City of Rialto

Regular Meeting

Transportation Commission

Wednesday, October 6, 2021 | **6:00 PM** | **VIA ZOOM**

AMENDED AGENDA - CORRECTED ZOOM LINK

CALL TO ORDER

In response to the COVID-19 Emergency, and in compliance with Social Distancing Protocols, the Transportation Commission will be participating in the meeting from remote locations via Zoom Video Conferencing or Teleconferencing within the guidelines of Governor Newsom's Executive order N-29-20. Members of the public may submit, at least 24-hours before the meeting time, comments on any agenda item or any item not on the agenda, in writing, via mail to City of Rialto "Attn: Public Works Department. " 150 S. Palm Avenue, Rialto, CA 92376: by email to publicworks@rialtoca.gov: or may leave a recorded message at (909) 421-7279 of no more than five (5) minutes in length and the message will be played or read aloud during the agenda item.

Members of the public are afforded an opportunity to comment on any listed agenda items. Please notify the Public Works Department if you wish to do so. All agendas are posted in the City Hall Administration Building (150 South Palm Avenue, Rialto, CA 92376) at least 72-hours in advance of the meeting. All writings that relate to an agenda item for an open session of a regular meeting of the Transportation Commission distributed to all, or a majority, of the Commissioners also shall be made available, at the same time but not sooner than 72-hours before a regular meeting and on the City's website at www.yourrialto.com. Any person having a question concerning any agenda items may call the Public Works Department at (909) 421-7279 to make an inquiry concerning the nature of the item described on the agenda.

To attend the meeting via Zoom: https://zoom.us/j/82105024972 | Passcode: RialtoPW

To Call into the Live Meeting: (669) 900-6833 | Meeting ID: 821 0502 4972 | Passcode: 56615045

Based upon the open meeting laws (the Brown Act), additional items may be added to the agenda and acted upon by the Transportation Commission only if it is considered to be a "subsequent need" or " emergency item" and is added by a two-thirds vote. Matters raised under Oral Communications may not be acted upon at that meeting other than as provided above.

ROLL CALL

Chairperson Allan Kirst, Vice-Chairperson Joshua Holeman, Commissioner Kelvin Moore, Commissioner Stacy Augustine, Commissioner Johan Rodriguez, Mayor Deborah Robertson

MOMENT OF SILENCE/INVOCATION

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES FROM REGULAR MEETING

1 TC 21-0721 **Minutes from the June 2, 2021 Transportation Commission meeting will be provided for approval at the next regularly scheduled meeting.**

Approval of Minutes
Regular Meeting - April 7, 2021
(ACTION ITEM)

Attachments: 04-07-21.docx

ORAL COMMUNICATIONS

POLICE DEPARTMENT LIAISON REPORT

RUSD LIAISON REPORT

NEW BUSINESS ITEMS

1 TC 21-0702 **Traffic Impact Analysis - Angelus Block End of Fortuna Way near Industrial Drive and Riverside Avenue**
(ACTION ITEM)

Attachments: Attachment 1.pdf
Attachment 2.pdf
Attachment 3.pdf
Attachment 4.pdf
Attachment 5.pdf

2 TC 21-0705 **Traffic Impact Analysis - Dutch Brothers Coffee & Express Wash on the Southwest Corner of Valley Boulevard and Riverside Avenue.**
(ACTION ITEM)

Attachments: Attachment 1.pdf
Attachment 2.pdf
Attachment 3.pdf
Attachment 4.pdf
Attachment 5.pdf

3 TC 21-0703 **Traffic Impact Analysis - Rialto Travel Center Southwest Corner of Casmalia Street at Alder Avenue.**
(ACTION ITEM)

Attachments: Attachment 1.pdf
Attachment 2.pdf
Attachment 3.pdf
Attachment 4.pdf
Attachment 5.pdf

ENGINEER'S REPORT

1 TC 21-0707 **Casmalia Street at Ayala Drive Restriping for Left Turn**
(INFORMATIONAL ITEM)

Attachments: Casmalia Existing Striping.pdf
Casmalia Proposed Striping with minor raised median.pdf

FUTURE AGENDA ITEMS

1 TC 21-0718 **Future Agenda Items**

Attachments: Future Agenda Items List.pdf

COMMISSIONER REPORTS

ADJOURNMENT

City of Rialto

Legislation Text

File #: TC 21-0721, **Version:** 1, **Agenda #:** 1

Minutes from the June 2, 2021 Transportation Commission meeting will be provided for approval at the next regularly scheduled meeting.

Approval of Minutes
Regular Meeting - April 7, 2021

(ACTION ITEM)

REGULAR MEETING
of the
TRANSPORTATION COMMISSION

MINUTES
April 7, 2021

The regular meeting of the Transportation Commission of the City of Rialto was held via Zoom Video Conferencing on Wednesday, April 7, 2021.

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This meeting was in accordance with the provision of the **Government Code §54956** of the State of California.

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CALL TO ORDER

Chairperson Allan Kirst called the meeting to order at 6:09 p.m.

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ROLL CALL

The roll call was taken by Commission Clerk, Michele Aguirre.

Present: Chairperson Allan Kirst
Vice-Chairperson Holeman
Commissioner Stacy Augustine

Absent: Mayor Deborah Robertson
Commissioner Kelvin Moore
Commissioner Johan Rodriguez

Chairperson Kirst suggested forgoing the Pledge of Allegiance and Moment of Silence at this time and going directly to New Business Items.

City Staff Present: Michael Tahan, Interim Public Works Director
Gabor Pakozdi, Acting City Engineer
Monae Pugh, Consultant Engineer
Daniel Casey, Senior Planner

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APPROVAL OF MINUTES
Regular Meeting of March 3, 2021

- The minutes from the March 3rd meeting were review by the Commission and approved as written.
- Vice-Chairperson Holeman made a motion to approve the minutes from the March 3rd meeting as written.
- Commissioner Augustine seconded the motion.
- The motion was carried to approve the minutes from the March 3, 2021, meeting as written.

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ORAL COMMUNICATIONS

None

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POLICE DEPARTMENT LIAISON REPORT

No report.

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RUSD LIAISON REPORT

No Report.

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NEW BUSINESS

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Revised Traffic Impact Analysis – Contractor's Equipment Yard and 1,200 Square Foot Administrative Building on the Westside of Sycamore Avenue between Slover Avenue and Cameron Way

Michael Tahan briefly discussed the tasks that have transpired regarding this project and introduced Monae Pugh.

Pugh re-reviewed the updated staff report and recommendations.

Tahan added that Daniel Casey and Karen Peterson of Community Development met with the applicant to review the intersections for the project as the northwest corner is in the City of Colton. Advised will be working Victor Ortiz, City Engineer for the City of Colton to address concerns of the Commission.

Questions & Comments

Pugh, Landin, and Hsu answered questions and responded to comments regarding:

- What the additional paving and striping was.
- Chair Kirst offered an apology to the applicant regarding the additional requirements that were previously requested. He stated that if the Commission was aware that part of the project was within the City of Colton, the Commission would not have burdened the applicant with the additional requirements.

Action

- Commissioner Augustine made a motion approve the project with staff's recommendations and the additional paving and center line striping.
- Vice-Chair Holeman seconded the motion.
- All voted in favor of approving the project with staff's recommendations and the additional paving and center line striping.

Request

- Chair Kirst requested that when other projects are presented that may include joint jurisdictions, a clear definition of those areas and who they belong to.
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ENGINEER'S REPORT

Tahan introduced Gabor Pakozdi, Acting City Engineer, who is helping Public Works while the recruitment process is being completed for a City Engineer.

Tahan briefly reviewed the discussion of previous issues that were brought up regarding timings at various intersections and advised that Iteris and St. Francis were asked to attend to address and/or understand those concerns to develop a game plan for the City.

- Chairperson Kirst commented on the timing and how it works when on coordination vs when they are not on coordination. He

discussed the various issues that have been experienced at various locations throughout the City.

Tahan introduced Tim Byrne from SBCTA, Bernard Li of Iteris, and Jill Petrie, Andy Briones, and Lance Alms of St. Francis Electric.

- Li provided an overview of the San Bernardino Valley Coordinated Traffic Signal System (SBVCTSS) program and its goal. He advised as part of this program, the following six (6) major corridors in Rialto were included in the program:
  - Valley Boulevard
  - Foothill Boulevard
  - Baseline Road
  - Cedar Avenue/Ayala Drive
  - Riverside Avenue
  - Bloomington Avenue
- Li provided an explanation of why signals go out of coordination and deferred to Jill Petrie from St. Francis to respond to issues related to equipment.
- Tahan added that Iteris has a contract with the City for other timing issues when they arise.

<u>Questions/Comments/Concerns</u>

Tahan, Li, Petrie and Briones answered questions and responded to comments and concerns regarding:

- Who was responsible for ensuring preventative maintenance is completed.
  - Petrie provided an explanation of the tasks they perform for the traffic signals. She discussed the types of systems that exist and the issues that they have found at various locations. She advised that St. Francis is working on a survey to help resolve some of these issues.
- How often the signals and signal timings were reviewed.
- Coordination times.
- When free local timings are.
  - Discussion ensued regarding timings throughout the day and how they work. Petrie advised that 60-75% of intersections are running on timing sheets that are 10 to 15 years old.
- Why were there lead lags on all approaches as it causes confusions.
  - Li provided an explanation on how that works.
  - A discussion ensued regarding lead lags and coordination.
- Comment on posted speed limits around the City and the issue that the coordination timing setups do not coincide with the speed limits.
  - Li provided an explanation on how Iteris designs coordination and what they are based on.
- If Iteris takes speed surveys during specific times to determine what the prevailing speeds are.

- Comment on the video detection systems and the issue of vehicles having to wait prior to the next phase to have a vehicle detected so a call could be placed into the system.
- If the survey that was being completed would address all the older systems that need to be updated with a recommendation to change them.
  - Petrie provided an explanation of what needs to be done to fix those issue.

<u>Requests/Suggestions/Recommendations</u>

- Vice-Chair Holeman requests compiling a list of signals that are not functioning correctly to get them addressed.
- Chairperson Kirst requested that current timing charts are kept in the controllers and should be a top priority.
- Tahan advised that he would work with St. Francis to address all the outdated information and see what is needed to update the timings.
- Vice-Chair Holeman suggested provided a list of locations that were discussed previously that were considered high priority.
- Chairperson Kirst suggested that the Commissioners send a list of locations to Michele Aguirre so that she could compile a list.
  - A discussion ensued regarding the list of locations which were:
    - Riverside and Walnut Avenues
    - Riverside Avenue and Ayala Drive
    - Riverside and Linden Avenues
    - Riverside and Randall Avenues
    - Valley Boulevard
    - Walnut Avenue
    - Easton Street
    - Ayala Drive and Renaissance Parkway
    - Riverside and Alder Avenues
    - Cactus and Rialto Avenues
    - Alder and Riverside Avenues
    - Linden Avenue and Casmalia Street
- Commissioner Augustine requested to see the completed survey that provides a total amount so that it could be provided to Council to show what is needed to bring the City up to par.
- Chairperson Kirst agreed with Commissioner Augustine's request.
- Petrie advised that when they get the list of the location they will review and resolve or send a report of issues if they are unable to repair.
- Aguirre asked the Commission to provide her all the locations and she would compile and send to St. Francis.

Tahan provided an update on the following projects:

- Easton Sidewalk
- Overlay Project
- Alder Avenue/SR210
- Pepper Avenue and Winchester Drive Traffic Signal

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FUTURE AGENDA ITEMS

- Tahan informed the Commission that the City is working on a Traffic Study and a Truck Route Study and would be conducting a joint meeting with the Planning Commission for some time at the end of April.
- Chairperson Kirst advised that he would be available either before April 23rd or after May 4th as he would be on vacation.

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COMMISSIONER REPORTS

- Commissioner Augustine – No Report
- Vice-Chairperson Holeman – No Report
- Chairperson Kirst – No Report

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ADJOURNMENT

- Vice-Chair Holeman made a motion to adjourn.
- Commissioner Augustine seconded the motion.
- The motion was carried, and the meeting adjourned at 7:06 p.m.

City of Rialto

Legislation Text

File #: TC 21-0702, **Version:** 1, **Agenda #:** 1

For Transportation Commission Meeting [October 6, 2021]

TO: Honorable Chairperson and Commission

APPROVAL: Michael Tahan, Interim Public works Director

FROM: Justin Schlaefli, Consultant Engineer, TKE Engineering

Traffic Impact Analysis - Angelus Block End of Fortuna Way near Industrial Drive and Riverside Avenue

(ACTION ITEM)

BACKGROUND:

In April 2021, the Project Scoping Agreement for the Traffic Impact Analysis (TIA) was approved. The project is a proposed manufacturing plant consisting of 188,493 square feet. Access to the site is provided via a cul-de-sac at the end of Fortuna Way. There are two (2) one-way driveways spaced out within this cul-de-sac: one for entering and one for exiting. A secondary entrance is located at the end of Singleton Drive at the southern portion of the proposed site. This entrance is dedicated to construction vehicles and will not be used for daily operations once construction of the site is complete.

The first TIA was submitted on June 24, 2021, and it was reviewed with review comments prepared. On September 6, 2021, a revised second TIA was submitted and subsequently reviewed.

Consistent with City of Rialto Traffic Impact Analysis guidelines, study intersections were identified to include freeway interchanges within two (2) miles that were designated to take more than 40% of total traffic from the project & intersections which Project traffic contributed 50 or more peak hour trips. This included twelve (12) intersections as listed below:

1. S. Riverside Avenue at W Valley Boulevard
2. S. Riverside Avenue at I-10 WB ramps
3. S. Riverside Avenue at I-10 EB ramps
4. S. Riverside Avenue at Slover Avenue
5. S. Riverside Avenue at Santa Ana Avenue
6. S. Riverside Avenue at Industrial Drive
7. S. Riverside Avenue at Jurupa Avenue
8. S. Riverside Avenue at Resource Drive/Industrial Drive
9. S. Riverside Avenue at Singleton Drive
10. S. Riverside Avenue at Agua Mansa Road
11. Industrial Drive at Fortuna Way
12. Resource Drive at Enterprise Drive

This site appears to comply with zoning on the property.
The **site location** is shown on **Page 4 of the TIA,** which is included as **Attachment 1**, while the **site plan** is shown on **Page 6 of the TIA**, which is included as **Attachment 2.**

The Project is within the City of Rialto within one (1) mile of the City of Colton, City of Jurupa Valley and County of San Bernardino.

Truck Turn Templates are on **Appendix I of the TIA** which is included as **Attachment 3**. As shown on the figures, all driveways will be one-way only.

- Driveway 1 will be enter-only and provide access to the entire site. All vehicles will enter via Driveway 1.
- Driveway 2 will be exit-only.
- Driveways 1 and 2 will be 26' wide.

The trip generation rate for this land use was determined using the 10th edition of the ITE "Trip Generation" manual.

Trips are shown on **Page 21, Table 6 and 7 of the TIA,** which is included as **Attachment 4**. Project daily trips from this development are estimated at 1,270 passenger car equivalent (PCE) trips with the AM/PM peak hour being 196/213 trips.

Study intersection historical counts were collected in 2018 & 2019 due to the ongoing COVID-19 pandemic in conjunction with a 2% growth rate (compounded annually) to reflect 2021 conditions. The data was collectively normalized to include recent area studies.

The TIA identified three (3) intersections which the Project contributes to cumulative impacts:

- S. Riverside Avenue and I-10 EB Ramps
- S. Riverside Avenue and Slover Avenue
- S. Riverside Avenue and Santa Ana Avenue

ANALYSIS/DISCUSSION:
The TIA included cumulative impacts when added to other proposed projects in the area at three (3) intersections. In addition, five (5) roadway segments on S. Riverside Avenue were found to operate at an excessive level of service on a daily basis. However, when evaluated on a peak hour basis, the segments were found to operate acceptably. The three (3) intersection impacts are considered significant based on City policy. These impacts require the payment of a fair share towards mitigation as shown on **page 47, Table 19** of the report. Table 19 has been labeled as **Attachment #5**

The resulting Fair Share Cost is $724,397.81. The fair share will be allocated to mitigate impacts as specified and paid towards construction as the improvements become fully funded.

VEHICLE MILES TRAVELED (VMT):
A separate VMT analysis was produced and is summarized in the TIA. This analysis is summarized in Table 13 below excerpted from the TIA:

Table 13: VMT Analysis Results

Reduction Strategy		Range of Effectiveness	VMT Reduction	Combined VMT Reduction	Results
Commute Trip Reduction (CAPCOA)					
TRT-1	Implement Commute Trip Reduction Marketing	0.8 - 6.2%	4.16%	8.8%	-1.86
TRT-3	Provide Ride Sharing Program	1-15%	5.0%	8.8%	
TRT-8	Preferential Parking Permit Program	N/A	N/A	8.8%	
Baseline 2022 Conditions w/ Project					21.18
Baseline 2022 Conditions w/ Project (CAPCOA Reduction)					19.32
Local Hiring Reduction (25%)					2.32
Baseline 2022 Conditions w/ Project (Local Hiring and CAPCOA Strategies)					17.0

With mitigation measures, it is expected that the proposed project will have a less than significant impact on VMT meeting the current County Guidelines.

Conclusion
This project will be accessed by two (2) driveways on Fortuna Way.

Intersections studied are projected to operate consistent with City of Rialto guidelines with deficiencies noted at three (3) locations as noted in Table 15 of the TIA. As noted in Table 16 of the TIA, segments evaluated along S. Riverside Avenue are also expected to operate at a deficient level of service.

The TIA concludes that payment of fair share fees totals $724,397.81 for future intersection and segment improvements at the locations noted.

In addition, the proposed project intends to implement four (4) VMT mitigation strategies including, Commute Trip Reduction Marketing, Ride Sharing, Preferential Parking Permits and 25% local hire provisions.

RECOMMENDATIONS:
Staff requests that the Transportation Commission:

- Provide recommendations related to approval.
- Recommend approval of a fair share contribution of $724,397.81 and payment of any applicable development impact fees as adequate mitigation.
- Recommend Implementation of VMT Reduction Measures as described.
- Recommend approval to the Planning Commission.

Figure 1. Vicinity Map

The proposed site is located on the 8th subset within the Agua Mansa Specific Plan which is consisted of primarily general industry land-use with minimal residential. The project will involve the construction of a manufacturing plant building with 135,581 square feet, an office building with 10,018 square feet, a storage warehouse with 14,160 square feet, a mechanical shop with 7,200 square feet and a metal canopy with 21,534 square feet. The total area of these site components is 188,493 square feet. A copy of the site plan is provided on Figure 2. A full plan sheet is included in the Appendix C.

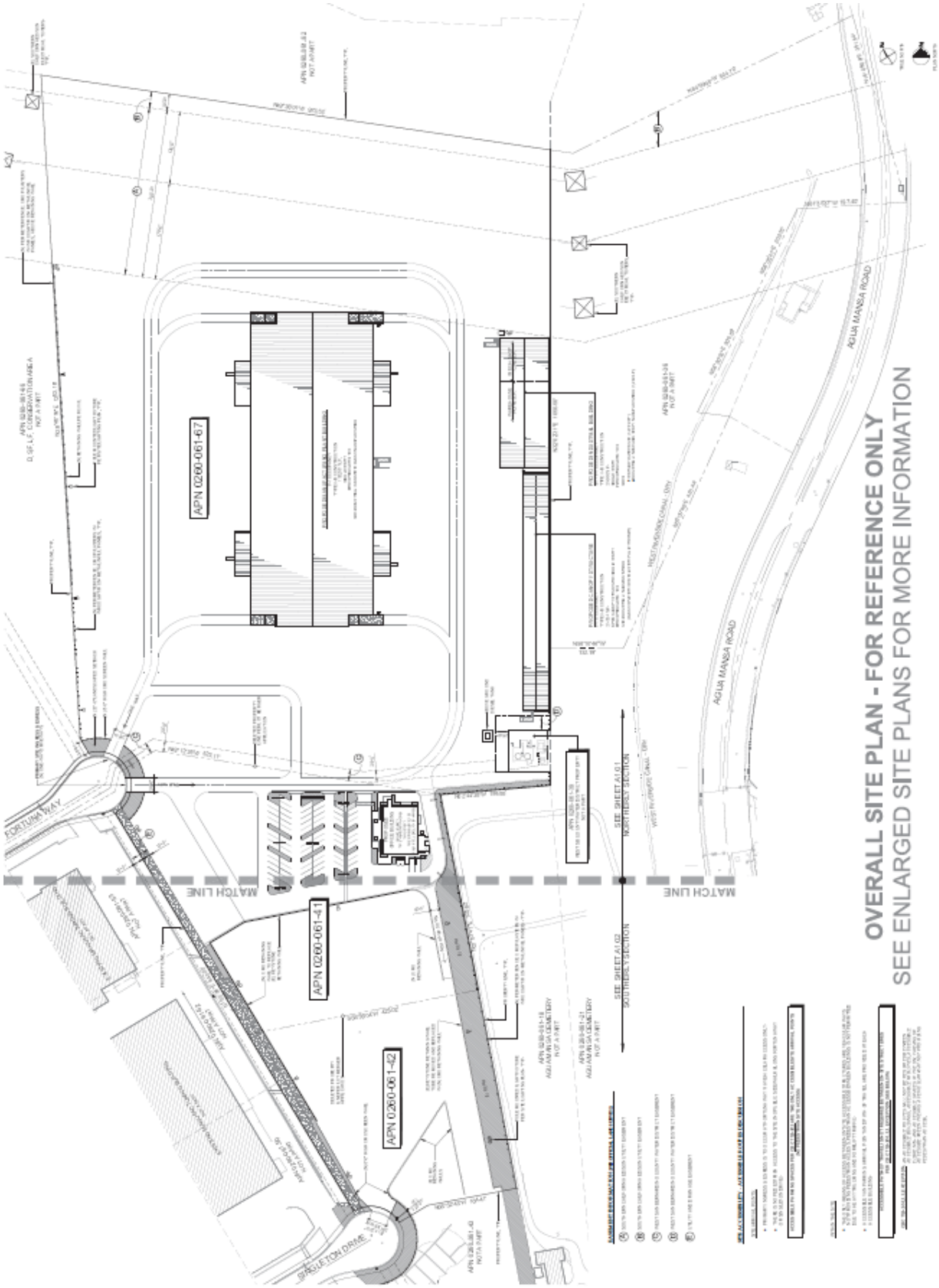
Access to the site is provided via a cul-de-sac at the end of Fortuna Way. There are two one-way driveways spaced out within this cul-de-sac: one for entering and one for exiting. A secondary entrance is located at the end of Singleton Drive at the southern portion of the proposed site. This entrance is dedicated to construction vehicles and will not be used for daily operations once construction of the site is complete.

The proposed site is expected to be completed in 2022 in a single phase. The location of the site as well as the study area is located with the City of Rialto and San Bernardino County. The site is also located within the sphere of influence of, or 1-mile from, the City of Colton and the City of Jurupa Valley.

A.5. Proposed Site Operations

The operation of the site includes the manufacturing of concrete blocks. Raw materials arrive in trucks (i.e., cement, sand) and are unloaded into the proposed manufacturing plant building. The raw

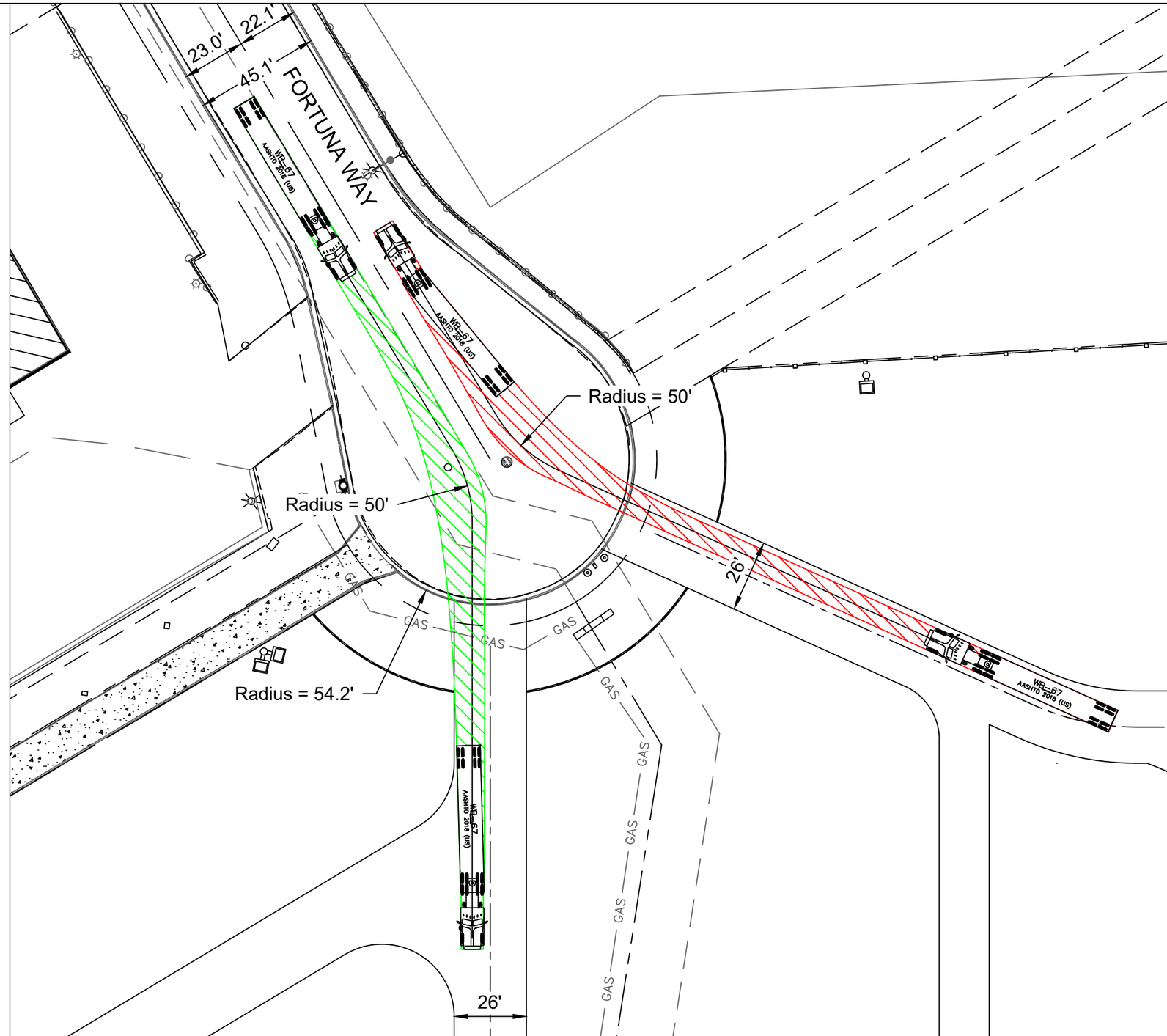
Figure 2. Site Plan



LEGEND

INGRESS

EGRESS



N

0' 20' 40' 80'

GRAPHIC SCALE

1 inch = 40 ft.

DATE: 08/02/2021

DRAWN BY: AK

CHECKED BY: VG

NV5

1255 CANTON ST, SUITE G
ROSWELL, GA 30075
(678) 795-3600
WWW.NV5.COM

REVISION DATES

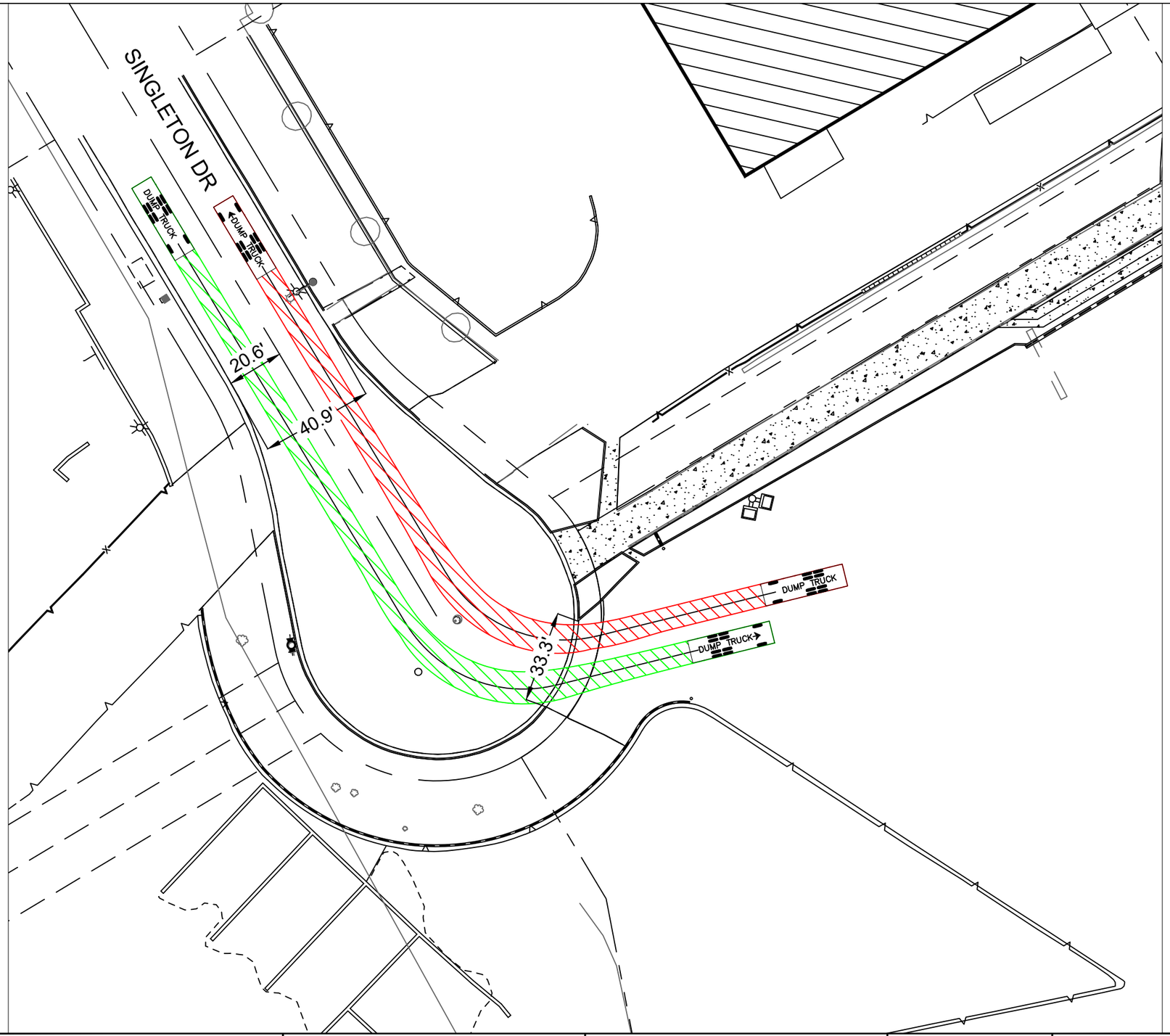
TRUCK TURNING EXHIBIT
FORTUNA WAY DRIVEWAYS

PROJECT NO. 2020086.00

LEGEND

INGRESS

EGRESS



N

0' 20' 40' 80'

GRAPHIC SCALE

1 inch = 40 ft.

DATE: 08/02/2021

DRAWN BY: AK

CHECKED BY: VG

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REVISION DATES

TRUCK TURNING EXHIBIT
SINGLETON DR
CONSTRUCTION ENTRANCE

PROJECT NO. 2020086.00

C. Projected Future Traffic

C.1. Project Traffic

C.1.1. Project Trip Generation

The trip generation of the site was estimated using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition, 2017. The land use for "manufacturing" was selected as it best represents the use of the site. With this land use, the total daily trips as well as the peak hour trips are estimated. Because this site is considered a "truck intensive" land use, the project trips were converted into PCEs per the City of Rialto's *Traffic Impact Analysis Guidelines and Requirements*. Forty percent of the trips associated with this site are considered truck trips. The vehicle mix in the PCE calculation is consistent with the City of Rialto's specifications. Again, a factor of 1.5 was used for 2-axle vehicles, 2 for 3-axle vehicles, and 3.0 for 4+axle vehicles. Tables 6 and 7 summarize the project trip generation expected to and from the development per the ITE Trip Generation as well as the conversion of the trip generation into PCE values. Ultimately, the PCE values were used in analysis.

Table 6: Project Trip Generation

Land Use[1]		Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Generation Rates				4.006	0.475	0.142	0.617	0.206	0.465	0.671
Manufacturing		189.207[2]	KSF	758	90	27	117	39	88	127
Passenger Vehicles	60%			455	54	16	70	23	53	76
Trucks	40%			303	36	11	47	16	35	51

[1]Source: ITE Trip Generation Manual, 10th Edition
[2]Site plan dated 2/2021 shows a total area of 188,493 SF of all manufacturing components. Quantity used in trip generation remains the same (a higher value) to match scope approved by City of Rialto.

Table 7: Project Trips in Passenger Car Equivalents (PCE)

Vehicle Type	Vehicle Mix[1]	Daily Vehicles	PCE Factor	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Passenger Vehicles	60%	455	1.0	455	54	16	70	23	53	76
2-Axle Trucks	0.8%	6	1.5	9	1	0	1	0	1	2
3-Axle Trucks	11.2%	85	2.0	170	20	6	26	9	20	28
4+ Axle Trucks	28.0%	212	3.0	637	76	23	98	33	74	107
Total Truck PCE Trips				**816**	**97**	**29**	**126**	**42**	**95**	**137**
Total Project PCE Trips				**1,270**	**151**	**45**	**196**	**65**	**147**	**213**

[1]Source: City of Rialto Traffic Impact Analysis Report Guidelines and Requirements, December 2013
Notes: PCE = Passenger Car Equivalent
SF = Square Feet

While the ITE Trip Generation Manual can estimate the number of daily, AM, and PM trips based on building square footage, it is still an estimate. The specific site operations indicate that there will be

Table 19: Mitigation Fair Share Cost

Intersection/Segment	Unit Cost	Quantity[1]	Total
S Riverside Avenue at I-10 EB Ramps	$ 355,200.00	1	$ 355,200.00
Project Fair Share Percentage (E vs E+G+C+P)[2]			8.5%
Project Cost			$ 30,109.99
S Riverside Avenue at Slover Avenue	$ 355,200.00	1	$ 355,200.00
Project Fair Share Percentage (E vs E+G+C+P)[2]			9.7%
Project Cost			$ 34,398.85
S Riverside Avenue at Santa Ana Ave.	$ 355,200.00	1	$ 355,200.00
Project Fair Share Percentage (E vs E+G+C+P)[2]			12.1%
Project Cost			$ 42,842.77
I-10 EB ramps to Slover Ave	$ 198,919.90	18.97	$ 3,773,510.50
Project Fair Share Percentage (E vs E+G+C+P)			3.7%
Project Cost			$ 140,515.34
Slover Ave to Santa Ana Ave	$ 198,919.90	26.57	$ 5,285,301.74
Project Fair Share Percentage (E vs E+G+C+P)			2.8%
Project Cost			$ 147,985.56
Santa Ana Ave to Industrial Dr	$ 198,919.90	17.11	$ 3,403,519.49
Project Fair Share Percentage (E vs E+G+C+P)			3.1%
Project Cost			$ 104,830.69
Industrial Dr to Agua Mansa Rd	$ 198,919.90	65.19	$ 12,967,588.27
Project Fair Share Percentage (E vs E+G+C+P)			1.7%
Project Cost			$ 223,714.61
Total Project Cost			**$ 724,397.81**

[1]1 for intersections and measured in 100s of feet for roadway segments

[2]Higher of AM or PM project fair share percentage

City of Rialto

Legislation Text

File #: TC 21-0705, **Version:** 1, **Agenda #:** 2

For Transportation Commission Meeting [October 6, 2021]

TO: Honorable Chairperson and Commission

APPROVAL: Michael Tahan, Interim Public works Director

FROM: Justin Schlaefli, Consultant Engineer, TKE Engineering

Traffic Impact Analysis - Dutch Brothers Coffee & Express Wash on the Southwest Corner of Valley Boulevard and Riverside Avenue.

(ACTION ITEM)

BACKGROUND:

In July 2021, the Project Scoping Agreement for the Traffic Impact Analysis (TIA) was approved. The project is a Dutch Brothers Coffee & Express Wash Project (hereinafter referred to as Project). The project applicant proposes to construct a 950 square-foot (SF) Dutch Brothers Coffee with drive-through window and an express wash with a 130-foot wash tunnel. The project site is currently occupied by the vacant 10,000 SF Hometown Buffet and is located on the southwest quadrant of Riverside Avenue and Valley Boulevard in the City of Rialto, California.

The first TIA was submitted on August 30, 2021, and it was reviewed with review comments prepared. On September 10, 2021, a revised second TIA was submitted and subsequently reviewed.

Consistent with City of Rialto TIA guidelines, study intersections were identified to include freeway interchanges within two (2) miles that were designated to take more than 40% of total traffic from the project and intersections which project traffic contributed 50 or more peak hour trips. This included two (2) intersections as listed below:

1. Gateway Plaza at Valley Boulevard
2. Riverside Avenue at Valley Boulevard

This site appears to comply with zoning on the property.

The **site location** is shown on **Page 4 of the TIA,** which is included as **Attachment 1**, while the **site plan** is shown on **Page 6 of the TIA**, which is included as **Attachment 2.**

Truck Turn Templates are on **page 24 of the TIA** which is included as **Attachment 3**.

The site will be accessed through an existing signal at Gateway Plaza and Valley Boulevard.

The trip generation rate for this land use was determined using the 10th edition of the ITE “Trip

Generation" manual.

Trips are shown on **Page 11, Table 5-1 of the TIA,** which is included as **Attachment 4**. Project daily trips from this development are estimated at 674 passenger car equivalent (PCE) net new trips with the AM/PM peak hour being 103/62 net new trips. An adjustment to trip generation was made due to the existing Restaurant building/use to be demolished.

Study intersection historical counts were collected in February 2020 and June 2021 due to the ongoing COVID-19 pandemic in conjunction with a 2% growth rate (compounded annually) to reflect 2021 conditions. Newer counts were conducted where historic data was not available. The data was collectively normalized to include recent area studies. These adjustments are documented in Appendix B to the TIA.

The TIA identified an unacceptable level of service "E" in the PM peak hour at the intersection of Riverside Avenue and Valley Boulevard. However, no significant impact was identified as a result of the project.

A queueing analysis was required for both study intersections. The analysis is contained in Section 11.0 of the TIA. This analysis showed excessive queues exceeding storage at multiple locations as shown on **Page 28, Table 11-2 of the TIA,** which is included as **Attachment 5**.

ANALYSIS/DISCUSSION:

The TIA did not disclose any level of service-based impacts when accounting for the conversion of the existing use. Nonetheless, as discussed in the TIA, improvements are recommended at the intersection of Riverside Avenue/Valley Boulevard in order to improve the existing deficient storages at the intersection. The recommended improvements consist of restriping the number two (2) eastbound through lane to a shared through/right-turn lane. In addition to the restriping and associated signal modification improvements, it is recommended that the signal at Riverside Avenue/Valley Boulevard be improved through the installation of a Pan/Tilt/Zoom (PTZ) camera with remote connection from the camera and signal controller to the City, Public Works Department as well as associated signal re-timing improvements necessary to improve and balance queues at the intersection.

VEHICLE MILES TRAVELED (VMT):

A VMT screening analysis is summarized in the TIA. As discussed in the TIA, VMT is a function of travel volumes multiplied by distance. Therefore, provision of needed services in a community may be found to reduce VMT as patrons have a shorter distance to travel. As such, OPR and SBCTA VMT Guidelines identify that Project types falling under the screening criteria includes the following:

- K-12 Schools
- Local-serving retail less than 50,000 square feet
- Local parks
- Day care centers
- Local serving gas stations
- Local serving banks
- Local serving hotels (e.g. non-destination hotels)
- Student housing Projects on or adjacent college campuses

- Local-serving assembly uses, Community Institutions
- Local serving community colleges
- Affordable or supportive housing, Assisted living facilities, Senior housing
- Projects generating less than 110 daily vehicle trips

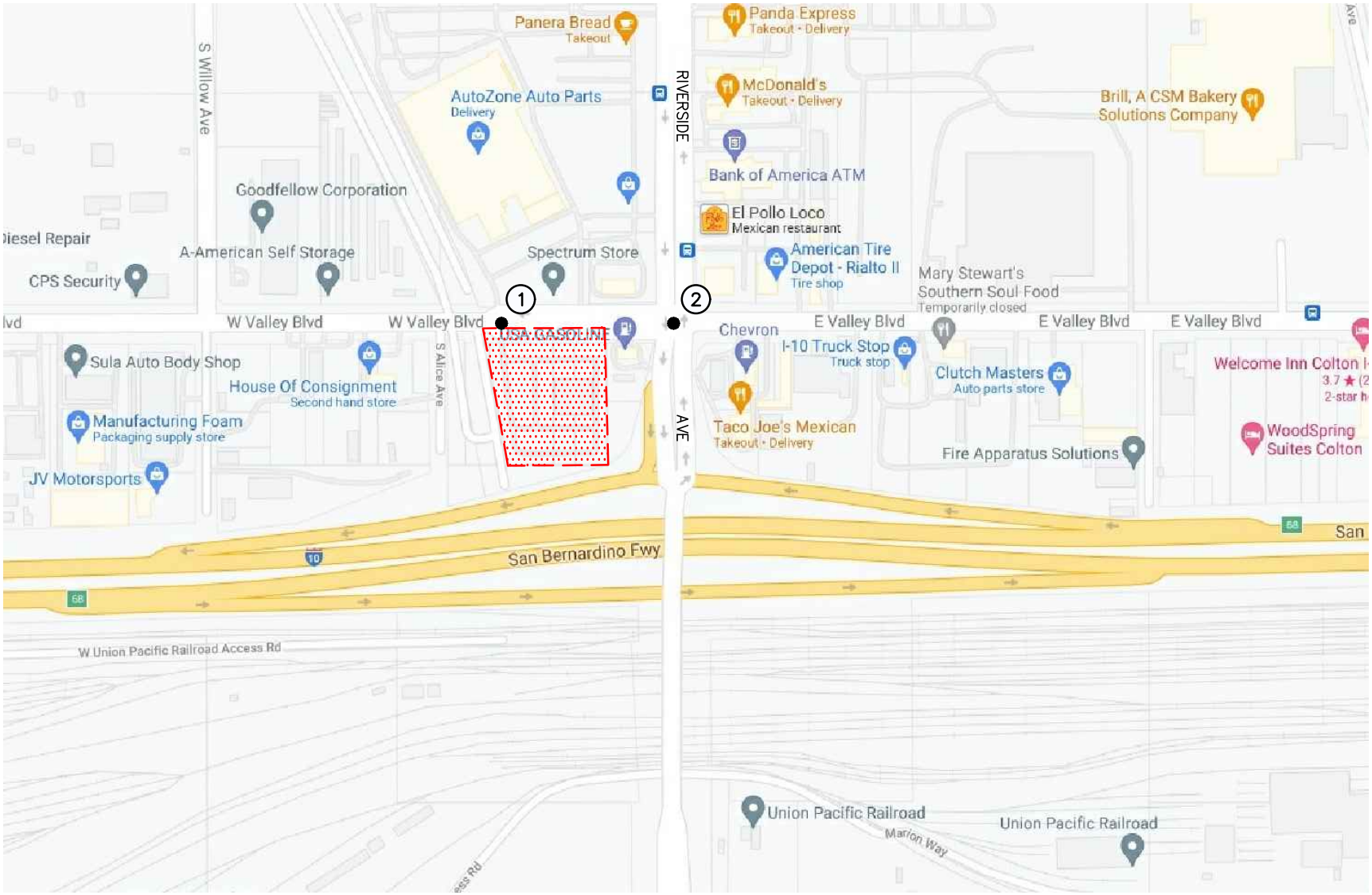
The proposed project is considered a locally serving retail project falling in these screening criteria. Therefore, the project is expected to have a less than significant transportation impact based on VMT criteria. No mitigation measures are proposed.

Conclusion
This project will be accessed at the existing traffic signal at Gateway Plaza and Valley Boulevard. No improvements are proposed at this location.

Intersections studied are projected to operate consistent with City of Rialto guidelines. However, excessive queuing was noted at the intersection of Valley Boulevard and Riverside Avenue. Due to the excessive queuing, it is recommended that the eastbound through lane be restriped as a through/right turn lane to reduce queues and provide additional capacity for that movement. In addition, improvements including remote communications to the intersection and installation of a PTZ camera are recommended.

RECOMMENDATIONS:
Staff requests that the Transportation Commission:

- Provide recommendations related to approval.
- Recommend approval of the conversion of the eastbound through lane to eastbound through/right turn lane at the intersection of Valley Boulevard and Riverside Avenue.
- Recommend approval of the installation of a PTZ camera with associated communications improvements allowing for the remote monitoring and re-timing of the intersection of Valley Boulevard and Riverside Avenue.
- Recommend payment of applicable DIF fees
- Recommend approval to the Planning Commission.



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

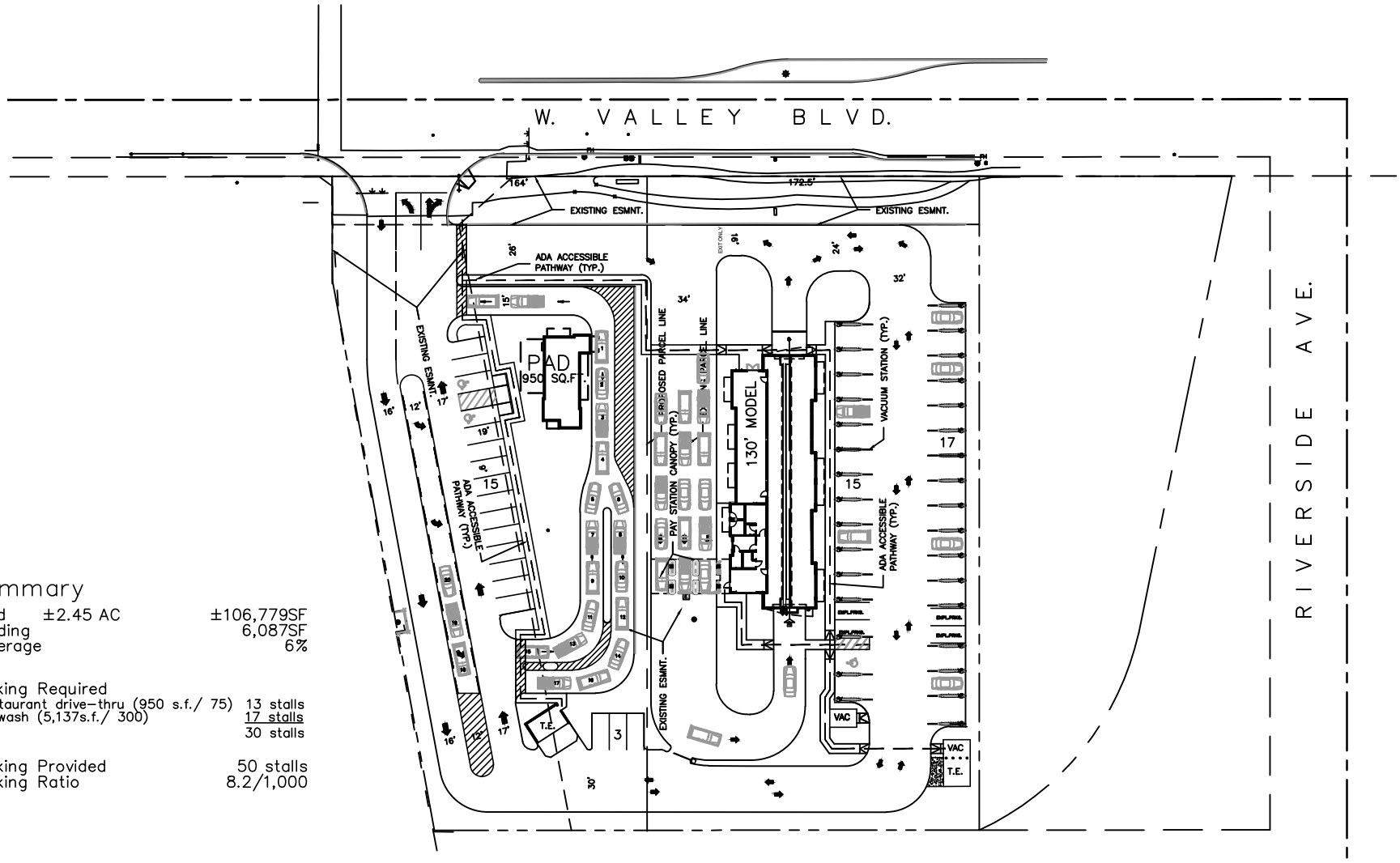
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 1-1

VICINITY MAP

DUTCH BROTHERS COFFEE & EXPRESS WASH PROJECT, RIALTO



Summary

Land	±2.45 AC	±106,779SF
Building		6,087SF
Coverage		6%

Parking Required

Restaurant drive–thru (950 s.f./ 75)	13 stalls
Carwash (5,137s.f./ 300)	17 stalls
	30 stalls

Parking Provided	50 stalls
Parking Ratio	8.2/1,000

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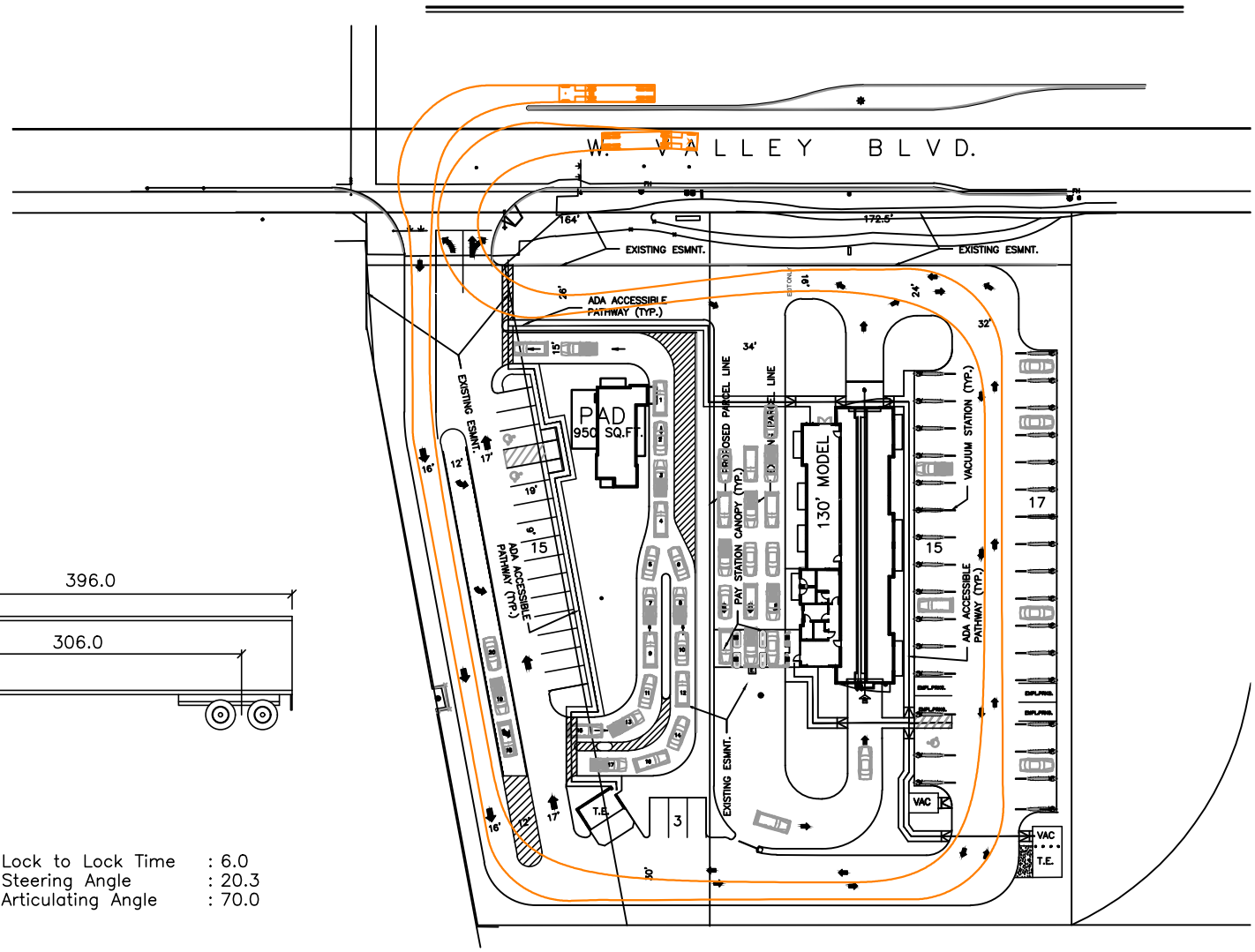
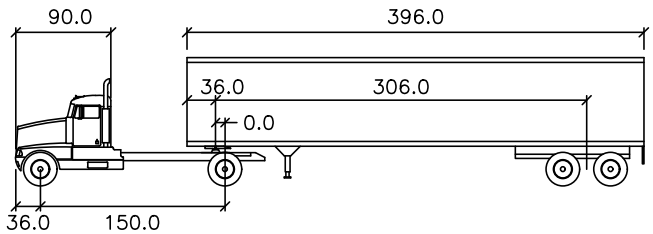
N NO SCALE

FIGURE 2–2

PROPOSED SITE PLAN

DUTCH BROTHERS COFFEE & EXPRESS WASH PROJECT, RIALTO





WB–40

	inches		
Tractor Width	: 96.0	Lock to Lock Time	: 6.0
Trailer Width	: 96.0	Steering Angle	: 20.3
Tractor Track	: 96.0	Articulating Angle	: 70.0
Trailer Track	: 96.0		

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FIGURE 10–1

WB–40 TRUCK TURNING ANALYSIS

DUTCH BROTHERS COFFEE & EXPRESS WASH PROJECT, RIALTO

TABLE 5-1
PROJECT TRIP GENERATION RATES AND FORECAST[2]

Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation Rates:							
▪ Empirical Trip Generation Estimation for Speed Wash (TE/LFWT)[3]	8.663	0.275	0.204	0.479	0.450	0.463	0.913
▪ 931: Quality Restaurant (TE/TSF)	83.84	50%	50%	0.73	67%	33%	7.80
▪ 937: Coffee/Donut Shop With Drive-Through Window (TE/TSF)	820.38	51%	49%	88.99	50%	50%	43.38
Existing Vacant Trip Generation Forecasts:							
▪ Hometown Buffet (10,000 SF)	838	4	3	7	52	26	78
Pass-by Trips[4]	-84	0	0	0	-13	-7	-20
Existing Restaurant Total	***754***	***4***	***3***	***7***	***39***	***19***	***58***
Proposed Project Trip Generation Forecasts:							
▪ Dutch Brothers Coffee (950 SF)	779	43	42	85	21	20	41
Pass-by Trips[4]	-195	-11	-10	-21	-5	-5	-10
Dutch Brothers Coffee Subtotal	*584*	*32*	*32*	*64*	*16*	*15*	*31*
▪ Express Wash (130 LFWT)	1,126	36	26	62	59	60	119
Pass-by Trips[4]	-282	-9	-7	-16	-15	-15	-30
Express Wash Subtotal	*844*	*27*	*19*	*46*	*44*	*45*	*89*
Proposed Project Total	***1,428***	***59***	***51***	***110***	***60***	***60***	***120***
Total Net Project Trip Generation	**674**	**55**	**48**	**103**	**21**	**41**	**62**

Notes:
- TE/LFWT = Trip end per Linear Feet Wash Tunnel
- TE/TSF = Trip end per 1,000 SF

2 Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).

3 Based on driveway traffic counts conducted on Friday (2/7/2014) at Victorville Speedwash (12147 Industrial Boulevard, Victorville). Refer to *Appendix B* for the Victorville Speedwash driveway traffic count details utilized to develop the express wash trip rates.

4 Pass-By Trips are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used (Source: *Trip Generation Handbook,3rd Edition*, ITE 2017):
- 931: Quality Restaurant: Daily/AM peak hour/PM peak hour – Assume 10%/0%/25%
- 937: Coffee/Donut Shop With Drive-Through Window: Daily/AM peak hour/PM peak hour – Assume 25%/25%/25%
- Express Wash: Daily/AM peak hour/PM peak hour – Assume 25%/25%/25%

TABLE 11-2
YEAR 2023 PEAK HOUR INTERSECTION QUEUING ANALYSIS

Key Study Intersection	(1) Estimated Storage Provided (feet)	(2) Existing With Ambient Growth Without Project Traffic Conditions				(3) Existing With Ambient Growth With Project Traffic Conditions				(4) Existing With Ambient Growth With Cumulative Without Project Traffic Conditions				(5) Existing With Ambient Growth With Cumulative With Project Traffic Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Max. Queue/ Min. Storage Required[9]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[9]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[9]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[9]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[9]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[9]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[9]	Adequate Storage (Yes/No)	Max. Queue/ Min. Storage Required[9]	Adequate Storage (Yes/No)
1. Gateway Plaza at Valley Boulevard																	
Northbound Left-Turn Lane	65’	0’	Yes	0’	Yes	26’	Yes	32’	Yes	0’	Yes	0’	Yes	26’	Yes	32’	Yes
NB Shared Through/Right-Turn Lane	65’	0’	Yes	0’	Yes	48’	Yes	56’	Yes	0’	Yes	0’	Yes	48’	Yes	56’	Yes
Eastbound Left-Turn Lane	150’	9’	Yes	47’	Yes	9’	Yes	47’	Yes	9’	Yes	47’	Yes	9’	Yes	47’	Yes
Westbound Left-Turn Lane	100’	6’	Yes	25’	Yes	64’	Yes	84’	Yes	6’	Yes	25’	Yes	64’	Yes	84’	Yes
2. Riverside Avenue at Valley Boulevard																	
Northbound Dual Left-Turn Lanes	205’	**239’**	**No**	**381’**	**No**	**250’**	**No**	**386’**	**No**	**269’**	**No**	**431’**	**No**	**262’**	**No**	**438’**	**No**
Southbound Left-Turn Lane	205’	95’	Yes	141’	Yes	95’	Yes	141’	Yes	100’	Yes	152’	Yes	95’	Yes	152’	Yes
Eastbound Left-Turn Lane	120’	55’	Yes	**156’**	**No**	73’	Yes	**171’**	**No**	62’	Yes	**171’**	**No**	77’	Yes	**187’**	**No**
Eastbound Right-Turn Lane	370’	**659’**	**No**	**712’**	**No**	**675’**	**No**	**742’**	**No**	**683’**	**No**	**802’**	**No**	**678’**	**No**	**831’**	**No**
Westbound Left-Turn Lane	185’	**242’**	**No**	**301’**	**No**	**242’**	**No**	**301’**	**No**	**250’**	**No**	**319’**	**No**	**251’**	**No**	**319’**	**No**
Westbound Right-Turn Lane	165’	27’	Yes	128’	Yes	27’	Yes	130’	Yes	28’	Yes	131’	Yes	27’	Yes	133’	Yes
➢ With Improvements																	
Northbound Dual Left-Turn Lanes	205’	--	--	--	--	**225’**	**No**	**363’**	**No**	--	--	--	--	**239’**	**No**	**437’**	**No**
Southbound Left-Turn Lane	205’	--	--	--	--	85’	Yes	135’	Yes	--	--	--	--	90’	Yes	150’	Yes
Eastbound Left-Turn Lane	120’	--	--	--	--	66’	Yes	**171’**	**No**	--	--	--	--	72’	Yes	**187’**	**No**
Eastbound Through Lane	370’	--	--	--	--	213’	Yes	339’	Yes	--	--	--	--	216’	Yes	342’	Yes
Eastbound Shared Through/Right-Turn Lane	370’	--	--	--	--	319’	Yes	339’	Yes	--	--	--	--	322’	Yes	350’	Yes
Eastbound Right-Turn Lane	370’	--	--	--	--	319’	Yes	339’	Yes	--	--	--	--	322’	Yes	350’	Yes
Westbound Left-Turn Lane	185’	--	--	--	--	**214’**	**No**	**264’**	**No**	--	--	--	--	**225’**	**No**	**273’**	**No**
Westbound Right-Turn Lane	165’	--	--	--	--	32’	Yes	161’	Yes	--	--	--	--	35’	Yes	163’	Yes

[9] Queue is based on the *95th Percentile Queues* and is reported in total queue length (feet) per lane for signalized intersections.

City of Rialto

Legislation Text

File #: TC 21-0703, **Version:** 1, **Agenda #:** 3

For Transportation Commission Meeting [October 6, 2021]

TO: Honorable Chairperson and Commission

APPROVAL: Michael Tahan, Interim Public works Director

FROM: Justin Schlaefli, Consultant Engineer, TKE Engineering

Traffic Impact Analysis - Rialto Travel Center Southwest Corner of Casmalia Street at Alder Avenue.

(ACTION ITEM)

BACKGROUND:

The project will involve the construction of a gas station with 16 fueling positions and associated convenience store, a 2,400 square-foot fast food restaurant with a drive-through, 6,375 square foot shop building, and a truck stop with 9 fueling positions on the currently vacant site. The project would also consist of a parking lot with 103 vehicle parking stalls and 91 truck parking stalls. The site is located within the Renaissance Specific Plan, which is located generally between Casmalia Street on the north, Baseline Road on the south, Ayala Drive on the east, and Tamarind and Palmetto Avenues on the west. The Renaissance Specific Plan (Specific Plan) area covers 1,445 acres, with 81 separate Planning Areas, and is approved for a variety of land uses, including residential, commercial, industrial, and employment uses. The Specific Plan was approved for build-out in three (3) separate phases, over a 20-year period. An amendment to the Specific Plan was approved in December 2016.

The project site is located within Planning Area 1 (PA 1) of the Renaissance Specific Plan Amendment. The existing land use designation is Freeway Incubator for PA 1. The proposed gas stations with convenience store and fast-food restaurant are permitted uses under the Freeway Incubator designation since it permits for large regional retail and business uses. Vehicular access provisions for the project site would consist of the following:

- Three (3) full-movement driveways on Sierra Lakes Parkway for the truck parking stalls and truck fueling positions.
- One (1) exit only driveway on Sierra Lakes Parkway for the truck fueling positions.
- One (1) driveway on Sierra Lakes Parkway for the vehicle fueling positions, convenience store, and fast-food restaurant.

The proposed opening year for the project is Year 2022. The project will be developed in a single project phase. The project site is located within 1 mile from the City of Rialto's border with the City of Fontana.

The first Traffic Impact Analysis (TIA) was submitted in July 2021 and was reviewed with review comments prepared. In September 2021 a revised second TIA was submitted and subsequently

reviewed.

Consistent with City of Rialto TIA guidelines, study intersections were identified to include freeway interchanges within two (2) miles that were designated to take more than 40% of total traffic from the project and intersections which project contributed 50 or more peak hour trips. This included the locations listed below:

Existing Intersections:
1. Alder Avenue at Sierra Lakes Parkway/Casmalia Street
2. Alder Avenue at SR-210 Westbound Ramps
3. Alder Avenue at SR-210 Eastbound Ramps
4. Alder Avenue at Renaissance Parkway

Future Driveway Intersections:
1. Sierra Lakes Parkway at Driveway #1 (Truck Stop)
2. Sierra Lakes Parkway at Driveway #2 (Truck Stop)
3. Sierra Lakes Parkway at Driveway #3 (Truck Stop)
4. Sierra Lakes Parkway at Driveway #4 (Truck Stop)
5. Sierra Lakes Parkway at Driveway #5 (Gas Station)

In addition, the following roadway segments were analyzed:
- Alder Avenue from Sierra Lakes Parkway to SR-210 EB Ramps
- Alder Avenue from SR-210 EB Ramps to SR-210 WB Ramps
- Alder Avenue from SR-210 WB Ramps to Renaissance Parkway

This site appears to comply with zoning on the property.

The **site location** is shown on **Page 2 of the TIA,** which is included as **Attachment 1**, while the **site plan** is shown on **Page 4 of the TIA**, which is included as **Attachment 2.**

Truck Turn Templates are on **Appendix H of the TIA** which is included as **Attachment 3**

As shown on the figure, driveway widths will vary between 41 and 70 feet wide.

Trip generation estimates for the project are based on daily and peak hourly trip generation rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition). ITE trip generation estimates for the project are based on the trip generation rates for the following ITE Land Uses: ITE Land Use 934 - Fast-Food Restaurant with Drive-Through Window; ITE Land Use 960 - Gas Station with Convenience Market; and ITE Land Use 950 - Truck Stop. It is assumed that trips generated by the fast-food restaurant and the gas station with convenience market are all passenger vehicle trips while trips generated by the truck stop are all truck trips. It should be noted that a daily trip generation rate for ITE Land Use 950 (Truck Stop) is not available. Therefore, sales data provided by the applicant for similar truck stop facilities, such as gallons of fuel sold on a monthly and daily basis and the average gallons of fuel filled for each truck, were used to determine an approximate number of trucks to visit the truck stop each day and to determine a custom daily rate for the project.

Due to the nature of the project as a retail use with multiple services onsite, internal trips were estimated as well as pass-by trip reductions consistent with City of Rialto procedures.

Trips are shown on **Page 21, Table 3 of the TIA,** which is included as **Attachment 4**. Project daily trips from this development are estimated at 5,532 passenger car equivalent (PCE) trips with the AM/PM peak hour being 553/515 trips.

Study intersection historical counts were collected in 2017 & early 2020 due to the ongoing COVID-19 pandemic. The data was collectively normalized to include recent area studies.

Consistent with the Renaissance Specific Plan findings, the TIA identified four (4) intersections which the Project contributes to cumulative impacts:

TABLE 9
SUMMARY OF INTERSECTION OPERATION
OPENING YEAR 2022 CUMULATIVE WITHOUT PROJECT

Int. #	Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Alder Avenue at Sierra Lakes Parkway/Casmalia Street	S	86.1	**F**	68.2	**E**
2	Alder Avenue at SR-210 WB Ramps	S	90.0	**F**	113.9	**F**
3	Alder Avenue at SR-210 EB Ramps	S	98.2	**F**	73.7	**E**
4	Alder Avenue at Renaissance Parkway	S	81.5	**F**	88.1	**F**

Notes:

- Bold and shaded values indicate intersections operating at an unacceptable Level of Service or significant impact to intersection per City standards.
- At a signalized intersection, delay refers to the average control delay for the entire intersection, measured in seconds per vehicle.
- At a two-way stop-controlled intersection, delay refers to the average vehicle delay on the worst (highest delay) movement.
- Delay values are based on the methodology outlined in the Highway Capacity Manual, (6th Edition).

S = Signalized
U = Unsignalized

In addition, one (1) intersection, Alder Avenue at Casmalia Street was found to be impacted in the Opening Year, Existing plus Growth (direct) condition.

ANALYSIS/DISCUSSION:

The TIA included cumulative impacts when added to other proposed projects in the area at four (4) intersections. The four (4) intersection impacts are considered significant based on City policy. These four (4) intersections are being improved as part of the ongoing Alder Avenue/210 Interchange project. It is expected that the Interchange project, Phase 1, will be constructed in 2022 and open to traffic in 2023 shortly after the project opening day.

It is proposed that the project be conditioned to construct improvements at the intersection of Alder Avenue at Sierra Lakes Parkway/Casmalia Street including an eastbound to southbound right turn lane through widening of Casmalia Street subject to the satisfaction of the City Engineer. The feasibility of this improvement is still being explored due to the potential utility conflicts with an overhead power line. Therefore, should the improvement be determined to be infeasible by the City Engineer, the applicant will complete other improvements as well as pay a fair share towards interchange improvements as recommended in the TIA. In addition to the proposed right turn lane, it is proposed that the project be conditioned to restripe the northbound approach to restripe one (1) of the through lanes to provide a shared through/left turn lane with associated signal modifications and re-timing.

In addition, it is proposed that the applicant provide a fair share contribution to the future Alder Avenue/210 Interchange project consistent with the requirements of the Renaissance Specific Plan. As this project is in the final design/permitting phase, the fair share contribution shown in the report will be revised to reflect the latest studies and cost estimates once complete. The fair share will be calculated following City standard procedures. The amount shown in the TIA is for illustration purposes only and may or may not be the final amount once updated costs and calculations are completed. It is recommended that the project be conditioned to pay these fees.

As discussed above, these impacts require construction of an eastbound right turn lane and restriping of the northbound approach at the intersection of Alder Avenue/Casmalia Street as well as payment of fair share fees and any applicable Development Impact Fee (DIF) payments. Mitigation is shown on **page 51, Table 16** of the report. Table 16 has been labeled as **Attachment 5.**

VEHICLE MILES TRAVELED (VMT):
A VMT screening analysis is summarized in the TIA. As discussed in the TIA, VMT is a function of travel volumes multiplied by distance. Therefore, provision of needed services in a community may be found to reduce VMT as patrons have a shorter distance to travel. As such, OPR and SBCTA VMT Guidelines identify that Project types falling under the screening criteria includes the following:

- K-12 Schools
- Local-serving retail less than 50,000 square feet
- Local parks
- Day care centers
- Local serving gas stations
- Local serving banks
- Local serving hotels (e.g. non-destination hotels)
- Student housing Projects on or adjacent college campuses
- Local-serving assembly uses, Community Institutions
- Local serving community colleges
- Affordable or supportive housing, Assisted living facilities, Senior housing
- Projects generating less than 110 daily vehicle trips

The proposed project is considered a locally serving retail/gas station project falling in these screening criteria. Therefore, the project is expected to have a less than significant transportation impact based on VMT criteria. No mitigation measures are proposed.

Conclusion
This project will be accessed by five (5) driveways on Casmalia Street just west of the intersection with Alder Avenue.

Intersections studied are projected to operate consistent with City of Rialto guidelines with deficiencies noted at four locations as noted in Table 9 of the TIA.

Based on these conclusions, it is recommended that the applicant construct improvements at the intersection of Casmalia Street and Alder Avenue including an eastbound right turn lane through widening and a northbound shared through/left turn lane with associated signal modifications. In addition, it is recommended that the applicant pay fair share fees towards the construction of the Alder Avenue/210 intersection project.

RECOMMENDATIONS:
Staff requests that the Transportation Commission:

- Provide recommendations related to approval.
- Recommend approval of a fair share contribution using the City standard methodologies.
- Recommend construction of an eastbound right turn lane via widening and a northbound through/left turn lane at the intersection of Casmalia Street/Alder Avenue.
- Recommend payment of applicable DIF fees.
- Recommend approval to the Planning Commission.

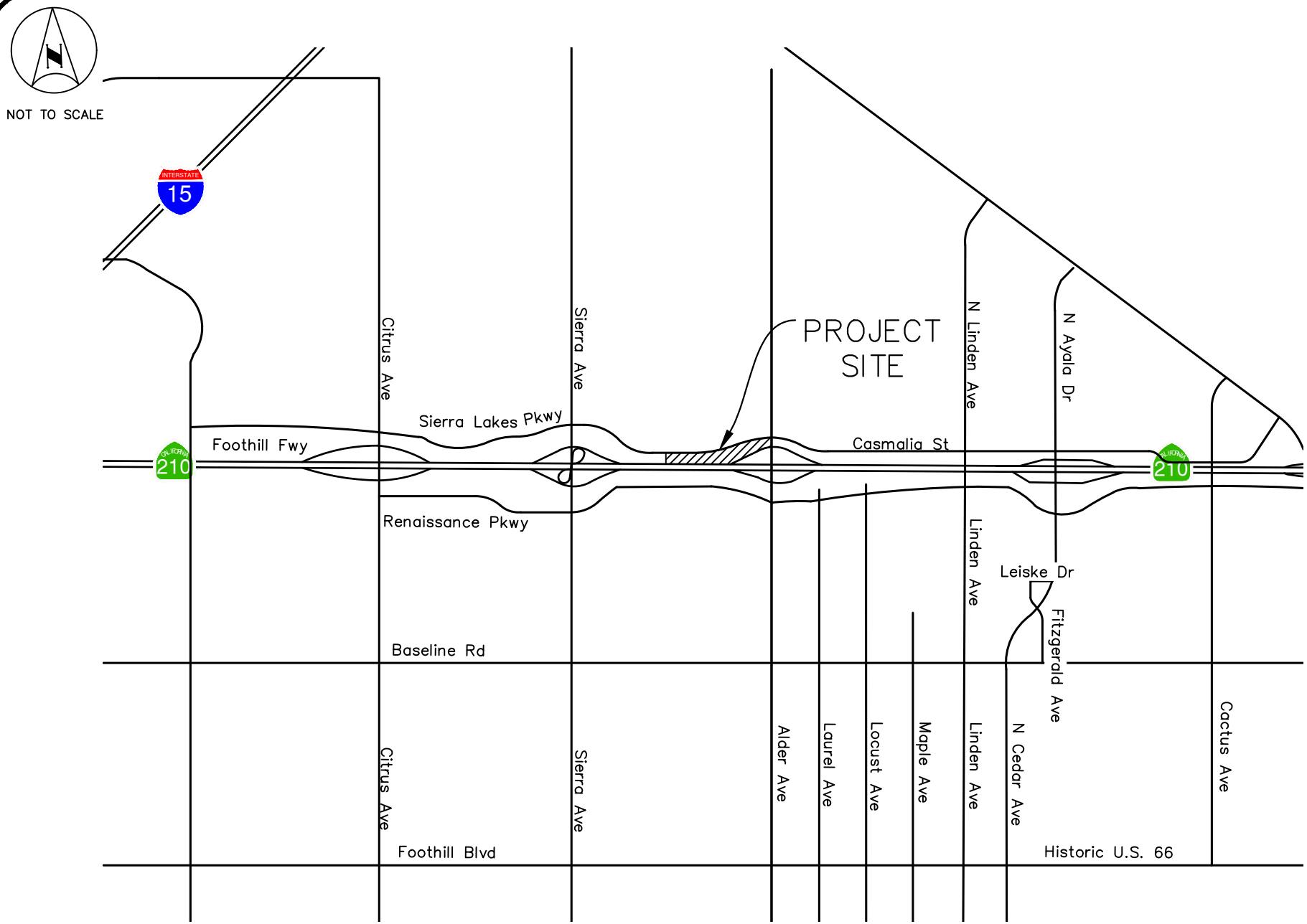
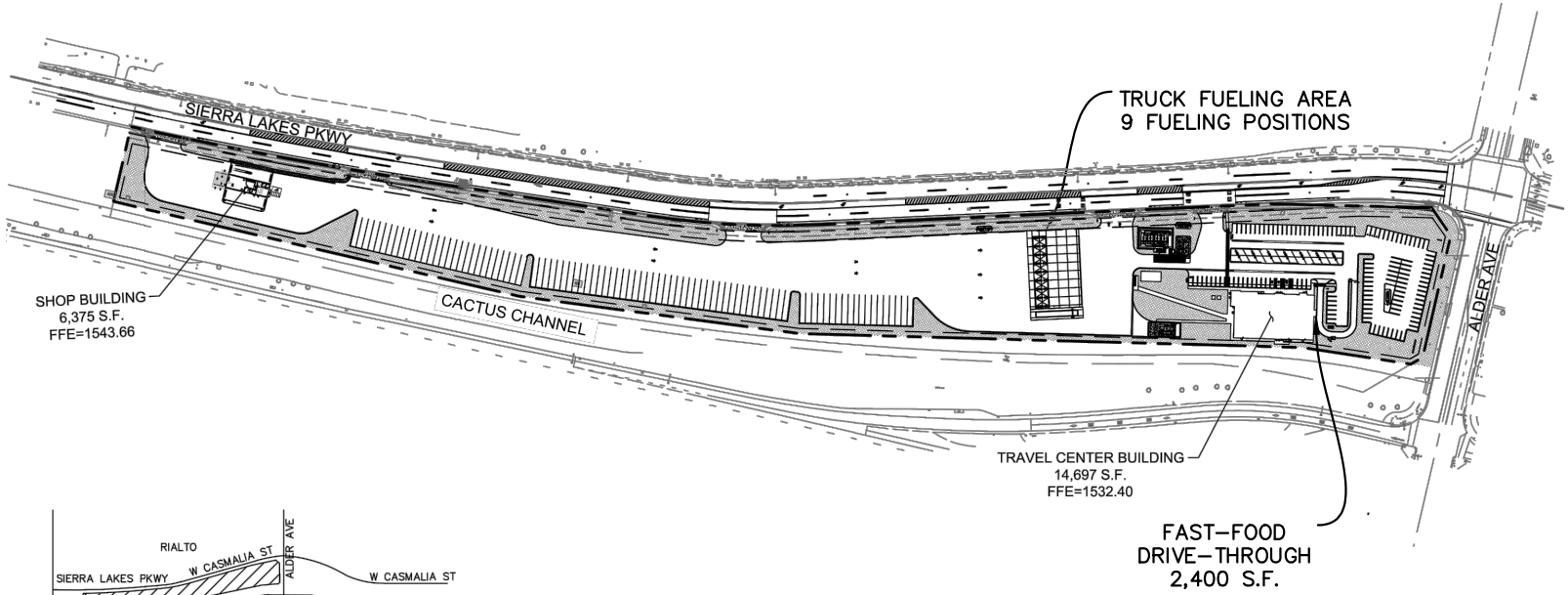
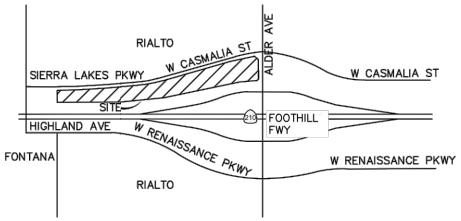


FIGURE 1
VICINITY MAP

Kimley»Horn

NOT TO SCALE





VICINITY MAP

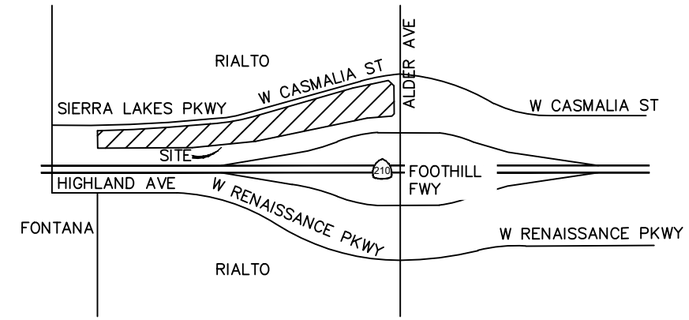
FIGURE 2
PROJECT SITE PLAN

Kimley»Horn

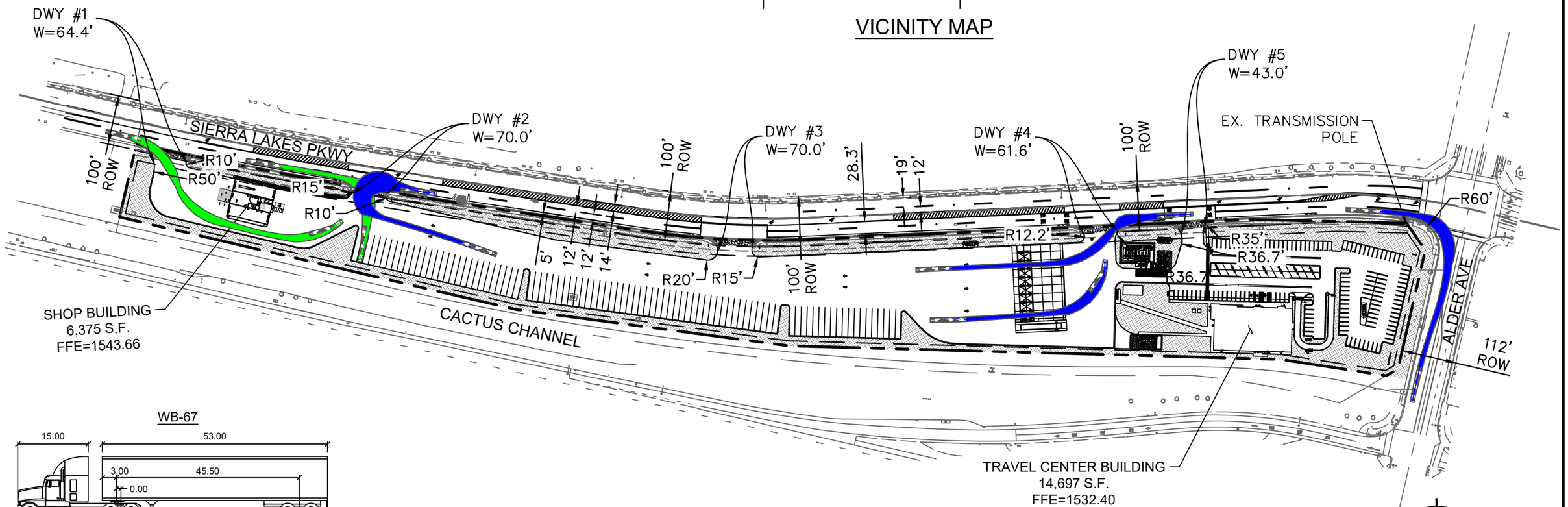
LEGEND

PROJECT INGRESS

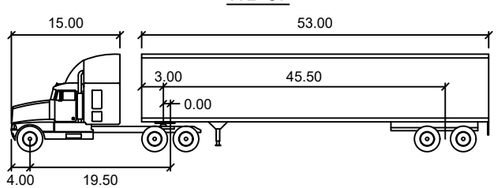
PROJECT EGRESS



VICINITY MAP



WB-67



	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

NORTH

GRAPHIC SCALE IN FEET
0 100 200 400

WB 67: SIERRA LAKES PKWY INGRESS AND EGRESS

Kimley»Horn
1100 W TOWN & COUNTRY ROAD, SUITE 700, ORANGE, CA 92868
(714) 939-1030 | WWW.KIMLEY-HORN.COM

TRUCK TURN MOVEMENT EXHIBIT
PILOT RIALTO TRAVEL CENTER
RIALTO, CA
8/19/2021

TABLE 3
SUMMARY OF PROJECT TRIP GENERATION
RIALTO TRAVEL CENTER

Trip Generation Rates

Land Use	ITE Code (a)	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Fast-Food Restaurant w Drive-Through Window	934	ksf	470.950	0.51	0.49	40.19	0.52	0.48	32.67
Super Convenience Market/Gas Station	960	FP	230.520	0.50	0.50	28.08	0.50	0.50	22.96
Truck Stop	Data (b) / 950	FP	88.889	0.51	0.49	7.18	0.49	0.51	8.41

Project Trip Generation

Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Passenger Car Trips									
Fast-Food Restaurant with Drive-Through	2.400	ksf	1,130	49	47	96	41	37	78
Internal Capture (c) (Daily: 10%, AM: 10%, PM: 10%)			-113	-5	-5	-10	-4	-4	-8
Pass-By Trips (d) (Daily: 25%, AM: 25%, PM: 25%)			-254	-11	-11	-22	-9	-9	-18
Super Convenience Market/Gas Station	16	FP	3,688	225	224	449	184	183	367
Internal Capture (c) (Daily: 10%, AM: 10%, PM: 10%)			-369	-23	-22	-45	-19	-18	-37
Pass-By Trips (d) (Daily: 25%, AM: 25%, PM: 25%)			-830	-51	-50	-101	-42	-41	-83
Truck Trips (f) (g) (h)									
Truck Stop	9	FP	800	33	32	65	37	39	76
Pass-By Trips (i) (Daily: 5%, AM: 5%, PM: 5%)			-40	-2	-1	-3	-2	-2	-4
PCE Truck Stop (PCE Factor = 3)			2,400	99	96	195	111	117	228
PCE Pass-By Trips (i) (Daily: 5%, AM: 5%, PM: 5%)			-120	-6	-3	-9	-6	-6	-12
Total Driveway Trips			6,736	345	340	685	313	315	628
Passenger Car			4,336	246	244	490	202	198	400
Truck PCE			2,400	99	96	195	111	117	228
Total Primary Trips			5,532	277	276	553	256	259	515
Passenger Car			3,252	184	183	367	151	148	299
Truck PCE			2,280	93	93	186	105	111	216

Notes:
KSF = thousand square feet, FP = Fueling Position
AM and/or PM rates correspond to peak of adjacent street traffic

(a) Trip Generation data for ITE Codes from *ITE Trip Generation, 10th Edition*
(b) Daily Trip Generation data provided by Applicant
(c) Internal capture rates from ITE Trip Generation Handbook, 3rd Edition NCHRP 684 Interna Trip Capture Estimation Tool
(d) Pass-by rates from ITE Trip Generation Handbook, 3rd Edition for ITE LU 934 Fast-Food Restaurant With Drive-Through Window and LU 945 Gasoline/Service Station With Convenience Market
(e) Diverted trip rates from ITE Trip Generation Handbook, 3rd Edition for ITE LU 934 Fast-Food Restaurant With Drive-Through Window and LU 945 Gasoline/Service Station With Convenience Market
(f) Truck trips include trips to the Truck Stop land use portion only, using daily trip information obtained from similar faclilities
(g) Peak hour information estimated using peak hour percentages from ITE Trip Generation Manual, 10th Edition
(h) No internal capture was assumed for the Truck Stop land use, as a truck stop is assumed to include a variety of services
(i) As there was no supporting data available to define the number of pass-by trips, pass-by rates were estimated to be 5%
(j) As there was no supporting data available to define the number of pass-by trips, diverted rates were estimated to be similar to a Super Convenience Market with Gas Station

TABLE 16
SUMMARY OF PROJECT TRAFFIC FAIR SHARE FOR RECOMMENDED IMPROVEMENTS

#1 - Alder Avenue at Sierra Lakes Parkway/Casmalia Street	Unit Cost	Quantity	Total
Restripe one NB through lane to a NB shared through/left with Split signal phasing. Restripe the EB shared through/right to a dedicated EB right-turn lane with a right-turn overlap phasing.	$ 170,000 [1]	1	$ 170,000
Project Fair Share percentage[2]			45.5%
Project Cost			$ 77,300
#1, #2, #3, #4 = Alder Avenue Improvement			
Alder Avenue Improvement Project	$ 4,206,168 [3]	1	$ 4,206,168
Project Fair Share percentage[4]			21.8%
Project Cost			$ 916,972
		Total Project Cost	$ 994,272

[1] Source: San Bernardino County Congestion Management Program, Appendix G: Preliminary Construction Cost Estimates for Congestion Management Plan (2003) with 2% per year inflation applied to estimate 2021 costs.

[2] Higher of AM or PM project fair share percentage

[3] Source: Draft City of Rialto Transportation/Traffic Impact Fee Nexus Study (March, 2017). Note: The improvements to intersections #1. #2, #3, and #4 are part of the larger Alder Avenue Improvement Project that calls for roadway widening and intersection improvements between Casmalia Street and Renaissance Parkway.

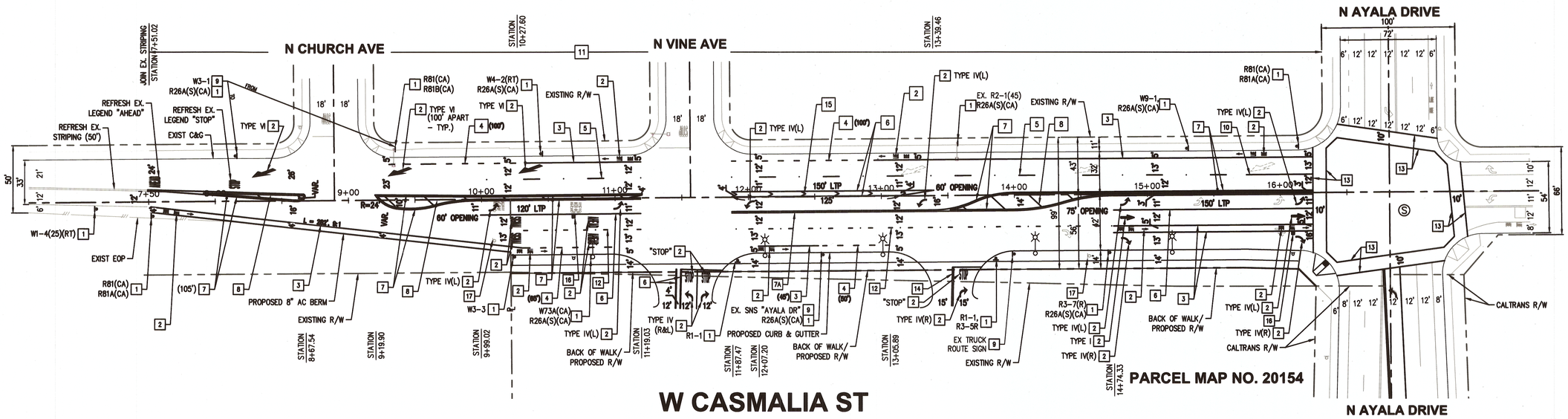
[4] Blended fair share percentage between intersections #1, #2, #3, #4 based on the AM peak hour fair share percentage.

City of Rialto

Legislation Text

File #: TC 21-0707, **Version:** 1, **Agenda #:** 1

Casmalia Street at Ayala Drive Restriping for Left Turn
(INFORMATIONAL ITEM)



CONSTRUCTION NOTES

1 – INSTALL SIGN AS NOTED – CITY OF RIALTO STD PLAN SC–223.

2 – INSTALL THERMOPLASTIC PAVEMENT MARKINGS AS SHOWN – CALTRANS STANDARD PLAN A24A–A24D.

3 – INSTALL 6" WHITE PAINT BIKE LANE LINE – CALTRANS STANDARD PLAN A20D, DETAIL 39.

4 – INSTALL 6" WHITE PAINT BIKE LANE INTERSECTION LINE – CALTRANS STANDARD PLAN A20D, DETAIL 39A.

5 – INSTALL THERMOPLASTIC 4" WHITE SKIP LANE LINE – CALTRANS STANDARD PLAN A20A, DETAIL 12.

6 – INSTALL THERMOPLASTIC 8" CHANNELIZING LINE – CALTRANS STANDARD PLAN A20D, DETAIL 38.

7 – INSTALL THERMOPLASTIC 4" DOUBLE YELLOW MEDIAN STRIPE – CALTRANS STANDARD PLAN A20B, DETAIL 29.

8 – INSTALL THERMOPLASTIC 12" SOLID YELLOW LINE AT 45–DEGREE AT 20–FEET O.C.

9 – RELOCATE EXISTING SIGN AS NOTED – CITY OF RIALTO STD PLAN SC–223.

10 – INSTALL THERMOPLASTIC 4" WHITE PAINT LANE LINE.

11 – GRIND EXISTING THERMOPLASTIC OR COLD PLANE CONFLICTING STRIPING AND LEGENDS AS NEEDED. SLURRY SEAL ALL REMOVALS.

12 – INSTALL THERMOPLASTIC 6" WHITE LANE DROP – CALTRANS STANDARD PLAN A20C, DETAIL 37B.

13 – INSTALL THERMOPLASTIC 12" SOLID WHITE CROSSWALK (BASIC) – CALTRANS STANDARD PLAN A24F.

14 – INSTALL THERMOPLASTIC 4" DOUBLE YELLOW STRIPE – CALTRANS STANDARD PLAN A20A, DETAIL 22.

15 – INSTALL THERMOPLASTIC 8" SOLID WHITE CHEVRON STRIPE SPACED EVERY 25' O.C.

16 – INSTALL BLUE REFLECTIVE PAVEMENT MARKER – CITY OF RIALTO STD PLAN W–704.

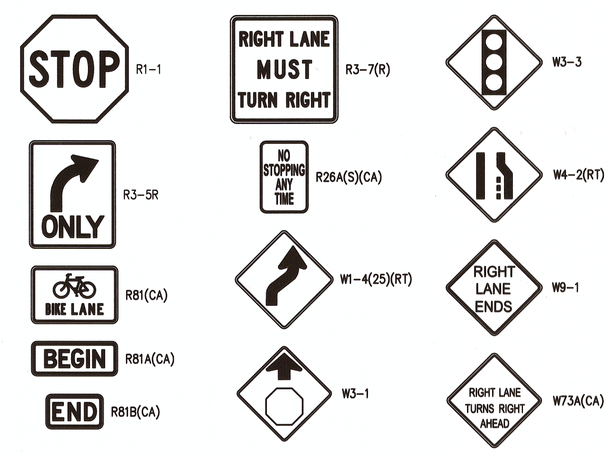
17 – REMOVE AND SALVAGE EXISTING SIGN.

Ⓢ – SIGNALIZED INTERSECTION

SIGN LEGEND

R1–1	STOP SIGN
R3–5R	RIGHT TURN ONLY
R3–7(R)	RIGHT LANE MUST TURN RIGHT
R26A(S)(CA)	NO STOPPING ANY TIME
R81(CA)	BIKE LANE
R81A(CA)	BEGIN
R81B(CA)	END
W1–4(25)(RT)	REVERSE CURVE RIGHT
W3–1	STOP AHEAD
W3–3	SIGNAL AHEAD
W4–2(RT)	LANE ENDS RIGHT
W9–1	RIGHT LANE ENDS
W73A(CA)	RIGHT LANE TURNS RIGHT AHEAD

SIGN LEGEND



CASMALIA STREET EXISTING STRIPING

N

40 0 40 80
scale 1" = 40' feet

UNDERGROUND SERVICE ALERT
CALL BEFORE YOU DIG
CALL:TOLL FREE 1–800 227–2600
TWO WORKING DAYS BEFORE YOU DIG

MARK	REVISIONS

DESIGNED BY: MXGO DRAWN BY: MXGO CHECKED BY: MTP

SEAL–DESIGN ENGINEER
REGISTERED PROFESSIONAL ENGINEER ROBERT A. KILPATRICK No. 42386 CIVIL STATE OF CALIFORNIA

DEPT.	INIT.	DATE

PREPARED UNDER THE SUPERVISION OF:
ROBERT A. KILPATRICK, RCE 42386 , EXPIRES 03/31/20 — DATE 3/2/2020
RECOMMENDED FOR APPROVAL BY LOCKWOOD ENGINEERING:
CARLETON, W. LOCKWOOD, JR., RCE 45935 — DATE 03/12/20
APPROVED BY:
SAVAT KHAMPHOU, CITY ENGINEER, RCE 62019 — DATE 3/16/20

PREPARED BY:
DAVID EVANS AND ASSOCIATES INC.
14297 Cajon Avenue Suite 101
Victorville California 92392-2335
Phone: 760.524.9100

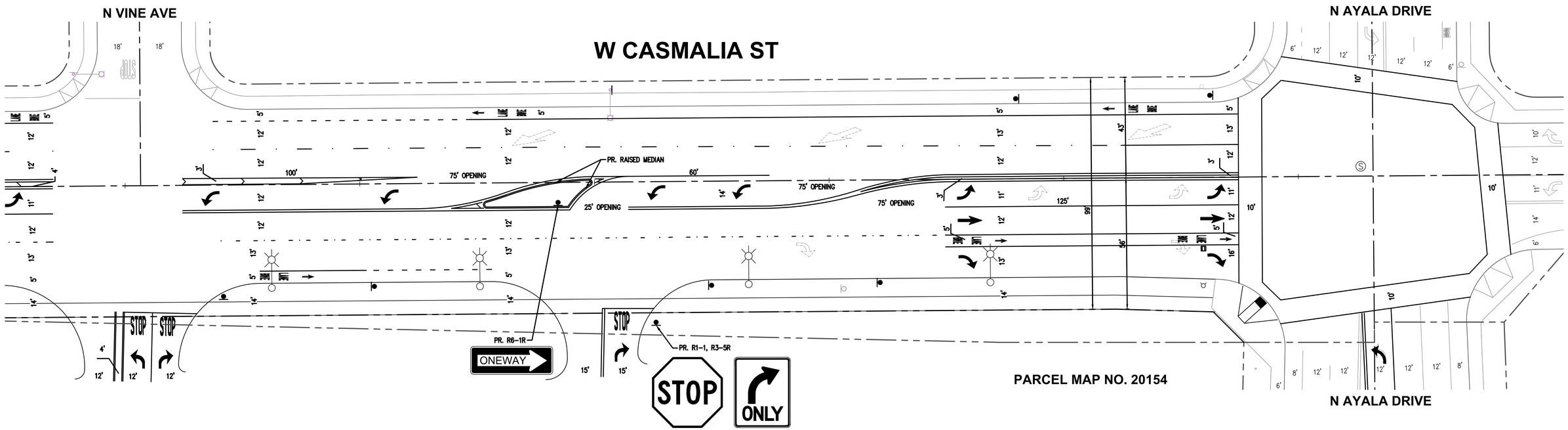
BENCHMARK: CALTRANS BENCHMARK BM No. BM–19–C–88 ELEV. 1466.75' (NAVD 88)
DESCRIPTION: BRASS DISK IN TOP OF CURB LOCATED AT THE ECR FOR THE NORTHEAST CURB RETURN AT THE INTERSECTION OF AYALA DRIVE AND CASMALIA STREET.

CITY OF RIALTO
RIALTO CENTER - PM NO. 20154
SIGNING AND STRIPING IMPROVEMENT PLANS
W. CASMALIA STREET AT AYALA DRIVE

2 OF 2 SHEETS

PREPARED FOR: SIRWIN ENTERPRISES, INC.
PPD No. 2018–0041 & 2019–0063
PLAN No. T–657 (S)

Drawing Name: P:\20170000\20170000\MAPS\CAD\TM\SHEETS\T-S-01-SIR00001.dwg Tab Name: 24X36
Last Opened: Dec 02, 2020 - 2:25pm by MTP



PROPOSED CASMALIA STREET STRIPING
WITH MINOR RAISED MEDIAN

N

20 0 20 40
scale 1"= 20' feet

UNDERGROUND SERVICE ALERT
CALL BEFORE YOU DIG
CALL:TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

MARK	REVISIONS

DESIGNED BY: MXGO DRAWN BY: MXGO CHECKED BY: MTP

SEAL-DESIGN ENGINEER
REGISTERED PROFESSIONAL ENGINEER ROBERT A. KILPATRICK No. 42386 CIVIL STATE OF CALIFORNIA

DEPT.	INIT.	DATE

PREPARED UNDER THE SUPERVISION OF:
ROBERT A. KILPATRICK, RCE 42386 , EXPIRES 03/31/20 — DATE 06/09/20
RECOMMENDED FOR APPROVAL BY LOCKWOOD ENGINEERING:
CARLETON W. LOCKWOOD, JR., RCE 45935 — DATE
APPROVED BY:
SAVAT KHAMPHOU, CITY ENGINEER, RCE 62019 — DATE

PREPARED BY:
DAVID EVANS AND ASSOCIATES INC.
14297 Cajon Avenue Suite 101
Victorville California 92392-2335
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CITY OF RIALTO
RIALTO CENTER - PM NO. 20154
SIGNING AND STRIPING EXHIBIT
W. CASMALIA STREET AT AYALA DRIVE

1 OF 1 SHEETS

PREPARED FOR:
SIRWIN ENTERPRISES, INC.

PPD No. 2018-0041 & 2019-0063 PLAN No. T-

Drawing Name: P:\S\SRW00003001\ADDCAD\TT\DAB875\Proposed Striping\TT-S-02-SRW0003.dwg Tab Name: 24X36
Last Opened: Sep 30, 2021 - 10:10am by: kjh

City of Rialto

Legislation Text

File #: TC 21-0718, **Version:** 1, **Agenda #:** 1

Future Agenda Items

FUTURE AGENDA ITEMS

1. Discussion on Identifying a Plan for Improvements South of the I-10 Freeway
2. Transportation Planning/Funding Major Improvements
3. Information on Regional Discussions
4. Transportation Plan as it Relates to Active Transportation
5. Local Fees for Transportation Improvements
6. Future Improvements to Riverside Avenue, Sierra Avenue and the I-15 Junction
7. Riverside Avenue Bridge Widening Over the UPRR
8. Alder Avenue/SR-210 – Proposed Feasibility Study
9. Traffic issue at Persimmon and Locust Avenues
10. Linden Avenue north of Casmalia Street Road Condition
11. Agua Mansa Corridor
12. Update on Sign Installations for Truck Traffic (Truck Routes)
13. Traffic Signal Timing throughout the City and Contracted Services