

2150 HILLCREST DRIVE
Traffic, Circulation and Vehicle Miles Traveled
(VMT) Study

City of Thousand Oaks, CA

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INTRODUCTION

Stantec has prepared the following draft traffic and circulation study for the 2150 W. Hillcrest Drive Project. The traffic and circulation study provides an assessment of the existing and future traffic conditions within the study area, determines the trip generation and trip distribution for the proposed development, evaluates the potential traffic impacts to the vicinity intersections and provides feasible mitigations where applicable. The study incorporates a discussion of the site access and circulation plan and parking supply. The report also includes a summary of the vehicle miles traveled (VMT) analysis. The VMT analysis memorandum prepared by Iteris Inc. is included in the technical appendix.

PROJECT DESCRIPTION

The project site is located at 2150 W. Hillcrest Drive and is currently occupied by a vacant 51,000 square feet (SF) office building. The proposed project includes the demolition of the existing building and construction of 333 multi-family units and 6,500 SF of ground-floor commercial space. It should be noted that the proposed ground-floor commercial space may be reduced in size subsequent to preparation of this report. However, 6,500 SF of commercial space was utilized in the report herein to provide a conservative analysis. The existing building has been vacant prior to 2019, therefore this study assumes the existing building does not generate any vehicle trips. Exhibit 1 shows the location of the project site in the City of Thousand Oaks and Exhibit 2 illustrates the site plan.

Access is proposed via two new driveways that connect to the south side of Hillcrest Drive. The western driveway accommodates full inbound access (left-turn and right-turn ingress movements). However, outbound access is restricted to right-turn egress movements only (no left-turn egress movements permitted). and the eastern driveway is full access. Both driveways are controlled by a stop sign facing each outbound driveway approach..

STUDY METHODOLOGY

Traffic Analysis Scenarios

Pursuant to City's standard traffic impact study methodology, the traffic analysis includes the following traffic scenarios:

- Existing Conditions
- Existing plus Project Conditions
- Buildout (Year 2040) Conditions
- Buildout plus Project Conditions

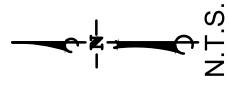
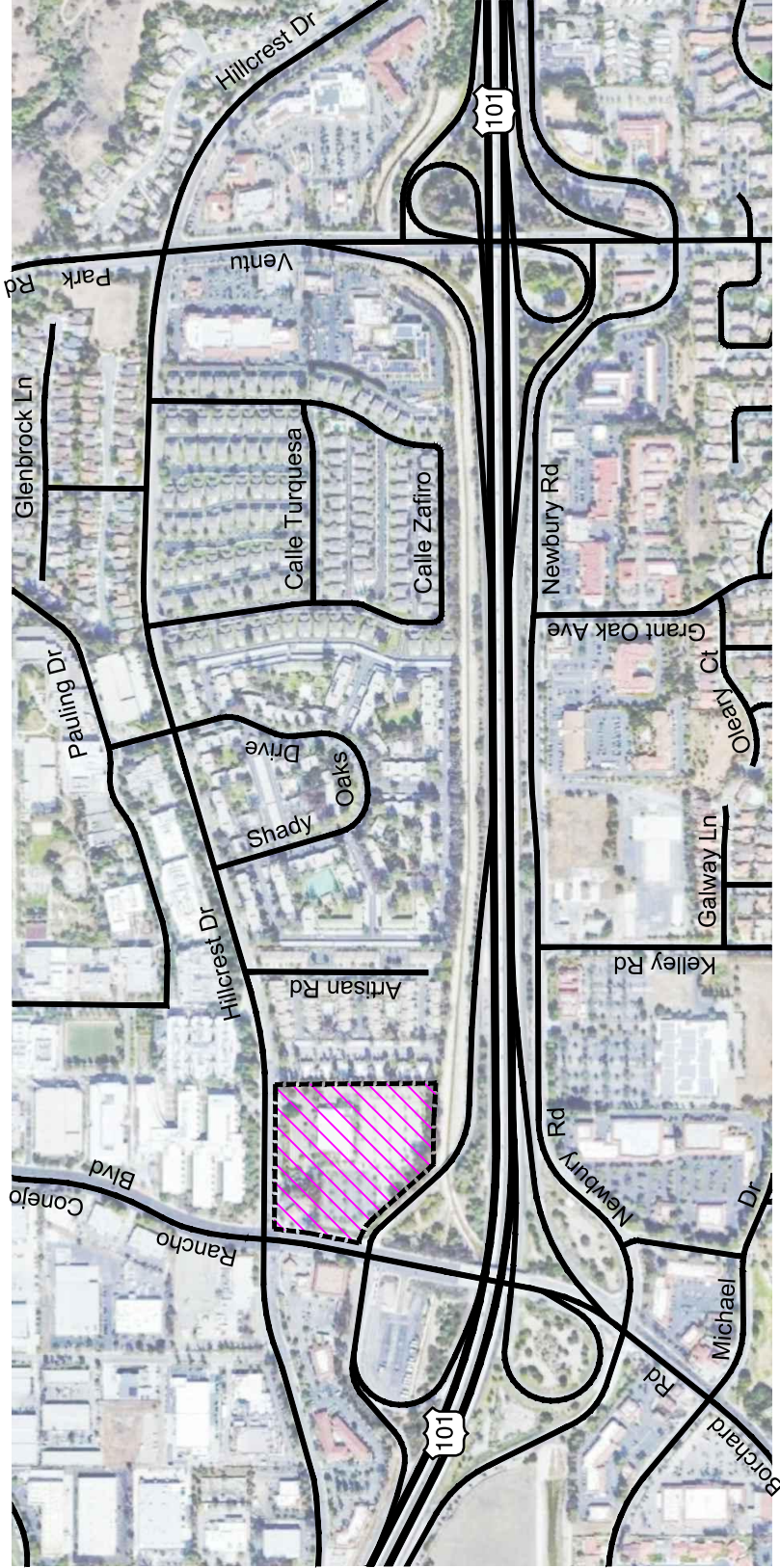
Level of Service Criteria

The traffic analysis focuses on four (4) key intersections within the study area during the AM and PM commute periods, when peak traffic volumes occur during a typical weekday. A level of service (LOS) ranking scale is used to identify the operating condition at intersections, which is measured in seconds of delay per vehicle at each intersection during the AM and PM peak hour periods, per the level of service calculation methodologies outlined in the Highway Capacity Manual (HCM)¹. The letter scale ranges from A to F with LOS A representing free flow conditions and LOS F representing congested conditions. The level of service criteria are summarized in Table 1.

¹ Highway Capacity Manual, 6th Edition: A Guide for Multi-Modal Mobility Analysis, Transportation Research Board, 2016.

EXHIBIT 1

EXISTING ROADWAY NETWORK AND PROJECT LOCATION



LEGEND

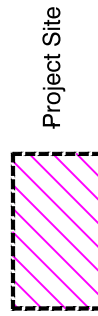




Table 1
Intersection Level of Service Criteria (HCM Methodology)

| LOS | Signalized Intersections (Sec. of Delay) | Unsignalized Intersections (Sec. of Delay) | Definition |
|-----|---|---|---|
| A | ≤ 10 | ≤ 10 | Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles. |
| B | > 10 and ≤ 20 | > 10 and ≤ 15 | Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles. |
| C | > 20 and ≤ 35 | > 15 and ≤ 25 | Conditions of stable flow, delays are low to moderate, full use of peak direction signal phases is experienced. |
| D | > 35 and ≤ 55 | > 25 and ≤ 35 | Conditions approaching unstable flow, delays are moderate to heavy, significant signal timing deficiencies are experienced for short durations during the peak traffic period. |
| E | > 55 and ≤ 80 | > 35 and ≤ 50 | Conditions of unstable flow, delays are significant, signal phasing is generally insufficient, congestion exists for extended duration throughout the peak period. |
| F | > 80 | > 50 | Conditions of forced flow, travel speeds are low and volumes are well above capacity. This condition is often caused when vehicles released by an upstream signal are unable to proceed because of back-ups from a downstream signal. |

Source: Highway Capacity Manual, 6th Edition.

The City of Thousand Oaks considers LOS C or better acceptable for intersection operations, with LOS D acceptable for the Hillcrest Drive/Rancho Conejo Boulevard intersection and specific intersections included in the Thousand Oaks Boulevard Specific Plan. (Source City Council Resolution 2019-011).

Level of Service Calculation Methodology

Levels of service for the intersections in the study area were calculated using the methodologies outlined in the Highway Capacity Manual (HCM) using Synchro² software, which uses data input parameters such as peak hour turning volumes, lane configurations, saturation flows and traffic signal timing to calculate intersection levels of service, control delays and queue lengths for each intersection approach. The HCM methodology provides a quantitative measurement of intersection delay in average seconds per vehicle for each approach and for the overall intersection.

EXISTING CONDITIONS

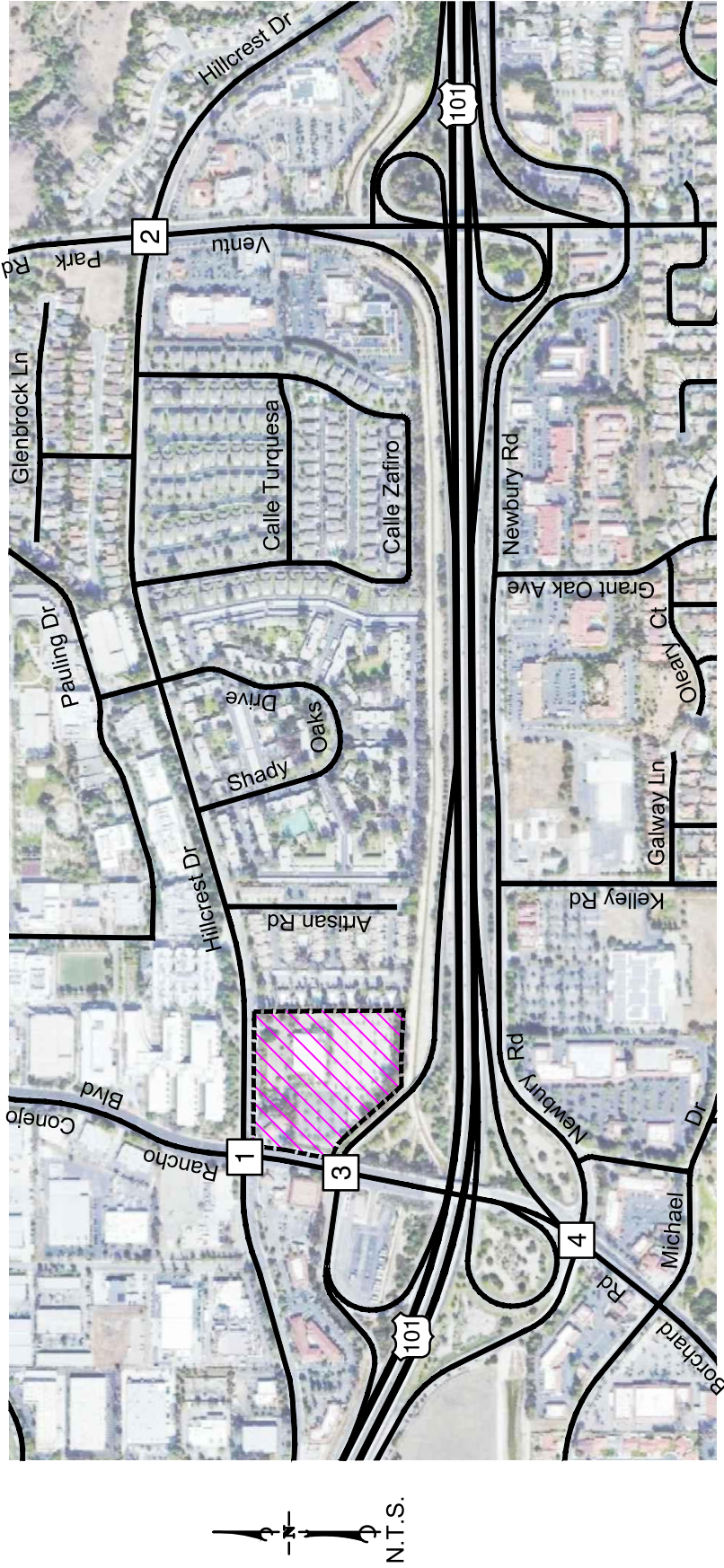
Roadway Network

The roadway system in the study area is comprised of a network of freeways, arterial streets and collector streets. The study area roadway network is shown in Exhibit 3 and a brief description of the key roadways providing access to the project is provided below.

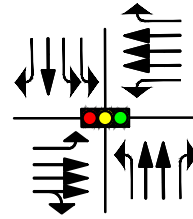
U.S. Highway 101 (U.S. 101) extends along the Central Coast between Los Angeles and San Francisco. Within the City of Thousand Oaks, the six-lane freeway is the principal route between Thousand Oaks and the cities of Camarillo, Ventura and Santa Barbara to the north, and the cities of Calabasas and Los Angeles to the south. Regional access from U.S. 101 to the project site is provided via the interchanges of the U.S. 101 with Rancho Conejo Boulevard - Borchard Road and Ventu Park Road.

Hillcrest Drive is a four-lane roadway that extends easterly from Camino Dos Rios to Westlake Boulevard. It serves the commercial, office and residential areas north of the freeway. The posted speed limit in the study area is 45 mph. The roadway provides direct access to the project site.

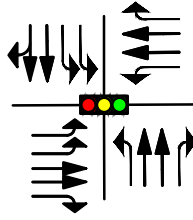
² Synchro plus SiC Traffic 10, Trafficware Ltd., 2018.



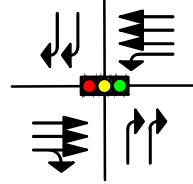
1 Rancho Conejo Blvd & Hillcrest Dr



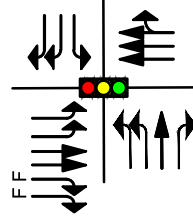
2. Ventu Park Rd & Hillcrest Dr



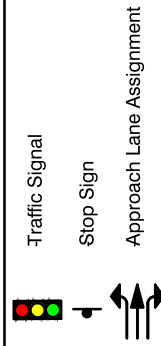
3. Rancho Conejo Blvd & U.S. 101 NB



4. Borchard Rd & U.S. 101 SB



LEGEND



Rancho Conejo Boulevard is a four- to six-lane roadway that extends north from the Newbury Road Connector over the U.S. and ends at Wildwood Park. The posted speed limit is 40 mph.

Borchard Road, extends south of from the Newbury Road Connector as a 4- to 5-lane roadway with a raised median that transitions to a two-way left-turn lane at Carob Drive to Rancho Dos Vientos. The posted speed limit is 40 mph north of Michael Drive and 45 mph south of Michael Drive.

Ventu Park Road extends northerly from Lynn Road over U.S. 101 to Rancho Conejo Boulevard. Within the study area it is a four-lane divided road with a posted speed limit of 40 mph.

Alternative Transportation

The City of Thousand Oaks is served by fixed route buses including local service Thousand Oaks Transit (TOT) and regional services Metro, LA DOT Transit and VCTC Intercity, and senior/ADA Dial a Ride (DAR) services. TOT Bus Route 44 (Crosstown) provides convenient connections to the City's other four local bus routes and service to the project area with stops along Hillcrest Drive. VCTC Intercity routes provide regional transit connections with service to Thousand Oaks, Camarillo and Canoga Park (VCTC 101/Conejo Connection) and service to Simi Valley and Moorpark (VCTC East).

The bicycle network in the study area consists of Class II bicycle lanes that are provided on Hillcrest Drive, along Rancho Conejo Boulevard north of Hillcrest Drive and along Ventu Park Road.

Existing Intersection Operations

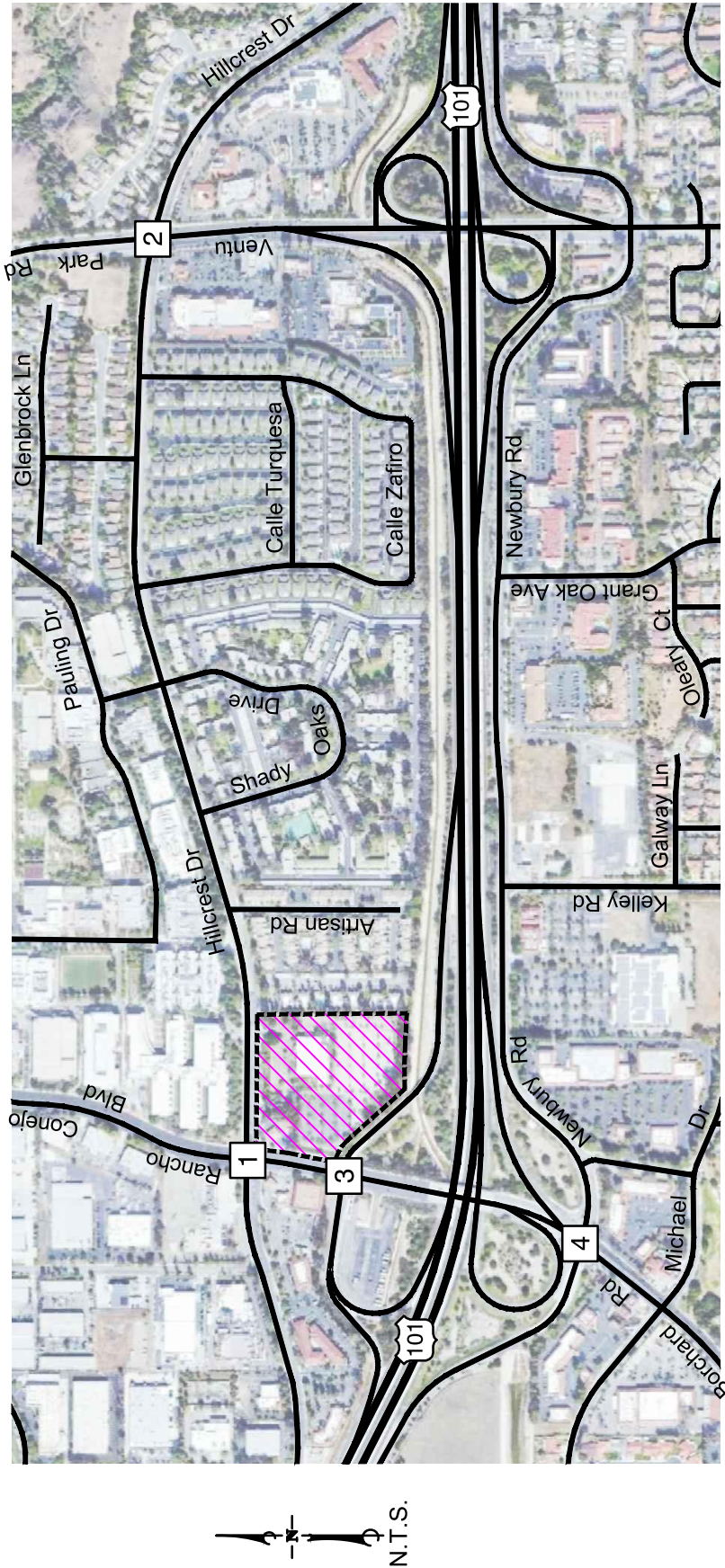
A total of four intersections were selected for analysis in consultation with City of Thousand Oaks staff. Intersection turning volume counts for the AM and PM peak commute periods were provided by City staff. The most recent peak hour turning volumes for the U.S. 101/Rancho Conejo Blvd - Borchard Rd Interchange (March 2022, post-pandemic conditions) were used to adjust the turning volumes for the Hillcrest Dr/Rancho Conejo Blvd intersection (January 2020, pre-pandemic conditions).

The existing lane geometry and control for the intersections within the study area are shown in Exhibit 3 and the Year 2020 AM and PM peak hour volumes are illustrated in Exhibit 4. Levels of service were calculated for the study-area intersections based on the HCM level of service methodology outlined previously. The technical calculation worksheets are included in the Technical Appendix, and the existing intersection levels of service are summarized in Table 2.

Table 2
Existing AM and PM Peak Hour Intersection Levels of Service (HCM Methodology)

| Intersection | Control | AM Peak Hour Delay (sec/veh) | PM Peak Hour Delay (sec/veh) |
|---|----------------|-------------------------------------|-------------------------------------|
| 1. Hillcrest Dr/ Rancho Conejo Blvd | Signal | 29.5/LOS C | 28.9/LOS C |
| 2. Hillcrest Dr/ Ventu Park Rd | Signal | 28.8/LOS C | 27.6/LOS C |
| 3. Rancho Conejo Blvd/U.S. 101 NB Ramps | Signal | 12.3/LOS B | 15.0/LOS B |
| 4. Borchard Rd/U.S. 101 SB Ramps | Signal | 21.3/LOS C | 21.8/LOS C |

As shown, the intersections are currently operating in the LOS B-C range, which is considered acceptable based on the City's level of service standard.



1 Rancho Conejo Blvd & Hillcrest Dr

| | | |
|----------|----------|----------|
| 144(192) | 18(18) | 95(37) |
| 685(323) | 351(495) | 193(204) |
| 124(161) | 71(260) | 253(143) |
| ↓ | ↓ | ↓ |
| 250(773) | 6(37) | 60(200) |
| ↓ | ↓ | ↓ |
| 344(220) | 332(328) | 344(220) |
| ↓ | ↓ | ↓ |
| 27(21) | 565(633) | 443(103) |
| ↓ | ↓ | ↓ |
| 182(500) | 111(78) | 330(286) |
| ↓ | ↓ | ↓ |
| 958(305) | 78(111) | 78(111) |
| ↓ | ↓ | ↓ |
| 118(150) | 447(373) | 507(240) |
| ↓ | ↓ | ↓ |
| 375(500) | 142(251) | 430(922) |
| ↓ | ↓ | ↓ |
| 230(142) | 153(528) | 621(743) |
| ↓ | ↓ | ↓ |
| 89(92) | 36(150) | 23(140) |
| ↓ | ↓ | ↓ |
| 261(226) | 32(83) | 89(148) |
| ↓ | ↓ | ↓ |
| 94(120) | 94(120) | 94(120) |

2. Ventu Park Rd & Hillcrest Dr

| | | |
|----------|----------|----------|
| 144(192) | 18(18) | 95(37) |
| 685(323) | 351(495) | 193(204) |
| 124(161) | 71(260) | 253(143) |
| ↓ | ↓ | ↓ |
| 250(773) | 6(37) | 60(200) |
| ↓ | ↓ | ↓ |
| 344(220) | 332(328) | 344(220) |
| ↓ | ↓ | ↓ |
| 27(21) | 565(633) | 443(103) |
| ↓ | ↓ | ↓ |
| 182(500) | 111(78) | 330(286) |
| ↓ | ↓ | ↓ |
| 958(305) | 78(111) | 78(111) |
| ↓ | ↓ | ↓ |
| 118(150) | 447(373) | 507(240) |
| ↓ | ↓ | ↓ |
| 375(500) | 142(251) | 430(922) |
| ↓ | ↓ | ↓ |
| 230(142) | 153(528) | 621(743) |
| ↓ | ↓ | ↓ |
| 89(92) | 36(150) | 23(140) |
| ↓ | ↓ | ↓ |
| 261(226) | 32(83) | 89(148) |
| ↓ | ↓ | ↓ |
| 94(120) | 94(120) | 94(120) |

3. Rancho Conejo Blvd & U.S. 101 NB

| | | |
|----------|----------|----------|
| 144(192) | 18(18) | 95(37) |
| 685(323) | 351(495) | 193(204) |
| 124(161) | 71(260) | 253(143) |
| ↓ | ↓ | ↓ |
| 250(773) | 6(37) | 60(200) |
| ↓ | ↓ | ↓ |
| 344(220) | 332(328) | 344(220) |
| ↓ | ↓ | ↓ |
| 27(21) | 565(633) | 443(103) |
| ↓ | ↓ | ↓ |
| 182(500) | 111(78) | 330(286) |
| ↓ | ↓ | ↓ |
| 958(305) | 78(111) | 78(111) |
| ↓ | ↓ | ↓ |
| 118(150) | 447(373) | 507(240) |
| ↓ | ↓ | ↓ |
| 375(500) | 142(251) | 430(922) |
| ↓ | ↓ | ↓ |
| 230(142) | 153(528) | 621(743) |
| ↓ | ↓ | ↓ |
| 89(92) | 36(150) | 23(140) |
| ↓ | ↓ | ↓ |
| 261(226) | 32(83) | 89(148) |
| ↓ | ↓ | ↓ |
| 94(120) | 94(120) | 94(120) |

4. Borchard Rd & U.S. 101 SB

| | | |
|----------|----------|----------|
| 144(192) | 18(18) | 95(37) |
| 685(323) | 351(495) | 193(204) |
| 124(161) | 71(260) | 253(143) |
| ↓ | ↓ | ↓ |
| 250(773) | 6(37) | 60(200) |
| ↓ | ↓ | ↓ |
| 344(220) | 332(328) | 344(220) |
| ↓ | ↓ | ↓ |
| 27(21) | 565(633) | 443(103) |
| ↓ | ↓ | ↓ |
| 182(500) | 111(78) | 330(286) |
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| ↓ | ↓ | ↓ |
| 89(92) | 36(150) | 23(140) |
| ↓ | ↓ | ↓ |
| 261(226) | 32(83) | 89(148) |
| ↓ | ↓ | ↓ |
| 94(120) | 94(120) | 94(120) |

LEGEND

XX(XX) AM(PM) Peak Hour Volume

└ Traffic Movement



EXHIBIT 4

EXISTING PEAK HOUR

TRAFFIC VOLUMES

PROJECT SPECIFIC CONDITIONS

Traffic Impact Thresholds

City of Thousand Oaks. In the study area, the City of Thousand Oaks considers LOS C or better acceptable for intersection operations, with LOS D acceptable for the Hillcrest Drive/Rancho Conejo Boulevard intersection. A significant impact would occur if a project causes a drop in level of service by one service level in the “plus project” traffic scenario, and feasible mitigation measures would be required to return the intersection back to its pre-project operating condition.

Caltrans. Caltrans considers the cusp of LOS/D acceptable for State facilities. It is noted that Caltrans has transitioned away from requesting LOS or other vehicle operations analyses for land use projects (other than transportation projects on the State Highway System).

Project Trip Generation and Distribution

Trip Generation Rates. Stantec reviewed applicable land uses contained in the ITE *Trip Generation Manual (11th Edition, 2022)*. ITE Land Use 221 – Multifamily Housing (Mid-Rise) and Land Use 822 – Strip Retail Plaza (<40k) were determined to fit the project description. Table 3 shows the ITE trip rates.

Table 3
Project Trip Generation Rates

| Land Use | ITE Land Use Code | Units | Trip Rate | | | | |
|--------------------------------|-------------------|-------|-----------|------|------|-------------------|-------------------|
| | | | ADT | AM | | PM | |
| | | | | In | Out | In | Out |
| Multifamily Housing (Mid-Rise) | 221 | DU | 4.54 | 0.09 | 0.28 | 0.24 | 0.15 |
| Strip Retail Plaza (<40k) | 822 | KSF | 54.45 | 1.42 | 0.94 | 4.85 ¹ | 4.84 ¹ |

DU = dwelling units.

KSF = 1,000 square feet.

¹ Fitted curve equation applied pursuant ITE tripe generation rate guidelines.

Internal Trip Capture. The trip generation rates for the land uses listed above assume that each project component is a stand-alone land use. Due to the mix of land uses a portion of the trips generated by the project would remain internal to the site and not enter the external roadway network. These trips between residential and commercial uses are captured between land uses on the site. ITE’s *Trip Generation Handbook (3rd Edition, 2017)* defines a multi-use development as a “real estate project that consists of two or more ITE land use classifications between which trips are made without using the off-site road system.” The project’s internal trips were determined based on the internal trip capture percentages contained in Tables 6.1 and 6.2 of the Trip Generation Handbook.

Project Trip Generation. Table 4 summarizes the trip generation estimates for the proposed project with an mixed use internal trip capture component applied. As shown, the project is expected to generate 1,788 average daily trips, with 136 trips occurring in the AM peak hour and 182 trips occurring in the PM peak hour.

Table 4
Project Trip Generation

| Land Use | Size | ADT | AM | | | PM | | |
|--------------------------------|---------|--------------|-----------|-----------|------------|------------|-----------|------------|
| | | | In | Out | Total | In | Out | Total |
| Multifamily Housing (Mid-Rise) | 333 DU | 1,512 | 30 | 93 | 123 | 80 | 50 | 130 |
| Strip Retail Plaza (<40k) | 6.5 KSF | 354 | 9 | 6 | 15 | 32 | 31 | 63 |
| Total | | 1,866 | 39 | 99 | 138 | 112 | 81 | 193 |
| Mixed-Use (Internal Trips) | | 78 | 0 | 2 | 2 | 6 | 5 | 11 |
| TOTAL | | 1,788 | 39 | 97 | 136 | 106 | 76 | 182 |

Project Trip Distribution. Trip distribution percentages were developed based on existing traffic patterns and general understanding of destinations in the area. While trip distribution for the residential and retail components of the project could slightly vary, it was assumed, based on the project site location and proximity to U.S. 101, that trip distribution variations would not be significant. The project trip distribution percentages are shown in Table 5 and Exhibit 5, and the project-added traffic volumes are shown in Exhibit 6.

Table 5
Project Trip Distribution Percentages

| Origin/Destination | Direction | Distribution Percentage |
|------------------------------|-----------|-------------------------|
| U.S. 101 | Northwest | 15% |
| | Southeast | 45% |
| Hillcrest Drive | East | 5% |
| | West | 12% |
| Rancho Conejo Boulevard | North | 10% |
| Borchard Road | South | 5% |
| Ventu Park Road/Newbury Road | South | 8% |
| Total | | 100% |

Existing plus Project Intersection Operations

Project generated traffic was added to the existing peak hour traffic volumes and levels of service were recalculated for existing plus project conditions. The existing plus project traffic volumes are illustrated in Exhibit 7. Tables 6 summarizes the level of service calculations for project-specific conditions. As shown, all study area intersections are expected to continue to operate at LOS C or better during both the AM and PM peak hours. The project trip additions are not expected to generate any project-specific impacts at the study area intersections.

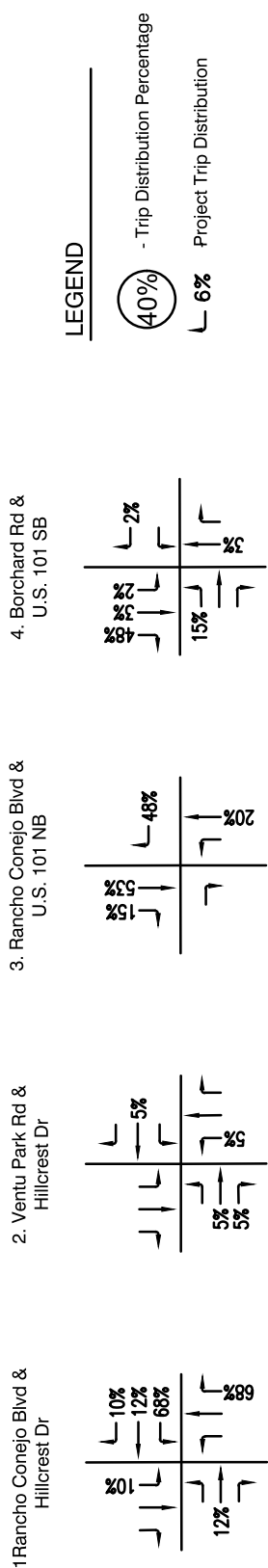
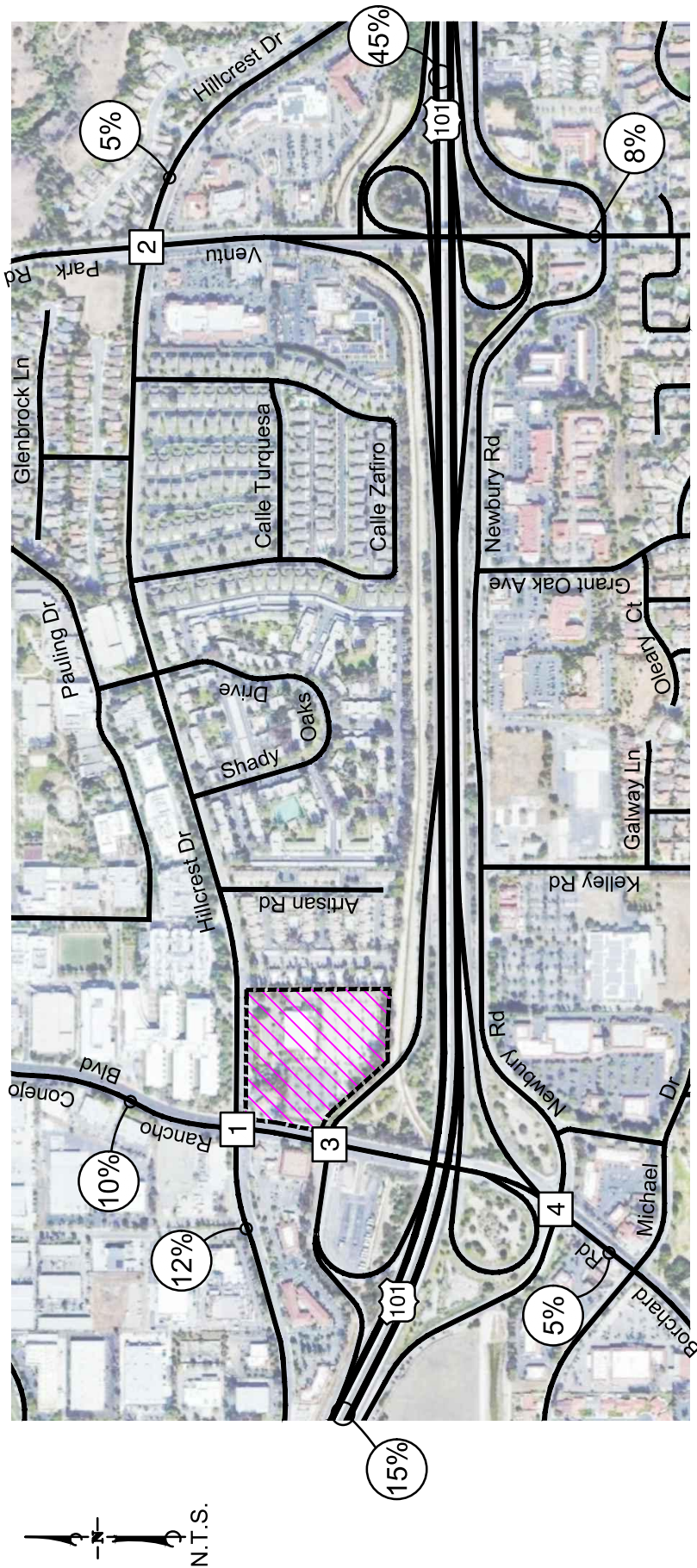
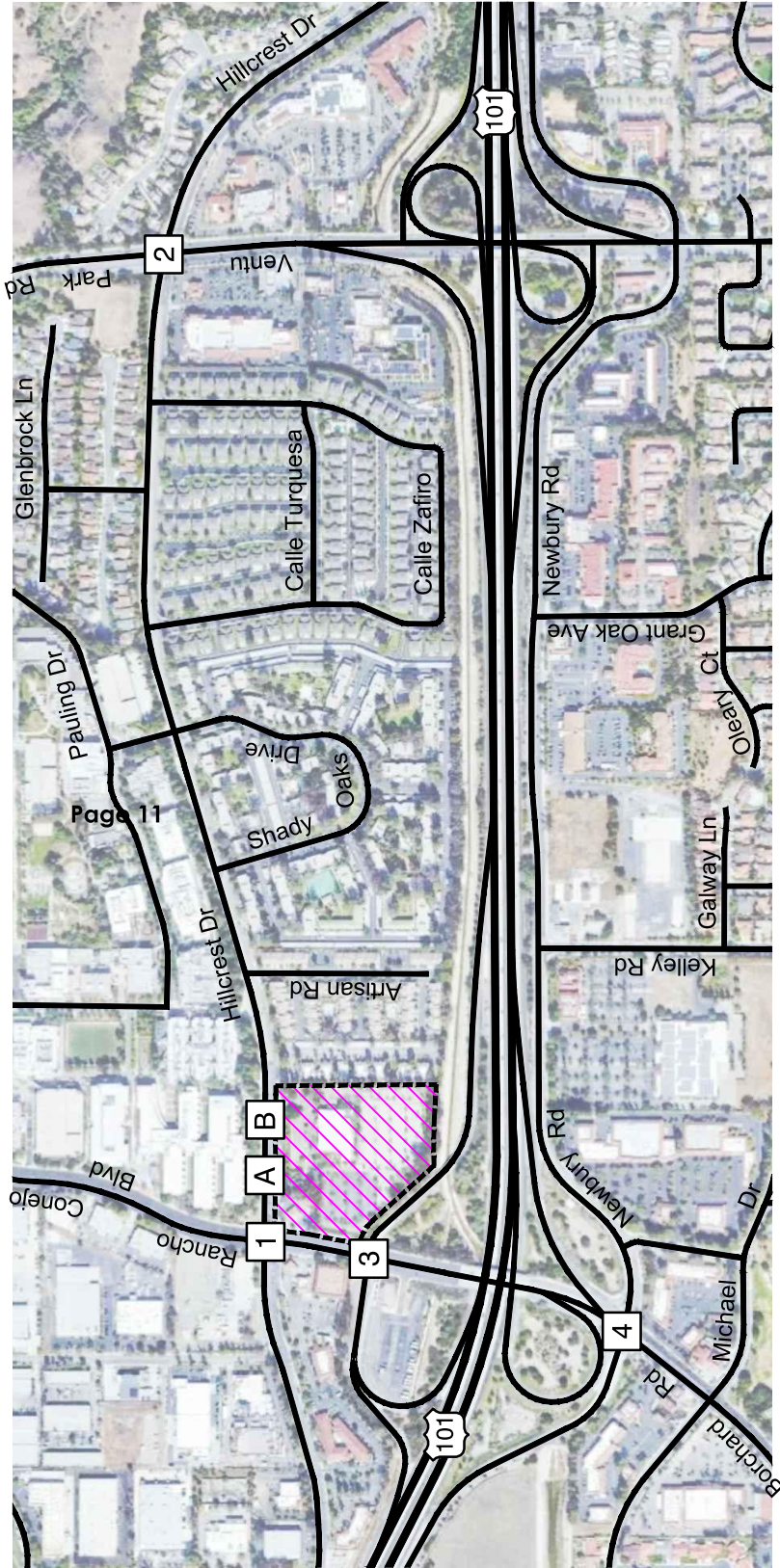
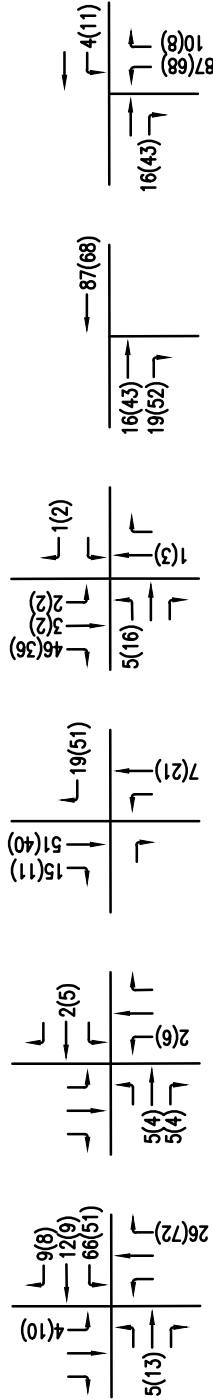


EXHIBIT 5

PROJECT TRIP DISTRIBUTION



- 1. Rancho Conejo Blvd & Hillcrest Dr
- 2. Ventu Park Rd & Hillcrest Dr
- 3. Rancho Conejo Blvd & U.S. 101 NB
- 4. Borchard Rd & U.S. 101 SB
- A. Hillcrest Dr & W. Project Dway
- B. Hillcrest Dr & E. Project Dway

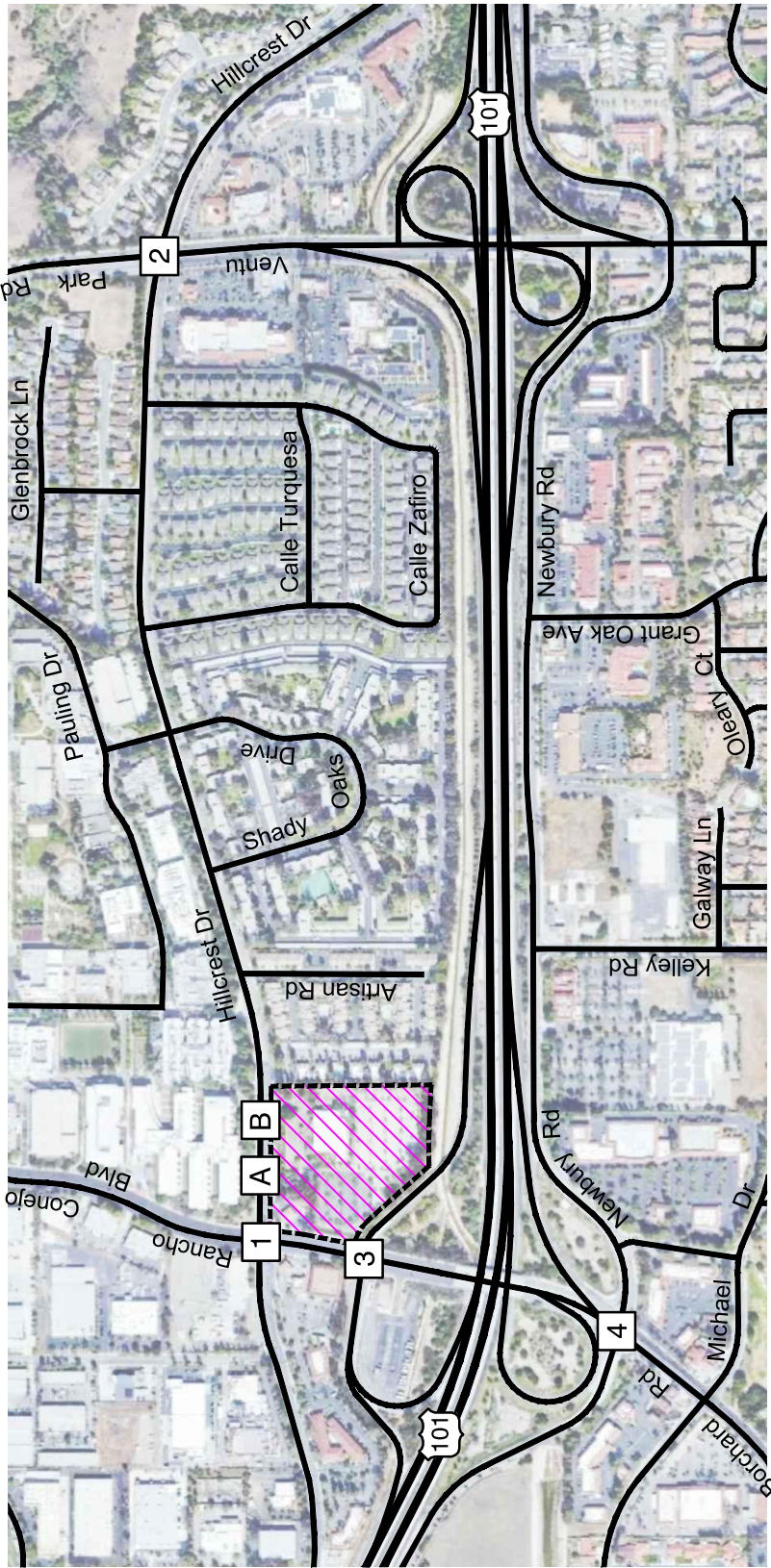


| PROJECT TRIP GENERATION | | |
|-------------------------|-------|-----|
| | In | Out |
| AM PEAK HOUR | 39 | 97 |
| PM PEAK HOUR | 106 | 76 |
| | Total | |
| | 136 | |
| | 182 | |

LEGEND

XX(XX) .AM(PM) Peak Hour Volume

└ Traffic Movement



| 1.Rancho Conejo Blvd & Hillcrest Dr | 2. Ventu Park Rd & Hillcrest Dr | 3. Rancho Conejo Blvd & U.S. 101 NB | 4. Borchard Rd & U.S. 101 SB | A. Hillcrest Dr & W. Project Dway | B. Hillcrest Dr & E. Project Dway |
|---|---|--|---|--|-----------------------------------|
| <div><div><div>16(18)</div><div>556(508)</div><div>71(260)</div></div><div><div>6(37)</div><div>250(773)</div><div>64(210)</div></div><div><div>104(45)</div><div>205(213)</div><div>319(194)</div></div></div> <div><div>144(192)</div><div>685(323)</div><div>150(233)</div></div> <div><div>27(21)</div><div>570(637)</div><div>344(306)</div></div> | <div><div>184(506)</div><div>958(305)</div><div>111(78)</div></div> <div><div>443(103)</div><div>332(294)</div><div>78(111)</div></div> <div><div>344(220)</div><div>332(328)</div><div>16(11)</div></div> <div><div>375(500)</div></div> <div><div>118(150)</div><div>454(394)</div></div> <div><div>235(158)</div><div>36(150)</div><div>88(92)</div></div> | <div><div>157(262)</div><div>481(962)</div></div> <div><div>526(291)</div></div> <div><div>199(564)</div><div>624(745)</div><div>25(142)</div></div> <div><div>90(150)</div><div>94(120)</div></div> | <div><div>262(229)</div><div>32(83)</div></div> <div><div>551(899)</div><div>19(52)</div></div> <div><div>535(856)</div><div>16(43)</div></div> | <div><div>87(68)</div><div>10(8)</div></div> <div><div>541(384)</div><div>4(11)</div></div> <div><div>628(452)</div></div> | |

LEGEND

XX(XX) AM(PM) Peak Hour Volume

└ Traffic Movement

EXHIBIT 7 EXISTING + PROJECT PEAK HOUR TRAFFIC VOLUMES



Table 6
Existing + Project AM and PM Peak Hour Intersection Levels of Service

| Intersection | AM Peak Hour | | PM Peak Hour | |
|---|--------------------------|------------------------------|--------------------------|------------------------------|
| | Existing Delay (sec/veh) | Ex + Project Delay (sec/veh) | Existing Delay (sec/veh) | Ex + Project Delay (sec/veh) |
| 1. Hillcrest Dr/ Rancho Conejo Blvd | 29.5/LOS C | 30.2/LOS C | 28.9/LOS C | 29.7/LOS C |
| 2. Hillcrest Dr/ Ventu Park Rd | 28.8/LOS C | 28.9/LOS C | 27.8/LOS C | 27.8/LOS C |
| 3. Rancho Conejo Blvd/U.S. 101 NB Ramps | 12.3/LOS B | 12.3/LOS B | 15.0/LOS B | 15.0/LOS B |
| 4. Borchard Rd/U.S. 101 SB Ramps | 21.3/LOS C | 21.4/LOS C | 21.8/LOS C | 22.0/LOS C |

BUILDOUT (YEAR 2040) CONDITIONS

Buildout Traffic Forecasts

General Plan buildout traffic volumes for the study area intersections were developed based on traffic data provided in the *Traffic Impact Mitigation Fee Nexus Study (TIMF)*³. The traffic analysis contained in the TIMF applies a 0.376 percent annual traffic volume growth from existing conditions to the Year 2040, for a total increase of 6.8 percent from the year 2022 to the Year 2040. This growth factor was applied to the study area intersections to the Year 2040 to develop buildout traffic volumes. The buildout traffic volumes are illustrated in Exhibit 8,

Street Network Improvements

Review of the City's Five-Year Capital Improvement Program⁴ indicates that Transportation/Traffic Project CI5657 includes bicycle and pedestrian improvements to Ventu Park Road from Hillcrest Drive to Michael Drive.

The TIMF includes the following future improvement for the Hillcrest Drive/Ventu Park Road intersection: Restripe southbound approach for three through lanes (through, through, through/right), this will require modifications downstream. Partial improvement, does not improve LOS to City standard. The intersection capacity improvements are not assumed to be in place in the following buildout conditions analysis.

Buildout plus Project Intersection Operations

The buildout plus project traffic volumes are illustrated in Exhibit 9, respectively. Intersection levels of service were recalculated assuming buildout and buildout plus project conditions. Tables 8 and 9 summarize the buildout and buildout plus project level of service calculations.

The level of service data contained in Table 7 indicates that all study area intersections are expected to continue to operate at LOS C or better during both the AM and PM peak hours under buildout conditions. The project trip additions are not expected to generate any buildout impacts at the study area intersections.

³ Traffic Impact Mitigation Fee Nexus Study, City of Thousand Oaks, Final April 2019.

⁴ City of Thousand Oaks Adopted Capital Improvement Project Budget, Fiscal Years 2021-2022 & 2022-2023, City of Thousand Oaks, 2020.

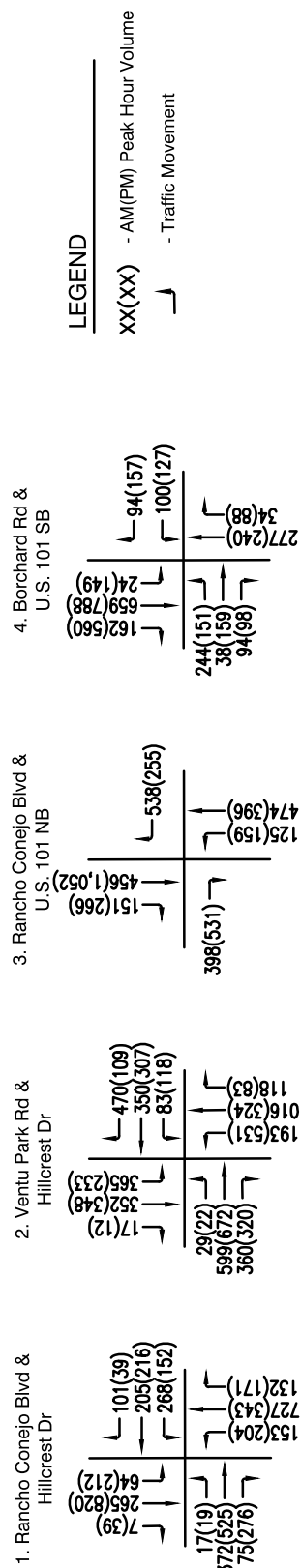
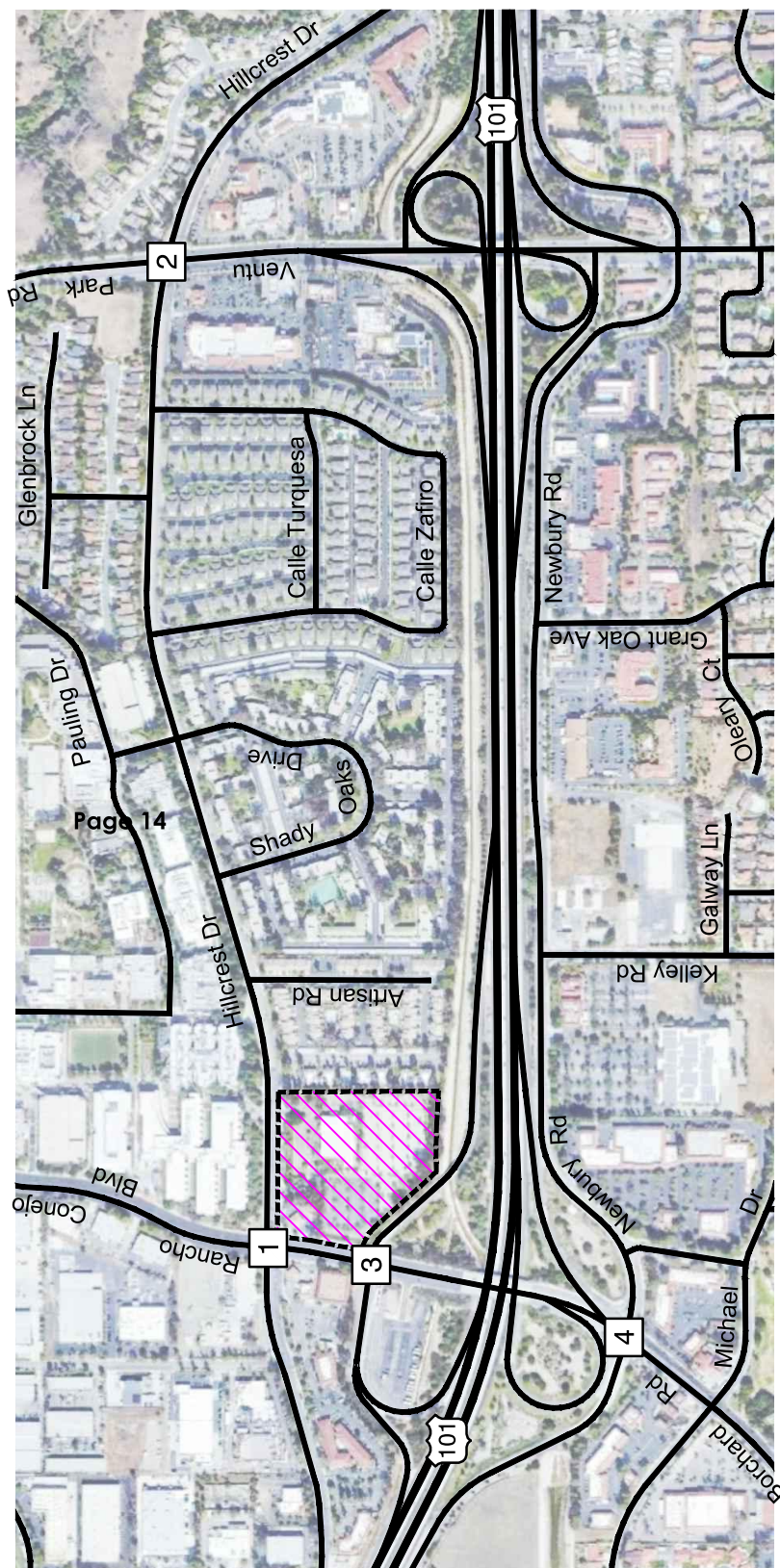
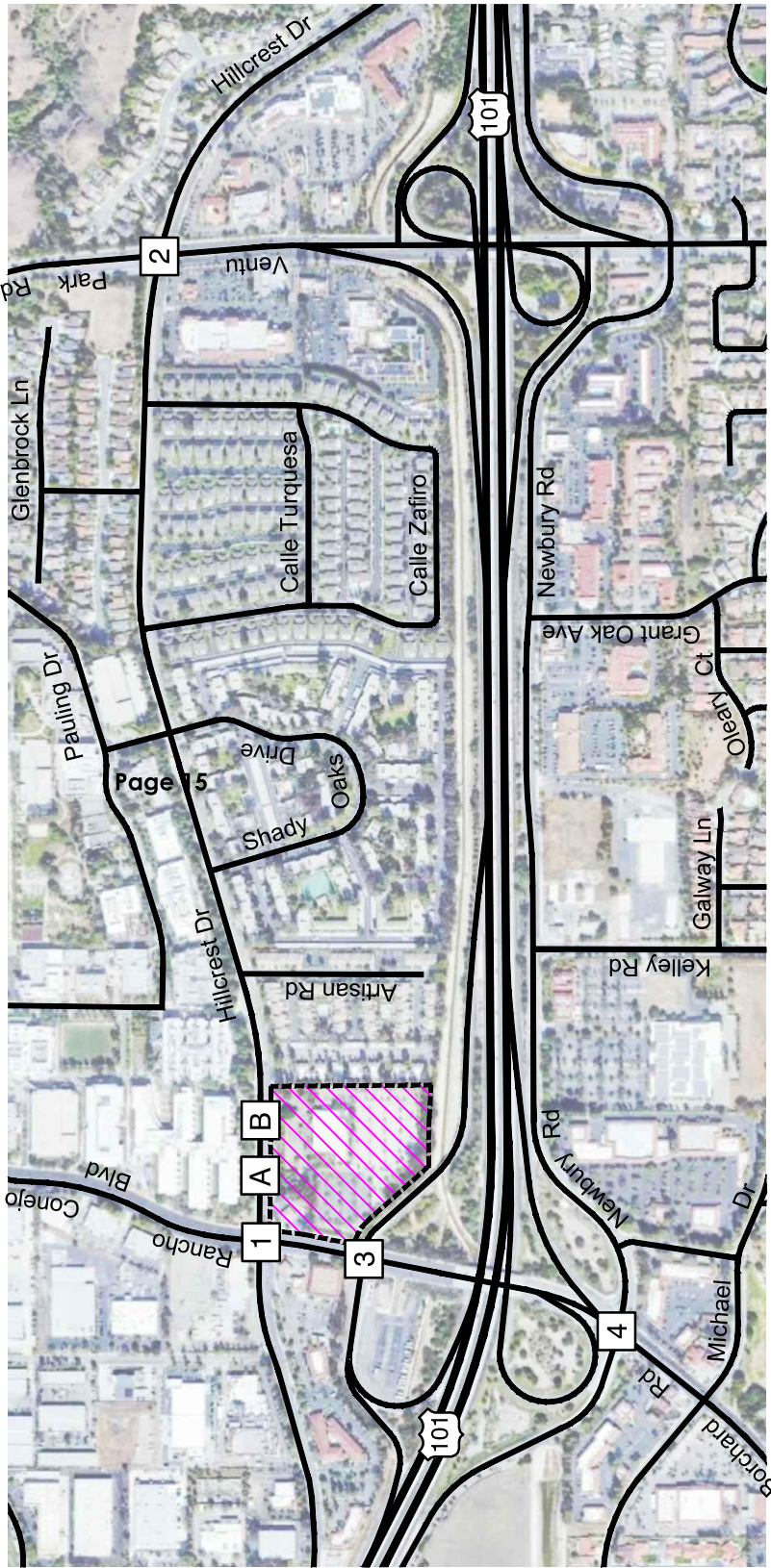


EXHIBIT 8 BUILDOUT PEAK HOUR TRAFFIC VOLUMES





| 1. Rancho Conejo Blvd & Hillcrest Dr | 2. Ventu Park Rd & Hillcrest Dr | 3. Rancho Conejo Blvd & U.S. 101 NB | 4. Borchard Rd & U.S. 101 SB | A. Hillcrest Dr & W. Project Dway | B. Hillcrest Dr & E. Project Dway |
|--|--|--|---|---|--|
| <div><div>17(19) 377(538) 75(276)</div><div>110(47) 217(225) 334(203)</div><div>68(222) 265(820) 7(39)</div><div>153(204) 727(342) 158(243)</div><div>29(22) 604(676) 364(324)</div></div> | <div><div>195(537) 1,016(324) 118(83)</div><div>470(109) 352(312) 83(118)</div><div>365(233) 352(348) 17(12)</div><div>195(537) 1,016(324) 118(83)</div></div> | <div><div>125(159) 481(417) 398(531)</div><div>507(1,092) 166(277) 557(306)</div><div>249(167) 38(159) 94(98)</div><div>125(159) 481(417) 398(531)</div></div> | <div><div>278(243) 34(88) 584(951)</div><div>95(159) 100(127) 661(475)</div><div>26(151) 662(790) 208(596)</div><div>278(243) 34(88) 584(951)</div></div> | <div><div>568(908) 16(43) 584(951)</div><div>574(407) 4(11)</div><div>87(68) 10(8)</div><div>568(908) 16(43) 584(951)</div></div> | <div><div>574(407) 4(11)</div><div>87(68) 10(8)</div><div>568(908) 16(43) 584(951)</div></div> |

LEGEND

XX(XX) AM(PM) Peak Hour Volume
Traffic Movement

EXHIBIT 9
BUILDOUT + PROJECT
PEAK HOUR TRAFFIC VOLUMES



Table 7
Buildout + Project AM and PM Peak Hour Intersection Levels of Service

| Intersection | AM Peak Hour | | PM Peak Hour | |
|---|-----------------------------|---------------------------------|-----------------------------|---------------------------------|
| | Buildout Delay (sec/veh) | BO + Project Delay (sec/veh) | Buildout Delay (sec/veh) | BO + Project Delay (sec/veh) |
| 1. Hillcrest Dr/ Rancho Conejo Blvd | 29.7/LOS C | 30.5/LOS C | 29.5/LOS C | 30.4/LOS C |
| 2. Hillcrest Dr/ Ventu Park Rd | 31.4/LOS C | 31.5/LOS C | 29.4/LOS C | 29.6/LOS C |
| 3. Rancho Conejo Blvd/U.S. 101 NB Ramps | 12.7/LOS B | 12.8/LOS B | 15.9/LOS B | 16.0/LOS B |
| 4. Borchard Rd/U.S. 101 SB Ramps | 21.6/LOS C | 21.7/LOS C | 22.1/LOS C | 22.3/LOS C |

PROJECT SITE ACCESS, CIRCULATION AND PARKING

Site Access and Circulation

Site Access. The site plan illustrated in Exhibit 2 shows that access is proposed via two new driveways on Hillcrest Drive. The western driveway accommodates full inbound access (left-turn and right-turn ingress movements). However, outbound access is restricted to right-turn egress movements only (no left-turn egress movements permitted). The western driveway is 24 feet wide and assumed to have one ingress lane and one right-turn only egress lane. The driveway will be controlled by a stop sign. The eastern driveway is 30 feet wide and assumed to have one ingress lane and one shared left/right-turn egress lane. The driveway is full access and will be controlled by a stop sign. Hillcrest Drive has two travel lanes a two-way left-turn lane that allows for westbound left-turns from Hillcrest Drive and two-step left-turn egress from the project driveway, thereby minimizing delays and vehicle conflicts.

Operations at the project driveways were analyzed. The eastbound driveway is full access and is expected to experience higher delay than the western driveway, which restricts vehicles to right-turn egress movements only. To provide a conservative estimate of delay, all egress movements were assumed to utilize the eastbound driveway. Accordingly, the eastbound driveway was analyzed to carry 20 inbound and 97 outbound trips during the AM peak hour and 54 inbound and 76 outbound trips during the PM peak hour. Delays were calculated for the intersection using HCS software for stop controlled intersections, which implements the methodologies outlined in the Highway Capacity Manual. The calculation results are summarized in Table 8. As shown, Hillcrest Dr/Project Dwy intersection would operate acceptably with minimal delay (19.2 seconds per vehicle or less).

Table 8
AM and PM Peak Hour Project Driveway Levels of Service

| Intersection | AM Peak Hour | | PM Peak Hour | |
|-----------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | Ex + Project Delay (sec/veh) | BO + Project Delay (sec/veh) | Ex + Project Delay (sec/veh) | BO + Project Delay (sec/veh) |
| B. Hillcrest Dr/Project Dwy | 14.1/LOS B | 14.5/LOS B | 18.1/LOS C | 19.2/LOS C |

Delay noted is for approach with highest delay (project dwy).

Sight distance requirements for vehicles on both driveways should be verified as part of driveway design to confirm that adequate sight lines are provided to approaching traffic on Hillcrest Drive.

Bicycle and pedestrian access is provided via the two project driveways. Hillcrest Drive has Class II bicycle lanes and sidewalks adjacent to the project site, which connect to the local bike and pedestrian network.

Circulation. The on-site circulation system is comprised of several connected driveways that provide access to both the residential areas and the retail parking areas. Driveways will be constructed pursuant City road design standards and should be designed to accommodate the expected design vehicle; moving trucks and fire truck for the residential areas, and delivery trucks and fire truck for the retail.

Parking

The proposed parking supply consists of 581 parking spaces. The parking requirement for the residential component are pursuant the City Municipal Code (Title 9, Chapter 4, Article 24-Off-Street Parking), except for the exclusion of guest parking as permitted by State Density Bonus Law. Parking requirements for the commercial component are to conform with the *Hillcrest Specific Plan (SP No. 24)*, which includes 1 parking space per 200 square feet of gross leasable area for the first 2,000 square feet of gross leasable area and 1 parking space per 100 square feet of gross leasable area over 2,000 square feet. Table 9 summarizes the project's parking requirements.

**Table 9
Parking Requirements**

| Project Component | Size | Parking Requirement | Parking Required | Parking Provided |
|--------------------------|-----------------|-----------------------------|-------------------|-------------------|
| Residential | | | | |
| One-bedroom units | 180 DU | 1 space/unit | 180 spaces | 486 spaces |
| Two-bedroom units | 125 DU | 2 spaces/unit ^a | 250 spaces | |
| Three-bedroom units | 28 DU | 2 spaces/unit ^a | 56 spaces | |
| Total Residential | 333 DU | | 486 spaces | 486 spaces |
| Commercial | | | | |
| First 2,000 SF | 2,000 SF | 1 space/200 SF | 10 spaces | 43 spaces |
| > 2,000 SF | 3,300 SF | 1 space/100 SF ^b | 33 spaces | |
| Total Commercial | 5,300 SF | | 43 spaces | 43 spaces |
| Surplus (General) | | | - | 52 spaces |
| TOTAL | | | 529 spaces | 581 spaces |

DU = dwelling unit.

SF = square feet.

^a 1.5 space/unit allowed by State density bonus law and Thousand Oaks Municipal Code; applicant is providing 2 spaces/unit.

^b Parking rate assumes entire square footage of commercial area is restaurant rather than a mix of retail and restaurant space to provide a conservative calculation.

As shown, the parking requirement is 529 spaces. The proposed parking supply of 581 spaces would be sufficient to accommodate the parking requirement.

VEHICLE MILES TRAVELED (VMT) ANALYSIS

State Senate Bill 743 (2013), which was codified in Public Resources Code section 21099, required changes to the guidelines implementing CEQA (CEQA Guidelines) (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) regarding the analysis of transportation impacts. Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of

land uses.” (*Id.*, subd. (b)(1); see generally, adopted CEQA Guidelines, §15064.3, subd. (b) [Criteria for Analyzing Transportation Impacts].) To that end, in developing the criteria, Office of Planning and Research (OPR) has proposed, and the California Natural Resources Agency (Agency) has certified and adopted, changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project’s transportation impacts.

A project would have a significant effect on the environment if it would cause substantial additional VMT. The OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) recommends screening criteria to identify types, characteristics, or locations of projects that would not result in significant impacts to VMT. If a project meets screening criteria, then it is presumed that VMT impacts would be less than significant for the project and a detailed VMT analysis is not required.

Screening Criteria

The City utilizes a screening criteria in order to provide CEQA relief to projects that support the State’s GHG emission goals, and those projects are presumed as less than significant. The proposed project does not meet any of the screening criteria, thus is required to undergo a CEQA Transportation Assessment.

Thresholds of Significance

The City has adopted an administrative policy stating that thresholds of significance will be determined on a case by case basis. For the purposes of this project, the thresholds of significance will be as follows:

- A significant impact would occur if the VMT per capita or VMT per employee exceeds the citywide average VMT per capita or per employee of the baseline.

VMT Analysis Summary

The Draft VMT analysis prepared by Iteris Inc. is presented in Technical Appendix 1 of this report. Table 10 summarizes the VMT analysis results.

Table 10
VMT Analysis Summary

| Project Component | VMT Calculation Methodology | Citywide Average Daily VMT | Project TAZ Daily VMT |
|--------------------------|--|-----------------------------------|------------------------------|
| Residential | City-wide average daily VMT per resident | 15.32 VMT | 10.31 VMT |
| Commercial | City-wide average daily VMT per employee | 22.51 VMT | 18.49 VMT |

The project TAZ’s daily residential VMT per capita is approximately 32% less than the Citywide average daily residential VMT per capita. The project TAZ’s daily employment VMT per employee is approximately 18% less than the Citywide average daily employment VMT per employee. Neither the project’s estimated residential VMT per capita nor commercial VMT per employee exceed the respective Citywide averages (for these metrics). Based on the described thresholds of significance, the proposed project would not result in a significant transportation impact under *CEQA Checklist XVII. Transportation b): “Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)—the criteria for analyzing transportation impacts for land use projects: vehicle miles traveled exceeding an applicable threshold of significance?”*

MITIGATION MEASURES

Project-Specific Mitigations

The project-specific analysis found that the project would not generate project-specific impacts at the study area intersection based on City of Thousand Oaks impact thresholds. No project-specific mitigations are therefore required.

The project site access discussion indicated that the project access driveway connections with Hillcrest Drive are expected to operate acceptably with low delays. Corner sight distance requirements should be evaluated at both driveways to ensure adequate sight lines are provided.

The parking requirement for the project, based on City Code is 529 spaces. The proposed parking supply of 581 spaces would be sufficient to accommodate the parking requirement.

Buildout Mitigations

The buildout analysis indicated that the project would not generate buildout impacts at the study area intersection based on City of Thousand Oaks impact thresholds. The project will be required to pay Traffic Mitigation Fees to mitigate its cumulative impacts.



TECHNICAL APPENDIX

TABLE OF CONTENTS

Appendix 1 – Draft CEQA Transportation Analysis Memorandum (Iteris Inc.)

Appendix 2 – AM and PM Peak Hour Intersection Counts

Appendix 3 – ITE Trip Generation Handbook - Tables 6.1 and 6.2

Appendix 4 – Intersection Level of Service Calculation Worksheets

Appendix 1

Draft CEQA Transportation Analysis Memorandum (Iteris Inc.)

TECHNICAL MEMORANDUM

To: Dennis Lammers
Stantec
200 East Carrillo Street, Suite 101
Santa Barbara, CA 93101

From: Jennifer Emerson-Martin, PE
Iteris, Inc.
801 South Grand Avenue, Suite 750
Los Angeles, CA 90017

Date: October 27, 2022

RE: 2150 W. Hillcrest Drive – CEQA Transportation Analysis

INTRODUCTION

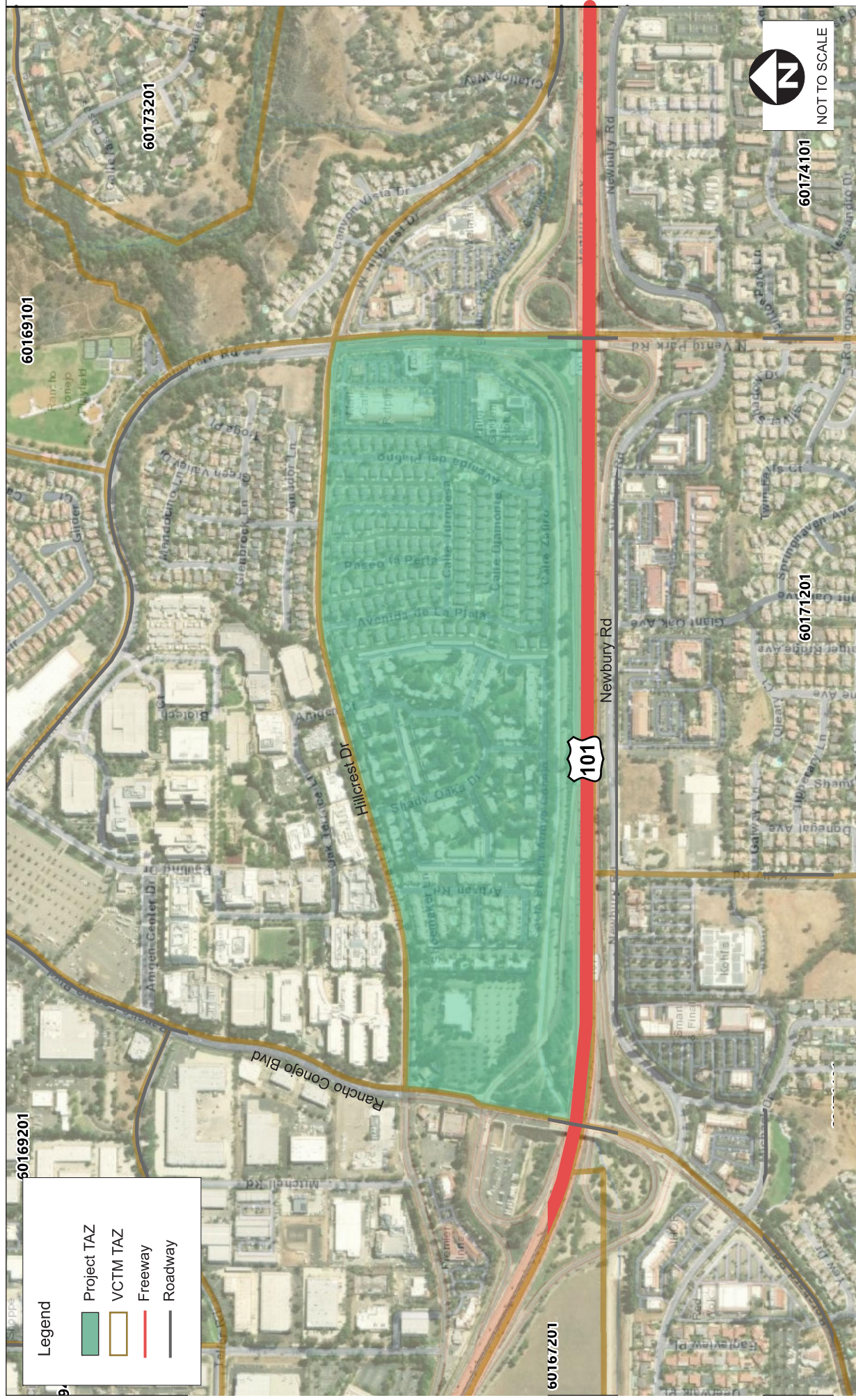
This memorandum presents Iteris’ California Environmental Quality Act (CEQA) analysis of the potential development at 2150 W. Hillcrest Drive in the City of Thousand Oaks. The development consists of the demolition of a vacant 51,000 square foot office building, construction of 333 multi-family units, and 6,500 square feet of ground-floor commercial space. The development site is located at the southeastern corner of the intersection of Rancho Conejo Boulevard and Hillcrest Drive.

CEQA analysis for determining potential significant transportation impacts from vehicles transitioned in 2020 from an automobile delay or capacity measure to a Vehicle Miles Traveled (VMT) metric as required by Senate Bill (SB) 743. VMT is an area-wide performance measure which helps compare the overall performance of a development and is also used as a metric to ultimately assess the transportation environmental impacts. VMT is generally calculated using a travel demand model that captures the movement of all trips over a highway network. For this analysis, the time period was defined as a 24-hour period on a typical weekday.

METHODOLOGY

Iteris utilized the Ventura County Transportation Model (VCTM) to generate VMT statistics, following the City’s administrative policy on CEQA transportation analysis. This land use based model, which is a subarea model of the Southern California Association of Government’s (SCAG) travel demand model, is consistent with the 2016 SCAG RTP/SCS travel-demand model assumptions and inputs. The model consists of a 2016 base year scenario and 2040 future year scenario. For the purposes of this analysis, the 2016 base year scenario was utilized. It should be noted the 2016 base year is the regionwide standard for existing and baseline conditions analysis.

The VCTM consists of a detailed traffic analysis zone (TAZ) structure in the City of Thousand Oaks. The model consists of 110 TAZ’s within the City. **Figure 1** illustrates the location of the proposed development’s TAZ (60172301) in relation to the region.



VMT ANALYSIS

This section describes the potential screening, thresholds of significance, and VMT impact evaluation for the proposed development.

Screening Criteria

The City utilizes a screening criteria in order to provide CEQA relief to projects that support the State's GHG emission goals, and those projects are presumed as less than significant. The proposed project does not meet any of the screening criteria, thus is required to undergo a CEQA Transportation Assessment.

Thresholds of Significance

The City has adopted an administrative policy stating that thresholds of significance will be determined on a case-by-case basis. For the purposes of this project, the thresholds of significance will be as follows:

- A significant impact would occur if the VMT per capita or VMT per employee exceeds the citywide average VMT per capita or per employee of the baseline.

VMT Impact Evaluation

The proposed project consists of commercial and residential use, thus the VMT will be reported as Work-Based VMT per Employee and Home-Based VMT per Resident calculated as such:

$$\text{WorkBased VMT per Employee} = \frac{\text{Total WorkBased VMT}}{\text{Total Number of Employees}}$$

$$\text{HomeBased VMT per Resident} = \frac{\text{Total HomeBased VMT}}{\text{Total Number of Residents}}$$

To determine the project's potential level of impact, a new VCTM scenario including the proposed project land use within TAZ 60172301 was prepared, utilizing the existing year (2016) of the model. From this new model scenario output, the following two metrics will be used for significant impact determination:

- Project TAZ daily residential VMT per capita;
- Citywide daily residential VMT per capita;
- Project TAZ daily employment VMT per employee;
- Citywide daily employment VMT per employee.

The new VCTM scenario resulted in the following outputs:

- The City-wide average daily VMT per resident, for use within this analysis only, is **15.32**; and
- TAZ-level daily VMT per resident is **10.31**.
- The City-wide average daily VMT per employee, for use within this analysis only, is **22.51**; and
- TAZ-level daily VMT per employee is **18.49**.

The project TAZ's daily residential VMT per capita is approximately 32% less than the Citywide average daily residential VMT per capita. The project TAZ's daily employment VMT per employee is approximately 18% less than the Citywide average daily employment VMT per employee. Neither the project's estimated residential VMT per capita nor commercial VMT per employee exceed the respective Citywide averages (for these metrics). Thus, the proposed project is not forecast to result in a significant transportation impact.

Conclusion

The development consists of the demolition of a vacant 51,000 square foot office building, construction of 333 multi-family units, and 6,500 square feet of ground-floor commercial space.

The project does not meet any CEQA transportation screening criteria, thus a CEQA Transportation Assessment was required. Based on the described thresholds of significance, the proposed project would not result in a significant transportation impact under CEQA Checklist XVII. Transportation b):

"Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)—the criteria for analyzing transportation impacts for land use projects: vehicle miles traveled exceeding an applicable threshold of significance?"

Appendix 2

AM and PM Peak Hour Intersection Counts

DATE:

M Y

1 2020

LOCATION:

Hillcrest Dr @ Rancho Conejo

TAKEN BY:

Bradley & Robert

PEAK HOUR:

7:15 - 8:15

N - S:

Rancho Conejo

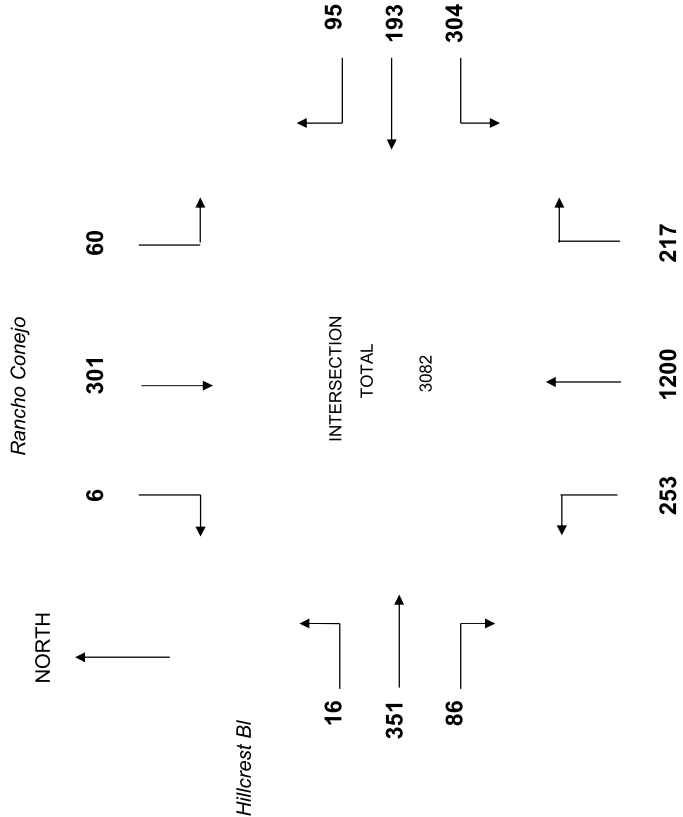
E - W:

Hillcrest BI

FILE:

Hillcrest.Rancho Conejo.AM.2020

COMMENTS:



| | # OF LANES | CAPACITY | VOLUME | V/C | SPLIT PHASED | CRITICAL V/C |
|-------------------|------------|----------|--------|------|--------------|--------------|
| NORTHBOUND | | | | | | |
| LEFT | 1 | 1600 | 253 | 0.16 | N | |
| THRU | 3 | 4800 | 1200 | 0.25 | | 0.25 |
| RIGHT | 1 | 1600 | 217 | 0.04 | | |
| SOUTHBOUND | | | | | | |
| LEFT | 1 | 1600 | 60 | 0.04 | N | |
| THRU | 3 | 4800 | 301 | 0.06 | | 0.04 |
| RIGHT | 0 | 0 | 6 | 0 | | |
| EASTBOUND | | | | | | |
| LEFT | 1 | 1600 | 16 | 0.01 | N | |
| THRU | 2 | 3200 | 351 | 0.11 | | 0.11 |
| RIGHT | 1 | 1600 | 86 | 0 | | |
| WESTBOUND | | | | | | |
| LEFT | 2 | 3200 | 304 | 0.10 | N | |
| THRU | 1 | 1600 | 193 | 0.12 | | 0.10 |
| RIGHT | 1 | 1600 | 95 | 0.02 | | |

TOTAL ICU

0.50

LEVEL OF SERVICE

A

DATE: M Y 1 2020

LOCATION: Hillcrest Dr @ Rancho Conejo

TAKEN BY: Bradley & Robert

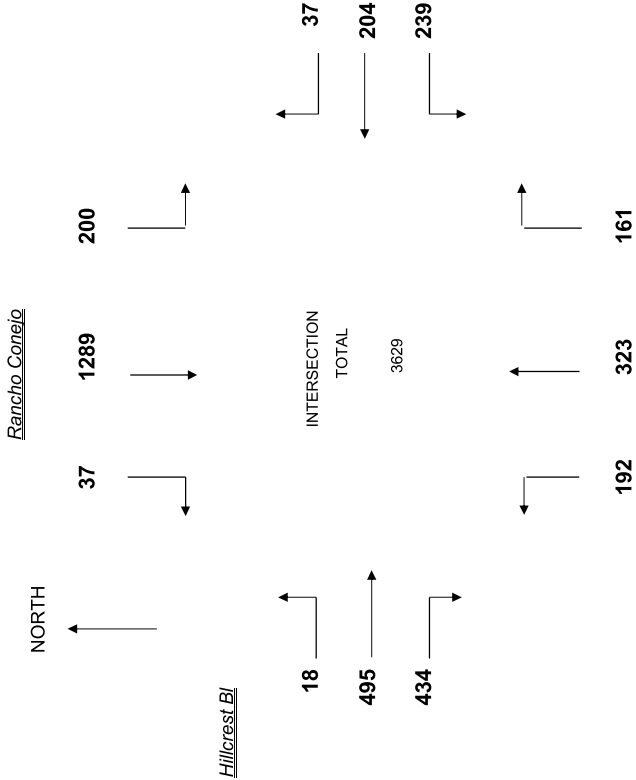
PEAK HOUR: 4:45-5:45

N - S: Rancho Conejo

E - W: Hillcrest BI

FILE: Hillcrest.Rancho Conejo.PM.2020

COMMENTS:



| | # OF LANES | CAPACITY | VOLUME | V/C | SPLIT PHASED | CRITICAL V/C |
|-------------------|------------|----------|--------|------|--------------|--------------|
| NORTHBOUND | | | | | | |
| LEFT | 1 | 1600 | 192 | 0.12 | N | |
| THRU | 3 | 4800 | 323 | 0.07 | | |
| RIGHT | 1 | 1600 | 161 | 0.03 | | 0.12 |
| SOUTHBOUND | | | | | | |
| LEFT | 1 | 1600 | 200 | 0.13 | N | |
| THRU | 3 | 4800 | 1289 | 0.28 | | |
| RIGHT | 0 | 0 | 37 | 0 | | 0.28 |
| EASTBOUND | | | | | | |
| LEFT | 1 | 1600 | 18 | 0.01 | N | |
| THRU | 2 | 3200 | 495 | 0.15 | | |
| RIGHT | 1 | 1600 | 434 | 0.15 | | 0.15 |
| WESTBOUND | | | | | | |
| LEFT | 2 | 3200 | 239 | 0.07 | N | |
| THRU | 1 | 1600 | 204 | 0.13 | | |
| RIGHT | 1 | 1600 | 37 | 0 | | 0.07 |

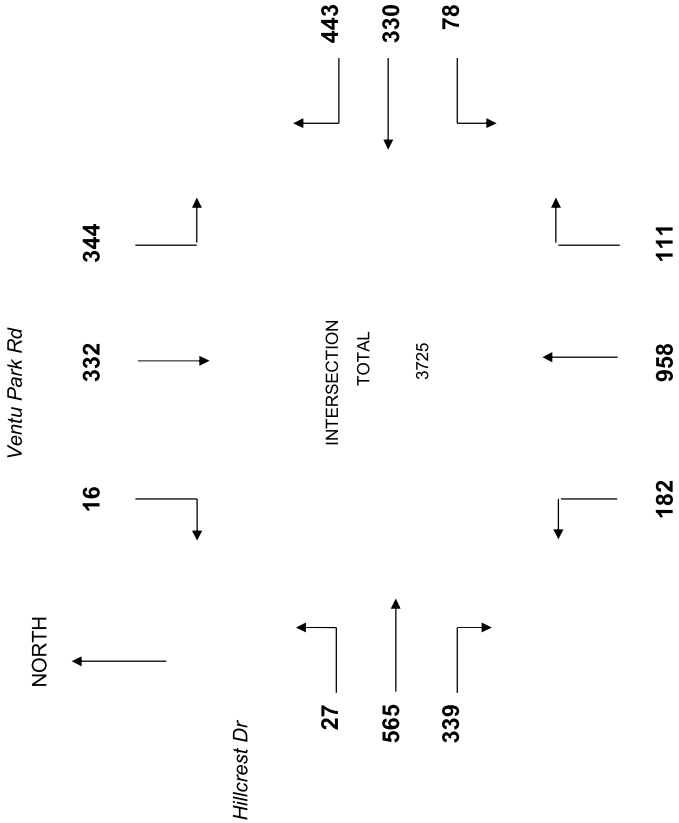
TOTAL ICU 0.62

LEVEL OF SERVICE B

Month Yr
11 2019

LOCATION: Hillcrest @ Ventu Park
TAKEN BY: Bradley & Robert
PEAK HOUR: 7:15 - 8:15

N - S: Ventu Park Rd
E - W: Hillcrest Dr
FILE: Hillcrest.Ventu Park.AM.2019
COMMENTS: WB Is (1) LT (1) TH (1) TH/RT
Calc (1) LT (1) TH (1) RT



| | # OF LANES | CAPACITY | VOLUME | V/C | SPLIT PHASED | CRITICAL V/C |
|-------------------|------------|----------|--------|------|--------------|--------------|
| NORTHBOUND | | | | | | |
| LEFT | 2 | 3200 | 182 | 0.06 | N | 0.30 |
| THRU | 2 | 3200 | 958 | 0.30 | | |
| RIGHT | 1 | 1600 | 111 | 0.02 | | |
| SOUTHBOUND | | | | | | |
| LEFT | 2 | 3200 | 344 | 0.11 | N | 0.11 |
| THRU | 2 | 3200 | 332 | 0.10 | | |
| RIGHT | 1 | 1600 | 16 | 0 | | |
| EASTBOUND | | | | | | |
| LEFT | 1 | 1600 | 27 | 0.02 | N | 0.18 |
| THRU | 2 | 3200 | 565 | 0.18 | | |
| RIGHT | 1 | 1600 | 339 | 0.16 | | |
| WESTBOUND | | | | | | |
| LEFT | 1 | 1600 | 78 | 0.05 | N | 0.05 |
| THRU | 1 | 1600 | 330 | 0.21 | | |
| RIGHT | 1 | 1600 | 443 | 0.17 | | |

TOTAL ICU 0.64

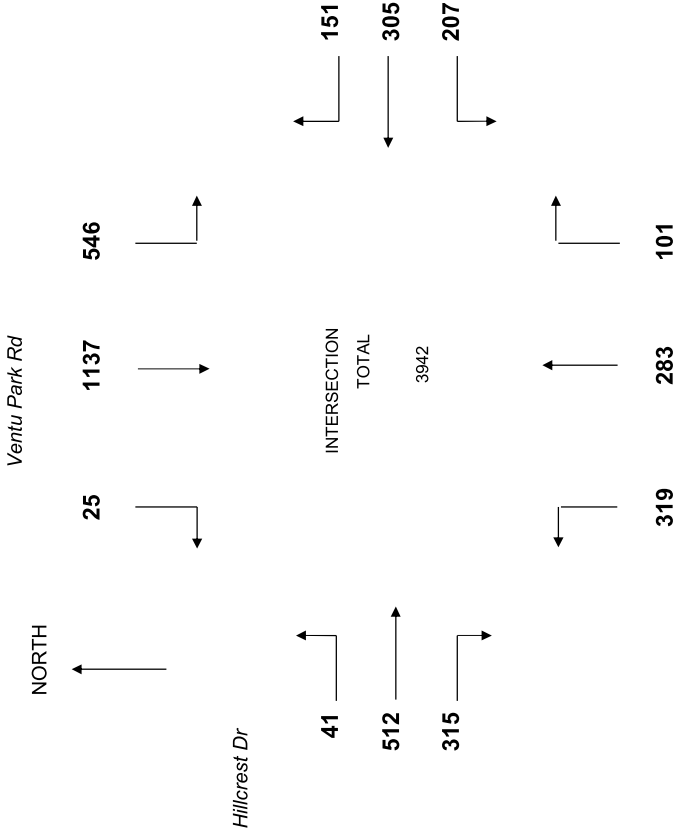
LEVEL OF SERVICE

B

Month Yr
12 2019

LOCATION: Hillcrest @ Ventu Park
TAKEN BY: Bradley and Robert
PEAK HOUR: 4:45 - 5:45

N - S: Ventu Park Rd
E - W: Hillcrest Dr
FILE: Hillcrest.Ventu Park.PM.2019
COMMENTS: WB Is (1) LT (1) TH (1) TH/RT
Calc (1) LT (1) TH (1) RT



| | # OF LANES | CAPACITY | VOLUME | V/C | SPLIT PHASED | CRITICAL V/C |
|-------------------|------------|----------|--------|------|--------------|--------------|
| NORTHBOUND | | | | | | |
| LEFT | 2 | 3200 | 319 | 0.10 | N | 0.10 |
| THRU | 2 | 3200 | 283 | 0.09 | | |
| RIGHT | 1 | 1600 | 101 | 0 | | |
| SOUTHBOUND | | | | | | |
| LEFT | 2 | 3200 | 546 | 0.17 | N | 0.36 |
| THRU | 2 | 3200 | 1137 | 0.36 | | |
| RIGHT | 1 | 1600 | 25 | 0 | | |
| EASTBOUND | | | | | | |
| LEFT | 1 | 1600 | 41 | 0.03 | N | 0.16 |
| THRU | 2 | 3200 | 512 | 0.16 | | |
| RIGHT | 1 | 1600 | 315 | 0.10 | | |
| WESTBOUND | | | | | | |
| LEFT | 1 | 1600 | 207 | 0.13 | N | 0.13 |
| THRU | 2 | 3200 | 305 | 0.14 | | |
| RIGHT | 0 | 0 | 151 | 0 | | |

TOTAL ICU 0.75

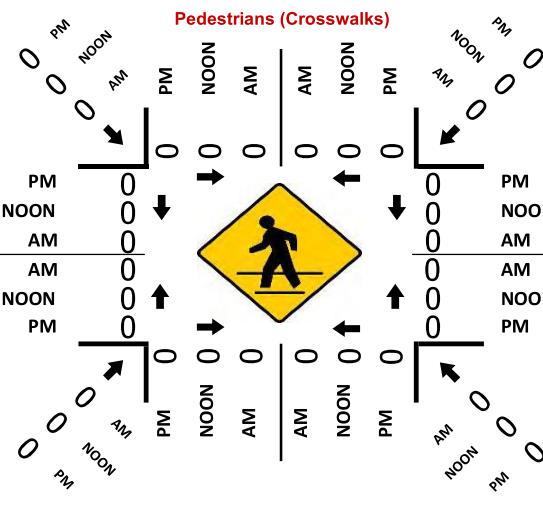
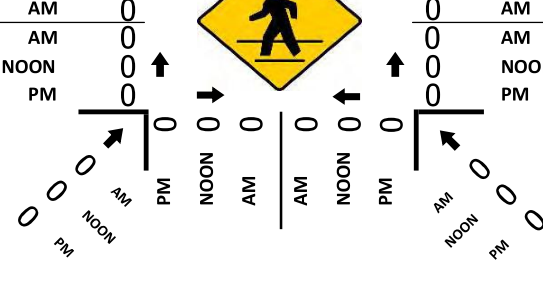
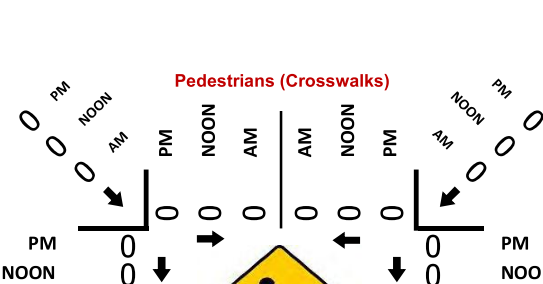
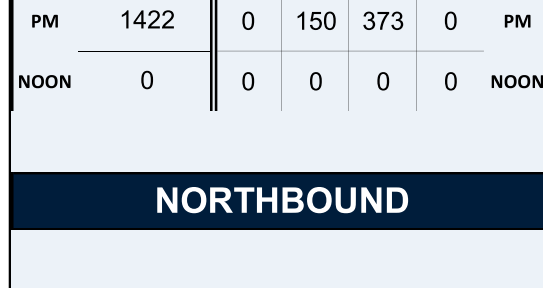
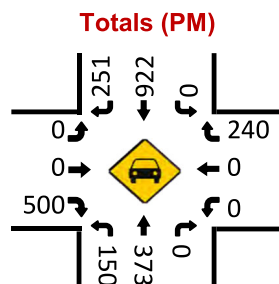
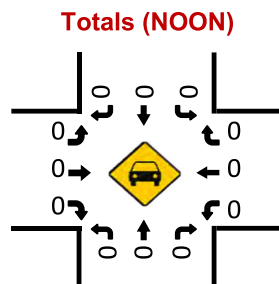
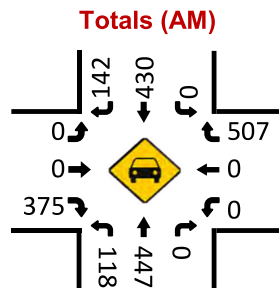
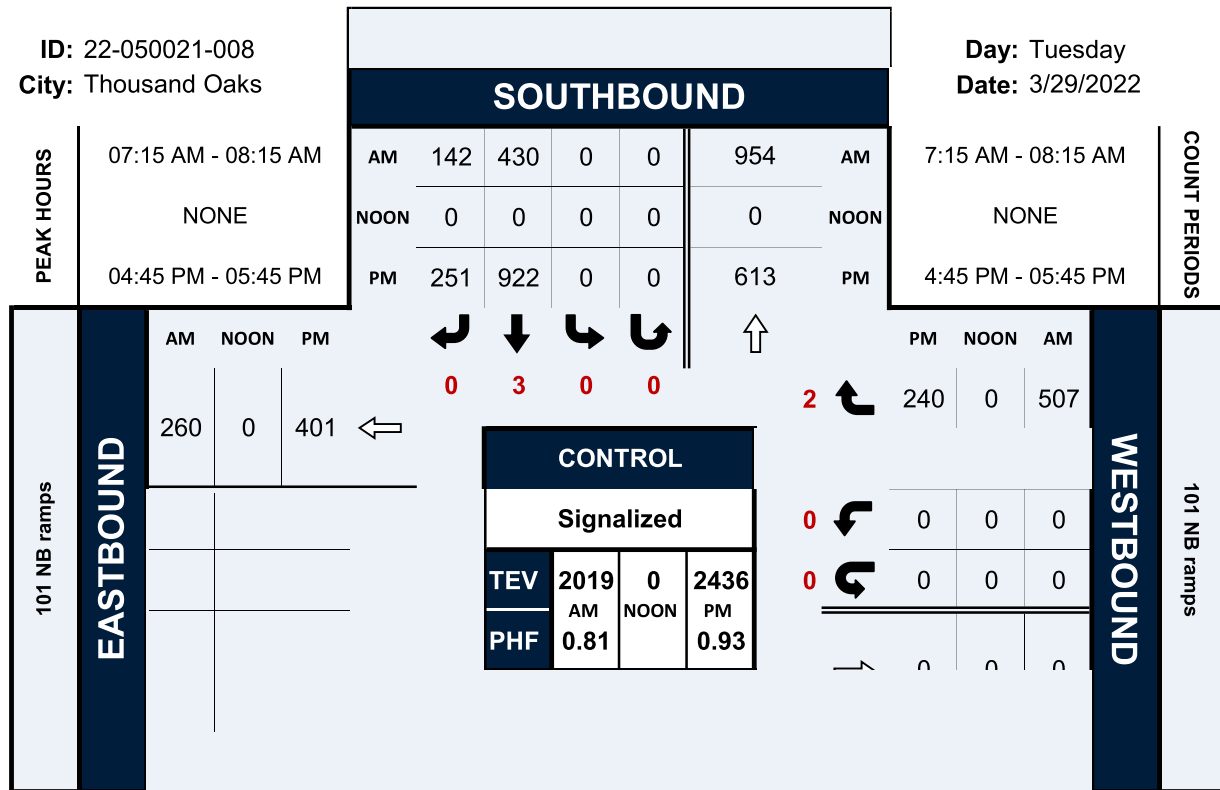
LEVEL OF SERVICE C

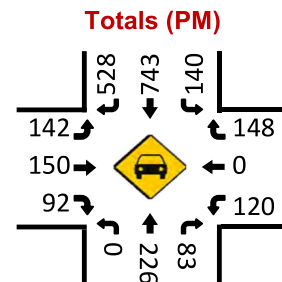
Rancho Conejo Blvd & 101 NB ramps

Peak Hour Turning Movement Count

ID: 22-050021-008
City: Thousand Oaks

Day: Tuesday
Date: 3/29/2022





Appendix 3

ITE Trip Generation Handbook - Tables 6.1 and 6.2

**Table 6.1 Unconstrained Internal Person Trip Capture Rates
for Trip Origins within a Mixed-Use Development**

| | | WEEKDAY | |
|------------------------------|-------------------------|--------------|--------------|
| | | AM Peak Hour | PM Peak Hour |
| From OFFICE | To Retail | 28% | 20% |
| | To Restaurant | 63% | 4% |
| | To Cinema/Entertainment | 0% | 0% |
| | To Residential | 1% | 2% |
| | To Hotel | 0% | 0% |
| From RETAIL | To Office | 29% | 2% |
| | To Restaurant | 13% | 29% |
| | To Cinema/Entertainment | 0% | 4% |
| | To Residential | 14% | 26% |
| | To Hotel | 0% | 5% |
| From RESTAURANT | To Office | 31% | 3% |
| | To Retail | 14% | 41% |
| | To Cinema/Entertainment | 0% | 8% |
| | To Residential | 4% | 18% |
| | To Hotel | 3% | 7% |
| From CINEMA/ENTERTAINMENT | To Office | 0% | 2% |
| | To Retail | 0% | 21% |
| | To Restaurant | 0% | 31% |
| | To Residential | 0% | 8% |
| | To Hotel | 0% | 2% |
| From RESIDENTIAL | To Office | 2% | 4% |
| | To Retail | 1% | 42% |
| | To Restaurant | 20% | 21% |
| | To Cinema/Entertainment | 0% | 0% |
| | To Hotel | 0% | 3% |
| From HOTEL | To Office | 75% | 0% |
| | To Retail | 14% | 16% |
| | To Restaurant | 9% | 68% |
| | To Cinema/Entertainment | 0% | 0% |
| | To Residential | 0% | 2% |

Source: Bochner, B., K. Hooper, B. Sperry, and R. Dunphy. NCHRP Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Washington, DC: Transportation Research Board, Tables 99 and 100, 2011.

**Table 6.2 Unconstrained Internal Person Trip Capture Rates
for Trip Destinations within a Mixed-Use Development**

| | | Weekday | |
|----------------------------|---------------------------|--------------|--------------|
| | | AM Peak Hour | PM Peak Hour |
| To OFFICE | From Retail | 4% | 31% |
| | From Restaurant | 14% | 30% |
| | From Cinema/Entertainment | 0% | 6% |
| | From Residential | 3% | 57% |
| | From Hotel | 3% | 0% |
| To RETAIL | From Office | 32% | 8% |
| | From Restaurant | 8% | 50% |
| | From Cinema/Entertainment | 0% | 4% |
| | From Residential | 17% | 10% |
| | From Hotel | 4% | 2% |
| To RESTAURANT | From Office | 23% | 2% |
| | From Retail | 50% | 29% |
| | From Cinema/Entertainment | 0% | 3% |
| | From Residential | 20% | 14% |
| | From Hotel | 6% | 5% |
| To CINEMA/ENTERTAINMENT | From Office | 0% | 1% |
| | From Retail | 0% | 26% |
| | From Restaurant | 0% | 32% |
| | From Residential | 0% | 0% |
| | From Hotel | 0% | 0% |
| To RESIDENTIAL | From Office | 0% | 4% |
| | From Retail | 2% | 46% |
| | From Restaurant | 5% | 16% |
| | From Cinema/Entertainment | 0% | 4% |
| | From Hotel | 0% | 0% |
| To HOTEL | From Office | 0% | 0% |
| | From Retail | 0% | 17% |
| | From Restaurant | 4% | 71% |
| | From Cinema/Entertainment | 0% | 1% |
| | From Residential | 0% | 12% |

Source: Bochner, B., K. Hooper, B. Sperry, and R. Dunphy. NCHRP Report 684: *Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*. Washington, DC: Transportation Research Board, Tables 101 and 102, 2011.

Appendix 4































Intersection Level of Service Calculation Worksheets

Existing and Existing + Project Conditions

HCM 6th Signalized Intersection Summary

1: Rancho Conejo Blvd & Hillcrest Blvd































AM Peak Hour
Existing Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   |  |   |  |  |  |    |  |  |    |  |
| Traffic Volume (veh/h) | 16 | 351 | 71 | 253 | 193 | 95 | 144 | 685 | 124 | 60 | 250 | 6 |
| Future Volume (veh/h) | 16 | 351 | 71 | 253 | 193 | 95 | 144 | 685 | 124 | 60 | 250 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 16 | 351 | 71 | 253 | 193 | 95 | 144 | 685 | 124 | 60 | 250 | 6 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 32 | 473 | 722 | 335 | 396 | 404 | 574 | 2625 | 969 | 77 | 1206 | 29 |
| Arrive On Green | 0.02 | 0.14 | 0.14 | 0.10 | 0.22 | 0.22 | 0.11 | 0.17 | 0.17 | 0.04 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 3401 | 1841 | 1560 | 1753 | 5025 | 1560 | 1753 | 5049 | 121 |
| Grp Volume(v), veh/h | 16 | 351 | 71 | 253 | 193 | 95 | 144 | 685 | 124 | 60 | 165 | 91 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1700 | 1841 | 1560 | 1753 | 1675 | 1560 | 1753 | 1675 | 1819 |
| Q Serve(g_s), s | 0.8 | 8.7 | 0.0 | 6.5 | 8.3 | 4.3 | 6.8 | 10.6 | 1.2 | 3.0 | 3.6 | 3.6 |
| Cycle Q Clear(g_c), s | 0.8 | 8.7 | 0.0 | 6.5 | 8.3 | 4.3 | 6.8 | 10.6 | 1.2 | 3.0 | 3.6 | 3.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.07 |
| Lane Grp Cap(c), veh/h | 32 | 473 | 722 | 335 | 396 | 404 | 574 | 2625 | 969 | 77 | 800 | 435 |
| V/C Ratio(X) | 0.50 | 0.74 | 0.10 | 0.76 | 0.49 | 0.23 | 0.25 | 0.26 | 0.13 | 0.78 | 0.21 | 0.21 |
| Avail Cap(c_a), veh/h | 107 | 758 | 849 | 510 | 562 | 545 | 574 | 2625 | 969 | 205 | 800 | 435 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.81 | 0.81 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.8 | 37.4 | 13.6 | 39.5 | 31.0 | 26.3 | 30.0 | 22.2 | 3.9 | 42.6 | 27.4 | 27.4 |
| Incr Delay (d2), s/veh | 11.5 | 2.3 | 0.1 | 3.5 | 0.9 | 0.3 | 0.2 | 0.2 | 0.2 | 15.4 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 3.7 | 0.7 | 2.8 | 3.6 | 1.5 | 2.9 | 4.4 | 0.3 | 1.6 | 1.4 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 55.2 | 39.7 | 13.7 | 43.0 | 31.9 | 26.6 | 30.2 | 22.4 | 4.1 | 58.0 | 28.0 | 28.5 |
| LnGrp LOS | E | D | B | D | C | C | C | C | A | E | C | C |
| Approach Vol, veh/h | | 438 | | | 541 | | | 953 | | | 316 | |
| Approach Delay, s/veh | | 36.1 | | | 36.1 | | | 21.2 | | | 33.9 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.5 | 51.5 | 13.4 | 16.7 | 34.0 | 26.0 | 6.1 | 23.9 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 10.5 | 28.5 | 13.5 | 19.5 | 17.5 | 21.5 | 5.5 | 27.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.0 | 12.6 | 8.5 | 10.7 | 8.8 | 5.6 | 2.8 | 10.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.2 | 0.4 | 1.5 | 0.2 | 1.2 | 0.0 | 1.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 29.5 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

HCM 6th Signalized Intersection Summary

1: Rancho Conejo Blvd & Hillcrest Blvd































AM Peak Hour
Existing + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   |  |   |  |  |  |    |  |  |    |  |
| Traffic Volume (veh/h) | 16 | 356 | 71 | 319 | 205 | 104 | 144 | 685 | 150 | 64 | 250 | 6 |
| Future Volume (veh/h) | 16 | 356 | 71 | 319 | 205 | 104 | 144 | 685 | 150 | 64 | 250 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 16 | 356 | 71 | 319 | 205 | 104 | 144 | 685 | 150 | 64 | 250 | 6 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 32 | 478 | 692 | 399 | 434 | 441 | 538 | 2507 | 962 | 82 | 1206 | 29 |
| Arrive On Green | 0.02 | 0.14 | 0.14 | 0.12 | 0.24 | 0.24 | 0.10 | 0.16 | 0.16 | 0.05 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 3401 | 1841 | 1560 | 1753 | 5025 | 1560 | 1753 | 5049 | 121 |
| Grp Volume(v), veh/h | 16 | 356 | 71 | 319 | 205 | 104 | 144 | 685 | 150 | 64 | 165 | 91 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1700 | 1841 | 1560 | 1753 | 1675 | 1560 | 1753 | 1675 | 1819 |
| Q Serve(g_s), s | 0.8 | 8.8 | 0.0 | 8.2 | 8.6 | 4.6 | 6.8 | 10.7 | 1.4 | 3.3 | 3.6 | 3.6 |
| Cycle Q Clear(g_c), s | 0.8 | 8.8 | 0.0 | 8.2 | 8.6 | 4.6 | 6.8 | 10.7 | 1.4 | 3.3 | 3.6 | 3.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.07 |
| Lane Grp Cap(c), veh/h | 32 | 478 | 692 | 399 | 434 | 441 | 538 | 2507 | 962 | 82 | 800 | 435 |
| V/C Ratio(X) | 0.50 | 0.74 | 0.10 | 0.80 | 0.47 | 0.24 | 0.27 | 0.27 | 0.16 | 0.78 | 0.21 | 0.21 |
| Avail Cap(c_a), veh/h | 107 | 758 | 817 | 510 | 562 | 550 | 538 | 2507 | 962 | 205 | 800 | 435 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.80 | 0.80 | 0.80 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.8 | 37.3 | 14.6 | 38.7 | 29.6 | 24.8 | 31.1 | 23.3 | 3.9 | 42.4 | 27.4 | 27.4 |
| Incr Delay (d2), s/veh | 11.5 | 2.3 | 0.1 | 6.9 | 0.8 | 0.3 | 0.2 | 0.2 | 0.3 | 14.5 | 0.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 3.7 | 0.8 | 3.6 | 3.7 | 1.6 | 2.9 | 4.5 | 0.4 | 1.7 | 1.4 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 55.2 | 39.7 | 14.7 | 45.5 | 30.4 | 25.1 | 31.3 | 23.5 | 4.2 | 56.9 | 28.0 | 28.5 |
| LnGrp LOS | E | D | B | D | C | C | C | C | A | E | C | C |
| Approach Vol, veh/h | | 443 | | | 628 | | | 979 | | | 320 | |
| Approach Delay, s/veh | | 36.2 | | | 37.2 | | | 21.7 | | | 33.9 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.7 | 49.4 | 15.1 | 16.8 | 32.1 | 26.0 | 6.1 | 25.7 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 10.5 | 28.5 | 13.5 | 19.5 | 17.5 | 21.5 | 5.5 | 27.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.3 | 12.7 | 10.2 | 10.8 | 8.8 | 5.6 | 2.8 | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.3 | 0.4 | 1.5 | 0.2 | 1.2 | 0.0 | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 30.2 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

HCM 6th Signalized Intersection Summary

1: Rancho Conejo Blvd & Hillcrest Blvd































Existing Conditions
PM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   |  |   |  |  |  |    |  |  |    |  |
| Traffic Volume (veh/h) | 18 | 495 | 260 | 143 | 204 | 37 | 192 | 323 | 161 | 200 | 773 | 37 |
| Future Volume (veh/h) | 18 | 495 | 260 | 143 | 204 | 37 | 192 | 323 | 161 | 200 | 773 | 37 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 18 | 495 | 260 | 143 | 204 | 37 | 192 | 323 | 161 | 200 | 773 | 37 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 35 | 632 | 489 | 213 | 411 | 797 | 233 | 1351 | 517 | 504 | 2082 | 99 |
| Arrive On Green | 0.02 | 0.18 | 0.18 | 0.06 | 0.22 | 0.22 | 0.04 | 0.09 | 0.09 | 0.29 | 0.42 | 0.42 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 3401 | 1841 | 1560 | 1753 | 5025 | 1560 | 1753 | 4914 | 234 |
| Grp Volume(v), veh/h | 18 | 495 | 260 | 143 | 204 | 37 | 192 | 323 | 161 | 200 | 526 | 284 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1700 | 1841 | 1560 | 1753 | 1675 | 1560 | 1753 | 1675 | 1799 |
| Q Serve(g_s), s | 0.9 | 12.2 | 8.5 | 3.7 | 8.7 | 0.2 | 9.8 | 5.4 | 2.9 | 8.3 | 9.7 | 9.7 |
| Cycle Q Clear(g_c), s | 0.9 | 12.2 | 8.5 | 3.7 | 8.7 | 0.2 | 9.8 | 5.4 | 2.9 | 8.3 | 9.7 | 9.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 35 | 632 | 489 | 213 | 411 | 797 | 233 | 1351 | 517 | 504 | 1419 | 762 |
| V/C Ratio(X) | 0.51 | 0.78 | 0.53 | 0.67 | 0.50 | 0.05 | 0.82 | 0.24 | 0.31 | 0.40 | 0.37 | 0.37 |
| Avail Cap(c_a), veh/h | 97 | 797 | 563 | 321 | 491 | 865 | 380 | 1351 | 517 | 504 | 1419 | 762 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 0.92 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.7 | 35.2 | 12.8 | 41.3 | 30.5 | 4.9 | 42.0 | 32.4 | 28.7 | 25.8 | 17.7 | 17.8 |
| Incr Delay (d2), s/veh | 10.9 | 4.0 | 0.9 | 3.6 | 0.9 | 0.0 | 6.9 | 0.4 | 1.4 | 0.5 | 0.7 | 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 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 5.2 | 3.4 | 1.6 | 3.7 | 0.2 | 4.8 | 2.2 | 3.2 | 3.3 | 3.5 | 4.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.6 | 39.2 | 13.7 | 44.9 | 31.5 | 4.9 | 48.8 | 32.8 | 30.2 | 26.3 | 18.5 | 19.1 |
| LnGrp LOS | D | D | B | D | C | A | D | C | C | C | B | B |
| Approach Vol, veh/h | 773 | | | | 384 | | | | 676 | | | |
| Approach Delay, s/veh | 31.0 | | | | 33.9 | | | | 36.7 | | | |
| Approach LOS | C | | | | C | | | | D | | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 30.4 | 28.7 | 10.1 | 20.8 | 16.5 | 42.6 | 6.3 | 24.6 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 18.8 | 24.2 | 8.5 | 20.5 | 19.5 | 23.5 | 5.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+l1), s | 10.3 | 7.4 | 5.7 | 14.2 | 11.8 | 11.7 | 2.9 | 10.7 | | | | |
| Green Ext Time (p_c), s | 0.3 | 2.2 | 0.1 | 2.1 | 0.3 | 3.7 | 0.0 | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 28.9 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary
























1: Rancho Conejo Blvd & Hillcrest Blvd

PM Peak Hour
Existing Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   |  |   |  |  |  |    |  |  |    |  |
| Traffic Volume (veh/h) | 18 | 508 | 260 | 194 | 213 | 45 | 192 | 323 | 233 | 210 | 773 | 37 |
| Future Volume (veh/h) | 18 | 508 | 260 | 194 | 213 | 45 | 192 | 323 | 233 | 210 | 773 | 37 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 18 | 508 | 260 | 194 | 213 | 45 | 192 | 323 | 233 | 210 | 773 | 37 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 35 | 643 | 494 | 266 | 446 | 797 | 233 | 1351 | 542 | 471 | 1989 | 95 |
| Arrive On Green | 0.02 | 0.18 | 0.18 | 0.08 | 0.24 | 0.24 | 0.04 | 0.09 | 0.09 | 0.27 | 0.40 | 0.40 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 3401 | 1841 | 1560 | 1753 | 5025 | 1560 | 1753 | 4914 | 234 |
| Grp Volume(v), veh/h | 18 | 508 | 260 | 194 | 213 | 45 | 192 | 323 | 233 | 210 | 526 | 284 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1700 | 1841 | 1560 | 1753 | 1675 | 1560 | 1753 | 1675 | 1799 |
| Q Serve(g_s), s | 0.9 | 12.5 | 8.2 | 5.0 | 8.9 | 0.2 | 9.8 | 5.4 | 5.5 | 9.0 | 10.0 | 10.0 |
| Cycle Q Clear(g_c), s | 0.9 | 12.5 | 8.2 | 5.0 | 8.9 | 0.2 | 9.8 | 5.4 | 5.5 | 9.0 | 10.0 | 10.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 35 | 643 | 494 | 266 | 446 | 797 | 233 | 1351 | 542 | 471 | 1356 | 728 |
| V/C Ratio(X) | 0.51 | 0.79 | 0.53 | 0.73 | 0.48 | 0.06 | 0.82 | 0.24 | 0.43 | 0.45 | 0.39 | 0.39 |
| Avail Cap(c_a), veh/h | 97 | 797 | 563 | 321 | 491 | 835 | 380 | 1351 | 542 | 471 | 1356 | 728 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.88 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.7 | 35.1 | 12.1 | 40.5 | 29.2 | 4.9 | 42.0 | 32.4 | 29.2 | 27.3 | 18.9 | 18.9 |
| Incr Delay (d2), s/veh | 10.9 | 4.3 | 0.9 | 6.5 | 0.8 | 0.0 | 6.6 | 0.4 | 2.2 | 0.7 | 0.8 | 1.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 5.4 | 3.2 | 2.2 | 3.8 | 0.2 | 4.8 | 2.2 | 4.9 | 3.6 | 3.7 | 4.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.6 | 39.4 | 12.9 | 47.1 | 30.0 | 5.0 | 48.6 | 32.8 | 31.4 | 28.0 | 19.8 | 20.5 |
| LnGrp LOS | D | D | B | D | C | A | D | C | C | C | B | C |
| Approach Vol, veh/h | | 786 | | | 452 | | | 748 | | | 1020 | |
| Approach Delay, s/veh | | 31.0 | | | 34.8 | | | 36.4 | | | 21.7 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 28.7 | 28.7 | 11.5 | 21.1 | 16.5 | 40.9 | 6.3 | 26.3 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 18.8 | 24.2 | 8.5 | 20.5 | 19.5 | 23.5 | 5.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 11.0 | 7.5 | 7.0 | 14.5 | 11.8 | 12.0 | 2.9 | 10.9 | | | | |
| Green Ext Time (p_c), s | 0.3 | 2.5 | 0.1 | 2.1 | 0.3 | 3.7 | 0.0 | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 29.7 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

HCM 6th Signalized Intersection Summary 2: Ventu Park Rd & Hillcrest Dr
























AM Peak Hour
Existing Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 27 | 565 | 339 | 78 | 330 | 443 | 182 | 958 | 111 | 344 | 332 | 16 |
| Future Volume (veh/h) | 27 | 565 | 339 | 78 | 330 | 443 | 182 | 958 | 111 | 344 | 332 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 27 | 565 | 339 | 78 | 330 | 271 | 182 | 958 | 55 | 344 | 332 | 8 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 51 | 816 | 490 | 99 | 481 | 387 | 275 | 1165 | 520 | 431 | 1326 | 592 |
| Arrive On Green | 0.03 | 0.23 | 0.23 | 0.06 | 0.26 | 0.26 | 0.08 | 0.33 | 0.33 | 0.13 | 0.38 | 0.38 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 1753 | 1841 | 1482 | 3401 | 3497 | 1560 | 3401 | 3497 | 1560 |
| Grp Volume(v), veh/h | 27 | 565 | 339 | 78 | 313 | 288 | 182 | 958 | 55 | 344 | 332 | 8 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1753 | 1749 | 1574 | 1700 | 1749 | 1560 | 1700 | 1749 | 1560 |
| Q Serve(g_s), s | 1.1 | 10.6 | 13.7 | 3.2 | 11.6 | 11.9 | 3.7 | 18.1 | 1.8 | 7.1 | 4.7 | 0.2 |
| Cycle Q Clear(g_c), s | 1.1 | 10.6 | 13.7 | 3.2 | 11.6 | 11.9 | 3.7 | 18.1 | 1.8 | 7.1 | 4.7 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.94 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 51 | 816 | 490 | 99 | 457 | 411 | 275 | 1165 | 520 | 431 | 1326 | 592 |
| V/C Ratio(X) | 0.53 | 0.69 | 0.69 | 0.78 | 0.69 | 0.70 | 0.66 | 0.82 | 0.11 | 0.80 | 0.25 | 0.01 |
| Avail Cap(c_a), veh/h | 124 | 874 | 516 | 134 | 457 | 411 | 505 | 1165 | 520 | 449 | 1326 | 592 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.5 | 25.2 | 21.6 | 33.5 | 23.9 | 24.1 | 32.2 | 22.0 | 16.6 | 30.6 | 15.3 | 13.9 |
| Incr Delay (d2), s/veh | 8.4 | 2.2 | 3.7 | 19.1 | 4.2 | 5.2 | 2.7 | 6.6 | 0.4 | 9.5 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 4.2 | 4.9 | 1.8 | 4.8 | 4.5 | 1.5 | 7.5 | 0.6 | 3.2 | 1.7 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.8 | 27.4 | 25.4 | 52.6 | 28.2 | 29.3 | 34.9 | 28.6 | 17.0 | 40.0 | 15.8 | 14.0 |
| LnGrp LOS | D | C | C | D | C | C | C | C | B | D | B | B |
| Approach Vol, veh/h | 931 | | | 679 | | | 1195 | | | 684 | | |
| Approach Delay, s/veh | 27.1 | | | 31.5 | | | 29.1 | | | 28.0 | | |
| Approach LOS | C | | | C | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.6 | 28.5 | 8.6 | 21.3 | 10.3 | 31.8 | 6.6 | 23.3 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 9.5 | 24.0 | 5.5 | 18.0 | 10.7 | 22.8 | 5.1 | 18.4 | | | | |
| Max Q Clear Time (g_c+l1), s | 9.1 | 20.1 | 5.2 | 15.7 | 5.7 | 6.7 | 3.1 | 13.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 2.2 | 0.0 | 1.1 | 0.2 | 1.7 | 0.0 | 1.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 28.8 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary

2: Ventu Park Rd & Hillcrest Dr
























AM Peak Hour
Existing + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 27 | 570 | 344 | 78 | 332 | 443 | 184 | 958 | 111 | 344 | 332 | 16 |
| Future Volume (veh/h) | 27 | 570 | 344 | 78 | 332 | 443 | 184 | 958 | 111 | 344 | 332 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 27 | 570 | 344 | 78 | 332 | 271 | 184 | 958 | 55 | 344 | 332 | 8 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 51 | 822 | 493 | 99 | 485 | 388 | 277 | 1163 | 519 | 431 | 1321 | 589 |
| Arrive On Green | 0.03 | 0.23 | 0.23 | 0.06 | 0.26 | 0.26 | 0.08 | 0.33 | 0.33 | 0.13 | 0.38 | 0.38 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 1753 | 1846 | 1477 | 3401 | 3497 | 1560 | 3401 | 3497 | 1560 |
| Grp Volume(v), veh/h | 27 | 570 | 344 | 78 | 314 | 289 | 184 | 958 | 55 | 344 | 332 | 8 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1753 | 1749 | 1575 | 1700 | 1749 | 1560 | 1700 | 1749 | 1560 |
| Q Serve(g_s), s | 1.1 | 10.8 | 14.0 | 3.2 | 11.7 | 12.0 | 3.8 | 18.2 | 1.8 | 7.1 | 4.7 | 0.2 |
| Cycle Q Clear(g_c), s | 1.1 | 10.8 | 14.0 | 3.2 | 11.7 | 12.0 | 3.8 | 18.2 | 1.8 | 7.1 | 4.7 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.94 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 51 | 822 | 493 | 99 | 459 | 414 | 277 | 1163 | 519 | 431 | 1321 | 589 |
| V/C Ratio(X) | 0.53 | 0.69 | 0.70 | 0.78 | 0.68 | 0.70 | 0.67 | 0.82 | 0.11 | 0.80 | 0.25 | 0.01 |
| Avail Cap(c_a), veh/h | 124 | 872 | 516 | 134 | 459 | 414 | 504 | 1163 | 519 | 447 | 1321 | 589 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.6 | 25.2 | 21.6 | 33.6 | 23.9 | 24.0 | 32.2 | 22.2 | 16.7 | 30.6 | 15.4 | 14.1 |
| Incr Delay (d2), s/veh | 8.4 | 2.2 | 3.9 | 19.2 | 4.2 | 5.1 | 2.7 | 6.7 | 0.4 | 9.6 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 4.3 | 5.0 | 1.8 | 4.8 | 4.6 | 1.6 | 7.6 | 0.6 | 3.2 | 1.7 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.9 | 27.5 | 25.6 | 52.8 | 28.1 | 29.2 | 35.0 | 28.8 | 17.1 | 40.2 | 15.9 | 14.1 |
| LnGrp LOS | D | C | C | D | C | C | C | C | B | D | B | B |
| Approach Vol, veh/h | 941 | | | 681 | | | 1197 | | | 684 | | |
| Approach Delay, s/veh | 27.2 | | | 31.4 | | | 29.2 | | | 28.1 | | |
| Approach LOS | C | | | C | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.6 | 28.5 | 8.6 | 21.5 | 10.4 | 31.8 | 6.6 | 23.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 9.5 | 24.0 | 5.5 | 18.0 | 10.7 | 22.8 | 5.1 | 18.4 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.1 | 20.2 | 5.2 | 16.0 | 5.8 | 6.7 | 3.1 | 14.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 2.1 | 0.0 | 1.0 | 0.2 | 1.7 | 0.0 | 1.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 28.9 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary

2: Ventu Park Rd & Hillcrest Dr

Existing Conditions
PM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 21 | 633 | 302 | 111 | 289 | 103 | 500 | 305 | 78 | 220 | 328 | 11 |
| Future Volume (veh/h) | 21 | 633 | 302 | 111 | 289 | 103 | 500 | 305 | 78 | 220 | 328 | 11 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 21 | 633 | 302 | 111 | 289 | 52 | 500 | 305 | 41 | 220 | 328 | 6 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 42 | 786 | 623 | 141 | 834 | 148 | 594 | 1222 | 545 | 315 | 935 | 417 |
| Arrive On Green | 0.02 | 0.22 | 0.22 | 0.08 | 0.28 | 0.28 | 0.17 | 0.35 | 0.35 | 0.09 | 0.27 | 0.27 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 1753 | 2967 | 527 | 3401 | 3497 | 1560 | 3401 | 3497 | 1560 |
| Grp Volume(v), veh/h | 21 | 633 | 302 | 111 | 169 | 172 | 500 | 305 | 41 | 220 | 328 | 6 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1753 | 1749 | 1746 | 1700 | 1749 | 1560 | 1700 | 1749 | 1560 |
| Q Serve(g_s), s | 0.8 | 12.2 | 10.3 | 4.4 | 5.5 | 5.6 | 10.1 | 4.4 | 1.2 | 4.5 | 5.4 | 0.2 |
| Cycle Q Clear(g_c), s | 0.8 | 12.2 | 10.3 | 4.4 | 5.5 | 5.6 | 10.1 | 4.4 | 1.2 | 4.5 | 5.4 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.30 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 42 | 786 | 623 | 141 | 491 | 491 | 594 | 1222 | 545 | 315 | 935 | 417 |
| V/C Ratio(X) | 0.50 | 0.81 | 0.48 | 0.79 | 0.34 | 0.35 | 0.84 | 0.25 | 0.08 | 0.70 | 0.35 | 0.01 |
| Avail Cap(c_a), veh/h | 123 | 886 | 667 | 160 | 491 | 491 | 646 | 1222 | 545 | 464 | 935 | 417 |
| 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(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.3 | 26.1 | 15.9 | 32.1 | 20.3 | 20.4 | 28.4 | 16.5 | 15.5 | 31.3 | 21.1 | 19.2 |
| Incr Delay (d2), s/veh | 9.0 | 5.0 | 0.6 | 20.4 | 0.4 | 0.4 | 9.2 | 0.5 | 0.3 | 2.8 | 1.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 5.1 | 3.2 | 2.5 | 2.0 | 2.1 | 4.5 | 1.6 | 0.4 | 1.8 | 2.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.3 | 31.1 | 16.5 | 52.5 | 20.7 | 20.8 | 37.6 | 17.0 | 15.7 | 34.1 | 22.1 | 19.2 |
| LnGrp LOS | D | C | B | D | C | C | D | B | B | C | C | B |
| Approach Vol, veh/h | 956 | | | 452 | | | 846 | | | 554 | | |
| Approach Delay, s/veh | 26.7 | | | 28.6 | | | 29.1 | | | 26.8 | | |
| Approach LOS | C | | | C | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 29.3 | 10.2 | 20.5 | 16.9 | 23.5 | 6.2 | 24.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 9.7 | 22.8 | 6.5 | 18.0 | 13.5 | 19.0 | 5.0 | 19.5 | | | | |
| Max Q Clear Time (g_c+l1), s | 6.5 | 6.4 | 6.4 | 14.2 | 12.1 | 7.4 | 2.8 | 7.6 | | | | |
| Green Ext Time (p_c), s | 0.2 | 1.7 | 0.0 | 1.8 | 0.3 | 1.4 | 0.0 | 1.3 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 27.8 |
| HCM 6th LOS | C |
























Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

2: Ventu Park Rd & Hillcrest Dr
























PM Peak Hour
Existing Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 21 | 633 | 302 | 111 | 289 | 103 | 500 | 305 | 78 | 220 | 328 | 11 |
| Future Volume (veh/h) | 21 | 633 | 302 | 111 | 289 | 103 | 500 | 305 | 78 | 220 | 328 | 11 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 21 | 633 | 302 | 111 | 289 | 52 | 500 | 305 | 41 | 220 | 328 | 6 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 42 | 786 | 623 | 141 | 834 | 148 | 594 | 1222 | 545 | 315 | 935 | 417 |
| Arrive On Green | 0.02 | 0.22 | 0.22 | 0.08 | 0.28 | 0.28 | 0.17 | 0.35 | 0.35 | 0.09 | 0.27 | 0.27 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 1753 | 2967 | 527 | 3401 | 3497 | 1560 | 3401 | 3497 | 1560 |
| Grp Volume(v), veh/h | 21 | 633 | 302 | 111 | 169 | 172 | 500 | 305 | 41 | 220 | 328 | 6 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1753 | 1749 | 1746 | 1700 | 1749 | 1560 | 1700 | 1749 | 1560 |
| Q Serve(g_s), s | 0.8 | 12.2 | 10.3 | 4.4 | 5.5 | 5.6 | 10.1 | 4.4 | 1.2 | 4.5 | 5.4 | 0.2 |
| Cycle Q Clear(g_c), s | 0.8 | 12.2 | 10.3 | 4.4 | 5.5 | 5.6 | 10.1 | 4.4 | 1.2 | 4.5 | 5.4 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.30 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 42 | 786 | 623 | 141 | 491 | 491 | 594 | 1222 | 545 | 315 | 935 | 417 |
| V/C Ratio(X) | 0.50 | 0.81 | 0.48 | 0.79 | 0.34 | 0.35 | 0.84 | 0.25 | 0.08 | 0.70 | 0.35 | 0.01 |
| Avail Cap(c_a), veh/h | 123 | 886 | 667 | 160 | 491 | 491 | 646 | 1222 | 545 | 464 | 935 | 417 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.3 | 26.1 | 15.9 | 32.1 | 20.3 | 20.4 | 28.4 | 16.5 | 15.5 | 31.3 | 21.1 | 19.2 |
| Incr Delay (d2), s/veh | 9.0 | 5.0 | 0.6 | 20.4 | 0.4 | 0.4 | 9.2 | 0.5 | 0.3 | 2.8 | 1.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 5.1 | 3.2 | 2.5 | 2.0 | 2.1 | 4.5 | 1.6 | 0.4 | 1.8 | 2.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.3 | 31.1 | 16.5 | 52.5 | 20.7 | 20.8 | 37.6 | 17.0 | 15.7 | 34.1 | 22.1 | 19.2 |
| LnGrp LOS | D | C | B | D | C | C | D | B | B | C | C | B |
| Approach Vol, veh/h | 956 | | | 452 | | | 846 | | | 554 | | |
| Approach Delay, s/veh | 26.7 | | | 28.6 | | | 29.1 | | | 26.8 | | |
| Approach LOS | C | | | C | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 29.3 | 10.2 | 20.5 | 16.9 | 23.5 | 6.2 | 24.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 9.7 | 22.8 | 6.5 | 18.0 | 13.5 | 19.0 | 5.0 | 19.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.5 | 6.4 | 6.4 | 14.2 | 12.1 | 7.4 | 2.8 | 7.6 | | | | |
| Green Ext Time (p_c), s | 0.2 | 1.7 | 0.0 | 1.8 | 0.3 | 1.4 | 0.0 | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 27.8 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary

3: Rancho Conejo Blvd & U.S. 101 NB Ramps



















AM Peak Hour
Existing Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|--|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |   | | |   |  |    | |    | | |
| Traffic Volume (veh/h) | 0 | 0 | 375 | 0 | 0 | 507 | 118 | 447 | 0 | 0 | 430 | 142 |
| Future Volume (veh/h) | 0 | 0 | 375 | 0 | 0 | 507 | 118 | 447 | 0 | 0 | 430 | 142 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | | No | | | | No | | | |
| Adj Sat Flow, veh/h/ln | 0 | 0 | 1841 | 0 | 0 | 1841 | 1841 | 1841 | 0 | 0 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 408 | 0 | 0 | 551 | 128 | 486 | 0 | 0 | 467 | 154 |
| 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 | 0 | 4 | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 4 |
| Cap, veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 4774 | 0 | 0 | 3051 | 971 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.31 | 0.00 | 0.00 | 0.27 | 0.27 |
| Sat Flow, veh/h | | 0 | | | 0 | | 1753 | 5191 | 0 | 0 | 3939 | 1201 |
| Grp Volume(v), veh/h | 0.0 | | | | 0.0 | | 128 | 486 | 0 | 0 | 413 | 208 |
| Grp Sat Flow(s),veh/h/ln | | | | | | | 1753 | 1675 | 0 | 0 | 1675 | 1624 |
| Q Serve(g_s), s | | | | | | | 6.5 | 6.2 | 0.0 | 0.0 | 8.5 | 8.8 |
| Cycle Q Clear(g_c), s | | | | | | | 6.5 | 6.2 | 0.0 | 0.0 | 8.5 | 8.8 |
| Prop In Lane | | | | | | | 1.00 | | 0.00 | 0.00 | | 0.74 |
| Lane Grp Cap(c), veh/h | | | | | | | 160 | 4774 | 0 | 0 | 2709 | 1313 |
| V/C Ratio(X) | | | | | | | 0.80 | 0.10 | 0.00 | 0.00 | 0.15 | 0.16 |
| Avail Cap(c_a), veh/h | | | | | | | 205 | 4774 | 0 | 0 | 2709 | 1313 |
| HCM Platoon Ratio | | | | | | | 0.33 | 0.33 | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(I) | | | | | | | 0.96 | 0.96 | 0.00 | 0.00 | 0.95 | 0.95 |
| Uniform Delay (d), s/veh | | | | | | | 42.8 | 3.7 | 0.0 | 0.0 | 9.4 | 9.6 |
| Incr Delay (d2), s/veh | | | | | | | 15.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 |
| Initial Q Delay(d3),s/veh | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | | | | 3.5 | 0.0 | 0.0 | 0.0 | 1.9 | 2.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | | | | 57.9 | 3.7 | 0.0 | 0.0 | 9.5 | 9.8 |
| LnGrp LOS | | | | | | | E | A | A | A | A | A |
| Approach Vol, veh/h | | | | | | | 614 | | | 621 | | |
| Approach Delay, s/veh | | | | | | | 15.0 | | | 9.6 | | |
| Approach LOS | | | | | | | B | | | A | | |
| Timer - Assigned Phs | 2 | | | | 5 | | 6 | | | | | |
| Phs Duration (G+Y+Rc), s | 90.0 | | | | 12.7 | | 77.3 | | | | | |
| Change Period (Y+Rc), s | 4.5 | | | | 4.5 | | 4.5 | | | | | |
| Max Green Setting (Gmax), s | 34.5 | | | | 10.5 | | 19.5 | | | | | |
| Max Q Clear Time (g_c+I1), s | 8.2 | | | | 8.5 | | 10.8 | | | | | |
| Green Ext Time (p_c), s | 3.1 | | | | 0.1 | | 2.4 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 12.3 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

HCM 6th Signalized Intersection Summary

3: Rancho Conejo Blvd & U.S. 101 NB Ramps


















AM Peak Hour
Existing + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |  | | |  |  |  | | |  |  |
| Traffic Volume (veh/h) | 0 | 0 | 375 | 0 | 0 | 526 | 118 | 454 | 0 | 0 | 481 | 157 |
| Future Volume (veh/h) | 0 | 0 | 375 | 0 | 0 | 526 | 118 | 454 | 0 | 0 | 481 | 157 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 0 | 1841 | 0 | 0 | 1841 | 1841 | 1841 | 0 | 0 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 408 | 0 | 0 | 572 | 128 | 493 | 0 | 0 | 523 | 171 |
| 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 | 0 | 4 | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 4 |
| Cap, veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 160 | 4774 | 0 | 0 | 3053 | 970 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.31 | 0.00 | 0.00 | 0.27 | 0.27 |
| Sat Flow, veh/h | | 0 | | | 0 | | 1753 | 5191 | 0 | 0 | 3941 | 1199 |
| Grp Volume(v), veh/h | | 0.0 | | | 0.0 | | 128 | 493 | 0 | 0 | 462 | 232 |
| Grp Sat Flow(s),veh/h/ln | | | | | | | 1753 | 1675 | 0 | 0 | 1675 | 1625 |
| Q Serve(g_s), s | | | | | | | 6.5 | 6.3 | 0.0 | 0.0 | 9.5 | 9.9 |
| Cycle Q Clear(g_c), s | | | | | | | 6.5 | 6.3 | 0.0 | 0.0 | 9.5 | 9.9 |
| Prop In Lane | | | | | | | 1.00 | | 0.00 | 0.00 | | 0.74 |
| Lane Grp Cap(c), veh/h | | | | | | | 160 | 4774 | 0 | 0 | 2709 | 1314 |
| V/C Ratio(X) | | | | | | | 0.80 | 0.10 | 0.00 | 0.00 | 0.17 | 0.18 |
| Avail Cap(c_a), veh/h | | | | | | | 205 | 4774 | 0 | 0 | 2709 | 1314 |
| HCM Platoon Ratio | | | | | | | 0.33 | 0.33 | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(I) | | | | | | | 0.96 | 0.96 | 0.00 | 0.00 | 0.92 | 0.92 |
| Uniform Delay (d), s/veh | | | | | | | 42.8 | 3.7 | 0.0 | 0.0 | 9.8 | 9.9 |
| Incr Delay (d2), s/veh | | | | | | | 15.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 |
| Initial Q Delay(d3),s/veh | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | | | | 3.5 | 0.0 | 0.0 | 0.0 | 2.4 | 2.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | | | | 57.9 | 3.7 | 0.0 | 0.0 | 9.9 | 10.2 |
| LnGrp LOS | | | | | | | E | A | A | A | A | B |
| Approach Vol, veh/h | | | | | | | | 621 | | | 694 | |
| Approach Delay, s/veh | | | | | | | | 14.9 | | | 10.0 | |
| Approach LOS | | | | | | | | B | | | B | |
| Timer - Assigned Phs | | 2 | | | 5 | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | | 90.0 | | | 12.7 | 77.3 | | | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | | 34.5 | | | 10.5 | 19.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | | 8.3 | | | 8.5 | 11.9 | | | | | | |
| Green Ext Time (p_c), s | | 3.1 | | | 0.1 | 2.5 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 12.3 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

HCM 6th Signalized Intersection Summary

3: Rancho Conejo Blvd & U.S. 101 NB Ramps



















Existing Conditions
PM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |  | | |  |  |  | | |  | |
| Traffic Volume (veh/h) | 0 | 0 | 500 | 0 | 0 | 240 | 150 | 373 | 0 | 0 | 922 | 251 |
| Future Volume (veh/h) | 0 | 0 | 500 | 0 | 0 | 240 | 150 | 373 | 0 | 0 | 922 | 251 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | | No | | | | No | | | |
| Adj Sat Flow, veh/h/ln | 0 | 0 | 1841 | 0 | 0 | 1841 | 1841 | 1841 | 0 | 0 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 543 | 0 | 0 | 261 | 163 | 405 | 0 | 0 | 1002 | 273 |
| 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 | 0 | 4 | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 4 |
| Cap, veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 197 | 4774 | 0 | 0 | 3096 | 842 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.95 | 0.00 | 0.00 | 0.26 | 0.26 |
| Sat Flow, veh/h | | 0 | | | 0 | | 1753 | 5191 | 0 | 0 | 4095 | 1069 |
| Grp Volume(v), veh/h | 0.0 | | | | 0.0 | | 163 | 405 | 0 | 0 | 854 | 421 |
| Grp Sat Flow(s),veh/h/ln | | | | | | | 1753 | 1675 | 0 | 0 | 1675 | 1648 |
| Q Serve(g_s), s | | | | | | | 8.2 | 0.4 | 0.0 | 0.0 | 18.5 | 18.6 |
| Cycle Q Clear(g_c), s | | | | | | | 8.2 | 0.4 | 0.0 | 0.0 | 18.5 | 18.6 |
| Prop In Lane | | | | | | | 1.00 | | 0.00 | 0.00 | | 0.65 |
| Lane Grp Cap(c), veh/h | | | | | | | 197 | 4774 | 0 | 0 | 2640 | 1299 |
| V/C Ratio(X) | | | | | | | 0.83 | 0.08 | 0.00 | 0.00 | 0.32 | 0.32 |
| Avail Cap(c_a), veh/h | | | | | | | 236 | 4774 | 0 | 0 | 2640 | 1299 |
| HCM Platoon Ratio | | | | | | | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(I) | | | | | | | 0.95 | 0.95 | 0.00 | 0.00 | 0.89 | 0.89 |
| Uniform Delay (d), s/veh | | | | | | | 39.1 | 0.1 | 0.0 | 0.0 | 13.9 | 13.9 |
| Incr Delay (d2), s/veh | | | | | | | 17.7 | 0.0 | 0.0 | 0.0 | 0.3 | 0.6 |
| Initial Q Delay(d3),s/veh | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | | | | 4.3 | 0.0 | 0.0 | 0.0 | 8.2 | 8.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | | | | 56.9 | 0.2 | 0.0 | 0.0 | 14.2 | 14.5 |
| LnGrp LOS | | | | | | | E | A | A | A | B | B |
| Approach Vol, veh/h | | | | | | | 568 | | | 1275 | | |
| Approach Delay, s/veh | | | | | | | 16.4 | | | 14.3 | | |
| Approach LOS | | | | | | | B | | | B | | |
| Timer - Assigned Phs | 2 | | | | 5 | | 6 | | | | | |
| Phs Duration (G+Y+Rc), s | 90.0 | | | | 14.6 | | 75.4 | | | | | |
| Change Period (Y+Rc), s | 4.5 | | | | 4.5 | | 4.5 | | | | | |
| Max Green Setting (Gmax), s | 42.9 | | | | 12.1 | | 26.3 | | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | | | | 10.2 | | 20.6 | | | | | |
| Green Ext Time (p_c), s | 2.7 | | | | 0.1 | | 3.6 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 15.0 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

HCM 6th Signalized Intersection Summary























3: Rancho Conejo Blvd & U.S. 101 NB Ramps

PM Peak Hour
Existing Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |  | | |  |  |  | | |  |  |
| Traffic Volume (veh/h) | 0 | 0 | 500 | 0 | 0 | 291 | 150 | 394 | 0 | 0 | 962 | 262 |
| Future Volume (veh/h) | 0 | 0 | 500 | 0 | 0 | 291 | 150 | 394 | 0 | 0 | 962 | 262 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 0 | 0 | 1841 | 0 | 0 | 1841 | 1841 | 1841 | 0 | 0 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 543 | 0 | 0 | 316 | 163 | 428 | 0 | 0 | 1046 | 285 |
| 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 | 0 | 4 | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 4 |
| Cap, veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 197 | 4774 | 0 | 0 | 3095 | 843 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.95 | 0.00 | 0.00 | 0.26 | 0.26 |
| Sat Flow, veh/h | | 0 | | | 0 | | 1753 | 5191 | 0 | 0 | 4094 | 1070 |
| Grp Volume(v), veh/h | 0.0 | | | 0.0 | | | 163 | 428 | 0 | 0 | 892 | 439 |
| Grp Sat Flow(s),veh/h/ln | | | | | | | 1753 | 1675 | 0 | 0 | 1675 | 1648 |
| Q Serve(g_s), s | | | | | | | 8.2 | 0.4 | 0.0 | 0.0 | 19.4 | 19.5 |
| Cycle Q Clear(g_c), s | | | | | | | 8.2 | 0.4 | 0.0 | 0.0 | 19.4 | 19.5 |
| Prop In Lane | | | | | | | 1.00 | | 0.00 | 0.00 | | 0.65 |
| Lane Grp Cap(c), veh/h | | | | | | | 197 | 4774 | 0 | 0 | 2640 | 1299 |
| V/C Ratio(X) | | | | | | | 0.83 | 0.09 | 0.00 | 0.00 | 0.34 | 0.34 |
| Avail Cap(c_a), veh/h | | | | | | | 236 | 4774 | 0 | 0 | 2640 | 1299 |
| HCM Platoon Ratio | | | | | | | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(I) | | | | | | | 0.95 | 0.95 | 0.00 | 0.00 | 0.87 | 0.87 |
| Uniform Delay (d), s/veh | | | | | | | 39.1 | 0.1 | 0.0 | 0.0 | 14.3 | 14.3 |
| Incr Delay (d2), s/veh | | | | | | | 17.7 | 0.0 | 0.0 | 0.0 | 0.3 | 0.6 |
| Initial Q Delay(d3),s/veh | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | | | | 4.3 | 0.0 | 0.0 | 0.0 | 8.6 | 8.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | | | | 56.9 | 0.2 | 0.0 | 0.0 | 14.6 | 14.9 |
| LnGrp LOS | | | | | | | E | A | A | A | B | B |
| Approach Vol, veh/h | | | | | | | 591 | | | 1331 | | |
| Approach Delay, s/veh | | | | | | | 15.8 | | | 14.7 | | |
| Approach LOS | | | | | | | B | | | B | | |
| Timer - Assigned Phs | 2 | | | 5 | | | 6 | | | | | |
| Phs Duration (G+Y+Rc), s | 90.0 | | | 14.6 | | | 75.4 | | | | | |
| Change Period (Y+Rc), s | 4.5 | | | 4.5 | | | 4.5 | | | | | |
| Max Green Setting (Gmax), s | 42.9 | | | 12.1 | | | 26.3 | | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | | | 10.2 | | | 21.5 | | | | | |
| Green Ext Time (p_c), s | 2.8 | | | 0.1 | | | 3.2 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 15.0 | | | | | | | | | | | |
| HCM 6th LOS | B | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary 4: Borchard Rd & U.S. 101 SB Ramps/Newbury Rd

AM Peak Hour
Existing Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 230 | 36 | 89 | 94 | 0 | 89 | 0 | 261 | 32 | 23 | 621 | 153 |
| Future Volume (veh/h) | 230 | 36 | 89 | 94 | 0 | 89 | 0 | 261 | 32 | 23 | 621 | 153 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 0 | 1841 | 0 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 250 | 39 | 0 | 102 | 0 | 97 | 0 | 284 | 35 | 25 | 675 | 0 |
| 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, % | 4 | 4 | 4 | 4 | 0 | 4 | 0 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 345 | 187 | | 0 | 0 | 0 | 0 | 1439 | 173 | 1469 | 2793 | |
| Arrive On Green | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.32 | 0.14 | 0.26 | 0.00 |
| Sat Flow, veh/h | 3401 | 1841 | 1560 | | 0 | | 0 | 4711 | 547 | 3401 | 3497 | 2745 |
| Grp Volume(v), veh/h | 250 | 39 | 0 | | 0.0 | | 0 | 207 | 112 | 25 | 675 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1841 | 1560 | | | | 0 | 1675 | 1742 | 1700 | 1749 | 1373 |
| Q Serve(g_s), s | 6.4 | 1.8 | 0.0 | | | | 0.0 | 4.1 | 4.2 | 0.6 | 13.7 | 0.0 |
| Cycle Q Clear(g_c), s | 6.4 | 1.8 | 0.0 | | | | 0.0 | 4.1 | 4.2 | 0.6 | 13.7 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 0.31 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 345 | 187 | | | | | 0 | 1061 | 552 | 1469 | 2793 | |
| V/C Ratio(X) | 0.72 | 0.21 | | | | | 0.00 | 0.20 | 0.20 | 0.02 | 0.24 | |
| Avail Cap(c_a), veh/h | 661 | 358 | | | | | 0 | 1061 | 552 | 1469 | 2793 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | | | | 0.00 | 1.00 | 1.00 | 0.77 | 0.77 | 0.00 |
| Uniform Delay (d), s/veh | 39.2 | 37.1 | 0.0 | | | | 0.0 | 22.4 | 22.4 | 22.2 | 11.7 | 0.0 |
| Incr Delay (d2), s/veh | 2.9 | 0.5 | 0.0 | | | | 0.0 | 0.4 | 0.8 | 0.0 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 0.8 | 0.0 | | | | 0.0 | 1.6 | 1.8 | 0.2 | 6.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.1 | 37.7 | 0.0 | | | | 0.0 | 22.8 | 23.3 | 22.2 | 11.9 | 0.0 |
| LnGrp LOS | D | D | | | | | A | C | C | C | B | |
| Approach Vol, veh/h | 289 | | | | | | 319 | | | 700 | | |
| Approach Delay, s/veh | 41.5 | | | | | | 23.0 | | | 12.2 | | |
| Approach LOS | D | | | | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 43.4 | 33.0 | | 13.6 | | 76.4 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 7.5 | 28.5 | | 17.5 | | 40.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 2.6 | 6.2 | | 8.4 | | 15.7 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.9 | | 0.7 | | 5.0 | | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 21.3 |
| HCM 6th LOS | C |























Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

4: Borchard Rd & U.S. 101 SB Ramps/Newbury Rd

AM Peak Hour
Existing + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 235 | 36 | 89 | 94 | 0 | 90 | 0 | 262 | 32 | 25 | 624 | 199 |
| Future Volume (veh/h) | 235 | 36 | 89 | 94 | 0 | 90 | 0 | 262 | 32 | 25 | 624 | 199 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 0 | 1841 | 0 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 255 | 39 | 0 | 102 | 0 | 98 | 0 | 285 | 35 | 27 | 678 | 0 |
| 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, % | 4 | 4 | 4 | 4 | 0 | 4 | 0 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 350 | 189 | | 0 | 0 | 0 | 0 | 1440 | 173 | 1464 | 2788 | |
| Arrive On Green | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.32 | 0.14 | 0.26 | 0.00 |
| Sat Flow, veh/h | 3401 | 1841 | 1560 | | 0 | | 0 | 4713 | 545 | 3401 | 3497 | 2745 |
| Grp Volume(v), veh/h | 255 | 39 | 0 | | 0.0 | | 0 | 208 | 112 | 27 | 678 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1841 | 1560 | | | | 0 | 1675 | 1743 | 1700 | 1749 | 1373 |
| Q Serve(g_s), s | 6.5 | 1.7 | 0.0 | | | | 0.0 | 4.1 | 4.2 | 0.6 | 13.7 | 0.0 |
| Cycle Q Clear(g_c), s | 6.5 | 1.7 | 0.0 | | | | 0.0 | 4.1 | 4.2 | 0.6 | 13.7 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 0.31 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 350 | 189 | | | | | 0 | 1061 | 552 | 1464 | 2788 | |
| V/C Ratio(X) | 0.73 | 0.21 | | | | | 0.00 | 0.20 | 0.20 | 0.02 | 0.24 | |
| Avail Cap(c_a), veh/h | 661 | 358 | | | | | 0 | 1061 | 552 | 1464 | 2788 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | | | | 0.00 | 1.00 | 1.00 | 0.74 | 0.74 | 0.00 |
| Uniform Delay (d), s/veh | 39.1 | 37.0 | 0.0 | | | | 0.0 | 22.4 | 22.5 | 22.3 | 11.8 | 0.0 |
| Incr Delay (d2), s/veh | 2.9 | 0.5 | 0.0 | | | | 0.0 | 0.4 | 0.8 | 0.0 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 0.8 | 0.0 | | | | 0.0 | 1.6 | 1.8 | 0.2 | 6.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 42.1 | 37.5 | 0.0 | | | | 0.0 | 22.8 | 23.3 | 22.3 | 11.9 | 0.0 |
| LnGrp LOS | D | D | | | | | A | C | C | C | B | |
| Approach Vol, veh/h | 294 | | | | | | 320 | | | 705 | | |
| Approach Delay, s/veh | 41.5 | | | | | | 23.0 | | | 12.3 | | |
| Approach LOS | D | | | | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 43.2 | 33.0 | | 13.8 | | 76.2 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 7.5 | 28.5 | | 17.5 | | 40.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 2.6 | 6.2 | | 8.5 | | 15.7 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.0 | | 0.7 | | 5.0 | | | | | | |

Intersection Summary























HCM 6th Ctrl Delay 21.4
HCM 6th LOS C

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 4: Borchard Rd & U.S. 101 SB Ramps/Newbury Rd

Existing Conditions
PM Peak Hour

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 142 | 150 | 92 | 120 | 0 | 148 | 0 | 226 | 83 | 140 | 743 | 528 |
| Future Volume (veh/h) | 142 | 150 | 92 | 120 | 0 | 148 | 0 | 226 | 83 | 140 | 743 | 528 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 0 | 1841 | 0 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 154 | 163 | 0 | 130 | 0 | 161 | 0 | 246 | 90 | 152 | 808 | 0 |
| 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, % | 4 | 4 | 4 | 4 | 0 | 4 | 0 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 404 | 219 | | 0 | 0 | 0 | 0 | 1205 | 412 | 1379 | 2732 | |
| Arrive On Green | 0.12 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33 | 0.33 | 0.13 | 0.26 | 0.00 |
| Sat Flow, veh/h | 3401 | 1841 | 1560 | | 0 | | 0 | 3865 | 1264 | 3401 | 3497 | 2745 |
| Grp Volume(v), veh/h | 154 | 163 | 0 | | 0.0 | | 0 | 221 | 115 | 152 | 808 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1841 | 1560 | | | | 0 | 1675 | 1613 | 1700 | 1749 | 1373 |
| Q Serve(g_s), s | 3.8 | 7.7 | 0.0 | | | | 0.0 | 4.3 | 4.7 | 3.5 | 16.7 | 0.0 |
| Cycle Q Clear(g_c), s | 3.8 | 7.7 | 0.0 | | | | 0.0 | 4.3 | 4.7 | 3.5 | 16.7 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 0.78 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 404 | 219 | | | | | 0 | 1091 | 525 | 1379 | 2732 | |
| V/C Ratio(X) | 0.38 | 0.74 | | | | | 0.00 | 0.20 | 0.22 | 0.11 | 0.30 | |
| Avail Cap(c_a), veh/h | 737 | 399 | | | | | 0 | 1091 | 525 | 1379 | 2732 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | | | | 0.00 | 1.00 | 1.00 | 0.45 | 0.45 | 0.00 |
| Uniform Delay (d), s/veh | 36.6 | 38.3 | 0.0 | | | | 0.0 | 21.9 | 22.0 | 24.7 | 13.5 | 0.0 |
| Incr Delay (d2), s/veh | 0.6 | 5.0 | 0.0 | | | | 0.0 | 0.4 | 1.0 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 3.7 | 0.0 | | | | 0.0 | 1.7 | 1.9 | 1.4 | 7.8 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 37.2 | 43.3 | 0.0 | | | | 0.0 | 22.3 | 23.0 | 24.7 | 13.6 | 0.0 |
| LnGrp LOS | D | D | | | | | A | C | C | C | B | |
| Approach Vol, veh/h | 317 | | | | | | 336 | | | 960 | | |
| Approach Delay, s/veh | 40.3 | | | | | | 22.6 | | | 15.4 | | |
| Approach LOS | D | | | | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 41.0 | 33.8 | | 15.2 | | 74.8 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 14.5 | 20.5 | | 19.5 | | 39.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 5.5 | 6.7 | | 9.7 | | 18.7 | | | | | | |
| Green Ext Time (p_c), s | 0.3 | 1.7 | | 1.0 | | 5.8 | | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 21.8 |
| HCM 6th LOS | C |























Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

4: Borchard Rd & U.S. 101 SB Ramps/Newbury Rd

PM Peak Hour
Existing Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 158 | 150 | 92 | 120 | 0 | 150 | 0 | 229 | 83 | 142 | 745 | 564 |
| Future Volume (veh/h) | 158 | 150 | 92 | 120 | 0 | 150 | 0 | 229 | 83 | 142 | 745 | 564 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 0 | 1841 | 0 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 172 | 163 | 0 | 130 | 0 | 163 | 0 | 249 | 90 | 154 | 810 | 0 |
| 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, % | 4 | 4 | 4 | 4 | 0 | 4 | 0 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 406 | 220 | | 0 | 0 | 0 | 0 | 1206 | 408 | 1379 | 2730 | |
| Arrive On Green | 0.12 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33 | 0.33 | 0.13 | 0.26 | 0.00 |
| Sat Flow, veh/h | 3401 | 1841 | 1560 | | 0 | | 0 | 3877 | 1254 | 3401 | 3497 | 2745 |
| Grp Volume(v), veh/h | 172 | 163 | 0 | | 0.0 | | 0 | 223 | 116 | 154 | 810 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1841 | 1560 | | | | 0 | 1675 | 1615 | 1700 | 1749 | 1373 |
| Q Serve(g_s), s | 4.2 | 7.7 | 0.0 | | | | 0.0 | 4.3 | 4.7 | 3.6 | 16.8 | 0.0 |
| Cycle Q Clear(g_c), s | 4.2 | 7.7 | 0.0 | | | | 0.0 | 4.3 | 4.7 | 3.6 | 16.8 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 0.78 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 406 | 220 | | | | | 0 | 1089 | 525 | 1379 | 2730 | |
| V/C Ratio(X) | 0.42 | 0.74 | | | | | 0.00 | 0.20 | 0.22 | 0.11 | 0.30 | |
| Avail Cap(c_a), veh/h | 737 | 399 | | | | | 0 | 1089 | 525 | 1379 | 2730 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | | | | 0.00 | 1.00 | 1.00 | 0.39 | 0.39 | 0.00 |
| Uniform Delay (d), s/veh | 36.7 | 38.3 | 0.0 | | | | 0.0 | 22.0 | 22.1 | 24.7 | 13.6 | 0.0 |
| Incr Delay (d2), s/veh | 0.7 | 4.9 | 0.0 | | | | 0.0 | 0.4 | 1.0 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 3.7 | 0.0 | | | | 0.0 | 1.7 | 1.9 | 1.4 | 7.8 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 37.4 | 43.1 | 0.0 | | | | 0.0 | 22.4 | 23.1 | 24.7 | 13.7 | 0.0 |
| LnGrp LOS | D | D | | | | | A | C | C | C | B | |
| Approach Vol, veh/h | 335 | | | | | | 339 | | | 964 | | |
| Approach Delay, s/veh | 40.2 | | | | | | 22.6 | | | 15.4 | | |
| Approach LOS | D | | | | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 41.0 | 33.8 | | 15.3 | | 74.7 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 14.5 | 20.5 | | 19.5 | | 39.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 5.6 | 6.7 | | 9.7 | | 18.8 | | | | | | |
| Green Ext Time (p_c), s | 0.3 | 1.8 | | 1.1 | | 5.8 | | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 22.0 |
| HCM 6th LOS | C |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCS Two-Way Stop-Control Report

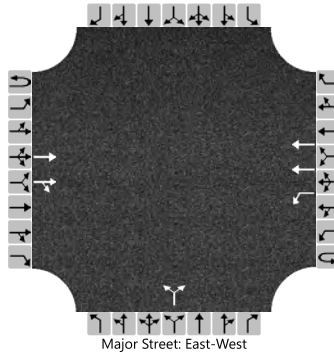
General Information

| | |
|--------------------------|-------------------|
| Analyst | DJL |
| Agency/Co. | Stantec |
| Date Performed | 10/23/2022 |
| Analysis Year | ExPr |
| Time Analyzed | AM Peak Hour |
| Intersection Orientation | East-West |
| Project Description | 2150 Hillcrest Dr |

Site Information

| | |
|----------------------------|--------------------------|
| Intersection | Hillcrest Dr/Project Dwy |
| Jurisdiction | Thousand Oaks |
| East/West Street | Hillcrest Dr |
| North/South Street | Project Dwy |
| Peak Hour Factor | 1.00 |
| Analysis Time Period (hrs) | 1.00 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|----|-----------|---|-----|---|------------|----|----|----|------------|----|----|----|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | | 0 | 1 | 0 | | 0 | 0 | 0 |
| Configuration | | | T | TR | | L | T | | | | LR | | | | | |
| Volume (veh/h) | | | 535 | 16 | 0 | 4 | 541 | | | 87 | | 10 | | | | |
| Percent Heavy Vehicles (%) | | | | | 4 | 4 | | | | 4 | | 4 | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Left Only | | | | | | | | 2 | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec) | | | | | | 4.1 | | | | 7.5 | | 6.9 | | | | |
| Critical Headway (sec) | | | | | | 4.18 | | | | 6.88 | | 6.98 | | | | |
| Base Follow-Up Headway (sec) | | | | | | 2.2 | | | | 3.5 | | 3.3 | | | | |
| Follow-Up Headway (sec) | | | | | | 2.24 | | | | 3.54 | | 3.34 | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|------|--|--|------|--|--|--|--|
| Flow Rate, v (veh/h) | | | | | | 4 | | | | | | 97 | | | | |
| Capacity, c (veh/h) | | | | | | 1001 | | | | | | 494 | | | | |
| v/c Ratio | | | | | | 0.00 | | | | | | 0.20 | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.0 | | | | | | 0.7 | | | | |
| Control Delay (s/veh) | | | | | | 8.6 | | | | | | 14.1 | | | | |
| Level of Service (LOS) | | | | | | A | | | | | | B | | | | |
| Approach Delay (s/veh) | | | | | 0.1 | | | | 14.1 | | | | | | | |
| Approach LOS | | | | | A | | | | B | | | | | | | |

HCS Two-Way Stop-Control Report

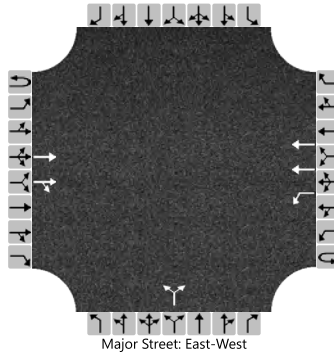
General Information

| | |
|--------------------------|-------------------|
| Analyst | DJL |
| Agency/Co. | Stantec |
| Date Performed | 10/23/2022 |
| Analysis Year | ExPr |
| Time Analyzed | PM Peak Hour |
| Intersection Orientation | East-West |
| Project Description | 2150 Hillcrest Dr |

Site Information

| | |
|----------------------------|--------------------------|
| Intersection | Hillcrest Dr/Project Dwy |
| Jurisdiction | Thousand Oaks |
| East/West Street | Hillcrest Dr |
| North/South Street | Project Dwy |
| Peak Hour Factor | 1.00 |
| Analysis Time Period (hrs) | 1.00 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|----|----|---|------------|----|----|----|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | | 0 | 1 | 0 | | 0 | 0 | 0 |
| Configuration | | | T | TR | | L | T | | | | LR | | | | | |
| Volume (veh/h) | | | 856 | 43 | 0 | 11 | 384 | | | 68 | | 8 | | | | |
| Percent Heavy Vehicles (%) | | | | | 4 | 4 | | | | 4 | | 4 | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Left Only | | | | | | | | 2 | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec) | | | | | | 4.1 | | | | 7.5 | | 6.9 | | | | |
| Critical Headway (sec) | | | | | | 4.18 | | | | 6.88 | | 6.98 | | | | |
| Base Follow-Up Headway (sec) | | | | | | 2.2 | | | | 3.5 | | 3.3 | | | | |
| Follow-Up Headway (sec) | | | | | | 2.24 | | | | 3.54 | | 3.34 | | | | |

Delay, Queue Length, and Level of Service

























| | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|------|--|--|------|--|--|--|--|
| Flow Rate, v (veh/h) | | | | | | 11 | | | | | | 76 | | | | |
| Capacity, c (veh/h) | | | | | | 739 | | | | | | 350 | | | | |
| v/c Ratio | | | | | | 0.01 | | | | | | 0.22 | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.0 | | | | | | 0.8 | | | | |
| Control Delay (s/veh) | | | | | | 9.9 | | | | | | 18.1 | | | | |
| Level of Service (LOS) | | | | | | A | | | | | | C | | | | |
| Approach Delay (s/veh) | | | | | 0.3 | | | | 18.1 | | | | | | | |
| Approach LOS | | | | | A | | | | C | | | | | | | |

Buildout and Buildout + Project Conditions

HCM 6th Signalized Intersection Summary

1: Rancho Conejo Blvd & Hillcrest Blvd































AM Peak Hour
Buildout Conditons

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 17 | 372 | 75 | 268 | 205 | 101 | 153 | 727 | 132 | 64 | 265 | 7 |
| Future Volume (veh/h) | 17 | 372 | 75 | 268 | 205 | 101 | 153 | 727 | 132 | 64 | 265 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 17 | 372 | 75 | 268 | 205 | 101 | 153 | 727 | 132 | 64 | 265 | 7 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 34 | 495 | 715 | 350 | 414 | 424 | 555 | 2557 | 954 | 82 | 1203 | 32 |
| Arrive On Green | 0.02 | 0.14 | 0.14 | 0.10 | 0.23 | 0.23 | 0.10 | 0.17 | 0.17 | 0.05 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 3401 | 1841 | 1560 | 1753 | 5025 | 1560 | 1753 | 5035 | 132 |
| Grp Volume(v), veh/h | 17 | 372 | 75 | 268 | 205 | 101 | 153 | 727 | 132 | 64 | 176 | 96 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1700 | 1841 | 1560 | 1753 | 1675 | 1560 | 1753 | 1675 | 1817 |
| Q Serve(g_s), s | 0.9 | 9.2 | 0.0 | 6.9 | 8.7 | 4.5 | 7.2 | 11.4 | 1.3 | 3.3 | 3.8 | 3.8 |
| Cycle Q Clear(g_c), s | 0.9 | 9.2 | 0.0 | 6.9 | 8.7 | 4.5 | 7.2 | 11.4 | 1.3 | 3.3 | 3.8 | 3.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.07 |
| Lane Grp Cap(c), veh/h | 34 | 495 | 715 | 350 | 414 | 424 | 555 | 2557 | 954 | 82 | 800 | 434 |
| V/C Ratio(X) | 0.50 | 0.75 | 0.10 | 0.77 | 0.49 | 0.24 | 0.28 | 0.28 | 0.14 | 0.78 | 0.22 | 0.22 |
| Avail Cap(c_a), veh/h | 107 | 758 | 832 | 510 | 562 | 550 | 555 | 2557 | 954 | 205 | 800 | 434 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.79 | 0.79 | 0.79 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.7 | 37.1 | 13.9 | 39.3 | 30.4 | 25.5 | 30.8 | 23.1 | 4.1 | 42.4 | 27.5 | 27.5 |
| Incr Delay (d2), s/veh | 11.2 | 2.3 | 0.1 | 4.1 | 0.9 | 0.3 | 0.2 | 0.2 | 0.2 | 14.5 | 0.6 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 3.9 | 0.8 | 2.9 | 3.7 | 1.6 | 3.1 | 4.8 | 0.4 | 1.7 | 1.5 | 1.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.9 | 39.5 | 13.9 | 43.5 | 31.3 | 25.8 | 31.0 | 23.3 | 4.3 | 56.9 | 28.1 | 28.7 |
| LnGrp LOS | D | D | B | D | C | C | C | C | A | E | C | C |
| Approach Vol, veh/h | | 464 | | | 574 | | | 1012 | | | 336 | |
| Approach Delay, s/veh | | 35.9 | | | 36.0 | | | 22.0 | | | 33.8 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.7 | 50.3 | 13.8 | 17.2 | 33.0 | 26.0 | 6.2 | 24.8 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 10.5 | 28.5 | 13.5 | 19.5 | 17.5 | 21.5 | 5.5 | 27.5 | | | | |
| Max Q Clear Time (g_c+l1), s | 5.3 | 13.4 | 8.9 | 11.2 | 9.2 | 5.8 | 2.9 | 10.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.4 | 0.4 | 1.5 | 0.2 | 1.2 | 0.0 | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 29.7 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

HCM 6th Signalized Intersection Summary

1: Rancho Conejo Blvd & Hillcrest Blvd































AM Peak Hour
Buildout + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   |  |   |  |  |  |    |  |  |    |  |
| Traffic Volume (veh/h) | 17 | 377 | 75 | 334 | 217 | 110 | 153 | 727 | 158 | 68 | 265 | 7 |
| Future Volume (veh/h) | 17 | 377 | 75 | 334 | 217 | 110 | 153 | 727 | 158 | 68 | 265 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 17 | 377 | 75 | 334 | 217 | 110 | 153 | 727 | 158 | 68 | 265 | 7 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 34 | 500 | 686 | 414 | 451 | 460 | 520 | 2440 | 947 | 87 | 1203 | 32 |
| Arrive On Green | 0.02 | 0.14 | 0.14 | 0.12 | 0.25 | 0.25 | 0.10 | 0.16 | 0.16 | 0.05 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 3401 | 1841 | 1560 | 1753 | 5025 | 1560 | 1753 | 5035 | 132 |
| Grp Volume(v), veh/h | 17 | 377 | 75 | 334 | 217 | 110 | 153 | 727 | 158 | 68 | 176 | 96 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1700 | 1841 | 1560 | 1753 | 1675 | 1560 | 1753 | 1675 | 1817 |
| Q Serve(g_s), s | 0.9 | 9.3 | 0.0 | 8.6 | 9.1 | 4.8 | 7.3 | 11.5 | 1.5 | 3.5 | 3.8 | 3.8 |
| Cycle Q Clear(g_c), s | 0.9 | 9.3 | 0.0 | 8.6 | 9.1 | 4.8 | 7.3 | 11.5 | 1.5 | 3.5 | 3.8 | 3.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.07 |
| Lane Grp Cap(c), veh/h | 34 | 500 | 686 | 414 | 451 | 460 | 520 | 2440 | 947 | 87 | 800 | 434 |
| V/C Ratio(X) | 0.50 | 0.75 | 0.11 | 0.81 | 0.48 | 0.24 | 0.29 | 0.30 | 0.17 | 0.78 | 0.22 | 0.22 |
| Avail Cap(c_a), veh/h | 107 | 758 | 801 | 510 | 562 | 554 | 520 | 2440 | 947 | 205 | 800 | 434 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.77 | 0.77 | 0.77 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.7 | 37.1 | 14.9 | 38.5 | 29.1 | 24.1 | 31.8 | 24.3 | 4.1 | 42.3 | 27.5 | 27.5 |
| Incr Delay (d2), s/veh | 11.2 | 2.3 | 0.1 | 7.7 | 0.8 | 0.3 | 0.2 | 0.2 | 0.3 | 13.7 | 0.6 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 3.9 | 0.8 | 3.9 | 3.9 | 1.7 | 3.1 | 4.9 | 0.5 | 1.8 | 1.5 | 1.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.9 | 39.4 | 14.9 | 46.2 | 29.9 | 24.3 | 32.1 | 24.5 | 4.4 | 55.9 | 28.1 | 28.7 |
| LnGrp LOS | D | D | B | D | C | C | C | C | A | E | C | C |
| Approach Vol, veh/h | | 469 | | | 661 | | | 1038 | | | 340 | |
| Approach Delay, s/veh | | 36.0 | | | 37.2 | | | 22.6 | | | 33.9 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.0 | 48.2 | 15.4 | 17.4 | 31.2 | 26.0 | 6.2 | 26.6 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 10.5 | 28.5 | 13.5 | 19.5 | 17.5 | 21.5 | 5.5 | 27.5 | | | | |
| Max Q Clear Time (g_c+l1), s | 5.5 | 13.5 | 10.6 | 11.3 | 9.3 | 5.8 | 2.9 | 11.1 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.5 | 0.3 | 1.5 | 0.2 | 1.2 | 0.0 | 1.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 30.5 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

HCM 6th Signalized Intersection Summary

1: Rancho Conejo Blvd & Hillcrest Blvd































PM Peak Hour
Buildout Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   |  |   |  |  |  |    |  |  |    |  |
| Traffic Volume (veh/h) | 19 | 525 | 276 | 152 | 216 | 39 | 204 | 343 | 171 | 212 | 820 | 39 |
| Future Volume (veh/h) | 19 | 525 | 276 | 152 | 216 | 39 | 204 | 343 | 171 | 212 | 820 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 19 | 525 | 276 | 152 | 216 | 39 | 204 | 343 | 171 | 212 | 820 | 39 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 37 | 659 | 512 | 223 | 429 | 796 | 246 | 1351 | 522 | 486 | 1996 | 95 |
| Arrive On Green | 0.02 | 0.19 | 0.19 | 0.07 | 0.23 | 0.23 | 0.05 | 0.09 | 0.09 | 0.28 | 0.41 | 0.41 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 3401 | 1841 | 1560 | 1753 | 5025 | 1560 | 1753 | 4916 | 233 |
| Grp Volume(v), veh/h | 19 | 525 | 276 | 152 | 216 | 39 | 204 | 343 | 171 | 212 | 558 | 301 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1700 | 1841 | 1560 | 1753 | 1675 | 1560 | 1753 | 1675 | 1799 |
| Q Serve(g_s), s | 1.0 | 12.9 | 8.8 | 3.9 | 9.2 | 0.2 | 10.4 | 5.7 | 3.2 | 8.9 | 10.7 | 10.7 |
| Cycle Q Clear(g_c), s | 1.0 | 12.9 | 8.8 | 3.9 | 9.2 | 0.2 | 10.4 | 5.7 | 3.2 | 8.9 | 10.7 | 10.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 37 | 659 | 512 | 223 | 429 | 796 | 246 | 1351 | 522 | 486 | 1360 | 730 |
| V/C Ratio(X) | 0.52 | 0.80 | 0.54 | 0.68 | 0.50 | 0.05 | 0.83 | 0.25 | 0.33 | 0.44 | 0.41 | 0.41 |
| Avail Cap(c_a), veh/h | 97 | 797 | 574 | 321 | 491 | 848 | 380 | 1351 | 522 | 486 | 1360 | 730 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.6 | 34.9 | 12.1 | 41.1 | 30.0 | 4.9 | 41.9 | 32.6 | 28.7 | 26.7 | 19.1 | 19.1 |
| Incr Delay (d2), s/veh | 10.7 | 4.7 | 0.9 | 3.6 | 0.9 | 0.0 | 8.1 | 0.4 | 1.5 | 0.6 | 0.9 | 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 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 5.6 | 3.4 | 1.7 | 3.9 | 0.2 | 5.2 | 2.3 | 3.4 | 3.6 | 3.9 | 4.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.3 | 39.6 | 13.0 | 44.8 | 30.9 | 5.0 | 50.0 | 33.0 | 30.2 | 27.4 | 20.0 | 20.8 |
| LnGrp LOS | D | D | B | D | C | A | D | C | C | C | B | C |
| Approach Vol, veh/h | | 820 | | | 407 | | | 718 | | | 1071 | |
| Approach Delay, s/veh | | 31.0 | | | 33.6 | | | 37.2 | | | 21.7 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 29.4 | 28.7 | 10.4 | 21.5 | 17.1 | 41.0 | 6.4 | 25.5 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 18.8 | 24.2 | 8.5 | 20.5 | 19.5 | 23.5 | 5.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+l1), s | 10.9 | 7.7 | 5.9 | 14.9 | 12.4 | 12.7 | 3.0 | 11.2 | | | | |
| Green Ext Time (p_c), s | 0.3 | 2.4 | 0.1 | 2.1 | 0.3 | 3.8 | 0.0 | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 29.5 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

HCM 6th Signalized Intersection Summary

1: Rancho Conejo Blvd & Hillcrest Blvd
























PM Peak Hour
Buildout + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |   |  |   |  |  |  |    |  |  |    |  |
| Traffic Volume (veh/h) | 19 | 538 | 276 | 203 | 225 | 47 | 204 | 343 | 243 | 222 | 820 | 39 |
| Future Volume (veh/h) | 19 | 538 | 276 | 203 | 225 | 47 | 204 | 343 | 243 | 222 | 820 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 19 | 538 | 276 | 203 | 225 | 47 | 204 | 343 | 243 | 222 | 820 | 39 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 37 | 670 | 517 | 275 | 463 | 796 | 246 | 1351 | 546 | 454 | 1905 | 90 |
| Arrive On Green | 0.02 | 0.19 | 0.19 | 0.08 | 0.25 | 0.25 | 0.05 | 0.09 | 0.09 | 0.26 | 0.39 | 0.39 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 3401 | 1841 | 1560 | 1753 | 5025 | 1560 | 1753 | 4916 | 233 |
| Grp Volume(v), veh/h | 19 | 538 | 276 | 203 | 225 | 47 | 204 | 343 | 243 | 222 | 558 | 301 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1700 | 1841 | 1560 | 1753 | 1675 | 1560 | 1753 | 1675 | 1799 |
| Q Serve(g_s), s | 1.0 | 13.2 | 8.5 | 5.3 | 9.4 | 0.2 | 10.4 | 5.7 | 5.8 | 9.7 | 11.0 | 11.1 |
| Cycle Q Clear(g_c), s | 1.0 | 13.2 | 8.5 | 5.3 | 9.4 | 0.2 | 10.4 | 5.7 | 5.8 | 9.7 | 11.0 | 11.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 37 | 670 | 517 | 275 | 463 | 796 | 246 | 1351 | 546 | 454 | 1298 | 697 |
| V/C Ratio(X) | 0.52 | 0.80 | 0.53 | 0.74 | 0.49 | 0.06 | 0.83 | 0.25 | 0.45 | 0.49 | 0.43 | 0.43 |
| Avail Cap(c_a), veh/h | 97 | 797 | 574 | 321 | 491 | 820 | 380 | 1351 | 546 | 454 | 1298 | 697 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.86 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.6 | 34.8 | 11.4 | 40.4 | 28.7 | 5.0 | 41.9 | 32.6 | 29.2 | 28.3 | 20.3 | 20.3 |
| Incr Delay (d2), s/veh | 10.7 | 5.1 | 0.9 | 7.3 | 0.8 | 0.0 | 7.7 | 0.4 | 2.3 | 0.8 | 1.0 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 5.8 | 3.3 | 2.4 | 4.0 | 0.2 | 5.2 | 2.3 | 5.1 | 3.9 | 4.1 | 4.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.3 | 39.9 | 12.3 | 47.7 | 29.5 | 5.0 | 49.6 | 33.0 | 31.5 | 29.1 | 21.3 | 22.2 |
| LnGrp LOS | D | D | B | D | C | A | D | C | C | C | C | C |
| Approach Vol, veh/h | | 833 | | | 475 | | | 790 | | | 1081 | |
| Approach Delay, s/veh | | 31.1 | | | 34.9 | | | 36.8 | | | 23.2 | |
| Approach LOS | | C | | | C | | | D | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 27.8 | 28.7 | 11.8 | 21.7 | 17.1 | 39.4 | 6.4 | 27.1 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 18.8 | 24.2 | 8.5 | 20.5 | 19.5 | 23.5 | 5.0 | 24.0 | | | | |
| Max Q Clear Time (g_c+l1), s | 11.7 | 7.8 | 7.3 | 15.2 | 12.4 | 13.1 | 3.0 | 11.4 | | | | |
| Green Ext Time (p_c), s | 0.3 | 2.6 | 0.1 | 2.0 | 0.3 | 3.7 | 0.0 | 1.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 30.4 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

HCM 6th Signalized Intersection Summary
























2: Ventu Park Rd & Hillcrest Dr

AM Peak Hour
Buildout + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 29 | 604 | 364 | 83 | 352 | 470 | 195 | 1016 | 118 | 365 | 352 | 17 |
| Future Volume (veh/h) | 29 | 604 | 364 | 83 | 352 | 470 | 195 | 1016 | 118 | 365 | 352 | 17 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 29 | 604 | 364 | 83 | 352 | 298 | 195 | 1016 | 62 | 365 | 352 | 9 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 53 | 837 | 505 | 106 | 488 | 406 | 287 | 1141 | 509 | 439 | 1298 | 579 |
| Arrive On Green | 0.03 | 0.24 | 0.24 | 0.06 | 0.27 | 0.27 | 0.08 | 0.33 | 0.33 | 0.13 | 0.37 | 0.37 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 1753 | 1810 | 1508 | 3401 | 3497 | 1560 | 3401 | 3497 | 1560 |
| Grp Volume(v), veh/h | 29 | 604 | 364 | 83 | 340 | 310 | 195 | 1016 | 62 | 365 | 352 | 9 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1753 | 1749 | 1569 | 1700 | 1749 | 1560 | 1700 | 1749 | 1560 |
| Q Serve(g_s), s | 1.2 | 11.7 | 15.1 | 3.4 | 13.0 | 13.2 | 4.1 | 20.3 | 2.1 | 7.7 | 5.2 | 0.3 |
| Cycle Q Clear(g_c), s | 1.2 | 11.7 | 15.1 | 3.4 | 13.0 | 13.2 | 4.1 | 20.3 | 2.1 | 7.7 | 5.2 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.96 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 53 | 837 | 505 | 106 | 471 | 423 | 287 | 1141 | 509 | 439 | 1298 | 579 |
| V/C Ratio(X) | 0.54 | 0.72 | 0.72 | 0.78 | 0.72 | 0.73 | 0.68 | 0.89 | 0.12 | 0.83 | 0.27 | 0.02 |
| Avail Cap(c_a), veh/h | 122 | 856 | 514 | 131 | 471 | 423 | 495 | 1141 | 509 | 439 | 1298 | 579 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.2 | 25.7 | 21.9 | 34.1 | 24.4 | 24.5 | 32.7 | 23.5 | 17.4 | 31.2 | 16.2 | 14.6 |
| Incr Delay (d2), s/veh | 8.4 | 2.9 | 4.8 | 21.5 | 5.4 | 6.5 | 2.8 | 10.5 | 0.5 | 12.7 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 4.7 | 5.5 | 2.0 | 5.5 | 5.1 | 1.7 | 9.0 | 0.7 | 3.7 | 1.9 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.5 | 28.6 | 26.7 | 55.6 | 29.7 | 30.9 | 35.5 | 34.1 | 17.9 | 43.9 | 16.7 | 14.7 |
| LnGrp LOS | D | C | C | E | C | C | D | C | B | D | B | B |
| Approach Vol, veh/h | 997 | | | | 733 | | 1273 | | | | 726 | |
| Approach Delay, s/veh | 28.4 | | | | 33.2 | | 33.5 | | | | 30.4 | |
| Approach LOS | C | | | | C | | C | | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.0 | 28.5 | 8.9 | 22.1 | 10.7 | 31.8 | 6.7 | 24.3 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 9.5 | 24.0 | 5.5 | 18.0 | 10.7 | 22.8 | 5.1 | 18.4 | | | | |
| Max Q Clear Time (g_c+l1), s | 9.7 | 22.3 | 5.4 | 17.1 | 6.1 | 7.2 | 3.2 | 15.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.1 | 0.0 | 0.5 | 0.2 | 1.8 | 0.0 | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 31.5 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary 2: Ventu Park Rd & Hillcrest Dr
























AM Peak Hour
Buildout Conditons

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 29 | 599 | 360 | 83 | 350 | 470 | 193 | 1016 | 118 | 365 | 352 | 17 |
| Future Volume (veh/h) | 29 | 599 | 360 | 83 | 350 | 470 | 193 | 1016 | 118 | 365 | 352 | 17 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 29 | 599 | 360 | 83 | 350 | 298 | 193 | 1016 | 62 | 365 | 352 | 9 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 53 | 834 | 503 | 106 | 484 | 406 | 285 | 1143 | 510 | 440 | 1302 | 581 |
| Arrive On Green | 0.03 | 0.24 | 0.24 | 0.06 | 0.27 | 0.27 | 0.08 | 0.33 | 0.33 | 0.13 | 0.37 | 0.37 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 1753 | 1805 | 1512 | 3401 | 3497 | 1560 | 3401 | 3497 | 1560 |
| Grp Volume(v), veh/h | 29 | 599 | 360 | 83 | 339 | 309 | 193 | 1016 | 62 | 365 | 352 | 9 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1753 | 1749 | 1569 | 1700 | 1749 | 1560 | 1700 | 1749 | 1560 |
| Q Serve(g_s), s | 1.2 | 11.6 | 14.9 | 3.4 | 12.9 | 13.2 | 4.0 | 20.2 | 2.0 | 7.7 | 5.2 | 0.3 |
| Cycle Q Clear(g_c), s | 1.2 | 11.6 | 14.9 | 3.4 | 12.9 | 13.2 | 4.0 | 20.2 | 2.0 | 7.7 | 5.2 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.96 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 53 | 834 | 503 | 106 | 469 | 421 | 285 | 1143 | 510 | 440 | 1302 | 581 |
| V/C Ratio(X) | 0.54 | 0.72 | 0.72 | 0.78 | 0.72 | 0.73 | 0.68 | 0.89 | 0.12 | 0.83 | 0.27 | 0.02 |
| Avail Cap(c_a), veh/h | 122 | 857 | 513 | 131 | 469 | 421 | 496 | 1143 | 510 | 440 | 1302 | 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 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.1 | 25.7 | 21.9 | 34.0 | 24.4 | 24.5 | 32.7 | 23.5 | 17.3 | 31.2 | 16.1 | 14.6 |
| Incr Delay (d2), s/veh | 8.4 | 2.8 | 4.6 | 21.5 | 5.4 | 6.5 | 2.8 | 10.4 | 0.5 | 12.5 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 4.7 | 5.4 | 2.0 | 5.5 | 5.1 | 1.7 | 8.9 | 0.7 | 3.7 | 1.9 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.5 | 28.5 | 26.6 | 55.5 | 29.8 | 31.0 | 35.5 | 33.9 | 17.8 | 43.7 | 16.6 | 14.6 |
| LnGrp LOS | D | C | C | E | C | C | D | C | B | D | B | B |
| Approach Vol, veh/h | 988 | | | | 731 | | | | 1271 | | | |
| Approach Delay, s/veh | 28.3 | | | | 33.2 | | | | 33.3 | | | |
| Approach LOS | C | | | | C | | | | C | | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.0 | 28.5 | 8.9 | 22.0 | 10.7 | 31.8 | 6.7 | 24.2 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 9.5 | 24.0 | 5.5 | 18.0 | 10.7 | 22.8 | 5.1 | 18.4 | | | | |
| Max Q Clear Time (g_c+l1), s | 9.7 | 22.2 | 5.4 | 16.9 | 6.0 | 7.2 | 3.2 | 15.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.1 | 0.0 | 0.6 | 0.2 | 1.8 | 0.0 | 1.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 31.4 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary
























2: Ventu Park Rd & Hillcrest Dr

PM Peak Hour
Buildout Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  | |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|--|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | |
| Lane Configurations |  |  |  |  |  | |  |  |  |  |  |  | |
| Traffic Volume (veh/h) | 22 | 672 | 320 | 118 | 307 | 109 | 531 | 324 | 83 | 233 | 348 | 12 | |
| Future Volume (veh/h) | 22 | 672 | 320 | 118 | 307 | 109 | 531 | 324 | 83 | 233 | 348 | 12 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Work Zone On Approach | No | | | No | | | No | | | No | | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | |
| Adj Flow Rate, veh/h | 22 | 672 | 320 | 118 | 307 | 109 | 531 | 324 | 83 | 233 | 348 | 12 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Cap, veh/h | 43 | 801 | 639 | 149 | 736 | 256 | 613 | 1204 | 537 | 326 | 908 | 405 | |
| Arrive On Green | 0.02 | 0.23 | 0.23 | 0.08 | 0.29 | 0.29 | 0.18 | 0.34 | 0.34 | 0.10 | 0.26 | 0.26 | |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 1753 | 2544 | 886 | 3401 | 3497 | 1560 | 3401 | 3497 | 1560 | |
| Grp Volume(v), veh/h | 22 | 672 | 320 | 118 | 209 | 207 | 531 | 324 | 83 | 233 | 348 | 12 | |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1753 | 1749 | 1681 | 1700 | 1749 | 1560 | 1700 | 1749 | 1560 | |
| Q Serve(g_s), s | 0.9 | 13.4 | 11.2 | 4.8 | 7.1 | 7.3 | 11.1 | 4.9 | 2.7 | 4.9 | 6.0 | 0.4 | |
| Cycle Q Clear(g_c), s | 0.9 | 13.4 | 11.2 | 4.8 | 7.1 | 7.3 | 11.1 | 4.9 | 2.7 | 4.9 | 6.0 | 0.4 | |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.53 | 1.00 | | 1.00 | 1.00 | | 1.00 | |
| Lane Grp Cap(c), veh/h | 43 | 801 | 639 | 149 | 506 | 487 | 613 | 1204 | 537 | 326 | 908 | 405 | |
| V/C Ratio(X) | 0.51 | 0.84 | 0.50 | 0.79 | 0.41 | 0.43 | 0.87 | 0.27 | 0.15 | 0.72 | 0.38 | 0.03 | |
| Avail Cap(c_a), veh/h | 120 | 860 | 665 | 156 | 506 | 487 | 627 | 1204 | 537 | 451 | 908 | 405 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Uniform Delay (d), s/veh | 35.3 | 26.9 | 16.1 | 32.9 | 21.0 | 21.1 | 29.1 | 17.3 | 16.6 | 32.1 | 22.3 | 20.2 | |
| Incr Delay (d2), s/veh | 9.0 | 7.0 | 0.6 | 23.0 | 0.5 | 0.6 | 12.0 | 0.5 | 0.6 | 3.3 | 1.2 | 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(50%),veh/ln | 0.5 | 5.8 | 3.5 | 2.9 | 2.7 | 2.7 | 5.1 | 1.8 | 0.9 | 2.0 | 2.4 | 0.2 | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 44.2 | 33.9 | 16.7 | 55.9 | 21.5 | 21.7 | 41.1 | 17.9 | 17.2 | 35.4 | 23.5 | 20.3 | |
| LnGrp LOS | D | C | B | E | C | C | D | B | B | D | C | C | |
| Approach Vol, veh/h | 1014 | | | 534 | | | | 938 | | | | 593 | |
| Approach Delay, s/veh | 28.7 | | | 29.2 | | | | 31.0 | | | | 28.1 | |
| Approach LOS | C | | | C | | | | C | | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | 11.5 | 29.7 | 10.7 | 21.3 | 17.7 | 23.5 | 6.3 | 25.7 | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | | |
| Max Green Setting (Gmax), s | 9.7 | 22.8 | 6.5 | 18.0 | 13.5 | 19.0 | 5.0 | 19.5 | | | | | |
| Max Q Clear Time (g_c+I1), s | 6.9 | 6.9 | 6.8 | 15.4 | 13.1 | 8.0 | 2.9 | 9.3 | | | | | |
| Green Ext Time (p_c), s | 0.2 | 1.9 | 0.0 | 1.4 | 0.1 | 1.5 | 0.0 | 1.6 | | | | | |
| Intersection Summary | | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 29.4 | | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary 2: Ventu Park Rd & Hillcrest Dr



















PM Peak Hour
Buildout + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 22 | 676 | 324 | 118 | 312 | 109 | 537 | 324 | 83 | 233 | 348 | 12 |
| Future Volume (veh/h) | 22 | 676 | 324 | 118 | 312 | 109 | 537 | 324 | 83 | 233 | 348 | 12 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 22 | 676 | 324 | 118 | 312 | 109 | 537 | 324 | 83 | 233 | 348 | 12 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 43 | 803 | 641 | 149 | 741 | 254 | 617 | 1206 | 538 | 325 | 905 | 404 |
| Arrive On Green | 0.02 | 0.23 | 0.23 | 0.08 | 0.29 | 0.29 | 0.18 | 0.34 | 0.34 | 0.10 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1753 | 3497 | 1560 | 1753 | 2556 | 876 | 3401 | 3497 | 1560 | 3401 | 3497 | 1560 |
| Grp Volume(v), veh/h | 22 | 676 | 324 | 118 | 212 | 209 | 537 | 324 | 83 | 233 | 348 | 12 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1749 | 1560 | 1753 | 1749 | 1683 | 1700 | 1749 | 1560 | 1700 | 1749 | 1560 |
| Q Serve(g_s), s | 0.9 | 13.6 | 11.3 | 4.8 | 7.2 | 7.4 | 11.3 | 4.9 | 2.7 | 4.9 | 6.0 | 0.4 |
| Cycle Q Clear(g_c), s | 0.9 | 13.6 | 11.3 | 4.8 | 7.2 | 7.4 | 11.3 | 4.9 | 2.7 | 4.9 | 6.0 | 0.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.52 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 43 | 803 | 641 | 149 | 507 | 488 | 617 | 1206 | 538 | 325 | 905 | 404 |
| V/C Ratio(X) | 0.51 | 0.84 | 0.51 | 0.79 | 0.42 | 0.43 | 0.87 | 0.27 | 0.15 | 0.72 | 0.38 | 0.03 |
| Avail Cap(c_a), veh/h | 119 | 858 | 666 | 155 | 507 | 488 | 625 | 1206 | 538 | 449 | 905 | 404 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.4 | 27.0 | 16.1 | 33.0 | 21.1 | 21.1 | 29.2 | 17.4 | 16.6 | 32.2 | 22.4 | 20.3 |
| Incr Delay (d2), s/veh | 9.0 | 7.2 | 0.6 | 23.2 | 0.5 | 0.6 | 12.5 | 0.5 | 0.6 | 3.3 | 1.2 | 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(50%),veh/ln | 0.5 | 5.9 | 3.6 | 2.9 | 2.7 | 2.7 | 5.2 | 1.8 | 0.9 | 2.0 | 2.4 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 44.4 | 34.3 | 16.7 | 56.1 | 21.6 | 21.7 | 41.7 | 17.9 | 17.3 | 35.6 | 23.6 | 20.5 |
| LnGrp LOS | D | C | B | E | C | C | D | B | B | D | C | C |
| Approach Vol, veh/h | 1022 | | | 539 | | | 944 | | | 593 | | |
| Approach Delay, s/veh | 28.9 | | | 29.2 | | | 31.4 | | | 28.2 | | |
| Approach LOS | C | | | C | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.5 | 29.8 | 10.7 | 21.3 | 17.8 | 23.5 | 6.3 | 25.8 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | | | |
| Max Green Setting (Gmax), s | 9.7 | 22.8 | 6.5 | 18.0 | 13.5 | 19.0 | 5.0 | 19.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.9 | 6.9 | 6.8 | 15.6 | 13.3 | 8.0 | 2.9 | 9.4 | | | | |
| Green Ext Time (p_c), s | 0.2 | 1.9 | 0.0 | 1.3 | 0.1 | 1.5 | 0.0 | 1.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 29.6 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary

3: Rancho Conejo Blvd & U.S. 101 NB Ramps


















AM Peak Hour
Buildout Condititions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |  | | |  |  |  | | |  |  |
| Traffic Volume (veh/h) | 0 | 0 | 398 | 0 | 0 | 538 | 125 | 474 | 0 | 0 | 456 | 151 |
| Future Volume (veh/h) | 0 | 0 | 398 | 0 | 0 | 538 | 125 | 474 | 0 | 0 | 456 | 151 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 0 | 1841 | 0 | 0 | 1841 | 1841 | 1841 | 0 | 0 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 433 | 0 | 0 | 585 | 136 | 515 | 0 | 0 | 496 | 164 |
| 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 | 0 | 4 | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 4 |
| Cap, veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 169 | 4774 | 0 | 0 | 3027 | 969 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.31 | 0.00 | 0.00 | 0.27 | 0.27 |
| Sat Flow, veh/h | | 0 | | | 0 | | 1753 | 5191 | 0 | 0 | 3933 | 1206 |
| Grp Volume(v), veh/h | | 0.0 | | | 0.0 | | 136 | 515 | 0 | 0 | 439 | 221 |
| Grp Sat Flow(s),veh/h/ln | | | | | | | 1753 | 1675 | 0 | 0 | 1675 | 1624 |
| Q Serve(g_s), s | | | | | | | 6.9 | 6.6 | 0.0 | 0.0 | 9.1 | 9.4 |
| Cycle Q Clear(g_c), s | | | | | | | 6.9 | 6.6 | 0.0 | 0.0 | 9.1 | 9.4 |
| Prop In Lane | | | | | | | 1.00 | | 0.00 | 0.00 | | 0.74 |
| Lane Grp Cap(c), veh/h | | | | | | | 169 | 4774 | 0 | 0 | 2692 | 1305 |
| V/C Ratio(X) | | | | | | | 0.80 | 0.11 | 0.00 | 0.00 | 0.16 | 0.17 |
| Avail Cap(c_a), veh/h | | | | | | | 205 | 4774 | 0 | 0 | 2692 | 1305 |
| HCM Platoon Ratio | | | | | | | 0.33 | 0.33 | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(I) | | | | | | | 0.96 | 0.96 | 0.00 | 0.00 | 0.95 | 0.95 |
| Uniform Delay (d), s/veh | | | | | | | 42.7 | 3.8 | 0.0 | 0.0 | 9.8 | 10.0 |
| Incr Delay (d2), s/veh | | | | | | | 16.7 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 |
| Initial Q Delay(d3),s/veh | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | | | | 3.8 | 0.0 | 0.0 | 0.0 | 2.2 | 2.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | | | | 59.5 | 3.8 | 0.0 | 0.0 | 10.0 | 10.2 |
| LnGrp LOS | | | | | | | E | A | A | A | A | B |
| Approach Vol, veh/h | | | | | | | | 651 | | | 660 | |
| Approach Delay, s/veh | | | | | | | | 15.5 | | | 10.0 | |
| Approach LOS | | | | | | | | B | | | B | |
| Timer - Assigned Phs | | 2 | | | 5 | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | | 90.0 | | | 13.2 | 76.8 | | | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | | 34.5 | | | 10.5 | 19.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | | 8.6 | | | 8.9 | 11.4 | | | | | | |
| Green Ext Time (p_c), s | | 3.3 | | | 0.0 | 2.5 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 12.7 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

HCM 6th Signalized Intersection Summary

3: Rancho Conejo Blvd & U.S. 101 NB Ramps


















AM Peak Hour
Buildout + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |  | | |  |  |  | | |  | |
| Traffic Volume (veh/h) | 0 | 0 | 398 | 0 | 0 | 557 | 125 | 481 | 0 | 0 | 507 | 166 |
| Future Volume (veh/h) | 0 | 0 | 398 | 0 | 0 | 557 | 125 | 481 | 0 | 0 | 507 | 166 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 0 | 1841 | 0 | 0 | 1841 | 1841 | 1841 | 0 | 0 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 433 | 0 | 0 | 605 | 136 | 523 | 0 | 0 | 551 | 180 |
| 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 | 0 | 4 | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 4 |
| Cap, veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 169 | 4774 | 0 | 0 | 3032 | 965 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.31 | 0.00 | 0.00 | 0.27 | 0.27 |
| Sat Flow, veh/h | | 0 | | | 0 | | 1753 | 5191 | 0 | 0 | 3940 | 1201 |
| Grp Volume(v), veh/h | | 0.0 | | | 0.0 | | 136 | 523 | 0 | 0 | 487 | 244 |
| Grp Sat Flow(s),veh/h/ln | | | | | | | 1753 | 1675 | 0 | 0 | 1675 | 1625 |
| Q Serve(g_s), s | | | | | | | 6.9 | 6.7 | 0.0 | 0.0 | 10.1 | 10.4 |
| Cycle Q Clear(g_c), s | | | | | | | 6.9 | 6.7 | 0.0 | 0.0 | 10.1 | 10.4 |
| Prop In Lane | | | | | | | 1.00 | | 0.00 | 0.00 | | 0.74 |
| Lane Grp Cap(c), veh/h | | | | | | | 169 | 4774 | 0 | 0 | 2692 | 1305 |
| V/C Ratio(X) | | | | | | | 0.80 | 0.11 | 0.00 | 0.00 | 0.18 | 0.19 |
| Avail Cap(c_a), veh/h | | | | | | | 205 | 4774 | 0 | 0 | 2692 | 1305 |
| HCM Platoon Ratio | | | | | | | 0.33 | 0.33 | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(I) | | | | | | | 0.96 | 0.96 | 0.00 | 0.00 | 0.91 | 0.91 |
| Uniform Delay (d), s/veh | | | | | | | 42.7 | 3.8 | 0.0 | 0.0 | 10.2 | 10.3 |
| Incr Delay (d2), s/veh | | | | | | | 16.7 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 |
| Initial Q Delay(d3),s/veh | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | | | | 3.8 | 0.0 | 0.0 | 0.0 | 2.8 | 2.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | | | | 59.5 | 3.9 | 0.0 | 0.0 | 10.3 | 10.6 |
| LnGrp LOS | | | | | | | E | A | A | A | B | B |
| Approach Vol, veh/h | | | | | | | | 659 | | | 731 | |
| Approach Delay, s/veh | | | | | | | | 15.3 | | | 10.4 | |
| Approach LOS | | | | | | | | B | | | B | |
| Timer - Assigned Phs | | 2 | | | 5 | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | | 90.0 | | | 13.2 | 76.8 | | | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | | 34.5 | | | 10.5 | 19.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | | 8.7 | | | 8.9 | 12.4 | | | | | | |
| Green Ext Time (p_c), s | | 3.3 | | | 0.0 | 2.5 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 12.8 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

HCM 6th Signalized Intersection Summary


















3: Rancho Conejo Blvd & U.S. 101 NB Ramps

PM Peak Hour
Buildout Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |  | | |  |  |  | | |  | |
| Traffic Volume (veh/h) | 0 | 0 | 531 | 0 | 0 | 255 | 159 | 396 | 0 | 0 | 1052 | 266 |
| Future Volume (veh/h) | 0 | 0 | 531 | 0 | 0 | 255 | 159 | 396 | 0 | 0 | 1052 | 266 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | | No | | | | No | | | |
| Adj Sat Flow, veh/h/ln | 0 | 0 | 1841 | 0 | 0 | 1841 | 1841 | 1841 | 0 | 0 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 577 | 0 | 0 | 277 | 173 | 430 | 0 | 0 | 1143 | 289 |
| 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 | 0 | 4 | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 4 |
| Cap, veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 207 | 4774 | 0 | 0 | 3127 | 791 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.95 | 0.00 | 0.00 | 0.26 | 0.26 |
| Sat Flow, veh/h | | 0 | | | 0 | | 1753 | 5191 | 0 | 0 | 4164 | 1011 |
| Grp Volume(v), veh/h | 0.0 | | | | 0.0 | | 173 | 430 | 0 | 0 | 958 | 474 |
| Grp Sat Flow(s),veh/h/ln | | | | | | | 1753 | 1675 | 0 | 0 | 1675 | 1659 |
| Q Serve(g_s), s | | | | | | | 8.7 | 0.4 | 0.0 | 0.0 | 21.1 | 21.1 |
| Cycle Q Clear(g_c), s | | | | | | | 8.7 | 0.4 | 0.0 | 0.0 | 21.1 | 21.1 |
| Prop In Lane | | | | | | | 1.00 | | 0.00 | 0.00 | | 0.61 |
| Lane Grp Cap(c), veh/h | | | | | | | 207 | 4774 | 0 | 0 | 2620 | 1297 |
| V/C Ratio(X) | | | | | | | 0.84 | 0.09 | 0.00 | 0.00 | 0.37 | 0.37 |
| Avail Cap(c_a), veh/h | | | | | | | 236 | 4774 | 0 | 0 | 2620 | 1297 |
| HCM Platoon Ratio | | | | | | | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(I) | | | | | | | 0.95 | 0.95 | 0.00 | 0.00 | 0.86 | 0.86 |
| Uniform Delay (d), s/veh | | | | | | | 38.8 | 0.1 | 0.0 | 0.0 | 15.1 | 15.1 |
| Incr Delay (d2), s/veh | | | | | | | 19.6 | 0.0 | 0.0 | 0.0 | 0.3 | 0.7 |
| Initial Q Delay(d3),s/veh | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | | | | 4.7 | 0.0 | 0.0 | 0.0 | 9.4 | 9.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | | | | 58.4 | 0.2 | 0.0 | 0.0 | 15.4 | 15.8 |
| LnGrp LOS | | | | | | | E | A | A | A | B | B |
| Approach Vol, veh/h | | | | | | | 603 | | | 1432 | | |
| Approach Delay, s/veh | | | | | | | 16.9 | | | 15.5 | | |
| Approach LOS | | | | | | | B | | | B | | |
| Timer - Assigned Phs | 2 | | | | 5 | | 6 | | | | | |
| Phs Duration (G+Y+Rc), s | 90.0 | | | | 15.1 | | 74.9 | | | | | |
| Change Period (Y+Rc), s | 4.5 | | | | 4.5 | | 4.5 | | | | | |
| Max Green Setting (Gmax), s | 42.9 | | | | 12.1 | | 26.3 | | | | | |
| Max Q Clear Time (g_c+l1), s | 2.4 | | | | 10.7 | | 23.1 | | | | | |
| Green Ext Time (p_c), s | 2.9 | | | | 0.1 | | 2.3 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 15.9 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |























HCM 6th Signalized Intersection Summary 3: Rancho Conejo Blvd & U.S. 101 NB Ramps

PM Peak Hour
Buildout + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | |  | | |  |  |  | | |  | |
| Traffic Volume (veh/h) | 0 | 0 | 531 | 0 | 0 | 306 | 159 | 417 | 0 | 0 | 1092 | 277 |
| Future Volume (veh/h) | 0 | 0 | 531 | 0 | 0 | 306 | 159 | 417 | 0 | 0 | 1092 | 277 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | | No | | | | No | | | |
| Adj Sat Flow, veh/h/ln | 0 | 0 | 1841 | 0 | 0 | 1841 | 1841 | 1841 | 0 | 0 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 577 | 0 | 0 | 333 | 173 | 453 | 0 | 0 | 1187 | 301 |
| 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 | 0 | 4 | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 4 | 4 |
| Cap, veh/h | 0 | 0 | 0 | 0 | 0 | 0 | 207 | 4774 | 0 | 0 | 3125 | 792 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.95 | 0.00 | 0.00 | 0.26 | 0.26 |
| Sat Flow, veh/h | | 0 | | | 0 | | 1753 | 5191 | 0 | 0 | 4161 | 1013 |
| Grp Volume(v), veh/h | 0.0 | | | | 0.0 | | 173 | 453 | 0 | 0 | 995 | 493 |
| Grp Sat Flow(s),veh/h/ln | | | | | | | 1753 | 1675 | 0 | 0 | 1675 | 1658 |
| Q Serve(g_s), s | | | | | | | 8.7 | 0.4 | 0.0 | 0.0 | 22.0 | 22.0 |
| Cycle Q Clear(g_c), s | | | | | | | 8.7 | 0.4 | 0.0 | 0.0 | 22.0 | 22.0 |
| Prop In Lane | | | | | | | 1.00 | | 0.00 | 0.00 | | 0.61 |
| Lane Grp Cap(c), veh/h | | | | | | | 207 | 4774 | 0 | 0 | 2620 | 1297 |
| V/C Ratio(X) | | | | | | | 0.84 | 0.09 | 0.00 | 0.00 | 0.38 | 0.38 |
| Avail Cap(c_a), veh/h | | | | | | | 236 | 4774 | 0 | 0 | 2620 | 1297 |
| HCM Platoon Ratio | | | | | | | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(I) | | | | | | | 0.94 | 0.94 | 0.00 | 0.00 | 0.84 | 0.84 |
| Uniform Delay (d), s/veh | | | | | | | 38.8 | 0.1 | 0.0 | 0.0 | 15.4 | 15.4 |
| Incr Delay (d2), s/veh | | | | | | | 19.4 | 0.0 | 0.0 | 0.0 | 0.4 | 0.7 |
| Initial Q Delay(d3),s/veh | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | | | | 4.7 | 0.0 | 0.0 | 0.0 | 9.8 | 9.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | | | | 58.2 | 0.2 | 0.0 | 0.0 | 15.8 | 16.1 |
| LnGrp LOS | | | | | | | E | A | A | A | B | B |
| Approach Vol, veh/h | | | | | | | 626 | | | | 1488 | |
| Approach Delay, s/veh | | | | | | | 16.2 | | | | 15.9 | |
| Approach LOS | | | | | | | B | | | | B | |
| Timer - Assigned Phs | 2 | | | | 5 | | 6 | | | | | |
| Phs Duration (G+Y+Rc), s | 90.0 | | | | 15.1 | | 74.9 | | | | | |
| Change Period (Y+Rc), s | 4.5 | | | | 4.5 | | 4.5 | | | | | |
| Max Green Setting (Gmax), s | 42.9 | | | | 12.1 | | 26.3 | | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | | | | 10.7 | | 24.0 | | | | | |
| Green Ext Time (p_c), s | 3.0 | | | | 0.1 | | 1.8 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 16.0 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

HCM 6th Signalized Intersection Summary 4: Borchard Rd & U.S. 101 SB Ramps/Newbury Rd

AM Peak Hour
Buildout Conditons

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 244 | 38 | 94 | 100 | 0 | 94 | 0 | 277 | 34 | 24 | 659 | 162 |
| Future Volume (veh/h) | 244 | 38 | 94 | 100 | 0 | 94 | 0 | 277 | 34 | 24 | 659 | 162 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 0 | 1841 | 0 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 265 | 41 | 0 | 109 | 0 | 102 | 0 | 301 | 37 | 26 | 716 | 0 |
| 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, % | 4 | 4 | 4 | 4 | 0 | 4 | 0 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 361 | 195 | | 0 | 0 | 0 | 0 | 1440 | 173 | 1453 | 2777 | |
| Arrive On Green | 0.11 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.32 | 0.14 | 0.26 | 0.00 |
| Sat Flow, veh/h | 3401 | 1841 | 1560 | | 0 | | 0 | 4712 | 546 | 3401 | 3497 | 2745 |
| Grp Volume(v), veh/h | 265 | 41 | 0 | | 0.0 | | 0 | 220 | 118 | 26 | 716 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1841 | 1560 | | | | 0 | 1675 | 1742 | 1700 | 1749 | 1373 |
| Q Serve(g_s), s | 6.8 | 1.8 | 0.0 | | | | 0.0 | 4.3 | 4.5 | 0.6 | 14.6 | 0.0 |
| Cycle Q Clear(g_c), s | 6.8 | 1.8 | 0.0 | | | | 0.0 | 4.3 | 4.5 | 0.6 | 14.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 0.31 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 361 | 195 | | | | | 0 | 1061 | 552 | 1453 | 2777 | |
| V/C Ratio(X) | 0.73 | 0.21 | | | | | 0.00 | 0.21 | 0.21 | 0.02 | 0.26 | |
| Avail Cap(c_a), veh/h | 661 | 358 | | | | | 0 | 1061 | 552 | 1453 | 2777 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(l) | 1.00 | 1.00 | 0.00 | | | | 0.00 | 1.00 | 1.00 | 0.72 | 0.72 | 0.00 |
| Uniform Delay (d), s/veh | 39.0 | 36.8 | 0.0 | | | | 0.0 | 22.5 | 22.5 | 22.4 | 12.2 | 0.0 |
| Incr Delay (d2), s/veh | 2.9 | 0.5 | 0.0 | | | | 0.0 | 0.4 | 0.9 | 0.0 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.9 | 0.8 | 0.0 | | | | 0.0 | 1.7 | 1.9 | 0.2 | 6.8 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 41.9 | 37.3 | 0.0 | | | | 0.0 | 22.9 | 23.4 | 22.4 | 12.4 | 0.0 |
| LnGrp LOS | D | D | | | | | A | C | C | C | B | |
| Approach Vol, veh/h | 306 | | | | | | 338 | | | 742 | | |
| Approach Delay, s/veh | 41.3 | | | | | | 23.1 | | | 12.7 | | |
| Approach LOS | D | | | | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 43.0 | 33.0 | | 14.0 | | 76.0 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 7.5 | 28.5 | | 17.5 | | 40.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 2.6 | 6.5 | | 8.8 | | 16.6 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.1 | | 0.8 | | 5.3 | | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 21.6 |
| HCM 6th LOS | C |























Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

4: Borchard Rd & U.S. 101 SB Ramps/Newbury Rd

AM Peak Hour
Buildout + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 249 | 38 | 94 | 100 | 0 | 95 | 0 | 278 | 34 | 26 | 662 | 208 |
| Future Volume (veh/h) | 249 | 38 | 94 | 100 | 0 | 95 | 0 | 278 | 34 | 26 | 662 | 208 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 0 | 1841 | 0 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 271 | 41 | 0 | 109 | 0 | 103 | 0 | 302 | 37 | 28 | 720 | 0 |
| 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, % | 4 | 4 | 4 | 4 | 0 | 4 | 0 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 367 | 199 | | 0 | 0 | 0 | 0 | 1440 | 172 | 1447 | 2770 | |
| Arrive On Green | 0.11 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.32 | 0.14 | 0.26 | 0.00 |
| Sat Flow, veh/h | 3401 | 1841 | 1560 | | 0 | | 0 | 4714 | 544 | 3401 | 3497 | 2745 |
| Grp Volume(v), veh/h | 271 | 41 | 0 | | 0.0 | | 0 | 221 | 118 | 28 | 720 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1841 | 1560 | | | | 0 | 1675 | 1743 | 1700 | 1749 | 1373 |
| Q Serve(g_s), s | 7.0 | 1.8 | 0.0 | | | | 0.0 | 4.3 | 4.5 | 0.6 | 14.7 | 0.0 |
| Cycle Q Clear(g_c), s | 7.0 | 1.8 | 0.0 | | | | 0.0 | 4.3 | 4.5 | 0.6 | 14.7 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 0.31 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 367 | 199 | | | | | 0 | 1061 | 552 | 1447 | 2770 | |
| V/C Ratio(X) | 0.74 | 0.21 | | | | | 0.00 | 0.21 | 0.21 | 0.02 | 0.26 | |
| Avail Cap(c_a), veh/h | 661 | 358 | | | | | 0 | 1061 | 552 | 1447 | 2770 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | | | | 0.00 | 1.00 | 1.00 | 0.68 | 0.68 | 0.00 |
| Uniform Delay (d), s/veh | 38.9 | 36.6 | 0.0 | | | | 0.0 | 22.5 | 22.5 | 22.5 | 12.3 | 0.0 |
| Incr Delay (d2), s/veh | 2.9 | 0.5 | 0.0 | | | | 0.0 | 0.4 | 0.9 | 0.0 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.0 | 0.8 | 0.0 | | | | 0.0 | 1.7 | 1.9 | 0.2 | 6.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 41.8 | 37.1 | 0.0 | | | | 0.0 | 22.9 | 23.4 | 22.5 | 12.5 | 0.0 |
| LnGrp LOS | D | D | | | | | A | C | C | C | B | |
| Approach Vol, veh/h | 312 | | | | | | 339 | | | 748 | | |
| Approach Delay, s/veh | 41.2 | | | | | | 23.1 | | | 12.9 | | |
| Approach LOS | D | | | | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 42.8 | 33.0 | | 14.2 | | 75.8 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 7.5 | 28.5 | | 17.5 | | 40.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 2.6 | 6.5 | | 9.0 | | 16.7 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.1 | | 0.8 | | 5.3 | | | | | | |

Intersection Summary























| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 21.7 |
| HCM 6th LOS | C |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 4: Borchard Rd & U.S. 101 SB Ramps/Newbury Rd

PM Peak Hour
Buildout Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 151 | 159 | 98 | 127 | 0 | 157 | 0 | 240 | 88 | 149 | 788 | 560 |
| Future Volume (veh/h) | 151 | 159 | 98 | 127 | 0 | 157 | 0 | 240 | 88 | 149 | 788 | 560 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 0 | 1841 | 0 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 164 | 173 | 0 | 138 | 0 | 171 | 0 | 261 | 96 | 162 | 857 | 0 |
| 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, % | 4 | 4 | 4 | 4 | 0 | 4 | 0 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 424 | 229 | | 0 | 0 | 0 | 0 | 1190 | 410 | 1370 | 2712 | |
| Arrive On Green | 0.12 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.32 | 0.13 | 0.26 | 0.00 |
| Sat Flow, veh/h | 3401 | 1841 | 1560 | | 0 | | 0 | 3857 | 1270 | 3401 | 3497 | 2745 |
| Grp Volume(v), veh/h | 164 | 173 | 0 | | 0.0 | | 0 | 235 | 122 | 162 | 857 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1841 | 1560 | | | | 0 | 1675 | 1612 | 1700 | 1749 | 1373 |
| Q Serve(g_s), s | 4.0 | 8.2 | 0.0 | | | | 0.0 | 4.6 | 5.0 | 3.8 | 17.9 | 0.0 |
| Cycle Q Clear(g_c), s | 4.0 | 8.2 | 0.0 | | | | 0.0 | 4.6 | 5.0 | 3.8 | 17.9 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 0.79 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 424 | 229 | | | | | 0 | 1080 | 520 | 1370 | 2712 | |
| V/C Ratio(X) | 0.39 | 0.75 | | | | | 0.00 | 0.22 | 0.23 | 0.12 | 0.32 | |
| Avail Cap(c_a), veh/h | 737 | 399 | | | | | 0 | 1080 | 520 | 1370 | 2712 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | | | | 0.00 | 1.00 | 1.00 | 0.27 | 0.27 | 0.00 |
| Uniform Delay (d), s/veh | 36.2 | 38.1 | 0.0 | | | | 0.0 | 22.2 | 22.3 | 24.9 | 14.2 | 0.0 |
| Incr Delay (d2), s/veh | 0.6 | 5.0 | 0.0 | | | | 0.0 | 0.5 | 1.1 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 3.9 | 0.0 | | | | 0.0 | 1.8 | 2.0 | 1.5 | 8.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 36.8 | 43.0 | 0.0 | | | | 0.0 | 22.7 | 23.4 | 24.9 | 14.2 | 0.0 |
| LnGrp LOS | D | D | | | | | A | C | C | C | B | |
| Approach Vol, veh/h | 337 | | | | | | 357 | | | 1019 | | |
| Approach Delay, s/veh | 40.0 | | | | | | 22.9 | | | 15.9 | | |
| Approach LOS | D | | | | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 40.8 | 33.5 | | 15.7 | | 74.3 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 14.5 | 20.5 | | 19.5 | | 39.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 5.8 | 7.0 | | 10.2 | | 19.9 | | | | | | |
| Green Ext Time (p_c), s | 0.3 | 1.8 | | 1.0 | | 6.1 | | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 22.1 |
| HCM 6th LOS | C |























Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

4: Borchard Rd & U.S. 101 SB Ramps/Newbury Rd

PM Peak Hour
Buildout + Project Conditions

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  | |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 167 | 159 | 98 | 127 | 0 | 159 | 0 | 243 | 88 | 151 | 790 | 596 |
| Future Volume (veh/h) | 167 | 159 | 98 | 127 | 0 | 159 | 0 | 243 | 88 | 151 | 790 | 596 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1841 | 1841 | 0 | 1841 | 0 | 1841 | 1841 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 182 | 173 | 0 | 138 | 0 | 173 | 0 | 264 | 96 | 164 | 859 | 0 |
| 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, % | 4 | 4 | 4 | 4 | 0 | 4 | 0 | 4 | 4 | 4 | 4 | 4 |
| Cap, veh/h | 426 | 230 | | 0 | 0 | 0 | 0 | 1192 | 406 | 1370 | 2710 | |
| Arrive On Green | 0.13 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.32 | 0.13 | 0.26 | 0.00 |
| Sat Flow, veh/h | 3401 | 1841 | 1560 | | 0 | | 0 | 3868 | 1261 | 3401 | 3497 | 2745 |
| Grp Volume(v), veh/h | 182 | 173 | 0 | | 0.0 | | 0 | 237 | 123 | 164 | 859 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1841 | 1560 | | | | 0 | 1675 | 1614 | 1700 | 1749 | 1373 |
| Q Serve(g_s), s | 4.5 | 8.2 | 0.0 | | | | 0.0 | 4.6 | 5.0 | 3.8 | 17.9 | 0.0 |
| Cycle Q Clear(g_c), s | 4.5 | 8.2 | 0.0 | | | | 0.0 | 4.6 | 5.0 | 3.8 | 17.9 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 0.78 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 426 | 230 | | | | | 0 | 1078 | 519 | 1370 | 2710 | |
| V/C Ratio(X) | 0.43 | 0.75 | | | | | 0.00 | 0.22 | 0.24 | 0.12 | 0.32 | |
| Avail Cap(c_a), veh/h | 737 | 399 | | | | | 0 | 1078 | 519 | 1370 | 2710 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | | | | 0.00 | 1.00 | 1.00 | 0.18 | 0.18 | 0.00 |
| Uniform Delay (d), s/veh | 36.4 | 38.0 | 0.0 | | | | 0.0 | 22.3 | 22.4 | 25.0 | 14.2 | 0.0 |
| Incr Delay (d2), s/veh | 0.7 | 4.9 | 0.0 | | | | 0.0 | 0.5 | 1.1 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 3.9 | 0.0 | | | | 0.0 | 1.9 | 2.0 | 1.5 | 8.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 37.1 | 42.9 | 0.0 | | | | 0.0 | 22.7 | 23.5 | 25.0 | 14.3 | 0.0 |
| LnGrp LOS | D | D | | | | | A | C | C | C | B | |
| Approach Vol, veh/h | 355 | | | | | | 360 | | | 1023 | | |
| Approach Delay, s/veh | 39.9 | | | | | | 23.0 | | | 16.0 | | |
| Approach LOS | D | | | | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 40.8 | 33.5 | | 15.8 | | 74.2 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 14.5 | 20.5 | | 19.5 | | 39.5 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 5.8 | 7.0 | | 10.2 | | 19.9 | | | | | | |
| Green Ext Time (p_c), s | 0.3 | 1.9 | | 1.1 | | 6.1 | | | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 22.3 |
| HCM 6th LOS | C |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

HCS Two-Way Stop-Control Report

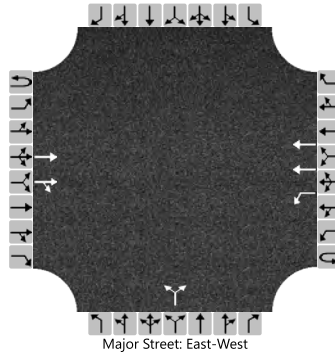
General Information

| | |
|--------------------------|-------------------|
| Analyst | DJL |
| Agency/Co. | Stantec |
| Date Performed | 10/23/2022 |
| Analysis Year | 2040 |
| Time Analyzed | AM Peak Hour |
| Intersection Orientation | East-West |
| Project Description | 2150 Hillcrest Dr |

Site Information

| | |
|----------------------------|--------------------------|
| Intersection | Hillcrest Dr/Project Dwy |
| Jurisdiction | Thousand Oaks |
| East/West Street | Hillcrest Dr |
| North/South Street | Project Dwy |
| Peak Hour Factor | 1.00 |
| Analysis Time Period (hrs) | 1.00 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|----|-----------|---|-----|---|------------|----|----|----|------------|----|----|----|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | | 0 | 1 | 0 | | 0 | 0 | 0 |
| Configuration | | | T | TR | | L | T | | | | LR | | | | | |
| Volume (veh/h) | | | 568 | 16 | 0 | 4 | 574 | | | 87 | | 10 | | | | |
| Percent Heavy Vehicles (%) | | | | | 4 | 4 | | | | 4 | | 4 | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Left Only | | | | | | | | 2 | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec) | | | | | | 4.1 | | | | 7.5 | | 6.9 | | | | |
| Critical Headway (sec) | | | | | | 4.18 | | | | 6.88 | | 6.98 | | | | |
| Base Follow-Up Headway (sec) | | | | | | 2.2 | | | | 3.5 | | 3.3 | | | | |
| Follow-Up Headway (sec) | | | | | | 2.24 | | | | 3.54 | | 3.34 | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|------|--|------|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | | | | 4 | | | | | 97 | | | | | |
| Capacity, c (veh/h) | | | | | | 973 | | | | | 475 | | | | | |
| v/c Ratio | | | | | | 0.00 | | | | | 0.20 | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.0 | | | | | 0.8 | | | | | |
| Control Delay (s/veh) | | | | | | 8.7 | | | | | 14.5 | | | | | |
| Level of Service (LOS) | | | | | | A | | | | | B | | | | | |
| Approach Delay (s/veh) | | | | | 0.1 | | | | 14.5 | | | | | | | |
| Approach LOS | | | | | A | | | | B | | | | | | | |

HCS Two-Way Stop-Control Report

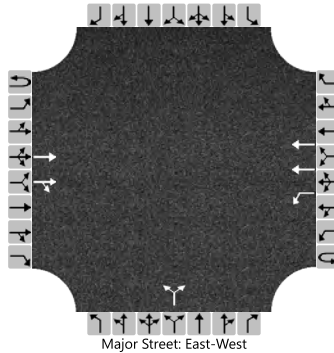
General Information

| | |
|--------------------------|-------------------|
| Analyst | DJL |
| Agency/Co. | Stantec |
| Date Performed | 10/23/2022 |
| Analysis Year | 2040 |
| Time Analyzed | PM Peak Hour |
| Intersection Orientation | East-West |
| Project Description | 2150 Hillcrest Dr |

Site Information

| | |
|----------------------------|--------------------------|
| Intersection | Hillcrest Dr/Project Dwy |
| Jurisdiction | Thousand Oaks |
| East/West Street | Hillcrest Dr |
| North/South Street | Project Dwy |
| Peak Hour Factor | 1.00 |
| Analysis Time Period (hrs) | 1.00 |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|----|-----------|----|-----|---|------------|----|----|---|------------|----|----|----|
| Movement | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | | 0 | 1 | 0 | | 0 | 0 | 0 |
| Configuration | | | T | TR | | L | T | | | | LR | | | | | |
| Volume (veh/h) | | | 908 | 43 | 0 | 11 | 407 | | | 68 | | 8 | | | | |
| Percent Heavy Vehicles (%) | | | | | 4 | 4 | | | | 4 | | 4 | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Left Only | | | | | | | | 2 | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|--|--|------|--|------|--|--|--|--|
| Base Critical Headway (sec) | | | | | | 4.1 | | | | 7.5 | | 6.9 | | | | |
| Critical Headway (sec) | | | | | | 4.18 | | | | 6.88 | | 6.98 | | | | |
| Base Follow-Up Headway (sec) | | | | | | 2.2 | | | | 3.5 | | 3.3 | | | | |
| Follow-Up Headway (sec) | | | | | | 2.24 | | | | 3.54 | | 3.34 | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|------|--|--|------|--|--|--|--|
| Flow Rate, v (veh/h) | | | | | | 11 | | | | | | 76 | | | | |
| Capacity, c (veh/h) | | | | | | 706 | | | | | | 329 | | | | |
| v/c Ratio | | | | | | 0.02 | | | | | | 0.23 | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.0 | | | | | | 0.9 | | | | |
| Control Delay (s/veh) | | | | | | 10.2 | | | | | | 19.2 | | | | |
| Level of Service (LOS) | | | | | | B | | | | | | C | | | | |
| Approach Delay (s/veh) | | | | | 0.3 | | | | 19.2 | | | | | | | |
| Approach LOS | | | | | A | | | | C | | | | | | | |