7	54.2	28.1
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	64.0	* 12	47.0	23.0
Max Q Clear Time (g_c+I1), s	9.4	14.0	27.7	25.0
Green Ext Time (p_c), s	4.1	0.0	7.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	56.4
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	177	271	28	112	213	600	31	403	90	378	776	632
Future Volume (veh/h)	177	271	28	112	213	600	31	403	90	378	776	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
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	1826	1678	1781	1841	1796	1826	1737	1826	1693	1796	1826	1826
Adj Flow Rate, veh/h	186	285	29	118	224	632	33	424	95	398	817	665
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, %	5	15	8	4	7	5	11	5	14	7	5	5
Cap, veh/h	302	637	64	152	386	584	69	1227	266	448	1365	588
Arrive On Green	0.09	0.22	0.22	0.09	0.22	0.22	0.04	0.30	0.30	0.14	0.39	0.39
Sat Flow, veh/h	3374	2922	295	1753	1796	2716	1654	4084	884	3319	3469	1494
Grp Volume(v), veh/h	186	154	160	118	224	632	33	342	177	398	817	665
Grp Sat Flow(s),veh/h/ln	1687	1594	1624	1753	1796	1358	1654	1662	1645	1659	1735	1494
Q Serve(g_s), s	5.3	8.4	8.5	6.6	11.2	21.5	1.9	8.0	8.4	11.8	18.7	39.4
Cycle Q Clear(g_c), s	5.3	8.4	8.5	6.6	11.2	21.5	1.9	8.0	8.4	11.8	18.7	39.4
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	302	347	354	152	386	584	69	999	494	448	1365	588
V/C Ratio(X)	0.62	0.44	0.45	0.78	0.58	1.08	0.47	0.34	0.36	0.89	0.60	1.13
Avail Cap(c_a), veh/h	320	347	354	167	386	584	157	999	494	448	1365	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.58	0.58	0.58	1.00	1.00	1.00	0.47	0.47	0.47
Uniform Delay (d), s/veh	43.9	33.9	33.9	44.7	35.2	39.3	46.8	27.3	27.4	42.5	24.1	30.3
Incr Delay (d2), s/veh	3.2	0.9	0.9	11.7	1.3	53.4	5.0	0.9	2.0	10.3	0.9	69.6
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	4.1	5.7	6.0	5.5	7.5	16.0	1.6	5.7	6.2	7.8	10.3	32.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	34.8	34.8	56.4	36.5	92.6	51.8	28.2	29.4	52.8	25.0	99.9
LnGrp LOS	D	C	C	E	D	F	D	C	C	D	C	F
Approach Vol, veh/h		500			974			552			1880	
Approach Delay, s/veh		39.4			75.3			30.0			57.4	
Approach LOS		D			E			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	36.6	15.2	28.3	10.7	45.9	15.4	28.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	13.5	29.5	9.5	21.5	9.5	33.5	9.5	21.5
Max Q Clear Time (g_c+I1), s	13.8	10.4	8.6	10.5	3.9	41.4	7.3	23.5
Green Ext Time (p_c), s	0.0	2.9	0.0	1.2	0.0	0.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	55.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	360	283	168	63	370	66	67	24	408	903
v/c Ratio	0.73	0.51	0.29	0.34	0.82	0.36	0.40	0.08	0.56	1.21
Control Delay	49.4	42.8	4.0	45.2	58.7	45.4	47.4	0.6	25.9	132.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	42.8	4.0	45.2	58.7	45.4	47.4	0.6	25.9	132.5
Queue Length 50th (ft)	110	87	0	37	83	41	41	0	190	~649
Queue Length 95th (ft)	#185	#152	33	77	#132	83	85	0	286	#888
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	492	555	618	251	453	241	219	325	724	746
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.51	0.27	0.25	0.82	0.27	0.31	0.07	0.56	1.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	269	160	60	341	10	78	48	23	388	305	553
Future Volume (vph)	342	269	160	60	341	10	78	48	23	388	305	553
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3099	3282	1495	1641	4880		1573	1427	1282	1770	1662	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3099	3282	1495	1641	4880		1573	1427	1282	1770	1662	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	360	283	168	63	359	11	82	51	24	408	321	582
RTOR Reduction (vph)	0	0	122	0	4	0	0	0	21	0	67	0
Lane Group Flow (vph)	360	283	46	63	366	0	66	67	3	408	836	0
Heavy Vehicles (%)	13%	10%	8%	10%	6%	0%	9%	30%	26%	2%	2%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	15.5	15.5	27.0	9.0	9.0		11.5	11.5	11.5	40.0	40.0	
Effective Green, g (s)	15.5	15.5	27.0	9.0	9.0		11.5	11.5	11.5	40.0	40.0	
Actuated g/C Ratio	0.16	0.16	0.28	0.09	0.09		0.12	0.12	0.12	0.41	0.41	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	491	520	413	151	449		185	167	150	724	680	
v/s Ratio Prot	c0.12	0.09	0.01	0.04	c0.08		0.04	c0.05		0.23	c0.50	
v/s Ratio Perm			0.02						0.00			
v/c Ratio	0.73	0.54	0.11	0.42	0.82		0.36	0.40	0.02	0.56	1.23	
Uniform Delay, d1	39.1	37.8	26.4	41.9	43.5		39.7	39.9	38.1	22.1	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	9.3	4.1	0.0	0.7	15.0		0.4	0.6	0.0	0.6	116.0	
Delay (s)	48.5	41.9	26.4	42.6	58.6		40.1	40.5	38.1	22.8	144.9	
Level of Service	D	D	C	D	E		D	D	D	C	F	
Approach Delay (s)		41.6			56.2			40.0			106.9	
Approach LOS		D			E			D			F	

Intersection Summary			
HCM 2000 Control Delay	75.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	97.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	680	24	279	414	4	155
Future Vol, veh/h	680	24	279	414	4	155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	5	4	7	33	6
Mvmt Flow	716	25	294	436	4	163

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	741	0	1535	371
Stage 1	-	-	-	-	729	-
Stage 2	-	-	-	-	806	-
Critical Hdwy	-	-	4.18	-	7.46	7.02
Critical Hdwy Stg 1	-	-	-	-	6.46	-
Critical Hdwy Stg 2	-	-	-	-	6.46	-
Follow-up Hdwy	-	-	2.24	-	3.83	3.36
Pot Cap-1 Maneuver	-	-	849	-	79	615
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	330	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	849	-	52	615
Mov Cap-2 Maneuver	-	-	-	-	146	-
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	216	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	569	-	-	849	-
HCM Lane V/C Ratio	0.294	-	-	0.346	-
HCM Control Delay (s)	13.9	-	-	11.5	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	1.2	-	-	1.6	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	414	417	41	381	311	44
Future Volume (veh/h)	414	417	41	381	311	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1737	1856	1678	1796	1841	1900
Adj Flow Rate, veh/h	436	439	43	401	327	46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	15	7	4	0
Cap, veh/h	640	558	87	1869	409	375
Arrive On Green	0.39	0.39	0.05	0.55	0.23	0.23
Sat Flow, veh/h	1737	1439	1598	3503	1753	1610
Grp Volume(v), veh/h	436	439	43	401	327	46
Grp Sat Flow(s),veh/h/ln	1650	1439	1598	1706	1753	1610
Q Serve(g_s), s	10.8	13.2	1.3	3.0	8.7	1.1
Cycle Q Clear(g_c), s	10.8	13.2	1.3	3.0	8.7	1.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	640	558	87	1869	409	375
V/C Ratio(X)	0.68	0.79	0.50	0.21	0.80	0.12
Avail Cap(c_a), veh/h	844	737	221	2578	783	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	13.3	22.6	5.7	17.8	14.9
Incr Delay (d2), s/veh	1.4	4.2	4.4	0.1	3.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	6.6	0.9	1.1	6.1	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.0	17.5	27.0	5.8	21.5	15.0
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	875			444	373	
Approach Delay, s/veh	15.7			7.8	20.7	
Approach LOS	B			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.9	24.9				32.8	16.5
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6.8	25.2				37.2	22.0
Max Q Clear Time (g_c+I1), s	3.3	15.2				5.0	10.7
Green Ext Time (p_c), s	0.0	3.8				2.5	0.9

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

* HCM 6th 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)	35	1046	8	65	916	73	35	4	10	115	39	58
Future Volume (veh/h)	35	1046	8	65	916	73	35	4	10	115	39	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1811	1900	1900	1796	1841	1900	1900	1900	1841	1900	1796
Adj Flow Rate, veh/h	37	1101	8	68	964	77	37	4	11	121	41	61
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, %	0	6	0	0	7	4	0	0	0	4	0	7
Cap, veh/h	64	2131	15	88	1989	159	85	124	110	195	57	85
Arrive On Green	0.04	0.61	0.61	0.03	0.42	0.42	0.05	0.07	0.07	0.06	0.08	0.08
Sat Flow, veh/h	1810	3502	25	1810	3197	255	1810	1805	1603	3401	688	1023
Grp Volume(v), veh/h	37	541	568	68	514	527	37	4	11	121	0	102
Grp Sat Flow(s),veh/h/ln	1810	1721	1806	1810	1706	1746	1810	1805	1603	1700	0	1711
Q Serve(g_s), s	2.4	21.5	21.5	4.5	26.4	26.4	2.4	0.2	0.8	4.2	0.0	7.0
Cycle Q Clear(g_c), s	2.4	21.5	21.5	4.5	26.4	26.4	2.4	0.2	0.8	4.2	0.0	7.0
Prop In Lane	1.00		0.01	1.00		0.15	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	64	1047	1100	88	1062	1086	85	124	110	195	0	142
V/C Ratio(X)	0.58	0.52	0.52	0.77	0.48	0.48	0.43	0.03	0.10	0.62	0.00	0.72
Avail Cap(c_a), veh/h	234	1047	1100	234	1062	1086	241	384	341	439	0	371
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.54	0.54	0.54	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.0	13.4	13.4	57.4	20.9	20.9	55.6	52.2	52.4	55.3	0.0	53.7
Incr Delay (d2), s/veh	7.9	1.8	1.7	7.4	0.9	0.8	3.4	0.1	0.4	3.2	0.0	6.7
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	2.2	12.7	13.1	4.0	15.4	15.7	2.1	0.2	0.6	3.3	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	15.2	15.1	64.7	21.8	21.8	59.0	52.3	52.8	58.5	0.0	60.4
LnGrp LOS	E	B	B	E	C	C	E	D	D	E	A	E
Approach Vol, veh/h		1146			1109			52			223	
Approach Delay, s/veh		16.8			24.4			57.2			59.4	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	79.5	11.7	16.4	10.8	81.2	13.4	14.7
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	15.5	16.0	* 26	15.5	37.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	6.5	23.5	4.4	9.0	4.4	28.4	6.2	2.8
Green Ext Time (p_c), s	0.1	0.0	0.0	0.4	0.0	4.2	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	116	884	119	154	873	252	117	133	292	188	220	138
Future Volume (veh/h)	116	884	119	154	873	252	117	133	292	188	220	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.98
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	1900	1796	1841	1885	1796	1856	1885	1856	1856	1856	1870	1826
Adj Flow Rate, veh/h	122	931	125	162	919	265	123	140	307	198	232	145
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, %	0	7	4	1	7	3	1	3	3	3	2	5
Cap, veh/h	151	1463	196	192	1221	747	153	399	337	224	279	174
Arrive On Green	0.03	0.11	0.11	0.11	0.36	0.36	0.09	0.22	0.22	0.13	0.26	0.26
Sat Flow, veh/h	1810	4372	585	1795	3413	1530	1795	1856	1566	1767	1069	668
Grp Volume(v), veh/h	122	695	361	162	919	265	123	140	307	198	0	377
Grp Sat Flow(s),veh/h/ln	1810	1635	1688	1795	1706	1530	1795	1856	1566	1767	0	1737
Q Serve(g_s), s	8.0	24.4	24.5	10.6	28.4	13.0	8.1	7.7	23.0	13.2	0.0	24.6
Cycle Q Clear(g_c), s	8.0	24.4	24.5	10.6	28.4	13.0	8.1	7.7	23.0	13.2	0.0	24.6
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		0.38
Lane Grp Cap(c), veh/h	151	1094	565	192	1221	747	153	399	337	224	0	453
V/C Ratio(X)	0.81	0.64	0.64	0.84	0.75	0.35	0.81	0.35	0.91	0.88	0.00	0.83
Avail Cap(c_a), veh/h	264	1094	565	322	1221	747	239	433	365	228	0	453
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.88	0.88	0.88	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.4	46.4	46.4	52.6	33.9	19.3	53.9	40.0	46.0	51.5	0.0	41.8
Incr Delay (d2), s/veh	8.4	2.4	4.7	8.8	3.8	1.2	10.4	0.5	25.2	30.5	0.0	12.4
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	7.2	16.1	17.0	8.7	17.3	8.3	7.4	6.5	16.8	12.2	0.0	17.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	48.8	51.1	61.4	37.7	20.4	64.3	40.5	71.2	82.0	0.0	54.2
LnGrp LOS	E	D	D	E	D	C	E	D	E	F	A	D
Approach Vol, veh/h		1178			1346			570			575	
Approach Delay, s/veh		51.3			37.1			62.2			63.8	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	46.1	16.2	38.3	16.5	48.9	21.7	32.8
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	21.5	29.0	16.0	* 29	17.5	16.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	12.6	26.5	10.1	26.6	10.0	30.4	15.2	25.0
Green Ext Time (p_c), s	0.3	1.5	0.1	0.4	0.1	0.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	49.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	52	1144	83	247	1207	298	43	46	95	287	119	33
Future Volume (veh/h)	52	1144	83	247	1207	298	43	46	95	287	119	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
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	1796	1885	1856	1826	1796	1707	1737	1781	1752	1722	1796
Adj Flow Rate, veh/h	55	1204	87	260	1271	314	45	48	100	302	125	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	7	1	3	5	7	13	11	8	10	12	7
Cap, veh/h	87	1711	931	229	2608	948	263	157	135	181	378	174
Arrive On Green	0.10	1.00	1.00	0.07	0.52	0.52	0.08	0.09	0.09	0.11	0.12	0.12
Sat Flow, veh/h	1781	3413	1591	3428	4985	1497	3155	1737	1495	1668	3272	1510
Grp Volume(v), veh/h	55	1204	87	260	1271	314	45	48	100	302	125	35
Grp Sat Flow(s),veh/h/ln	1781	1706	1591	1714	1662	1497	1577	1737	1495	1668	1636	1510
Q Serve(g_s), s	3.6	0.0	0.0	8.0	19.6	11.7	1.6	3.1	7.8	13.0	4.2	2.5
Cycle Q Clear(g_c), s	3.6	0.0	0.0	8.0	19.6	11.7	1.6	3.1	7.8	13.0	4.2	2.5
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	87	1711	931	229	2608	948	263	157	135	181	378	174
V/C Ratio(X)	0.63	0.70	0.09	1.14	0.49	0.33	0.17	0.31	0.74	1.67	0.33	0.20
Avail Cap(c_a), veh/h	126	1711	931	229	2608	948	263	521	448	181	1063	491
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	0.0	0.0	56.0	18.3	10.3	51.1	51.1	53.2	53.5	48.8	48.1
Incr Delay (d2), s/veh	4.7	1.6	0.1	94.1	0.5	0.7	0.3	1.1	7.7	324.9	0.5	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	2.9	0.7	0.1	10.4	11.1	6.8	1.2	2.5	5.9	34.4	3.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	1.6	0.1	150.1	18.8	11.0	51.5	52.1	60.9	378.4	49.3	48.6
LnGrp LOS	E	A	A	F	B	B	D	D	E	F	D	D
Approach Vol, veh/h		1346			1845			193			462	
Approach Delay, s/veh		3.8			36.0			56.5			264.4	
Approach LOS		A			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	69.8	17.0	20.8	15.0	67.2	20.0	17.8
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	8.5	35.0	10.0	39.0	8.0	* 36	13.0	36.0
Max Q Clear Time (g_c+I1), s	5.6	21.6	3.6	6.2	10.0	2.0	15.0	9.8
Green Ext Time (p_c), s	0.0	7.8	0.0	0.8	0.0	10.8	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	53.2
HCM 6th LOS	D

Notes

* HCM 6th 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)	0	896	645	167	1722	0	0	0	0	179	0	47
Future Volume (veh/h)	0	896	645	167	1722	0	0	0	0	179	0	47
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1796	1796	1707	1811	0				1856	0	1796
Adj Flow Rate, veh/h	0	933	672	174	1794	0				186	0	49
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	7	7	13	6	0				3	0	7
Cap, veh/h	0	1702	910	324	2890	0				379	0	168
Arrive On Green	0.00	0.35	0.35	0.10	0.58	0.00				0.11	0.00	0.11
Sat Flow, veh/h	0	5065	2623	3155	5107	0				3428	0	1522
Grp Volume(v), veh/h	0	933	672	174	1794	0				186	0	49
Grp Sat Flow(s),veh/h/ln	0	1635	1311	1577	1648	0				1714	0	1522
Q Serve(g_s), s	0.0	6.5	9.5	2.2	10.0	0.0				2.2	0.0	1.3
Cycle Q Clear(g_c), s	0.0	6.5	9.5	2.2	10.0	0.0				2.2	0.0	1.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1702	910	324	2890	0				379	0	168
V/C Ratio(X)	0.00	0.55	0.74	0.54	0.62	0.00				0.49	0.00	0.29
Avail Cap(c_a), veh/h	0	4843	2590	1066	7219	0				1693	0	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.1	12.1	18.0	5.7	0.0				17.7	0.0	17.3
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.5	0.1	0.0				0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.0	3.6	1.2	2.6	0.0				1.4	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.2	12.6	18.5	5.8	0.0				18.1	0.0	17.6
LnGrp LOS	A	B	B	B	A	A				B	A	B
Approach Vol, veh/h		1605			1968						235	
Approach Delay, s/veh		11.8			6.9						18.0	
Approach LOS		B			A						B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.1	21.5		10.8		31.5
Change Period (Y+Rc), s	* 5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	* 14	41.8		20.9		61.8
Max Q Clear Time (g_c+I1), s	4.2	11.5		4.2		12.0
Green Ext Time (p_c), s	0.1	3.2		0.3		6.0

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	724	123	0	983	98	838	249	29	162	0	464
Future Volume (veh/h)	201	724	123	0	983	98	838	249	29	162	0	464
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	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	1781	1811	1811	0	1796	1885	1811	1811	1737	1856	0	1841
Adj Flow Rate, veh/h	212	762	129	0	1035	103	882	262	31	171	0	488
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, %	8	6	6	0	7	1	6	6	11	3	0	4
Cap, veh/h	492	1696	749	0	1333	424	1005	413	48	239	0	0
Arrive On Green	0.15	0.49	0.49	0.00	0.27	0.27	0.30	0.13	0.13	0.14	0.00	0.00
Sat Flow, veh/h	3291	3441	1519	0	5065	1560	3346	3099	363	1767	171	
Grp Volume(v), veh/h	212	762	129	0	1035	103	882	144	149	171	36.3	
Grp Sat Flow(s),veh/h/ln	1646	1721	1519	0	1635	1560	1673	1721	1741	1767	D	
Q Serve(g_s), s	4.7	11.5	3.7	0.0	15.5	4.1	19.9	6.3	6.4	7.4		
Cycle Q Clear(g_c), s	4.7	11.5	3.7	0.0	15.5	4.1	19.9	6.3	6.4	7.4		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.21	1.00		
Lane Grp Cap(c), veh/h	492	1696	749	0	1333	424	1005	229	232	239		
V/C Ratio(X)	0.43	0.45	0.17	0.00	0.78	0.24	0.88	0.63	0.64	0.72		
Avail Cap(c_a), veh/h	500	2067	913	0	1849	588	2060	627	634	309		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	30.8	13.1	11.2	0.0	26.7	22.6	26.5	32.6	32.7	33.0		
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.9	0.1	1.0	1.1	1.1	3.3		
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		
%ile BackOfQ(95%),veh/ln	3.2	7.0	2.2	0.0	9.6	2.7	12.4	4.8	5.0	5.9		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	13.2	11.2	0.0	27.6	22.7	27.5	33.7	33.8	36.3		
LnGrp LOS	C	B	B	A	C	C	C	C	C	D		
Approach Vol, veh/h		1103			1138			1175				
Approach Delay, s/veh		16.4			27.2			29.0				
Approach LOS		B			C			C				

Timer - Assigned Phs		2	3		5	6	7	8				
Phs Duration (G+Y+Rc), s		46.0	30.0		17.6	28.4	16.8	16.7				
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1				
Max Green Setting (Gmax), s		47.8	49.0		* 12	30.0	13.9	29.0				
Max Q Clear Time (g_c+I1), s		13.5	21.9		6.7	17.5	9.4	8.4				
Green Ext Time (p_c), s		3.7	2.0		0.2	4.1	0.1	1.1				

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	142	191	202	222	308	146
Future Vol, veh/h	142	191	202	222	308	146
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	4	4	6
Mvmt Flow	149	201	213	234	324	154

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1062	402	479	0	-	0
Stage 1	402	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	250	653	1094	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	201	652	1093	-	-	-
Mov Cap-2 Maneuver	334	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.8	4.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1093	-	334	652	-	-
HCM Lane V/C Ratio	0.195	-	0.448	0.308	-	-
HCM Control Delay (s)	9.1	-	24.2	13	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.7	-	2.2	1.3	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	6	427	0	3	495
Future Vol, veh/h	1	6	427	0	3	495
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, %	0	67	3	0	100	3
Mvmt Flow	1	6	449	0	3	521

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	976	449	0	0	449	0
Stage 1	449	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Critical Hdwy	6.4	6.87	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.903	-	-	3.1	-
Pot Cap-1 Maneuver	281	495	-	-	741	-
Stage 1	647	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	279	495	-	-	741	-
Mov Cap-2 Maneuver	409	-	-	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	592	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	481	741	-
HCM Lane V/C Ratio	-	-	0.015	0.004	-
HCM Control Delay (s)	-	-	12.6	9.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	26	51	422	473	11
Future Vol, veh/h	8	26	51	422	473	11
Conflicting Peds, #/hr	0	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	7	0	1	3	0
Mvmt Flow	8	27	54	444	498	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1057	506	511	0	-	0
Stage 1	505	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Critical Hdwy	6.4	6.27	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	2.2	-	-	-
Pot Cap-1 Maneuver	251	556	1065	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	238	555	1064	-	-	-
Mov Cap-2 Maneuver	373	-	-	-	-	-
Stage 1	578	-	-	-	-	-
Stage 2	580	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1064	-	498	-	-
HCM Lane V/C Ratio	0.05	-	0.072	-	-
HCM Control Delay (s)	8.6	-	12.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	57	0	29	18	448	25	32	461	1
Future Vol, veh/h	0	0	10	57	0	29	18	448	25	32	461	1
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	0	7	6	0	0	6	3	0
Mvmt Flow	0	0	11	60	0	31	19	472	26	34	485	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1094	1091	487	1082	1078	485	487	0	0	498	0	0
Stage 1	555	555	-	523	523	-	-	-	-	-	-	-
Stage 2	539	536	-	559	555	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.27	4.16	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.363	2.254	-	-	2.254	-	-
Pot Cap-1 Maneuver	193	217	585	195	220	572	1056	-	-	1046	-	-
Stage 1	520	516	-	537	534	-	-	-	-	-	-	-
Stage 2	530	527	-	513	516	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	176	206	584	184	209	572	1055	-	-	1046	-	-
Mov Cap-2 Maneuver	176	206	-	184	209	-	-	-	-	-	-	-
Stage 1	510	498	-	527	524	-	-	-	-	-	-	-
Stage 2	493	518	-	487	498	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	29	0.3	0.6
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1055	-	-	584	239	1046	-	-
HCM Lane V/C Ratio	0.018	-	-	0.018	0.379	0.032	-	-
HCM Control Delay (s)	8.5	-	-	11.3	29	8.6	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	1.7	0.1	-	-

HCM 6th Signalized Intersection Summary
1: Las Posas Rd & SR-78 WB Ramps

04/29/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	265	2	214	518	1607	0	0	936	404
Future Volume (veh/h)	0	0	0	265	2	214	518	1607	0	0	936	404
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1678	1900	1885	1885	1841	0	0	1856	1885
Adj Flow Rate, veh/h				248	37	221	534	1657	0	0	965	416
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				15	0	1	1	4	0	0	3	1
Cap, veh/h				276	41	243	557	3609	0	0	1250	539
Arrive On Green				0.17	0.17	0.17	0.31	0.72	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1598	236	1410	1795	5191	0	0	3595	1477
Grp Volume(v), veh/h				248	0	258	534	1657	0	0	951	430
Grp Sat Flow(s),veh/h/ln				1598	0	1646	1795	1675	0	0	1689	1528
Q Serve(g_s), s				16.6	0.0	16.8	31.8	15.1	0.0	0.0	27.1	27.2
Cycle Q Clear(g_c), s				16.6	0.0	16.8	31.8	15.1	0.0	0.0	27.1	27.2
Prop In Lane				1.00		0.86	1.00		0.00	0.00		0.97
Lane Grp Cap(c), veh/h				276	0	284	557	3609	0	0	1231	557
V/C Ratio(X)				0.90	0.00	0.91	0.96	0.46	0.00	0.00	0.77	0.77
Avail Cap(c_a), veh/h				279	0	287	560	3609	0	0	1231	557
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	1.00	0.34	0.34	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				44.2	0.0	44.2	36.9	6.5	0.0	0.0	30.6	30.6
Incr Delay (d2), s/veh				28.5	0.0	29.7	13.4	0.1	0.0	0.0	4.7	10.0
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				13.6	0.0	14.2	19.0	6.1	0.0	0.0	16.7	16.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				72.7	0.0	73.9	50.3	6.6	0.0	0.0	35.4	40.6
LnGrp LOS				E	A	E	D	A	A	A	D	D
Approach Vol, veh/h					506			2191			1381	
Approach Delay, s/veh					73.3			17.2			37.0	
Approach LOS					E			B			D	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	85.1	38.5	46.5	23.9
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	78.0	* 34	39.0	19.0
Max Q Clear Time (g_c+I1), s	17.1	33.8	29.2	18.8
Green Ext Time (p_c), s	10.1	0.0	4.4	0.1

Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	358	568	32	52	205	906	53	897	247	359	567	326
Future Volume (veh/h)	358	568	32	52	205	906	53	897	247	359	567	326
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.96
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	1900	1796	1826	1856	1870	1856	1885	1870	1826	1618
Adj Flow Rate, veh/h	365	580	33	53	209	924	54	915	252	366	579	333
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, %	3	3	0	7	5	3	2	3	1	2	5	19
Cap, veh/h	358	733	42	112	324	488	92	1397	383	436	1493	568
Arrive On Green	0.10	0.22	0.22	0.07	0.18	0.18	0.05	0.36	0.36	0.13	0.43	0.43
Sat Flow, veh/h	3428	3390	193	1711	1826	2754	1781	3931	1078	3456	3469	1319
Grp Volume(v), veh/h	365	301	312	53	209	924	54	786	381	366	579	333
Grp Sat Flow(s),veh/h/ln	1714	1763	1820	1711	1826	1377	1781	1689	1632	1728	1735	1319
Q Serve(g_s), s	11.5	17.8	17.8	3.3	11.7	19.5	3.3	21.5	21.6	11.4	12.6	21.2
Cycle Q Clear(g_c), s	11.5	17.8	17.8	3.3	11.7	19.5	3.3	21.5	21.6	11.4	12.6	21.2
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	358	381	393	112	324	488	92	1201	580	436	1493	568
V/C Ratio(X)	1.02	0.79	0.79	0.47	0.65	1.89	0.59	0.65	0.66	0.84	0.39	0.59
Avail Cap(c_a), veh/h	358	381	393	179	324	488	219	1201	580	550	1493	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.49	0.49	0.49
Uniform Delay (d), s/veh	49.3	40.8	40.8	49.6	42.0	45.3	51.0	29.8	29.8	47.0	21.4	23.9
Incr Delay (d2), s/veh	52.3	10.7	10.6	0.3	0.4	402.5	5.9	2.8	5.7	4.7	0.4	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.9	13.3	13.7	2.0	6.2	47.2	2.8	13.6	13.9	7.6	7.4	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.5	51.5	51.4	49.8	42.4	447.8	56.9	32.6	35.6	51.7	21.8	26.1
LnGrp LOS	F	D	D	D	D	F	E	C	D	D	C	C
Approach Vol, veh/h		978			1186			1221			1278	
Approach Delay, s/veh		70.1			358.6			34.6			31.5	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	45.6	13.7	30.3	12.2	53.8	18.0	26.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	11.5	19.5	13.5	39.5	11.5	19.5
Max Q Clear Time (g_c+I1), s	13.4	23.6	5.3	19.8	5.3	23.2	13.5	21.5
Green Ext Time (p_c), s	0.5	5.6	0.0	0.0	0.0	4.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	123.6
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	545	546	195	129	650	207	212	124	496	628
v/c Ratio	0.49	0.51	0.24	0.61	1.38	0.86	0.84	0.32	1.20	1.41
Control Delay	31.2	33.6	2.0	57.8	220.2	75.7	72.8	3.5	147.7	226.0
Queue Delay	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	34.3	2.0	57.8	220.2	75.7	72.8	3.5	147.7	226.0
Queue Length 50th (ft)	157	164	0	86	~219	146	149	0	~416	~542
Queue Length 95th (ft)	209	228	22	146	#301	#270	#270	13	#619	#764
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	1115	1075	846	251	472	262	273	410	414	446
Starvation Cap Reductn	277	235	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.65	0.23	0.51	1.38	0.79	0.78	0.30	1.20	1.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	518	519	185	123	606	11	252	146	118	471	209	388
Future Volume (vph)	518	519	185	123	606	11	252	146	118	471	209	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.90	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (prot)	3400	3539	1559	1805	5071		1665	1729	1615	1787	1654	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.99	1.00	0.95	1.00	
Satd. Flow (perm)	3400	3539	1559	1805	5071		1665	1729	1615	1787	1654	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	545	546	195	129	638	12	265	154	124	496	220	408
RTOR Reduction (vph)	0	0	107	0	2	0	0	0	106	0	62	0
Lane Group Flow (vph)	545	546	88	129	648	0	207	212	18	496	566	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	3%	2%	2%	0%	2%	0%	3%	3%	0%	1%	3%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	35.3	32.7	48.4	12.6	10.0		15.7	15.7	15.7	25.0	25.0	
Effective Green, g (s)	35.3	32.7	48.4	12.6	10.0		15.7	15.7	15.7	25.0	25.0	
Actuated g/C Ratio	0.33	0.30	0.45	0.12	0.09		0.15	0.15	0.15	0.23	0.23	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	1114	1074	700	211	470		242	252	235	414	383	
v/s Ratio Prot	0.16	c0.15	0.02	c0.07	c0.13		c0.12	0.12		0.28	c0.34	
v/s Ratio Perm			0.04						0.01			
v/c Ratio	0.49	0.51	0.13	0.61	1.38		0.86	0.84	0.08	1.20	1.48	
Uniform Delay, d1	29.0	30.9	17.3	45.2	48.9		44.9	44.8	39.7	41.4	41.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.5	1.7	0.0	3.7	183.6		23.6	20.9	0.1	110.4	228.5	
Delay (s)	30.5	32.6	17.3	48.9	232.4		68.5	65.6	39.8	151.7	269.8	
Level of Service	C	C	B	D	F		E	E	D	F	F	
Approach Delay (s)		29.4			202.0			60.8			217.7	
Approach LOS		C			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	126.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	18.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1091	18	136	734	5	450
Future Vol, veh/h	1091	18	136	734	5	450
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	4	2	0	2
Mvmt Flow	1148	19	143	773	5	474

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1168	0	1832	585
Stage 1	-	-	-	-	1159	-
Stage 2	-	-	-	-	673	-
Critical Hdwy	-	-	4.18	-	6.8	6.94
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.24	-	3.5	3.32
Pot Cap-1 Maneuver	-	-	583	-	69	~ 454
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	474	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	582	-	52	~ 454
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	357	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	95.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	445	-	-	582	-
HCM Lane V/C Ratio	1.076	-	-	0.246	-
HCM Control Delay (s)	95.2	-	-	13.2	-
HCM Lane LOS	F	-	-	B	-
HCM 95th %tile Q(veh)	15.7	-	-	1	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	992	553	38	394	477	103
Future Volume (veh/h)	992	553	38	394	477	103
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1841	1856	1885	1885
Adj Flow Rate, veh/h	1044	582	40	415	502	108
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	4	3	1	1
Cap, veh/h	1076	575	75	2042	533	475
Arrive On Green	0.48	0.48	0.04	0.58	0.30	0.30
Sat Flow, veh/h	2349	1205	1753	3618	1795	1598
Grp Volume(v), veh/h	820	806	40	415	502	108
Grp Sat Flow(s),veh/h/ln	1791	1668	1753	1763	1795	1598
Q Serve(g_s), s	38.6	41.7	2.0	4.9	23.8	4.5
Cycle Q Clear(g_c), s	38.6	41.7	2.0	4.9	23.8	4.5
Prop In Lane		0.72	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	855	796	75	2042	533	475
V/C Ratio(X)	0.96	1.01	0.53	0.20	0.94	0.23
Avail Cap(c_a), veh/h	855	796	120	2134	540	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	22.8	41.0	8.8	30.0	23.2
Incr Delay (d2), s/veh	21.5	35.0	5.8	0.0	24.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	26.0	29.5	1.7	2.8	19.4	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.6	57.8	46.8	8.8	54.7	23.4
LnGrp LOS	D	F	D	A	D	C
Approach Vol, veh/h	1626			455	610	
Approach Delay, s/veh	50.6			12.2	49.2	
Approach LOS	D			B	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.9	47.5				56.4	31.0
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	41.7				52.9	26.3
Max Q Clear Time (g_c+I1), s	4.0	43.7				6.9	25.8
Green Ext Time (p_c), s	0.0	0.0				2.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

Notes

* HCM 6th 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)	81	1271	8	154	1076	178	74	56	82	179	93	82
Future Volume (veh/h)	81	1271	8	154	1076	178	74	56	82	179	93	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.99
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	1856	1900	1900	1870	1870	1900	1900	1900	1885	1900	1885
Adj Flow Rate, veh/h	85	1338	8	162	1133	187	78	59	86	188	98	86
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	3	0	0	2	2	0	0	0	1	0	1
Cap, veh/h	106	1938	12	182	1770	291	98	214	189	236	126	111
Arrive On Green	0.06	0.54	0.54	0.20	1.00	1.00	0.05	0.12	0.12	0.07	0.14	0.14
Sat Flow, veh/h	1795	3592	21	1810	3045	501	1810	1805	1594	3483	929	815
Grp Volume(v), veh/h	85	656	690	162	659	661	78	59	86	188	0	184
Grp Sat Flow(s),veh/h/ln	1795	1763	1851	1810	1777	1769	1810	1805	1594	1742	0	1745
Q Serve(g_s), s	7.0	41.0	41.0	13.1	0.0	0.0	6.4	4.5	7.5	8.0	0.0	15.3
Cycle Q Clear(g_c), s	7.0	41.0	41.0	13.1	0.0	0.0	6.4	4.5	7.5	8.0	0.0	15.3
Prop In Lane	1.00		0.01	1.00		0.28	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	106	951	999	182	1033	1028	98	214	189	236	0	237
V/C Ratio(X)	0.80	0.69	0.69	0.89	0.64	0.64	0.80	0.28	0.45	0.80	0.00	0.78
Avail Cap(c_a), veh/h	221	951	999	199	1033	1028	169	439	388	313	0	430
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.55	0.55	0.55	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.7	25.3	25.3	59.1	0.0	0.0	70.1	60.2	61.6	68.9	0.0	62.6
Incr Delay (d2), s/veh	13.0	4.1	3.9	21.6	1.7	1.7	13.5	0.7	1.7	10.1	0.0	5.5
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	6.4	24.3	25.3	9.5	0.9	0.9	6.0	3.8	5.7	6.9	0.0	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.7	29.4	29.3	80.6	1.7	1.7	83.6	60.9	63.3	79.0	0.0	68.1
LnGrp LOS	F	C	C	F	A	A	F	E	E	E	A	E
Approach Vol, veh/h		1431			1482			223			372	
Approach Delay, s/veh		32.5			10.3			69.8			73.6	
Approach LOS		C			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.6	87.4	14.1	26.8	15.4	93.7	16.7	24.3
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	16.5	57.5	14.0	* 37	18.5	35.5	13.5	36.5
Max Q Clear Time (g_c+I1), s	15.1	43.0	8.4	17.3	9.0	2.0	10.0	9.5
Green Ext Time (p_c), s	0.1	7.2	0.1	0.9	0.1	10.9	0.2	0.8

Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Notes

* HCM 6th 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)	160	1192	100	179	1021	282	181	182	266	266	293	136
Future Volume (veh/h)	160	1192	100	179	1021	282	181	182	266	266	293	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1841	1900	1870	1856	1900	1885	1885	1870	1900	1885	1900
Adj Flow Rate, veh/h	167	1242	104	186	1064	294	189	190	277	277	305	142
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, %	0	4	0	2	3	0	1	1	2	0	1	0
Cap, veh/h	103	1968	165	196	1657	906	192	371	307	187	239	111
Arrive On Green	0.11	0.83	0.83	0.22	0.94	0.94	0.11	0.20	0.20	0.10	0.20	0.20
Sat Flow, veh/h	1810	4723	395	1781	3526	1573	1795	1885	1562	1810	1216	566
Grp Volume(v), veh/h	167	881	465	186	1064	294	189	190	277	277	0	447
Grp Sat Flow(s),veh/h/ln	1810	1675	1768	1781	1763	1573	1795	1885	1562	1810	0	1782
Q Serve(g_s), s	8.5	13.9	13.9	15.4	6.9	2.2	15.8	13.5	26.0	15.5	0.0	29.5
Cycle Q Clear(g_c), s	8.5	13.9	13.9	15.4	6.9	2.2	15.8	13.5	26.0	15.5	0.0	29.5
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	103	1396	737	196	1657	906	192	371	307	187	0	351
V/C Ratio(X)	1.63	0.63	0.63	0.95	0.64	0.32	0.99	0.51	0.90	1.48	0.00	1.28
Avail Cap(c_a), veh/h	103	1396	737	196	1669	911	192	371	307	187	0	351
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	0.79	0.79	0.79	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	66.5	8.4	8.4	58.1	2.6	1.6	66.9	53.8	58.8	67.3	0.0	60.3
Incr Delay (d2), s/veh	306.8	1.2	2.4	43.2	1.5	0.8	61.1	1.2	27.9	243.0	0.0	144.3
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(95%),veh/ln	19.1	5.3	5.8	12.6	2.7	1.3	15.9	10.9	18.6	31.0	0.0	40.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	373.3	9.7	10.8	101.3	4.1	2.4	128.0	55.0	86.7	310.3	0.0	204.6
LnGrp LOS	F	A	B	F	A	A	F	E	F	F	A	F
Approach Vol, veh/h		1513			1544			656			724	
Approach Delay, s/veh		50.2			15.5			89.4			245.0	
Approach LOS		D			B			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	68.5	22.0	36.5	15.0	76.5	22.0	36.5
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	16.5	48.0	16.0	* 30	8.5	71.0	15.5	28.0
Max Q Clear Time (g_c+I1), s	17.4	15.9	17.8	31.5	10.5	8.9	17.5	28.0
Green Ext Time (p_c), s	0.0	10.8	0.0	0.0	0.0	11.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	75.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	59	1575	135	412	1281	204	151	154	265	812	252	48
Future Volume (veh/h)	59	1575	135	412	1281	204	151	154	265	812	252	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	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	1885	1900	1870	1841	1900	1900	1885	1885	1900	1870
Adj Flow Rate, veh/h	60	1607	138	420	1307	208	154	157	270	829	257	49
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	1	0	2	4	0	0	1	1	0	2
Cap, veh/h	77	1872	936	257	2861	1237	234	177	146	419	939	411
Arrive On Green	0.09	1.00	1.00	0.07	0.56	0.56	0.07	0.09	0.09	0.23	0.26	0.26
Sat Flow, veh/h	1781	3554	1574	3510	5106	1557	3510	1900	1565	1795	3610	1581
Grp Volume(v), veh/h	60	1607	138	420	1307	208	154	157	270	829	257	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1574	1755	1702	1557	1755	1900	1565	1795	1805	1581
Q Serve(g_s), s	5.0	0.0	0.0	11.0	22.7	4.8	6.4	12.3	14.0	35.0	8.5	3.5
Cycle Q Clear(g_c), s	5.0	0.0	0.0	11.0	22.7	4.8	6.4	12.3	14.0	35.0	8.5	3.5
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	77	1872	936	257	2861	1237	234	177	146	419	939	411
V/C Ratio(X)	0.78	0.86	0.15	1.63	0.46	0.17	0.66	0.89	1.85	1.98	0.27	0.12
Avail Cap(c_a), veh/h	232	1872	936	257	2861	1237	257	177	146	419	939	411
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.9	0.0	0.0	69.5	19.5	3.7	68.3	67.2	68.0	57.5	44.2	42.4
Incr Delay (d2), s/veh	8.7	2.9	0.2	299.3	0.5	0.3	5.3	37.3	407.2	449.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	1.4	0.1	24.9	13.5	2.7	5.6	12.4	35.5	105.6	6.8	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.6	2.9	0.2	368.8	20.0	3.9	73.6	104.5	475.2	506.5	44.4	42.5
LnGrp LOS	E	A	A	F	B	A	E	F	F	F	D	D
Approach Vol, veh/h		1805			1935			581			1135	
Approach Delay, s/veh		5.1			93.9			268.6			381.8	
Approach LOS		A			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	91.5	17.0	46.0	18.0	86.5	42.0	21.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	19.5	36.0	11.0	38.0	11.0	* 63	35.0	14.0
Max Q Clear Time (g_c+I1), s	7.0	24.7	8.4	10.5	13.0	2.0	37.0	16.0
Green Ext Time (p_c), s	0.1	6.8	0.1	1.6	0.0	20.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	143.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	1528	1203	152	1881	0	0	0	0	106	0	41
Future Volume (veh/h)	0	1528	1203	152	1881	0	0	0	0	106	0	41
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1856	1856	1870	0				1885	0	1900
Adj Flow Rate, veh/h	0	1592	1253	158	1959	0				110	0	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	1	3	3	2	0				1	0	0
Cap, veh/h	0	3352	1759	233	4021	0				202	0	94
Arrive On Green	0.00	0.65	0.65	0.07	0.79	0.00				0.06	0.00	0.06
Sat Flow, veh/h	0	5316	2701	3428	5274	0				3483	0	1610
Grp Volume(v), veh/h	0	1592	1253	158	1959	0				110	0	43
Grp Sat Flow(s),veh/h/ln	0	1716	1350	1714	1702	0				1742	0	1610
Q Serve(g_s), s	0.0	13.1	25.2	3.8	11.1	0.0				2.6	0.0	2.2
Cycle Q Clear(g_c), s	0.0	13.1	25.2	3.8	11.1	0.0				2.6	0.0	2.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	3352	1759	233	4021	0				202	0	94
V/C Ratio(X)	0.00	0.47	0.71	0.68	0.49	0.00				0.54	0.00	0.46
Avail Cap(c_a), veh/h	0	3352	1759	423	4021	0				704	0	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	7.4	9.5	38.0	3.1	0.0				38.3	0.0	38.1
Incr Delay (d2), s/veh	0.0	0.5	2.5	1.3	0.4	0.0				0.8	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.9	10.2	2.8	3.3	0.0				2.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.8	12.0	39.3	3.5	0.0				39.1	0.0	39.4
LnGrp LOS	A	A	B	D	A	A				D	A	D
Approach Vol, veh/h		2845			2117						153	
Approach Delay, s/veh		9.7			6.2						39.2	
Approach LOS		A			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.4	61.2		11.0		72.6
Change Period (Y+Rc), s	* 5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	* 10	49.8		16.9		65.8
Max Q Clear Time (g_c+I1), s	5.8	27.2		4.6		13.1
Green Ext Time (p_c), s	0.1	6.8		0.1		6.9

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	307	1164	174	0	915	117	981	293	80	161	0	410
Future Volume (veh/h)	307	1164	174	0	915	117	981	293	80	161	0	410
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	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	1870	1885	0	1870	1870	1856	1781	1856	1885	0	1870
Adj Flow Rate, veh/h	320	1212	181	0	953	122	1022	305	83	168	0	427
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, %	1	2	1	0	2	2	3	8	3	1	0	2
Cap, veh/h	522	1659	726	0	1255	382	1150	426	114	241	0	0
Arrive On Green	0.15	0.47	0.47	0.00	0.25	0.25	0.34	0.16	0.16	0.13	0.00	0.00
Sat Flow, veh/h	3483	3554	1556	0	5274	1555	3428	2637	705	1795	168	
Grp Volume(v), veh/h	320	1212	181	0	953	122	1022	194	194	168	34.5	
Grp Sat Flow(s),veh/h/ln	1742	1777	1556	0	1702	1555	1714	1692	1650	1795	C	
Q Serve(g_s), s	6.9	22.1	5.6	0.0	13.8	5.1	22.6	8.7	8.9	7.2		
Cycle Q Clear(g_c), s	6.9	22.1	5.6	0.0	13.8	5.1	22.6	8.7	8.9	7.2		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	522	1659	726	0	1255	382	1150	273	266	241		
V/C Ratio(X)	0.61	0.73	0.25	0.00	0.76	0.32	0.89	0.71	0.73	0.70		
Avail Cap(c_a), veh/h	579	2079	910	0	1774	540	2143	613	598	334		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	31.8	17.3	12.9	0.0	28.0	24.7	25.2	31.8	31.9	33.1		
Incr Delay (d2), s/veh	1.0	0.7	0.1	0.0	0.7	0.2	1.0	1.3	1.4	1.4		
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		
%ile BackOfQ(95%),veh/ln	5.2	13.2	3.3	0.0	9.1	3.3	13.7	6.4	6.4	5.6		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	17.9	12.9	0.0	28.7	24.9	26.2	33.0	33.3	34.5		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1713			1075			1410				
Approach Delay, s/veh		20.2			28.2			28.1				
Approach LOS		C			C			C				

Timer - Assigned Phs		2	3		5	6	7	8
Phs Duration (G+Y+Rc), s		44.1	32.9		17.7	26.5	16.8	19.0
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1
Max Green Setting (Gmax), s		46.8	50.0		* 13	27.8	14.9	29.0
Max Q Clear Time (g_c+I1), s		24.1	24.6		8.9	15.8	9.2	10.9
Green Ext Time (p_c), s		7.1	2.2		0.3	3.7	0.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	24.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	243	257	284	336	371	212
Future Vol, veh/h	243	257	284	336	371	212
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	1	1	2
Mvmt Flow	256	271	299	354	391	223

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1456	504	615	0	-	0
Stage 1	504	-	-	-	-	-
Stage 2	952	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 144	572	974	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 100	571	973	-	-	-
Mov Cap-2 Maneuver	~ 227	-	-	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	377	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	78.4	4.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	973	-	227	571	-	-
HCM Lane V/C Ratio	0.307	-	1.127	0.474	-	-
HCM Control Delay (s)	10.3	-	143.5	16.9	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.3	-	11.8	2.5	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	600	1	1	648
Future Vol, veh/h	0	1	600	1	1	648
Conflicting Peds, #/hr	0	0	0	1	1	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, %	0	0	0	100	100	1
Mvmt Flow	0	1	632	1	1	682

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1318	634	0	0	634	0
Stage 1	634	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	3.1	-
Pot Cap-1 Maneuver	175	483	-	-	614	-
Stage 1	532	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	174	483	-	-	613	-
Mov Cap-2 Maneuver	315	-	-	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	503	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	483	613	-
HCM Lane V/C Ratio	-	-	0.002	0.002	-
HCM Control Delay (s)	-	-	12.5	10.9	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	55	57	566	614	21
Future Vol, veh/h	29	55	57	566	614	21
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	31	58	60	596	646	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1374	658	669	0	-	0
Stage 1	658	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	162	468	931	-	-	-
Stage 1	519	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	151	468	930	-	-	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	485	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	930	-	387	-	-
HCM Lane V/C Ratio	0.065	-	0.228	-	-
HCM Control Delay (s)	9.1	-	17	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	-	-

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	16	63	1	62	7	557	37	57	614	2
Future Vol, veh/h	2	1	16	63	1	62	7	557	37	57	614	2
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	2	1	0
Mvmt Flow	2	1	17	66	1	65	7	586	39	60	646	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1421	1407	650	1400	1389	608	648	0	0	626	0	0
Stage 1	767	767	-	621	621	-	-	-	-	-	-	-
Stage 2	654	640	-	779	768	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	115	140	473	119	144	499	947	-	-	956	-	-
Stage 1	398	414	-	478	482	-	-	-	-	-	-	-
Stage 2	459	473	-	392	414	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	94	130	472	108	134	498	947	-	-	955	-	-
Mov Cap-2 Maneuver	94	130	-	108	134	-	-	-	-	-	-	-
Stage 1	395	388	-	474	478	-	-	-	-	-	-	-
Stage 2	395	469	-	352	388	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.8	70.1	0.1	0.8
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	947	-	-	302	176	955	-	-
HCM Lane V/C Ratio	0.008	-	-	0.066	0.754	0.063	-	-
HCM Control Delay (s)	8.8	-	-	17.8	70.1	9	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	4.8	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	378	9	182	521	814	0	0	849	291
Future Volume (veh/h)	0	0	0	378	9	182	521	814	0	0	849	291
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1841	1885	1870	0	0	1870	1856
Adj Flow Rate, veh/h				294	144	188	537	839	0	0	875	300
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				3	0	4	1	2	0	0	2	3
Cap, veh/h				374	158	207	472	3410	0	0	1331	454
Arrive On Green				0.21	0.21	0.21	0.26	0.67	0.00	0.00	0.36	0.36
Sat Flow, veh/h				1767	747	976	1795	5274	0	0	3889	1269
Grp Volume(v), veh/h				294	0	332	537	839	0	0	800	375
Grp Sat Flow(s),veh/h/ln				1767	0	1723	1795	1702	0	0	1702	1586
Q Serve(g_s), s				15.6	0.0	18.6	26.0	6.5	0.0	0.0	19.5	19.7
Cycle Q Clear(g_c), s				15.6	0.0	18.6	26.0	6.5	0.0	0.0	19.5	19.7
Prop In Lane				1.00		0.57	1.00		0.00	0.00		0.80
Lane Grp Cap(c), veh/h				374	0	365	472	3410	0	0	1218	567
V/C Ratio(X)				0.79	0.00	0.91	1.14	0.25	0.00	0.00	0.66	0.66
Avail Cap(c_a), veh/h				393	0	383	472	3410	0	0	1218	567
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	1.00	0.76	0.76	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				36.9	0.0	38.1	36.5	6.5	0.0	0.0	26.7	26.7
Incr Delay (d2), s/veh				8.7	0.0	23.7	80.9	0.1	0.0	0.0	2.8	5.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.1	0.0	15.5	30.1	3.4	0.0	0.0	12.4	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.5	0.0	61.8	117.4	6.7	0.0	0.0	29.5	32.7
LnGrp LOS				D	A	E	F	A	A	A	C	C
Approach Vol, veh/h					626			1376			1175	
Approach Delay, s/veh					54.2			49.9			30.5	
Approach LOS					D			D			C	

Timer - Assigned Phs	2	5	6	8
Phs Duration (G+Y+Rc), s	72.9	30.7	42.2	26.1
Change Period (Y+Rc), s	6.8	* 4.7	6.8	5.1
Max Green Setting (Gmax), s	65.0	* 26	34.0	22.0
Max Q Clear Time (g_c+I1), s	8.5	28.0	21.7	20.6
Green Ext Time (p_c), s	3.8	0.0	4.1	0.4

Intersection Summary	
HCM 6th Ctrl Delay	43.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th 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)	95	246	33	85	172	721	42	563	258	475	594	172
Future Volume (veh/h)	95	246	33	85	172	721	42	563	258	475	594	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		0.97
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	1856	1900	1885	1885	1870	1900	1885	1885	1885	1870	1841
Adj Flow Rate, veh/h	97	251	34	87	176	736	43	574	263	485	606	176
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	3	0	1	1	2	0	1	1	1	2	4
Cap, veh/h	292	771	103	147	462	674	88	887	394	540	1287	545
Arrive On Green	0.08	0.25	0.25	0.08	0.25	0.25	0.05	0.26	0.26	0.16	0.36	0.36
Sat Flow, veh/h	3483	3124	418	1795	1885	2750	1810	3464	1540	3483	3554	1506
Grp Volume(v), veh/h	97	140	145	87	176	736	43	568	269	485	606	176
Grp Sat Flow(s),veh/h/ln	1742	1763	1780	1795	1885	1375	1810	1716	1574	1742	1777	1506
Q Serve(g_s), s	2.6	6.5	6.7	4.7	7.8	24.5	2.3	14.8	15.3	13.7	13.1	8.4
Cycle Q Clear(g_c), s	2.6	6.5	6.7	4.7	7.8	24.5	2.3	14.8	15.3	13.7	13.1	8.4
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	292	435	439	147	462	674	88	879	403	540	1287	545
V/C Ratio(X)	0.33	0.32	0.33	0.59	0.38	1.09	0.49	0.65	0.67	0.90	0.47	0.32
Avail Cap(c_a), veh/h	366	450	454	171	462	674	172	879	403	540	1287	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	43.2	30.8	30.9	44.3	31.4	37.8	46.3	33.2	33.4	41.5	24.5	23.0
Incr Delay (d2), s/veh	0.7	0.4	0.4	0.4	0.0	44.2	4.1	3.7	8.5	9.8	0.6	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	2.0	4.9	5.0	2.7	4.3	14.5	2.0	10.4	10.7	9.2	7.9	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	31.2	31.3	44.7	31.5	81.9	50.4	36.8	41.8	51.3	25.1	23.8
LnGrp LOS	D	C	C	D	C	F	D	D	D	D	C	C
Approach Vol, veh/h		382			999			880			1267	
Approach Delay, s/veh		34.5			69.8			39.0			34.9	
Approach LOS		C			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	32.1	14.7	31.2	11.4	42.7	14.9	31.0
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	15.5	23.5	9.5	25.5	9.5	29.5	10.5	24.5
Max Q Clear Time (g_c+I1), s	15.7	17.3	6.7	8.7	4.3	15.1	4.6	26.5
Green Ext Time (p_c), s	0.0	2.6	0.0	1.3	0.0	3.7	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	511	391	204	149	595	146	215	84	305	594
v/c Ratio	0.72	0.65	0.31	0.63	1.24	0.60	0.84	0.23	0.52	0.99
Control Delay	42.9	44.7	3.2	52.0	163.5	49.3	68.0	1.7	30.1	64.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	44.7	3.2	52.0	163.5	49.3	68.0	1.7	30.1	64.8
Queue Length 50th (ft)	154	120	0	88	~167	88	135	0	150	338
Queue Length 95th (ft)	211	#196	29	149	#245	154	#256	3	233	#568
Internal Link Dist (ft)		280			221		829			244
Turn Bay Length (ft)				130		165			200	
Base Capacity (vph)	707	598	676	277	479	260	273	379	585	602
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.65	0.30	0.54	1.24	0.56	0.79	0.22	0.52	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	501	383	200	146	560	24	159	195	82	299	321	261
Future Volume (vph)	501	383	200	146	560	24	159	195	82	299	321	261
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.91		0.95	0.95	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3433	3574	1596	1787	5107		1681	1763	1615	1770	1730	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3433	3574	1596	1787	5107		1681	1763	1615	1770	1730	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	511	391	204	149	571	24	162	199	84	305	328	266
RTOR Reduction (vph)	0	0	140	0	5	0	0	0	72	0	30	0
Lane Group Flow (vph)	511	391	64	149	590	0	146	215	12	305	564	0
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	2%	1%	0%	1%	1%	0%	2%	2%	0%	2%	2%	3%
Turn Type	Prot	NA	pm+ov	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2	8	1	6		8	8		7	7	
Permitted Phases			2						8			
Actuated Green, G (s)	19.9	16.1	30.2	12.8	9.0		14.1	14.1	14.1	32.0	32.0	
Effective Green, g (s)	19.9	16.1	30.2	12.8	9.0		14.1	14.1	14.1	32.0	32.0	
Actuated g/C Ratio	0.21	0.17	0.31	0.13	0.09		0.15	0.15	0.15	0.33	0.33	
Clearance Time (s)	4.7	6.8	5.1	4.7	6.8		5.1	5.1	5.1	5.1	5.1	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	706	595	498	236	475		245	257	235	585	572	
v/s Ratio Prot	c0.15	0.11	0.02	0.08	c0.12		0.09	c0.12		0.17	c0.33	
v/s Ratio Perm			0.02						0.01			
v/c Ratio	0.72	0.66	0.13	0.63	1.24		0.60	0.84	0.05	0.52	0.99	
Uniform Delay, d1	35.8	37.7	23.8	39.7	43.9		38.6	40.2	35.5	26.2	32.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.4	5.6	0.0	4.0	126.2		2.6	19.6	0.0	0.4	33.6	
Delay (s)	42.2	43.3	23.9	43.7	170.0		41.2	59.8	35.6	26.5	65.8	
Level of Service	D	D	C	D	F		D	E	D	C	E	
Approach Delay (s)		39.2			144.7			49.1			52.5	
Approach LOS		D			F			D			D	

Intersection Summary			
HCM 2000 Control Delay	68.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	96.7	Sum of lost time (s)	21.7
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	710	24	113	767	19	184
Future Vol, veh/h	710	24	113	767	19	184
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	70	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	10	1	1	0	3
Mvmt Flow	747	25	119	807	20	194

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	773	0	1403	387
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	642	-
Critical Hdwy	-	-	4.12	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	845	-	133	609
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	492	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	844	-	114	608
Mov Cap-2 Maneuver	-	-	-	-	246	-
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	423	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	534	-	-	844	-
HCM Lane V/C Ratio	0.4	-	-	0.141	-
HCM Control Delay (s)	16.2	-	-	10	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.9	-	-	0.5	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	450	446	90	357	524	131
Future Volume (veh/h)	450	446	90	357	524	131
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	474	469	95	376	552	138
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	1	0	2
Cap, veh/h	614	535	137	1786	607	531
Arrive On Green	0.34	0.34	0.08	0.50	0.34	0.34
Sat Flow, veh/h	1885	1562	1810	3676	1810	1585
Grp Volume(v), veh/h	474	469	95	376	552	138
Grp Sat Flow(s),veh/h/ln	1791	1562	1810	1791	1810	1585
Q Serve(g_s), s	15.4	18.3	3.3	3.8	19.0	4.1
Cycle Q Clear(g_c), s	15.4	18.3	3.3	3.8	19.0	4.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	614	535	137	1786	607	531
V/C Ratio(X)	0.77	0.88	0.69	0.21	0.91	0.26
Avail Cap(c_a), veh/h	662	577	167	1941	669	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	20.1	29.3	9.1	20.7	15.7
Incr Delay (d2), s/veh	5.3	13.5	9.0	0.1	15.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.3	12.1	3.0	2.1	14.8	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.3	33.6	38.3	9.2	36.4	16.0
LnGrp LOS	C	C	D	A	D	B
Approach Vol, veh/h	943			471	690	
Approach Delay, s/veh	28.9			15.1	32.3	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.1	28.1				38.2	26.8
Change Period (Y+Rc), s	* 5.2	5.8				5.8	5.0
Max Green Setting (Gmax), s	* 6	24.0				35.2	24.0
Max Q Clear Time (g_c+I1), s	5.3	20.3				5.8	21.0
Green Ext Time (p_c), s	0.0	1.9				2.3	0.8

Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

* HCM 6th 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)	102	984	8	159	1005	183	74	56	83	276	93	68
Future Volume (veh/h)	102	984	8	159	1005	183	74	56	83	276	93	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.99	1.00		0.99
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	1885	1900	1900	1870	1885	1900	1900	1900	1885	1900	1870
Adj Flow Rate, veh/h	107	1036	8	167	1058	193	78	59	87	291	98	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	0	0	2	1	0	0	0	1	0	2
Cap, veh/h	133	1768	14	196	1558	283	112	159	140	353	134	98
Arrive On Green	0.07	0.49	0.49	0.11	0.52	0.52	0.06	0.09	0.09	0.10	0.13	0.13
Sat Flow, veh/h	1781	3642	28	1810	3001	546	1810	1805	1594	3483	1014	745
Grp Volume(v), veh/h	107	509	535	167	625	626	78	59	87	291	0	170
Grp Sat Flow(s),veh/h/ln	1781	1791	1879	1810	1777	1771	1810	1805	1594	1742	0	1760
Q Serve(g_s), s	7.1	24.5	24.5	10.9	31.3	31.5	5.1	3.7	6.3	9.8	0.0	11.1
Cycle Q Clear(g_c), s	7.1	24.5	24.5	10.9	31.3	31.5	5.1	3.7	6.3	9.8	0.0	11.1
Prop In Lane	1.00		0.01	1.00		0.31	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	133	869	912	196	922	919	112	159	140	353	0	232
V/C Ratio(X)	0.80	0.59	0.59	0.85	0.68	0.68	0.70	0.37	0.62	0.82	0.00	0.73
Avail Cap(c_a), veh/h	260	869	912	264	922	919	241	384	339	450	0	381
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.46	0.46	0.46	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.6	22.2	22.2	52.6	21.4	21.5	55.2	51.6	52.8	52.9	0.0	50.0
Incr Delay (d2), s/veh	10.7	2.9	2.8	9.1	1.9	1.9	7.6	1.4	4.4	9.5	0.0	4.4
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	6.3	15.6	16.2	7.9	16.7	16.8	4.6	3.1	4.8	8.2	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	25.1	24.9	61.7	23.3	23.4	62.8	53.0	57.2	62.3	0.0	54.4
LnGrp LOS	E	C	C	E	C	C	E	D	E	E	A	D
Approach Vol, veh/h		1151			1418			224			461	
Approach Delay, s/veh		28.8			27.8			58.1			59.4	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.5	64.8	13.4	22.3	15.5	68.8	18.7	17.1
Change Period (Y+Rc), s	6.5	6.5	6.0	* 6.5	6.5	6.5	6.5	6.5
Max Green Setting (Gmax), s	17.5	35.5	16.0	* 26	17.5	35.5	15.5	25.5
Max Q Clear Time (g_c+I1), s	12.9	26.5	7.1	13.1	9.1	33.5	11.8	8.3
Green Ext Time (p_c), s	0.2	4.0	0.1	0.6	0.1	1.4	0.3	0.7

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
7: S Bent Ave & W San Marcos Blvd

04/11/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	903	84	267	872	347	155	146	275	314	149	196
Future Volume (veh/h)	193	903	84	267	872	347	155	146	275	314	149	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		0.98
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	1885	1885	1870	1900	1885	1870	1870	1885	1900	1900
Adj Flow Rate, veh/h	203	951	88	281	918	365	163	154	289	331	157	206
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	2	0	1	2	2	1	0	0
Cap, veh/h	233	1353	125	262	1068	716	193	386	321	262	184	241
Arrive On Green	0.04	0.09	0.09	0.19	0.40	0.40	0.11	0.21	0.21	0.15	0.25	0.25
Sat Flow, veh/h	1781	4743	438	1795	3554	1602	1795	1870	1556	1795	739	969
Grp Volume(v), veh/h	203	682	357	281	918	365	163	154	289	331	0	363
Grp Sat Flow(s),veh/h/ln	1781	1702	1776	1795	1777	1602	1795	1870	1556	1795	0	1708
Q Serve(g_s), s	13.6	23.3	23.4	17.5	28.4	18.6	10.7	8.5	21.7	17.5	0.0	24.3
Cycle Q Clear(g_c), s	13.6	23.3	23.4	17.5	28.4	18.6	10.7	8.5	21.7	17.5	0.0	24.3
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	233	971	507	262	1068	716	193	386	321	262	0	425
V/C Ratio(X)	0.87	0.70	0.70	1.07	0.86	0.51	0.85	0.40	0.90	1.26	0.00	0.85
Avail Cap(c_a), veh/h	260	971	507	262	1068	716	269	436	363	262	0	425
HCM Platoon Ratio	0.33	0.33	0.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.63	0.63	0.63	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.4	49.4	49.4	48.4	33.7	20.2	52.6	41.2	46.4	51.2	0.0	43.0
Incr Delay (d2), s/veh	18.0	2.9	5.5	65.1	5.9	1.6	15.9	0.7	22.7	145.7	0.0	15.4
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	11.4	15.5	16.6	17.1	16.2	10.1	9.6	7.3	15.8	28.1	0.0	17.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.4	52.3	55.0	113.4	39.7	21.9	68.4	41.9	69.2	197.0	0.0	58.4
LnGrp LOS	E	D	D	F	D	C	E	D	E	F	A	E
Approach Vol, veh/h		1242			1564			606			694	
Approach Delay, s/veh		56.7			48.8			62.0			124.5	
Approach LOS		E			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	40.2	18.9	36.9	22.2	42.1	24.0	31.8
Change Period (Y+Rc), s	6.5	6.0	6.0	* 7	6.5	6.0	6.5	7.0
Max Green Setting (Gmax), s	17.5	30.0	18.0	* 30	17.5	30.0	17.5	28.0
Max Q Clear Time (g_c+I1), s	19.5	25.4	12.7	26.3	15.6	30.4	19.5	23.7
Green Ext Time (p_c), s	0.0	2.5	0.2	0.7	0.1	0.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	65.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	101	1259	255	554	1278	185	170	178	334	332	281	55
Future Volume (veh/h)	101	1259	255	554	1278	185	170	178	334	332	281	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.99
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	1900	1870	1900	1885	1870	1870	1900	1870	1900	1870	1900	1870
Adj Flow Rate, veh/h	106	1325	268	583	1345	195	179	187	352	349	296	58
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, %	0	2	0	1	2	2	0	2	0	2	0	2
Cap, veh/h	131	1629	856	319	2461	1022	293	358	303	297	993	430
Arrive On Green	0.14	0.92	0.92	0.09	0.48	0.48	0.08	0.19	0.19	0.17	0.28	0.28
Sat Flow, veh/h	1810	3554	1576	3483	5106	1572	3510	1870	1580	1781	3610	1564
Grp Volume(v), veh/h	106	1325	268	583	1345	195	179	187	352	349	296	58
Grp Sat Flow(s),veh/h/ln	1810	1777	1576	1742	1702	1572	1755	1870	1580	1781	1805	1564
Q Serve(g_s), s	6.8	14.7	2.2	11.0	22.2	6.0	5.9	10.8	23.0	20.0	7.8	3.3
Cycle Q Clear(g_c), s	6.8	14.7	2.2	11.0	22.2	6.0	5.9	10.8	23.0	20.0	7.8	3.3
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	131	1629	856	319	2461	1022	293	358	303	297	993	430
V/C Ratio(X)	0.81	0.81	0.31	1.83	0.55	0.19	0.61	0.52	1.16	1.18	0.30	0.13
Avail Cap(c_a), veh/h	249	1629	856	319	2461	1022	293	358	303	297	993	430
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	3.3	2.0	54.5	21.9	8.5	53.1	43.6	48.5	50.0	34.4	32.8
Incr Delay (d2), s/veh	4.6	1.8	0.4	381.5	0.7	0.3	3.7	1.4	103.2	108.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.8	3.4	1.1	33.9	13.0	3.8	5.0	8.9	26.6	26.4	6.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	5.1	2.4	436.0	22.6	8.8	56.8	44.9	151.7	158.5	34.5	32.9
LnGrp LOS	E	A	A	F	C	A	E	D	F	F	C	C
Approach Vol, veh/h		1699			2123			718			703	
Approach Delay, s/veh		7.8			134.8			100.2			96.0	
Approach LOS		A			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	65.3	17.0	40.0	18.0	62.5	27.0	30.0
Change Period (Y+Rc), s	6.5	7.0	7.0	7.0	7.0	* 7	7.0	7.0
Max Green Setting (Gmax), s	16.5	33.0	10.0	33.0	11.0	* 39	20.0	23.0
Max Q Clear Time (g_c+I1), s	8.8	24.2	7.9	9.8	13.0	16.7	22.0	25.0
Green Ext Time (p_c), s	0.1	5.7	0.1	1.8	0.0	11.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	83.7
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th 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)	0	936	1158	251	1892	0	0	0	0	168	0	209
Future Volume (veh/h)	0	936	1158	251	1892	0	0	0	0	168	0	209
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1870	1841	1885	0				1856	0	1885
Adj Flow Rate, veh/h	0	985	1219	264	1992	0				177	0	220
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	1	2	4	1	0				3	0	1
Cap, veh/h	0	2732	1449	339	3575	0				550	0	256
Arrive On Green	0.00	0.53	0.53	0.10	0.69	0.00				0.16	0.00	0.16
Sat Flow, veh/h	0	5316	2730	3401	5316	0				3428	0	1598
Grp Volume(v), veh/h	0	985	1219	264	1992	0				177	0	220
Grp Sat Flow(s),veh/h/ln	0	1716	1365	1700	1716	0				1714	0	1598
Q Serve(g_s), s	0.0	9.9	33.7	6.7	17.2	0.0				4.1	0.0	11.9
Cycle Q Clear(g_c), s	0.0	9.9	33.7	6.7	17.2	0.0				4.1	0.0	11.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2732	1449	339	3575	0				550	0	256
V/C Ratio(X)	0.00	0.36	0.84	0.78	0.56	0.00				0.32	0.00	0.86
Avail Cap(c_a), veh/h	0	2732	1449	508	3575	0				805	0	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.1	17.7	39.1	6.8	0.0				33.1	0.0	36.4
Incr Delay (d2), s/veh	0.0	0.4	6.1	2.1	0.6	0.0				0.1	0.0	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.2	15.6	5.0	8.3	0.0				3.1	0.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.5	23.8	41.2	7.4	0.0				33.2	0.0	45.3
LnGrp LOS	A	B	C	D	A	A				C	A	D
Approach Vol, veh/h		2204			2256						397	
Approach Delay, s/veh		18.7			11.4						39.9	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	54.0		20.4		68.6
Change Period (Y+Rc), s	* 5.7	6.8		6.1		6.8
Max Green Setting (Gmax), s	* 13	42.8		20.9		61.8
Max Q Clear Time (g_c+I1), s	8.7	35.7		13.9		19.2
Green Ext Time (p_c), s	0.1	2.9		0.3		7.1

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	358	615	196	0	935	89	928	212	58	91	0	522
Future Volume (veh/h)	358	615	196	0	935	89	928	212	58	91	0	522
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	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	1885	1885	0	1870	1885	1870	1870	1900	1870	0	1885
Adj Flow Rate, veh/h	377	647	206	0	984	94	977	223	61	96	0	549
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	1	0	2	1	2	2	0	2	0	1
Cap, veh/h	554	1771	770	0	1317	405	1113	345	92	226	0	0
Arrive On Green	0.16	0.49	0.49	0.00	0.26	0.26	0.32	0.12	0.12	0.13	0.00	0.00
Sat Flow, veh/h	3456	3582	1557	0	5274	1572	3456	2770	740	1781	96	
Grp Volume(v), veh/h	377	647	206	0	984	94	977	141	143	96	30.6	
Grp Sat Flow(s),veh/h/ln	1728	1791	1557	0	1702	1572	1728	1777	1733	1781	C	
Q Serve(g_s), s	7.7	8.3	5.8	0.0	13.2	3.5	20.0	5.6	5.9	3.7		
Cycle Q Clear(g_c), s	7.7	8.3	5.8	0.0	13.2	3.5	20.0	5.6	5.9	3.7		
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.43	1.00		
Lane Grp Cap(c), veh/h	554	1771	770	0	1317	405	1113	221	216	226		
V/C Ratio(X)	0.68	0.37	0.27	0.00	0.75	0.23	0.88	0.64	0.66	0.42		
Avail Cap(c_a), veh/h	753	2428	1056	0	1959	603	2130	689	672	262		
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	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	29.6	11.7	11.0	0.0	25.5	21.9	24.0	31.1	31.2	30.1		
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.0	0.3	0.1	0.9	1.1	1.3	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		
%ile BackOfQ(95%),veh/ln	5.6	5.4	3.3	0.0	8.6	2.3	12.4	4.3	4.4	2.8		
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	11.7	11.1	0.0	25.8	22.0	24.9	32.3	32.6	30.6		
LnGrp LOS	C	B	B	A	C	C	C	C	C	C		
Approach Vol, veh/h		1230			1078			1261				
Approach Delay, s/veh		17.3			25.5			26.6				
Approach LOS		B			C			C				

Timer - Assigned Phs		2	3		5	6	7	8				
Phs Duration (G+Y+Rc), s		43.8	30.2		17.7	26.1	15.6	15.4				
Change Period (Y+Rc), s		6.8	6.1		* 5.7	6.8	6.1	6.1				
Max Green Setting (Gmax), s		50.7	46.1		* 16	28.7	11.0	29.0				
Max Q Clear Time (g_c+I1), s		10.3	22.0		9.7	15.2	5.7	7.9				
Green Ext Time (p_c), s		3.6	2.1		0.5	4.0	0.0	1.0				

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	30.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	282	280	276	348	232	277
Future Vol, veh/h	282	280	276	348	232	277
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	100	50	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	297	295	291	366	244	292

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1338	390	536	0	-	0
Stage 1	390	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 170	663	1042	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 123	663	1042	-	-	-
Mov Cap-2 Maneuver	~ 251	-	-	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	380	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	86.1	4.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1042	-	251	663	-	-
HCM Lane V/C Ratio	0.279	-	1.183	0.445	-	-
HCM Control Delay (s)	9.8	-	157	14.7	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	1.1	-	13.8	2.3	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	626	0	0	515
Future Vol, veh/h	0	2	626	0	0	515
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, %	0	0	1	0	0	0
Mvmt Flow	0	2	659	0	0	542

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1201	659	0	0	-	-
Stage 1	659	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	206	467	-	-	0	-
Stage 1	518	-	-	-	0	-
Stage 2	587	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	206	467	-	-	-	-
Mov Cap-2 Maneuver	345	-	-	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	587	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	467	-
HCM Lane V/C Ratio	-	-	0.005	-
HCM Control Delay (s)	-	-	12.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	94	116	585	474	35
Future Vol, veh/h	33	94	116	585	474	35
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	1	2	0	0
Mvmt Flow	35	99	122	616	499	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1378	518	536	0	-	0
Stage 1	518	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	161	562	1037	-	-	-
Stage 1	602	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	142	562	1037	-	-	-
Mov Cap-2 Maneuver	277	-	-	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	418	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.6	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1037	-	443	-	-
HCM Lane V/C Ratio	0.118	-	0.302	-	-
HCM Control Delay (s)	8.9	-	16.6	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.3	-	-

Intersection	
Int Delay, s/veh	16.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	34	80	1	83	17	608	37	53	557	0
Future Vol, veh/h	5	2	34	80	1	83	17	608	37	53	557	0
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	25	-	-	25	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	2	0	1	0	1	0	0	0	0
Mvmt Flow	5	2	36	84	1	87	18	640	39	56	586	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1442	1413	586	1413	1394	664	586	0	0	679	0	0
Stage 1	698	698	-	696	696	-	-	-	-	-	-	-
Stage 2	744	715	-	717	698	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.5	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	111	139	514	115	143	462	999	-	-	923	-	-
Stage 1	434	445	-	432	446	-	-	-	-	-	-	-
Stage 2	410	438	-	421	445	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	84	128	514	99	132	460	999	-	-	923	-	-
Mov Cap-2 Maneuver	84	128	-	99	132	-	-	-	-	-	-	-
Stage 1	426	418	-	424	438	-	-	-	-	-	-	-
Stage 2	324	430	-	366	418	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.6	139.1	0.2	0.8
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	999	-	-	290	165	923	-	-
HCM Lane V/C Ratio	0.018	-	-	0.149	1.046	0.06	-	-
HCM Control Delay (s)	8.7	-	-	19.6	139.1	9.2	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	8.5	0.2	-	-

Appendix P
Horizon Year 2050 With Project Improved Operations Worksheets

HCM Signalized Intersection Capacity Analysis
4: Linda Vista Dr & Grand Ave

09/20/2024

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	680	24	279	414	4	155
Future Volume (vph)	680	24	279	414	4	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.0	5.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3421		1736	3374	1357	1524
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3421		1736	3374	1357	1524
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	716	25	294	436	4	163
RTOR Reduction (vph)	3	0	0	0	0	128
Lane Group Flow (vph)	738	0	294	436	4	35
Heavy Vehicles (%)	5%	5%	4%	7%	33%	6%
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	1 2	4	
Permitted Phases						4
Actuated Green, G (s)	24.9		14.3	44.2	15.0	15.0
Effective Green, g (s)	24.9		14.3	44.2	15.0	15.0
Actuated g/C Ratio	0.36		0.20	0.63	0.21	0.21
Clearance Time (s)	5.8		5.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	1216		354	2130	290	326
v/s Ratio Prot	c0.22		c0.17	c0.13	0.00	
v/s Ratio Perm						c0.02
v/c Ratio	0.61		0.83	0.20	0.01	0.11
Uniform Delay, d1	18.5		26.7	5.5	21.7	22.1
Progression Factor	1.00		0.70	1.15	1.00	1.00
Incremental Delay, d2	2.3		13.6	0.0	0.1	0.7
Delay (s)	20.8		32.3	6.3	21.8	22.8
Level of Service	C		C	A	C	C
Approach Delay (s)	20.8			16.8	22.8	
Approach LOS	C			B	C	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.8
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	414	417	41	381	311	44
Future Volume (vph)	414	417	41	381	311	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		6.0	6.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3085		1570	3374	1736	1615
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3085		1570	3374	1736	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	436	439	43	401	327	46
RTOR Reduction (vph)	259	0	0	0	0	36
Lane Group Flow (vph)	616	0	43	401	327	10
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	11%	3%	15%	7%	4%	0%
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	6		5	5 6	8	
Permitted Phases						8
Actuated Green, G (s)	23.2		15.0	44.2	15.0	15.0
Effective Green, g (s)	23.2		15.0	44.2	15.0	15.0
Actuated g/C Ratio	0.33		0.21	0.63	0.21	0.21
Clearance Time (s)	5.8		6.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	1022		336	2130	372	346
v/s Ratio Prot	c0.20		0.03	c0.12	c0.19	
v/s Ratio Perm						0.01
v/c Ratio	0.60		0.13	0.19	0.88	0.03
Uniform Delay, d1	19.5		22.2	5.4	26.6	21.7
Progression Factor	0.12		1.00	1.00	1.00	1.00
Incremental Delay, d2	2.2		0.2	0.0	20.3	0.0
Delay (s)	4.6		22.4	5.4	46.9	21.8
Level of Service	A		C	A	D	C
Approach Delay (s)	4.6			7.1	43.8	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.8
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1091	18	136	734	5	450
Future Volume (vph)	1091	18	136	734	5	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.0	5.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3565		1736	3539	1805	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3565		1736	3539	1805	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1148	19	143	773	5	474
RTOR Reduction (vph)	1	0	0	0	0	192
Lane Group Flow (vph)	1166	0	143	773	5	282
Confl. Peds. (#/hr)		1	1			
Heavy Vehicles (%)	1%	0%	4%	2%	0%	2%
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	1 2	4	
Permitted Phases						4
Actuated Green, G (s)	53.9		17.3	76.2	33.0	33.0
Effective Green, g (s)	53.9		17.3	76.2	33.0	33.0
Actuated g/C Ratio	0.45		0.14	0.64	0.28	0.28
Clearance Time (s)	5.8		5.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	1601		250	2247	496	435
v/s Ratio Prot	c0.33		c0.08	c0.22	0.00	
v/s Ratio Perm						c0.18
v/c Ratio	0.73		0.57	0.34	0.01	0.65
Uniform Delay, d1	27.1		47.9	10.2	31.6	38.4
Progression Factor	1.00		0.64	1.71	1.00	1.00
Incremental Delay, d2	2.9		2.4	0.1	0.0	3.3
Delay (s)	30.0		33.1	17.6	31.6	41.7
Level of Service	C		C	B	C	D
Approach Delay (s)	30.0			20.0	41.6	
Approach LOS	C			B	D	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.6
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	992	553	38	394	477	103
Future Volume (vph)	992	553	38	394	477	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.8	5.8	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.95		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3382		1736	3505	1787	1599
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3382		1736	3505	1787	1599
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1044	582	40	415	502	108
RTOR Reduction (vph)	64	0	0	0	0	71
Lane Group Flow (vph)	1562	0	40	415	502	37
Confl. Peds. (#/hr)					1	
Heavy Vehicles (%)	1%	1%	4%	3%	1%	1%
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	6		5	5 6	8	
Permitted Phases						8
Actuated Green, G (s)	55.4		15.0	76.2	33.0	33.0
Effective Green, g (s)	55.4		15.0	76.2	33.0	33.0
Actuated g/C Ratio	0.46		0.12	0.64	0.28	0.28
Clearance Time (s)	5.8		5.8		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	1561		217	2225	491	439
v/s Ratio Prot	c0.46		0.02	c0.12	c0.28	
v/s Ratio Perm						0.02
v/c Ratio	1.00		0.18	0.19	1.02	0.08
Uniform Delay, d1	32.3		47.0	9.1	43.5	32.3
Progression Factor	0.49		1.00	1.00	1.00	1.00
Incremental Delay, d2	18.7		0.4	0.0	46.4	0.1
Delay (s)	34.6		47.4	9.1	89.9	32.4
Level of Service	C		D	A	F	C
Approach Delay (s)	34.6			12.5	79.7	
Approach LOS	C			B	E	

Intersection Summary			
HCM 2000 Control Delay	41.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.6
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	710	24	113	767	19	184
Future Volume (vph)	710	24	113	767	19	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.0	5.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3578		1787	3574	1805	1568
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3578		1787	3574	1805	1568
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	747	25	119	807	20	194
RTOR Reduction (vph)	3	0	0	0	0	132
Lane Group Flow (vph)	769	0	119	807	20	62
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	0%	10%	1%	1%	0%	3%
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	2		1	1 2	4	
Permitted Phases						4
Actuated Green, G (s)	27.1		11.5	43.6	25.6	25.6
Effective Green, g (s)	27.1		11.5	43.6	25.6	25.6
Actuated g/C Ratio	0.34		0.14	0.55	0.32	0.32
Clearance Time (s)	5.8		5.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	1212		256	1947	577	501
v/s Ratio Prot	c0.21		0.07	c0.23	0.01	
v/s Ratio Perm						c0.04
v/c Ratio	0.63		0.46	0.41	0.03	0.12
Uniform Delay, d1	22.3		31.4	10.7	18.7	19.3
Progression Factor	1.00		0.62	1.41	1.00	1.00
Incremental Delay, d2	2.5		1.0	0.1	0.0	0.1
Delay (s)	24.8		20.5	15.2	18.7	19.4
Level of Service	C		C	B	B	B
Approach Delay (s)	24.8			15.9	19.3	
Approach LOS	C			B	B	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.6
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	450	446	90	357	524	131
Future Volume (vph)	450	446	90	357	524	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.8	5.8	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frpb, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3286		1805	3574	1805	1583
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3286		1805	3574	1805	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	474	469	95	376	552	138
RTOR Reduction (vph)	227	0	0	0	0	94
Lane Group Flow (vph)	716	0	95	376	552	44
Confl. Peds. (#/hr)		1	1			
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	1%	0%	0%	1%	0%	2%
Turn Type	NA		Prot	NA	Prot	Perm
Protected Phases	6		5	5 6	8	
Permitted Phases						8
Actuated Green, G (s)	22.8		15.0	43.6	25.6	25.6
Effective Green, g (s)	22.8		15.0	43.6	25.6	25.6
Actuated g/C Ratio	0.29		0.19	0.55	0.32	0.32
Clearance Time (s)	5.8		5.8		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	936		338	1947	577	506
v/s Ratio Prot	c0.22		c0.05	c0.11	c0.31	
v/s Ratio Perm						0.03
v/c Ratio	0.77		0.28	0.19	0.96	0.09
Uniform Delay, d1	26.2		27.9	9.3	26.7	19.0
Progression Factor	0.13		1.00	1.00	1.00	1.00
Incremental Delay, d2	5.1		0.5	0.0	26.7	0.1
Delay (s)	8.4		28.3	9.3	53.4	19.1
Level of Service	A		C	A	D	B
Approach Delay (s)	8.4			13.1	46.5	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.6
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			