TOWNEPLACE SUITES HOTEL
TRAFFIC IMPACT STUDY
City of Greenfield, California



TOWNEPLACE SUITES HOTEL PROJECT
TRAFFIC IMPACT ANALYSIS
City of Greenfield, California

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1.0 Introduction

1.1 Purpose of Report and Study Objectives

The purpose of this traffic impact analysis is to evaluate the proposed TownePlace Suites Hotel project, hereinafter referred to as "Project" from a traffic and circulation standpoint and determine whether the project will have a significant traffic impact. Because the City of Greenfield has not officially adopted formal traffic impact analysis guidelines, this study has been conducted pursuant to the *County of Monterey Guide for the Preparation of Traffic Impact Studies,* dated March 28, 2014, *City of Greenfield 2005 General Plan*, and the California Environmental Quality Act (CEQA) requirements.

This study is prepared in accordance with the scope of work that has been reviewed by City of Greenfield staff, which is contained in Appendix A.

1.2 Site Location & Project Description

The proposed TownePlace Suites Hotel Project is located south of Walnut Avenue, just east of the U.S. Highway 101, in the City of Greenfield. The project site is currently vacant.

The project consists of the construction of an 84-room TownePlace Suites Hotel. The project is proposed to provide 85 parking spaces. Access for the project is proposed via one (1) full-access unsignalized driveway located along the collector road which currently serves the existing Carl's Jr. restaurant and Starbucks coffee shop immediately east of the proposed project site.

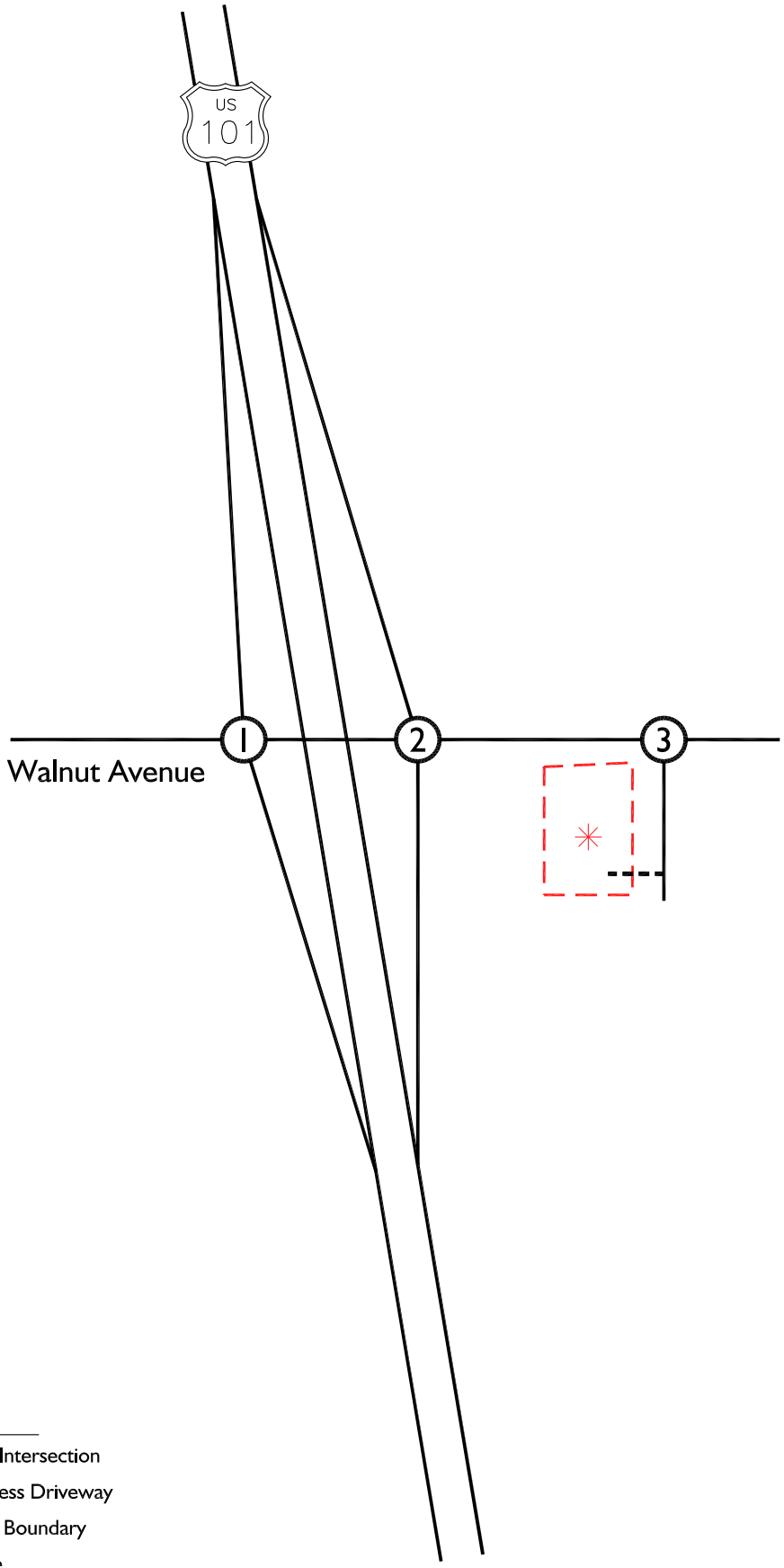
The project is planned to open in 2024 and will be evaluated in one (1) single phase. The project site location map is shown on Exhibit 1-1. Exhibit 1-2 shows the proposed project's site plan.

1.3 Traffic Study Area & Analysis Scenarios

Exhibit 1-1 illustrates the project site location map and traffic analysis study area.

The study area included in this analysis has been determined based upon existing and future transportation facilities within the vicinity of the site where the project may contribute a significant amount of traffic.

Exhibit 1-1
Location Map



Legend:

(1) = Study Area Intersection

--- = Project Access Driveway

--- = Project Site Boundary

✳ = Project Site

N

Exhibit 1-2
Site Plan



N

The study area consists of the following three (3) intersections listed below. The jurisdiction where each intersection is located is also identified.

1. US Highway 101 SB Ramps (N/S) at Walnut Ave (E/W) [City of Greenfield/Caltrans];
2. US Hwy 101 NB Ramps (N/S) at Walnut Ave (E/W) [City of Greenfield/Caltrans]; and
3. Collector Road (N/S) at Walnut Avenue (E/W) [City of Greenfield].

The analysis evaluates traffic conditions of the three (3) study intersections for the following scenarios during the weekday AM (7:00 AM – 9:00 AM) and weekday PM (4:00 PM – 6:00 PM) peak hour conditions in accordance with the applicable jurisdictional traffic impact analysis guidelines:

- Existing Conditions;
- Background Conditions: Existing Plus Ambient Growth Plus Cumulative Projects; and
- Background With Project Conditions: Existing Plus Ambient Growth Plus Cumulative Projects Plus Project.

A vehicular queue evaluation has also been performed at the three (3) study area intersections for each analysis scenario to determine whether adequate storage capacity is provided without and with the proposed project.

.

2.0 Analysis Methodology

This section of the report presents the analysis study area and the methodologies used to perform the traffic analyses summarized in this report in accordance with the City of Greenfield requirements. This section also discusses the agency-established applicable performance criteria and thresholds of significance for the study facilities.

2.1 Study Intersection Peak Hour Level of Service Analysis Methodology

In accordance with the *County of Monterey Guide for the Preparation of Traffic Impact Studies,* dated March 28, 2014, the Highway Capacity Manual Sixth Edition (HCM 6) is utilized as the technical guide in the evaluation of traffic operations.

The HCM defines level of service as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of factors such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS (Level of Service) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of level of service for interrupted flow (flow regulated by the existence of traffic control devices) are:

- **LOS A** (Free Flow / Insignificant Delays) describes traffic operations in which progression is exceptionally favorable or the cycle length is extremely short. Generally, LOS A operations for signalized intersections tend to result in most vehicles arriving during the green phase and traveling through the intersection without stopping.

- **LOS B** (Stable Operation / Minimal Delays) describes traffic operations in which progression slightly diminishes but is still considered highly favorable and the cycle length is short. Vehicles stop more often causing a marginal increase in average delay.

- **LOS C** (Stable Operation / Acceptable Delays) describes traffic operations in which progression is favorable and the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Many vehicles still

past through the intersection but a significant number of vehicles are stopping. Average delay is fair.

- **LOS D** (Approaching Unstable / Tolerable Delays)describes traffic operations in which progression is ineffective and/or cycle length is long. Considerable amount of vehicles stop and individual cycle failures are noticeable. Average delay is adequate.

- **LOS E** (Unstable Operation / Significant Delays) describes traffic operations in which progression is unfavorable and the cycle length is exceedingly long. Individual cycle failures are frequent. Average delay is high.

- **LOS F** (Forced Flow / Excessive Delays) describes traffic operations in which progression is extremely poor and the cycle length is extremely long. Most cycles fail to clear the queue. Average delay is vast.

2.1.1 HCM (6th Edition) Methodology

Level of service is typically dependent on the quality of traffic flow at the intersection along a roadway. The Highway Capacity Manual 6th Edition (HCM 6) expresses the level of service at an intersection in terms of delay time for various intersection approaches. The HCM 6 uses different procedures depending on the type of intersection control. The levels of service determined in this study are calculated using the HCM 6 methodology.

For signalized intersections, average control delay per vehicle is used to determine the level of service. Levels of service at signalized study intersections have been evaluated using the HCM 6 intersection analysis program.

For all-way stop-controlled intersections, average control delay per vehicle is used to determine the level of service.

For intersections with stop control on the minor approach only, the calculation of level of service is dependent on the occurrence of gaps occurring in the free-flow traffic movement of the major street, and the level of service is determined based on the worst individual movement on the stop-controlled minor approach or movements sharing a single lane on the stop-controlled minor approach.

Table 2-1 shows the level of service criteria based on the HCM 6 methodology.

Table 2-1
HCM Intersection LOS & Delay Ranges

LOS	Average Control Delay Per Vehicle (Seconds)	
	Signalized	Unsignalized
A	0.00 - 10.00	0.00 - 10.00
B	10.01 - 20.00	10.01 - 15.00
C	20.01 - 35.00	15.01 - 25.00
D	35.01 - 55.00	25.01 - 35.00
E	55.01 - 80.00	35.01 - 50.00
F	>80.00	>50.00

2.1.2 Analysis Parameters

For this study, the HCM level of service grades will be determined utilizing the HCM 6 methodology and the PTV Vistro analysis software. All analysis parameters utilized in this analysis are in accordance with the *County of Monterey Guide for the Preparation of Traffic Impact Studies,* dated March 28, 2014. Existing peak hour factors have been calculated based upon the manual turning movement counts collected at the study area intersections.

2.2 LOS Performance Criteria & Thresholds for Requiring LOS Improvements

City of Greenfield

As specified in the City of Greenfield 2005 General Plan, adopted May 31, 2005, Policy 3.2.3 establishes a minimum acceptable service standard of LOS C for intersections and roadways during peak periods. LOS D is only acceptable when deficiencies are unavoidable.

However, as specified on pg. 3-31 of the City of Greenfield 2005 General Plan, to accommodate future land use development in an efficient and effective manner, certain roadways and intersections have been assigned an LOS D standard threshold. These roadways include El Camino Real, Third Street and sections of Walnut Avenue.

Caltrans

Caltrans follows the guidance and analysis methodologies identified in the *Caltrans Vehicles Miles Traveled-Focused Transportation Impact Study Guide*, dated May 2020. Pursuant to CEQA Guidelines, Section 15064.3, VMT is now the most appropriate measure of transportation impacts. Caltrans' primary review focus for land use project impacts is now the VMT metric. Caltrans also acknowledges that determining how a State Highway System may be affected by a land use project as it pertains to the safety of the traveling public may still be necessary. As a result, Caltrans' future guidance will include the basis for requesting transportation impact analysis not solely based on the VMT metric

In the interim, Caltrans has drafted the *Caltrans Interim Land Development and Intergovernmental Review (LDIFR) Safety Review Practitioners Guidance*, dated July 2020, which provides immediate direction on safety review while final guidance is being developed. As identified in the Caltrans interim guidelines, district traffic safety staff should consider each location and the proposed project's potential influence on safety. Therefore, an off-ramp queuing analysis will be conducted to determine the project's effect on potentially slowing or stopping traffic on mainline travel lanes or causing speed differentials between adjacent lanes.

Minimum Acceptable Level of Service

Based on the above, this analysis assumes that LOS D is the minimum acceptable level of service that should be maintained at all three (3) study intersections.

3.0 Existing Traffic Volumes & Circulation System

This section provides a discussion of existing study area conditions and traffic volumes.

3.1 Existing Traffic Controls & Intersection Geometrics

Exhibit 3-1 identifies the existing roadway conditions for the study area roadways. The number of through traffic lanes for existing roadways and the existing intersection controls are identified. The type of traffic control and number of lanes at an intersection are key inputs for the calculation of level of service.

3.2 Existing Traffic Volumes

Existing conditions intersection level of service calculations are based upon manual peak period turning movement counts which have been collected in October 2022 during a typical weekday conditions. The weekday AM and PM peak hour traffic volumes were determined by counting the two-hour peak period between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively, and using the highest hour within each two-hour peak period. Existing weekday AM and PM peak hour traffic volumes for the key study intersections are shown on Exhibit 3-2.

As requested by City staff, pedestrian and bicycle traffic counts were also collected at all study intersections during the AM and PM peak periods. Exhibit 3-3 presents the existing weekday AM and PM peak hour pedestrian volumes. Exhibit 3-4 presents the existing weekday AM and PM peak hour bicycle volumes.

The traffic count worksheets are included in Appendix B.

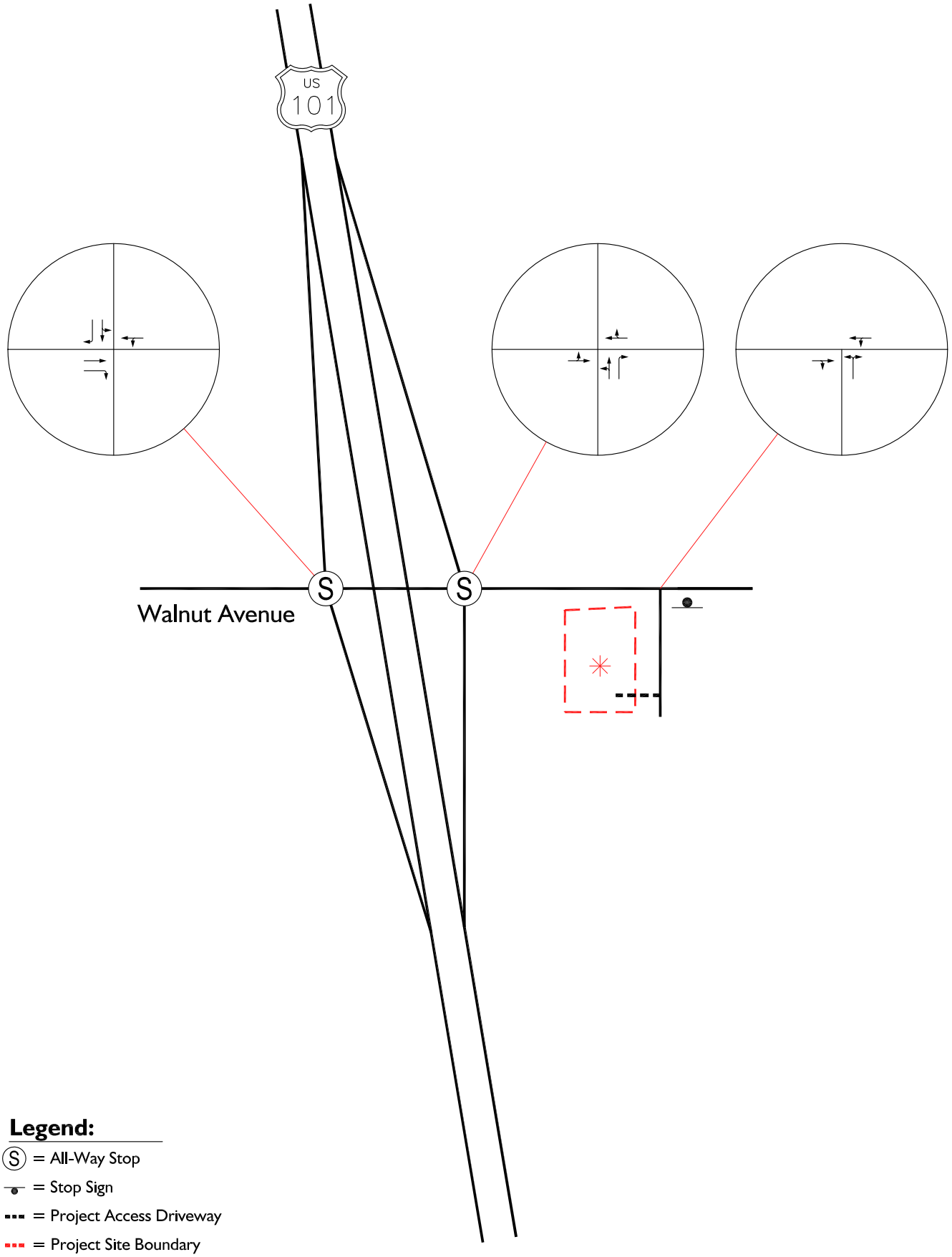
3.3 City of Greenfield General Plan

The City of Greenfield General Plan roadway classifications are shown on Exhibit 3-5. The City of Greenfield General Plan Typical Roadway Cross-Sections are shown on Exhibit 3-6.

The ultimate buildout General Plan classification for Walnut Avenue, between the US Highway 101 Ramps and east of the project site (i.e. along the project frontage), is a 6-lane arterial (i.e. 120 foot R/W).

Exhibit 3-1

Existing Lane Geometry



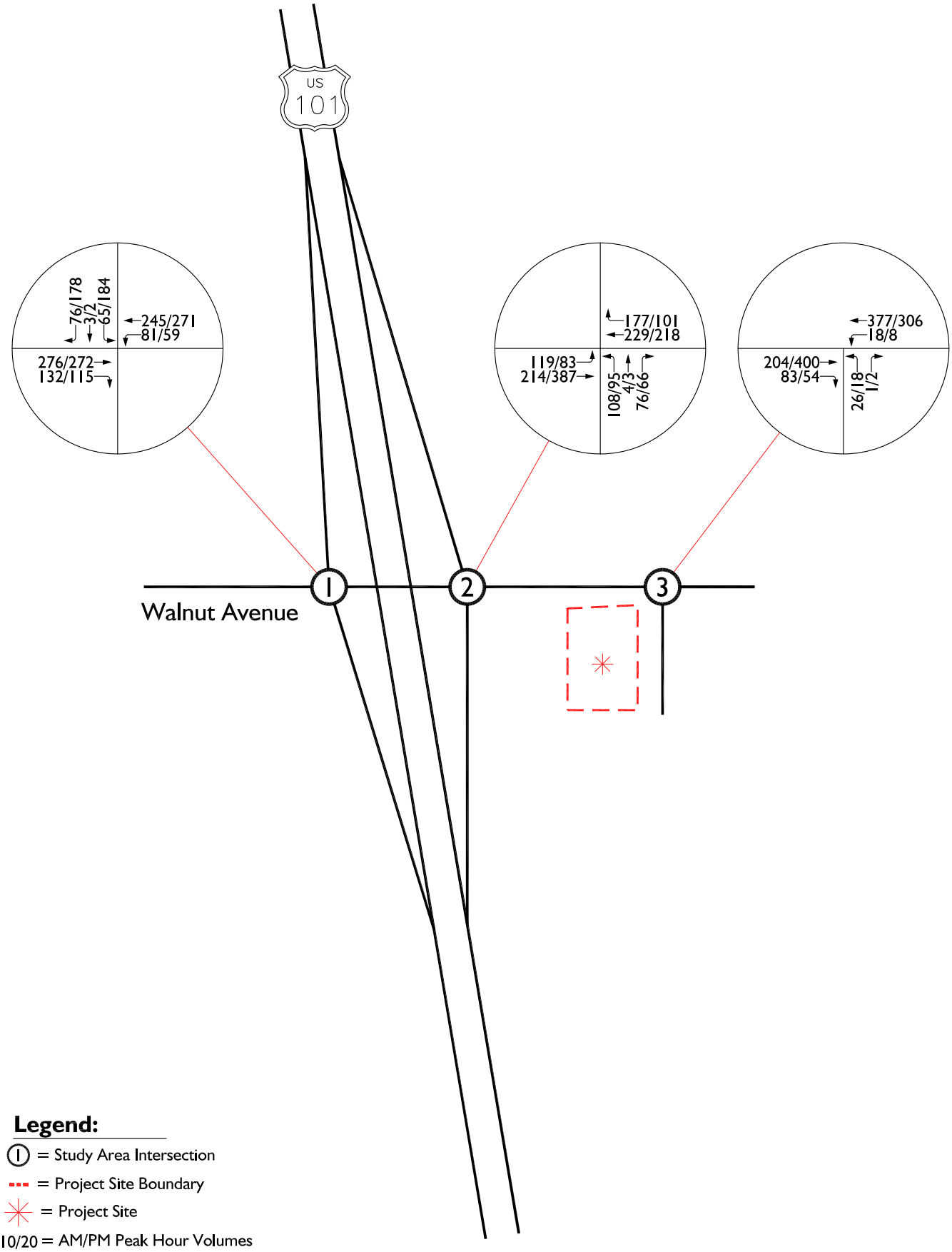
Legend:

- (S) = All-Way Stop
- = Stop Sign
- = Project Access Driveway
- = Project Site Boundary
- = Project Site

N

Exhibit 3-2

Existing (Year 2022) Traffic Volumes



Legend:

(1) = Study Area Intersection

= Project Site Boundary

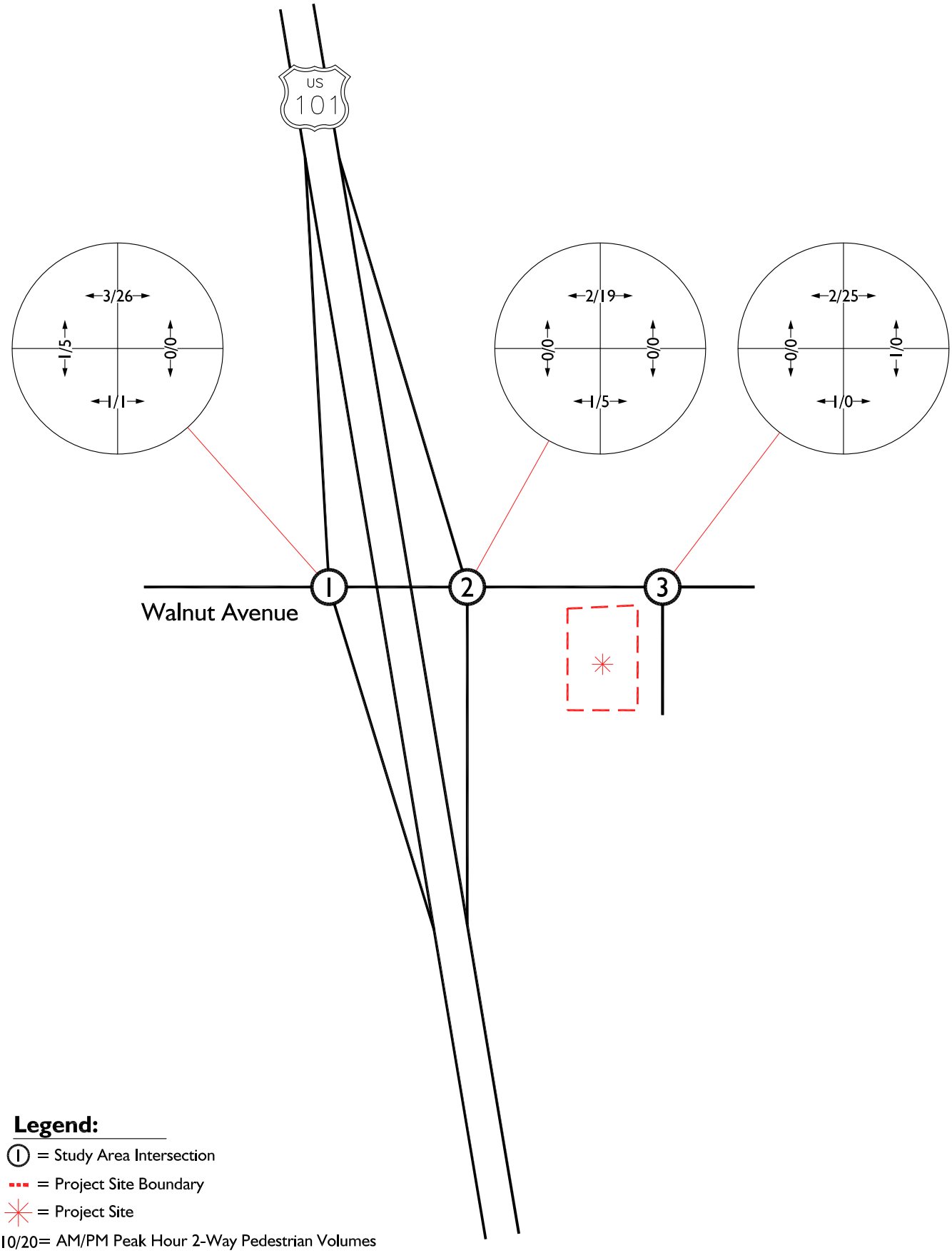
= Project Site

10/20 = AM/PM Peak Hour Volumes

N

Exhibit 3-3

Existing (Year 2022) Pedestrian Volumes



Legend:

(1) = Study Area Intersection

= Project Site Boundary

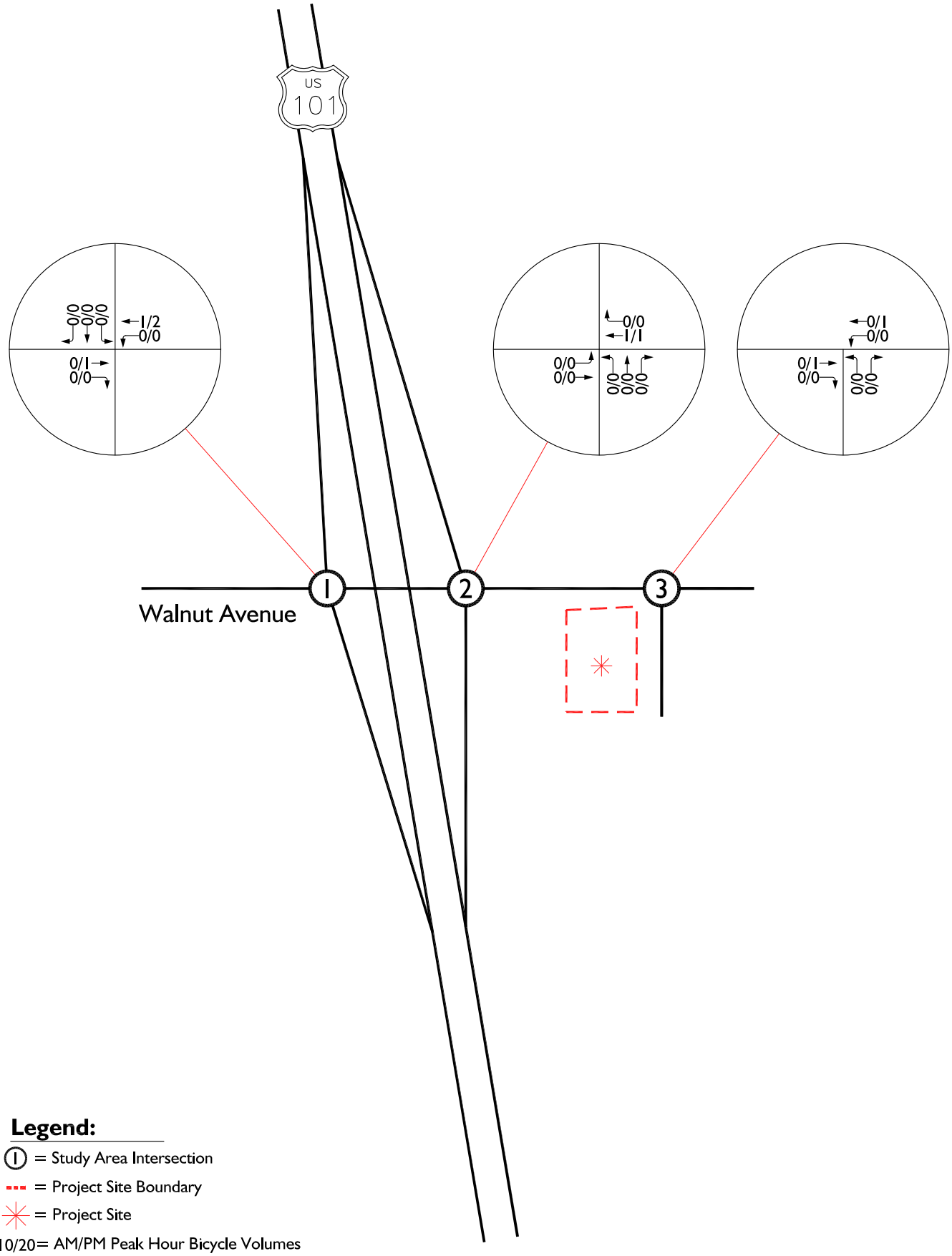
= Project Site

10/20= AM/PM Peak Hour 2-Way Pedestrian Volumes

N

Exhibit 3-4

Existing (Year 2022) Bicycle Volumes



Legend:

(1) = Study Area Intersection

= Project Site Boundary

= Project Site

10/20= AM/PM Peak Hour Bicycle Volumes

N

City of Greenfield Future Roadway Classification

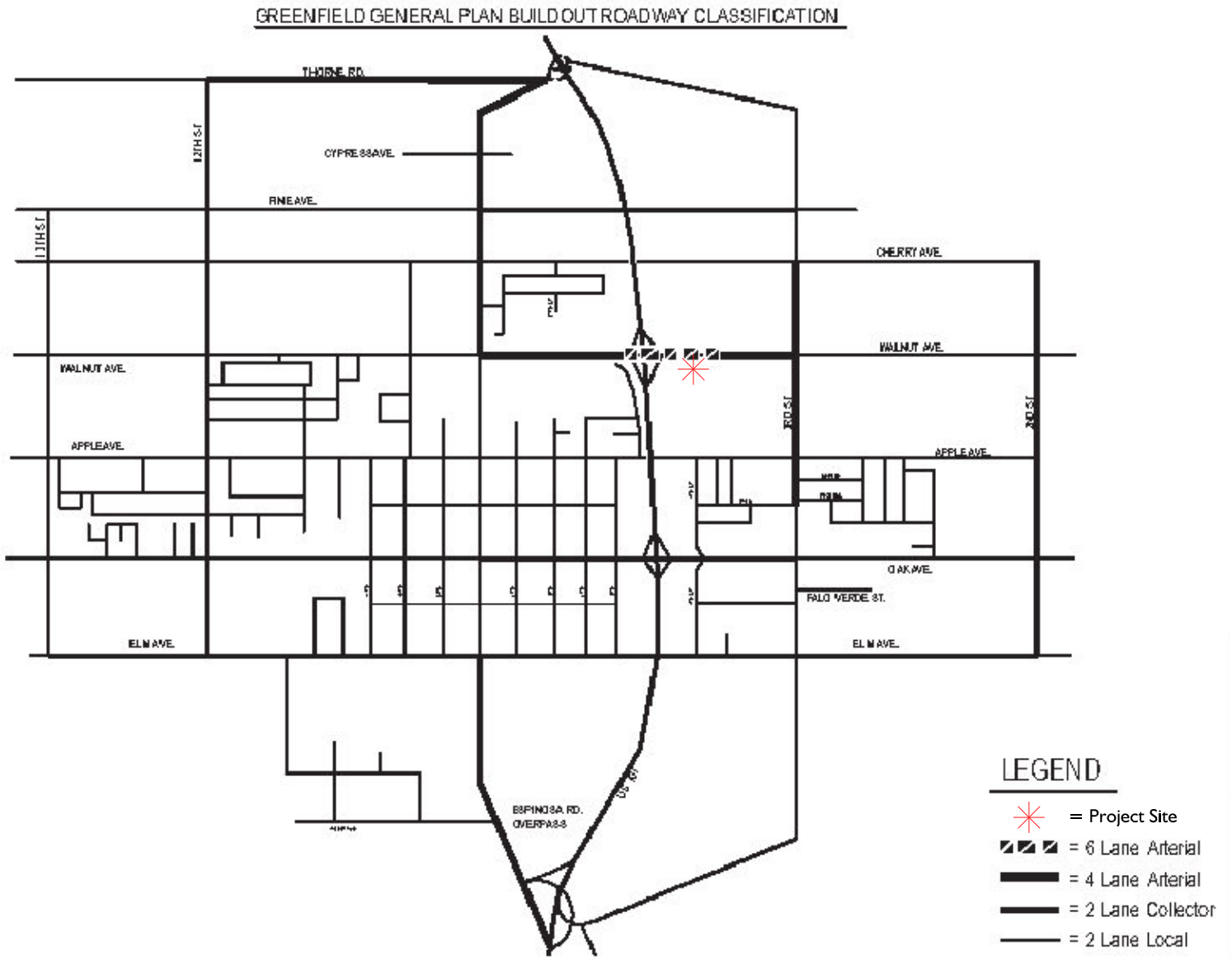
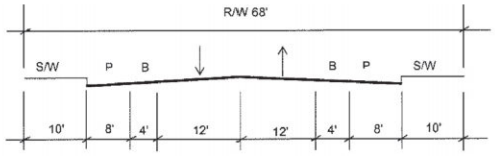
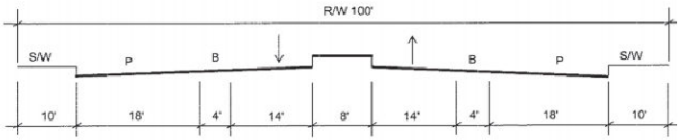


Exhibit 3-6

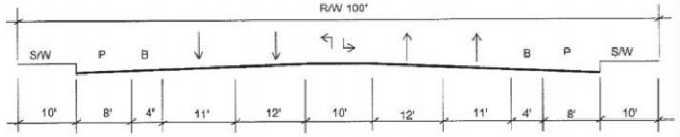
City of Greenfield General Plan
Typical Roadway Cross-Sections



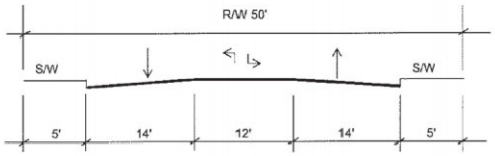
2- Lane Local street with Parking and Bike Lane



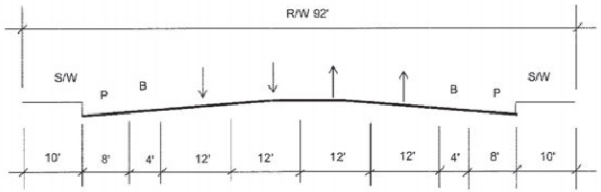
2-Lane Divided Collector with Diagonal Parking and Bike Lane (Downtown)



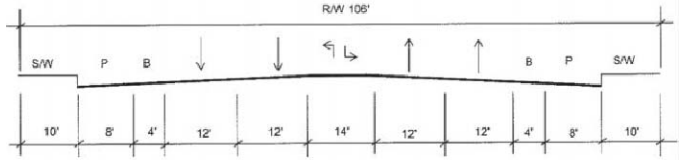
4-Lane Divided Arterial with Parking and Bike Lane
EXISTING TYPICAL CROSS SECTION



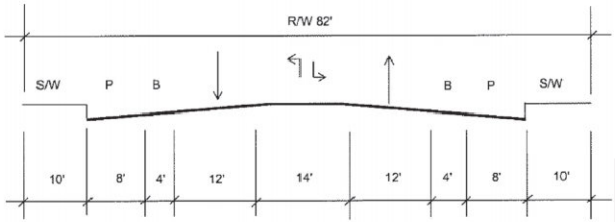
2- Lane Divided Collector, no Parking or Bike Lane



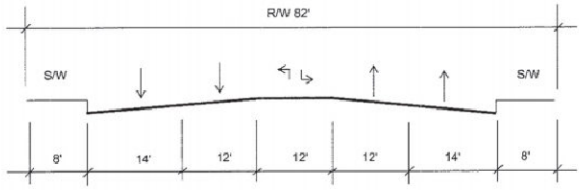
4-Lane Undivided Arterial with Parking and Bike Lane



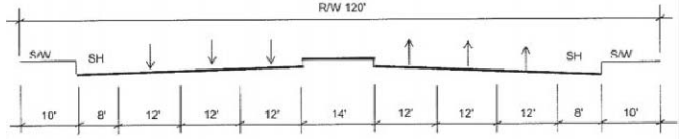
4-Lane Divided Arterial with Parking and Bike Lane
(Future Development)



2-Lane Divided Collector with Parking and Bike Lane



4-Lane Divided Arterial



6-Lane Divided Arterial with Shoulders

4.0 Projected & Future Traffic Volumes

This section of the report provides a discussion on methodologies utilized to derive future traffic volumes for the study area.

4.1 Project Traffic Conditions

4.1.1 Project-Specific Improvements

As part of the project, Walnut Avenue is proposed to be widened along the project frontage to provide a second eastbound through lane, which will tie into the already widened portion of Walnut Avenue to the east. These improvements are consistent with *The Vines at Greenfield (Tract No. 1525) Street Improvement Plans*, dated August 2017, which are also presented in Appendix C.

Project-specific improvements are illustrated later in this report on Exhibit 5-1.

4.1.2 Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development. The trip generation for the project is based upon the specific land uses that have been planned for this development.

Trip generation rates for the proposed development are shown in Table 4-1 and are from the *Institute of Transportation Engineers (ITE) Trip Generation Manual* (11th Edition, 2021). This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

Utilizing the trip generation rates from Table 4-1, Table 4-2 summarizes the daily and peak hour trip generation for weekday conditions for the proposed project.

As shown in Table 4-2, the proposed project is forecast to generate approximately 671 weekday daily trips which include approximately 39 weekday AM peak hour trips and approximately 49 weekday PM peak hour trips.

Typically, traffic studies are required to study major study intersections where a project adds 50 or more peak hour trips. However, based upon discussions with City

Table 4-1
ITE Trip Generation Rates[1]

Land Use	ITE Code	Units[2]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Hotel	Rooms	310	0.26	0.20	0.46	0.30	0.29	0.59	7.99

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021).

Table 4-2
Project Trip Generation[1]

Land Use	Units	Quantity	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
TownePlace Suites Hotel (310)	84	Rooms	22	17	39	25	24	49	671

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021).

of Greenfield staff, an analysis of the proposed project's cumulative impact on the US Highway 101 ramp intersections along Walnut Avenue were required.

4.1.3 Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the location of residential, employment and recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses, highways within the community, and existing traffic volumes.

The project trip distribution is shown on Exhibit 4-1.

4.1.4 Modal Split

Modal split denotes the proportion of traffic generated by a project that would use any of the transportation modes, namely buses, cars, bicycles, motorcycles, trains, carpools, etc. The traffic-reducing potential of public transit and other modes is significant. However, the traffic projections in this study are conservative in that public transit and alternative transportation may be able to reduce the traffic volumes, but, no modal split reduction is applied to the projections. With the implementation of transit service and provision of alternative transportation ideas and incentives, the automobile traffic demand can be reduced significantly.

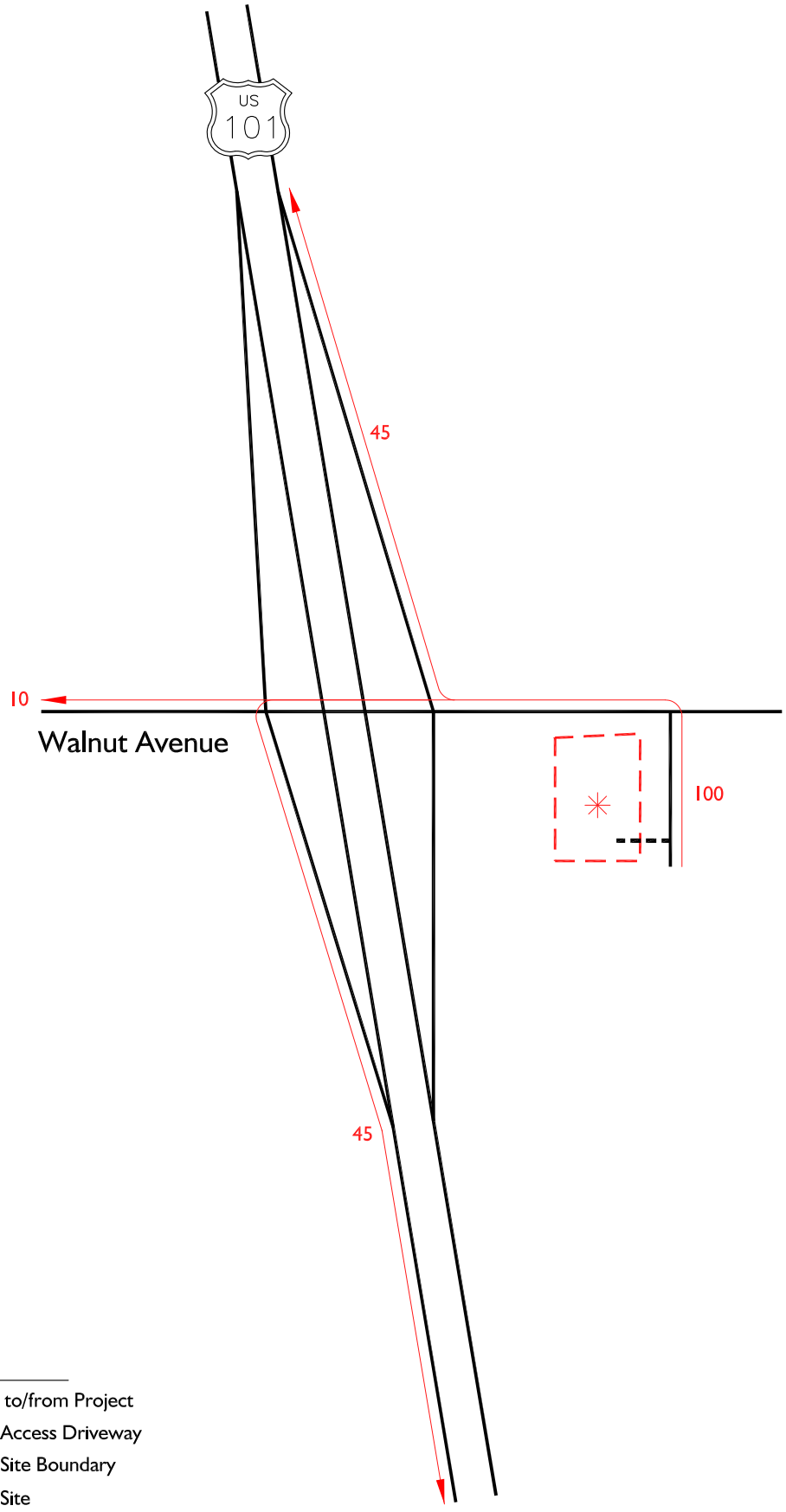
4.1.5 Project Traffic Volumes/Assignment

The assignment of project traffic to the adjoining roadway system is based upon the project's trip generation, trip distribution, and arterial highway and local street systems that would be in place by the time of initial occupancy of the site.

Project traffic volumes are shown on Exhibit 4-2 for weekday AM and PM peak hours.

Exhibit 4-1

Project Trip Distribution



Legend:

10 = Percent to/from Project

= Project Access Driveway

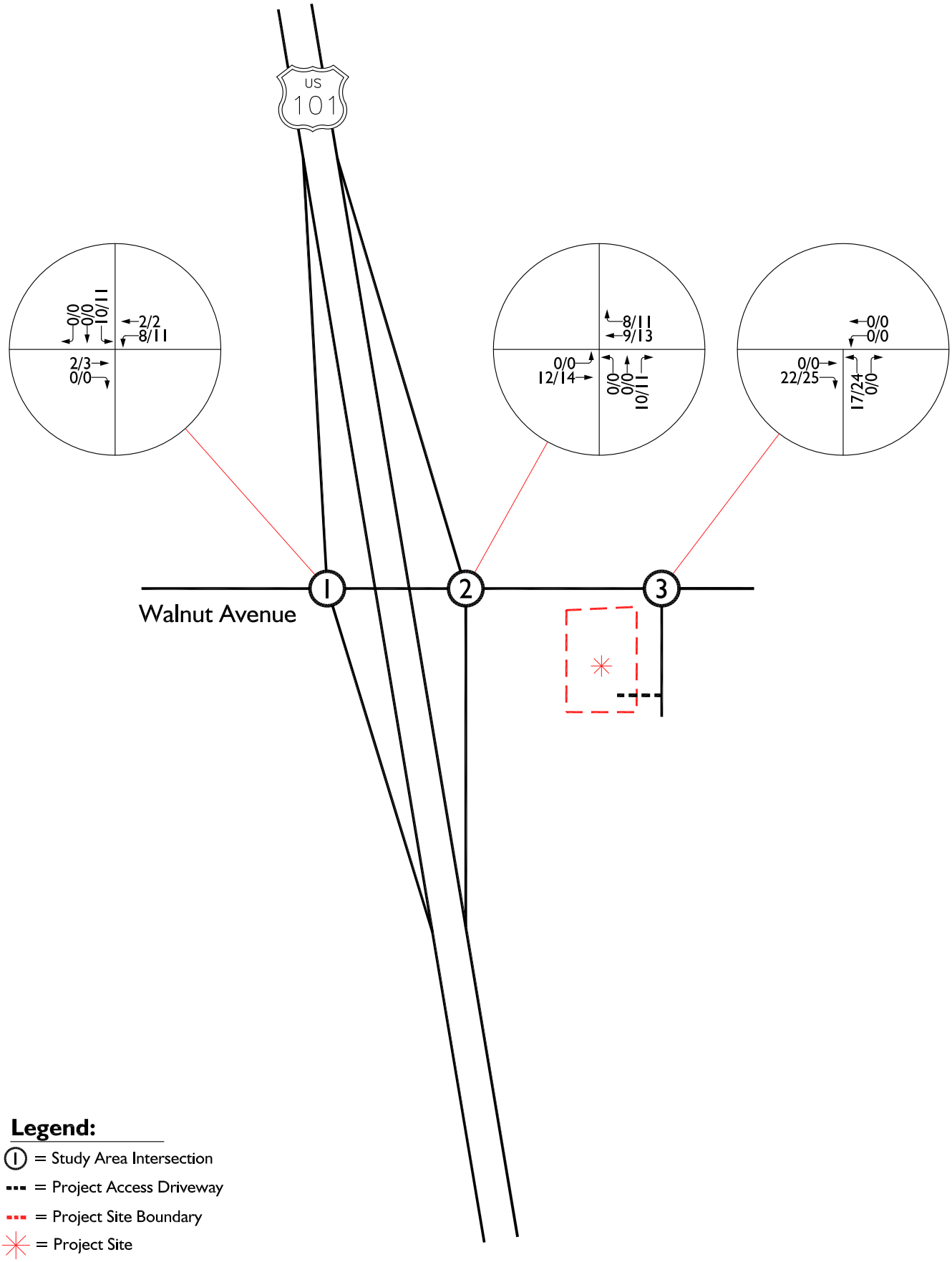
= Project Site Boundary

= Project Site

N

Exhibit 4-2

Project Traffic Volumes



Legend:

(1) = Study Area Intersection

--- = Project Access Driveway

--- = Project Site Boundary

✳ = Project Site

10/20 = AM/PM Peak Hour Volumes

N

4.2 Background Traffic

4.2.1 Method of Projection

To assess future conditions, project traffic is combined with existing traffic and area-wide growth. As directed by City staff, to account for area-wide/ambient growth in the study area, an annual growth rate of two percent (2%) per year has been applied to the existing (2022) traffic volumes over a 2-year period to opening year 2024 conditions (i.e. 4% total growth).

4.2.2 Cumulative Projects Traffic

Information on future projects in the vicinity of the study area has been provided by City of Greenfield staff for inclusion in this analysis and is shown in Table 4-3.

Table 4-3 shows the land uses, and daily and peak hour trip generation for the nearby cumulative projects provided by the public agencies.

A location map of the cumulative projects is shown on Exhibit 4-3.

Cumulative projects traffic volumes are shown on Exhibit 4-4 for weekday AM and PM peak hours.

In reality, some of the cumulative projects may be downsized, may have already been partially constructed, or may not be developed by project opening year 2024. In addition, many of the related projects have been or will be subject to a variety of mitigation measures that will reduce the potential environmental impacts associated with those projects. However, those mitigation measures have not been taken into account in projecting the environmental impact of the related projects.

Therefore, the cumulative analyses set forth below are conservative and could result in greater impacts than actually anticipated. Additionally, the analysis utilizes a growth rate of two percent (2%) per year for project opening year (2024) conditions, which would already capture and account for most projects in the area. The growth rate methodology is considered conservative since it is applied to all movements in all the study intersections.

Table 4-3
Cumulative Projects Trip Generation[1]

ID No.	Jurisdiction	Project Name / Case Number	Land Use	Quantity	Units[2]	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
						In	Out	Total	In	Out	Total	
TAZ 1												
G1	**City of Greenfield**	Walnut Grove Apartments	Multifamily Housing	217.000	DU	21	66	87	70	41	111	1,463
					TAZ 1 Total	**21**	**66**	**87**	**70**	**41**	**111**	**1,463**
TAZ 2[3]												
G2	**City of Greenfield**	Walnut Ave. Commercial Area Specific Plan	--	--	--	225	147	372	831	857	1,688	17,474
G3	**City of Greenfield**	3rd Street and Walnut Avenue Residential	Multifamily Housing	212.000	DU	20	64	84	68	40	108	1,429
					TAZ 2 Total	**245**	**211**	**456**	**899**	**897**	**1,796**	**18,903**
TAZ 3												
G4	**City of Greenfield**	New Residential Subdivision EAH	Multifamily Housing	222.000	DU	21	67	88	71	42	113	1,496
G5	**City of Greenfield**	3rd Street and Apple Avenue Residential	Single Family Detached Housing	37.000	DU	7	19	26	22	13	35	349
G6	**City of Greenfield**	Couttelenc Mixed-Use Development	Multifamily Housing	34.000	DU	3	10	13	11	6	17	229
					TAZ 3 Total	**31**	**96**	**127**	**104**	**61**	**165**	**2,074**
					Total Cumulative Projects Trip Generation	***297***	***373***	***670***	***1,073***	***999***	***2,072***	***22,440***

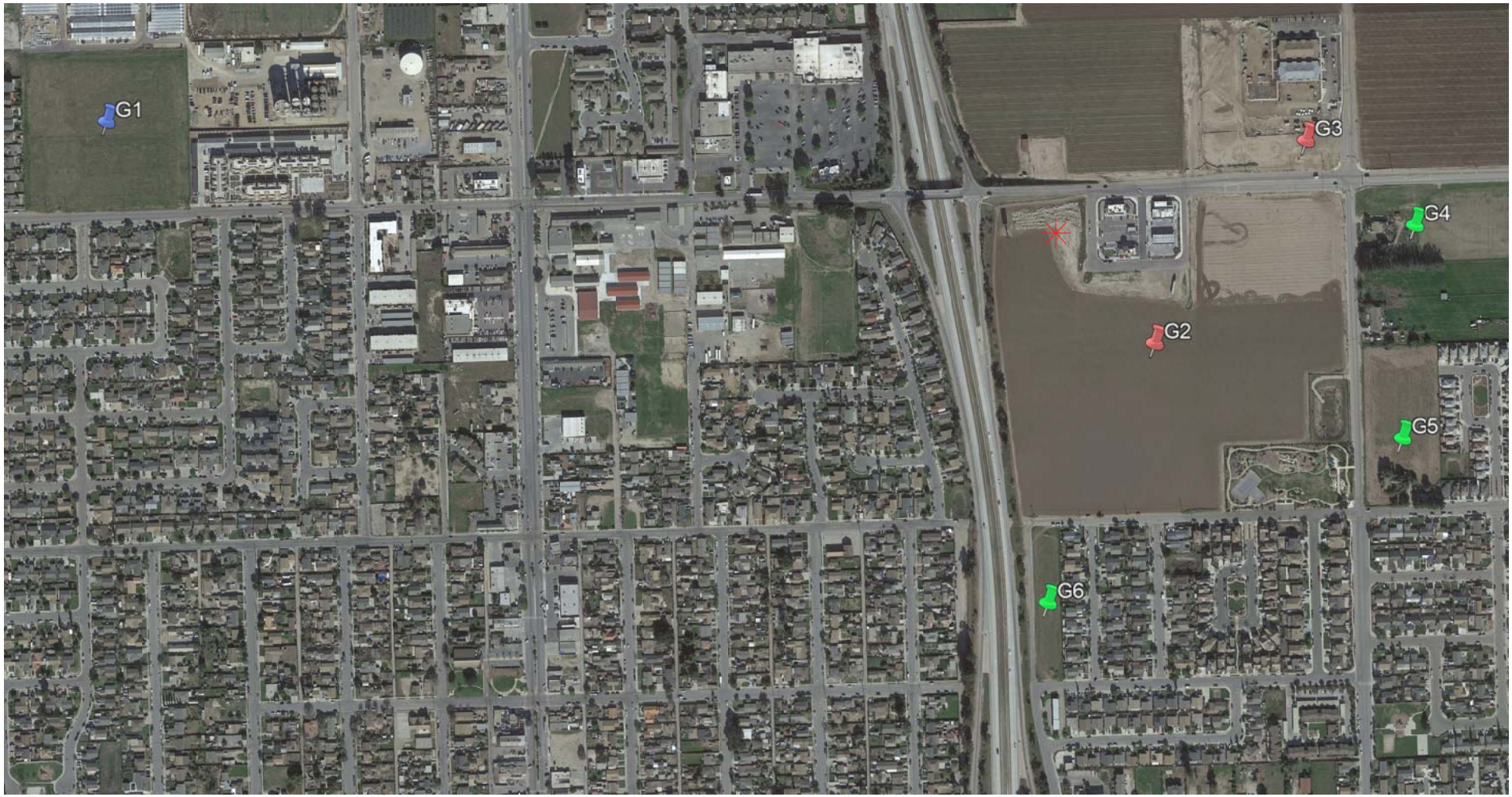
[1] Cumulative Projects information provided by the City of Greenfield

[2] DU = Dwelling Units.
TSF = Thousand Square Feet.

[3] Source: *Walnut Avenue Commercial Area Specific Plan Transportation Impact Study* , dated March 2013, prepared by Wood Rodgers. It should be noted that Project G3, which is currently under construction, is located within the Walnut Avenue Commercial Area Specific Plan (WACASP) and as such, these trips have been removed from the total WACASP trip generation. As a result, the total trips for TAZ 2 sum up to the sourced trip generation for the WACASP.

Exhibit 4-3

Cumulative Projects Location Map



Legend:

= Project Site

= TAZ 1 Cumulative Projects

= TAZ 2 Cumulative Projects

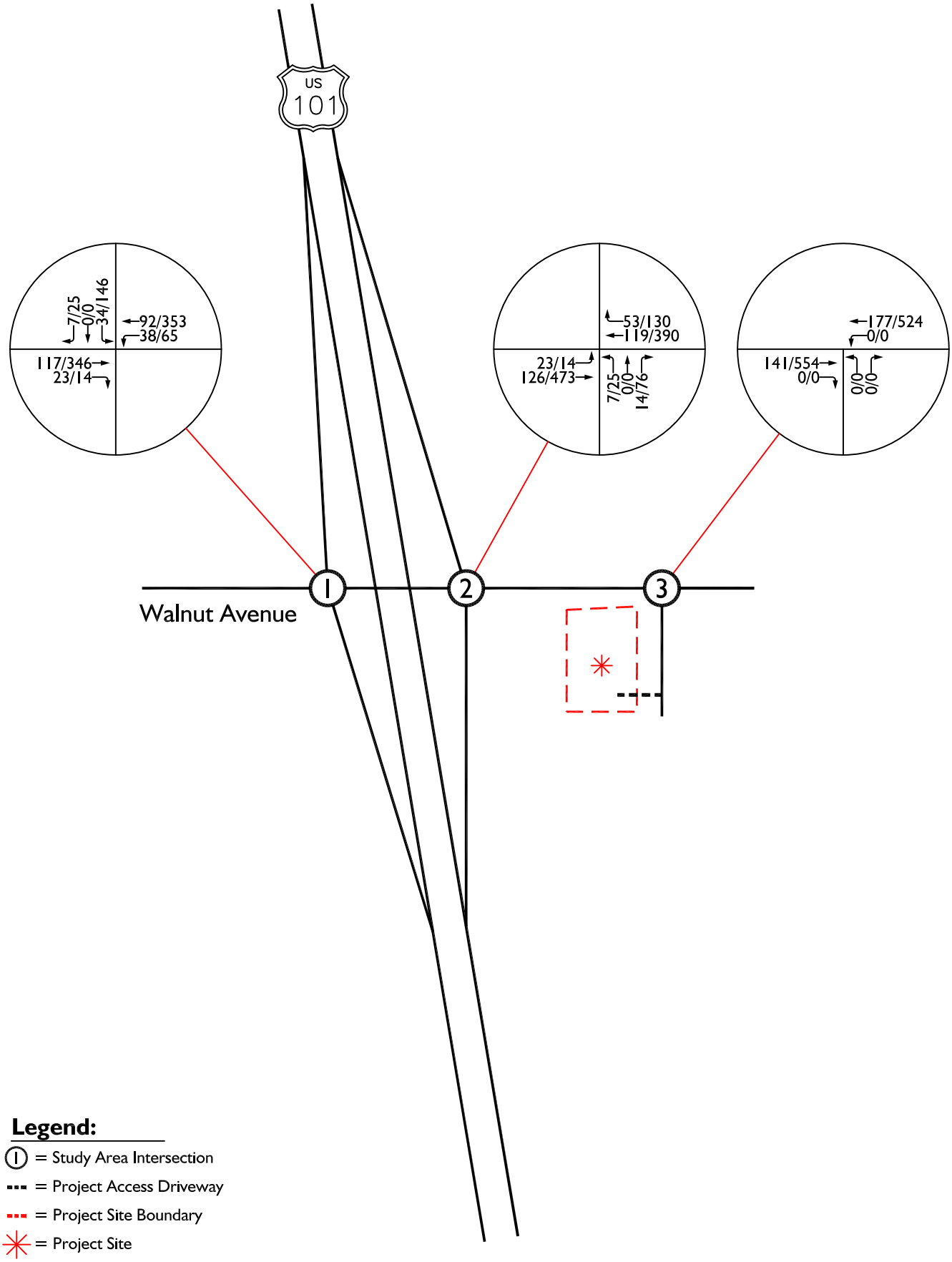
= TAZ 3 Cumulative Projects

N

NOTE: Additional information and detail about the cumulative projects is provided in Table 4-3.

Exhibit 4-4

Cumulative Projects Traffic Volumes



Legend:

(1) = Study Area Intersection

--- = Project Access Driveway

--- = Project Site Boundary

✳ = Project Site

10/20 = AM/PM Peak Hour Volumes

N

4.3 Background (Year 2024) Without Project Conditions Traffic Volumes

Background Without Project Conditions traffic volumes consist of two (2) years of annual growth on top of existing (2022) traffic volumes at two percent (2%) per year (i.e. 4% total growth), plus traffic generated by the cumulative projects.

Background (2024) Without Project Conditions traffic volumes for weekday AM and PM peak hours shown on Exhibit 4-5.

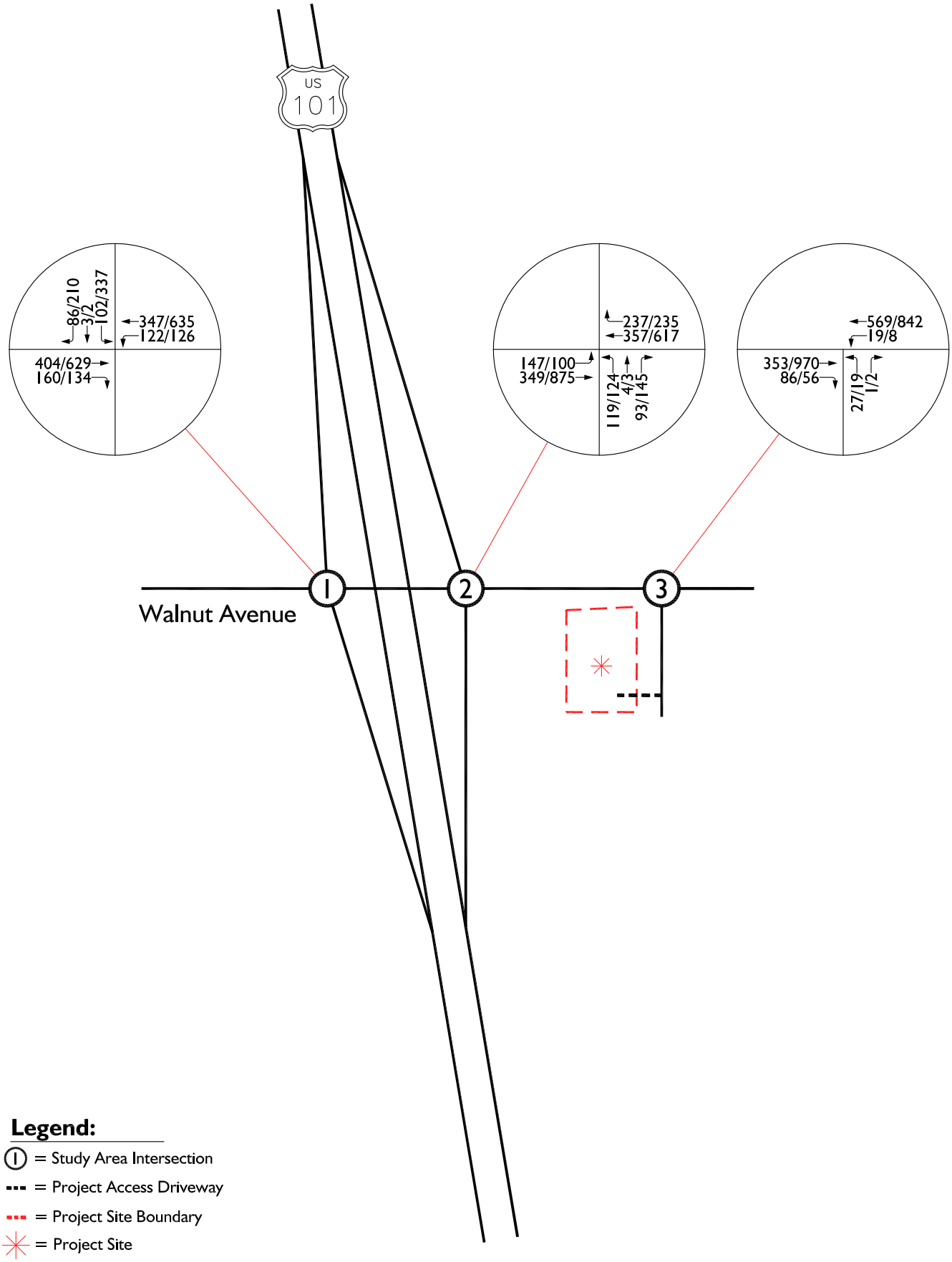
4.4 Background (Year 2024) With Project Conditions Traffic Volumes

Background With Project Conditions traffic volumes consist of two (2) years of annual growth on top of existing (2022) traffic volumes at two percent (2%) per year (i.e. 4% total growth), plus traffic generated by the cumulative projects and traffic generated by the proposed project.

Background With Project Conditions for weekday AM and PM peak hours are shown on Exhibit 4-6.

Exhibit 4-5

Background (Year 2024) Conditions Traffic Volumes



Legend:

(1) = Study Area Intersection

--- = Project Access Driveway

--- = Project Site Boundary

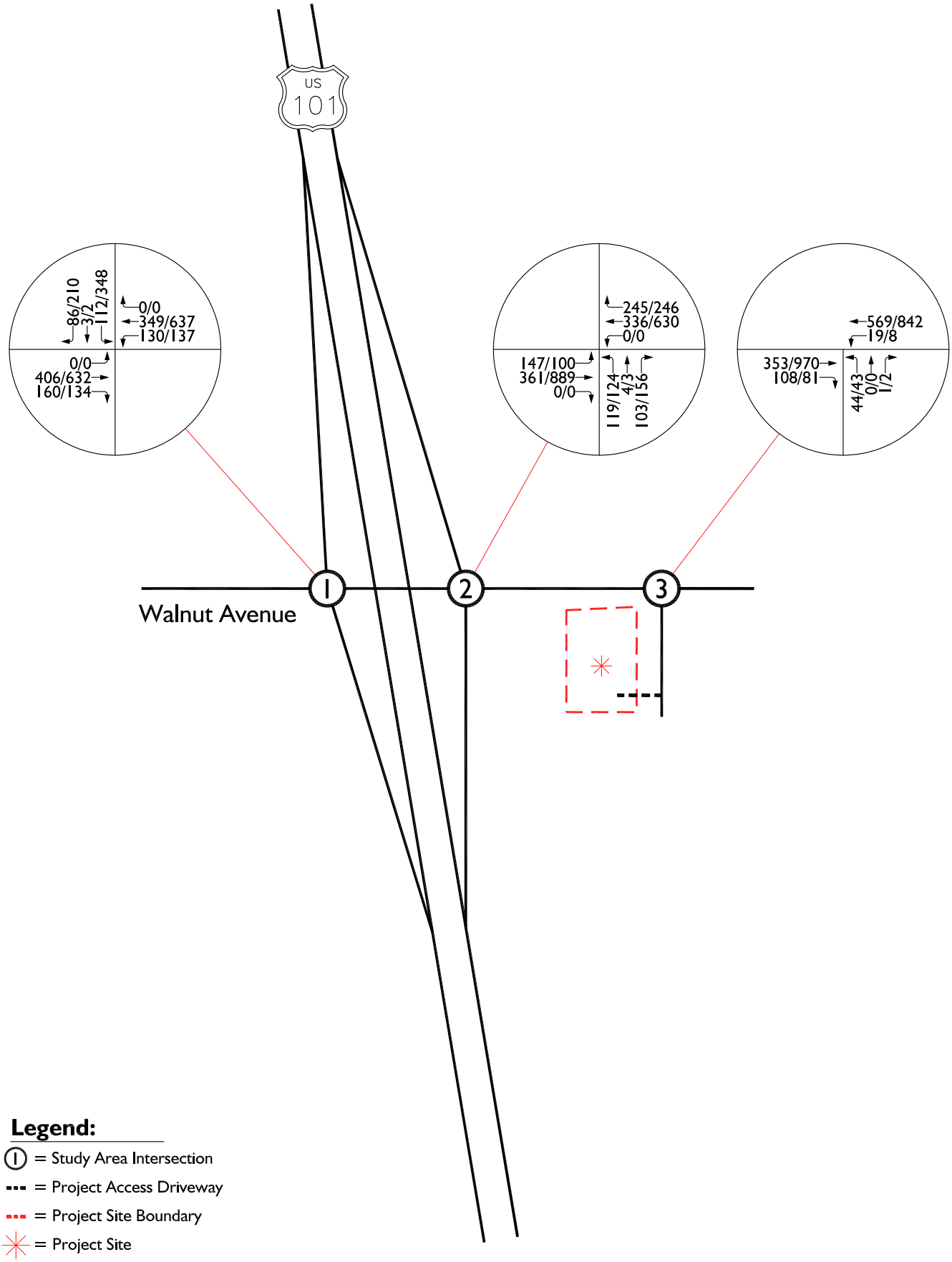
✳ = Project Site

10/20 = AM/PM Peak Hour Volumes

N

Exhibit 4-6

Background (Year 2024) With Project Conditions Traffic Volumes



Legend:

(1) = Study Area Intersection

--- = Project Access Driveway

--- = Project Site Boundary

✳ = Project Site

10/20 = AM/PM Peak Hour Volumes

N

5.0 Study Intersection Peak Hour LOS Analysis

This section of the report provides a discussion on the study intersection peak hour LOS analysis and findings.

The minimum acceptable LOS thresholds for the three (3) study intersections are detailed in Section 2.2 of this report. Operational improvements shall be identified for any study intersection forecast to operate at LOS E or worse.

5.1 Existing Conditions Level of Service

Existing Conditions LOS calculations for the three (3) key study intersections are shown in Table 5-1 and are based upon the existing weekday AM and PM peak hour traffic volumes shown on Exhibit 3-2 and the existing geometry shown on Exhibit 3-1.

As shown in Table 5-1, the three (3) key study intersections are currently operating at an acceptable LOS (LOS D or better) during the AM and PM peak hours under Existing Conditions.

Detailed LOS analysis worksheets for Existing Conditions are included in Appendix D.

5.2 Background (Year 2024) Without Project Conditions Level of Service

Background (Year 2024) Without Project Conditions LOS calculations for the three (3) key study intersections are shown in Table 5-2 and are based upon the Background (Year 2024) Without Project AM and PM peak hour traffic volumes shown on Exhibit 4-5 and the existing geometry shown on Exhibit 3-1 with project-specific improvements.

As shown in Table 5-2, all three (3) key study intersections are forecast to operate at an unacceptable level of service (LOS F) during the PM peak hour under Background (Year 2024) Without Project Conditions.

Detailed LOS analysis worksheets for Background (Year 2024) Without Project Conditions are included in Appendix E.

Table 5-1
Study Intersection Peak Hour LOS Analysis Summary
Existing (Year 2022) Conditions

Intersection	Traffic Control[1]	Methodology	Delay (Secs)[2,3]		Level of Service	
			AM	PM	AM	PM
1. US Highway 101 SB Ramps (N/S) at Walnut Avenue (E/W)	AWS	HCM 6	11.6	11.0	B	B
2. US Highway 101 NB Ramps (N/S) at Walnut Avenue (E/W)	AWS	HCM 6	11.2	11.5	B	B
3. Collector Road (N/S) at Walnut Avenue (E/W)	CSS	HCM 6	15.6	15.3	C	C

[1] CSS = Cross-Street Stop
AWS = All Way Stop

[2] Deficient operation shown in **Bold**.

[3] HCM Analysis Software: PTV Vistro, Version 2022

Table 5-2
Study Intersection Peak Hour LOS Analysis Summary
Background Conditions (Year 2024) Without & With Project Conditions

	Study Intersection	Traffic Control[1]	Methodology	Background Conditions (2024) Without Project Conditions				Background Conditions (2024) With Project Conditions							
				Delay (sec/veh)[2,3]		Level of Service		Delay (sec/veh)[2,3]		Level of Service		Increase in Delay		Requires LOS Improvement?	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	US Highway 101 SB Ramps (N/S) at Walnut Avenue (E/W)	AWS	HCM 6	19.4	**60.4**	C	**F**	20.4	**64.2**	C	**F**	1.0	3.8	No	**Yes**
	With Improvements	TS	HCM 6	--	--	--	--	29.8	26.0	C	C	--	--	--	--
2.	US Highway 101 NB Ramps (N/S) at Walnut Avenue (E/W)	AWS	HCM 6	19.4	**120.0**	C	**F**	20.8	**127.7**	C	**F**	1.4	7.7	No	**Yes**
	With Improvements	TS	HCM 6	--	--	--	--	29.5	26.2	C	C	--	--	--	--
3.	Collector Road (N/S) at Walnut Avenue (E/W)	CSS	HCM 6	24.8	**75.3**	D	**F**	19.8	**62.8**	C	**F**	-5.1	-12.5	No	**Yes**
	With Improvements	CSS	HCM 6	--	--	--	--	13.3	21.7	B	C	--	--	--	--

[1] CSS = Cross-Street Stop
AWS = All-Way Stop
[2] Deficient operation shown in **Bold**.
[3] HCM Analysis Software: PTV Vistro, Version 2022.

5.3 Background (Year 2024) With Project Conditions Level of Service

Background (Year 2024) With Project Conditions LOS calculations for the three (3) key study intersections are shown in Table 5-2 and are based upon the Background (Year 2024) With Project AM and PM peak hour traffic volumes shown on Exhibit 4-6, the existing geometry shown on Exhibit 3-1, and the project-specific improvements shown on Exhibit 5-1.

As shown in Table 5-2, all three (3) key study intersections are forecast to continue to operate at an unacceptable level of service (LOS F) during the PM peak hour under Background (Year 2024) With Project Conditions.

Based on these considerations, the proposed project is required to contribute to improvements at each intersection. The following recommended improvements have been identified:

Recommended Improvement #1

Int. #1 – U.S. Highway 101 SB Ramps at Walnut Avenue

Install a traffic signal with protective westbound left-turn phasing (i.e. 3-phase signal).

Widen and restripe the eastbound approach along Walnut Avenue to provide a second eastbound through lane. Extend the eastbound right-turn pocket to provide a 200-foot pocket.

Widen and restripe the westbound approach along Walnut Avenue to provide a second westbound through lane and an exclusive westbound left-turn lane with a 180-foot pocket.

Widen and restripe the southbound approach along the US Highway 101 SB Off-Ramp to extend the southbound right-turn pocket to 110 feet.

As part of the overall ramp interchange design, the two NB & SB ramp intersections should be spaced further apart in order to provide a minimum of 300 feet between intersections, to adequately accommodate the through queues along Walnut Avenue.

Recommended Improvement #2

Int. #2 – U.S. Highway 101 NB Ramps at Walnut Avenue

Install a traffic signal with protective eastbound left-turn phasing (i.e. 3-phase signal).

Widen and restripe the eastbound approach along Walnut Avenue to provide a second eastbound through lane and an exclusive eastbound left-turn lane with a 180-foot pocket.

Widen and restripe the westbound approach along Walnut Avenue to provide a second westbound through lane.

Widen and restripe the northbound approach along the US Highway 101 NB Off-Ramp to extend the northbound right-turn pocket to 100 feet.

As part of the overall ramp interchange design, the two NB & SB ramp intersections should be spaced further apart in order to provide a minimum of 300 feet between intersections, to adequately accommodate the through queues along Walnut Avenue.

Recommended Improvement #3

Int. #3 – Collector Road at Walnut Avenue

Widen and/or restripe the median along Walnut Avenue to provide an acceleration

lane/2-stage gap acceptance for up to two (2) vehicles. Northbound left-turning vehicles will enter the striped median and will accelerate onto westbound Walnut Avenue when it is safe to do so.

The above-listed recommended improvements are illustrated on Exhibit 5-1.

Detailed LOS analysis worksheets for Background With Project Conditions are included in Appendix F. Detailed LOS analysis worksheets for Background With Project Conditions With Improvements are included in Appendix G.

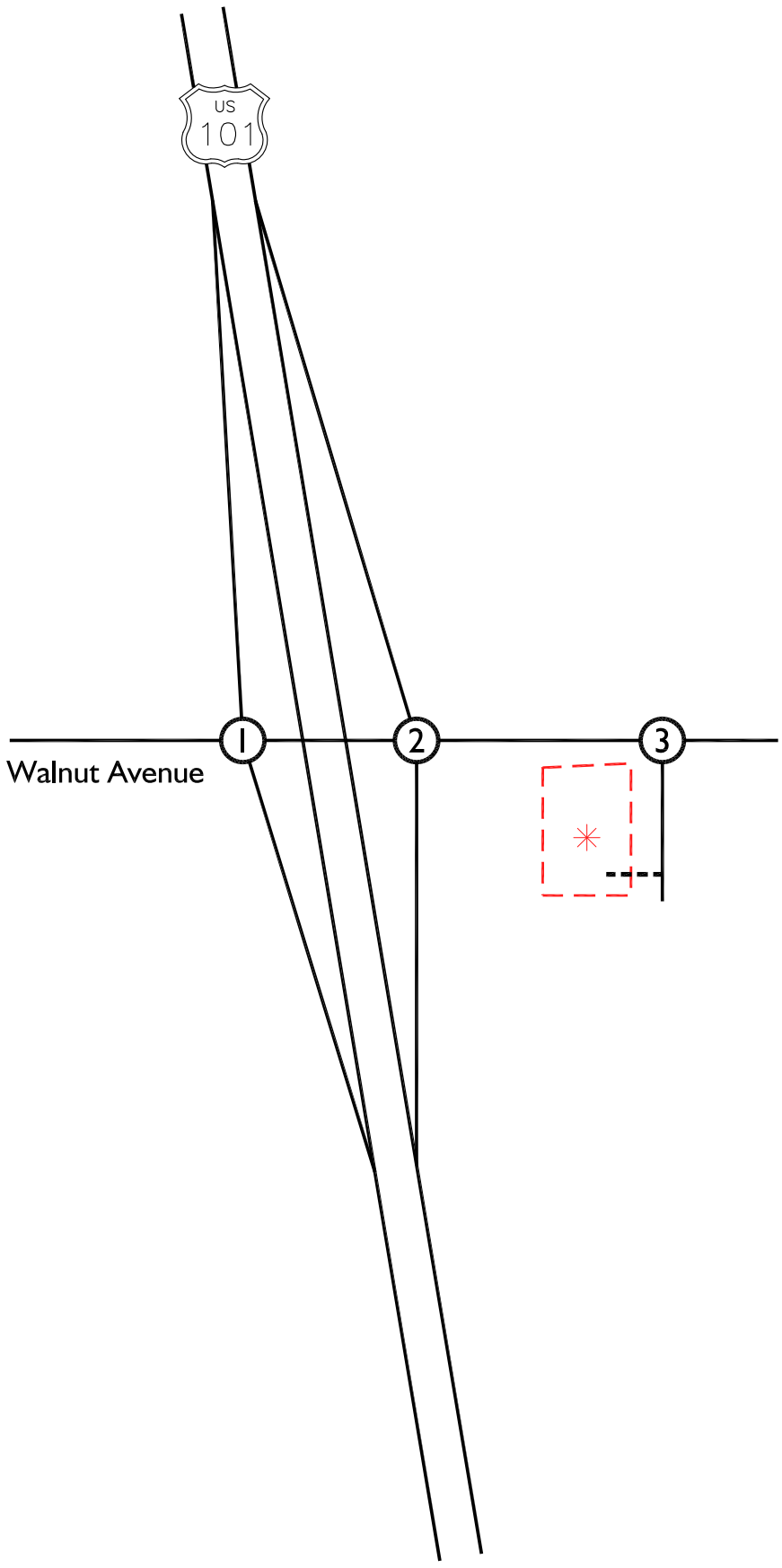
5.4 Project Fair-Share Contribution

Fair-share contributions are based on project trip contributions relative to the amount of overall growth from existing traffic conditions. Fair-share contribution percentages are provided in Table 5-3.

As shown in Table 5-3, the project fair share percentages for Background with Project Conditions are listed below:

- Int. #1 – US Highway 101 SB Ramps at Walnut Avenue – 2.65% (PM Peak Hour)
- Int. #2 – US Highway 101 NB Ramps at Walnut Avenue – 4.10% (PM Peak Hour)
- Int. #3 – Project Access Driveway at Walnut Avenue – 4.23% (PM Peak Hour)

Project-Specific & Background (Year 2024) Recommended Improvements

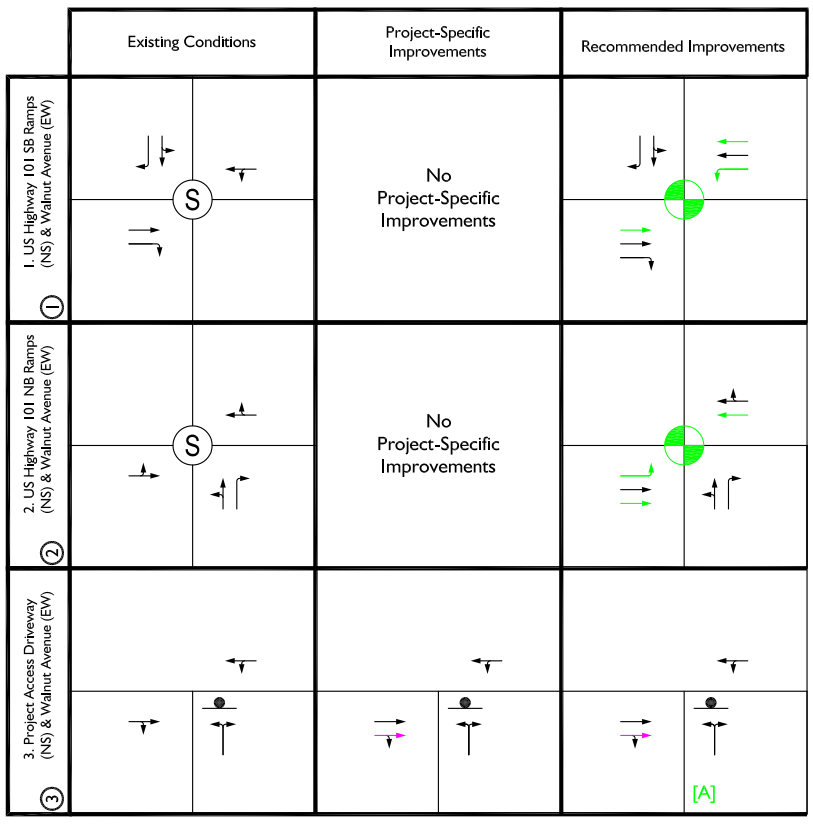


Legend:

- = Project Access Driveways
- = Project Site Boundary
- = Project Site
- = Traffic Signal
- = All-Way Stop
- = Stop Sign
- = Project-Specific Improvements
- = Background (Year 2024) Recommended Improvements

Note:

[A] = Widen and/or restripe the median along Walnut Avenue to provide a gap storage of 2 vehicles for NB left-turning vehicles.



N

Table 5-3
Project Fair-Share Contribution Summary[1]

Intersection	Existing Conditions Traffic		Background With Project Conditions		Growth in Traffic		Project Traffic		Project Fair-Share	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1. US Highway 101 SB Ramps (N/S) at Walnut Avenue (E/W)	AM Peak Hour Not Impacted	1081	AM Peak Hour Not Impacted	2,100	AM Peak Hour Not Impacted	1,019	AM Peak Hour Not Impacted	27	AM Peak Hour Not Impacted	**2.65%**
2. US Highway 101 NB Ramps (N/S) at Walnut Avenue (E/W)	AM Peak Hour Not Impacted	953	AM Peak Hour Not Impacted	2,148	AM Peak Hour Not Impacted	1,195	AM Peak Hour Not Impacted	49	AM Peak Hour Not Impacted	**4.10%**
3. Collector Road (N/S) at Walnut Avenue (E/W)	AM Peak Hour Not Impacted	788	AM Peak Hour Not Impacted	1,946	AM Peak Hour Not Impacted	1,158	AM Peak Hour Not Impacted	49	AM Peak Hour Not Impacted	**4.23%**

[1] Projects Fair-Share Contribution represents the project's traffic contribution at each impacted study area intersection as a percentage of the overall growth in traffic for Background With Project scenario.
This table is for informational purposes only and is not tied to any mitigation.

6.0 Vehicular Queuing Analysis

As requested by City staff, a vehicular queue evaluation has been performed at the three (3) study area intersections for each analysis scenario. The purpose of this analysis is to determine whether adequate storage capacity is provided without and with the proposed project.

The queue analysis has been performed utilizing the HCM 6 95th percentile queue evaluation methodology. Queue lengths have been reported for the following twelve (12) movements:

Intersection #1 – U.S. Highway 101 SB Ramps at Walnut Avenue

- Southbound Shared Through/Left-Turn
- Southbound Right-Turn
- Eastbound Through
- Eastbound Right-Turn
- Westbound Shared Through/Left-Turn

Intersection #2 – U.S. Highway 101 NB Ramps at Walnut Avenue

- Northbound Shared Through/Left-Turn
- Northbound Right-Turn
- Eastbound Shared Through/Left-Turn
- Westbound Shared Through/Right-Turn

Intersection #3 – Collector Road at Walnut Avenue

- Northbound Shared Left/Right-Turn
- Eastbound Shared Through/Right-Turn
- Westbound Shared Through/Left-Turn

6.1 Existing Conditions Queue Analysis

The queue analysis for Existing Conditions has been performed for all three (3) study intersections and the results are presented in Table 6-1.

As shown in Table 6-1, the 95th percentile queues are satisfied for all twelve (12) movements. The twelve (12) movements have queues that are adequately accommodated by the existing storage space provided.

6.2 Background (Year 2024) Without Project Conditions Queue Analysis

The queue analysis for Background (Year 2024) Without Project Conditions has been performed for all three (3) study intersections and the results are presented in Table 6-1.

As shown in Table 6-1, the 95th percentile queues are satisfied for all movements except the following three (3) movements at intersections #1 & #2. The remaining nine (9) movements have queues that are adequately accommodated by the existing storage space provided:

Intersection #1 – U.S. Highway 101 SB Ramps at Walnut Avenue

- Westbound Through/Left-Turn (AM & PM Peak Hour)

Intersection #2 – U.S. Highway 101 NB Ramps at Walnut Avenue

- Eastbound Through/Left-Turn (PM Peak Hour Only)
- Westbound Through/Right-Turn (PM Peak Hour Only)

6.3 Background (Year 2024) With Project Conditions Queue Analysis

The queue analysis for Background (Year 2024) With Project Conditions has been performed for all three (3) study intersections and the results are presented in Table 6-1.

As shown in Table 6-1, the 95th percentile queues are satisfied for all movements except the following three (3) movements at intersections #1 & #2. The remaining nine (9) movements have queues that are adequately accommodated by the existing storage space provided:

Intersection #1 – U.S. Highway 101 SB Ramps at Walnut Avenue

- Westbound Through/Left-Turn (AM & PM Peak Hour)

Table 6-1
Study Intersection Queue Analysis Summary
Existing (Year 2022) and Background (Year 2024) Conditions

	Study Intersection	Movement[1]	No. of Lanes	Existing Storage Capacity per Lane (ft)	Project-Specific Storage Capacity per Lane (ft)	Existing Conditions				Background Conditions (2024) Without Project Conditions				Background Conditions (2024) With Project Conditions			
						Vehicular Queue (ft)[3]		Adequate Queue Storage Available?		Vehicular Queue (ft)[3]		Adequate Queue Storage Available?		Vehicular Queue (ft)[3]		Adequate Queue Storage Available?	
						AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1.	US Highway 101 SB Ramps (N/S) at Walnut Avenue (E/W)	SB Through/Left-Turn	1	1,035	--	25[4]	42	YES	YES	29	190	YES	YES	33	205	YES	YES
		SB Right-Turn	1	55	--	25[4]	30	YES	YES	25[4]	53	YES	YES	25[4]	53	YES	YES
		EB Through	1	345	--	63	46	YES	YES	147	337	YES	YES	150	342	YES	YES
		EB Right-Turn	1	75	--	25[4]	25[4]	YES	YES	25[4]	25[4]	YES	YES	25[4]	25[4]	YES	YES
		WB Through/Left-Turn	1	200	--	86	62	YES	YES	224	648	**NO**	**NO**	241	683	**NO**	**NO**
2.	US Highway 101 NB Ramps (N/S) at Walnut Avenue (E/W)	NB Through/Left-Turn	1	890	--	23	25[4]	YES	YES	31	31	YES	YES	31	31	YES	YES
		NB Right-Turn	1	75	--	25[4]	25[4]	YES	YES	25[4]	30	YES	YES	25[4]	33	YES	YES
		EB Through/Left-Turn	1	200	--	62	96	YES	YES	161	1,029	YES	**NO**	174	1,067	YES	**NO**
		WB Through/Right-Turn	1	400	--	77	47	YES	YES	216	631	YES	**NO**	237	688	YES	**NO**
3.	Collector Road (N/S) at Walnut Avenue (E/W)	NB Left-Turn/Right-Turn	1	85	--	25[4]	25[4]	YES	YES	25[4]	28	YES	YES	25[4]	48	YES	YES
		Eastbound Through	1	N/A	400	--	--	--	--	--	--	--	--	25[4]	25[4]	YES	YES
		EB Through/Right-Turn	1	400	260	25[4]	25[4]	YES	YES	25[4]	25[4]	YES	YES	25[4]	25[4]	YES	YES
		WB Through/Left-Turn	1	150	--	25[4]	25[4]	YES	YES	25[4]	25[4]	YES	YES	25[4]	25[4]	YES	YES

[1] NB = Northbound
SB = Southbound
EB = Eastbound
WB = Westbound

[2] The storage capacity is measured as distance from the study intersection to the nearest driveway or intersection.

[3] Queue reported is the 95th percentile queue per lane and is reported in total queue length (ft)

[4] Although the reported queue is less, a minumum queue of 25 feet (i.e. the length of one vehicle) is assumed.

Intersection #2 – U.S. Highway 101 NB Ramps at Walnut Avenue

- Eastbound Through/Left-Turn (PM Peak Hour Only)
- Westbound Through/Right-Turn (PM Peak Hour Only)

6.4 Recommended Storage Capacity Improvements

The queue analysis for Background (Year 2024) With Project Conditions With Improvements has been performed for all three (3) study intersections and the results are presented in Table 6-2. This queue analysis is based on the recommended improvements previously identified in Section 5.3 above.

As shown in Table 6-2, with implementation of the recommended improvements previously identified in Section 5.3 above, the 95th percentile queues are satisfied for all movements at all three (3) study intersections.

Table 6-2
Study Intersection Queue Analysis Summary
Background (Year 2024) With Project Conditions With Improvements

	Study Intersection	Movement[1]	No. of Lanes	Existing Storage Capacity per Lane (ft)	Proposed Storage Capacity per Lane (ft)	Background (Year 2024) With Project Conditions With Improvements			
						Vehicular Queue (ft)[3]		Adequate Queue Storage Available?	
						AM	PM	AM	PM
1.	US Highway 101 SB Ramps (N/S) at Walnut Avenue (E/W)	SB Through/Left-Turn	1	1,035	--	60	198	YES	YES
		SB Right-Turn	1	--	110	44	110	YES	YES
		EB Through	2	345	--	234	290	YES	YES
		EB Right-Turn	1	--	200	195	121	YES	YES
		WB Left-Turn	1	--	180	176	158	YES	YES
		WB Through	2	--	300	156	232	YES	YES
2.	US Highway 101 NB Ramps (N/S) at Walnut Avenue (E/W)	NB Through/Left-Turn	1	890	--	68	68	YES	YES
		NB Right-Turn	1	--	100	57	86	YES	YES
		EB Left-Turn	1	--	180	178	116	YES	YES
		EB Through	2	--	300	127	293	YES	YES
		WB Through	1	400	--	291	354	YES	YES
		WB Through/Right-Turn	1	--	400	321	373	YES	YES
3.	Project Access Driveway (N/S) at Walnut Avenue (E/W)	NB Left-Turn/Right-Turn	1	85	--	25[4]	25[4]	YES	YES
		EB Through	1	--	400	25[4]	25[4]	YES	YES
		EB Through/Right-Turn	1	--	260	25[4]	25[4]	YES	YES
		WB Through/Left-Turn	1	150	--	25[4]	25[4]	YES	YES

[1] NB = Northbound
SB = Southbound
EB = Eastbound
WB = Westbound

[2] The storage capacity is measured as distance from the study intersection to the nearest driveway or intersection.

[3] Queue reported is the 95th percentile queue per lane and is reported in total queue length (ft)

[4] Although the reported queue is less, a minumum queue of 25 feet (i.e. the length of one vehicle) is assumed.

7.0 CEQA Vehicle Miles Traveled (VMT) Analysis

The following section provides a discussion of the vehicle miles traveled (VMT) analysis and findings.

The City of Greenfield has not adopted formal Vehicle Miles Traveled (VMT) Analysis Guidelines. As such, the City of Greenfield follows the recommendations, thresholds of significance, and methodologies for identifying VMT related impacts outlined in the Technical Advisory on Evaluating Transportation Impacts in California Environmental Quality (CEQA), dated December 2019, prepared by the State of California Governor's Office of Planning and Research (OPR).

Local-serving projects may be presumed to have a less than significant impact under CEQA absent substantial evidence to the contrary because the users (i.e. employees, customers, and visitors) would be existing within the community and the project would not generate new "demand" for the project land uses. Instead, local-serving projects would meet the existing demand that would shorten the distance existing residents, employees, customers, or visitors would need to travel.

Although not explicitly stated in the OPR, many public agencies identify non-destination hotels as local serving in nature because the target demographic is not visitors traveling long distances, but rather the existing community. Thus, the proposed project, a non-destination hotel, may be presumed to have a less than significant impact under CEQA and no further VMT analysis is required.

8.0 Findings, Conclusions & Recommendations

8.1 Project Summary

The purpose of this traffic impact analysis is to evaluate the proposed TownePlace Suites Hotel project, hereinafter referred to as "Project" from a traffic and circulation standpoint and determine whether the project will have a significant traffic impact. Because the City of Greenfield has not officially adopted formal traffic impact analysis guidelines, this study has been conducted pursuant to the *County of Monterey Guide for the Preparation of Traffic Impact Studies,* dated March 28, 2014, *City of Greenfield 2005 General Plan*, and the California Environmental Quality Act (CEQA) requirements.

The proposed Best Western Hotel Project is located south of Walnut Avenue, just east of the U.S. Highway 101 in the City of Greenfield. The project site is currently vacant.

The project consists of constructing and operating a 84-room TownePlace Suites Hotel. The project is planned to open in 2024 and will be evaluated in one (1) single phase.

8.2 Traffic Study Area & Analysis Summary

The study area consists of the following three (3) intersections listed below. The jurisdiction where each intersection is located is also identified.

1. US Highway 101 SB Ramps (N/S) at Walnut Ave (E/W) [City of Greenfield/Caltrans];
2. US Hwy 101 NB Ramps (N/S) at Walnut Ave (E/W) [City of Greenfield/Caltrans]; and
3. Collector Road (N/S) at Walnut Avenue (E/W) [City of Greenfield].

The analysis evaluates traffic conditions of the three (3) study intersections for the following scenarios during the weekday AM (7:00 AM – 9:00 AM) and weekday PM (4:00 PM – 6:00 PM) peak hour conditions in accordance with the applicable jurisdictional traffic impact analysis guidelines:

- Existing Conditions;
- Background Conditions: Existing Plus Ambient Growth Plus Cumulative Projects; and

- Background With Project Conditions: Existing Plus Ambient Growth Plus Cumulative Projects Plus Project.

8.3 Project-Specific Improvements Summary

As part of the project, Walnut Avenue is proposed to be widened along the project frontage to provide a second eastbound through lane, which will tie into the already widened portion of Walnut Avenue to the east. These improvements are consistent with *The Vines at Greenfield (Tract No. 1525) Street Improvement Plans*, dated August 2017.

8.4 Project Trip Generation Summary

The proposed project is forecast to generate approximately 671 weekday daily trips which include approximately 39 weekday AM peak hour trips and approximately 49 weekday PM peak hour trips.

8.5 Study Intersection Peak Hour LOS Analysis Summary

The intersection level of service analysis has been performed at three (3) intersections within the vicinity of the site where the project may contribute a significant amount of traffic. Project deficiencies have been evaluated within the study area based on peak hour level of service criteria. Operational improvements shall be identified for any study intersection forecast to operate at LOS E or worse. The following study intersections are forecast to operate at an unacceptable LOS and require improvements for the following analysis scenarios:

- Background (Year 2024) Without Project Conditions
    - Int. #1 - US Hwy 101 SB Ramps at Walnut Ave (PM Peak Hour Only)
    - Int. #2 - US Hwy 101 NB Ramps at Walnut Ave (PM Peak Hour Only); and
    - Int. #3 - Collector Road at Walnut Avenue (PM Peak Hour Only).
- Background (Year 2024) With Project Conditions
    - Int. #1 - US Hwy 101 SB Ramps at Walnut Ave (PM Peak Hour Only)
    - Int. #2 - US Hwy 101 NB Ramps at Walnut Ave (PM Peak Hour Only); and

- Int. #3 - Collector Road at Walnut Avenue (PM Peak Hour Only).

8.6 Recommended Improvements Summary

The intersection improvements listed below are recommended for the deficient study intersections:

- **Recommended Improvement #1 - Int. #1 U.S. Highway 101 SB Ramps at Walnut Avenue**
  - Install a traffic signal with protective westbound left-turn phasing (i.e. 3-phase signal).
  - Widen and restripe the eastbound approach along Walnut Avenue to provide a second eastbound through lane. Extend the eastbound right-turn pocket to provide a 200-foot pocket.
  - Widen and restripe the westbound approach along Walnut Avenue to provide a second westbound through lane and an exclusive westbound left-turn lane with a 180-foot pocket.
  - Widen and restripe the southbound approach along the US Highway 101 SB Off-Ramp to extend the southbound right-turn pocket to 110 feet.
  - As part of the overall ramp interchange design, the two NB & SB ramp intersections should be spaced further apart in order to provide a minimum of 300 feet between intersections, to adequately accommodate the through queues along Walnut Avenue.

- **Recommended Improvement #2 - Int. #2 U.S. Highway 101 NB Ramps at Walnut Avenue**
  - Install a traffic signal with protective eastbound left-turn phasing (i.e. 3-phase signal).
  - Widen and restripe the eastbound approach along Walnut Avenue to provide a second eastbound through lane and an exclusive eastbound left-turn lane with a 180-foot pocket.
  - Widen and restripe the westbound approach along Walnut Avenue to provide a second westbound through lane.
  - Widen and restripe the northbound approach along the US Highway 101 NB Off-Ramp to extend the northbound right-turn pocket to 100 feet.
  - As part of the overall ramp interchange design, the two NB & SB ramp intersections should be spaced further apart in order to provide a minimum

of 300 feet between intersections, to adequately accommodate the through queues along Walnut Avenue.

- **Recommended Improvement #3 - Int. #2 Collector Road at Walnut Avenue**
  - Widen and/or restripe the median along Walnut Avenue to provide an acceleration lane/2-stage gap acceptance for up to two (2) vehicles. Northbound left-turning vehicles will enter the striped median and will accelerate onto westbound Walnut Avenue when it is safe to do so.

8.7 Project Fair-Share Contribution Summary

Fair-share contributions are based on project trip contributions relative to the amount of overall growth from existing traffic conditions. The project fair share percentages for Background with Project Conditions are listed below:

- Int. #1 – US Highway 101 SB Ramps at Walnut Avenue – 2.65% (PM Peak Hour)
- Int. #2 – US Highway 101 NB Ramps at Walnut Avenue – 4.10% (PM Peak Hour)
- Int. #3 – Project Access Driveway at Walnut Avenue – 4.23% (PM Peak Hour)

8.8 Study Intersection Queue Analysis Summary

The queue analysis has been performed utilizing the HCM 6 95th percentile queue evaluation methodology. All study intersections satisfy the 95th percentile queues for all movements except the following study intersections for the following analysis scenarios:

- Background (Year 2024) Without Project Conditions
  - **Intersection #1** – U.S. Highway 101 SB Ramps at Walnut Avenue
    - Westbound Through/Left-Turn (AM & PM Peak Hour)
  - **Intersection #2** – U.S. Highway 101 NB Ramps at Walnut Avenue
    - Eastbound Through/Left-Turn (PM Peak Hour Only)
    - Westbound Through/Right-Turn (PM Peak Hour Only)
- Background (Year 2024) With Project Conditions
  - **Intersection #1** – U.S. Highway 101 SB Ramps at Walnut Avenue

- Westbound Through/Left-Turn (AM & PM Peak Hour)

- **Intersection #2** – U.S. Highway 101 NB Ramps at Walnut Avenue
  - Eastbound Through/Left-Turn (PM Peak Hour Only)
  - Westbound Through/Right-Turn (PM Peak Hour Only)

8.9 CEQA Vehicle Miles Traveled (VMT) Analysis Summary

The proposed project was subject to a VMT analysis conducted in accordance with the Technical Advisory on Evaluating Transportation Impacts in California Environmental Quality (CEQA), dated December 2019, prepared by the State of California Governor's Office of Planning and Research (OPR).

CEQA guidelines indicate that projects identified as local-serving may be presumed to have a less than significant impact absent substantial evidence to the contrary and would be exempted from further project-level VMT assessment.

Although not explicitly stated in the OPR, many public agencies identify non-destination hotels as local serving in nature because the target demographic is not visitors traveling long distances, but rather the existing community.

The project may be presumed to have a less than significant impact to VMT.

Appendices

Appendix A

Scope of Work

TOWNEPLACE SUITES HOTEL RPOJECT
Traffic Impact Study
Scoping Agreement

October 4, 2022

The following provides information on the proposed project, summarizes the analysis scope, parameters, and assumptions for review and approval, and also includes request for information on items related to the study. The proposed scope of work is consistent with City of Greenfield guidelines and the criteria and parameters described in the *County of Monterey Guide for the Preparation of Traffic Impact Studies,* dated March 28, 2014.

A. Project Description: The proposed TownePlace Suites Hotel Project site is located south of Walnut Avenue, just east of the U.S. Highway 101, in the City of Greenfield. The project site is currently vacant.

The proposed project consists of the construction of an 84-room TownePlace Suites Hotel. The project is proposed to provide 85 parking spaces. Access for the project is proposed via the existing full-access unsignalized driveway located along Walnut Avenue, which currently serves the existing Carl's Jr. and Starbucks establishments. It should be noted that as part of the project (i.e. project-specific improvements), Walnut Avenue is proposed to be widened along the project frontage to provide a second eastbound through lane, which will tie into the already widened portion of Walnut Avenue along the Carl's Jr. frontage.

The project is planned to open in 2024 and will be evaluated in one single phase.

Exhibit A shows the location map of the proposed project. Exhibit B shows the proposed site plan.

B. Project Trip Generation: Trip generation represents the amount of traffic that is attracted and produced by a development.

Trip generation is typically estimated based on the trip generation rates from the latest *Institute of Transportation Engineers (ITE) Trip Generation Manual.* The latest and most recent version (11th Edition, 2021) ITE Manual has been utilized for this scoping agreement. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

Table 1 shows the ITE trip generation rates utilized for the trip generation analysis of the proposed project land use.

Table 1
ITE Trip Generation Rates[1]

Land Use	Units	ITE Code	AM			PM			Daily
			In	Out	Total	In	Out	Total	
Hotel	Rooms	310	0.26	0.20	0.46	0.30	0.29	0.59	7.99

[1] Source: *2021 ITE Trip Generation Manual* (11th Edition)

Table 2 shows the trip generation for the proposed project utilizing the trip generation rates shown in Table 1.

Table 2
Project Trip Generation[1]

Land Use (ITE Code)	Quantity	Units	AM			PM			Daily
			In	Out	Total	In	Out	Total	
TownePlace Suites Hotel (310)	84	Rooms	22	17	39	25	24	49	671

[1] Source: *ITE Trip Generation Manual* (11th Edition, 2021).

As shown in Table 2, based on the preliminary evaluation of the project trip generation utilizing the Institute of Transportation Engineers (ITE) trip generation rates, the proposed project is forecast to generate approximately 671 daily weekday trips, which include approximately 39 AM peak hour trips and 49 PM peak hour trips.

Typically, traffic studies are required to study major study intersections where a project adds 50 or more peak hour trips. However, based upon discussions with City of Greenfield staff, an analysis of the proposed project's cumulative impact on the U.S. Highway 101 ramp intersections along Walnut Avenue will be required.

C. Project Trip Distribution: Exhibit C shows the trip distribution for the proposed project, respectively.

D. Study Intersections: The analysis will evaluate the following three (3) study intersections:

1. U.S. Highway 101 SB Ramps (N/S) at Walnut Avenue (E/W)

2. U.S. Highway 101 NB Ramps (N/S) at Walnut Avenue (E/W)

3. Project Access Driveway (N/S) at Walnut Avenue (E/W)

E. Analysis Scenarios: The analysis will evaluate traffic conditions for the following scenarios during the weekday AM (7:00 AM to 9:00 AM) and weekday PM (4:00 PM to 6:00 PM):

- Existing Conditions
- Background Conditions: Existing Plus Ambient Growth Plus Cumulative Projects
- Background Plus Project Conditions: Existing Plus Ambient Growth Plus Cumulative Projects Plus Project

F. Traffic Analysis Parameters: The analysis will utilize the following parameters:

- Vistro 2022 analysis software and the Highway Capacity Manual 6th Editions (HCM 6) methodology; and
- Optimized Signal Timing (if applicable).

G. Existing Traffic Counts: The analysis will utilize new traffic counts.

- Weekday AM peak period counts will be collected during one typical weekday from 7:00 AM to 9:00 AM.
- Weekday PM peak period counts will be collected during one typical weekday from 4:00 PM to 6:00 PM.

H. Project Completion (Year 2024) Conditions Traffic Volumes: Project completion (Year 2024) background traffic volumes will be derived by applying an annual growth rate of two percent (2%) per year to existing traffic volumes (i.e. 4% total growth).

H. Performance Criteria:

City of Greenfield

Per the *City of Greenfield 2005 General Plan*, adopted May 31, 2005, Policy 3.2.3 establishes a minimum acceptable service standard of LOS C for intersections and roadways during peak periods. LOS D is only acceptable when deficiencies are unavoidable.

Caltrans

Caltrans follows the guidance and analysis methodologies identified in the *Caltrans Vehicles Miles Traveled-Focused Transportation Impact Study Guide*, dated May 2020. Pursuant to CEQA Guidelines, Section 15064.3, VMT is now the most appropriate measure of transportation impacts. Caltrans' primary review focus for land use project impacts is now the VMT metric. Caltrans also acknowledges that determining how a State Highway System may be affected by a land use project as it pertains to the safety of the traveling public may still be necessary. As a result, Caltrans' future guidance will include the basis for requesting transportation impact analysis not solely based on the VMT metric

In the interim, Caltrans has drafted the *Caltrans Interim Land Development and Intergovernmental Review (LDIFR) Safety Review Practitioners Guidance*, dated July 2020, which provides immediate direction on safety review while final guidance is being developed. As identified in the Caltrans interim guidelines, district traffic safety staff should consider each location and the proposed project's potential influence on safety. Therefore, an off-ramp queuing analysis will be conducted to determine the project's effect on potentially slowing or stopping traffic on mainline travel lanes or causing speed differentials between adjacent lanes.

In addition, this analysis assumes that LOS D remains the target level of service standard and will be utilized to assess the Project impacts at the state-controlled study intersections.

I. Impact Criteria: Improvements shall be identified to improve intersection operations to the General Plan target LOS (LOS C or better).

J. VMT Analysis: Effective July 1st, 2020, the longstanding metric of roadway level of service (LOS), which is typically measured in terms of vehicle delay, roadway capacity and congestion, will no longer be considered a significant impact under the California

Environmental Quality Act (CEQA). Pursuant to CEQA Guidelines, Section 15064.3, VMT is now the most appropriate measure of transportation impacts.

The City of Greenfield has not adopted formal Vehicle Miles Traveled (VMT) Analysis Guidelines. As such, the City of Greenfield follows the recommendations, thresholds of significance, and methodologies for identifying VMT related impacts outlined in the *Technical Advisory on Evaluating Transportation Impacts in California Environmental Quality (CEQA),* dated December 2018, prepared by the State of California Governor's Office of Planning and Research (OPR).

Local-serving projects may be presumed to have a less than significant impact under CEQA absent substantial evidence to the contrary because the users (i.e. employees, customers, and visitors) would be existing within the community and the project would not generate new "demand" for the project land uses. Instead, local-serving projects would meet the existing demand that would shorten the distance existing residents, employees, customers, or visitors would need to travel.

Although not explicitly stated in the OPR, many public agencies identify non-destination hotels as local serving in nature because the target demographic is not visitors traveling long distances but rather the existing community. Thus, the proposed project, which is a non-destination hotel, may be presumed to have a less than significant impact under CEQA and no further VMT analysis is required.

K. Request for Information: Please provide information on the following for use in the traffic study:

- Information on cumulative projects that need to be included in the traffic analysis (location, land use type(s), and land use quantities); and — (RECEIVED 9/28/2022)

- Information on future roadway and circulation system modifications/improvements that are planned within the study area and would potentially affect the analysis. (FRONTAGE STREET IMPROVEMENTS RECEIVED 9/28/2022).

If you have any questions, or would like further review, please call us at (949) 474-0809.

Sincerely,

RK ENGINEERING GROUP, INC.



Justin Tucker, P.E.
Principal Engineer

Attachments

Approved by:

_____

City of Greenfield

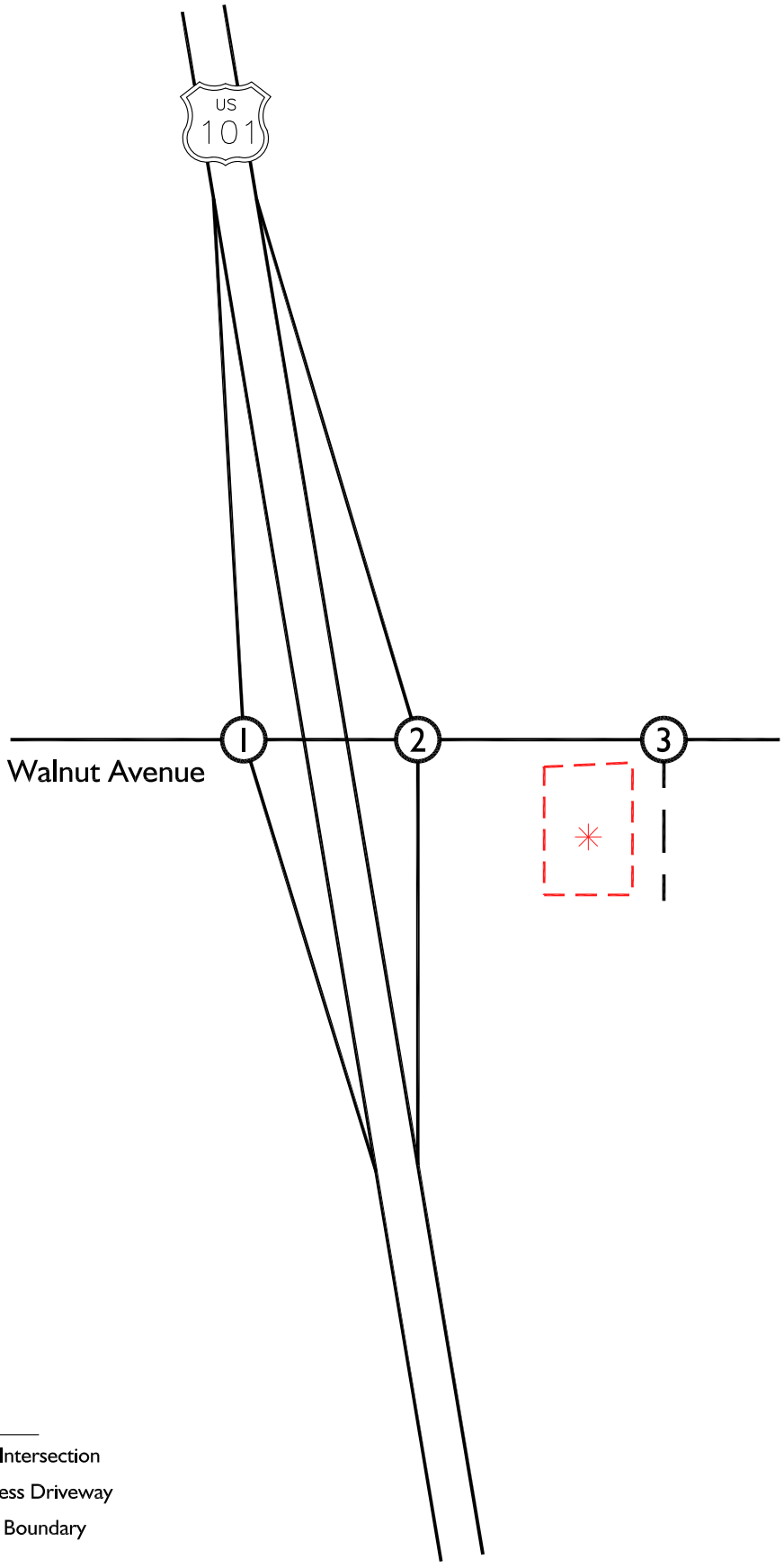
_____

Date

Attachments

Exhibit A

Location Map



Legend:

(1) = Study Area Intersection

--- = Project Access Driveway

--- = Project Site Boundary

N

Exhibit B

Site Plan

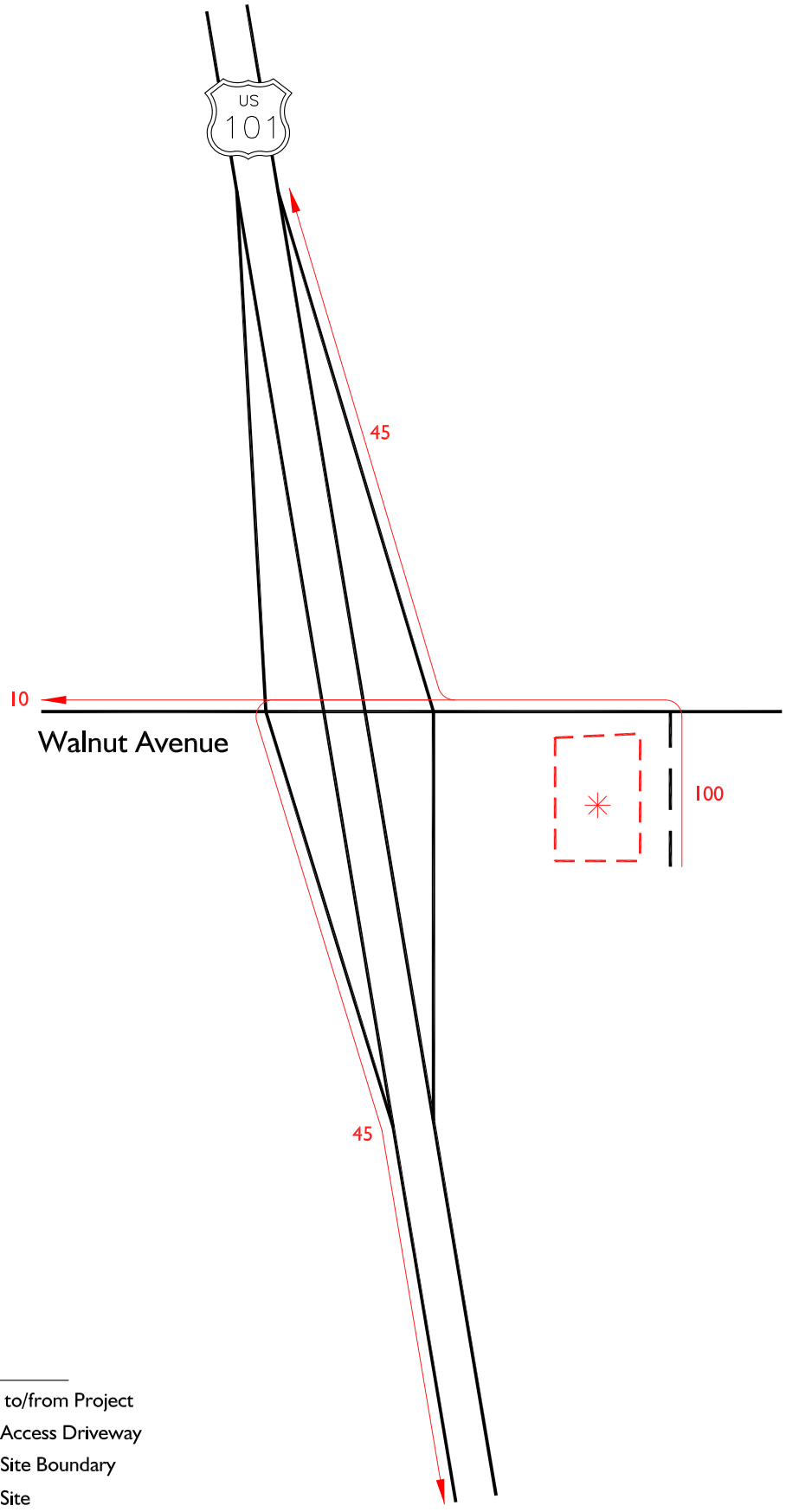


N

RK engineering group, inc.

Exhibit C

Project Trip Distribution



Legend:

10 = Percent to/from Project

= Project Access Driveway

= Project Site Boundary

= Project Site

N

From:	Doug Pike
To:	Justin Tucker
Cc:	Jigish Shah; Rogier Goedecke; Jamie Tugel; Tony Nisich; Nhi Ly
Subject:	RE: [External] RE: TownePlace Suites, Walnut Avenue east of US Hwy 101, City of Greenfield (JN: 2959-2022-04)
Date:	Monday, October 10, 2022 2:36:35 PM
Attachments:	image001.jpg RE TownePlace Suites Walnut Avenue east of US Hwy 101 City of Greenfield.msg 29592204_Scoping Agreement DSP.pdf

Thanks Justin,

1. See "Sticky Note Comments" in yellow on the document you sent. I have also attached my previous e-mail to you from 8-28-2022 to print & attach to this document.
2. Also, although we generally agree with this scope, findings may require some supplemental investigation or comments to be added to your traffic study, upon submittal of a draft report for review by the City. We are not sure of your intent regarding the signing this, but the City has no policy or precedent to sign a scoping agreement. Please just submit this as a letter to the City and take our comments and e-mail response as a qualified concurrence to prepare your draft study.

Thank you for including us in providing input and for your communication prior to performing your study,

Best regards,

Doug Pike, PE
City Engineer
Greenfield, CA

MNS Engineers, Inc.
201 Industrial Way, Ste A / Buellton, CA 93427
Direct (805) 697-1416 / Cell (805) 331-3553(preferred)
dpike@mnsengineers.com

From: Justin Tucker <jt@rkengineer.com>
Sent: Monday, October 10, 2022 1:33 PM
To: Doug Pike <dpike@mnsengineers.com>
Cc: Jigish Shah <jigish325@gmail.com>; Rogier Goedecke <rg@rkengineer.com>; Jamie Tugel <jtugel@ci.greenfield.ca.us>; Tony Nisich <tnisich@mnsengineers.com>; Nhi Ly <nl@rkengineer.com>
Subject: [External] RE: TownePlace Suites, Walnut Avenue east of US Hwy 101, City of Greenfield (JN: 2959-2022-04)

Hi Doug,

I just wanted to quickly follow up to my email from last Tuesday regarding the Scoping Agreement for the TownePlace Suites Hotel Project Traffic Impact Study (re-attached for your convenience). Please let me know if you have any comments/questions, I look forward to your feedback.

Thanks Doug!

Justin Tucker, PE
Principal Engineer

CA Licensed Civil Engineer #92866

RK Engineering Group, Inc.

transportation planning / traffic engineering & design
environmental engineering / parking demand
4000 Westerly Place, Suite 280
Newport Beach, CA 92660
office 949.474.0810
cell 949.632.2758

www.rkengineer.com

From: Justin Tucker
Sent: Tuesday, October 04, 2022 12:02 PM
To: Doug Pike <dpike@mnsengineers.com>
Cc: Jigish Shah <jigish325@gmail.com>; Rogier Goedecke <rg@rkengineer.com>; Jamie Tugel <jtugel@ci.greenfield.ca.us>; Tony Nisich <tnisich@mnsengineers.com>; Nhi Ly <nl@rkengineer.com>
Subject: RE: TownePlace Suites, Walnut Avenue east of US Hwy 101, City of Greenfield (JN: 2959-2022-04)

Good Afternoon Doug,

RK Engineering Group would like to submit the attached Scoping Agreement for the TownePlace Suites Hotel Project Traffic Impact Study. The project site is located south of Walnut Avenue, just east of the U.S. Highway 101, in the City of Greenfield. The project consists of the construction of an 84-room TownePlace Suites Hotel.

Please see the attached scoping agreement for more details. We appreciate your review and look forward to your feedback.

Thanks Doug!

Justin Tucker, PE
Principal Engineer

CA Licensed Civil Engineer #92866

RK Engineering Group, Inc.

transportation planning / traffic engineering & design
environmental engineering / parking demand
4000 Westerly Place, Suite 280
Newport Beach, CA 92660
office 949.474.0810
cell 949.632.2758

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From: Doug Pike <dpike@mnsengineers.com>
Sent: Wednesday, September 28, 2022 2:53 PM
To: Justin Tucker <jt@rkengineer.com>
Cc: Jigish Shah <jigish325@gmail.com>; Rogier Goedecke <rg@rkengineer.com>; Jamie Tugel <jtugel@ci.greenfield.ca.us>; Tony Nisich <tnisich@mnsengineers.com>
Subject: RE: TownePlace Suites, Walnut Avenue east of US Hwy 101, City of Greenfield

Thanks Justin,
The main focus of the Traffic study for the Hotel Project will be the Walnut Avenue corridor from 3rd street to ECR, and ECR between Thorne Road and Oak Ave..
A critical focus will be to understand impacts at the Walnut Ave. interchange on US101. Attached please find relevant info and Traffic Studies to assist your Traffic Engineer.
Consider:

1. Traffic Study from the Walnut Ave Specific Plan EIR- Attached
2. Add 212 New multi-family units at NW corner of Walnut/3rd Intersection. (In construction)
3. Add 222 Multi-family Units on SE Corner of Walnut/3rd Intersection (In construction permitting phase)
4. Add 37 SFU's on NE corner of 3rd/Apple (In entitlement phase)
5. Add 34 Multi-family units on 4th St. Between Apple and Palm. (In entitlement phase)
6. Add 217 New multi-family units on North Side of Walnut between 10th and 12th Streets. (In construction)
7. For reference, the General Plan Circulation Element is Attached
8. Current US101/Walnut Interchange Configuration here:
https://mnsengineers.box.com/s/po0opivsp4qkeqif39xlgcxn998hpueh
9. ATraffic Alternatives Study for Walnut/El Camino Real Intersection here:
https://mnsengineers.box.com/s/fhsnpxs6mu4u1ad51a10m8al8ywxdq8e
10. Frontage street Improvements (widening) required for Hotel development (this may be the "project specific" improvements required per the Specific Plan EIR for the Hotel-Planning Dept./PW Director Call):
https://mnsengineers.box.com/s/5vs2oqseg1fno79ty44s7n5m0kepdte1

I look forward to reviewing your scope.
Feel free to call with questions,

Doug Pike, PE
City Engineer
Greenfield, CA
MNS Engineers, Inc.
201 Industrial Way, Ste A / Buellton, CA 93427
Direct (805) 697-1416 / Cell (805) 331-3553(preferred)
dpike@mnsengineers.com

From: Justin Tucker <jt@rkengineer.com>

Sent: Wednesday, September 28, 2022 12:16 PM
To: Doug Pike <dpike@mnsengineers.com>
Cc: Jigish Shah <jigish325@gmail.com>; Rogier Goedecke <rg@rkengineer.com>
Subject: [External] TownePlace Suites, Walnut Avenue east of US Hwy 101, City of Greenfield

Hi Doug,

Pleasure speaking with you this morning, I appreciate you taking the time to chat with me about what will be required in regards to the traffic analysis. Our next step will be to compile a scoping agreement that we will submit to you for your review/approval. When you get the chance, if you could send me the cumulative project information, as well as the Walnut Avenue widening plans, that would be fantastic.

Thanks Doug!

Justin Tucker, PE
Principal Engineer

CA Licensed Civil Engineer #92866

RK Engineering Group, Inc.

transportation planning / traffic engineering & design
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4000 Westerly Place, Suite 280
Newport Beach, CA 92660
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Appendix B

Traffic Count Worksheets

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268
counts@countsunlimited.com

City of Greenfield
N/S: US-101 Southbound Ramps
E/W: Walnut Avenue
Weather: Clear

File Name : 01_GFD_101S_Wal AM
Site Code : 10522921
Start Date : 10/12/2022
Page No : 1

Groups Printed- Total Volume

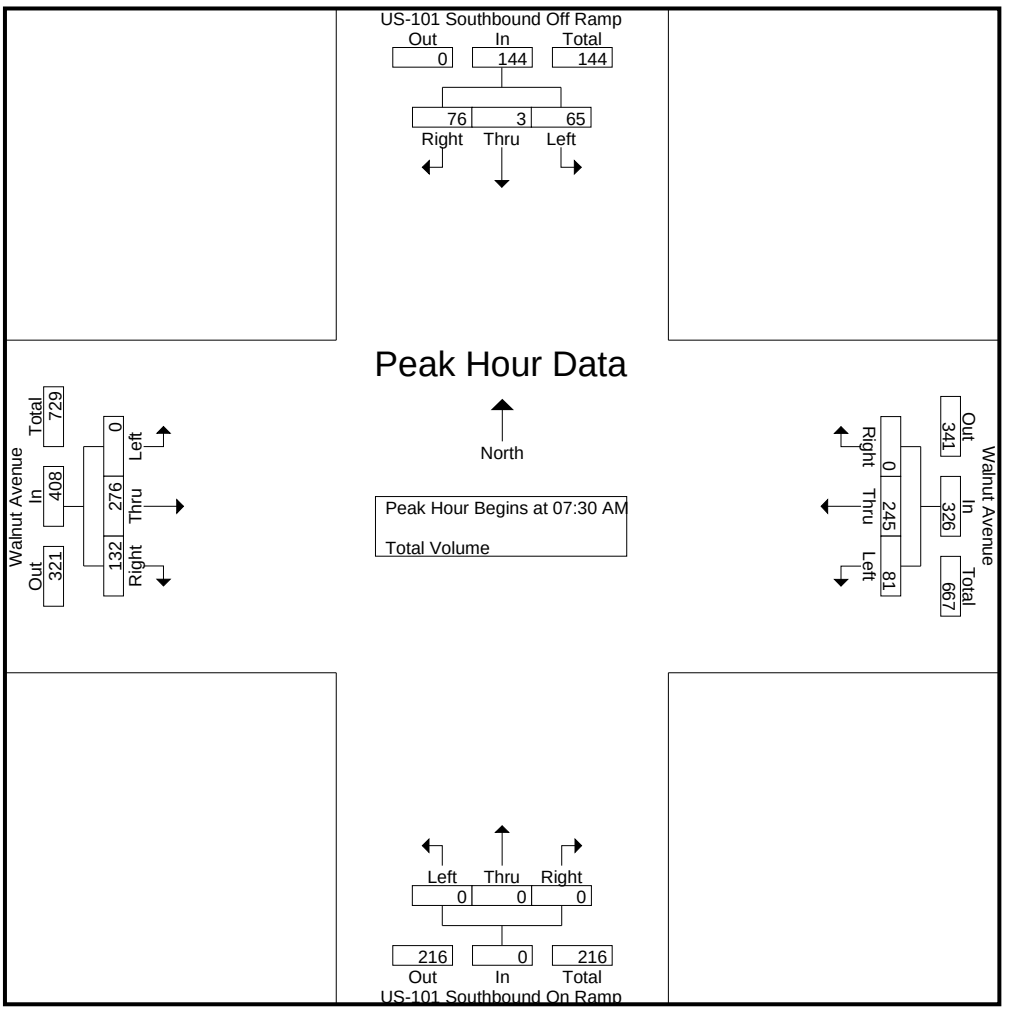
	US-101 Southbound Off Ramp Southbound				Walnut Avenue Westbound				US-101 Southbound On Ramp Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	12	0	10	22	8	36	0	44	0	0	0	0	0	70	11	81	147
07:15 AM	11	1	14	26	5	35	0	40	0	0	0	0	0	59	11	70	136
07:30 AM	15	0	9	24	20	50	0	70	0	0	0	0	0	76	32	108	202
07:45 AM	16	1	25	42	32	72	0	104	0	0	0	0	0	78	54	132	278
Total	54	2	58	114	65	193	0	258	0	0	0	0	0	283	108	391	763
08:00 AM	18	1	23	42	17	87	0	104	0	0	0	0	0	63	27	90	236
08:15 AM	16	1	19	36	12	36	0	48	0	0	0	0	0	59	19	78	162
08:30 AM	4	1	20	25	10	35	0	45	0	0	0	0	0	45	12	57	127
08:45 AM	8	0	15	23	9	32	0	41	0	0	0	0	0	36	20	56	120
Total	46	3	77	126	48	190	0	238	0	0	0	0	0	203	78	281	645
Grand Total	100	5	135	240	113	383	0	496	0	0	0	0	0	486	186	672	1408
Apprch %	41.7	2.1	56.2		22.8	77.2	0		0	0	0		0	72.3	27.7		
Total %	7.1	0.4	9.6	17	8	27.2	0	35.2	0	0	0	0	0	34.5	13.2	47.7	

	US-101 Southbound Off Ramp Southbound				Walnut Avenue Westbound				US-101 Southbound On Ramp Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	15	0	9	24	20	50	0	70	0	0	0	0	0	76	32	108	202
07:45 AM	16	1	25	42	32	72	0	104	0	0	0	0	0	78	54	132	278
08:00 AM	18	1	23	42	17	87	0	104	0	0	0	0	0	63	27	90	236
08:15 AM	16	1	19	36	12	36	0	48	0	0	0	0	0	59	19	78	162
Total Volume	65	3	76	144	81	245	0	326	0	0	0	0	0	276	132	408	878
% App. Total	45.1	2.1	52.8		24.8	75.2	0		0	0	0		0	67.6	32.4		
PHF	.903	.750	.760	.857	.633	.704	.000	.784	.000	.000	.000	.000	.000	.885	.611	.773	.790

Counts Unlimited, Inc.
PO Box 1178
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counts@countsunlimited.com

City of Greenfield
N/S: US-101 Southbound Ramps
E/W: Walnut Avenue
Weather: Clear

File Name : 01_GFD_101S_Wal AM
Site Code : 10522921
Start Date : 10/12/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:30 AM				07:00 AM				07:30 AM			
+0 mins.	16	1	25	42	20	50	0	70	0	0	0	0	0	76	32	108
+15 mins.	18	1	23	42	32	72	0	104	0	0	0	0	0	78	54	132
+30 mins.	16	1	19	36	17	87	0	104	0	0	0	0	0	63	27	90
+45 mins.	4	1	20	25	12	36	0	48	0	0	0	0	0	59	19	78
Total Volume	54	4	87	145	81	245	0	326	0	0	0	0	0	276	132	408
% App. Total	37.2	2.8	60		24.8	75.2	0		0	0	0		0	67.6	32.4	
PHF	.750	1.000	.870	.863	.633	.704	.000	.784	.000	.000	.000	.000	.000	.885	.611	.773

Counts Unlimited, Inc.
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City of Greenfield
N/S: US-101 Southbound Ramps
E/W: Walnut Avenue
Weather: Clear

File Name : 01_GFD_101S_Wal PM
Site Code : 10522921
Start Date : 10/12/2022
Page No : 1

Groups Printed- Total Volume

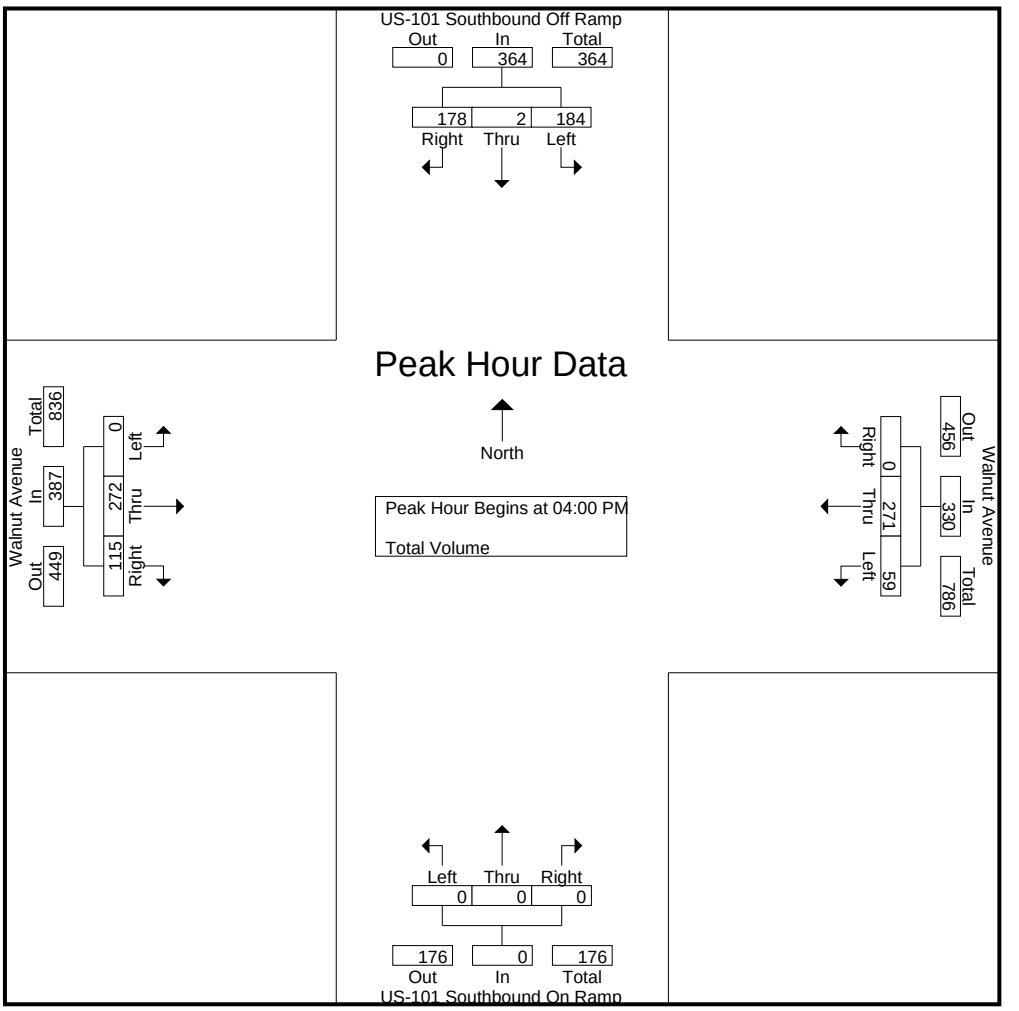
	US-101 Southbound Off Ramp Southbound				Walnut Avenue Westbound				US-101 Southbound On Ramp Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	44	1	48	93	14	57	0	71	0	0	0	0	0	74	35	109	273
04:15 PM	52	0	54	106	16	77	0	93	0	0	0	0	0	64	27	91	290
04:30 PM	39	1	37	77	15	72	0	87	0	0	0	0	0	72	32	104	268
04:45 PM	49	0	39	88	14	65	0	79	0	0	0	0	0	62	21	83	250
Total	184	2	178	364	59	271	0	330	0	0	0	0	0	272	115	387	1081
05:00 PM	43	2	52	97	9	67	0	76	0	0	0	0	0	72	24	96	269
05:15 PM	46	2	54	102	11	74	0	85	0	0	0	0	0	69	28	97	284
05:30 PM	43	0	37	80	10	69	0	79	0	0	0	0	0	53	31	84	243
05:45 PM	43	0	42	85	10	72	0	82	0	0	0	0	0	75	32	107	274
Total	175	4	185	364	40	282	0	322	0	0	0	0	0	269	115	384	1070
Grand Total	359	6	363	728	99	553	0	652	0	0	0	0	0	541	230	771	2151
Apprch %	49.3	0.8	49.9		15.2	84.8	0		0	0	0		0	70.2	29.8		
Total %	16.7	0.3	16.9	33.8	4.6	25.7	0	30.3	0	0	0	0	0	25.2	10.7	35.8	

	US-101 Southbound Off Ramp Southbound				Walnut Avenue Westbound				US-101 Southbound On Ramp Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	44	1	48	93	14	57	0	71	0	0	0	0	0	74	35	109	273
04:15 PM	52	0	54	106	16	77	0	93	0	0	0	0	0	64	27	91	290
04:30 PM	39	1	37	77	15	72	0	87	0	0	0	0	0	72	32	104	268
04:45 PM	49	0	39	88	14	65	0	79	0	0	0	0	0	62	21	83	250
Total Volume	184	2	178	364	59	271	0	330	0	0	0	0	0	272	115	387	1081
% App. Total	50.5	0.5	48.9		17.9	82.1	0		0	0	0		0	70.3	29.7		
PHF	.885	.500	.824	.858	.922	.880	.000	.887	.000	.000	.000	.000	.000	.919	.821	.888	.932

Counts Unlimited, Inc.
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City of Greenfield
N/S: US-101 Southbound Ramps
E/W: Walnut Avenue
Weather: Clear

File Name : 01_GFD_101S_Wal PM
Site Code : 10522921
Start Date : 10/12/2022
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:00 PM				04:00 PM			
+0 mins.	52	0	54	106	16	77	0	93	0	0	0	0	0	74	35	109
+15 mins.	39	1	37	77	15	72	0	87	0	0	0	0	0	64	27	91
+30 mins.	49	0	39	88	14	65	0	79	0	0	0	0	0	72	32	104
+45 mins.	43	2	52	97	9	67	0	76	0	0	0	0	0	62	21	83
Total Volume	183	3	182	368	54	281	0	335	0	0	0	0	0	272	115	387
% App. Total	49.7	0.8	49.5		16.1	83.9	0		0	0	0		0	70.3	29.7	
PHF	.880	.375	.843	.868	.844	.912	.000	.901	.000	.000	.000	.000	.000	.919	.821	.888

Location: Greenfield
N/S: US-101 SB Ramps
E/W: Walnut Avenue

Date: 10/12/2022
Day: Wednesday

PEDESTRIANS

	North Leg US-101 SB Ramps	East Leg Walnut Avenue	South Leg US-101 SB Ramps	West Leg Walnut Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	1	0	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	2	1	1	0	4
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	4	1	1	0	6

	North Leg US-101 SB Ramps	East Leg Walnut Avenue	South Leg US-101 SB Ramps	West Leg Walnut Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	0	1	0	2
4:15 PM	10	5	1	0	16
4:30 PM	2	0	0	0	2
4:45 PM	5	0	0	0	5
5:00 PM	9	0	0	0	9
5:15 PM	5	0	1	0	6
5:30 PM	3	0	0	0	3
5:45 PM	3	0	1	0	4
TOTAL VOLUMES:	38	5	4	0	47

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Location: Greenfield
N/S: US-101 SB Ramps
E/W: Walnut Avenue

Date: 10/12/2022
Day: Wednesday

BICYCLES

	Southbound US-101 SB Ramps			Westbound Walnut Avenue			Northbound US-101 SB Ramps			Eastbound Walnut Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

	Southbound US-101 SB Ramps			Westbound Walnut Avenue			Northbound US-101 SB Ramps			Eastbound Walnut Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	0	0	1	0	3

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City of Greenfield
N/S: US-101 Northbound Ramps
E/W: Walnut Avenue
Weather: Clear

File Name : 02_GFD_101N_Wal AM
Site Code : 10522921
Start Date : 10/12/2022
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Groups Printed- Total Volume

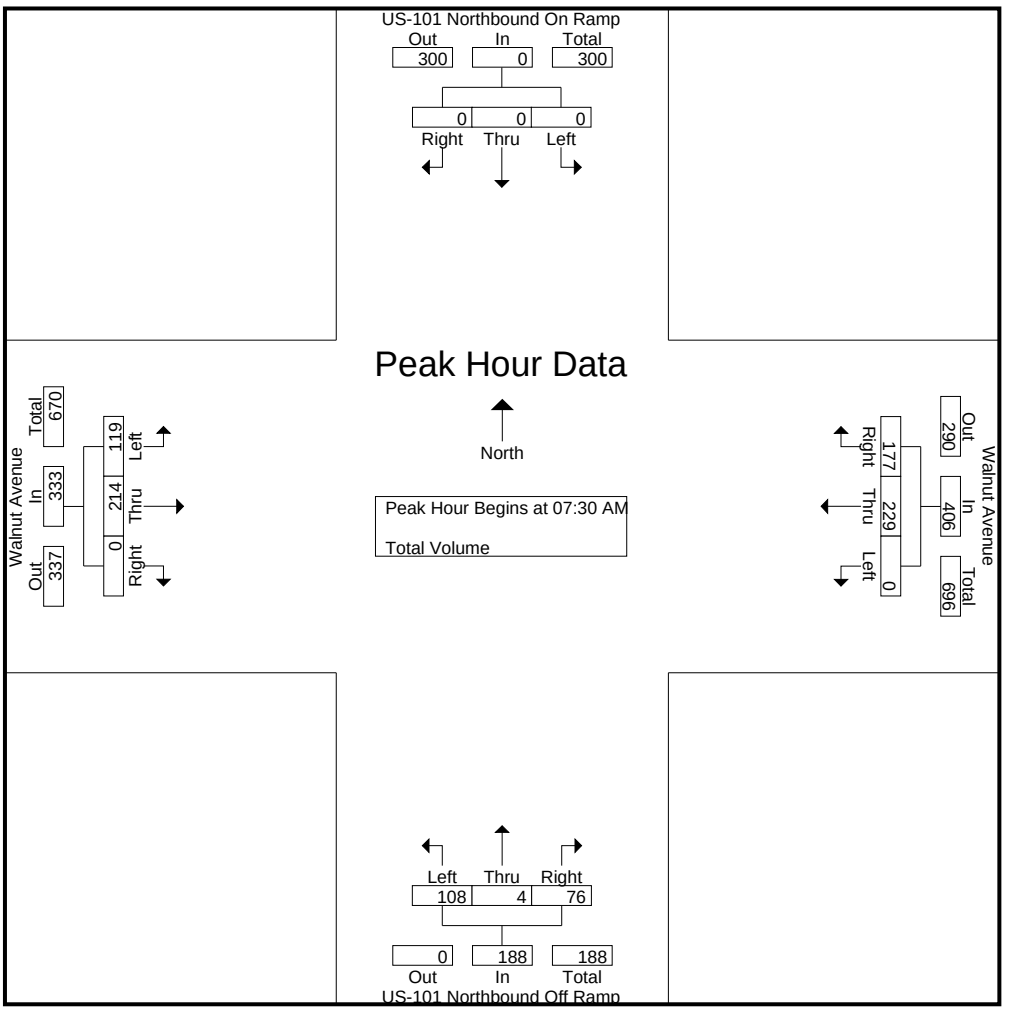
	US-101 Northbound On Ramp Southbound				Walnut Avenue Westbound				US-101 Northbound Off Ramp Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	28	60	88	15	0	23	38	51	26	0	77	203
07:15 AM	0	0	0	0	0	27	59	86	12	0	17	29	38	24	0	62	177
07:30 AM	0	0	0	0	0	54	46	100	19	1	16	36	44	44	0	88	224
07:45 AM	0	0	0	0	0	73	46	119	39	0	15	54	23	67	0	90	263
Total	0	0	0	0	0	182	211	393	85	1	71	157	156	161	0	317	867
08:00 AM	0	0	0	0	0	58	46	104	37	1	25	63	24	61	0	85	252
08:15 AM	0	0	0	0	0	44	39	83	13	2	20	35	28	42	0	70	188
08:30 AM	0	0	0	0	0	42	24	66	8	0	15	23	25	30	0	55	144
08:45 AM	0	0	0	0	0	26	35	61	14	0	10	24	22	20	0	42	127
Total	0	0	0	0	0	170	144	314	72	3	70	145	99	153	0	252	711
Grand Total	0	0	0	0	0	352	355	707	157	4	141	302	255	314	0	569	1578
Apprch %	0	0	0		0	49.8	50.2		52	1.3	46.7		44.8	55.2	0		
Total %	0	0	0	0	0	22.3	22.5	44.8	9.9	0.3	8.9	19.1	16.2	19.9	0	36.1	

	US-101 Northbound On Ramp Southbound				Walnut Avenue Westbound				US-101 Northbound Off Ramp Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	54	46	100	19	1	16	36	44	44	0	88	224
07:45 AM	0	0	0	0	0	73	46	119	39	0	15	54	23	67	0	90	263
08:00 AM	0	0	0	0	0	58	46	104	37	1	25	63	24	61	0	85	252
08:15 AM	0	0	0	0	0	44	39	83	13	2	20	35	28	42	0	70	188
Total Volume	0	0	0	0	0	229	177	406	108	4	76	188	119	214	0	333	927
% App. Total	0	0	0		0	56.4	43.6		57.4	2.1	40.4		35.7	64.3	0		
PHF	.000	.000	.000	.000	.000	.784	.962	.853	.692	.500	.760	.746	.676	.799	.000	.925	.881

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City of Greenfield
N/S: US-101 Northbound Ramps
E/W: Walnut Avenue
Weather: Clear

File Name : 02_GFD_101N_Wal AM
Site Code : 10522921
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	27	59	86	19	1	16	36	44	44	0	88
+15 mins.	0	0	0	0	0	54	46	100	39	0	15	54	23	67	0	90
+30 mins.	0	0	0	0	0	73	46	119	37	1	25	63	24	61	0	85
+45 mins.	0	0	0	0	0	58	46	104	13	2	20	35	28	42	0	70
Total Volume	0	0	0	0	0	212	197	409	108	4	76	188	119	214	0	333
% App. Total	0	0	0		0	51.8	48.2		57.4	2.1	40.4		35.7	64.3	0	
PHF	.000	.000	.000	.000	.000	.726	.835	.859	.692	.500	.760	.746	.676	.799	.000	.925

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City of Greenfield
N/S: US-101 Northbound Ramps
E/W: Walnut Avenue
Weather: Clear

File Name : 02_GFD_101N_Wal PM
Site Code : 10522921
Start Date : 10/12/2022
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Groups Printed- Total Volume

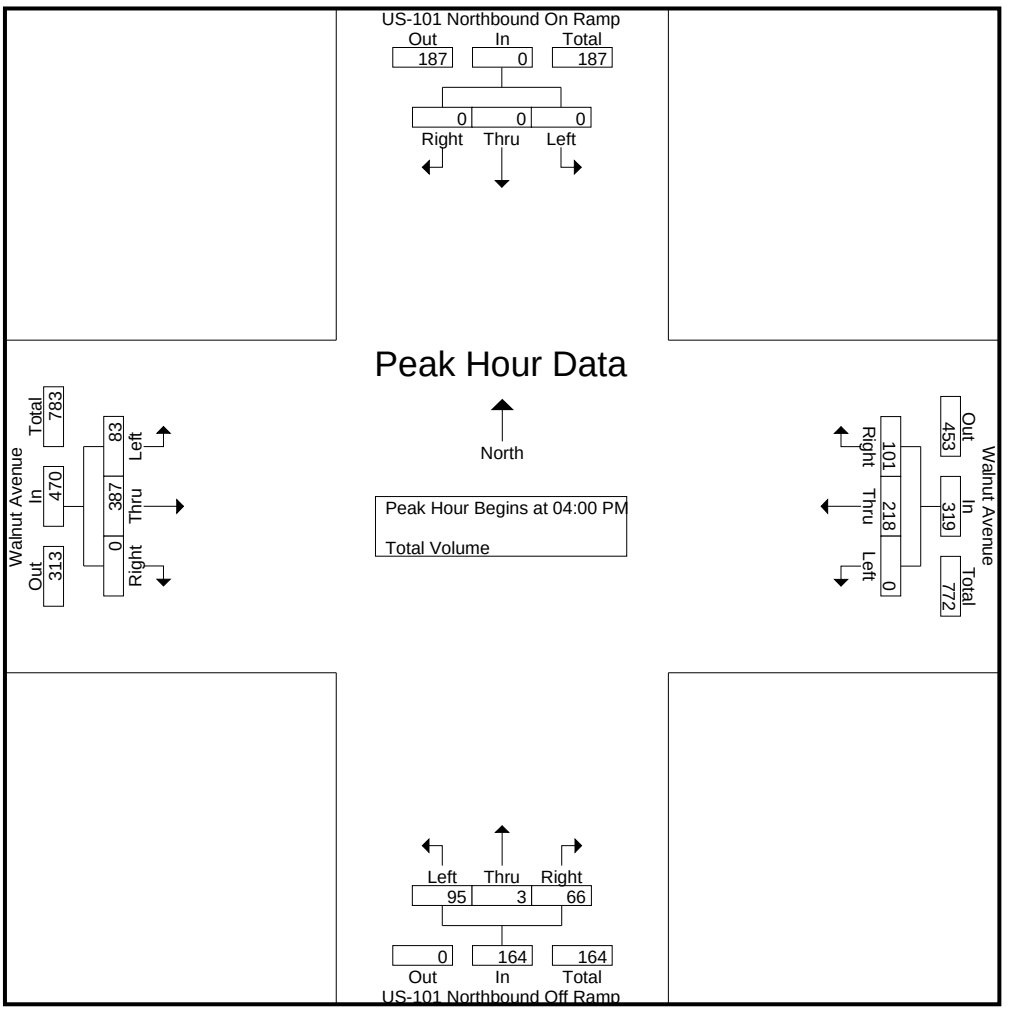
	US-101 Northbound On Ramp Southbound				Walnut Avenue Westbound				US-101 Northbound Off Ramp Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	55	27	82	16	1	16	33	24	102	0	126	241
04:15 PM	0	0	0	0	0	59	30	89	25	2	17	44	18	97	0	115	248
04:30 PM	0	0	0	0	0	48	25	73	31	0	15	46	18	102	0	120	239
04:45 PM	0	0	0	0	0	56	19	75	23	0	18	41	23	86	0	109	225
Total	0	0	0	0	0	218	101	319	95	3	66	164	83	387	0	470	953
05:00 PM	0	0	0	0	0	54	24	78	24	0	17	41	21	88	0	109	228
05:15 PM	0	0	0	0	0	62	16	78	17	0	15	32	18	91	0	109	219
05:30 PM	0	0	0	0	0	63	23	86	22	0	15	37	18	81	0	99	222
05:45 PM	0	0	0	0	0	62	27	89	19	0	11	30	22	88	0	110	229
Total	0	0	0	0	0	241	90	331	82	0	58	140	79	348	0	427	898
Grand Total	0	0	0	0	0	459	191	650	177	3	124	304	162	735	0	897	1851
Apprch %	0	0	0		0	70.6	29.4		58.2	1	40.8		18.1	81.9	0		
Total %	0	0	0	0	0	24.8	10.3	35.1	9.6	0.2	6.7	16.4	8.8	39.7	0	48.5	

	US-101 Northbound On Ramp Southbound				Walnut Avenue Westbound				US-101 Northbound Off Ramp Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	55	27	82	16	1	16	33	24	102	0	126	241
04:15 PM	0	0	0	0	0	59	30	89	25	2	17	44	18	97	0	115	248
04:30 PM	0	0	0	0	0	48	25	73	31	0	15	46	18	102	0	120	239
04:45 PM	0	0	0	0	0	56	19	75	23	0	18	41	23	86	0	109	225
Total Volume	0	0	0	0	0	218	101	319	95	3	66	164	83	387	0	470	953
% App. Total	0	0	0		0	68.3	31.7		57.9	1.8	40.2		17.7	82.3	0		
PHF	.000	.000	.000	.000	.000	.924	.842	.896	.766	.375	.917	.891	.865	.949	.000	.933	.961

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City of Greenfield
N/S: US-101 Northbound Ramps
E/W: Walnut Avenue
Weather: Clear

File Name : 02_GFD_101N_Wal PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:15 PM				04:00 PM			
+0 mins.	0	0	0	0	0	54	24	78	25	2	17	44	24	102	0	126
+15 mins.	0	0	0	0	0	62	16	78	31	0	15	46	18	97	0	115
+30 mins.	0	0	0	0	0	63	23	86	23	0	18	41	18	102	0	120
+45 mins.	0	0	0	0	0	62	27	89	24	0	17	41	23	86	0	109
Total Volume	0	0	0	0	0	241	90	331	103	2	67	172	83	387	0	470
% App. Total	0	0	0		0	72.8	27.2		59.9	1.2	39		17.7	82.3	0	
PHF	.000	.000	.000	.000	.000	.956	.833	.930	.831	.250	.931	.935	.865	.949	.000	.933

Location: Greenfield
N/S: US-101 NB Ramps
E/W: Walnut Avenue

Date: 10/12/2022
Day: Wednesday

PEDESTRIANS

	North Leg US-101 NB Ramps	East Leg Walnut Avenue	South Leg US-101 NB Ramps	West Leg Walnut Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	1	0	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	1	0	1	0	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	3	0	1	0	4

	North Leg US-101 NB Ramps	East Leg Walnut Avenue	South Leg US-101 NB Ramps	West Leg Walnut Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	0	1	0	2
4:15 PM	4	0	5	0	9
4:30 PM	2	0	0	0	2
4:45 PM	5	0	0	0	5
5:00 PM	8	0	0	0	8
5:15 PM	5	0	0	0	5
5:30 PM	3	0	0	0	3
5:45 PM	2	0	1	0	3
TOTAL VOLUMES:	30	0	7	0	37

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Location: Greenfield
N/S: US-101 NB Ramps
E/W: Walnut Avenue

Date: 10/12/2022
Day: Wednesday

BICYCLES

	Southbound US-101 NB Ramps			Westbound Walnut Avenue			Northbound US-101 NB Ramps			Eastbound Walnut Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

	Southbound US-101 NB Ramps			Westbound Walnut Avenue			Northbound US-101 NB Ramps			Eastbound Walnut Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

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City of Greenfield
N/S: Project Driveway
E/W: Walnut Avenue
Weather: Clear

File Name : 03_GFD_P DW_Wal AM
Site Code : 10522921
Start Date : 10/12/2022
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Groups Printed- Total Volume

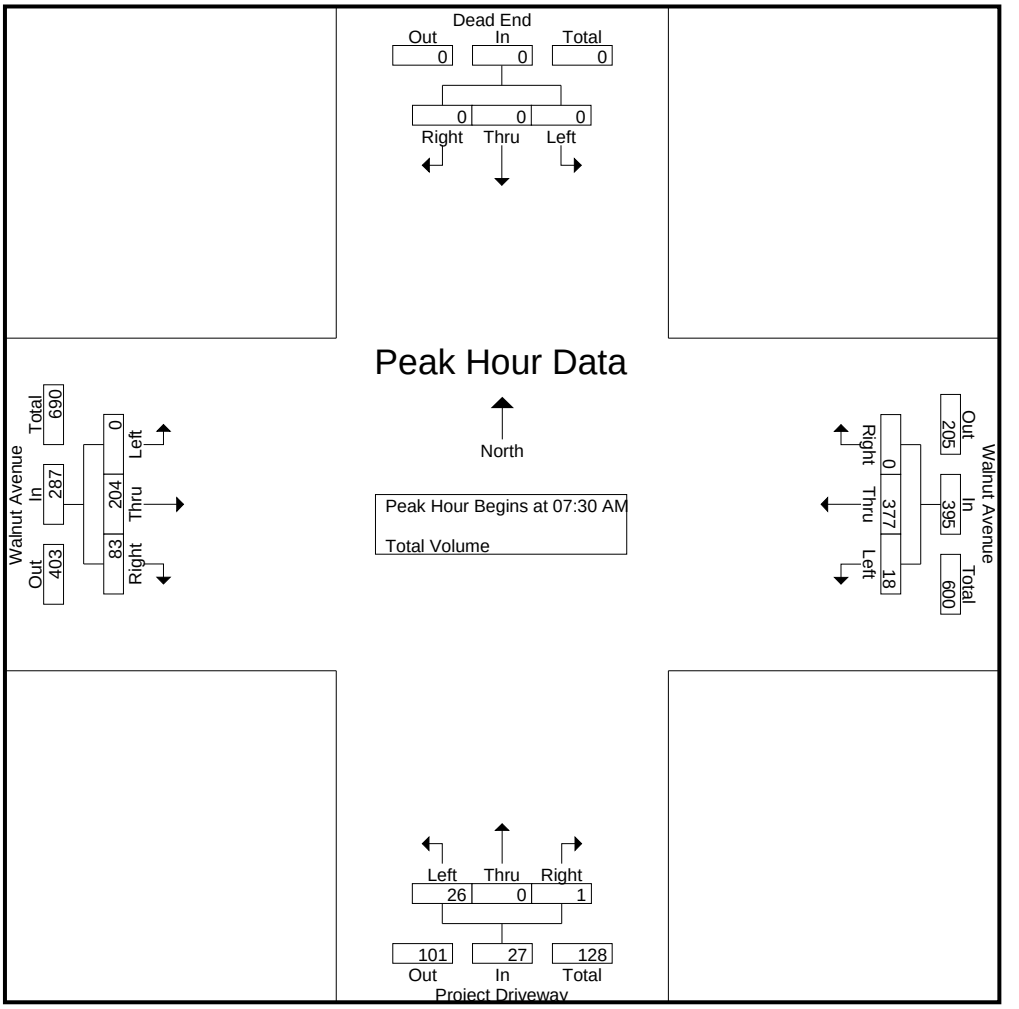
	Dead End Southbound				Walnut Avenue Westbound				Project Driveway Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	3	78	0	81	1	0	0	1	0	33	17	50	132
07:15 AM	0	0	0	0	2	88	0	90	1	0	0	1	0	28	14	42	133
07:30 AM	0	0	0	0	10	89	0	99	7	0	0	7	0	36	21	57	163
07:45 AM	0	0	0	0	1	112	0	113	9	0	0	9	0	60	23	83	205
Total	0	0	0	0	16	367	0	383	18	0	0	18	0	157	75	232	633
08:00 AM	0	0	0	0	2	101	0	103	3	0	0	3	0	66	20	86	192
08:15 AM	0	0	0	0	5	75	0	80	7	0	1	8	0	42	19	61	149
08:30 AM	0	0	0	0	3	61	0	64	3	0	1	4	0	30	17	47	115
08:45 AM	0	0	0	0	2	56	0	58	10	0	0	10	0	18	13	31	99
Total	0	0	0	0	12	293	0	305	23	0	2	25	0	156	69	225	555
Grand Total	0	0	0	0	28	660	0	688	41	0	2	43	0	313	144	457	1188
Apprch %	0	0	0		4.1	95.9	0		95.3	0	4.7		0	68.5	31.5		
Total %	0	0	0	0	2.4	55.6	0	57.9	3.5	0	0.2	3.6	0	26.3	12.1	38.5	

	Dead End Southbound				Walnut Avenue Westbound				Project Driveway Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	10	89	0	99	7	0	0	7	0	36	21	57	163
07:45 AM	0	0	0	0	1	112	0	113	9	0	0	9	0	60	23	83	205
08:00 AM	0	0	0	0	2	101	0	103	3	0	0	3	0	66	20	86	192
08:15 AM	0	0	0	0	5	75	0	80	7	0	1	8	0	42	19	61	149
Total Volume	0	0	0	0	18	377	0	395	26	0	1	27	0	204	83	287	709
% App. Total	0	0	0		4.6	95.4	0		96.3	0	3.7		0	71.1	28.9		
PHF	.000	.000	.000	.000	.450	.842	.000	.874	.722	.000	.250	.750	.000	.773	.902	.834	.865

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268
counts@countsunlimited.com

City of Greenfield
N/S: Project Driveway
E/W: Walnut Avenue
Weather: Clear

File Name : 03_GFD_P DW_Wal AM
Site Code : 10522921
Start Date : 10/12/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	2	88	0	90	7	0	0	7	0	36	21	57
+15 mins.	0	0	0	0	10	89	0	99	9	0	0	9	0	60	23	83
+30 mins.	0	0	0	0	1	112	0	113	3	0	0	3	0	66	20	86
+45 mins.	0	0	0	0	2	101	0	103	7	0	1	8	0	42	19	61
Total Volume	0	0	0	0	15	390	0	405	26	0	1	27	0	204	83	287
% App. Total	0	0	0		3.7	96.3	0		96.3	0	3.7		0	71.1	28.9	
PHF	.000	.000	.000	.000	.375	.871	.000	.896	.722	.000	.250	.750	.000	.773	.902	.834

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City of Greenfield
N/S: Project Driveway
E/W: Walnut Avenue
Weather: Clear

File Name : 03_GFD_P DW_Wal PM
Site Code : 10522921
Start Date : 10/12/2022
Page No : 1

Groups Printed- Total Volume

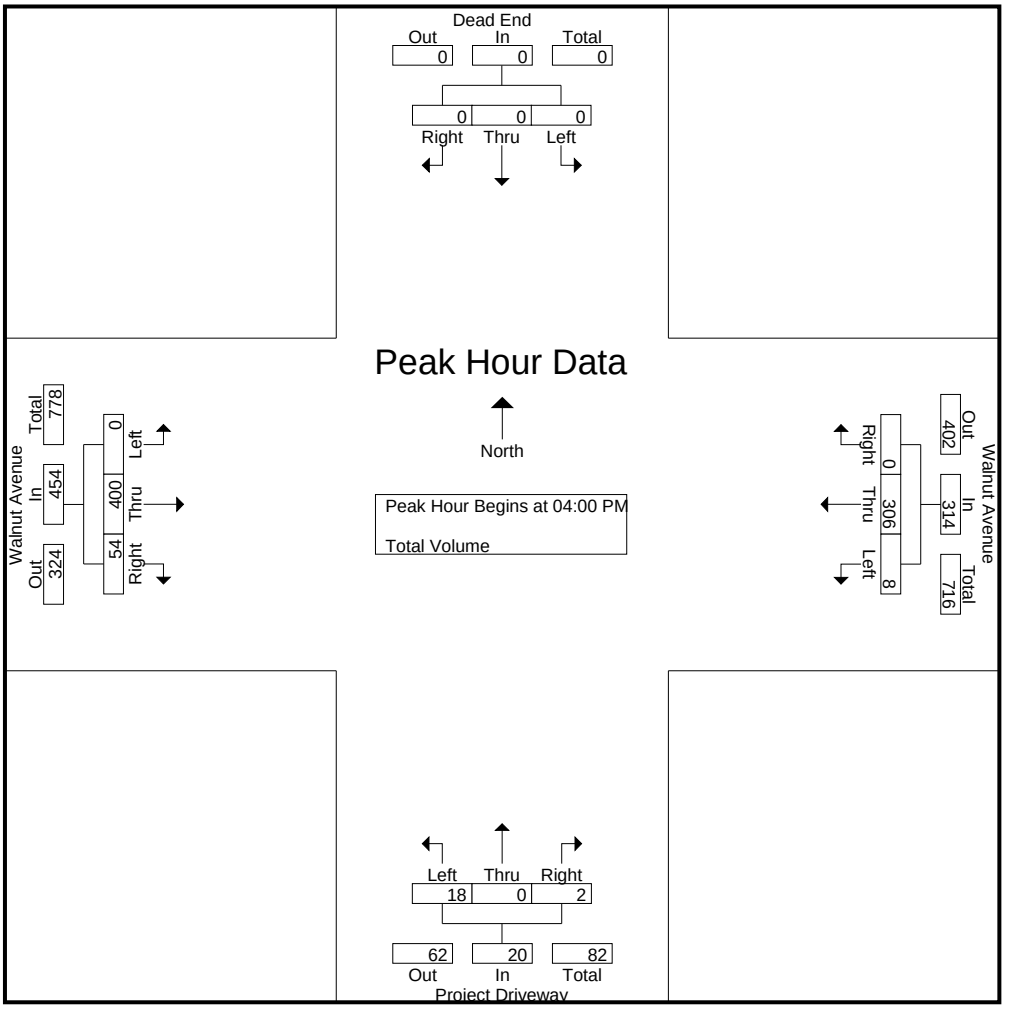
	Dead End Southbound				Walnut Avenue Westbound				Project Driveway Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	2	83	0	85	2	0	1	3	0	107	14	121	209
04:15 PM	0	0	0	0	2	81	0	83	4	0	0	4	0	102	7	109	196
04:30 PM	0	0	0	0	0	70	0	70	4	0	1	5	0	98	20	118	193
04:45 PM	0	0	0	0	4	72	0	76	8	0	0	8	0	93	13	106	190
Total	0	0	0	0	8	306	0	314	18	0	2	20	0	400	54	454	788
05:00 PM	0	0	0	0	1	75	0	76	4	0	0	4	0	91	16	107	187
05:15 PM	0	0	0	0	0	70	0	70	4	0	0	4	0	89	17	106	180
05:30 PM	0	0	0	0	2	81	0	83	7	0	0	7	0	84	13	97	187
05:45 PM	0	0	1	1	2	77	0	79	7	0	0	7	1	89	12	102	189
Total	0	0	1	1	5	303	0	308	22	0	0	22	1	353	58	412	743
Grand Total	0	0	1	1	13	609	0	622	40	0	2	42	1	753	112	866	1531
Apprch %	0	0	100		2.1	97.9	0		95.2	0	4.8		0.1	87	12.9		
Total %	0	0	0.1	0.1	0.8	39.8	0	40.6	2.6	0	0.1	2.7	0.1	49.2	7.3	56.6	

	Dead End Southbound				Walnut Avenue Westbound				Project Driveway Northbound				Walnut Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	2	83	0	85	2	0	1	3	0	107	14	121	209
04:15 PM	0	0	0	0	2	81	0	83	4	0	0	4	0	102	7	109	196
04:30 PM	0	0	0	0	0	70	0	70	4	0	1	5	0	98	20	118	193
04:45 PM	0	0	0	0	4	72	0	76	8	0	0	8	0	93	13	106	190
Total Volume	0	0	0	0	8	306	0	314	18	0	2	20	0	400	54	454	788
% App. Total	0	0	0		2.5	97.5	0		90	0	10		0	88.1	11.9		
PHF	.000	.000	.000	.000	.500	.922	.000	.924	.563	.000	.500	.625	.000	.935	.675	.938	.943

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City of Greenfield
N/S: Project Driveway
E/W: Walnut Avenue
Weather: Clear

File Name : 03_GFD_P DW_Wal PM
Site Code : 10522921
Start Date : 10/12/2022
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:45 PM				04:00 PM			
+0 mins.	0	0	0	0	2	83	0	85	8	0	0	8	0	107	14	121
+15 mins.	0	0	0	0	2	81	0	83	4	0	0	4	0	102	7	109
+30 mins.	0	0	0	0	0	70	0	70	4	0	0	4	0	98	20	118
+45 mins.	0	0	1	1	4	72	0	76	7	0	0	7	0	93	13	106
Total Volume	0	0	1	1	8	306	0	314	23	0	0	23	0	400	54	454
% App. Total	0	0	100		2.5	97.5	0		100	0	0		0	88.1	11.9	
PHF	.000	.000	.250	.250	.500	.922	.000	.924	.719	.000	.000	.719	.000	.935	.675	.938

Location: Greenfield
N/S: Project Driveway
E/W: Walnut Avenue

Date: 10/12/2022
Day: Wednesday

PEDESTRIANS

	North Leg Dead End	East Leg Walnut Avenue	South Leg Project Driveway	West Leg Walnut Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	1	0	1
7:45 AM	0	0	0	0	0
8:00 AM	2	0	0	0	2
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	1	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	3	0	1	1	5

	North Leg Dead End	East Leg Walnut Avenue	South Leg Project Driveway	West Leg Walnut Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	1	0	1	0	2
4:30 PM	7	0	0	0	7
4:45 PM	5	0	0	0	5
5:00 PM	5	0	0	0	5
5:15 PM	8	0	0	0	8
5:30 PM	3	0	0	0	3
5:45 PM	2	0	1	0	3
TOTAL VOLUMES:	31	0	2	0	33

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Greenfield
N/S: Project Driveway
E/W: Walnut Avenue

Date: 10/12/2022
Day: Wednesday

BICYCLES

	Southbound Dead End			Westbound Walnut Avenue			Northbound Project Driveway			Eastbound Walnut Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Dead End			Westbound Walnut Avenue			Northbound Project Driveway			Eastbound Walnut Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	1	0	2

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Corona, CA 92878
951-268-6268

Appendix C

The Vines at Greenfield (Tract No. 1525) Street Improvement Plans

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE CITY OF GREENFIELD/SALINAS STANDARDS AND SHALL CONFORM TO THE RECOMMENDATIONS CONTAINED AND MADE A PART THEREOF IN THE PRELIMINARY SOILS REPORT BY EARTH SYSTEMS PACIFIC, DATED MARCH 14th, 2016, SIGNED BY GEORGE J. BARNETT, GE 2309, JOB NO. SH-129870-SA.
2. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF SALINAS STANDARDS, AND THE LATEST EDITION OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND STANDARD PLANS, AND AS DIRECTED BY THE CITY ENGINEER.
3. PRIOR TO THE START OF ANY PHASE OF CONSTRUCTION, AT LEAST 48 HOURS NOTICE SHALL BE PROVIDED TO THE PUBLIC WORKS DIRECTOR & CITY ENGINEER.
4. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED BY THE CITY OF GREENFIELD.
5. THE ENGINEER HAS SHOWN EXISTING UNDERGROUND LINES ON THIS PLAN TO THE BEST OF HIS KNOWLEDGE. OTHER UNDERGROUND LINES MAY EXIST. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LINES IN THE FIELD PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AND THE CITY OF GREENFIELD DEPARTMENT OF PUBLIC WORKS FOR UTILITY LOCATION 48 HOURS PRIOR TO ANY EXCAVATION OR TRENCHING:

   USA: 811
   CITY OF GREENFIELD: (831) 674-2635

6. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, CITY OF GREENFIELD EMPLOYEES AND THEIR CONSULTANTS AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
7. THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL OBSTRUCTIONS WITHIN THE STREET RIGHT OF WAY AS DIRECTED BY THE CITY ENGINEER.
8. ALL EXISTING IMPROVEMENTS THAT ARE REMOVED, DAMAGED OR UNDERCUT SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY ENGINEER AT THE CONTRACTORS EXPENSE.
9. ANY TRENCHING CONDUCTED WITHIN THIS PROJECT SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE CITY STANDARDS AND AS DIRECTED BY THE SOILS ENGINEER AND SAID SOILS REPORT.
10. COMPACTION TESTS SHALL BE PROVIDED BY THE CONTRACTOR AT LOCATIONS TO BE DETERMINED BY THE CITY INSPECTOR AND SOILS ENGINEER.
11. PALMETTO ENGINEERING AND LAND SURVEYING, INC. SHALL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO, OR USES OF, THESE PLANS. ALL CHANGES TO THESE PLANS SHALL BE REVIEWED AND APPROVED BY THE CITY ENGINEER IN WRITING INCLUDING PALMETTO ENGINEERING AND LAND SURVEYING, INC.
12. IF THE CONTRACTOR IS IN DOUBT AS TO THE MEANING OF ANY PART OF THE PLAN AND SPECIFICATIONS OR FINDS DISCREPANCIES IN OR OMISSIONS FROM THE DRAWING OR SPECIFICATIONS, HE SHALL SUBMIT A WRITTEN REQUEST TO THE ENGINEER OF RECORD FOR AN INTERPRETATION OR A CORRECTION THEREOF, PRIOR TO FILING HIS BID FOR THE PROJECT.
13. AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM THE CITY OF GREENFIELD PUBLIC WORKS DEPARTMENT FOR ANY WORK PERFORMED WITHIN EXISTING STREET RIGHT OF WAY. SECURITY BASED ON AN APPROVED ENGINEER'S ESTIMATE FOR THE WORK PERFORMED WITHIN RIGHT OF WAY AND INSURANCE AS REQUIRED SHALL BE PROVIDED PRIOR TO ISSUANCE OF A PERMIT.

QUANTITIES

WALNUT AVENUE:

CURB & GUTTER:	740	L.F.
SIDEWALK:	3,600	S.F.
A.D.A. RAMPS:	5	EA.
A.C. PAVING:	19,500	S.F.
STREET LIGHTS	5	EA.
CROSS GUTTER	812	S.F.

EL PASEO WAY:

CURB & GUTTER:	635	L.F.
SIDEWALK:	2,330	S.F.
A.D.A. RAMPS:	4	EA.
A.C. PAVING:	17,600	S.F.
STREET LIGHTS	3	EA.
CROSS GUTTER	780	S.F.
CATCH BASINS	2	EA.

ABBREVIATIONS AND SYMBOLS

AC	ASPHALT CONCRETE
BCR	BEGIN CURB RETURN
BS	BACK OF SIDEWALK
CL	CENTER LINE
CONST.	CONSTRUCTION
CLF	CHAIN LINK FENCE
C&G	CURB & GUTTER
EP	EDGE OF PAVEMENT
ECR	END CURB RETURN
EJ	EXPANSION JOINT
EX.	EXISTING
FH	FIRE HYDRANT
FL	FLOW LINE
L.F.	LINEAR FEET
L.T.	LEFT
℄	PROPERTY LINE
PP	POWER POLE
R.T.	RIGHT
R/W	RIGHT OF WAY
S.F.	SQUARED FEET
S.L.	STREET LIGHT
STD	STANDARD
TC	TOP OF CURB
TS	TOP OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
EVC	END VERTICAL CURVE
PRC	POINT OF REVERSE CURVATURE

EXISTING ASPHALT CONCRETE

EXISTING ASPHALT CONCRETE - REMOVE/REPAVE

PROJECT BENCHMARK

PROPOSED ASPHALT CONCRETE

PROPOSED CATCH BASIN

PROPOSED FIRE HYDRANT - SEE WATER PLANS

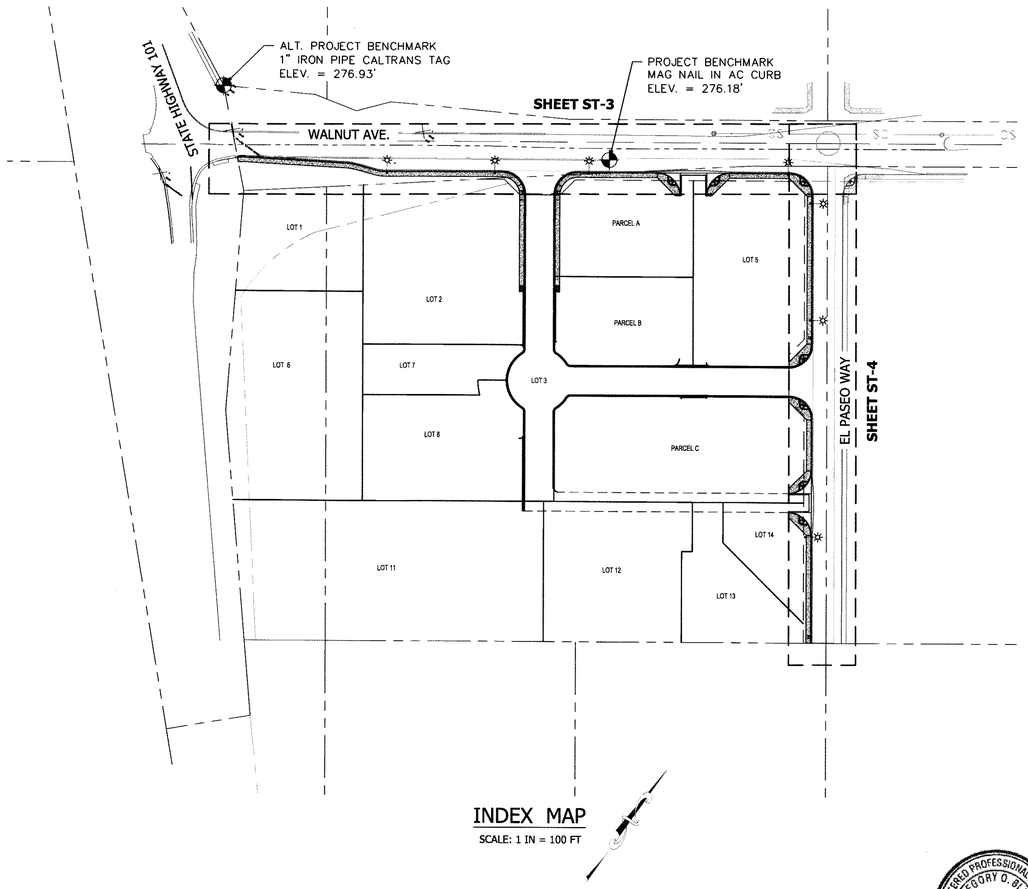
PROPOSED STREET LIGHT

CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA

STREET IMPROVEMENT PLANS

THE VINES AT GREENFIELD

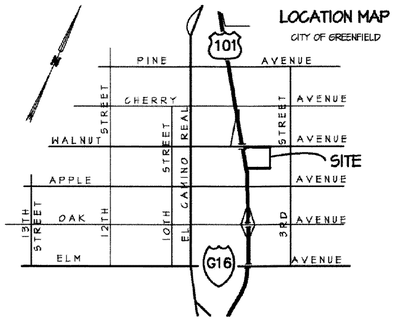
TRACT NO. 1525



INDEX MAP

SCALE: 1 IN = 100 FT

SHEET INDEX	
ST-1	TITLE SHEET, SHEET INDEX, GENERAL NOTES
ST-2	GENERAL SECTIONS, ASPHALT CONST. NOTES
ST-3	PLAN AND PROFILE - WALNUT AVENUE
ST-4	PLAN AND PROFILE - EL PASEO WAY
ST-5	STANDARD PLANS AND DETAILS
ST-6	STANDARD PLANS AND DETAILS
ST-7	ACCESSIBLE RAMP CONSTRUCTION DETAILS
ST-8	ACCESSIBLE RAMP CONSTRUCTION DETAILS
ST-9	VEHICLE PATH OF TRAVEL - PLAN VIEW
ST-10	VEHICLE PATH OF TRAVEL - PROFILE
ST-11	WALNUT AVENUE - SIGNAGE & STRIPING PLAN
ST-12	EL PASEO WAY - SIGNAGE & STRIPING PLAN
ST-13	INT. STREET A - SIGNAGE & STRIPING PLAN
ST-14	SIGNAGE & STRIPING DETAILS



VICINITY MAP

N.T.S.

DEVELOPER:

MAXIMUS III COMPANY
MAX BACERRA
900 MOHAWK STREET, SUITE 245
BAKERSFIELD, CALFORNIA 93309

ENGINEER:

PALMETTO ENGINEERING AND
LAND SURVEYING, INC.
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CA 93313
(661) 664-4806 WORK
(888) 260-7357 FAX

BENCHMARK USED:

ELEVATIONS SHOWN ARE BASED ON NAVD-88 DATUM.
THE PROJECT BENCHMARK IS A MAG NAIL IN THE AC CURB ON THE S.E. SIDE OF WALNUT AVENUE, AS SHOWN ON THESE PLANS, ELEVATION = 276.18

ALTERNATE PROJECT BENCHMARK IS 1" IRON PIPE WITH CALTRANS TAG ON THE N.W. SIDE OF WALNUT AVENUE, AS SHOWN ON THESE PLANS, ELEVATION = 276.93

BASIS OF BEARINGS

THE BEARING N 51°28'11" E ALONG THE SOUTHERLY LINE OF WALNUT AVENUE AS SHOWN ON THAT RECORD OF SURVEY, FILED IN VOLUME 27 OF SURVEYS, PAGE 1, MONTEREY COUNTY, CALIFORNIA AS FOUND MONUMENTED, WAS TAKEN AS THE BASIS OF BEARINGS SHOWN UPON THIS MAP.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS MAP.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING.

ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY SUCH INFORMATION OR DATA.

UNDERGROUND SERVICE ALERT SHALL BE CONTACTED TWO WORKING DAYS PRIOR TO CONSTRUCTION 811.

ENGINEER'S STATEMENT

I HEREBY CERTIFY THAT THESE PLANS AND SPECIFICATIONS COMPLY WITH CITY OF GREENFIELD ORDINANCES, STANDARDS, AND DESIGN CRITERIA, AND THAT THEY INCLUDE ALL IMPROVEMENT REQUIREMENTS OF THE ADVISORY AGENCY OR OTHER REVIEW BOARD.

I AM RESPONSIBLE FOR ALL CALCULATIONS AND DRAWINGS ON THESE PLANS AND ANY ERRORS, OMISSIONS, OR VIOLATIONS OF THOSE ORDINANCES, STANDARDS, AND DESIGN CRITERIA SHALL BE CORRECTED DURING CONSTRUCTION.

GREGORY O. BLACK RCE 53952 DATE: 8/07/17
EXP. 12-31-17

REGISTERED PROFESSIONAL ENGINEER GREGORY O. BLACK No. C 053952 Exp. 12/31/17 CIVIL STATE OF CALIFORNIA

REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

USA NORTH 811 Call 811 Before You Dig

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD
TRACT NO. 1525
STREET IMPROVEMENT PLANS
TITLE SHEET, SHEET INDEX, GENERAL NOTES

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — DATE 8/8/17
CITY ENGINEER — RCE NUMBER 53330 — DATE 8-8-17
WDID# 3 27C378492 | CITY PROJ# T-1525

Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664-4806 Land
(888) 260-7357 Fax

REVISIONS	CK'D BY	DATE CK'D

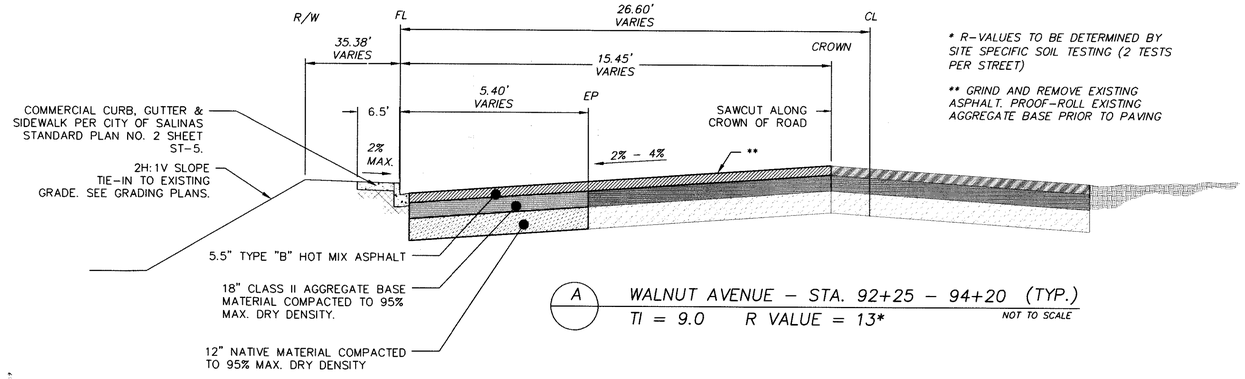
DATE: 8/4/2017
SCALE: AS-NOTED
DRAWN BY: SMS
CK'D BY: GOB
DATE CK'D: 8/4/2017
JOB NO. 15-030

PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA
SHEET DESCRIPTION: STREET IMPROVEMENT PLANS
TITLE SHEET, SHEET INDEX, GENERAL NOTES

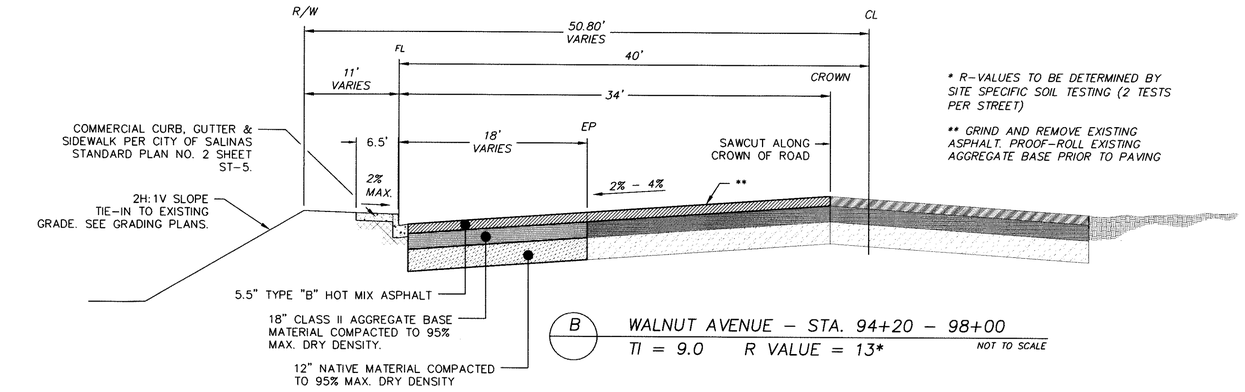
SHEET ST-1 OF 14 SHTS.

GENERAL NOTES - ASPHALT CONCRETE

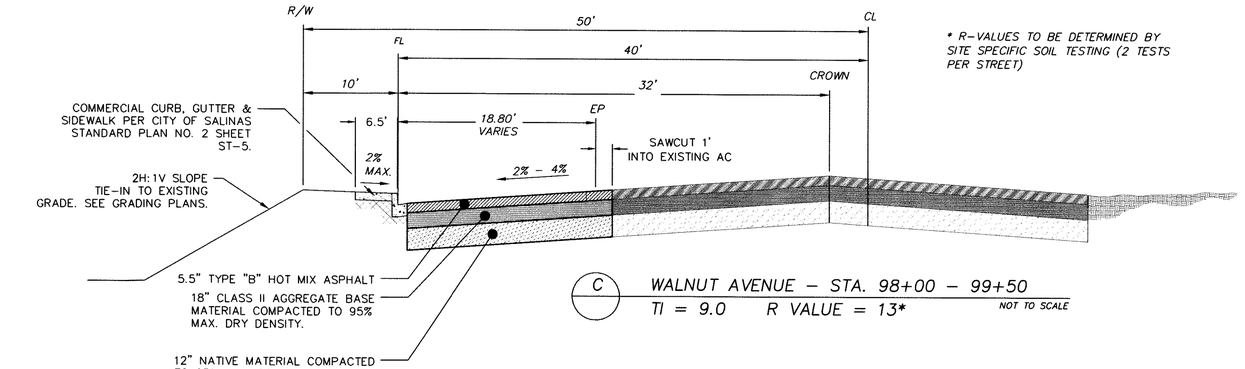
1. THIS WORK INCLUDES PRODUCING AND PLACING HOT MIX ASPHALT (HMA) (CALTRANS STANDARD SPECIFICATIONS SECTION 39, 2010) USING THE METHOD PROCESS.
2. HOT MIX ASPHALT SHALL BE TYPE "B" AND SHALL CONFORM TO THE PROVISIONS IN SECTION 39, "HOT MIX ASPHALT," OF THE STANDARD SPECIFICATIONS AND THESE SPECIAL PROVISIONS.
3. THE GRADATION SHALL COMPLY WITH THE REQUIREMENTS FOR ½" GRADING OF THE STANDARD SPECIFICATIONS FOR THE FOLLOWING STREETS: ALL STREETS.
4. THE GRADE OF ASPHALT BINDER TO BE MIXED WITH AGGREGATE FOR TYPE "B" HOT MIX ASPHALT SHALL CONFORM TO THE PROVISIONS IN SECTION 92, "ASPHALTS," OF THE STANDARD SPECIFICATIONS AND SHALL BE PG 64-10.
5. SUBGRADE MUST BE FIRM AND UNYIELDING PRIOR TO THE PLACEMENT OF HMA. IF SUBGRADE IS FOUND TO BE YIELDING, PUMPING, OR OTHERWISE MOVING EXCESSIVELY UNDER LOAD, THEN CONTRACTOR, AT THE DIRECTION OF THE CITY, SHALL REMOVE THE SUBGRADE & REPLACE WITH COMPACTED CLASS II AGGREGATE BASE OR OTHER APPROVED GRANULAR MATERIALS. WORK SHALL BE OBSERVED AND APPROVED BY THE CITY INSPECTOR PRIOR TO THE PLACEMENT OF HMA OVER THE AFFECTED AREA.
6. WHERE NEW HOT MIX ASPHALT PAVEMENT IS TO CONFORM TO EXISTING PAVED SURFACES, THE EXISTING PAVEMENT SHALL BE SAWCUT.
7. ALL LOOSE AND EXTRANEOUS MATERIALS SHALL BE REMOVED PRIOR TO NEW HOT MIX ASPHALT SURFACING. IMMEDIATELY PRIOR TO RESURFACING, TEMPORARY OIL SAND RAMPS AT COLD PLANED CUTS SHALL BE REMOVED.
8. ASPHALTIC PAINT BINDER (TACK COAT) SHALL BE FURNISHED AND APPLIED TO ALL VERTICAL EDGES (INCLUDING LIP OF GUTTER), EXISTING SURFACES TO BE SURFACED, AND BETWEEN LAYERS OF HOT MIX ASPHALT AT THE RATE OF 0.05 GALLONS PER SQ. YD. OF SURFACED COVERED.
9. THE AREA TO WHICH ASPHALT PAINT BINDER (TACK COAT) HAS BEEN APPLIED SHALL BE CLOSED TO PUBLIC TRAFFIC. CARE SHALL BE TAKEN TO AVOID TRACKING BINDER MATERIAL ONTO EXISTING PAVEMENT SURFACES, CONCRETE IMPROVEMENTS, OR BEYOND THE LIMITS OF CONSTRUCTION.
10. WHEN ASPHALTIC EMULSION IS USED AS PAINT BINDER (TACK COAT), HOT MIX ASPHALT SHALL NOT BE PLACED UNTIL THE APPLIED ASPHALTIC EMULSION HAS COMPLETELY CHANGED COLOR FROM BROWN TO BLACK.
11. FOLLOW SECTION 39-1.10, "SPREADING AND COMPACTING EQUIPMENT," AND SECTION 39-1.11, "TRANSPORTING, SPREADING, AND COMPACTING," OF THE STANDARD SPECIFICATIONS.
12. THE HOT MIX ASPHALT SHALL BE DELIVERED TO THE SITE IN A THOROUGHLY BLENDED CONDITION AND SHALL BE SPREAD BY A SELF-PROPELLED ASPHALT PAVING MACHINE IN SUCH A MANNER AS TO AVOID SEGREGATION AND POCKETS OF COARSE OR FINE MATERIAL DURING THE PLACING OPERATIONS.
13. AREAS INACCESSIBLE TO SPREADING AND COMPACTION EQUIPMENT MAY BE PAVED BY SUCH METHODS AS MAY BE APPROVED BY THE ENGINEER.
14. THE CONTRACTOR SHALL SCHEDULE PAVING OPERATIONS SO THAT EACH LAYER OF HOT MIX ASPHALT IS PLACED ON CONTIGUOUS LANES OF THE TRAVELED WAY DURING EACH WORK SHIFT. AT THE END OF EACH WORK SHIFT, THE DISTANCE BETWEEN THE ENDS OF THE LAYERS OF HOT MIX ASPHALT ON ADJACENT LANES SHALL NOT BE GREATER THAN 10 FEET OR LESS THAN 5 FEET.
15. THE MINIMUM DEPTH OF HOT MIX ASPHALT SHALL BE AS SHOWN ON THE PLANS.
16. INITIAL ROLLING SHALL BE PERFORMED IMMEDIATELY AFTER PLACEMENT.
17. DO NOT LEAVE A VERTICAL JOINT MORE THAN 0.15 FOOT HIGH BETWEEN ADJACENT LANES OPEN TO PUBLIC TRAFFIC.
18. ADDITIONAL HOT MIX ASPHALT SHALL BE PLACED ALONG THE TRANSVERSE EDGE AT THE END OF EACH LANE AND ALONG THE EXPOSED LONGITUDINAL EDGES BETWEEN ADJACENT LANES, HAND RAKED, AND COMPACTED TO FORM TEMPORARY CONFORMS. KRAFT PAPER, OR OTHER APPROVED BOND BREAKER, MAY BE PLACED UNDER THE CONFORM TAPERS TO FACILITATE THE REMOVAL OF THE TAPER WHEN PAVING OPERATIONS RESUME.
19. ADDITIONAL HOT MIX ASPHALT SURFACING MATERIAL SHALL BE PLACED ALONG THE EDGE OF THE SURFACING AT OTHER ROAD CONNECTIONS AND PRIVATE DRIVES, HAND RAKED, IF NECESSARY, AND COMPACTED TO FORM SMOOTH TAPERED CONFORMS.
20. WHEN THE HOT MIX ASPHALT IS PLACED, THE CONTRACTOR SHALL MAINTAIN A NEAT NEW EDGE OF PAVEMENT. THE NEW EDGE OF PAVEMENT SHALL NOT EXCEED THE PAVING LIMITS AS SHOWN ON THE PLANS. ANY HOT MIX ASPHALT PLACED BEYOND THE PAVING LIMITS AS SHOWN ON THE PLANS SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE AND THE METHOD OF REMOVAL SHALL BE APPROVED BY THE ENGINEER.
21. ALL LONGITUDINAL VERTICAL EDGES GREATER THAN 2" SHALL BE TAPERED AT A MINIMUM 4:1 SLOPE USING AGGREGATE BASE OR ASPHALT GRINDINGS, AT THE END OF EACH WORKING DAY. ALL COLD TRANSVERSE JOINTS SHALL BE TRIMMED TO A NEAT VERTICAL EDGE PRIOR TO THE NEXT DAY PAVING OPERATION.
22. THE EDGE OF EACH LIFT OF HOT MIX ASPHALT SHALL BE STAGGERED AS TO NOT LINE UP WITH THE UNDERLYING EDGE OF LIFT.
23. EACH LIFT OF HOT MIX ASPHALT SHALL NOT BE PLACED UNTIL THE EXISTING LIFT IS FREE OF DUST, VEGETATION, AND OTHER DEBRIS, AND IS APPROVED BY THE ENGINEER.
24. THE FINISH SURFACE WHEN COMPACTED SHALL BE SMOOTH, DENSE, WELL BONDED AND OF UNIFORM TEXTURE AND APPEARANCE.
25. SHOULD THE METHODS AND EQUIPMENT FURNISHED BY THE CONTRACTOR FAIL TO PRODUCE A LAYER OF HOT MIX ASPHALT CONFORMING TO THE PROVISIONS, INCLUDING STRAIGHTEDGE TOLERANCE, OF SECTION 39-1.12B, "STRAIGHTEDGE," OF THE STANDARD SPECIFICATIONS, THE PAVING OPERATIONS SHALL BE DISCONTINUED AND THE CONTRACTOR SHALL MODIFY THE EQUIPMENT OR METHODS, OR FURNISH SUBSTITUTE EQUIPMENT.
26. COMPACTING EQUIPMENT SHALL CONFORM TO THE PROVISIONS OF SECTION 39-1.10, "SPREADING AND COMPACTING EQUIPMENT," OF THE STANDARD SPECIFICATIONS.
27. THE CONTRACTOR SHALL FURNISH A SUFFICIENT NUMBER OF ROLLERS TO OBTAIN THE SPECIFIED COMPACTION AND SURFACE REQUIRED BY THESE SPECIAL PROVISIONS. THE CONTRACTOR SHALL SIZE THE ROLLERS TO ACHIEVE THE REQUIRED RESULTS.
28. VIBRATORY ROLLERS SHALL BE DOUBLE STEEL DRUM, HAVING ADJUSTABLE FREQUENCY AND AMPLITUDE SETTINGS DIRECTLY AVAILABLE TO THE OPERATOR DURING OPERATION.
29. ROLLING SHALL BE PERFORMED IN SUCH A MANNER THAT CRACKING, SHOVING OR DISPLACEMENT WILL BE AVOIDED. EQUIPMENT WHICH DOES NOT PERFORM SATISFACTORILY IN THE OPINION OF THE ENGINEER SHALL BE DISALLOWED AND REMOVED FROM THE SITE OF WORK.
30. IF THE FINISHED SURFACE OF THE HOT MIX ASPHALT DOES NOT MEET THE SPECIFIED SURFACE TOLERANCES, IT SHALL BE BROUGHT WITHIN TOLERANCE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. THE METHOD WILL BE SELECTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO CORRECTIVE WORK. CORRECTIVE WORK SHALL BE ONE OF THE FOLLOWING:
   a. ABRASIVE GRINDING (WITH FOG SEAL COAT ON THE AREAS WHICH HAVE BEEN GROUND),
   b. REMOVAL AND REPLACEMENT, OR
   c. PLACING AN OVERLAY OF HOT MIX ASPHALT.
   d. IF ABRASIVE GRINDING IS USED TO BRING THE FINISHED SURFACE TO SPECIFIED SURFACE TOLERANCES, ADDITIONAL GRINDING SHALL BE PERFORMED, AS NECESSARY, TO EXTEND THE AREA GROUND IN EACH LATERAL DIRECTION SO THAT THE LATERAL LIMITS OF GRINDING ARE AT A CONSTANT OFFSET FROM, AND PARALLEL TO, THE NEAREST LANE LINE OR PAVEMENT EDGE, AND IN EACH LONGITUDINAL DIRECTION SO THAT THE GRINDING BEGINS AND ENDS AT LINES NORMAL TO THE PAVEMENT CENTERLINE, WITHIN ANY GROUND AREA. GROUND AREAS SHALL BE NEAT RECTANGULAR AREAS OF UNIFORM SURFACE APPEARANCE. ABRASIVE GRINDING SHALL CONFORM TO THE REQUIREMENTS IN THE FIRST PARAGRAPH AND THE LAST 4 PARAGRAPHS IN SECTION 42-2.02, "CONSTRUCTION," OF THE STANDARD SPECIFICATIONS.
31. FULL COMPENSATION FOR FURNISHING ALL LABOR AND TOOLS AND FOR DOING ALL THE WORK NECESSARY TO PLACE HOT MIX ASPHALT, INCLUDING ASPHALT EMULSION TACK COAT, SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE PAID PER TON FOR HOT MIX ASPHALT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED THEREFOR.
   a. EXCEPTION: UNLESS SPECIFIED OTHERWISE, ANY WORK OR MATERIALS DETERMINED BY THE ENGINEER TO BE NECESSARY FOR PRODUCING AN UNYIELDING SUBGRADE CONDITION SHALL BE PAID FOR PER CONTRACT CHANGE ORDER, TIME AND MATERIALS, OR OTHER METHOD THAT COMPLIES WITH THE CONTRACT REQUIREMENTS.



A — WALNUT AVENUE – STA. 92+25 – 94+20 (TYP.)
TI = 9.0 R VALUE = 13* NOT TO SCALE



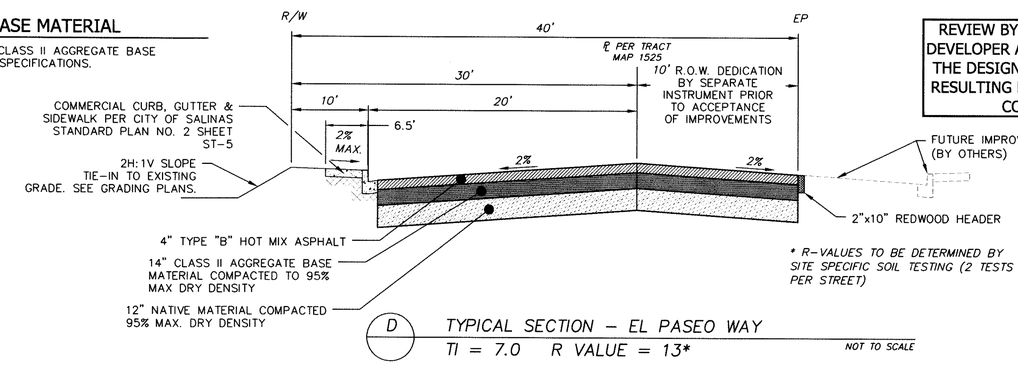
B — WALNUT AVENUE – STA. 94+20 – 98+00
TI = 9.0 R VALUE = 13* NOT TO SCALE



C — WALNUT AVENUE – STA. 98+00 – 99+50
TI = 9.0 R VALUE = 13* NOT TO SCALE

GENERAL NOTES - BASE MATERIAL

ALL BASE ROCK SHALL BE CLASS II AGGREGATE BASE CONFORMING TO CALTRANS SPECIFICATIONS.



D — TYPICAL SECTION – EL PASEO WAY
TI = 7.0 R VALUE = 13* NOT TO SCALE

NOTE:
- ALL PAVEMENT SECTIONS TO BE VERIFIED WITH R-VALUE SAMPLES COLLECTED AT THE START OF CONSTRUCTION. MIN. 2 TESTS PER STREET.
- FINAL PAVEMENT SECTION SHALL BE BASED ON FINAL SOIL REPORT AND R VALUE.
- SAWCUT ALIGNMENT TO BE DETERMINED IN THE FIELD AND APPROVED BY CITY ENGINEER.

REGISTERED PROFESSIONAL ENGINEER GREGORY D. WACK No. C 53952 Exp 12-31-17 CIVIL STATE OF CALIFORNIA

REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD
TRACT NO. 1525
STREET IMPROVEMENT PLANS
GENERAL SECTIONS, ASPHALT CONST. NOTES

DRN. BY: SMS	DES. BY: SMS	CK'D BY:
LAND DEVELOPMENT ENGINEER		8/8/17 DATE
CITY ENGINEER	43330 RCE NUMBER	8-8-17 DATE

WDID# 3 27C378492 | CITY PROJ# T-1525

Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664-4606 Land
(888) 260-7357 Fax

DATE:	8/4/2017
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DRAWN BY:	SMS
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JOB NO:	15-030

REVISIONS	CK'D BY	DATE CK'D

PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA
SHEET DESCRIPTION: STREET IMPROVEMENT PLANS GENERAL SECTIONS, ASPHALT CONST. NOTES

SHEET ST-2 OF 14 SHTS.

LEGEND

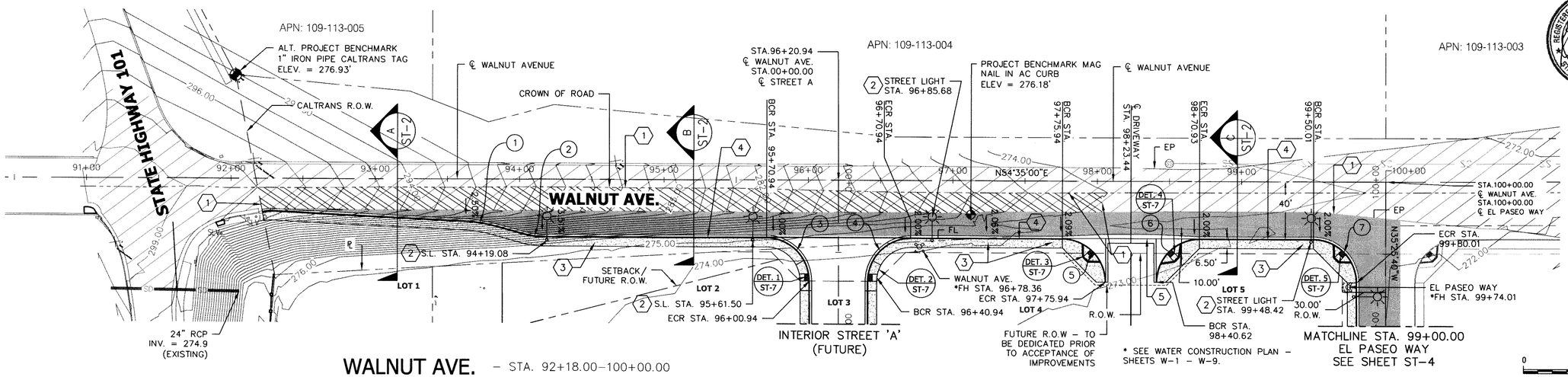
1. SAWCUT EXISTING PAVING
2. INSTALL STREET LIGHT PER CITY OF SALINAS STANDARD PLAN NO. 52, SHEET ST-6.
3. INSTALL 6' WIDE CONCRETE SIDEWALK PER CITY OF SALINAS STANDARD PLAN NO. 2, SHEET ST-5.
4. INSTALL TYPE 'C' CURB & GUTTER PER CITY OF SALINAS STANDARD PLAN NO. 1, SHEET ST-5.
5. INSTALL CROSS GUTTER PER CITY OF SALINAS STANDARD PLAN NO. 1, SHEET ST-5

PROPOSED CATCH BASIN
PROPOSED FIRE HYDRANT – SEE WATER PLANS.
PROPOSED STREET LIGHT.
EXISTING ASPHALT CONCRETE
EXISTING ASPHALT CONCRETE – REMOVE/REPAVE
PROPOSED ASPHALT CONCRETE
PROJECT BENCHMARK

AC	ASPHALT CONCRETE
BCR	BEGIN CURB RETURN
BS	BACK OF SIDEWALK
CL	CENTER LINE
CLF	CHAIN LINK FENCE
C&G	CURB & GUTTER
EP	EDGE OF PAVEMENT
ECR	END CURB RETURN
EJ	EXPANSION JOINT
EX.	EXISTING
FH	FIRE HYDRANT
FL	FLOW LINE
L.F.	LINEAR FEET
L.T.	LEFT
℄	PROPERTY LINE
PP	POWER POLE
R.T.	RIGHT
R/W	RIGHT OF WAY
S.F.	SQUARED FEET
S.L.	STREET LIGHT
STD	STANDARD
TC	TOP OF CURB
TS	TOP OF SIDEWALK
BVC	BEGINNING OF VERTICAL CURVE
EVC	END OF VERTICAL CURVE
PRC	POINT OF REVERSE CURVATURE

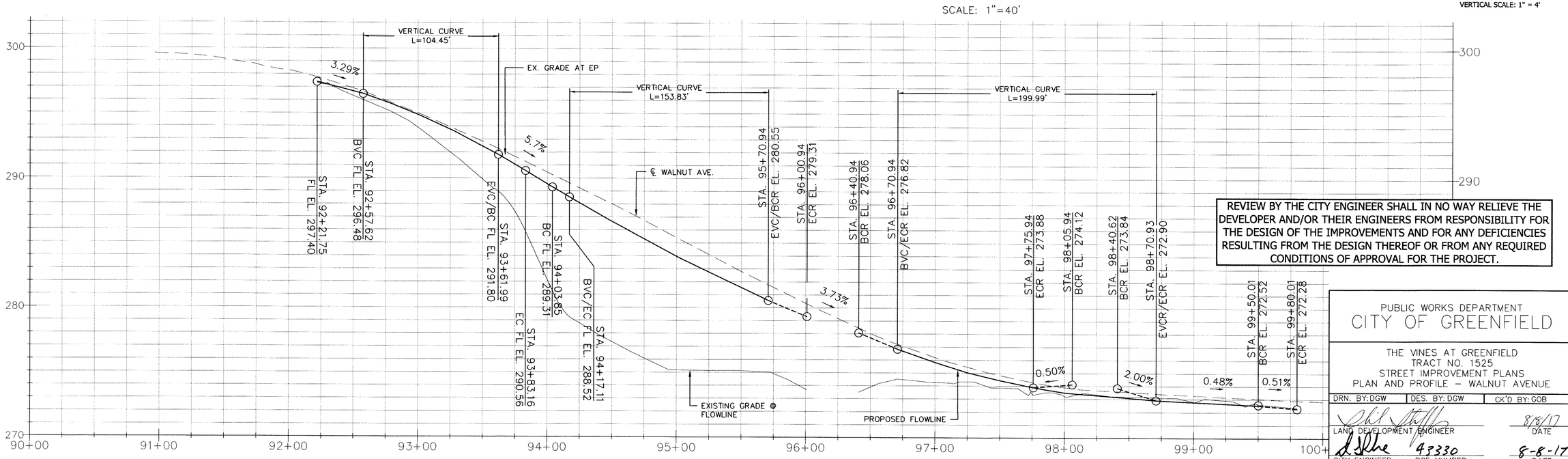
CURVE DATA - WALNUT AVE.

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	TANGENT:	10.93'	
	ARCH LENGTH:	21.78'	
②	RADIUS:	50.0'	
	DELTA:	15°22'33"	
	TANGENT:	6.75'	
	ARCH LENGTH:	13.42'	
③	RADIUS:	30.0'	1/4 Δ EL: 280.20
	DELTA:	89°59'33"	1/2 Δ EL: 279.84
	1/4	EL.	3/4 Δ EL: 279.55
	TANGENT:	30.00'	
	ARCH LENGTH:	47.12'	
④	RADIUS:	30.0'	1/4 Δ EL: 277.17
	DELTA:	89°59'33"	1/2 Δ EL: 277.53
	TANGENT:	30.00'	3/4 Δ EL: 277.82
	ARCH LENGTH:	47.12'	
⑤	RADIUS:	30.0'	1/4 Δ EL: 273.94
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	TANGENT:	30.00'	3/4 Δ EL: 274.06
	ARCH LENGTH:	47.12'	
⑥	RADIUS:	30.0'	1/4 Δ EL: 273.13
	DELTA:	89°59'33"	1/2 Δ EL: 273.37
	TANGENT:	30.00'	3/4 Δ EL: 273.60
	ARCH LENGTH:	47.12'	
⑦	RADIUS:	30.0'	1/4 Δ EL: 272.46
	DELTA:	89°59'20"	1/2 Δ EL: 272.40
	TANGENT:	29.99'	3/4 Δ EL: 272.34
	ARCH LENGTH:	47.12'	



WALNUT AVE. – STA. 92+18.00–100+00.00

SCALE: 1"=40'



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PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD
TRACT NO. 1525
STREET IMPROVEMENT PLANS
PLAN AND PROFILE – WALNUT AVENUE

DRN. BY: DGW	DES. BY: DGW	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — 8/8/17 DATE
CITY ENGINEER — 43330 RCE NUMBER — 8-8-17 DATE
WDID# 3 27C378492 | CITY PROJ# T-1525

SHEET ST-3 OF 14 SHTS.

Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
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(661) 664-4606 Land
(888) 260-7357 Fax

REGISTERED PROFESSIONAL ENGINEER — GREGORY D. BLACK — No. C 053952 Exp. 12-31-17 — CIVIL — STATE OF CALIFORNIA

DATE:	8/4/2017
SCALE:	AS-NOTED
DRAWN BY:	SMS
CK'D BY:	GOB
DATE CK'D:	8/4/2017
JOB NO:	15-056

REVISIONS | CK'D BY | DATE CK'D

PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525 — CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA

SHEET DESCRIPTION: STREET IMPROVEMENT PLANS PLAN AND PROFILE – WALNUT AVENUE

LEGEND

1. INSTALL 2" X 10" REDWOOD HEADER
2. INSTALL CATCH BASIN PER PLATE NO. 1 SHEET ST-6
3. INSTALL STREET LIGHT PER CITY OF SALINAS STANDARD PLAN NO. 52, SHEET ST-6.
4. INSTALL 6' WIDE CONCRETE SIDEWALK PER CITY OF SALINAS STANDARD PLAN NO. 2, SHEET ST-5.
5. INSTALL TYPE 'C' CURB & GUTTER PER CITY OF SALINAS STANDARD PLAN NO. 1, SHEET ST-5
6. INSTALL CROSS GUTTER PER CITY OF SALINAS STANDARD PLAN NO. 1, SHEET ST-5
7. INSTALL END OF STREET BARRICADE AS APPROVED BY CITY OF GREENFIELD

PROPOSED CATCH BASIN

PROPOSED FIRE HYDRANT – SEE WATER PLANS.

PROPOSED STREET LIGHT.

EXISTING ASPHALT CONCRETE

EXISTING ASPHALT CONCRETE – REMOVE/REPAVE

PROPOSED ASPHALT CONCRETE

PROJECT BENCHMARK

AC	ASPHALT CONCRETE
BCR	BEGIN CURB RETURN
BS	BACK OF SIDEWALK
CL	CENTER LINE
CLF	CHAIN LINK FENCE
C&G	CURB & GUTTER
EP	EDGE OF PAVEMENT
ECR	END CURB RETURN
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EVC	END OF VERTICAL CURVE
PRC	POINT OF REVERSE CURVATURE

CURVE DATA - EL PASEO WAY

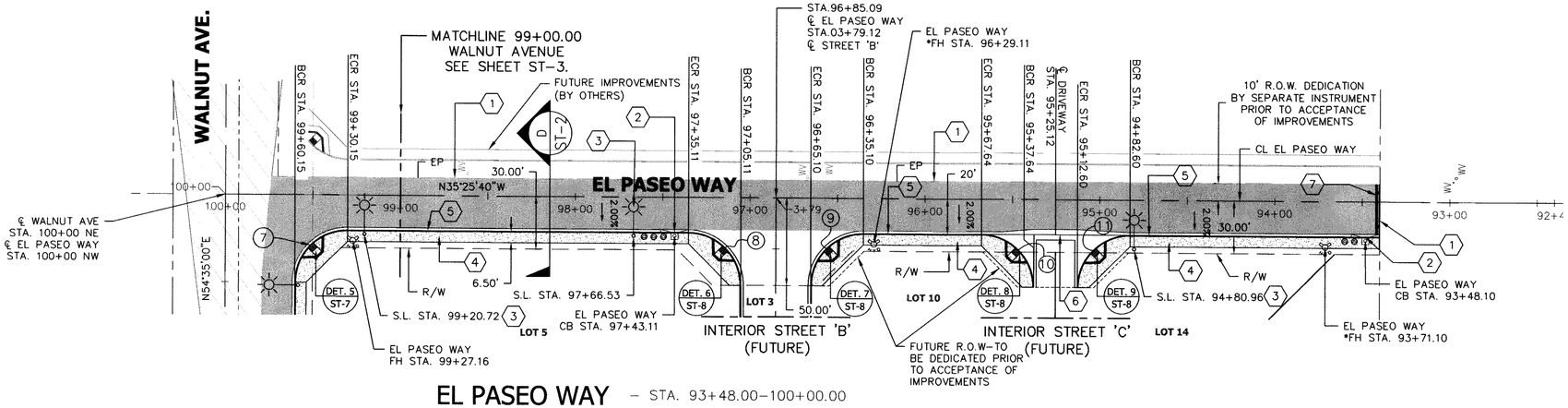
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1/4 Δ EL: 272.46 — 1/2 Δ EL: 272.40 — 3/4 Δ EL: 272.34

⑧ RADIUS: 30.0' — DELTA: 90°00'01" — TANGENT: 30.00' — ARCH LENGTH: 47.12'
1/4 Δ EL: 271.60 — 1/2 Δ EL: 271.66 — 3/4 Δ EL: 271.72

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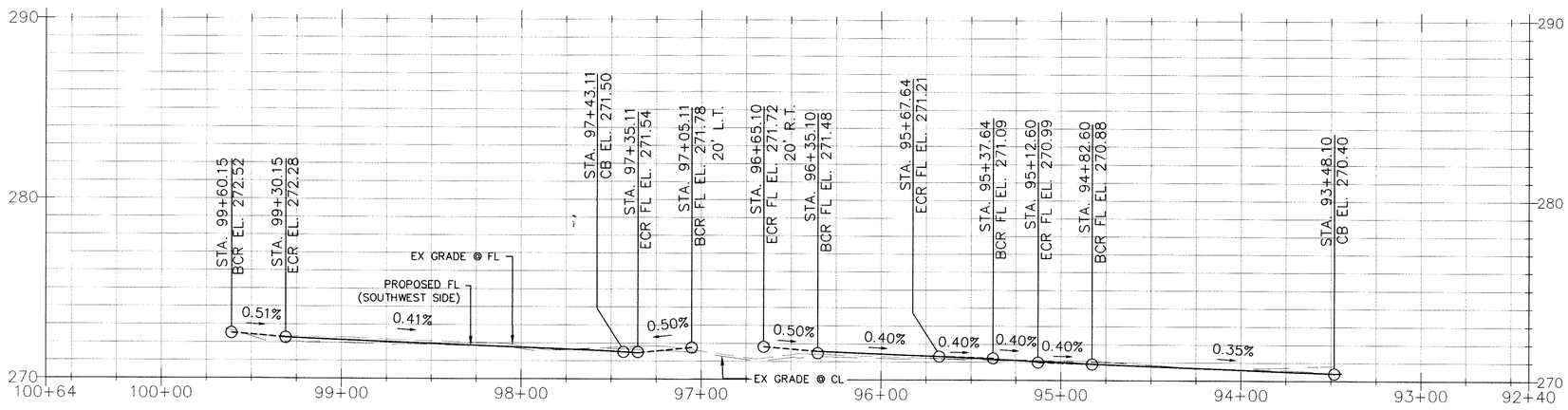
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⑪ RADIUS: 30.0' — DELTA: 90°00'01" — TANGENT: 30.00' — ARCH LENGTH: 47.12'
1/4 Δ EL: 270.95 — 1/2 Δ EL: 270.92 — 3/4 Δ EL: 270.90



EL PASEO WAY – STA. 93+48.00–100+00.00

SCALE: 1"=40'



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REGISTERED PROFESSIONAL ENGINEER — GREGORY D. BLACK — No. C59982 — Exp. 12/31/17 — CIVIL — STATE OF CALIFORNIA

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD
TRACT NO. 1525
STREET IMPROVEMENT PLANS
PLAN AND PROFILE – EL PASEO WAY

DRN. BY: DGW	DES. BY: DGW	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — DATE 8/8/17

CITY ENGINEER — RCE NUMBER 43330 — DATE 8-8-17

WDID# 3 27C378492 | CITY PROJ# T-1525

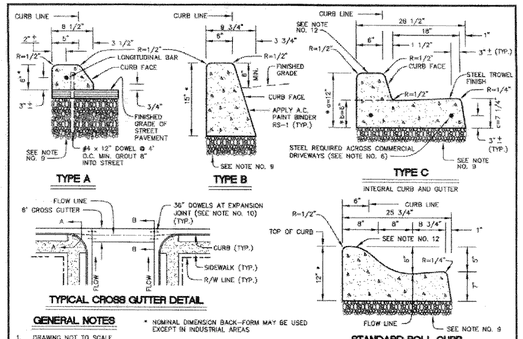
Palmetto Engineering & Land Surveying
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REVISIONS	CK'D BY	DATE CK'D

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CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA
SHEET DESCRIPTION: STREET IMPROVEMENT PLANS PLAN AND PROFILE – EL PASEO WAY

SHEET ST-4 OF 14 SHTS.



GENERAL NOTES

* NOMINAL DIMENSION BACK-FORM MAY BE USED EXCEPT IN INDUSTRIAL AREAS

1. DRAWING NOT TO SCALE.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 73 OF THE CITY STANDARD SPECIFICATIONS.
3. EXPANSION JOINTS SHALL BE SLIP DOWELED AT CURB RETURNS (SEE CITY STANDARD PLAN NO. 2).
4. TOP AND FRONT OF ALL CURBS SHALL BE FINE BROOM FINISHED.
5. CURB RETURNS SHALL BE TYPE "C" EXCEPT ADJACENT TO CROSS GUTTERS, WHERE MODIFIED TYPE "C" CURB AND APRON SHALL BE USED.
6. CURB AND GUTTER AT COMMERCIAL DRIVEWAYS SHALL HAVE 2 #4 BARS INSTALLED FOR THE WIDTH OF THE DRIVEWAY (HEAVY DUTY TYPE "C" CURB AND GUTTER).
7. INSTALL 3/8" EXPANSION JOINTS AT 20' INTERVALS MAX. ON TYPE "C" CURB, PROVIDE WEAKENED PLANE JOINTS AT 10' INTERVALS WITH EXPANSION AT 60' INTERVALS ON EXTRUDED CURB (SEE CITY STANDARD PLAN NO. 2).
8. CLASS "3" CONCRETE PER CITY STANDARD SPECIFICATIONS SHALL BE USED.
9. 6" MINIMUM CLASS 2 A.B. OR HIGHER TYPE SHALL BE USED FOR BASE MATERIALS.
10. CROSS CUTTERS SHALL HAVE TWO #4 x 36" LONG STEEL DOWELS AT MID-DEPTH CENTERED AT EXPANSION JOINT. FOR SLIP DOWEL DETAIL SEE CITY STANDARD PLAN NO. 2.
11. AN ADHESIVE APPROVED BY THE CITY ENGINEER MAY BE USED IN LIEU OF DOWELS IN TYPE "A" EXTRUDED CURB FOR PLACEMENT ON EXISTING PAVEMENT. OMIT HORIZONTAL STEEL IN EXTRUDED CURB (EXCEPT ACROSS COMMERCIAL DRIVEWAYS).
12. CONTRACTOR SHALL STAMP TOP OF CURB WITH THE LETTERS "G" (GAS), "S" (SEWER), AND/OR "W" (WATER) TO IDENTIFY UTILITY SERVICE LOCATIONS.
13. WITHIN INDUSTRIAL AREAS SUBJECT TO HEAVY TRUCK TRAFFIC, THE CONCRETE THICKNESS SHALL BE c=14", b=8", AND c=9 1/4".

DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **CURBS AND GUTTERS**

STANDARD PLAN **1**

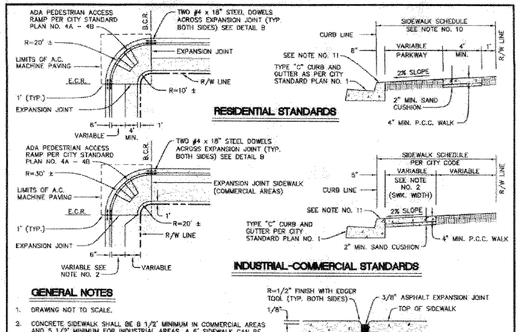
DESIGNED BY: STAFF | CADD BY: STAFF | PROJECT MANAGER: FRANK A. AGUAYO, P.E.

DATE 10/21/2008

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GENERAL NOTES

1. DRAWING NOT TO SCALE.
2. CONCRETE SIDEWALK SHALL BE 8 1/2" MINIMUM IN COMMERCIAL AREAS AND 5 1/2" MINIMUM FOR INDUSTRIAL AREAS. A 6" SIDEWALK CAN BE USED IN COMMERCIAL AREAS UPON APPROVAL OF THE CITY ENGINEER. ALL SIDEWALKS SHALL HAVE A MINIMUM 4' CLEAR PASSAGE, FREE OF OBSTRUCTIONS AND/OR HINDRANCES, AS OUTLINED IN TITLE 24 OF THE CALIFORNIA BUILDING CODE.
3. ALL SIDEWALKS SHALL BE ONE COURSE, CLASS "3" P.C.C. WITH A FINE BROOM FINISH.
4. ASPHALT EXPANSION JOINTS SHALL BE PLACED WITH MAXIMUM SPACING OF 60' AND WHEREVER SIDEWALK ADJOINS EXISTING BUILDING OR SIDEWALK. SCORE LINES SHALL BE PROVIDED FOR EVERY 100 SQUARE S.F. AT 4' INTERVALS AND PROPORTIONAL OR AS DIRECTED BY THE CITY ENGINEER.
5. ASPHALT EXPANSION JOINT SHALL BE COMPOSED OF ASPHALT, FIBER, AND MINERAL FILLER PREMOLDED INTO SHEETS WITH ASPHALT IMPREGNATED LINERS ON BOTH SIDES AND SHALL CONFORM WITH ASTM 1751 AND AASHTO M-33-A6 SPECIFICATIONS.
6. REBAR SHALL BE INSTALLED PER DETAIL "B" AT B.C.R. AND E.C.R.
7. CONTRACTOR SHALL STAMP HIS/HER NAME, MONTH, AND YEAR OF CONSTRUCTION ON SIDEWALK A MINIMUM OF ONCE PER CONSTRUCTION AND ONCE PER EACH 500 S.F.. MONTH AND YEAR MAY BE STAMPED IN NUMBERS.
8. ALL DIMENSIONS AS SHOWN UNLESS OTHERWISE SPECIFIED ON PLANS.
9. ADA PEDESTRIAN ACCESS RAMP SHALL BE PER CITY STANDARD PLAN NO. 4A – 4B.
10. 5.5' WIDE SIDEWALKS, LOCATED ADJACENT TO CURB, PERMITTED ON RESIDENTIAL (MINOR AND CUL-DE-SAC) STREETS, ON STREETS HAVING SIDEWALK SCHEDULES OF 9' OR LESS; AND ON STREETS ADJOINING PORTIONS OR SUBDIVISIONS WHERE AT LEAST 50% OF THE LOTS HAVE AN AREA OF 5,000 S.F. OR LESS. DOWELS BETWEEN CURB AND SIDEWALK REQUIRED AT 4' CENTER.
11. CONTRACTOR SHALL STAMP TOP OF CURB WITH THE LETTERS "G" (GAS), "S" (SEWER), AND/OR "W" (WATER) TO IDENTIFY UTILITY LOCATIONS.

DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **SIDEWALKS AND CURB RETURNS**

STANDARD PLAN **2**

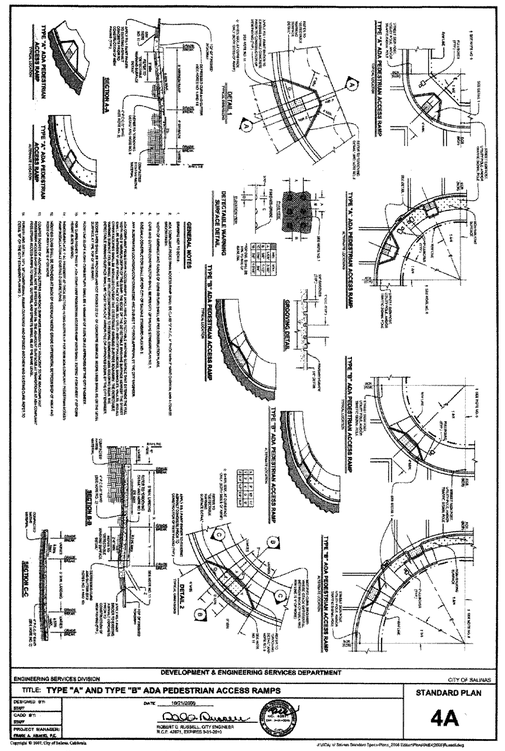
DESIGNED BY: STAFF | CADD BY: STAFF | PROJECT MANAGER: FRANK A. AGUAYO, P.E.

DATE 10/21/2008

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DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **TYPE "A" AND TYPE "B" ADA PEDESTRIAN ACCESS RAMPS**

STANDARD PLAN **4A**

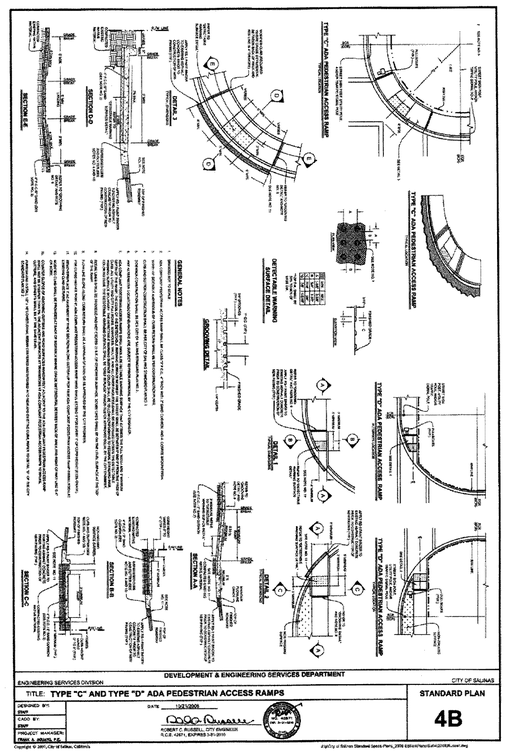
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DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **TYPE "C" AND TYPE "D" ADA PEDESTRIAN ACCESS RAMPS**

STANDARD PLAN **4B**

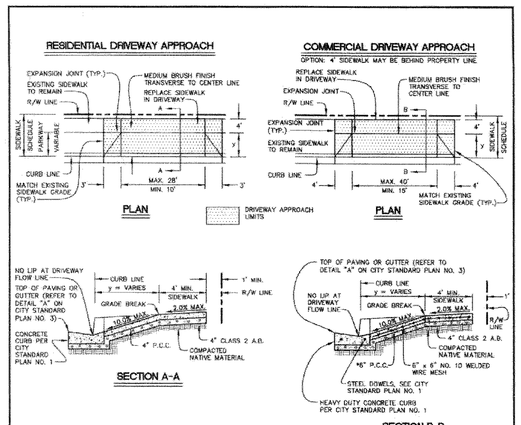
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GENERAL NOTES

1. DRAWING NOT TO SCALE.
2. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED CITY STANDARD SPECIFICATIONS.
3. THE AREA INCLUDED WITHIN THE "y" SLOPES SHALL BE MEDIUM BRUSH FINISH. THE BALANCE OF THE DRIVEWAY SHALL BE FINE BROOM FINISH TO MATCH THE ADJOINING SIDEWALK. SCORING LINES SHALL BE SPACED TO EVENLY DIVIDE THE AREA INTO BLOCKS OF NOT LESS THAN 3' AND NOT MORE THAN 4' OR MATCH EXISTING.
4. RESIDENTIAL DRIVEWAYS SHALL HAVE 4" MINIMUM CLASS 4 A.B. (OR BETTER). COMMERCIAL DRIVEWAYS SHALL HAVE 4" MINIMUM CLASS 2 A.B. AND 6" x 6" NO. 10 WELDED WIRE MESH PLACED AT MID-DEPTH OF CONCRETE.
5. CONCRETE SHALL BE CLASS "3" PER CITY STANDARD SPECIFICATIONS.
6. ON RESIDENTIAL DRIVEWAY CONSTRUCTION ONLY, CONTRACTOR MAY REMOVE VERTICAL CURB AND CONSTRUCT DRIVEWAY AGAINST REMAINING GUTTER. CITY ENGINEER APPROVED BONDING AGENT OR EPOXY SHALL BE APPLIED TO JOIN CONCRETE SURFACES.
7. CURB HEIGHT HIGHER THAN 6 1/2" SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.
8. * INCREASE CONCRETE THICKNESS BY 2" FOR DRIVEWAYS SERVING INDUSTRIAL SITES WHICH ARE SUBJECT TO HEAVY TRUCK TRAFFIC.
9. ALL DRIVEWAYS SHALL INCLUDE SIDEWALKS THAT ARE ADA COMPLIANT.

DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **DRIVEWAY APPROACH**

STANDARD PLAN **5**

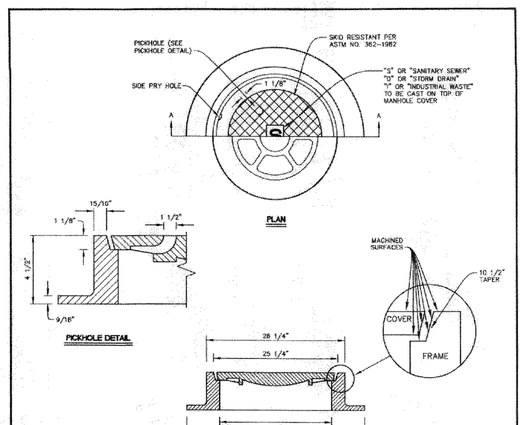
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GENERAL NOTES

1. DRAWING NOT TO SCALE.
2. BEARING SURFACES OF FRAME AND COVER SHALL BE MACHINED TO FIT WITH POSITIVE PRESSURE ON ALL SURFACES.
3. MINIMUM WEIGHT FOR RING AND COVER SHALL BE 285 POUNDS.
4. MANHOLE FRAME AND COVER SPECIFICATIONS NOT APPLICABLE TO UTILITIES.
5. ALL MATERIALS USED IN MANUFACTURING FRAME AND COVER SHALL CONFORM TO ASTM A-159-70T-G3000 OR U.S. GOVERNMENT SPECIFICATION QQ-I-653.
6. ENTIRE FRAME AND COVER ASSEMBLY SHALL BE CAPABLE OF SUPPORTING H-20 HIGHWAY LOADING.
7. LID SHALL HAVE TWO PICKHOLES. CONTRACTOR SHALL DRILL EXTRA IF NOT PROVIDED BY MANUFACTURER.

DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **MANHOLE FRAME AND COVER**

STANDARD PLAN **27**

DESIGNED BY: STAFF | CADD BY: STAFF | PROJECT MANAGER: FRANK A. AGUAYO, P.E.

DATE 10/21/2008

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REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

REGISTERED PROFESSIONAL ENGINEER — ALEGORIA A. CRUZ — No. C063952 — Exp. 12/31/17 — CIVIL — STATE OF CALIFORNIA

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD
TRACT NO. 1525
STREET IMPROVEMENT PLANS
STANDARD PLANS AND DETAILS

DRN. BY: SMS	DES. BY: SMS	CK'D BY: SMS

8/8/17
LAND DEVELOPMENT ENGINEER — DATE

43330
CITY ENGINEER — RCE NUMBER — 8-8-17 DATE

WDID# 3 27C378492 | CITY PROJ# T-1525

SHEET ST-5 OF 14 SHTS.

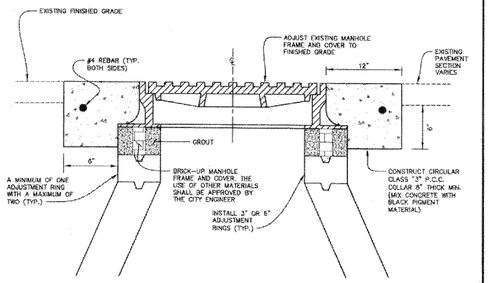
Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664-4806 Local
(888) 260-7357 Fax

REVISIONS	CK'D BY	DATE CK'D

DATE: 8/4/2017
SCALE: AS-NOTED
DRAWN BY: SMS
CK'D BY: GDB
DATE CK'D: 8/4/2017
JOB NO: 15-030

PROJECT TITLE
THE VINES AT GREENFIELD
TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA

SHEET DESCRIPTION
STREET IMPROVEMENT PLANS
STANDARD PLANS AND DETAILS



GENERAL NOTES

1. DRAWING NOT TO SCALE.
2. CONSTRUCT CLASS "3" P.C.C. PER SECTION 51 OF THE CITY STANDARD SPECIFICATIONS.

DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **MANHOLE FRAME AND COVER ADJUSTMENT**

STANDARD PLAN **28**

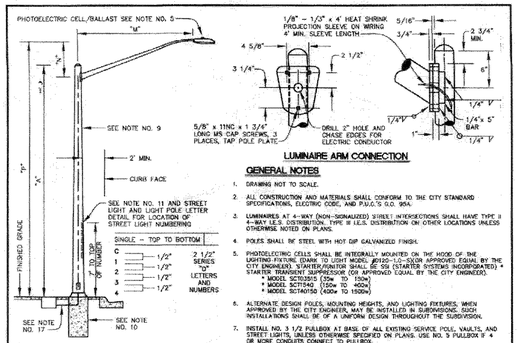
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LUMINAIRE ARM CONNECTION

GENERAL NOTES

1. DRAWING NOT TO SCALE.
2. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CITY STANDARD SPECIFICATIONS, ELECTRIC CODE, AND P.U.C.'S G.O. 95A.
3. LUMINAIRES AT 4-WAY (NON-SIGNALIZED) STREET INTERSECTIONS SHALL HAVE TYPE II 4-WAY I.E.S. DISTRIBUTION. TYPE III I.E.S. DISTRIBUTION ON OTHER LOCATIONS UNLESS OTHERWISE NOTED ON PLANS.
4. POLES SHALL BE STEEL WITH HOT DIP GALVANIZED FINISH.
5. PHOTOELECTRIC CELLS SHALL BE INTEGRALLY MOUNTED ON THE HOOD OF THE LIGHTING FIXTURE (DARK TO LIGHT MODEL #2120-LO-ICS OR APPROVED EQUAL BY THE CITY ENGINEER). STARTER/PULSTOR SHALL BE GE 194 (STARTER SYSTEMS INCORPORATED) + STARTER TRANSIENT SUPPRESSOR (OR APPROVED EQUAL BY THE CITY ENGINEER).
   - MODEL SCT3505 (120v TO 120v)
   - MODEL SCT1540 (120v TO 480v)
   - MODEL SCT4750 (480v TO 1500v)
6. ALTERNATE DESIGN POLES, MOUNTING HEIGHTS, AND LIGHTING FIXTURES, WHEN APPROVED BY THE CITY ENGINEER, MAY BE INSTALLED IN SUBDIVISIONS. SUCH INSTALLATIONS SHALL BE OF A UNIFORM DESIGN THROUGHOUT THE SUBDIVISION.
7. INSTALL NO. 3 1/2 PULLBOX AT BASE OF ALL EXISTING SERVICE POLE, VAULTS, AND STREET LIGHTS, UNLESS OTHERWISE SPECIFIED ON PLANS. USE NO. 3 PULLBOX IF 4 OR MORE CONDUITS CONNECT TO PULLBOX.
8. PROJECTION LENGTHS ARE 6" MIN. FOR RESIDENTIAL AND 10' MIN. FOR COMMERCIAL. THICKNESS SHALL BE MIN. 0.1188" (11 GA. 55,000 PSI).
9. STREET LIGHT POLE SHALL BE STATE TYPE 15, GALVANIZED; UNION METAL, AMERON, OR VALMONT (OR APPROVED EQUAL BY THE CITY ENGINEER).
10. ALL CONCRETE SHALL BE CLASS "3" PER CITY STANDARD SPECIFICATIONS.
11. CONTRACTOR SHALL INSTALL STREET LIGHT NUMBER (LETTER AND NUMBER) ON STREET LIGHT AND SHALL FACE PERPENDICULAR TO STREET IN RESIDENTIAL AREAS ONLY AND FACE ONCOMING TRAFFIC AT A 45° ANGLE ON OTHER STREETS. STREET NUMBERING LEGEND SHALL BE 2 1/2" HIGH, YELLOW WITH BLACK BACKGROUND REFLECTIVE VINYL, ADHESIVELY BACKED LETTER (PANDUIT PIN, 250 YB-C) AND NUMBER (PANDUIT PIN, 250 YB-0 TO XXOH APPROVED EQUAL BY THE CITY ENGINEER). STREET LIGHT NUMBERS TO BE ASSIGNED AFTER ALL STREET LIGHT FOUNDATIONS ARE POURED IN PLACE. THE CITY ENGINEER SHALL SUBMIT REQUEST TO PG&E FOR STREET LIGHT NUMBERS AT THAT TIME. FOR ALL CITY FUNDED PROJECTS. PG&E SHALL RESPOND TO THE CITY ENGINEER WITHIN 10 WORKING DAYS.
12. FOR FUSE CONNECTOR SEE CITY STANDARD PLAN NO. 50.
13. FOR P.C.C. LIGHTING FOUNDATION SEE CITY STANDARD PLAN NO. 49.
14. FOR TYPICAL SERVICE POLE DETAIL, UNDERGROUND SERVICE, AND BASE DETAIL SEE CITY STANDARD PLAN NO. 51.
15. WATTAGE SHALL BE 150 WATTS FOR RESIDENTIAL AND 200 WATTS ON ALL OTHER ROADS, AND TRAFFIC SIGNAL POLES UNLESS OTHERWISE NOTED ON PLANS.
16. SPACING OF STREET LIGHTS SHALL BE DETERMINED BY THE CITY ENGINEER.
17. CONDUIT COVER: 18" MINIMUM IN SIDEWALK, PARKWAY STRIP, AND RAISED MEDIAN ISLAND. 30" MINIMUM UNDER ROADWAY OR PROPERTY EASEMENT.
18. LUMINAIRES SHALL BE CUT-OFF LENSE (EXCEPT TYPE II 4-WAY LUMINAIRE) HIGH PRESSURE SODIUM VAPOR W/70% IN P.E. CELL AND REGULATOR TYPE BALLAST. WATTAGE AND 120V AS SHOWN ON PLANS. AMERICAN ELECTRIC OR G.E. (OR APPROVED EQUAL BY THE CITY ENGINEER).
19. CONSTRUCTION OF STAB-IN POLES SHALL NOT BE PERMITTED.
20. ALL STREET LIGHT PULLBOX COVERS SHALL BE LABLED "STREET LIGHTING".

STREET LIGHT AND LIGHT POLE LETTER DETAIL

MAST ARM DATA

"M" PROJECTED LENGTH (MIN.)	"N" RISE	MIN. O.D. AT POLE	"H" MOUNTING HEIGHT TYPE 15
10' – 0"	3' – 3" ±	3⅝"	32' – 9" ±
12' – 0"	4' – 3" ±	3⅝"	33' – 9" ±
15' – 0"	5' – 9" ±	4⅛"	24' – 3" ±

POLE DATA

POLE TYPE	"A" HEIGHT	MIN. O.D. BASE	MIN. O.D. TOP	THICKNESS
15	30' – 0"	8"	3⅝"	0.1188"

DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **STREET LIGHT POLE AND NUMBER LOCATION**

STANDARD PLAN **52**

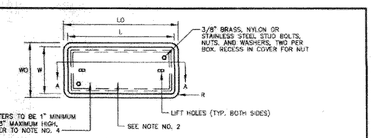
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SECTION A-A

DIMENSION TABLE

PULLBOX	CONCRETE BOX: MIN. ** THICKNESS	CONCRETE BOX: MIN. DEPTH BOX AND EXTENSION	CONCRETE COVERS: LO	WO	L***	W***	R	EDGE THICKNESS	EDGE TAPER
NO. 3 1/2	1"	NO EXTENSION	20"	14"	15 3/8"	10 1/8"	1 1/8"	1 3/4"	1/8"
NO. 5	1"	22"	28"	18"	23 1/4"	13 3/4"	1 1/4"	2"	1/8"
NO. 6	1 1/2"	24"	36"	23"	30 5/8"	17 5/8"	1 1/4"	2"	1/8"

GENERAL NOTES

1. DRAWING NOT TO SCALE.
2. STEEL REINFORCING SHALL BE AS REGULARLY USED IN THE STANDARD PRODUCTS OF THE RESPECTIVE MANUFACTURER.
3. TOP OF PULLBOX SHALL BE FLUSH WITH SURROUNDING GRADE OR TOP OF ADJACENT CURB, EXCEPT THAT IN UNPAVED AREAS WHERE PULLBOX IS NOT IMMEDIATELY ADJACENT TO, AND PROTECTED BY A CONCRETE FOUNDATION, POLE, OR OTHER PROTECTIVE CONSTRUCTION, THE BOX SHALL BE PLACED WITH ITS TOP 0.10' ABOVE SURROUNDING GRADE. WHERE PRACTICABLE, PULLBOXES SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND PULLBOXES SHOWN ADJACENT TO STANDARDS SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED ON PLANS.
4. DEPENDING ON APPLICATION PULLBOX COVERS SHALL BE LABELED: STREET LIGHT, TRAFFIC SIGNAL, IRRIGATION, ETC.
5. THE NOMINAL DIMENSIONS OF THE OPENING IN WHICH THE COVER SETS SHALL BE THE SAME AS THE DIMENSIONS EXCEPT THE LENGTH AND WIDTH DIMENSIONS SHALL BE 1/8" GREATER.
6. WHEN A PULLBOX IS INSTALLED IN THE SIDEWALK AREA, THE DEPTH OF THE PULLBOX SHALL BE ADJUSTED SO THAT THE TOP OF THE BOX IS FLUSH WITH THE TOP OF THE SIDEWALK.
7. TRAFFIC PULLBOX SHALL BE PROVIDED WITH A STEEL COVER AND SPECIAL CONCRETE FOOTING 3" MINIMUM CLASS "2" P.C.C. ON ALL SIDES OF BOX. STEEL COVER SHALL HAVE EMBOSSED NON-SKID PATTERN. GROUT BOTTOM OF BOXES WITH TRAFFIC LIDS AND PROVIDE DRAIN HOLE.

DEVELOPMENT & ENGINEERING SERVICES DEPARTMENT
ENGINEERING SERVICES DIVISION — CITY OF SALINAS

TITLE: **PULLBOX**

STANDARD PLAN **53**

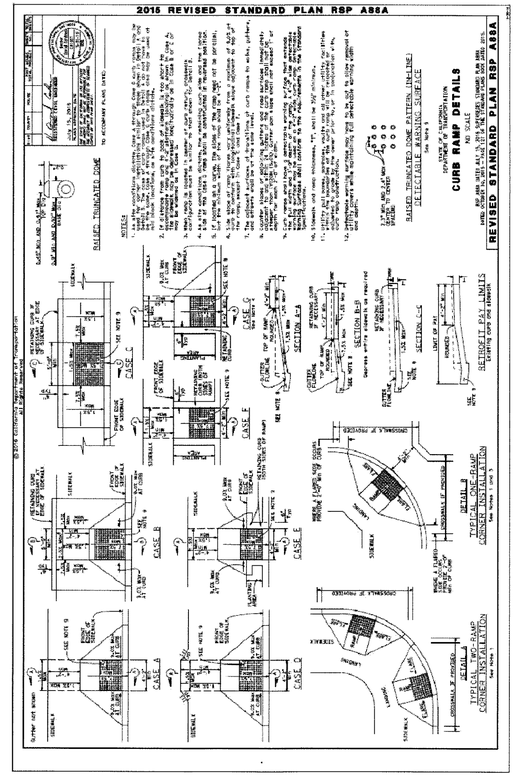
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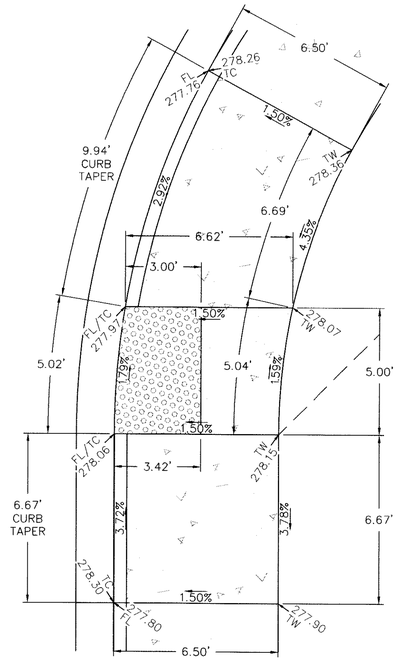
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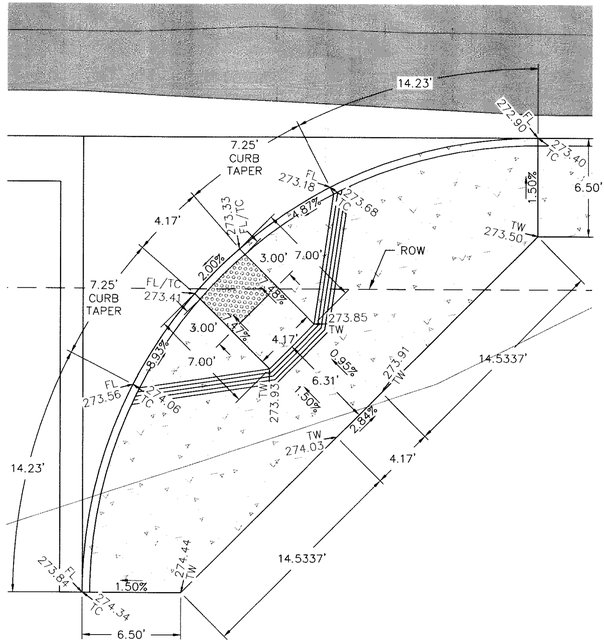
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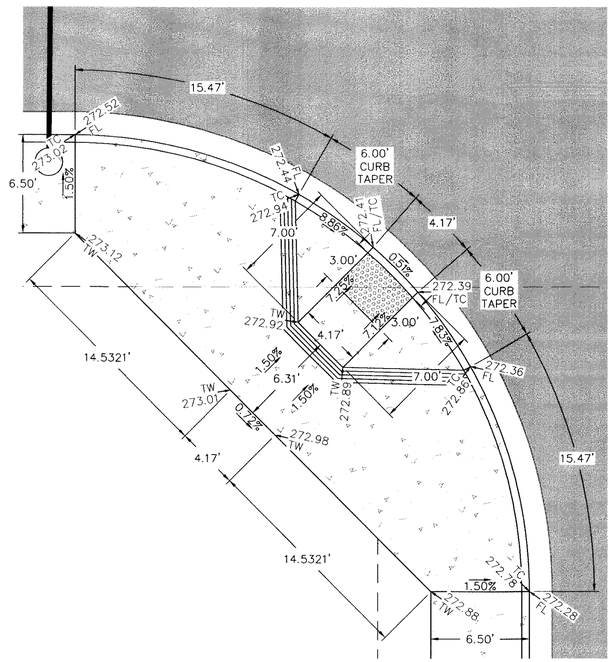
2 ADA RAMP CONSTRUCTION DETAIL 2

SCALE: 1 IN = 3 FT



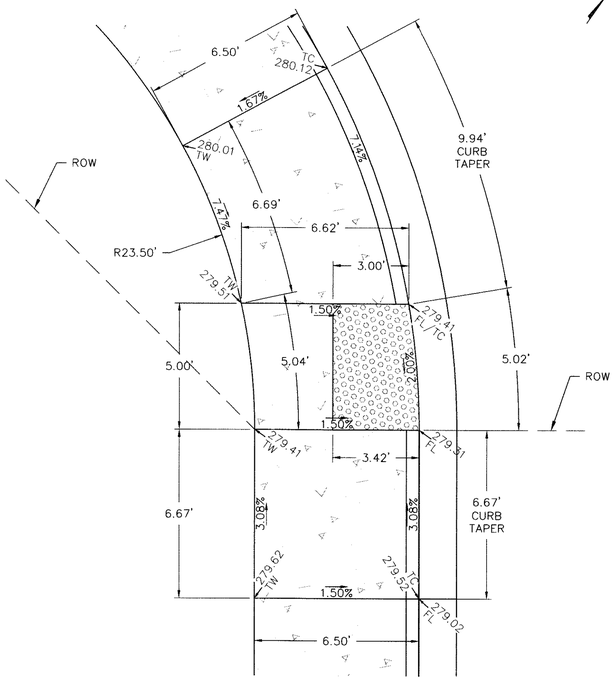
4 ADA RAMP CONSTRUCTION DETAIL 4

SCALE: 1 IN = 5 FT



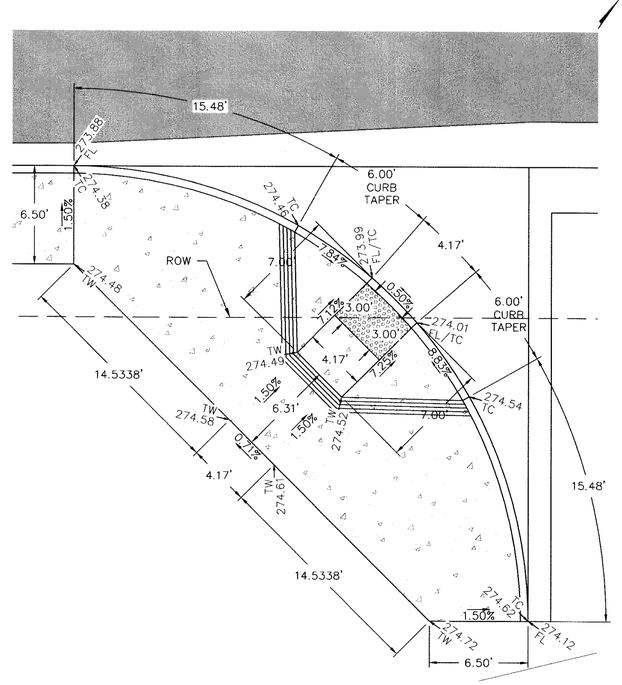
5 ADA RAMP CONSTRUCTION DETAIL 5

SCALE: 1 IN = 5 FT



1 ADA RAMP CONSTRUCTION DETAIL 1

SCALE: 1 IN = 3 FT



3 ADA RAMP CONSTRUCTION DETAIL 3

SCALE: 1 IN = 5 FT

NOTE: ADDITIONAL ACCESSIBLE RAMP CONSTRUCTION PARAMETERS ARE PROVIDED ON CALTRANS REVISED STANDARD PLAN A88A, SHEET ST-6.

REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

REGISTERED PROFESSIONAL ENGINEER GREGORY D. BLACK No. C 63955 Exp 12-31-17 CIVIL STATE OF CALIFORNIA

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD
TRACT NO. 1525
STREET IMPROVEMENT PLANS
ACCESSIBLE RAMP CONSTRUCTION DETAILS

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — 8/8/17 DATE

43330 — 8-8-17
CITY ENGINEER — RCE NUMBER — DATE

WDID# 3 27C378492 | CITY PROJ# T-1525

Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664-4806 Land
(888) 260-7357 Fax

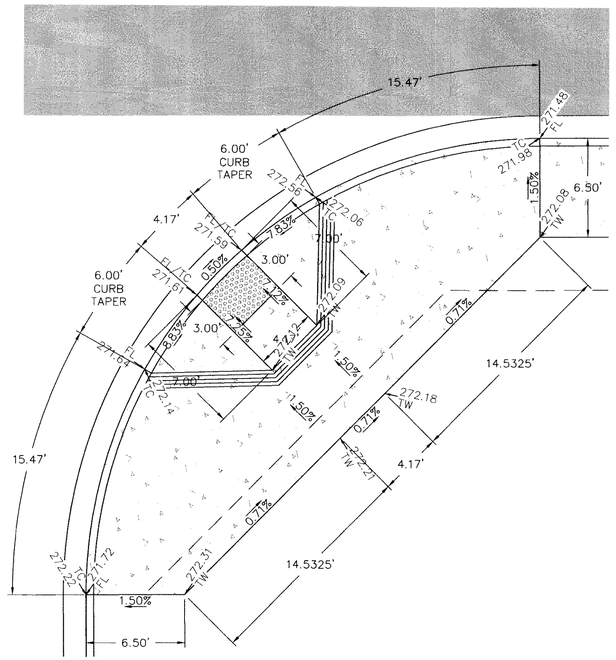
REVISIONS	CK'D BY	DATE CK'D

DATE: 8/4/2017
SCALE: AS-NOTED
DRAWN BY: SMS
CK'D BY: GOB
DATE CK'D: 8/4/2017
JOB NO: 15-030

PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA

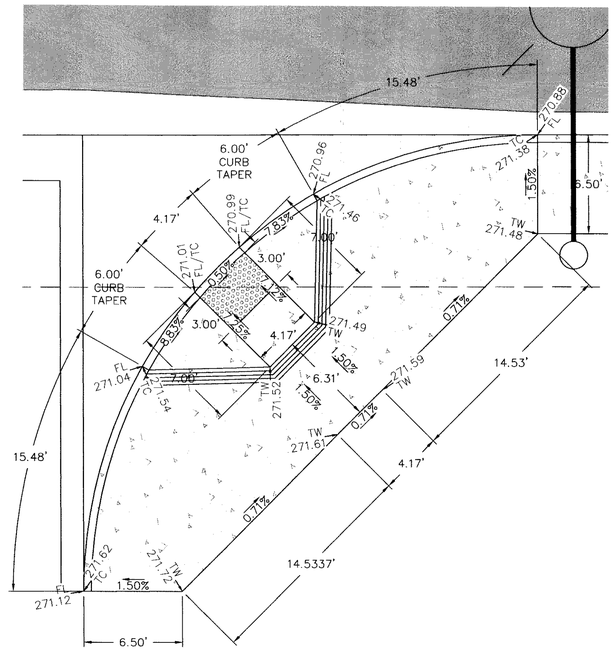
SHEET DESCRIPTION: STREET IMPROVEMENT PLANS ACCESSIBLE RAMP CONSTRUCTION DETAILS

SHEET ST-7 OF 14 SHTS.



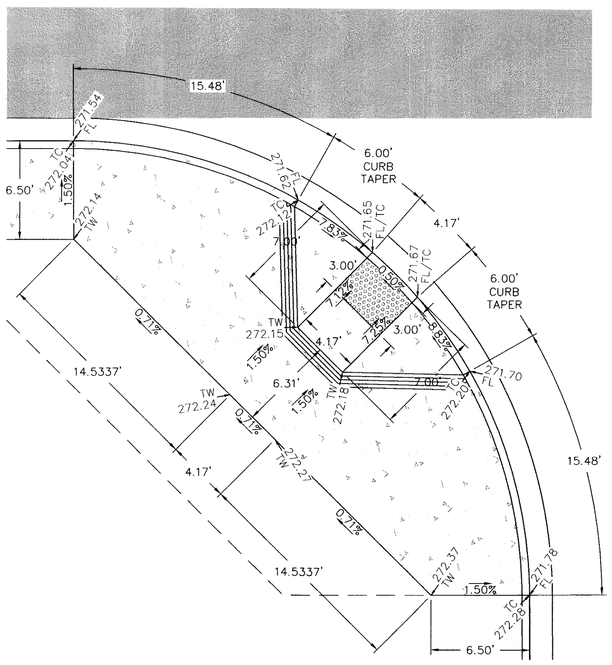
7 ADA RAMP CONSTRUCTION DETAIL 7

SCALE: 1 IN = 5 FT



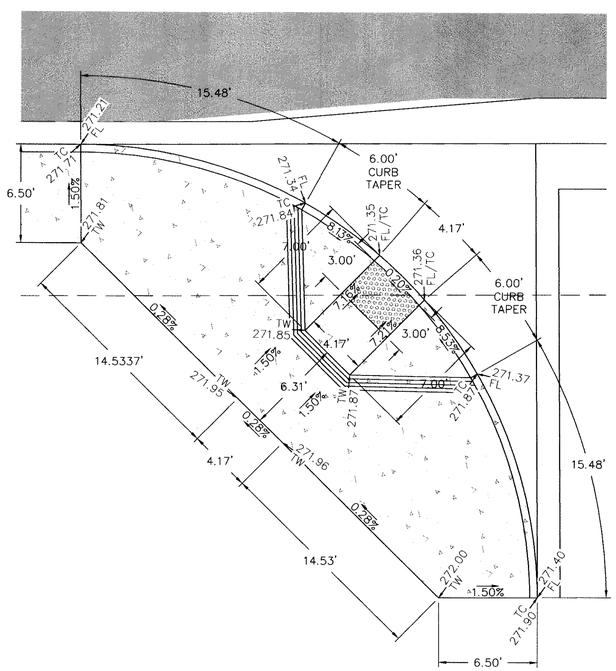
9 ADA RAMP CONSTRUCTION DETAIL 9

SCALE: 1 IN = 5 FT



6 ADA RAMP CONSTRUCTION DETAIL 6

SCALE: 1 IN = 5 FT



8 ADA RAMP CONSTRUCTION DETAIL 8

NOTE: ADDITIONAL ACCESSIBLE RAMP CONSTRUCTION PARAMETERS ARE PROVIDED ON CALTRANS REVISED STANDARD PLAN A88A, SHEET ST-6.

REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664-4806 Land
(888) 260-7357 Fax

REVISIONS	CK'D BY	DATE CK'D

DATE: 8/4/2017
SCALE: AS-NOTED
DRAWN BY: SMS
CK'D BY: SMS
DATE CK'D: 8/4/2017
JOB NO. 15-030

PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA

SHEET DESCRIPTION: STREET IMPROVEMENT PLANS
ACCESSIBLE RAMP CONSTRUCTION DETAILS

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD, TRACT NO. 1525
STREET IMPROVEMENT PLANS
ACCESSIBLE RAMP CONSTRUCTION DETAILS
APN: 109-116-001 TO 014

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

REGISTERED PROFESSIONAL ENGINEER — GREGORY O. BLAKEY — No. C 053352 — Exp. 12/31/17 — CIVIL — STATE OF CALIFORNIA

LAND DEVELOPMENT ENGINEER — DATE 8/8/17

CITY ENGINEER — RCE NUMBER 43730 — DATE 8-8-17

WDID# 3 27C378492 | CITY PROJ# T-1525

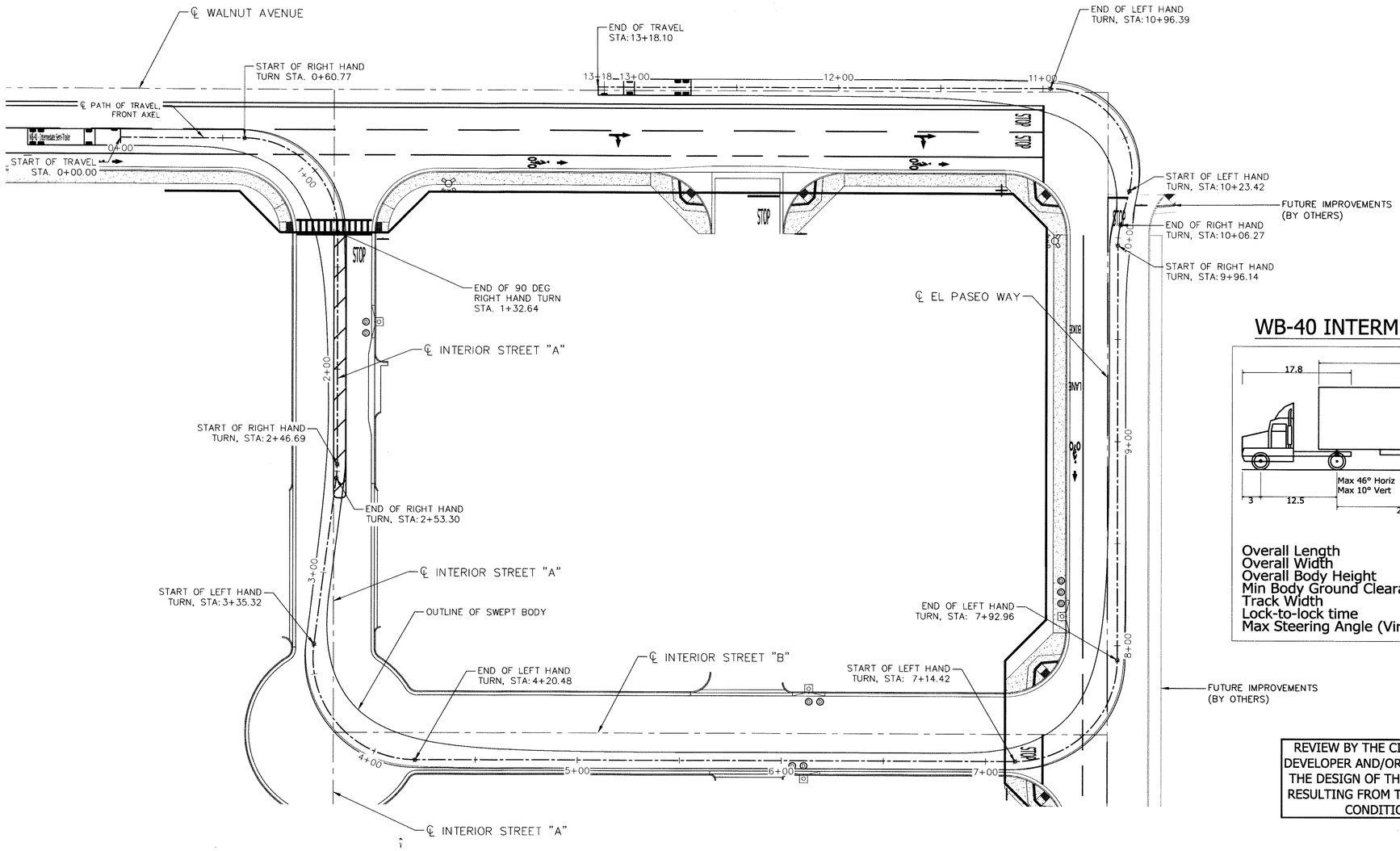
SHEET ST-8 OF 14 SHTS.

THE VINES AT GREENFIELD

VEHICLE PATH OF TRAVEL

PLAN VIEW

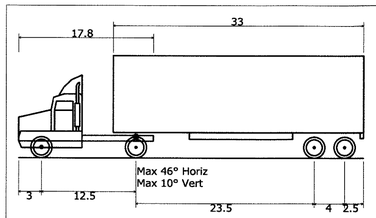
(SEE SHEET ST-10 FOR PROFILE ALONG PATH OF TRAVEL)



0 30 60

SCALE: 1" = 30

WB-40 INTERMEDIATE SEMI TRAILER



Overall Length	45.499ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Track Width	8.000ft
Lock-to-lock time	4.00s
Max Steering Angle (Virtual)	20.30°

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REGISTERED PROFESSIONAL ENGINEER — DAVID W. PLATT — No. C 63352 — Exp. 12/31/17 — CIVIL — STATE OF CALIFORNIA

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD, TRACT NO. 1525
STREET IMPROVEMENT PLANS
VEHICLE PATH OF TRAVEL – PLAN VIEW
APN: 109-116-001 TO 014

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — DATE 8/8/17

CITY ENGINEER — RCE NUMBER 43330 — DATE 8-8-17

WDID# 3 27C378492 | CITY PROJ# T-1525

SHEET ST-9 OF 14 SHTS.

Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD , CALIFORNIA 93313
(661) 664-4806 Land
(888) 260-7357 Fax

DATE: 8/4/2017
SCALE: AS-NOTED
DRAWN BY: SMS
CK'D BY: GOB
DATE CK'D: 8/4/2017
JOB NO: 15-030

REVISIONS | CK'D BY | DATE CK'D

PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA

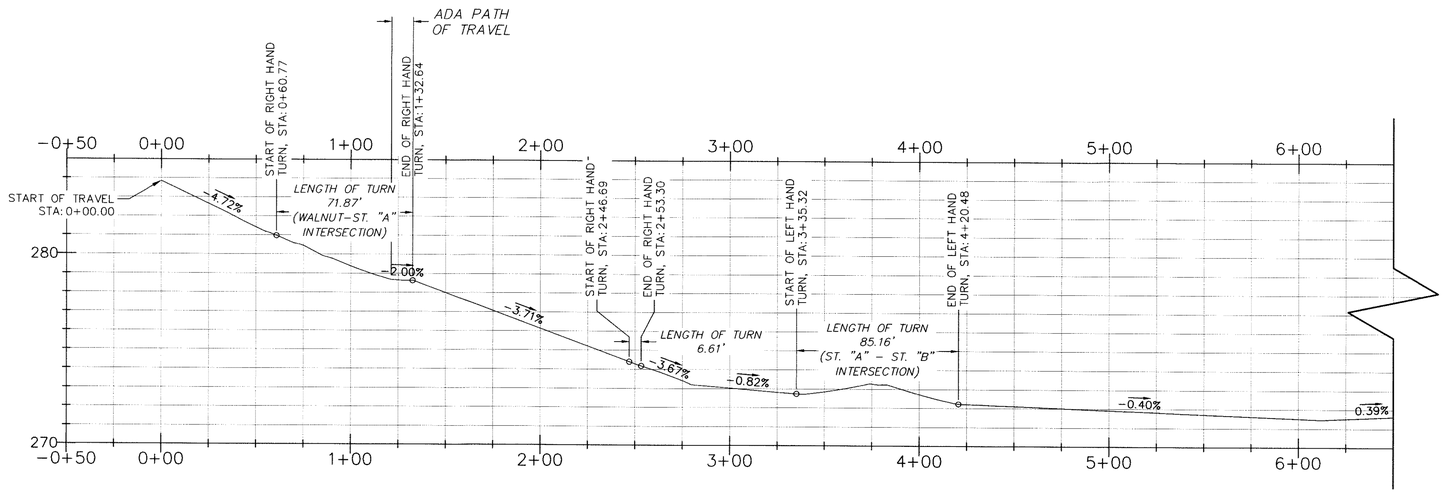
SHEET DESCRIPTION: VEHICLE PATH OF TRAVEL – PLAN VIEW

THE VINES AT GREENFIELD

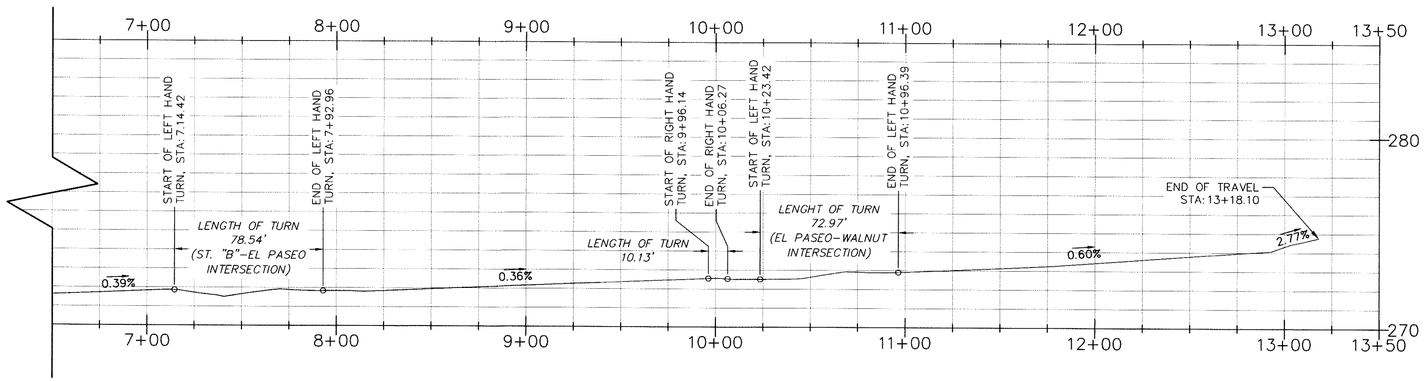
VEHICLE PATH OF TRAVEL

PROFILE

(SEE SHEET ST-9 FOR PLAN VIEW OF PATH OF TRAVEL)



MATCH LINE
STA: 6+50.00 - SEE BOTTOM LEFT



0 40 80
HORIZONTAL SCALE: 1" =40'
VERTICAL SCALE: 1" = 4'

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REGISTERED PROFESSIONAL ENGINEER GREGORY P. BLACK No. C 053932 Exp 12-31-17 CIVIL STATE OF CALIFORNIA

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD, TRACT NO. 1525
STREET IMPROVEMENT PLANS
VEHICLE PATH OF TRAVEL - PROFILE
APN: 109-116-001 TO 014

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — DATE 8/8/17
CITY ENGINEER — RCE NUMBER 43330 — DATE 8-8-17
WDID# 3 27C378492 | CITY PROJ# T-1525

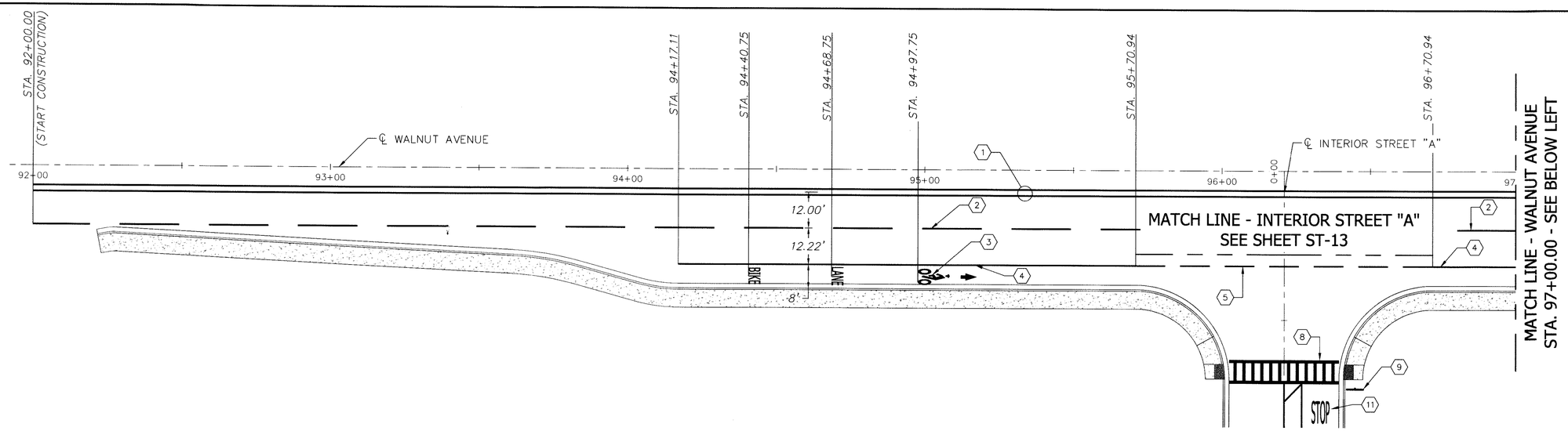
Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664-4806 Land
(888) 260-7357 Fax

REVISIONS	CK'D BY	DATE CK'D

DATE: 8/4/2017
SCALE: AS-NOTED
DRAWN BY: SMS
CK'D BY: GOB
DATE CK'D: 8/4/2017
JOB NO: 15-030

PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA
SHEET DESCRIPTION: STREET IMPROVEMENT PLANS VEHICLE PATH OF TRAVEL - PROFILE

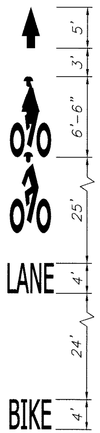
SHEET
ST-10 OF 14 SHTS.



PLAN - WALNUT AVENUE

SCALE: 1" = 20'

1. NO PASSING ZONES–TWO DIRECTION YELLOW STRIPING PER DETAIL 21, CALTRANS STD. PLAN A20A, SHEET ST–14
2. LANELINE STRIPING PER DETAIL 8, CALTRANS STD. PLAN A20A, SHEET ST–14
3. BIKE LANE SYMBOL WITH PERSON PER CALTRANS STD. PLAN A24C, SHEET ST–14
4. 6" WHITE BIKE LANE LINE STRIPING PER DETAIL 39, CALTRANS STD. PLAN A20D, SHEET ST–14
5. 6" WHITE INTERSECTION LINE BIKE LANE STRIPING PER DETAIL 39A, CALTRANS STD. PLAN A20D, SHEET ST–14
6. 12" WHITE LIMIT LINE (STOP LINE) STRIPING PER CALTRANS STD. PLAN A24E, SHEET ST–14
7. 4" YELLOW CENTER LINE STRIPING PER DETAIL 1, CALTRANS STD. PLAN A20A, SHEET ST–14
8. CROSSWALK STRIPING–LADDER CONFIGURATION PER CALTRANS STD. PLAN A24F, SHEET ST–14
9. STOP SIGN PER CITY OF SALINAS STANDARD PLAN NO. 48, SHEET ST–14
10. STOP/STREET NAME SIGN COMBINATION PER CITY OF SALINAS STANDARD PLAN NO. 48, SHEET ST–14
11. WHITE "STOP" LETTERING PER CALTRANS STD. PLAN A24D, SHEET ST–14

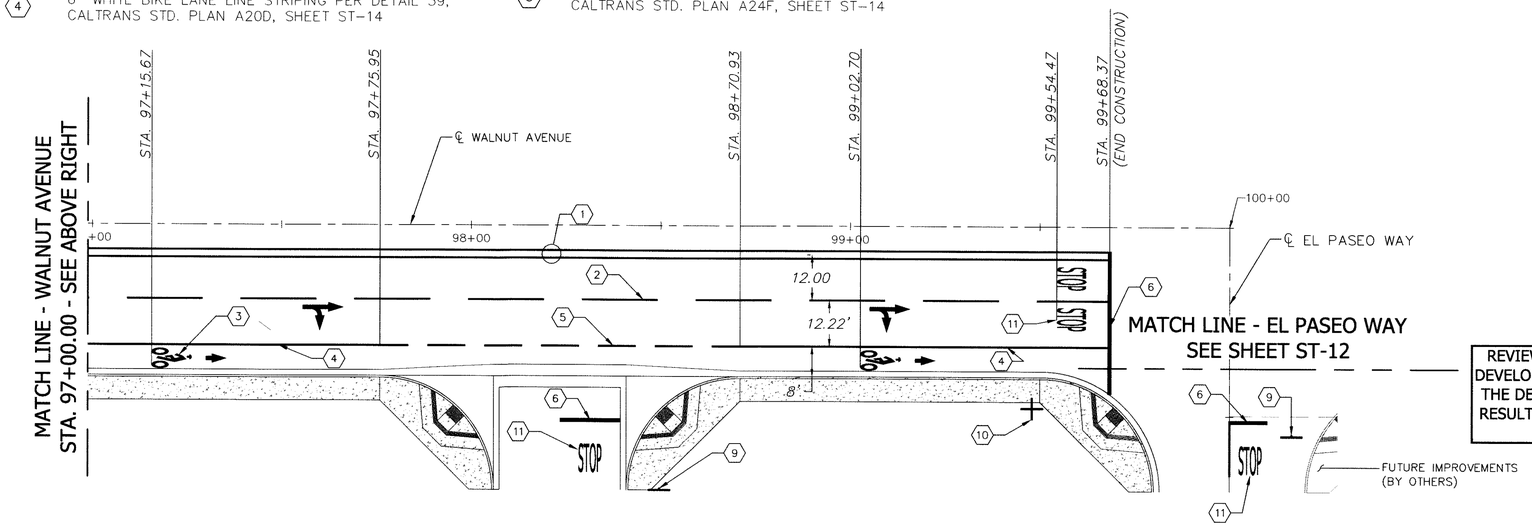


CALTRANS 2015 STANDARD PLANS
(A24A, A24C, A24D)

BIKE LANE STRIPING SYMBOLS
NOT TO SCALE

NOTES:

1. IF MESSAGE CONSISTS OF MORE THAN ONE WORD, IT MUST READ "UP", i.e., THE FIRST WORD MUST BE NEAREST TO THE DRIVER.
2. THE SPACE BETWEEN WORDS MUST BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTERS FOR LOWS SPEED ROADS, BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTERS. THE SPACE MAY BE REDUCED APPROPRIATELY WHERE THERE IS LIMITED SPACE BECAUSE OF LOCAL CONDITIONS.
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PLAN - WALNUT AVENUE

SCALE: 1" = 20'

REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

REGISTERED PROFESSIONAL ENGINEER
GREGORY D. BLACK
No. C 053052
Exp. 12/31/17
CIVIL
STATE OF CALIFORNIA

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD, TRACT NO. 1525
STREET IMPROVEMENT PLANS
WALNUT AVENUE – SIGNAGE & STRIPING PLAN
APN: 109–116–001 TO 014

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — DATE 8/8/17
CITY ENGINEER — RCE NUMBER 43330 — DATE 8-8-17
WDID# 3 27C378492 | CITY PROJ# T-1525

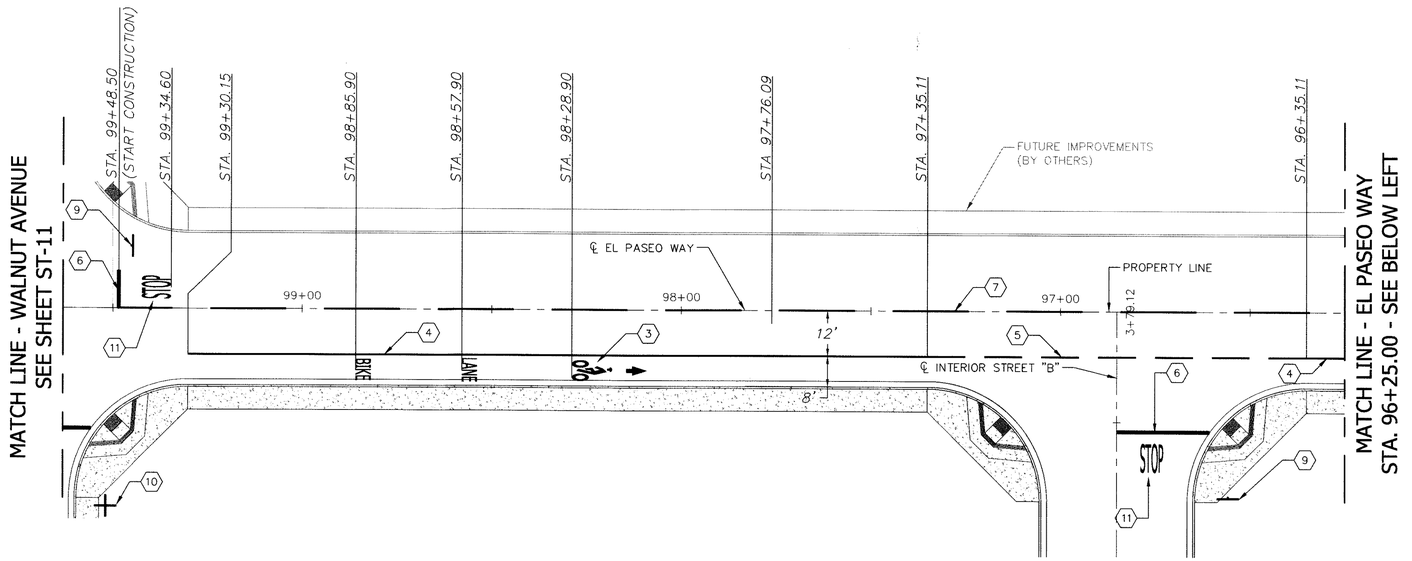
SHEET ST–11 OF 14 SHTS.

PROJECT TITLE
THE VINES AT GREENFIELD
TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA
SHEET DESCRIPTION WALNUT AVENUE – SIGNAGE & STRIPING PLAN
PLAN – STA. 92+00.00 – STA. 99+68.37

REVISIONS | CK'D BY | DATE CK'D

DATE: 8/4/2017
SCALE: AS–NOTED
DRAWN BY: SMS
CK'D BY: GOB
DATE CK'D: 8/4/2017
JOB NO: 15–030

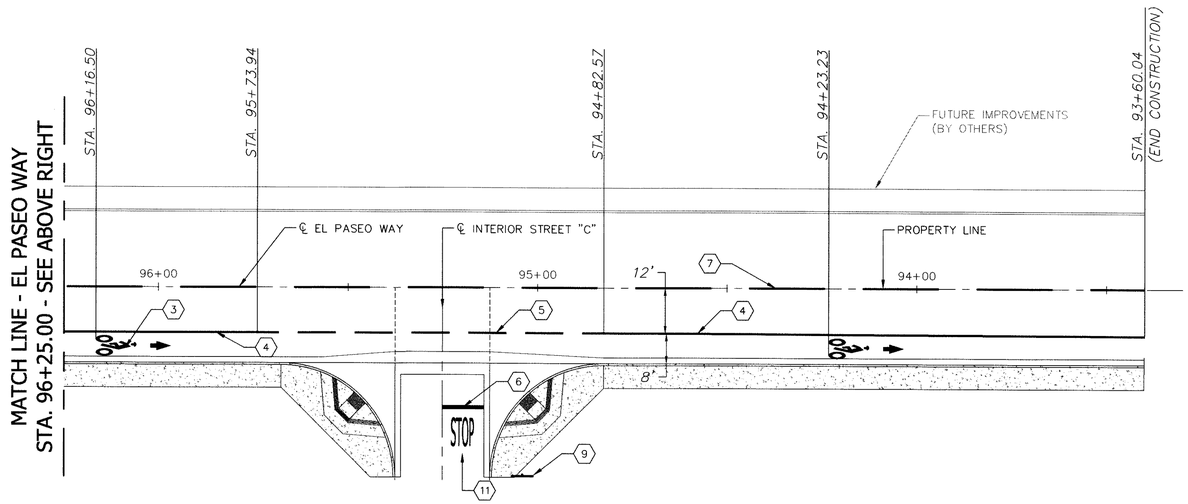
Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664–4806 Land
(888) 260–7357 Fax



PLAN - EL PASEO WAY

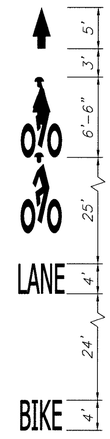
SCALE: 1" = 20'

1. NO PASSING ZONES–TWO DIRECTION YELLOW STRIPING PER DETAIL 21, CALTRANS STD. PLAN A20A, SHEET ST–14
2. LANELINE STRIPING PER DETAIL 8, CALTRANS STD. PLAN A20A, SHEET ST–14
3. BIKE LANE SYMBOL WITH PERSON PER CALTRANS STD. PLAN A24C, SHEET ST–14
4. 6" WHITE BIKE LANE LINE STRIPING PER DETAIL 39, CALTRANS STD. PLAN A20D, SHEET ST–14
5. 6" WHITE INTERSECTION LINE BIKE LANE STRIPING PER DETAIL 39A, CALTRANS STD. PLAN A20D, SHEET ST–14
6. 12" WHITE LIMIT LINE (STOP LINE) STRIPING PER CALTRANS STD. PLAN A24E, SHEET ST–14
7. 4" YELLOW CENTER LINE STRIPING PER DETAIL 1, CALTRANS STD. PLAN A20A, SHEET ST–14
8. CROSSWALK STRIPING–LADDER CONFIGURATION PER CALTRANS STD. PLAN A24F, SHEET ST–14
9. STOP SIGN PER CITY OF SALINAS STANDARD PLAN NO. 48, SHEET ST–14
10. STOP/STREET NAME SIGN COMBINATION PER CITY OF SALINAS STANDARD PLAN NO. 48, SHEET ST–14
11. WHITE "STOP" LETTERING PER CALTRANS STD. PLAN A24D, SHEET ST–14



PLAN - EL PASEO WAY

SCALE: 1" = 20'



CALTRANS 2015 STANDARD PLANS
(A24A, A24C, A24D)

BIKE LANE STRIPING SYMBOLS
NOT TO SCALE

NOTES:

1. IF MESSAGE CONSISTS OF MORE THAN ONE WORD, IT MUST READ "UP", i.e., THE FIRST WORD MUST BE NEAREST TO THE DRIVER.
2. THE SPACE BETWEEN WORDS MUST BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTERS FOR LOWS SPEED ROADS, BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTERS. THE SPACE MAY BE REDUCED APPROPRIATELY WHERE THERE IS LIMITED SPACE BECAUSE OF LOCAL CONDITIONS.
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5. SPACINGS NOT TO EXCEED 2.5 TIMES WIDTH OF LONGITUDINAL LINE.
6. ALL CROSSWALK MARKINGS MUST BE WHITE EXCEPT THOSE NEAR SCHOOLS.

REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

REGISTERED PROFESSIONAL ENGINEER
GREGORY O. BLACK
No. 63982
Exp. 12/31/17
CIVIL
STATE OF CALIFORNIA

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD, TRACT NO. 1525
STREET IMPROVEMENT PLANS
EL PASEO WAY – SIGNAGE & STRIPING PLAN
APN: 109–116–001 TO 014

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — DATE 8/8/17
CITY ENGINEER — RCE NUMBER 43330 — DATE 8-8-17
WDID# 3 27C378492 | CITY PROJ# T-1525

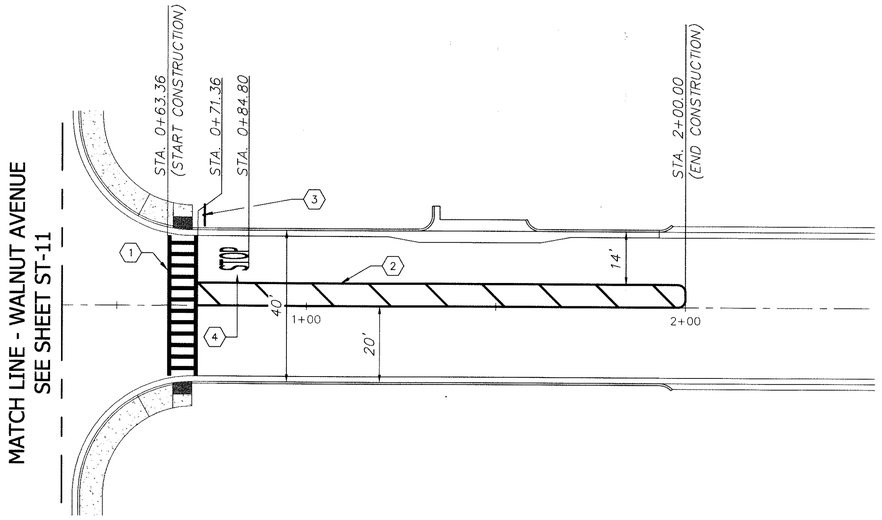
PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA
SHEET DESCRIPTION EL PASEO WAY – SIGNAGE & STRIPING PLAN PLAN – STA. 93+60.04 – STA. 99+48.50

SHEET ST–12 OF 14 SHTS.

REVISIONS | CK'D BY | DATE CK'D

DATE: 8/4/2017
SCALE: AS–NOTED
DRAWN BY: SMS
CK'D BY: GOB
DATE CK'D: 8/4/2017
JOB NO: 15–030

Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664–4806 Land
(888) 260–7357 Fax



PLAN - INTERIOR STREET "A"

SCALE: 1" = 20'

(1) CROSSWALK STRIPING–LADDER CONFIGURATION PER CALTRANS STD. PLAN A24F, SHEET ST–14

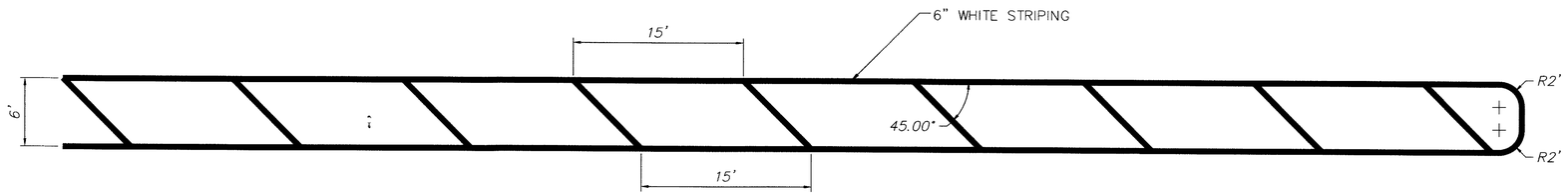
(2) ISLAND STRIPING PER DETAIL ON THIS SHEET, SHEET ST–14

(3) STOP SIGN PER CITY OF SALINAS STANDARD PLAN NO. 48, SHEET ST–14

(4) WHITE "STOP" LETTERING PER CALTRANS STD. PLAN A24D, SHEET ST–14

NOTES:

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6. ALL CROSSWALK MARKINGS MUST BE WHITE EXCEPT THOSE NEAR SCHOOLS.



ISLAND STRIPING

NOT TO SCALE

REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

REGISTERED PROFESSIONAL ENGINEER
GREGORY O. BLACK
No. C 063952
Exp 12-31-17
CIVIL
STATE OF CALIFORNIA

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD, TRACT NO. 1525
STREET IMPROVEMENT PLANS
INT. STREET A – SIGNAGE & STRIPING PLAN
APN: 109–116–001 TO 014

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — DATE 8/18/17

CITY ENGINEER — RCE NUMBER 43330 — DATE 8-8-17

WDID# 3 27C378492 | CITY PROJ# T-1525

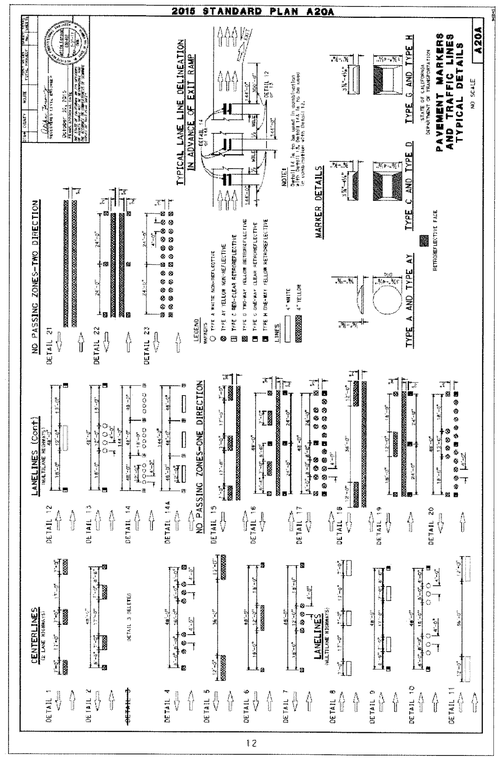
SHEET ST–13 OF 14 SHTS.

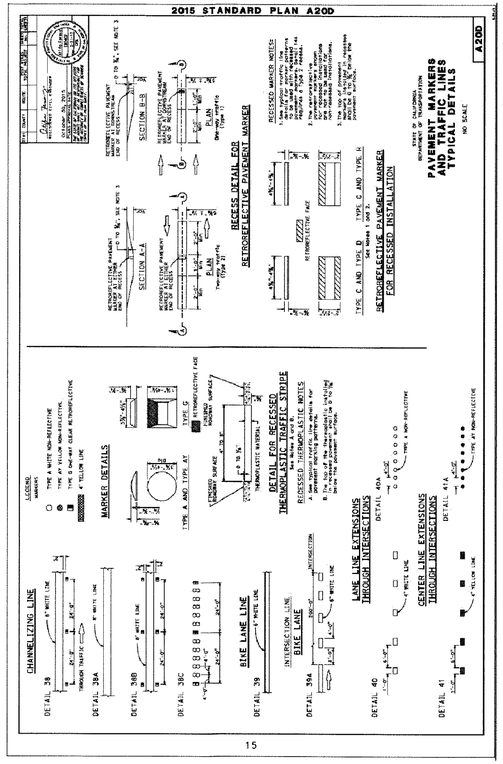
PROJECT TITLE
THE VINES AT GREENFIELD
TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA
SHEET DESCRIPTION INT. STREET A – SIGNAGE & STRIPING PLAN
PLAN – STA. 0+63.36 – 2+00.00

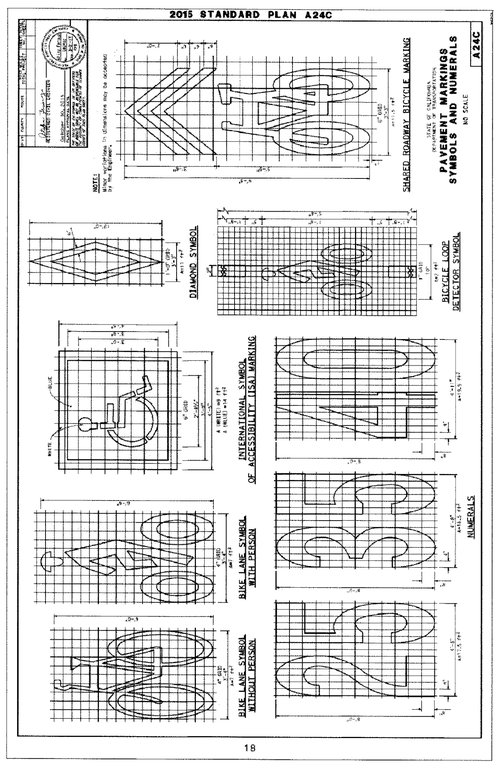
REVISIONS | CK'D BY | DATE CK'D

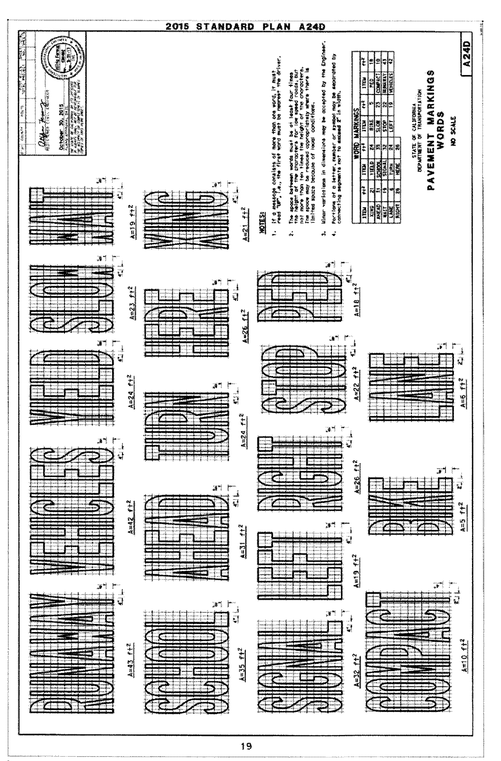
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DRAWN BY: SMS
CK'D BY: GOB
DATE CK'D: 8/4/2017
JOB NO: 15-050

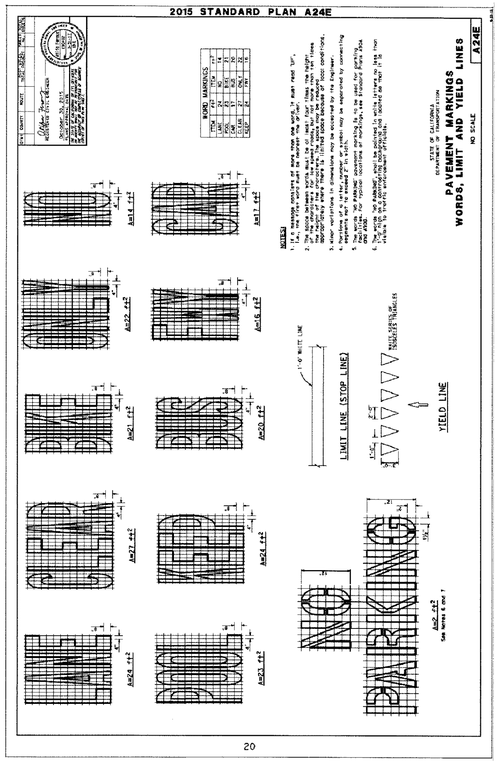
Palmetto Engineering & Land Surveying
4330 ASHE ROAD, SUITE 103
BAKERSFIELD, CALIFORNIA 93313
(661) 664-4806 Land
(888) 260-7357 Fax

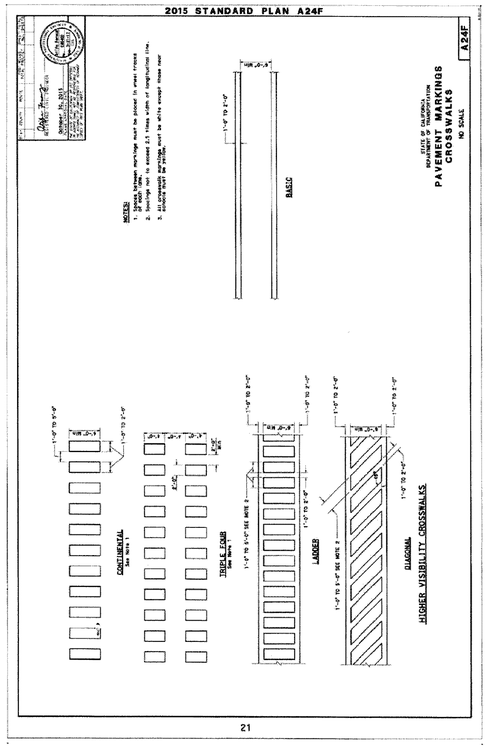


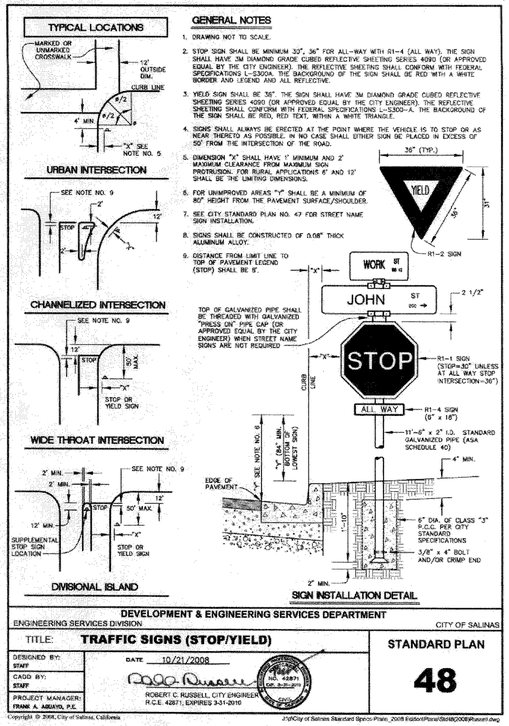












REVIEW BY THE CITY ENGINEER SHALL IN NO WAY RELIEVE THE DEVELOPER AND/OR THEIR ENGINEERS FROM RESPONSIBILITY FOR THE DESIGN OF THE IMPROVEMENTS AND FOR ANY DEFICIENCIES RESULTING FROM THE DESIGN THEREOF OR FROM ANY REQUIRED CONDITIONS OF APPROVAL FOR THE PROJECT.

PUBLIC WORKS DEPARTMENT
CITY OF GREENFIELD

THE VINES AT GREENFIELD, TRACT NO. 1525
STREET IMPROVEMENT PLANS
SIGNAGE & STRIPING DETAILS
APN: 109-116-001 TO 014

DRN. BY: SMS	DES. BY: SMS	CK'D BY: GOB

LAND DEVELOPMENT ENGINEER — DATE 8/8/17

CITY ENGINEER — RCE NUMBER 43330 — DATE 8-8-17

WDID# 3 27C378492 | CITY PROJ# T-1525

REGISTERED PROFESSIONAL ENGINEER — GREGORY D. BLACK — No. C 59365 — Exp 12/31/17 — CIVIL — STATE OF CALIFORNIA

PROJECT TITLE: THE VINES AT GREENFIELD TRACT NO. 1525
CITY OF GREENFIELD, COUNTY OF MONTEREY, CALIFORNIA

SHEET DESCRIPTION: STREET IMPROVEMENT PLANS SIGNAGE & STRIPING DETAILS

SHEET ST-14 OF 14 SHTS.

REVISIONS | CK'D BY | DATE CK'D

DATE: 8/4/2017
SCALE: AS-NOTED
DRAWN BY: SMS
CK'D BY: GOB
DATE CK'D: 8/4/2017
JOB NO.: 15-030

Palmetto Engineering & Land Surveying
4300 ASHE ROAD, SUITE 103
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Appendix D

Existing Conditions
LOS Analysis Worksheets

Intersection Level Of Service Report
Intersection 1: US 101 SB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

Intersection Setup

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	0	0	0	65	3	76	0	276	132	81	245	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	65	3	76	0	276	132	81	245	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.7900	0.7900	0.7900	0.9500	0.7900	0.7900	0.7900	0.7900	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	21	1	24	0	87	42	26	78	0
Total Analysis Volume [veh/h]	0	0	0	82	4	96	0	349	167	103	310	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		515	621	746	873	745
Degree of Utilization, x		0.17	0.15	0.47	0.19	0.55

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		0.59	0.54	2.51	0.70	3.45
95th-Percentile Queue Length [ft]		14.87	13.61	62.78	17.60	86.22
Approach Delay [s/veh]	0.00	10.28		10.44		13.68
Approach LOS	A	B		B		B
Intersection Delay [s/veh]	11.62					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: US 101 NB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.519

Intersection Setup

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	108	4	76	0	0	0	119	214	0	0	229	177
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	108	4	76	0	0	0	119	214	0	0	229	177
Peak Hour Factor	0.8810	0.8810	0.8810	0.9500	0.9500	0.9500	0.8810	0.8810	0.9500	0.9500	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	1	22	0	0	0	34	61	0	0	65	50
Total Analysis Volume [veh/h]	123	5	86	0	0	0	135	243	0	0	260	201
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	532	646		813	888
Degree of Utilization, x	0.24	0.13		0.47	0.52

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.93	0.46		2.50	3.06
95th-Percentile Queue Length [ft]	23.33	11.44		62.42	76.57
Approach Delay [s/veh]	10.60		0.00	11.23	11.35
Approach LOS	B		A	B	B
Intersection Delay [s/veh]	11.15				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 3: Project Access at Walnut Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.082

Intersection Setup

Name	Project Access		Walnut Avenue		Walnut Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Access		Walnut Avenue		Walnut Avenue	
Base Volume Input [veh/h]	26	1	204	83	18	377
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	1	204	83	18	377
Peak Hour Factor	0.8650	0.8650	0.8650	0.8650	0.8650	0.8650
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	59	24	5	109
Total Analysis Volume [veh/h]	30	1	236	96	21	436
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	15.76	10.65	0.00	0.00	7.98	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.00	0.00	0.05	0.05
95th-Percentile Queue Length [ft/ln]	6.80	6.80	0.00	0.00	1.31	1.31
d_A, Approach Delay [s/veh]	15.60		0.00		0.37	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.79					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: US 101 SB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.466

Intersection Setup

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	0	0	0	184	2	178	0	272	115	59	271	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	184	2	178	0	272	115	59	271	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9320	0.9320	0.9320	0.9500	0.9320	0.9320	0.9320	0.9320	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	49	1	48	0	73	31	16	73	0
Total Analysis Volume [veh/h]	0	0	0	197	2	191	0	292	123	63	291	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		538	655	753	883	759
Degree of Utilization, x		0.37	0.29	0.39	0.14	0.47

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		1.70	1.21	1.84	0.48	2.50
95th-Percentile Queue Length [ft]		42.38	30.23	46.03	12.08	62.49
Approach Delay [s/veh]	0.00	11.89		9.57		11.82
Approach LOS	A	B		A		B
Intersection Delay [s/veh]	11.04					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: US 101 NB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.583

Intersection Setup

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	95	3	66	0	0	0	83	387	0	0	218	101
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	3	66	0	0	0	83	387	0	0	218	101
Peak Hour Factor	0.9610	0.9610	0.9610	0.9500	0.9500	0.9500	0.9610	0.9610	0.9500	0.9500	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	1	17	0	0	0	22	101	0	0	57	26
Total Analysis Volume [veh/h]	99	3	69	0	0	0	86	403	0	0	227	105
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	533	648		839	853
Degree of Utilization, x	0.19	0.11		0.58	0.39

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.70	0.36		3.85	1.86
95th-Percentile Queue Length [ft]	17.53	8.89		96.24	46.50
Approach Delay [s/veh]	10.19		0.00	13.10	9.89
Approach LOS	B		A	B	A
Intersection Delay [s/veh]	11.52				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 3: Project Access at Walnut Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

Intersection Setup

Name	Project Access		Walnut Avenue		Walnut Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Access		Walnut Avenue		Walnut Avenue	
Base Volume Input [veh/h]	18	2	400	54	8	306
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	2	400	54	8	306
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	106	14	2	81
Total Analysis Volume [veh/h]	19	2	424	57	8	324
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.74	11.52	0.00	0.00	8.35	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.00	0.00	0.02	0.02
95th-Percentile Queue Length [ft/ln]	4.51	4.51	0.00	0.00	0.56	0.56
d_A, Approach Delay [s/veh]	15.34		0.00		0.20	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.47					
Intersection LOS	C					

Appendix E

Background (Year 2024) Without Project Conditions
LOS Analysis Worksheets

Intersection Level Of Service Report
Intersection 1: US 101 SB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	19.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.823

Intersection Setup

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	0	0	0	102	3	86	0	404	160	122	347	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	102	3	86	0	404	160	122	347	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.7900	0.7900	0.7900	0.9500	0.7900	0.7900	0.7900	0.7900	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	32	1	27	0	128	51	39	110	0
Total Analysis Volume [veh/h]	0	0	0	129	4	109	0	511	203	154	439	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		465	551	725	845	720
Degree of Utilization, x		0.29	0.20	0.71	0.24	0.82

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		1.17	0.73	5.88	0.94	8.95
95th-Percentile Queue Length [ft]		29.19	18.23	147.02	23.47	223.80
Approach Delay [s/veh]	0.00	12.30		15.71		26.85
Approach LOS	A	B		C		D
Intersection Delay [s/veh]	19.44					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: US 101 NB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	19.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.803

Intersection Setup

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	119	4	93	0	0	0	147	349	0	0	357	237
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	119	4	93	0	0	0	147	349	0	0	357	237
Peak Hour Factor	0.8810	0.8810	0.8810	0.9500	0.9500	0.9500	0.8810	0.8810	0.9500	0.9500	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	1	26	0	0	0	42	99	0	0	101	67
Total Analysis Volume [veh/h]	135	5	106	0	0	0	167	396	0	0	405	269
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	474	563		774	840
Degree of Utilization, x	0.30	0.19		0.73	0.80

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.22	0.69		6.44	8.63
95th-Percentile Queue Length [ft]	30.61	17.20		160.96	215.72
Approach Delay [s/veh]	12.22		0.00	19.02	22.25
Approach LOS	B		A	C	C
Intersection Delay [s/veh]	19.36				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 3: Project Access at Walnut Avenue

Control Type:	Two-way stop	Delay (sec / veh):	25.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.148

Intersection Setup

Name	Project Access		Walnut Avenue		Walnut Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Access		Walnut Avenue		Walnut Avenue	
Base Volume Input [veh/h]	27	1	353	86	19	569
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	1	353	86	19	569
Peak Hour Factor	0.8650	0.8650	0.8650	0.8650	0.8650	0.8650
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	102	25	5	164
Total Analysis Volume [veh/h]	31	1	408	99	22	658
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.15	0.00	0.00	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	25.16	13.92	0.00	0.00	8.48	0.00
Movement LOS	D	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.52	0.52	0.00	0.00	0.06	0.06
95th-Percentile Queue Length [ft/ln]	12.92	12.92	0.00	0.00	1.59	1.59
d_A, Approach Delay [s/veh]	24.81		0.00		0.27	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.80					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 1: US 101 SB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	60.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.161

Intersection Setup

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	0	0	0	337	2	210	0	629	134	126	635	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	337	2	210	0	629	134	126	635	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9320	0.9320	0.9320	0.9500	0.9320	0.9320	0.9320	0.9320	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	90	1	56	0	169	36	34	170	0
Total Analysis Volume [veh/h]	0	0	0	362	2	225	0	675	144	135	681	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		447	524	718	834	816
Degree of Utilization, x		0.82	0.43	0.94	0.17	1.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		7.61	2.14	13.47	0.62	25.92
95th-Percentile Queue Length [ft]		190.33	53.40	336.81	15.55	647.99
Approach Delay [s/veh]	0.00	28.85		36.30		107.34
Approach LOS	A	D		E		F
Intersection Delay [s/veh]	60.39					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 2: US 101 NB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	120.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.336

Intersection Setup

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	124	3	145	0	0	0	100	875	0	0	617	235
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	124	3	145	0	0	0	100	875	0	0	617	235
Peak Hour Factor	0.9610	0.9610	0.9610	0.9500	0.9500	0.9500	0.9610	0.9610	0.9500	0.9500	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	1	38	0	0	0	26	228	0	0	161	61
Total Analysis Volume [veh/h]	129	3	151	0	0	0	104	911	0	0	642	245
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	444	520		1015	887
Degree of Utilization, x	0.30	0.29		1.34	1.12

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.23	1.20		41.16	25.23
95th-Percentile Queue Length [ft]	30.74	29.89		1028.97	630.65
Approach Delay [s/veh]	13.25		0.00	175.90	90.19
Approach LOS	B		A	F	F
Intersection Delay [s/veh]	120.04				
Intersection LOS	F				

Intersection Level Of Service Report
Intersection 3: Project Access at Walnut Avenue

Control Type:	Two-way stop	Delay (sec / veh):	79.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.297

Intersection Setup

Name	Project Access		Walnut Avenue		Walnut Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Access		Walnut Avenue		Walnut Avenue	
Base Volume Input [veh/h]	19	2	970	56	8	842
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	2	970	56	8	842
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	257	15	2	223
Total Analysis Volume [veh/h]	20	2	1029	59	8	893
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.30	0.01	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	79.00	38.69	0.00	0.00	10.68	0.00
Movement LOS	F	E	A	A	B	A
95th-Percentile Queue Length [veh/ln]	1.12	1.12	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	27.90	27.90	0.00	0.00	0.95	0.95
d_A, Approach Delay [s/veh]	75.34		0.00		0.09	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	0.87					
Intersection LOS	F					

Appendix F

Background (Year 2024) With Project Conditions
LOS Analysis Worksheets

Intersection Level Of Service Report
Intersection 1: US 101 SB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	20.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.844

Intersection Setup

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	0	0	0	112	3	86	0	406	160	130	349	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	112	3	86	0	406	160	130	349	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.7900	0.7900	0.7900	0.9500	0.7900	0.7900	0.7900	0.7900	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	35	1	27	0	128	51	41	110	0
Total Analysis Volume [veh/h]	0	0	0	142	4	109	0	514	203	165	442	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		463	549	723	843	720
Degree of Utilization, x		0.32	0.20	0.71	0.24	0.84

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		1.34	0.73	6.00	0.94	9.62
95th-Percentile Queue Length [ft]		33.39	18.35	149.97	23.54	240.56
Approach Delay [s/veh]	0.00	12.67		15.94		28.87
Approach LOS	A	B		C		D
Intersection Delay [s/veh]	20.38					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: US 101 NB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	20.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.829

Intersection Setup

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	119	4	103	0	0	0	147	361	0	0	366	245
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	119	4	103	0	0	0	147	361	0	0	366	245
Peak Hour Factor	0.8810	0.8810	0.8810	0.9500	0.9500	0.9500	0.8810	0.8810	0.9500	0.9500	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	1	29	0	0	0	42	102	0	0	104	70
Total Analysis Volume [veh/h]	135	5	117	0	0	0	167	410	0	0	415	278
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	469	557		771	836
Degree of Utilization, x	0.30	0.21		0.75	0.83

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.24	0.79		6.95	9.49
95th-Percentile Queue Length [ft]	30.97	19.67		173.67	237.21
Approach Delay [s/veh]	12.36		0.00	20.21	24.36
Approach LOS	B		A	C	C
Intersection Delay [s/veh]	20.77				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 3: Project Access at Walnut Avenue

Control Type:	Two-way stop	Delay (sec / veh):	19.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.175

Intersection Setup

Name	Project Access		Walnut Avenue		Walnut Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Access		Walnut Avenue		Walnut Avenue	
Base Volume Input [veh/h]	44	1	353	108	19	569
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	1	353	108	19	569
Peak Hour Factor	0.8650	0.8650	0.8650	0.8650	0.8650	0.8650
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	102	31	5	164
Total Analysis Volume [veh/h]	51	1	408	125	22	658
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.00	0.00	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	19.90	12.50	0.00	0.00	8.57	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.63	0.63	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	15.68	15.68	0.00	0.00	1.63	1.63
d_A, Approach Delay [s/veh]	19.76		0.00		0.28	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.96					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: US 101 SB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	64.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.182

Intersection Setup

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	0	0	0	348	2	210	0	632	134	137	637	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	348	2	210	0	632	134	137	637	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9320	0.9320	0.9320	0.9500	0.9320	0.9320	0.9320	0.9320	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	93	1	56	0	170	36	37	171	0
Total Analysis Volume [veh/h]	0	0	0	373	2	225	0	678	144	147	683	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		447	524	718	834	830
Degree of Utilization, x		0.84	0.43	0.94	0.17	1.18

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		8.21	2.14	13.66	0.62	27.34
95th-Percentile Queue Length [ft]		205.31	53.45	341.62	15.55	683.41
Approach Delay [s/veh]	0.00	30.95		36.97		115.31
Approach LOS	A	D		E		F
Intersection Delay [s/veh]	64.24					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 2: US 101 NB Ramps at Walnut Avenue

Control Type:	All-way stop	Delay (sec / veh):	127.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.354

Intersection Setup

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	124	3	156	0	0	0	100	889	0	0	630	246
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	124	3	156	0	0	0	100	889	0	0	630	246
Peak Hour Factor	0.9610	0.9610	0.9610	0.9500	0.9500	0.9500	0.9610	0.9610	0.9500	0.9500	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	1	41	0	0	0	26	231	0	0	164	64
Total Analysis Volume [veh/h]	129	3	162	0	0	0	104	925	0	0	656	256
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	444	520		1029	912
Degree of Utilization, x	0.30	0.31		1.35	1.15

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.23	1.32		42.69	27.53
95th-Percentile Queue Length [ft]	30.74	32.94		1067.34	688.24
Approach Delay [s/veh]	13.38		0.00	183.63	101.43
Approach LOS	B		A	F	F
Intersection Delay [s/veh]	127.69				
Intersection LOS	F				

Intersection Level Of Service Report
Intersection 3: Project Access at Walnut Avenue

Control Type:	Two-way stop	Delay (sec / veh):	64.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.441

Intersection Setup

Name	Project Access		Walnut Avenue		Walnut Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Access		Walnut Avenue		Walnut Avenue	
Base Volume Input [veh/h]	43	2	970	81	8	842
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	2	970	81	8	842
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	1	257	21	2	223
Total Analysis Volume [veh/h]	46	2	1029	86	8	893
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.44	0.00	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	63.96	37.04	0.00	0.00	10.86	0.00
Movement LOS	F	E	A	A	B	A
95th-Percentile Queue Length [veh/ln]	1.92	1.92	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	47.93	47.93	0.00	0.00	0.98	0.98
d_A, Approach Delay [s/veh]	62.84		0.00		0.10	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	1.50					
Intersection LOS	F					

Appendix G

Background (Year 2024) With Project Conditions With Improvements
LOS Analysis Worksheets

Intersection Level Of Service Report
Intersection 1: US 101 SB Ramps at Walnut Avenue

Control Type:	Signalized	Delay (sec / veh):	29.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.368

Intersection Setup

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	0	0	0	112	3	86	0	406	160	130	349	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	112	3	86	0	406	160	130	349	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.7900	0.7900	0.7900	0.9500	0.7900	0.7900	0.7900	0.7900	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	35	1	27	0	128	51	41	110	0
Total Analysis Volume [veh/h]	0	0	0	142	4	109	0	514	203	165	442	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	6	0	0	6	0	6	6	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	40	0	0	22	0	28	50	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	11	0	0	11	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		C	R	C	R	L	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		52	52	16	16	10	30
g / C, Green / Cycle		0.57	0.57	0.18	0.18	0.11	0.34
(v / s)_i Volume / Saturation Flow Rate		0.08	0.07	0.14	0.13	0.09	0.12
s, saturation flow rate [veh/h]		1783	1589	3560	1589	1781	3560
c, Capacity [veh/h]		1019	908	640	286	206	1210
d1, Uniform Delay [s]		9.01	8.88	35.43	34.75	38.83	22.42
k, delay calibration		0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.30	0.27	2.42	3.26	7.06	0.19
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.14	0.12	0.80	0.71	0.80	0.37
d, Delay for Lane Group [s/veh]		9.30	9.15	37.85	38.02	45.88	22.61
Lane Group LOS		A	A	D	D	D	C
Critical Lane Group		Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		1.33	0.98	5.52	4.37	3.90	3.48
50th-Percentile Queue Length [ft/ln]		33.13	24.55	137.88	109.14	97.62	86.94
95th-Percentile Queue Length [veh/ln]		2.39	1.77	9.37	7.79	7.03	6.26
95th-Percentile Queue Length [ft/ln]		59.64	44.19	234.16	194.80	175.71	156.48

Movement, Approach, & Intersection Results

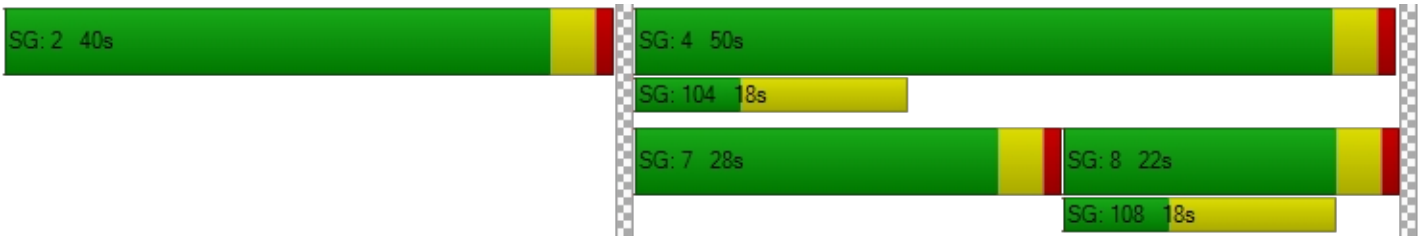
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	9.30	9.30	9.15	0.00	37.85	38.02	45.88	22.61	0.00
Movement LOS				A	A	A		D	D	D	C	
d_A, Approach Delay [s/veh]	0.00			9.24			37.89			28.94		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	29.82											
Intersection LOS	C											
Intersection V/C	0.368											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.70	34.70	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.786	2.023	0.000	0.000
Crosswalk LOS	A	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	800	400	1022
d_b, Bicycle Delay [s]	45.02	16.22	28.82	10.77
l_b,int, Bicycle LOS Score for Intersection	4.132	1.980	2.151	2.060
Bicycle LOS	D	A	B	B

Sequence

Ring 1	2	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: US 101 NB Ramps at Walnut Avenue

Control Type:	Signalized	Delay (sec / veh):	29.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.443

Intersection Setup

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	119	4	103	0	0	0	147	361	0	0	366	245
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	119	4	103	0	0	0	147	361	0	0	366	245
Peak Hour Factor	0.8810	0.8810	0.8810	0.9500	0.9500	0.9500	0.8810	0.8810	0.9500	0.9500	0.8810	0.8810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	1	29	0	0	0	42	102	0	0	104	70
Total Analysis Volume [veh/h]	135	5	117	0	0	0	167	410	0	0	415	278
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	0	6	6	0	0	6	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	43	0	0	0	0	24	47	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	11	0	0	11	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No					No	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	90	90		90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	46	46		10	36	22	22
g / C, Green / Cycle	0.51	0.51		0.12	0.40	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.08	0.07		0.09	0.12	0.19	0.21
s, saturation flow rate [veh/h]	1784	1589		1781	3560	1870	1638
c, Capacity [veh/h]	906	807		208	1436	453	397
d1, Uniform Delay [s]	11.84	11.78		38.77	18.12	31.76	32.82
k, delay calibration	0.50	0.50		0.11	0.11	0.13	0.18
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	0.38		7.04	0.11	3.15	9.80
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.14		0.80	0.29	0.77	0.87
d, Delay for Lane Group [s/veh]	12.20	12.16		45.81	18.23	34.91	42.62
Lane Group LOS	B	B		D	B	C	D
Critical Lane Group	Yes	No		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.52	1.27		3.95	2.82	7.24	8.15
50th-Percentile Queue Length [ft/ln]	37.99	31.80		98.73	70.42	180.90	203.68
95th-Percentile Queue Length [veh/ln]	2.74	2.29		7.11	5.07	11.65	12.83
95th-Percentile Queue Length [ft/ln]	68.39	57.25		177.71	126.75	291.19	320.70

Movement, Approach, & Intersection Results

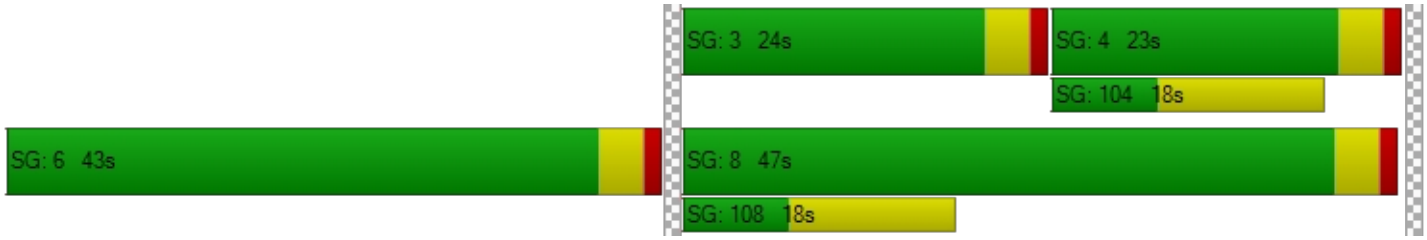
d_M, Delay for Movement [s/veh]	12.20	12.20	12.16	0.00	0.00	0.00	45.81	18.23	0.00	0.00	36.18	42.62
Movement LOS	B	B	B				D	B			D	D
d_A, Approach Delay [s/veh]	12.18			0.00			26.21			38.76		
Approach LOS	B			A			C			D		
d_I, Intersection Delay [s/veh]	29.55											
Intersection LOS	C											
Intersection V/C	0.443											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.70	34.70	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.023	1.862	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	866	0	955	422
d_b, Bicycle Delay [s]	14.47	45.02	12.29	28.03
l_b,int, Bicycle LOS Score for Intersection	1.984	4.132	2.036	2.131
Bicycle LOS	A	D	B	B

Sequence

Ring 1	-	-	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Access at Walnut Avenue

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.106

Intersection Setup

Name	Project Access		Walnut Avenue		Walnut Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Access		Walnut Avenue		Walnut Avenue	
Base Volume Input [veh/h]	44	1	353	108	19	569
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	1	353	108	19	569
Peak Hour Factor	0.8650	0.8650	0.8650	0.8650	0.8650	0.8650
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	102	31	5	164
Total Analysis Volume [veh/h]	51	1	408	125	22	658
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.00	0.00	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	13.34	10.81	0.00	0.00	8.57	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.36	0.36	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	8.93	8.93	0.00	0.00	1.63	1.63
d_A, Approach Delay [s/veh]	13.29		0.00		0.28	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.70					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 1: US 101 SB Ramps at Walnut Avenue

Control Type:	Signalized	Delay (sec / veh):	26.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.558

Intersection Setup

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name				US 101 SB Ramps			Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	0	0	0	348	2	210	0	632	134	137	637	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	348	2	210	0	632	134	137	637	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9320	0.9320	0.9320	0.9500	0.9320	0.9320	0.9320	0.9320	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	93	1	56	0	170	36	37	171	0
Total Analysis Volume [veh/h]	0	0	0	373	2	225	0	678	144	147	683	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	6	0	0	6	0	6	6	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	50	0	0	22	0	18	40	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	11	0	0	11	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall					No			No		No	No	
Maximum Recall					No			No		No	No	
Pedestrian Recall					No			No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		C	R	C	R	L	C
C, Cycle Length [s]		90	90	90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		48	48	20	20	9	34
g / C, Green / Cycle		0.54	0.54	0.22	0.22	0.10	0.37
(v / s)_i Volume / Saturation Flow Rate		0.21	0.14	0.19	0.09	0.08	0.19
s, saturation flow rate [veh/h]		1781	1589	3560	1589	1781	3560
c, Capacity [veh/h]		956	853	802	358	187	1333
d1, Uniform Delay [s]		12.25	11.26	33.39	29.72	39.35	21.81
k, delay calibration		0.50	0.50	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		1.21	0.75	2.55	0.73	7.20	0.31
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.39	0.26	0.85	0.40	0.79	0.51
d, Delay for Lane Group [s/veh]		13.46	12.02	35.94	30.45	46.55	22.11
Lane Group LOS		B	B	D	C	D	C
Critical Lane Group		Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]		4.44	2.45	7.19	2.69	3.50	5.46
50th-Percentile Queue Length [ft/ln]		111.10	61.34	179.85	67.13	87.54	136.50
95th-Percentile Queue Length [veh/ln]		7.90	4.42	11.59	4.83	6.30	9.29
95th-Percentile Queue Length [ft/ln]		197.53	110.41	289.82	120.84	157.57	232.31

Movement, Approach, & Intersection Results

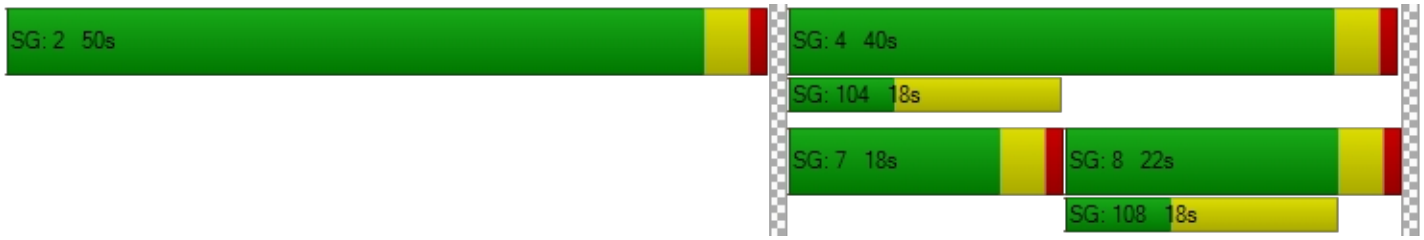
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	13.46	13.46	12.02	0.00	35.94	30.45	46.55	22.11	0.00
Movement LOS				B	B	B		D	C	D	C	
d_A, Approach Delay [s/veh]	0.00			12.92			34.98			26.44		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	25.95											
Intersection LOS	C											
Intersection V/C	0.558											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.70	34.70	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.709	2.135	0.000	0.000
Crosswalk LOS	A	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1022	400	800
d_b, Bicycle Delay [s]	45.02	10.77	28.82	16.22
l_b,int, Bicycle LOS Score for Intersection	4.132	2.550	2.238	2.244
Bicycle LOS	D	B	B	B

Sequence

Ring 1	2	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: US 101 NB Ramps at Walnut Avenue

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.494

Intersection Setup

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	US 101 NB Ramps						Walnut Avenue			Walnut Avenue		
Base Volume Input [veh/h]	124	3	156	0	0	0	100	889	0	0	630	246
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	124	3	156	0	0	0	100	889	0	0	630	246
Peak Hour Factor	0.9610	0.9610	0.9610	0.9500	0.9500	0.9500	0.9610	0.9610	0.9500	0.9500	0.9610	0.9610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	1	41	0	0	0	26	231	0	0	164	64
Total Analysis Volume [veh/h]	129	3	162	0	0	0	104	925	0	0	656	256
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	0	6	6	0	0	6	0
Maximum Green [s]	0	30	0	0	0	0	6	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	10	0	0	0	0	27	80	0	0	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	11	0	0	11	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No					Yes	No			No	
Maximum Recall		No					No	No			No	
Pedestrian Recall		No					No	No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering 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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R		L	C	C	C
C, Cycle Length [s]	90	90		90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	44	44		7	38	27	27
g / C, Green / Cycle	0.49	0.49		0.08	0.42	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.07	0.10		0.06	0.26	0.24	0.27
s, saturation flow rate [veh/h]	1783	1589		1781	3560	1870	1701
c, Capacity [veh/h]	870	775		134	1507	568	517
d1, Uniform Delay [s]	12.74	13.14		40.86	20.21	28.84	29.79
k, delay calibration	0.50	0.50		0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.37	0.61		9.30	0.41	2.71	5.16
d3, Initial Queue Delay [s]	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.21		0.78	0.61	0.80	0.88
d, Delay for Lane Group [s/veh]	13.11	13.75		50.17	20.62	31.55	34.95
Lane Group LOS	B	B		D	C	C	C
Critical Lane Group	No	Yes		Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.50	1.92		2.58	7.29	9.18	9.78
50th-Percentile Queue Length [ft/ln]	37.60	48.04		64.50	182.17	229.53	244.56
95th-Percentile Queue Length [veh/ln]	2.71	3.46		4.64	11.71	14.15	14.91
95th-Percentile Queue Length [ft/ln]	67.67	86.48		116.10	292.84	353.76	372.80

Movement, Approach, & Intersection Results

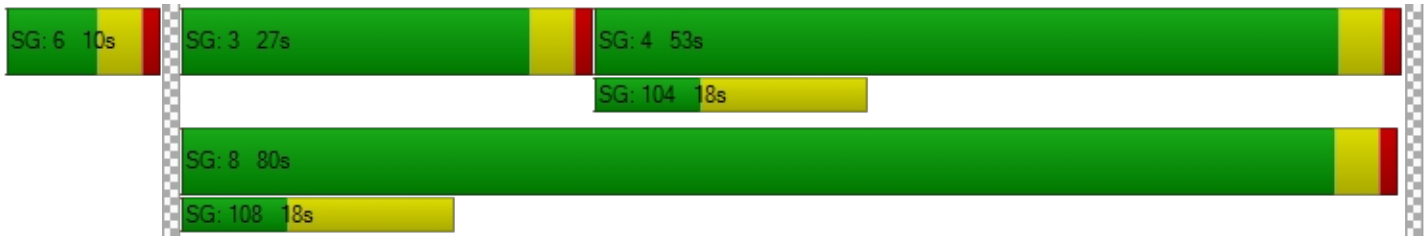
d_M, Delay for Movement [s/veh]	13.11	13.11	13.75	0.00	0.00	0.00	50.17	20.62	0.00	0.00	32.59	34.95
Movement LOS	B	B	B				D	C			C	C
d_A, Approach Delay [s/veh]	13.46			0.00			23.61			33.25		
Approach LOS	B			A			C			C		
d_I, Intersection Delay [s/veh]	26.21											
Intersection LOS	C											
Intersection V/C	0.494											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.66	34.66	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.035	1.777	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	133	0	1689	1089
d_b, Bicycle Delay [s]	39.19	44.99	1.09	9.33
l_b,int, Bicycle LOS Score for Intersection	2.045	4.132	2.409	2.312
Bicycle LOS	B	D	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Access at Walnut Avenue

Control Type:	Two-way stop	Delay (sec / veh):	22.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.178

Intersection Setup

Name	Project Access		Walnut Avenue		Walnut Avenue	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Access		Walnut Avenue		Walnut Avenue	
Base Volume Input [veh/h]	43	2	970	81	8	842
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	2	970	81	8	842
Peak Hour Factor	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	1	257	21	2	223
Total Analysis Volume [veh/h]	46	2	1029	86	8	893
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.00	0.01	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	21.98	15.63	0.00	0.00	10.86	0.00
Movement LOS	C	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.65	0.65	0.00	0.00	0.04	0.04
95th-Percentile Queue Length [ft/ln]	16.34	16.34	0.00	0.00	0.98	0.98
d_A, Approach Delay [s/veh]	21.71		0.00		0.10	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.55					
Intersection LOS	C					