City of Rialto

2022 CITYWIDE TRUCK ROUTE STUDY

Date: November 4, 2022

ADVANTEC
Consulting Engineers

1200 ROOSEVELT, IRVINE, CA 92620

949-861-4999

www.advantec-usa.com

TABLE OF CONTENTS

LIST OF TABLES

List of Figures

List of Appendices

Release Version:

Release Date	Version	Prepared by:	Reviewed by:
04/6/22	1.0 Draft	MO	JD
05/20/22	1.1 Draft	MO	JD
08/23/22	1.2 Draft	MO	JD
09/16/22	1.3 Draft	MO/NP	JD
11/3/22	1.4 Draft	MO/NP	JD

1.0 INTRODUCTION

The 2022 Citywide Truck Route study was deemed necessary by the City of Rialto to analyze the existing truck routes, evaluate new truck routes, and utilize city policies including current state and local truck regulations that are consistent with the California Vehicle Code (CVC), and provide recommended truck routes.

The development and completion of this study could not be possible without the coordination and input from the City of Rialto key staff and management, stakeholders, Rialto Police Department, the Mayor, Mayor Pro Tem, City Council, Traffic Commission, Planning Commission, Economic Development Committee (EDC), and through public outreach efforts with the community, the business logistics industry, and coordination with adjacent cities including their truck routes, San Bernardino County, and unincorporated communities within San Bernardino County.

When the study is finalized, it will provide city staff with a systemic approach to update their General Plan with an inclusive and comprehensive truck route system that will be used to update the City's Municipal code including planning for current and future developments, it will identify truck route signage enhancements and placement, and serve as a tool where City staff can focus future funds on improvements of key roadways impacted by the heavy truck traffic.

1.1. BACKGROUND

The City of Rialto is in San Bernardino County and is located east of Interstate 15 (I-15), Interstate 10 (I-10) and State Route 210 (SR-210) traverses through the City, and it is bound by the Cities of Fontana, Colton, San Bernardino, Jurupa Valley, County of Riverside and unincorporated communities in San Bernardino County. It also has a Metrolink station near downtown, and Union Pacific Railroad Locomotive facility that runs parallel to and located south of the I-10.

The City of Rialto has a diversified mix of residential, manufacturing, distribution, service, and retail businesses. In recent years, the City of Rialto has become a logistics hub for many national companies, such as Amazon, FedEx Ground, Home Depot, Unilever, Monster, Staples, Black and Decker, and Target.

To accommodate the large volumes of truck traffic for these businesses, the City of Rialto has designated City arterials as Truck Routes per the City's 2010 General Plan. This network was developed to facilitate commercial vehicles/trucks for goods movement along strategic corridors to minimize impacts on collector and local streets, and to protect the residential neighborhoods from truck traffic.

The City of Rialto's Municipal Code, Chapter 10.40, "Trucks", addresses trucks routes. This includes guidance, resolutions, requirements, and policies to designate truck routes; as well as prohibiting trucks on certain streets. Any updates to existing Truck Routes will adhere to the City's municipal code with City Council's review and approval.

The City of Rialto continues to experience substantial growth as new developments arise in the industrial and distribution sectors. With major distribution centers at full operation, many roadways have seen an increase in heavy truck traffic traveling in designated truck routes, as well as residential and non-industrial areas where trucks are prohibited.

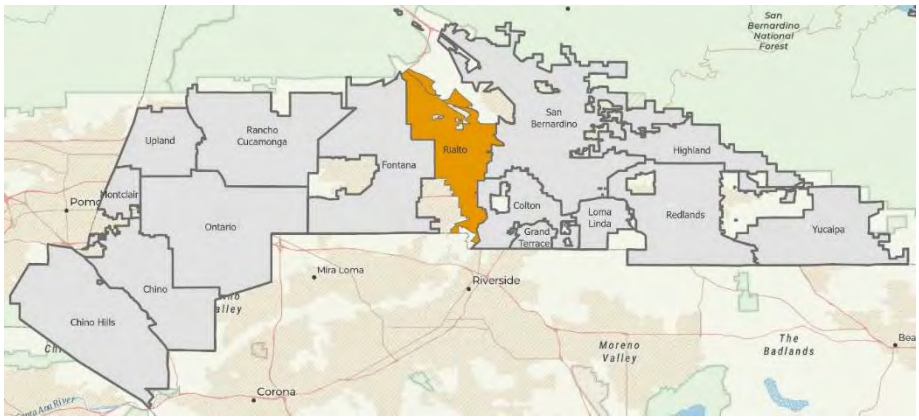
To keep up with the growth of developments, there are posted truck route signage in some areas that are not consistent with the latest approved Truck Route per the City's 2010 General Plan. This study documents the inconsistencies, evaluates these routes as well as proposed routes, and analyzes current vehicle and truck traffic volumes. Overall, this study will update the City's existing Truck Route arterials per the General Plan, including a new truck route map and recommended truck route signage for truck driver and to be used for enforcement by the Rialto Police Department.

1.2. REPORT ORGANIZATION

The Citywide Truck Route Study is organized by the following sections:

- Introduction
- Study Area
- Existing Conditions
- Existing Truck Policies
- Existing Conditions Observations
- Public Outreach
- Evaluation of Existing and Potential Truck Routes
- Recommendations

2.0 STUDY AREA



The City of Rialto is located in San Bernardino County. The city is located between I-15, I-215, and State Route 60 (SR-60). The I-10 and SR-210 run directly within the city boundary. The City is bound by the Cities of Fontana, Colton, San Bernardino, Jurupa Valley/County of Riverside and unincorporated communities in San Bernardino County. The City of Rialto has experienced recent growth due to the building of new major distribution centers throughout its commercial areas. The city is home to distribution centers such as Staples, Amazon, Walmart, Target, FedEx, Monster, Under Armor, and many other companies. These recent distribution center developments and the influx of online-shopping have contributed to an increase in traffic, including truck traffic through the city.

2.1. EXISTING LAND USE

The City of Rialto encompasses over 24 square miles and is not completely built out. Of the developed areas, residential uses are the most common land use in the City. Rialto's land use pattern is defined by nearly 100 years of historical growth. The historic Downtown and surrounding older neighborhoods, with smaller residential lots and small central business district, provide a walkable urban core. The pattern of development within Rialto is generally characterized as newer residential neighborhoods filling in the northern areas. Suburban tract homes from the 1950s and 1960s, away from Downtown, have defined much of the City. Commercial uses are focused along Foothill Boulevard (Historic Route 66), Riverside Avenue, Valley Boulevard, and Baseline Road at Riverside Avenue. These corridors and intersections, along with Downtown, constitute the City's major commercial areas. Industrial and warehouse facilities are clustered along Rialto's rail lines. Other industrial activities have clustered north of SR-210 and south of I-10. Other industrial areas include land adjacent to the Rialto Airport in the north and near SR-210, and I-10 and the Union Pacific railroad line in the south. Many of the industrial businesses take advantage of the City's location and access to this distribution network.

The following land use designations from the City of Rialto's General Plan represent the planned distribution, density, and intensity of land use citywide.

R2 - RESIDENTIAL 2

- Very-low-density residential development
- Single, detached homes on large lots, with a density of no more than two units per acre

R6 - RESIDENTIAL 6

- Low density residential development
- Development consisting of detached units in suburban-style subdivisions

R12 - RESIDENTIAL 12

- Moderate density residential development
- Developments include detached single units on individual lots, low-scale attached units with private and/or shared open space, groups of attached housing with larger common open space areas, and mobile home parks

R21 - RESIDENTIAL 21

- Higher density residential development at higher densities, with locations typically located along major streets and near major activity centers
- Developments include low-scale attached units with private and/or shared open space, and groups of attached housing with larger common open space areas

R30 - RESIDENTIAL 30

- Higher-density, multi-story residential development
- Locations occur along or near major transportation corridors and within walking distance of commercial centers and transit services.

O - OFFICE

- Small- and large-scale professional offices and related uses that accommodate a broad range of low-intensity, service-oriented, and employment-generating uses

DMU - DOWNTOWN MIXED USE

- The designation applies to Rialto's historic downtown core
- Mix of retail and service commercial, dining, entertainment, and residential uses within walking distance of each other and the nearby Metrolink station and Civic Center

CC - COMMUNITY COMMERCIAL

- Variety of retail, office, and service-oriented business activities that serve the local community, including supermarkets, restaurants, small-scale service businesses, and specialty retail stores

GC - GENERAL COMMERCIAL

- General retail, commercial services, restaurants, lodging, commercial recreation, professional offices, and medical and financial institutions
- Uses specifically prohibit warehousing, trucking and transportation related, auto repair, heavy manufacturing, and any use involving outdoor storage

BP - BUSINESS PARK

- Mix of commercial, office, research and development, laboratories, and light industrial uses

LI - LIGHT INDUSTRIAL

- Light industrial activity such as processing, packaging, machinery repair, fabrication, distribution, warehousing and storage, and research and development
- Heavy industrial activities with convenient access for trucks and rail

OSRS - OPEN SPACE - RESOURCES

- Groundwater recharge and flood control, habitat and wildlife corridor enhancement, the managed production of aggregate resources, agricultural heritage, transmission of energy resources, and public safety

SP – SPECIFIC PLANS

A Specific Plan is a comprehensive planning and zoning document for a defined geographic region of the City. The City of Rialto has several Specific Plans which govern land use and development within the designated Specific Plan areas. The following specific plans are critical for this study:

RENAISSANCE SPECIFIC PLAN

Renaissance is situated in the western central portion of the City of Rialto. The project site is generally bounded on the north by Casmalia Street, on the south by Baseline Road, on the east by Ayala Drive, and on the west by Tamarind Avenue. South of SR-210, the land uses are focused on employment generating uses such as manufacturing, light industrial, distribution, and warehousing.

RIALTO AIRPORT SPECIFIC PLAN

Prior to the adoption of the Renaissance Specific Plan, Renaissance was located entirely within the existing Rialto Airport Specific Plan. The Rialto Airport Specific Plan was adopted in 1997, encompassed 3,100 acres, and was intended to provide a long-term strategy for the development of the airport and surrounding area.

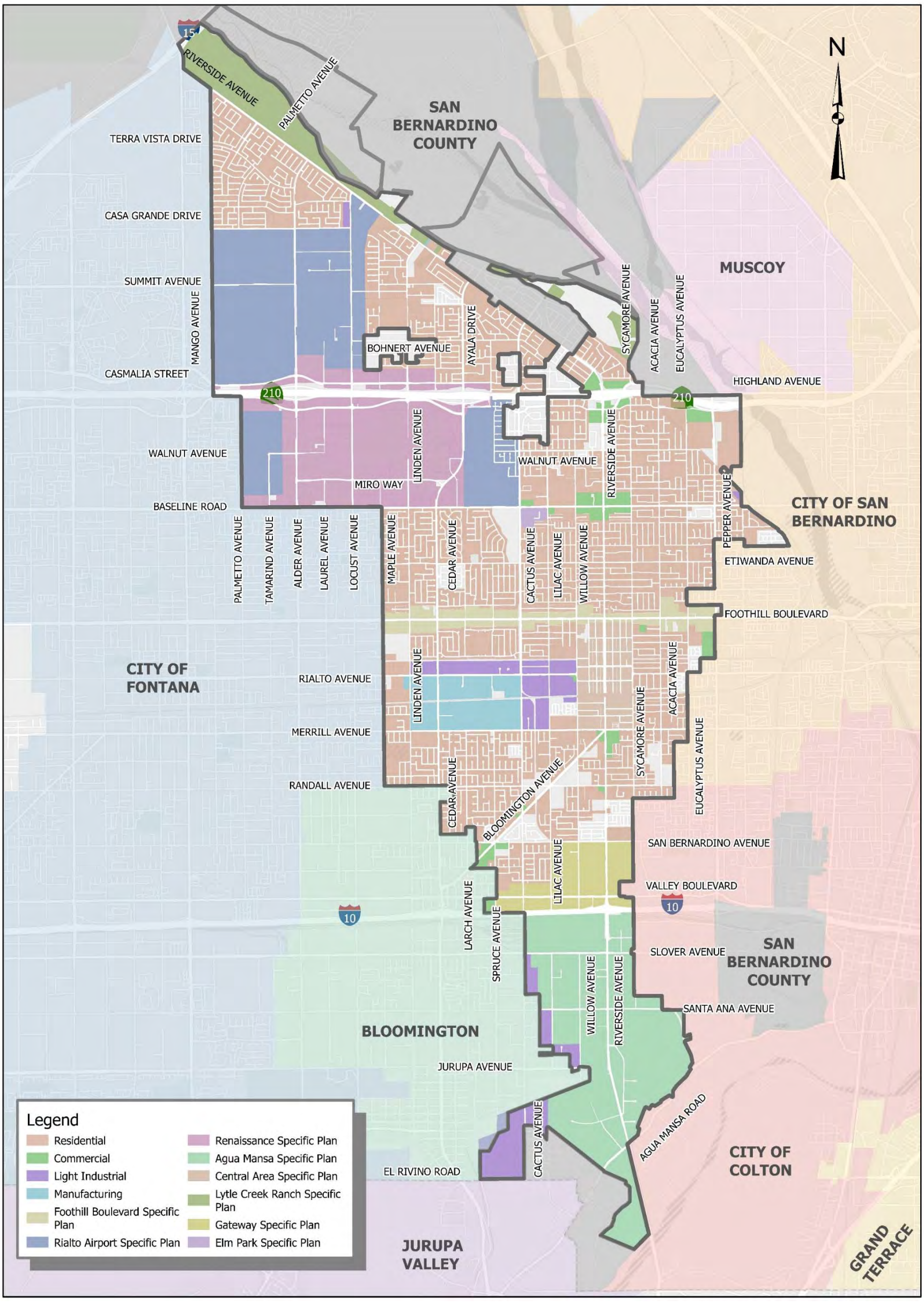
However, at the December 6, 2005, City Council meeting, the City adopted resolutions declaring the intent to relocate the Rialto Airport operations to other nearby facilities. With the closure of the Rialto Airport, major assumptions and portions of the Rialto Airport Specific Plan became obsolete. Through the Renaissance Specific Plan process, the text and graphics of the Rialto Airport Specific Plan will be amended to omit the 1,439 acres comprising Renaissance. The remainder of the Rialto Airport Specific Plan continues to regulate the areas outside of the Renaissance Specific Plan.

AGUA MANSA SPECIFIC PLAN

The Agua Mansa Industrial Corridor is located in the southern portion of the City of Rialto. The study area is bounded by Interstate 10 on the north, Rancho Avenue on the east and the Santa Ana River on the southeast. The southwesterly boundary is formed by Market Street and Rubidoux Boulevard; the northwesterly boundary varies from I-10 and Lilac Avenue on the north to Hall Avenue. The easterly portion of the area is located in the flood plain of the Santa Ana River on the westerly bank of the main channel. The area is dominated by industrial activities.

Although each land use designation is critical when studying traffic patterns, this study primarily focuses on industrial land use to analyze existing truck traffic and truck routes and to make determinations on possible new truck routes. **Figure 1** illustrates the existing land use in the City of Rialto and locations of the specific plans.

Figure 1 – Existing Land Use



2.2. EXISTING DISTRIBUTION CENTERS

The City of Rialto is home to a number of distribution centers that contribute to the majority of the truck traffic along the City's corridors. According to the City's land use map, there are four main areas designated as industrial areas and where distribution centers are permitted. These areas are specified in the City's specific plans for Rialto Airport, Renaissance, Central Area, and Agua Mansa. The Rialto Airport area is in the northwest area of Rialto, north of the SR-210 freeway. The Renaissance area is south of the SR-210 freeway and north of Baseline Road, adjacent to the Rialto Airport Specific Plan location. The Central Area Specific Plan area is located between Rialto Avenue and Merrill Avenue, west of Cactus Avenue. Finally, the Agua Mansa area is located in the southern portion of Rialto, south of the I-10 freeway. The dispersed locations of these industrial areas are an indication of the demand for an interconnected truck route system within the City. The following are some of the major distribution centers located within city boundaries.

- Target
  - Located within Rialto Airport Specific Plan area
  - Truck access on Summit Avenue (non-designated truck route)
- Under Armour
  - Located within Rialto Airport Specific Plan area
  - Truck access on Walnut Avenue (non-designated truck route)
- Amazon
  - Located within Renaissance Specific Plan area
  - Truck access on Locust Avenue (designated truck route)
- Monster
  - Located within Renaissance Specific Plan area
  - Truck access on Locust Avenue (designated truck route)
- Staples
  - Located within Central Area Specific Plan
  - Truck access on Cactus Avenue (non-designated truck route)
- Walmart
  - Located within Agua Mansa Specific Plan area
  - Truck access through Agua Mansa Road (non-designated truck route)
- FedEx
  - Located within Agua Mansa Specific Plan area
  - Truck access through Riverside Avenue (designated truck route)
- Living Spaces
  - Located within Agua Mansa Specific Plan area
  - Truck access through Riverside Avenue (designated truck route)

Figure 2 illustrates the industrial designated areas, locations of existing distribution centers mentioned above, and other businesses within the area.

Figure 2 – Existing Distribution Centers

2.3. STREET CLASSIFICATION

The City of Rialto has established a roadway classification system according to roadway function with the following five classifications: Major Arterial Highway, Major Arterial, Secondary Arterial, Collector Street, and Local Street.

The following are descriptions of the functional classes used by the city and roadways that may be evaluated as a potential truck route

MAJOR ARTERIAL HIGHWAY

A major arterial highway is defined as a six-lane roadway with a raised median and limited driveway access. Bloomington Avenue is the only major arterial highway in the City of Rialto.

Roadways classified as a major arterial highway may be evaluated as a potential truck route.

MAJOR ARTERIAL

A major arterial links freeways with local streets to accommodate larger volumes of traffic at higher speeds. Major arterials typically have at least two lanes of travel in each direction, left-turn lanes at intersections, parking lanes, and limited driveway access. The City of Rialto classifies major arterials into four modified versions that have varying characteristics such as number of vehicle lanes, widths, street parking, bike lanes, medians, or dedicated bus lanes.

Modified Major Arterial I

A Modified Major Arterial I has two lanes of travel in each direction, left-turn lanes at intersections, medians, and two dedicated bus lanes. Foothill Boulevard is classified as a Modified Major Arterial I.

Modified Major Arterial II

A Modified Major Arterial II has three lanes of travel in each direction and medians. Riverside Avenue near the I-10 and I-15 is classified as a Modified Major Arterial II.

Modified Arterial I

A Modified Arterial I has two lanes of travel in each direction, medians, parking lanes, and bike lanes in both directions. Riverside Avenue between Slover Avenue and the Southern City boundary is classified as a Modified Arterial I.

Modified Arterial II

A Modified Arterial II has at least two lanes of travel in each direction, medians, on-street parking along the sidewalk and the median. Riverside Avenue through the Downtown Area Is classified as a Modified Arterial II.

Roadways classified as major arterials may be evaluated as a potential truck route.

SECONDARY ARTERIALS

Secondary Arterials serve as a link between Local Streets and Major Arterials. They have two lanes of travel in each direction, left turn lanes, and accommodate on-street parking.

Roadways classified as secondary arterials may be evaluated as a potential truck route.

COLLECTOR STREETS

Collector Streets serve as a transition between Local Streets and arterial roadways. They have one travel lane in each direction and accommodate on-street parking.

Roadways classified as collector streets will not be evaluated or considered as a potential truck route, except for Santa Ana Avenue which is currently designated as a truck route.

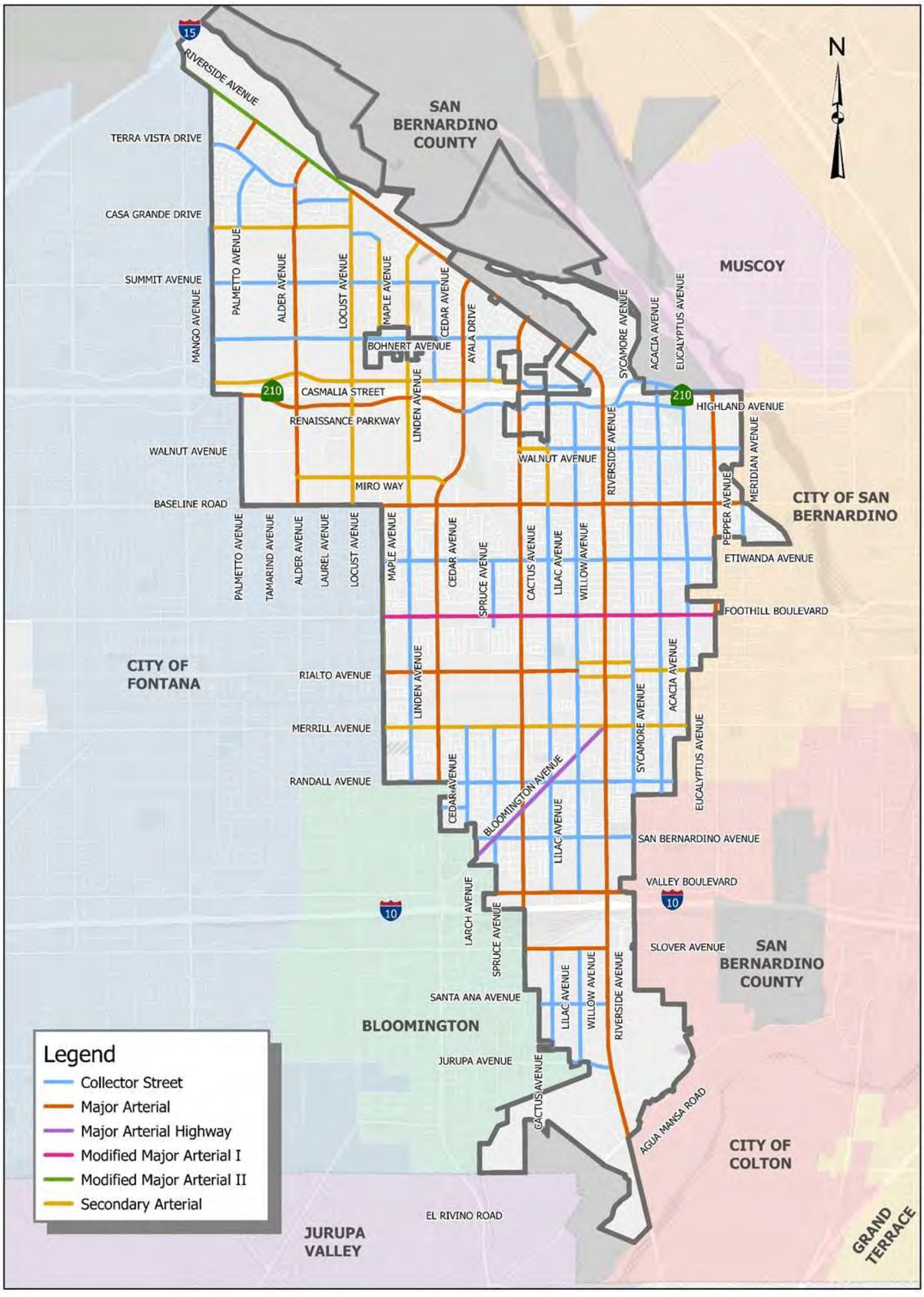
LOCAL STREETS

Local streets are neighborhood roadways with one travel lane in each direction and are narrower in width than collector streets. They typically accommodate on-street parking and are designed for 25 mile-per-hour speeds.

Roadways classified as local streets will not be evaluated or considered as a potential truck route.

Figure 3 illustrates the roadway classification map for the City of Rialto. This map is based on the City's geographic information system (GIS) database.

Figure 3 – Roadway Classification Map



The U.S. Department of Transportation Federal Highway Administration (FHWA) has also created a National Highway System (NHS) with the following classifications: Freeways and Other NHS Routes.

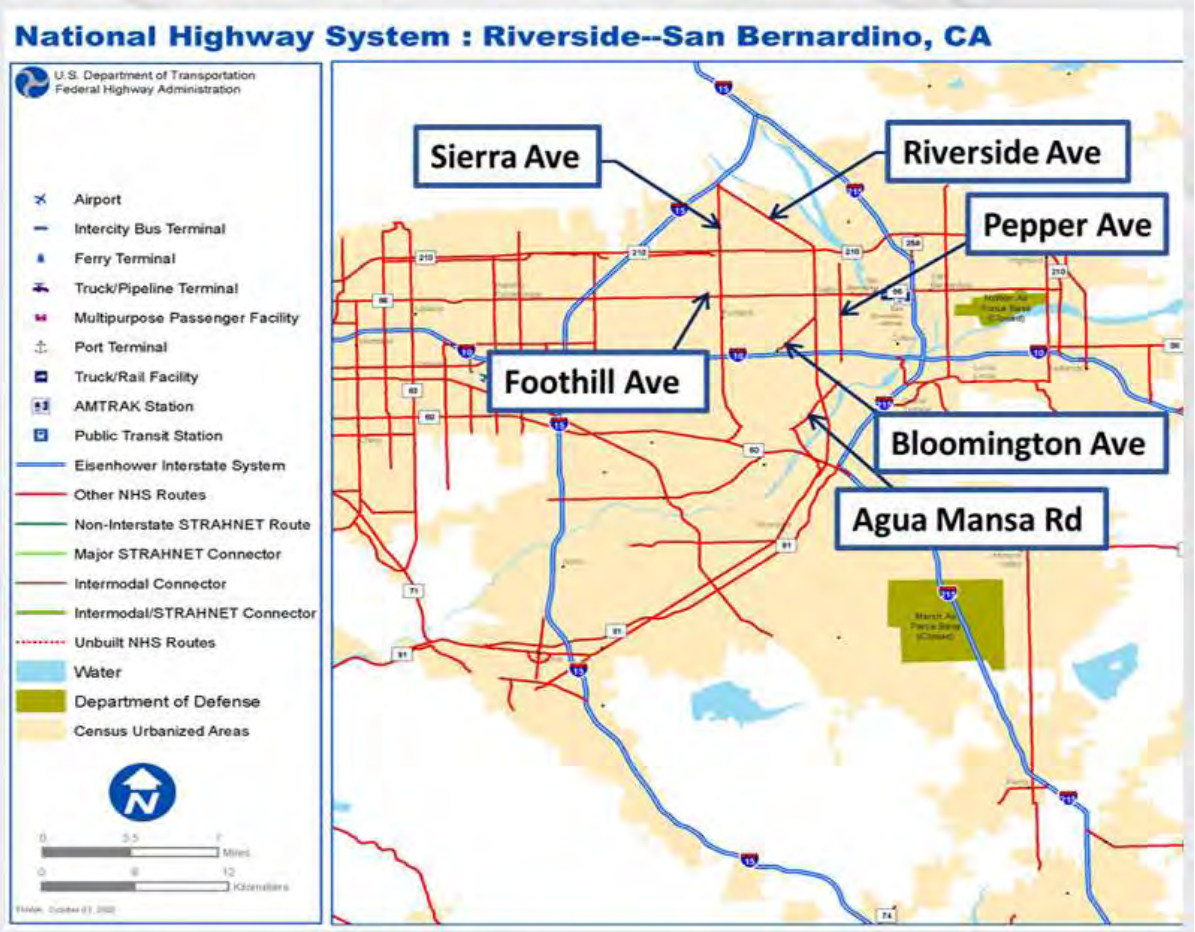
FREEWAYS

Freeways are multi-lane, limited access, high-volumes, high-speed roadways constructed for regional and interregional vehicular travel. Interstate 10 and State Route 210 are two freeways that run within the City of Rialto.

OTHER ROUTES - NATIONAL HIGHWAY SYSTEM (NHS)

The FHWA established the National Highway System (NHS) which consists of roadways important to the nation's economy, defense, and mobility. It includes roadways subsystems, such as, interstates highways, principal arterials, major strategic highway network connectors, and intermodal connectors. In the City of Rialto, FHWA has classified Sierra Avenue, Riverside Avenue, Pepper Avenue, Bloomington Avenue and Agua Mansa as NHS Routes. **Figure 4** illustrates the NHS routes within the City of Rialto and the surrounding areas within the Counties of Riverside and San Bernardino.

Figure 4 – National Highway System (NHS) Routes



3.0 EXISTING CONDITIONS

In addition to roadway classifications, the City of Rialto has also designated certain arterials as truck routes. These truck routes are crucial in the movement of goods throughout the city and provide access to the multiple distribution centers mentioned in the previous sections of this report. These truck routes accommodate large volumes of truck traffic and ideally would be located within commercial and industrial land uses. Enforcement of these truck routes is crucial for the protection of road conditions and residential neighborhoods. An extensive field review was conducted to verify existing truck routes, truck route signage, and review of other arterials to assemble an understanding of the truck traffic and roadway conditions. The following sections discuss the existing truck routes per the City of Rialto General Plan and per the field data collected.

3.1. EXISTING TRUCK ROUTES

To accommodate the large volumes of truck traffic associated with goods movement, ensure appropriate road construction and maintenance, and to protect the residential neighborhoods, the City of Rialto has developed a truck route plan for certain arterials. Some neighboring cities have their own or updating/re-evaluating their truck route systems, and these truck routes should be coordinated with the City of Rialto to ensure continuity for the drivers and for enforcement. Currently, there are some neighboring city truck routes that do not align with the City of Rialto. This study identifies these street segments, which are taken into consideration as part of the recommended routes.

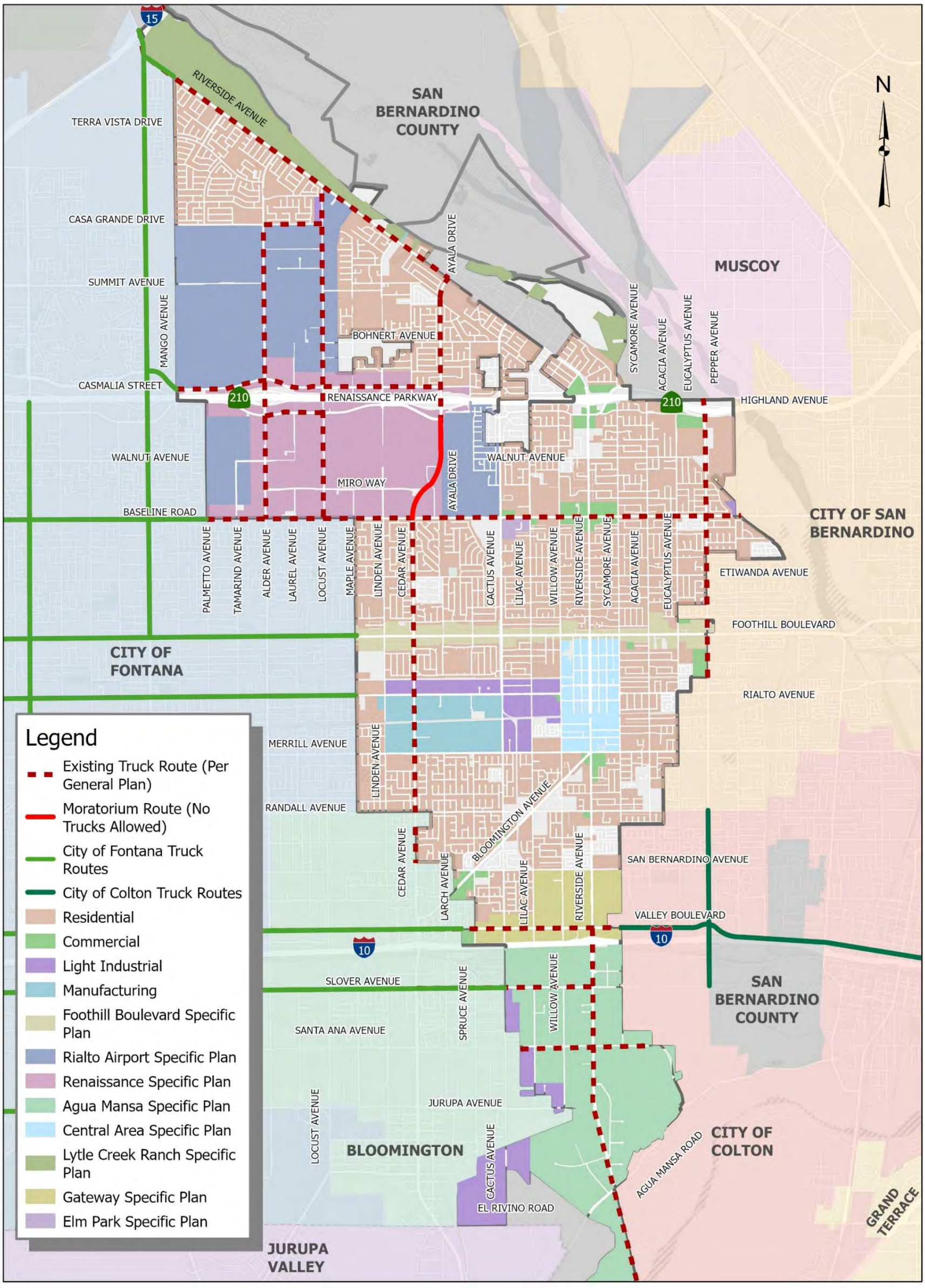
EXISTING TRUCK ROUTE MAP

Per the general plan the following are approved truck routes within the City:

- SR-210 freeway, I-10 freeway
- Riverside Avenue from West City Limits to Ayala Drive
- Riverside Avenue from Valley Boulevard to South City Limits
- Alder Avenue from Casa Grande Drive to Baseline Road
- Locust Avenue from Riverside Avenue to Baseline Road
- Ayala Drive from Riverside Avenue to Baseline Road
    - A moratorium restricted truck traffic on Ayala Drive from I-210 freeway to Baseline Road. Based on information provided by the City, the moratorium ended in 2019, but currently there is signage that restricts truck traffic along this segment.
- Cedar Avenue from Baseline Road to El Rivino Road
- Casa Grande Drive from Alder Avenue to Locust Avenue
- Casmalia Street from Mango Avenue to Ayala Drive
- Renaissance Parkway from Alder Avenue to Locust Avenue
- Baseline Road from West City Limits to East City Limits
- Pepper Avenue from Highland Avenue to City Limits
- Valley Boulevard from West City Limits to East City Limits
- Slover Avenue from West City Limits to East City Limits
- Santa Ana Avenue from West City Limits to East City Limits

Figure 5 illustrates the existing truck routes in Rialto and surrounding cities per the General Plan. The existing truck route was approved in 2010.

Figure 5 – Existing Truck Routes



3.2. EXISTING TRUCK ROUTE SIGNAGE

The City of Rialto currently has posted truck route signs along existing designated truck routes. These signs are posted along routes and at intersections. The existing signs indicate a vehicle is traveling along a truck route when posted with a straight arrow. They also indicate that the cross street is a truck route when shown with a left/right arrow. They can be posted at the intersection of two streets or before approaching the intersection. The signs below are a few examples of some of the truck route signs posted along truck routes.

There are also existing posted signs that prohibit trucks from using certain streets or lanes. Some of these signs outright prohibit trucks, regardless of size or weight, and some signs prohibit trucks above a certain length, width or weight. The California Vehicle Code (CVC) sets the regulations for limiting truck access based on these conditions and is further discussed in the following section of this report (Section 5.0). The following signs are some examples of the existing signs posted prohibiting trucks from using certain streets.

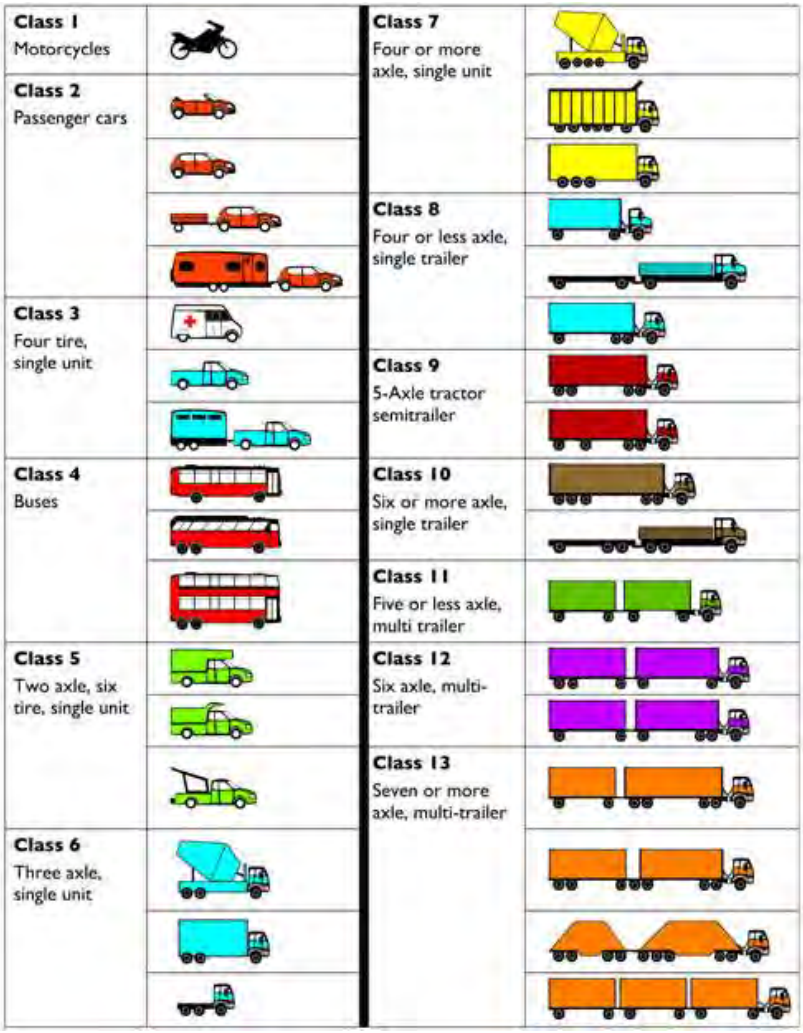
3.3. EXISTING TRUCK ROUTE VOLUMES (2021)

COUNT COLLECTION METHODOLOGY

To collect classification data, road tubes are used to detect vehicle axles by sensing air pulses that are created by each axle (tire) strike of the tube in the roadway. This air pulse is sensed by the unit and is recorded or processed to create axle classification data. While one road tube is used to collect volume, two road tubes are used to collect classification data.

Collecting traffic volume data by vehicle classification differs from simple volume counting in that each vehicle is not only recognized as a vehicle, but that vehicle is also classified into one of several defined categories. The most commonly used vehicle classification system is the 13-vehicle category classification system developed by the Federal Highway Administration (FHWA). **Figure 6** below provides representative examples that depict the 13-vehicle categories. For the purpose of this report, only data collected for vehicles with three (3) axels and above (Class 6-13) are considered as trucks.

Figure 6 – FHWA Vehicle Category Classifications



Source: Federal Highway Administration (FHWA)

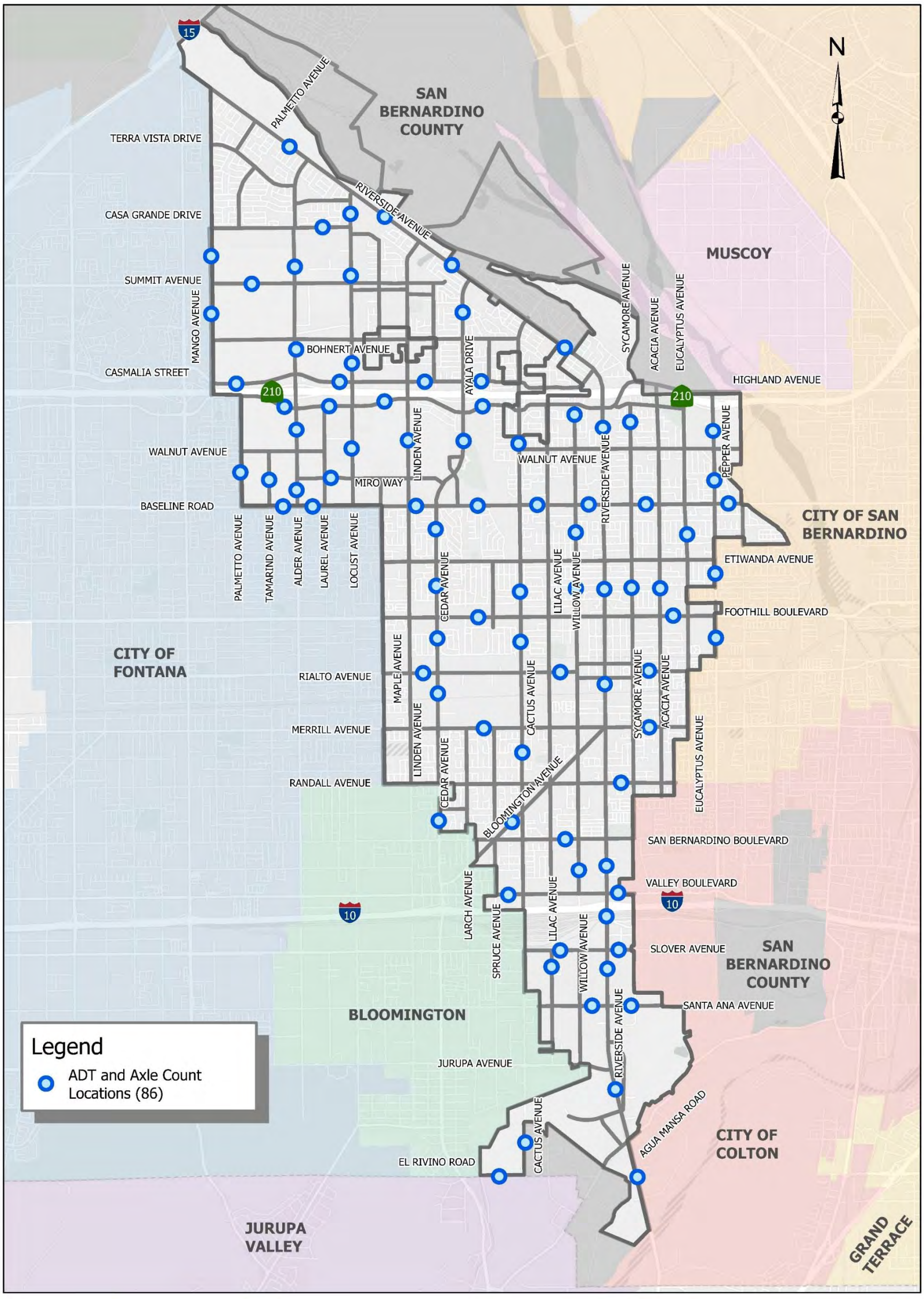
ADT AND CLASSIFICATION COUNTS

Classification counts were collected in order to analyze the truck traffic along the study corridors. The classification counts indicate the volume of trucks at each count location. The 24-Hour Average Daily Traffic (ADT) and classification counts were collected in May 2021 at 86 locations on a representative weekday between Tuesday and Thursday.

Figure 7 illustrates the location of the ADT and vehicle classification (axle) counts on a citywide map.

The ADT counts and classification counts are contained in **Appendix A**.

Figure 7 – ADT and Axle Count Locations



3.4. Average Daily Traffic (ADT) and Vehicle Classification Counts

In order to analyze existing truck traffic, vehicle classification (axle) counts were collected throughout study corridors in the City of Rialto. In addition, average daily traffic counts were collected to determine the number and percentage of truck traffic traveling along the roadway segments.

These counts will be used as our baseline to understand passenger vehicle and truck traffic volumes along the study corridors, which is representative of Citywide truck traffic conditions. These counts will also be used to determine the impacts of evaluated and recommended truck routes. For example: If an existing truck route is recommended for removal, an analysis will be conducted to determine where the trucks will be routed to and understand the increase of truck traffic volumes on other corridors. Another example: If a new truck rout is recommended, an analysis will be conducted to determine where the trucks will be distributed and understand the increase or decrease of truck traffic volumes on other corridors. This analysis will help determine final recommended truck routes.

Table 1 shows the existing overall ADT, truck ADT, and the percentage of trucks along the study corridors. Roadway segments shown in red text symbolize areas with truck volume percentages above 5%. These segments are highlighted to show roadways that trucks are currently utilizing.

Figure 8 illustrates the count locations with existing overall ADT, truck ADT, and the percentage of trucks. This figure provides a visual of the overall truck traffic on city streets.

Table 1 – Existing (2021) Truck Average Daily Traffic (ADT)

City of Rialto ADT and Axle Count Locations								
Int. No.	Street	Segments		Truck ADT			ADT	
		From	To	NB/EB	SB/WB	Total	Total ADT	% of Trucks
1	Acacia Avenue	Etiwanda Avenue	Foothill Boulevard	8	4	12	3,473	0.3%
2	Alder Avenue	Casa Grande Drive	Target Entrance	18	14	32	1,863	1.7%
3		Bohnert Avenue	SR-210 Ramps	1,197	1,104	2,301	4,850	47.4%
4		SR-210 Ramps	Walnut Avenue	963	975	1,938	15,923	12.2%
5		Walnut Avenue	Base Line Road	226	207	433	11,339	3.8%
6	Ayala Drive	Riverside Avenue	Bohnert Avenue	158	169	327	4,630	7.1%
7		SR-210 Ramps	Base Line Road	277	373	650	20,955	3.1%
8	Bloomington Avenue	Spruce Avenue	Cactus Avenue	160	84	244	8,750	2.8%
9	Cactus Avenue	Casmalia Street	Base Line Road	106	45	151	10,204	1.5%
10		Etiwanda Avenue	Foothill Boulevard	178	121	299	11,188	2.7%
11		Foothill Boulevard	Rialto Avenue	150	180	330	12,824	2.6%
12		Rialto Avenue	Randall Avenue	150	191	341	12,541	2.7%
13		Jurupa Avenue	El Rivino Road	249	448	697	4,596	15.2%
14	Cedar Avenue	Base Line Road	Etiwanda Avenue	1,034	544	1,578	19,344	8.2%
15		Etiwanda Avenue	Foothill Boulevard	518	628	1,146	20,747	5.5%
16		Foothill Boulevard	Rialto Avenue	572	841	1,413	23,330	6.1%
17		Rialto Avenue	Merrill Avenue	751	754	1,505	26,155	5.8%
18		Randall Avenue	San Bernardino Avenue	866	1,051	1,917	24,507	7.8%
19	Eucalyptus Avenue	Baseline Road	Etiwanda Avenue	6	6	12	2,947	0.4%
20	Lilac Avenue	Slover Avenue	Santa Ana Avenue	173	117	290	1,482	19.6%
21	Linden Avenue	Renaissance Parkway	Miro Way	81	113	194	9,395	2.1%

City of Rialto ADT and Axle Count Locations								
Int. No.	Street	Segments		Truck ADT			ADT	
		From	To	NB/EB	SB/WB	Total	Total ADT	% of Trucks
22	Locust Avenue	Riverside Avenue	Casa Grande Drive	204	231	435	4,483	9.7%
23		Casa Grande Drive	Bohnert Avenue	399	417	816	8,828	9.2%
24		Bohnert Avenue	Renaissance Parkway	499	418	917	10,301	8.9%
25		Renaissance Parkway	Miro Way	288	668	956	6,577	14.5%
26	Mango Avenue	Casa Grande Drive	Summit Avenue	7	6	13	1,725	0.8%
27		Summit Avenue	Sierra Lakes Parkway	327	313	640	1,091	58.7%
28	Palmetto Avenue	Walnut Avenue	Base Line Road	8	4	12	2,111	0.6%
29	Pepper Avenue	210 Ramps	Shirley Bright Road	384	375	759	18,925	4.0%
30		Shirley Bright Road	Baseline Road	387	384	771	17,277	4.5%
31		Etiwanda Avenue	Foothill Boulevard	447	436	883	15,916	5.5%
32		Foothill Boulevard	Rialto Avenue	944	810	1,754	17,757	9.9%
33	Riverside Avenue	Sierra Avenue	Alder Avenue	488	399	887	13,138	6.8%
34		Alder Avenue	Linden Avenue	379	282	661	12,640	5.2%
35		Linden Avenue	Ayala Drive	318	240	558	12,235	4.6%
36		Cactus Avenue-Country Club	Casmalia Street	91	104	195	11,930	1.6%
37		SR-210 Ramps	Base Line Road	71	87	158	26,727	0.6%
38		Etiwanda Avenue	Foothill Boulevard	35	53	88	18,506	0.5%
39		Rialto Avenue	Bonnie View Drive	28	43	71	20,516	0.3%
40		San Bernardino Avenue	I-10 Ramps	72	98	170	35,459	0.5%
41		I-10 Ramps	Slover Avenue	3,999	3,788	7,787	37,613	20.7%
42		Slover Avenue	Santa Ana Avenue	3,858	2,968	6,826	29,989	22.8%
43		Santa Ana Avenue	Agua Mansa Road	3,016	3,101	6,117	27,960	21.9%

City of Rialto ADT and Axle Count Locations								
Int. No.	Street	Segments		Truck ADT			ADT	
		From	To	NB/EB	SB/WB	Total	Total ADT	% of Trucks
44		Agua Mansa Road	Miguel Bustamante	1,500	1,523	3,023	22,814	13.3%
45	Sycamore Avenue	Easton Street	Walnut Avenue	2	2	4	2,992	0.1%
46		Etiwanda Avenue	Foothill Boulevard	10	9	19	5,265	0.4%
47	Tamarind Avenue	Walnut Avenue	Baseline Road	57	58	115	978	11.8%
48	Willow Avenue	Easton Street	Walnut Avenue	7	2	9	3,607	0.2%
49		Baseline Road	Etiwanda Avenue	5	6	11	6,473	0.2%
50		Etiwanda Avenue	Foothill Boulevard	8	4	12	6,831	0.2%
51		San Bernardino Avenue	Valley Boulevard	39	36	75	4,580	1.6%
52	Base Line Road	Tamarind Avenue	Alder Avenue	154	316	470	10,635	4.4%
53		Alder Avenue	Locust Avenue	216	392	608	10,803	5.6%
54		Locust Avenue	Cedar Avenue-Ayala Drive	319	518	837	12,060	6.9%
55		Cedar Avenue-Ayala Drive	Cactus Avenue	108	100	208	14,722	1.4%
56		Cactus Avenue	Willow Avenue	88	98	186	15,418	1.2%
57		Willow Avenue	Sycamore Avenue	72	98	170	14,941	1.1%
58		Sycamore Avenue	Acacia Avenue	71	99	170	14,424	1.2%
59		Pepper Avenue	East City Limits	241	302	543	13,139	4.1%
60	Casa Grande Drive	Alder Avenue	Locust Avenue	22	13	35	4,086	0.9%
61	Casmalia Street	Laurel Avenue	Locust Avenue	414	368	782	11,400	6.9%
62		Linden Avenue	Ayala Drive	138	136	274	5,983	4.6%
63		Ayala Drive	Spruce Avenue	15	12	27	4,108	0.7%
64	El Rivino Road	West City Limits	Cactus Avenue	309	459	768	5,314	14.5%
65	Foothill Boulevard	Cedar Avenue	Cactus Avenue	82	69	151	19,408	0.8%

City of Rialto ADT and Axle Count Locations								
Int. No.	Street	Segments		Truck ADT			ADT	
		From	To	NB/EB	SB/WB	Total	Total ADT	% of Trucks
66		Sycamore Avenue	Eucalyptus Avenue	85	64	149	20,389	0.7%
67	Merrill Avenue	Cedar Avenue	Cactus Avenue	143	157	300	10,605	2.8%
68		Sycamore Avenue	Acacia Avenue	51	42	93	8,944	1.0%
69	Miro Way	Alder Avenue	Locust Avenue	333	254	587	2,997	19.6%
70	Randall Avenue	Willow Avenue	Sycamore Avenue	17	9	26	3,658	0.7%
71	Renaissance Parkway	Palmetto Avenue	Alder Avenue	229	210	439	9,612	4.6%
72		Alder Avenue	Locust Avenue	769	773	1,542	11,605	13.3%
73		Locust Avenue	Linden Avenue	116	83	199	8,065	2.5%
74		Ayala Drive	Cactus Avenue	67	62	129	9,922	1.3%
75	Rialto Avenue	West City Limits	Cedar Avenue	115	155	270	12,215	2.2%
76		Cactus Avenue	Willow Avenue	104	65	169	7,078	2.4%
77		Sycamore Avenue	Acacia Avenue	17	11	28	5,742	0.5%
78	San Bernardino	Cedar Avenue	Cactus Avenue	55	22	77	5,652	1.4%
79	Santa Ana Avenue	Cactus Avenue	Riverside Avenue	122	131	253	2,616	9.7%
80		Riverside Avenue	East City Limits	881	847	1,728	3,204	53.9%
81	Sierra Lakes Parkway	Mango Avenue	Alder Avenue	164	200	364	8,885	4.1%
82	Slover Avenue	Cactus Avenue	Riverside Avenue	847	682	1,529	10,770	14.2%
83		Riverside Avenue	Sycamore Avenue	248	464	712	3,128	22.8%
84	Summit Avenue	Mango Avenue	Alder Avenue	479	483	962	1,128	85.3%
85	Valley Boulevard	West City Limits	Lilac Avenue	211	187	398	13,305	3.0%
86		Riverside Avenue	Sycamore Avenue	216	184	400	9,951	4.0%

Figure 8 – ADT, Truck Volumes, and Truck Volume Percentage

4.0 EXISTING TRUCK POLICIES

There are several existing statewide and local policies and regulations that govern the use of trucks on City streets. Some of these policies, relative to vehicle weight and size limitations, the right to regulate trucks and the right to enforce weight limits originate from the California Vehicle Code (CVC). The City of Rialto also has its own policies and municipal codes that regulate the specific streets that trucks are allowed to use.

This section summarizes the State policies and the current City of Rialto truck route policies.

4.1. STATE REGULATIONS

The California Department of Transportation (Caltrans) sets transportation regulations relating to maximum truck size and weight. These regulations are to ensure that trucks have safe operating characteristics (fitting under bridges, adequate turning radius, stopping capability, etc.) and that trucks do not create undue damage to State highways and City streets. The California Vehicle Code (CVC) allows local jurisdictions to issue permits to vehicles in excess of these size or weight standards, provided they aren't operated on State highways. The CVC includes sections regulating how truck size and weight limits may be enforced. The CVC also provides local jurisdictions the authority to establish truck routes on their city streets and prohibit trucks on other streets.

CALIFORNIA VEHICLE CODE

The following summarizes the relevant sections of the California Vehicle Code (CVC) that should be used as a reference and followed when modifying the City's existing truck route system.

Truck Sizes

According to CVC Length Sections 35400-35414, Width Sections 35100-35111, and Height Section 35250, "California Legal" trucks are at a maximum 14 feet high, 8.5 feet wide and 40 feet long if one vehicle, and 65 feet long if a combination vehicle. Per Section 35401 Vehicle Combinations, a combination of vehicles which consists of a truck tractor, semi-trailer, and a semi-trailer or trailer may not exceed 75 feet in length if each trailer is no more than 28 feet 6 inches long.

California Legal Truck Tractor - Semitrailer

Semitrailer length : no limit
KPRA* : 40 feet maximum for two or more axles,
38 feet maximum for single-axle trailers
Overall length : 65 feet maximum *(KPRA = kingpin-to-rear-axle)

California Legal Truck Tractor - Semitrailer - Trailer (Doubles)

Option A
Trailer length : 28 feet 6 inches maximum (each trailer)
Overall length : 75 feet maximum

Option B
Trailer length : one trailer 28 feet 6 inches maximum
other trailer may be longer than 28 feet 6 inches
Overall length : 65 feet maximum

Exceptions (STAA Vehicles)

The Surface Transportation Assistance Act of 1982 (STAA) allows certain longer trucks called STAA trucks to operate on the National Network. Per the Highway Design Manual, The STAA design vehicle is a truck tractor-semitrailer combination with a 48-foot semitrailer, a 43-foot kingpin-to-rear-axle (KPRA) distance, an 8.5-foot body and axle width, and a 23-foot truck tractor wheelbase. Note, a truck tractor is a non-load-carrying vehicle.

According to CVC Section 35401.5, (a) A combination of vehicles consisting of a truck tractor and semitrailer, or of a truck tractor, semitrailer, and trailer may exceed the length limits (single-unit: 40' maximum; single-trailer: 65-foot; doubles: 65-foot or 75-foot maximum) on the National Network and Terminal Access routes, provided that:

(1) The length of the semitrailer in exclusive combination with a truck tractor does not exceed 48 feet. The semitrailer is not more than 53 feet in length, with two or more rear axles and a maximum 40' KPRA, or with a single axle and a maximum 38-foot KPRA.

   a. For purposes of this paragraph, a motortruck used in combination with a semitrailer, when that combination of vehicles is engaged solely in the transportation of motor vehicles, camper units, or boats, is considered to be a truck tractor.

(2) For doubles, neither the semitrailer nor trailer exceeds 28 feet 6 inches.

Interstate "STAA" Truck Tractor - Semitrailer

Semitrailer length	:	48 feet maximum
KPRA*	:	no limit
Overall length	:	no limit *(KPRA = kingpin-to-rear-axle)

Semitrailer length	:	over 48 feet up to 53 feet maximum
KPRA	:	40 feet maximum for two or more axles, 38 feet maximum for single-axle trailers
Overall length	:	no limit

Interstate "STAA" Truck Tractor - Semitrailer - Trailer (Doubles)

Trailer length	:	28 feet 6 inches maximum (each trailer)
Overall length	:	no limit

Local Length Prohibitions

According to Section 35401. (d) Any city or county may prohibit a combination of vehicles of a total length in excess of 60 feet upon highways under its jurisdiction.

Note: The following types of delivery trucks/vans are not considered "trucks" in this study. These delivery trucks are typically used to delivery packages to businesses and residential areas, and are allowed to travel on public roadways to provide these services.

Weight Limit

As a general rule, the CVC Section 35550 states that the gross weight of any one axle shall not exceed 20,000 pounds and the gross weight per one wheel, or wheels, supporting one end of an axle, shall not exceed 10,500 pounds. The maximum overall weight limit is 80,000 pounds.

See **Appendix B** for the Axle Group Weight Chart.

Per the CVC Section 35655a regarding Violation of Decreased Restriction, no person shall drive a vehicle on any state highway when the weight of the vehicle and load is greater than the maximum weight which the highway will sustain.

Enforcement

The California Vehicle Code (CVC) provides a legal framework for establishment and enforcement of truck routes. The Vehicle Code is updated annually with new fine schedules. Law enforcement agencies such as the California Highway Patrol (CHP) and the Rialto Police Department may enforce the CVC within the City of Rialto. In practice, the CHP tends to confine its activity to the State highways, and the Rialto Police Department patrols all city roads.

Rights of Law Enforcement

Per CVC Load Inspection Section 2802, any traffic officer may require a driver to stop and submit to an inspection if believed the vehicle exceeds safety guidelines for height, width, length, or weight. The driver may be subject to vehicle measurement or weighing.

Legal Restrictions by Local Authorities

Per CVC Section 21101 "Local authorities...may adopt rules and regulations by ordinance or resolution... (c) Prohibiting the use of particular highways by certain vehicles."

For roadways bordering other jurisdictions, CVC Section 21105 states "No rule or regulation… shall be effective as to boundary line streets where portions thereof are within different jurisdiction unless approved by all authorities having jurisdiction of such portions of the street concerned have approved the same."

Per Section 35700 any county or city may permit loads on highways under their jurisdictions of a maximum gross weight in excess of that specified in this code.

CVC Section 35701, Decreases by Local Authorities, any city or county may, by ordinance, prohibit the use of any vehicle exceeding any maximum gross weight limit in residential areas. This excludes certain vehicles, such as refuse collection trucks. The ordinance is not effective until appropriate signs are erected. No ordinance proposed under CVC Section 35701 is effective with respect to any highway which is not under the exclusive jurisdiction of the local authority enacting the ordinance (CVC Section 35702 – Approval of Ordinances)In the case of any state highway, the ordinance must be submitted and approved by the Department of Transportation (CVC 35702). Upon restriction of any vehicle exceeding the maximum gross weight limit, the governing body of the local authority must designate an alternate route for the use of such vehicles (CVC 35702).

Per CVC Section 35703. Local authorities are not permitted to "prohibit any commercial vehicles coming from an unrestricted street having ingress and egress by direct route to and from a restricted street when necessary for:

- Picking up or delivering goods from or to any building or structure on the restricted street, or
- Delivering materials used in the repair, alteration, remodeling, or construction of any building or structure on the restricted street for which a building permit has previously been obtained."

The effect of these CVC regulations is to establish the authority of local jurisdictions to regulate and enforce truck weight limits within their cities, including prohibiting trucks on residential streets. See **Appendix C** for the full published text from the CVC.

4.2. CITY OF RIALTO REGULATIONS

The City of Rialto General Plan, Specific Plan, and the Municipal Code outline several goals and policies that affect existing and potential truck traffic on a local level. The truck-related items are excerpted below:

GENERAL PLAN

The City of Rialto's General Plan Circulation Element serves as a guide for the development of the circulation system within the city and for the advancement of the city as a logistics hub. The increasing number of distribution hubs, as well as new developments in neighboring cities, continue to contribute to the truck traffic on the existing roadway system. The City of Rialto has outlined goals and policies in their general plan for facilitating the movement of goods along its corridors. These include:

Goal 4-10: Provide a circulation system position as a logistics hub.

Policy 4-10.1: Designate and enforce truck routes for use by commercial trucking as part of the project approval process.

Policy 4-10.2: Coordinate truck routes with adjacent jurisdictions.

Policy 4-10.3: Develop appropriate noise mitigation along truck routes to minimize noise impacts on nearby sensitive land uses

Policy 4-10.4: Encourage the development of adequate on-site loading areas to minimize interference of truck loading activities with efficient traffic circulation on adjacent roadways.

Policy 4-10.5: Work with appropriate law enforcement agencies to regulate speed on Riverside Avenue to minimize conflicts between high-speed private vehicles and lower-speed truck traffic.

Simultaneously, these goals and policies can assist the City of Rialto in creating a truck route system that expands and aligns with truck routes in adjacent jurisdictions. They also ensure that truck traffic remains along designated routes and away from local streets or residential areas by increasing enforcement.

SPECIFIC PLANS

As the City of Rialto continues new development in open space areas or redevelopment in existing, truck traffic circulation shall be addressed during the planning stages, during construction, and for operations, as necessary. It is understood that each type of development is unique and a truck traffic circulation plan shall be established internally, through the roadway network and directed toward truck routes to the freeway system. Below provides examples of Specific Plans that have addressed truck traffic from each development including roadways that allow truck traffic, roadways to avoid, restricted access, and regulatory truck route signage.

RENAISSANCE SPECIFIC PLAN

The Renaissance Specific Plan indicates the following methodology for directing truck traffic within the study area:

The truck routes in and around Renaissance are intended to direct on-site truck traffic westward to Alder Avenue and away from residential areas. Truck traffic is accommodated along Baseline Road, Alder Avenue, Ayala Drive, Laurel Avenue, Walnut Street, and Miro Way. All roadways south of Miro Way and north of Renaissance Parkway accommodate truck traffic. On-site truck traffic will be directed to Alder Avenue through the use of directional signage at business driveways. Truck trips are restricted to local deliveries (no through trips) on those portions of 1) Linden Avenue and Renaissance Parkway that are adjacent to residentially designated areas, and 2) Casmalia Street, Renaissance Parkway, and Baseline Road west of Alder Avenue.

AGUA MANSA SPECIFIC PLAN

The Agua Mansa Specific Plan indicates the following methodology for directing truck traffic within the study area:

One final consideration is the preclusion of truck traffic from certain roadways, although it should be noted that probably all roadways within the project area presently carry some truck traffic. The specific roadways upon which truck traffic should be limited include El Rivino Road and Halt Avenue (north of El Rivino). Properties abutting these roadways should be developed by deriving access from Agua Mansa Road and Riverside Avenue to discourage truck traffic on residential streets.

MUNICIPAL CODE

The City of Rialto has established regulations for trucks traveling along city corridors in the Municipal Code. Relevant sections of the Municipal Code are excerpted below.

Chapter 10.40 TRUCKS

Sections:

10.40.010 Routes.

A. Whenever any resolution of this city designates and describes any street or portion thereof as a street the use of which is permitted by any vehicle exceeding a maximum gross weight limit of five tons, the city engineer is authorized to designate such street or streets by appropriate signs as "truck routes" for the movement of vehicles exceeding a maximum gross weight limit of five tons.

B. When any such truck route or routes are established and designated by appropriate signs the operator of any vehicle exceeding a maximum gross weight limit of five tons shall drive on such route or routes and none other except that nothing in this section prohibits the operator of any vehicle exceeding a maximum gross weight of five tons coming from a "truck route" having ingress and egress by direct route to and from restricted streets when necessary for the purpose of making pickups or deliveries of goods, wares and merchandise from or to any building or structure located on such restricted streets or for the purpose of delivering materials to be used in the actual and bona fide repair, alteration, remodeling or construction of any building or structure upon such restricted streets for which a building permit has previously been obtained therefor.

C. The provisions of this section shall not apply to:

1. Passenger buses under the jurisdiction of the public utilities commission.
2. Any vehicle owned by a public utility while necessarily in use in the construction, installation or repair of any public utility.
3. The parking or storing of a commercial vehicle on a residential lot that has been approved by a conditional development permit of the planning commission under the provisions of Section 18.58.040(C)(6).

D. Those streets and parts of streets established by resolution of the council are declared to be truck routes for the movement of vehicles exceeding a maximum gross weight of five tons

10.40.020 Commercial vehicles prohibited on certain streets.

A. Whenever any resolution of this city designates and describes any street or portion thereof as a street the use of which is prohibited by any commercial vehicle, the city engineer shall erect and maintain appropriate signs on those streets affected by such ordinance.

B. Those streets and parts of streets established by resolution of the council are declared to be streets, the use of which is prohibited by any commercial vehicle towing a trailer and by any commercial vehicle exceeding a maximum gross weight limit of ten thousand pounds is prohibited.

C. The provisions of this section shall not apply to:

1. Passenger buses under the jurisdiction of the public utilities commission;
2. Any vehicle owned by a public utility while necessarily in use in the construction, installation or repair of any public utility;
3. The parking or storing of a commercial vehicle on a residential lot that has been approved by a conditional development permit of the planning commission under the provisions of Section 18.58.040(C)(6).

Chapter 10.41 INTERSTATE TRUCKS

Sections:

10.41.010 Definitions.

The following words and phrases shall have the meanings set forth, and if any word or phrase used in this chapter is not defined in this section, it shall have the meanings set forth in the California Vehicle Code; provided, that if any such word or phrase is not defined in the vehicle code, it shall have the meaning attributed to it in ordinary usage.

A. "Caltrans" means the state of California Department of Transportation or its successor agency.

B. "City engineer" means the city engineer of the city or his/her authorized representative.

C. "Interstate truck" means a truck tractor and semi-trailer or truck tractor, semi-trailer and trailer with unlimited length as regulated by the vehicle code.

D. "Terminal" means any facility at which freight is consolidated to be shipped or where full load consignments may be loaded and off loaded or at which the vehicles are regularly maintained, stored or manufactured.

10.41.020 Purpose.

The purpose of this chapter is to establish procedures for terminal designation and truck route designation to terminals for interstate trucks operating on a federally designated highway system and to promote the general health, safety and welfare of the public.

10.41.030 Application.

A. Any interested person requiring terminal access for interstate trucks from the federally designated highway system shall submit an application, on a form as provided by the city, together with such information as may be required by the city engineer and appropriate fees to the city.

B. Upon receipt of the application, the city engineer will cause an investigation to be made to ascertain whether or not the proposed terminal facility meets the requirements for an interstate truck terminal. Upon his/her approval of that designation, he/she will then determine the capability of the route required and alternate routes, whether requested or not. Determination of route capability will include, without limitation, a review of adequate turning radius and lane widths of ramps, intersections and highways and general traffic conditions such as sight distance, speed and traffic volume. No access off a federally designated highway system will be approved without the approval of Caltrans.

C. Should the requested route pass through the city to a terminal located in another jurisdiction, the applicant shall comply with that jurisdiction's application process. Coordination of the approval of the route through the city will be the responsibility of the entity which controls the terminal's land use. Costs for trailblazer signs shall be as provided in Section 10.41.040B.

10.41.040 Fees and costs.

A. The applicant shall pay a nonrefundable application fee, as established by the city by resolution, sufficient to pay the cost of the review of the terminal designation and the review of the route and alternate route.

B. Upon the approval of the terminal designation and route by the city and by Caltrans, the applicant shall deposit with the city sufficient funds as estimated by the city engineer to pay for the purchase and installation of terminal trailblazer signs. Trailblazer signs will be required at every decision point

in the city on route to the terminal. Upon completion of the installation of the signs, the actual cost shall be computed and any difference between the actual and the estimated cost shall be billed or refunded to the applicant, whichever the case may be. No terminal or route may be used until such signs as may be required are in place. Costs for trailblazer signs may be proportioned in accordance with the procedures in Section 10.41.050C.

10.41.050 Retrofitting.

A. If all feasible routes to a requested terminal are found unsatisfactory by the city engineer, the applicant may request retrofitting the deficiencies. All costs of engineering, construction and inspection will be the responsibility by the applicant. Except when the retrofitting of deficiencies is within the jurisdiction of Caltrans, the actual construction will be done by the city or by a contractor acceptable to it.

B. When the work is to be done by the city, the applicant shall deposit with the city the estimated cost of retrofitting. Adjustments between the estimated and actual cost shall be made after completion of the work and any difference between the actual and the estimated cost shall be billed or refunded to the applicant as the case may be. When the work is done by the applicant, the applicant may file with the city engineer, on a form satisfactory to the city engineer, a statement detailing the actual cost of the retrofitting.

C. If at any time within five years from the date of completion of the retrofitting by the applicant, should any applicant seek terminal approval which would use the route upon which such retrofitting was accomplished, any such applicant's fee may include that applicant's proportionate share of retrofitting, as determined by the city engineer, which fee shall be disbursed by the city to the applicant who paid for the retrofitting as well as to any applicant who contributed to the cost of retrofitting under this subsection. Nothing herein shall require the payment of a proportionate fee if the applicant doing the work failed to file the report with the city engineer required by subsection B of this section.

10.41.060 Revocation of route.

The city engineer may revoke any approved terminal or route if the terminal or route becomes a traffic hazard for vehicular traffic. A safety hazard includes the inability of interstate trucks to negotiate the route or said vehicles causing unsafe driving conditions for other vehicular traffic or pedestrians.

10.41.070 Appeal process.

A. If the city engineer denies terminal designation, route feasibility or revokes a previously approved terminal or route, the applicant/terminal owner, within fifteen days following the date of receipt of the decision of the city engineer, may appeal said decision to the city council in writing. An appeal shall be made on a form prescribed by the department of public services and shall be filed with the city clerk. The appeal shall state specifically wherein there was an error or abuse of discretion by the city engineer or wherein its decision is not supported by the evidence in the record. Within five days of the filing of an appeal, the city engineer shall transmit to the city clerk the terminal application, the sketches of the revoked route and all other data filed therewith, the report of the city engineer, the findings of the city engineer and his/her decision on the application.

B. The city clerk shall make copies of the data provided by the city engineer available to the applicant and to the appellant (if the applicant is not the appellant) for inspection and may give notice to any

other interested party who requested notice of the time when the appeal will be considered by the city council.

C. If Caltrans and not the city engineer denies or revokes terminal access from federally designated highways, no appeal may be made to the city council, but must be made to Caltrans as may be permitted by Caltrans.

4.3. TRUCK ROUTE SIGN POLICY

The CVC Section 35701 provides the City of Rialto the authority to erect signs for residential districts prohibiting the use of a street by any commercial vehicle or by any vehicle exceeding a maximum gross limit. The Rialto Municipal Code (section 10.40.020) compels the City to erect signs on any street that is not a designated truck route, as excerpted below.

"Whenever any resolution of this city designates and describes any street or portion thereof as a street the use of which is prohibited by any commercial vehicle, the city engineer shall erect and maintain appropriate signs on those streets affected by such ordinance."

CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

The California Manual of Uniform Traffic Control Devices (CAMUTCD) 2104 edition provides guidance and standards for the usage of truck signs along truck routes. The relevant sections are excerpted below.

Section 2B.31 TRUCKS USE RIGHT LANE Sign (R4-5)

Guidance:

01 If an extra lane has been provided for trucks and other slow-moving traffic, a SLOWER TRAFFIC KEEP RIGHT (R4-3) sign, TRUCKS USE RIGHT LANE (R4-5) sign, or other appropriate sign should be installed at the beginning of the lane.

Option:

02 The SLOWER TRAFFIC KEEP RIGHT sign may be used as a supplement or as an alternative to the TRUCKS USE RIGHT LANE sign. Both signs may be used on multi-lane roadways to improve capacity and reduce lane changing.

03 The TRUCKS USE RIGHT LANE (R4-5) sign may be used on multi-lane roadways to reduce unnecessary lane changing.

Guidance:

04 If an extra lane has been provided for trucks and other slow-moving traffic, a Lane Ends sign should be installed in advance of the point where the extra lane ends. Appropriate pavement markings should be installed at both the upstream and downstream ends of the extra lane

Option:

06 The TRUCKS 3 AXLES OR MORE RIGHT 2 LANES ONLY (R6-3A(CA)) sign may be used on divided highways having four or more lanes for traffic in one direction where this type of vehicle, unless designated, is restricted to the two right lanes. See CVC 21655 and 22348(c).

Standard:

08 The END TRUCK LANE (R53A(CA)) sign shall be placed at the end of a truck lane.

11 A TRUCK LANE (R4-6) sign shall be placed in advance of the truck lane. An END TRUCK LANE (R53A(CA)) sign shall be placed at the end of the restriction.

Option:

12 The TRUCKS USE RIGHT LANE (R4-5) sign may be placed to advise trucks that they must use the right lane except to pass slow moving vehicles as provided in CVC 21654.

R4-3

R4-5

R4-6

R6-3A (CA)

R53A (CA)

Section 2B.39 Selective Exclusion Signs

Support:

01 Selective Exclusion signs give notice to road users that State or local statutes or ordinances exclude designated types of traffic from using particular roadways or facilities.

Standard:

02 If used, Selective Exclusion signs shall clearly indicate the type of traffic that is excluded.

Support:

03 Typical exclusion messages include:

A. No Trucks (R5-2)…
C. NO COMMERCIAL VEHICLES (R5-4)…
D. NO TRUCKS (VEHICLES) WITH LUGS (R5-4)

Guidance:

05 If an exclusion is governed by vehicle weight, a Weight Limit sign (see Section 2B.59) should be used instead of a Selective Exclusion sign.

07 The Selective Exclusion sign should be placed on the right-hand side of the roadway at an appropriate distance from the intersection so as to be clearly visible to all road users turning into the roadway that has the exclusion…

Option:

09 The NO TRUCKS (R5-2a) word message sign may be used as an alternate to the No Trucks (R5-2) symbol sign.

Support:

11 Refer to CVC 21101 through 21104, 22402 through 22405 and 35650 through 35755 for Truck Exclusion signs.

12 The No Trucks (R5-2) sign is used together with a Truck Exclusion (R20D(CA) Series) plaque to specify the maximum width or other restrictions in effect.

Guidance:

13 An alternative route should be evaluated for height, weight and size restrictions. Appropriate signs should be posted along the route to advise motorists of any restrictions.

Option:

14 Advance signs may be necessary to give trucks an opportunity to turn around and retrace their path or select another route.

Standard:

15 The R5-2 signs shall be placed at each end of the affected portion of a highway section. They shall be placed at a distance of not more than 500 feet from the ends of an affected bridge or structure.

Option:

17 The R21(CA) sign, when used with the Weight Limit (R12-5) sign, may be placed on the same post.

18 The Truck Length Limit (R20H(CA)) sign may be used at locations where a semi-truck over 65 feet in length and a semitruck with trailer over 75 feet in length is prohibited.

19 The No Trucks Variable Message (R20-1(CA)) sign may be used with an advance guide sign where there is a truck restriction.

R5-2

R5-2a

R5-4

R5-5

R20-1 (CA)

R20D-1 (CA)

R20D-2 (CA)

R20D-3 (CA)

R20D-4 (CA)

R20H (CA)

Section 2B.59 <u>Weight Limit Signs (R12-1 through R12-5)</u>

Support:

08 Refer to CVC 21101 through 21104 and 35650 through 35755 for Weight Limit signs.

09 Also refer to Section 2B.39.

Standard:

10 The Weight Limit (R12-1, R12-5 and R20A(CA)) signs shall be used to specify restrictions of trucks on a bridge, structure or highway.

Support:

11 The No Trucks (R5-2) sign is used together with a Truck Exclusion plaque (R20D(CA) Series) to specify the maximum weight limit in effect.

Standard:

12 The weight limit signs shall be placed at each end of the affected portion of a highway section. They shall be placed at a distance of not more than 500 feet from the ends of an affected bridge or structure.

Option:

13 The Black on Yellow Weight Limit signs (W20(CA) and W20A(CA)) may be used in combination with Distance Ahead Plaque (W34A(CA)), far enough in advance to allow the vehicle operator to select an alternate route.

14 The Commercial Vehicle Weight Exclusion (R36(CA)) sign may be used to indicate vehicles over ___ tons are prohibited from certain streets and highways.

Guidance:

15 An alternative route should be evaluated for height, weight and size restrictions. Appropriate signs should be posted along the route to advise motorists of any restrictions.

Option:

16 Advance signs may be necessary to give trucks an opportunity to turn around and retrace their path or select another route.

R12-1

R12-5

R20A (CA)

R36 (CA)

Section 2B.61 <u>TRUCK ROUTE Sign (R14-1)</u>

Guidance:

01 The TRUCK ROUTE (R14-1) sign should be used to mark a route that has been designated to allow truck traffic.

Option:

02 On a numbered highway, the TRUCK (M4-4) auxiliary sign may be used (see Section 2D.20).

Support:

03 Refer to CVC 21101 through 21104 and 35701 through 35715.

04 Generally, Caltrans is not unilaterally authorized to prohibit truck travel on State highways. Various sections in the California Vehicle Code allow cities and counties to restrict, by ordinance, commercial vehicles subject to the specific conditions in those sections.

Standard:

05 Generally, no such local ordinance shall be effective with respect to any State highway until the ordinance has been approved by Caltrans. This approval shall be made by the Caltrans Director.

06 The proposed local ordinance shall designate an unrestricted alternate route, or routes, for use by the prohibited vehicles. Such proposed local ordinances shall not be approved unless the alternate route, or routes, are considered suitable by Caltrans.

07 An investigation of designated alternate routes shall be made with special attention being given to the following features:

1. **Geometrics.**
2. **Increase in distance of travel and comparisons in time of travel.**
3. **Railroad grade crossings.**
4. **Present traffic and practical capacity of proposed alternates.**
5. **Structural adequacy of pavement for heavy truck traffic.**
6. **Heavy grades.**
7. **Proximity to schools or school routes.**
8. **Developed residential areas.**

R14-1

M2-2

R14-1 (MOD)

Enforceability

CVC Section 21461 (a) states that "it is unlawful for a driver of a vehicle to fail to obey a sign or signal defined as regulatory in the federal Manual on Uniform Traffic Control Devices, or a Department of Transportation approved supplement to that manual of a regulatory nature erected or maintained to enhance traffic safety and operations or to indicate and carry out the provisions of this code or a local traffic ordinance or resolution adopted pursuant to a local traffic ordinance, or to fail to obey a device erected or maintained by lawful authority of a public body or official."

The effect of these CVC and MUTCD regulations is to establish the authority of local jurisdictions to regulate and enforce truck weight limits and signage within their cities, including prohibiting trucks on residential streets.

5.0 EXISTING CONDITIONS OBSERVATIONS

ADVANTEC conducted a field review of the existing truck routes, signage, and truck traffic to determine any areas of concerns. The following is a list of observations that were compiled from a field review in February 2021.

Existing Routes

- No trucks allowed along Casa Grande per posted signs
- No trucks allowed along Ayala Drive between SR-210 freeway and Baseline Road per posted signs
- Trucks allowed along Agua Mansa per posted signs
- No through access Alder Avenue between Summit Avenue and Lake Paddle Lane

Truck Route Signs

- Truck Route signs along Riverside Avenue east of Ayala Drive (not a designated truck route)
- No existing truck route signs along Valley Boulevard within City limits (designated truck route)
- No existing truck route signs along Locust Avenue within City limits (designated truck route)
- No existing truck route signs along Renaissance Parkway (designated truck route)
- No existing truck route signs along Casmalia Street (designated truck route)
- No trucks allowed signage on Cedar Avenue between Casmalia Street and Baseline (designated truck route)

Figure 9 illustrates existing signs that were located along existing truck routes. The objective was to obtain a general idea of the conditions of existing signage on existing truck routes. This should not be taken as a complete inventory of every erected truck route sign.

Truck Traffic Observations

- Truck traffic queueing westbound along Miro Way
- Truck traffic queuing northbound along Locust Ave (into Amazon warehouse)
- Trucks observed traveling along Jurupa Avenue within City Limits
- Trucks observed traveling along Lilac Avenue between Jurupa Avenue and Slover Avenue
- Trucks observed along Cactus Avenue between El Rivino Road and Jurupa Avenue

Figure 10 illustrates the truck route observations.

Figure 9 – Existing Truck Route Signage

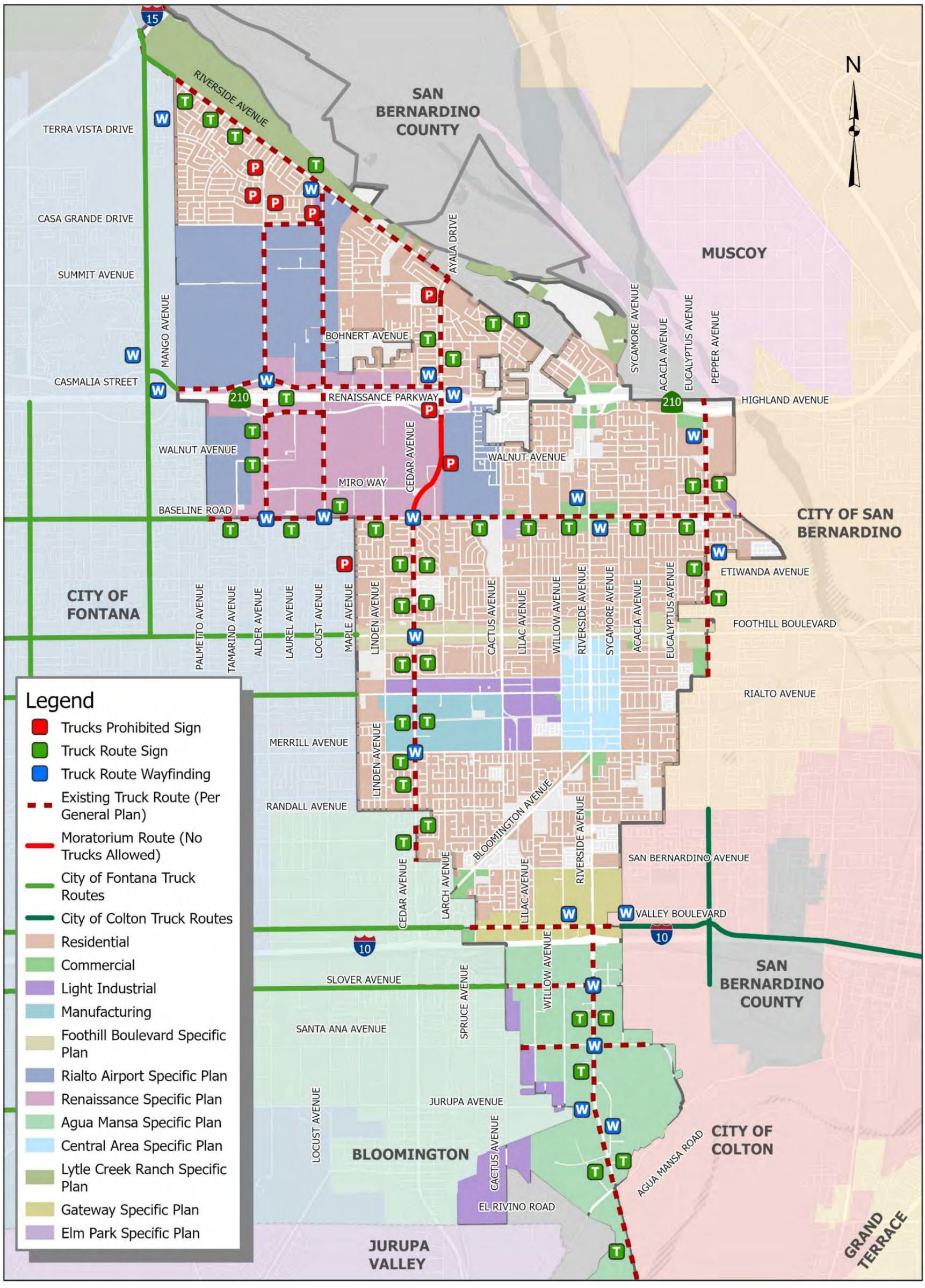
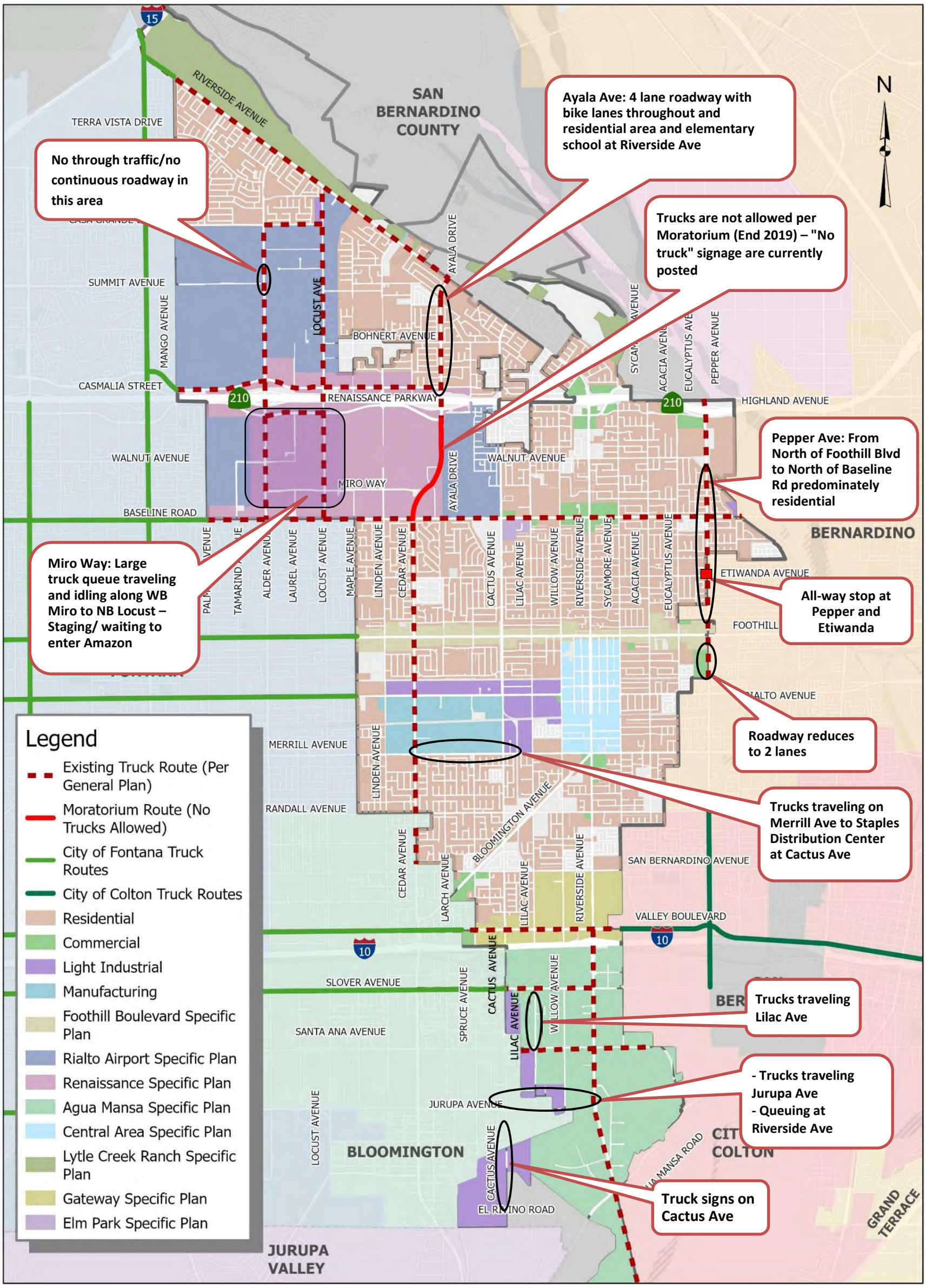


Figure 10 – Truck Route Observations



6.0 PUBLIC OUTREACH

Public outreach is integral to bringing a cooperative view about an issue by bringing a broader spectrum of community member's opinions and concerns together. With this is mind, ADVANTEC conducted a series of outreach meetings with different members of the Rialto community to better identify the public's values, ideas and recommendations. The following groups were contacted during the development of this truck route study:

- Economic Development Committee (EDC)
- Rialto Police Department
- Community Ambassador Program
- Community Engagement
- Transportation/Planning Commission
- Business/Logistics Industry
- City Council
- Adjacent Cities

Economic Development Committee (EDC)

The Economic Development Committee (EDC) is responsible for diversifying Rialto businesses, creating employment opportunities, and facilitating redevelopment within the city. As stakeholders, it was imperative to obtain their feedback on this study and the future truck route system that could potentially run adjacent to these businesses and provides access to one of the city's largest industries. On February 24, 2021, ADVANTEC presented the EDC with the purpose of the truck route study, a project overview, preliminary evaluation approach, and potential truck routes to be analyzed. The committee was given the opportunity to comment on the approach established and make any recommendations on streets to be analyzed as potential truck routes. As a result, ADVANTEC was able to better understand the committee's concerns and address them as the study was developed.

A follow up meeting was held with mem

Rialto Police Department

The Rialto Police Department was consulted during the initial research stage and throughout the development of this truck route study. On May 10, 2021, ADVANTEC held a meeting with the police department to obtain their concerns and recommendations on the direction of the truck route study and to pinpoint areas that they recommended to be analyzed. The result of these meetings was a deeper understanding on what the main concerns of the police department were. This included, existing truck routes they believed should be removed, recommendations on new truck route locations, and locations where truck route access would not be feasible. The comments received from the Rialto Police Department were essential for the development of the truck route recommendation of Section 8 of this report.

Community Ambassador Program (CAP)

The Community Ambassador Program (CAP) was established to give individuals who live or work in the City of Rialto a chance to be more involved in the community and gain a better understanding of the various services offered by our police department. The 8-week program provides participants with a unique insight into law enforcement operations. ADVANTEC was invited to attend a CAP meeting on October 13, 2021, where the truck study efforts were presented to attendees. The purpose was to inform the residents that the City is developing a truck study and to receive any input they may have regarding existing or potential truck routes and any observations of trucks using roadways that are not designated as truck routes.

Community Engagement

Community engagement can present opportunities for residents to better understand an issue and its impacts and to see local agency challenges as well. This kind of knowledge, integrated appropriately into local decision making, helps ensure that public decisions are optimal for the community and best fit their current conditions and needs. ADVANTEC held a Public Engagement meeting on May 6, 2021, and on November 16, 2021, to gather an understanding from community members on what their biggest concerns are with the existing truck route network. Residents of Rialto were invited to the virtual meeting and attendees were presented with a questionnaire on their level of understanding of the truck route network and their concerns. The result was a more collective view of resident's concerns and issues with the current state of the truck route system. The meeting invite, blank survey, and completed surveys received can be found in **Appendix D**.

Figure 11 illustrates the comments received during the community engagement meetings.

Transportation and Planning Commission

One of the main functions of the Rialto Transportation Commission to act in an advisory capacity to the city council in the review and development of systems, facilities, plans, policies and programs, which relate to public transportation and circulation within the City. They also assist with reports or studies for vehicle regulatory conditions. The Rialto Planning Commission is dedicated to planning, land use regulation, and community development. ADVANTEC attended a joint Transportation and Planning Commission meeting on June 2, 2021, in which the attendees were presented with the purpose of the truck route study, a project overview, preliminary evaluation approach, and potential truck routes to be analyzed. The commissions were given the opportunity to comment on the approach of the study in which they recommended key points to be included in the report and existing truck route regulations to be analyzed.

Business/Logistics Industry

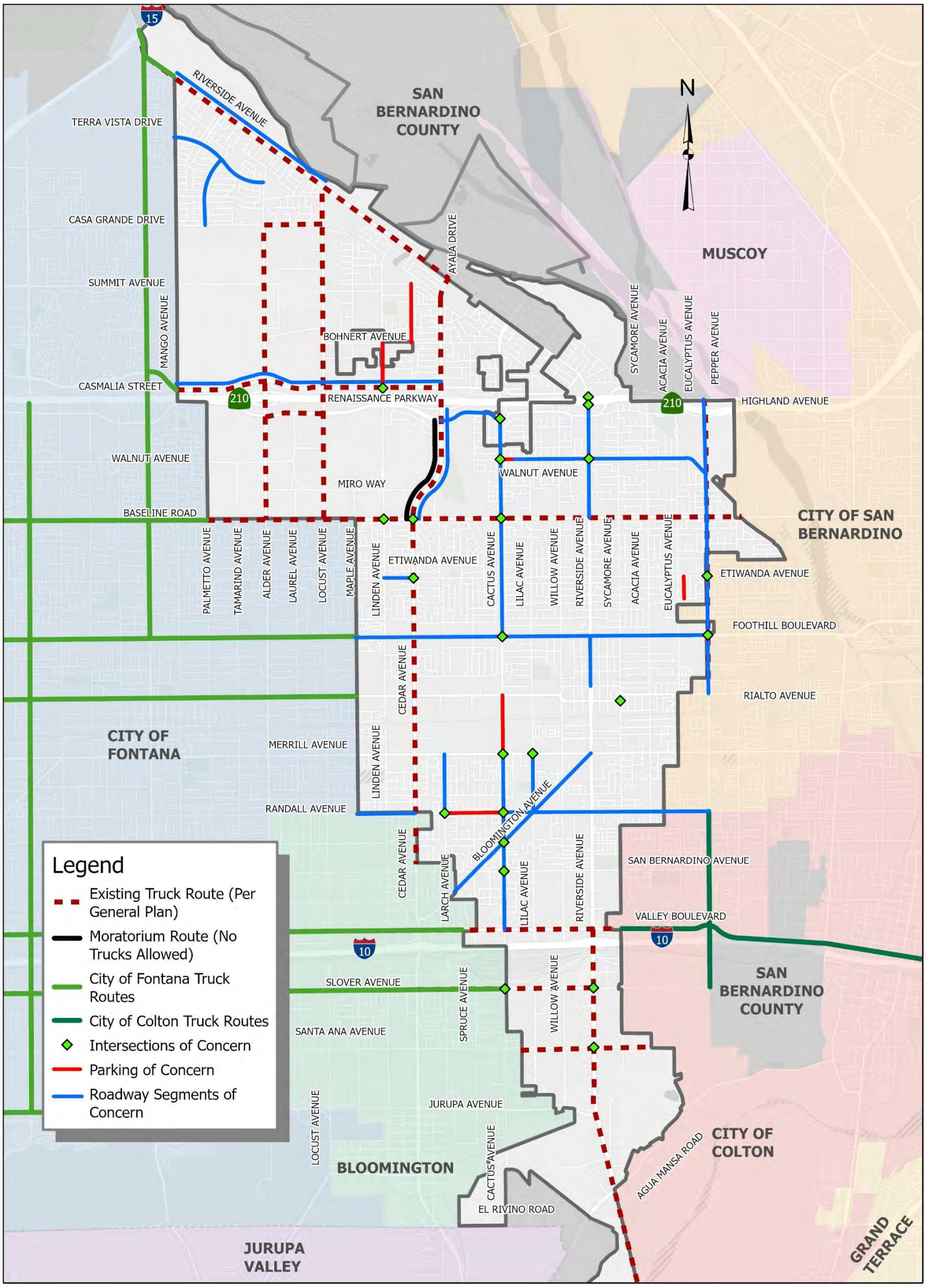
ADVANTEC consulted with William Blankenship, a business/local industry representative and advisor. William works with logistics facilities and is involved in the Inland Empire National Association for Industrial and Office Parks (NAIOP) Chapter. His input was imperative to ensure that any proposed truck routes do not interfere with future lots/zones that may have sensitive impacts. ADVANTEC was in coordination with Mr. Blankenship throughout the development of this report and his recommendations and input were used in developing the future truck route network in the City of Rialto.

ADVANTEC consulted with Timothy Hou, he manages economic development policy at Amazon. This includes business logistics and operations. The purpose of the truck route study was presented, and he provided information about Amazon's current operations and circulation. This assisted with our evaluation of the truck routes in the City of Rialto.

Adjacent Cities

One important component to updating a truck route map is continuity. It was important to ensure each potential truck route enhanced the overall regional truck network. Coordination efforts with adjacent cities, such as Jurupa Valley, Fontana, Colton, Unincorporated San Bernardino, and Riverside to were executed to determine the status of their truck route networks. The result was the ability to recommend potential truck routes along segments that would complete any existing gaps in the regional truck route network.

Figure 11 – Community Concerns



7.0 EVALUATION OF EXISTING AND POTENTIAL TRUCK ROUTES

Before developing any recommendation to the existing truck route network, it was imperative to collect all available information that would aid in determining what street segments were suitable to be designated as a truck route and what street segments would need further enforcement to deter trucks from utilizing non-designated streets to travel throughout the City. In addition to evaluating the available data, stakeholders and the community were contacted to showcase the developing truck route study in order to take into consideration their concerns and opinions on the existing condition of the truck network. As outlined, in Chapter 6 of this report, ADVANTEC conducted a series of outreach meetings to meet with different interest groups and obtain some insight on areas that this truck study should focus on. The following is a list that was consulted to develop the recommendation as outlined in Chapter 8 of this report.

- Existing Truck Route Map per the City of Rialto General Plan
- Land Use Map per the City of Rialto General Plan
- Street Classification per the City of Rialto General Plan
- Average Daily Traffic Volumes
- Axle Classification Counts
- Other agency truck routes for continuity
- Input from Rialto Police Department
- Input from City officials
- Input from Economic Development Committee
- Input from Transportation and Planning Commission
- Public Outreach Meeting

Altogether, every component that was gathered during the development of this truck route study, as outlined above, was utilized when establishing recommendations to the truck route network and truck route policies.

7.1. TRUCK STUDY CORRIDORS

The truck routes corridors to be evaluated in this study were selected based on existing truck routes, corridors with known truck traffic, and corridors near existing and new commercial developments and big box warehouses. In addition, meetings and public outreach were conducted with City of Rialto staff and stakeholders to obtain the community's input and concerns related to truck routes and truck traffic.

Figure 12 illustrates evaluated truck routes based on input from stakeholder meetings and observations.

Figure 13 shows the evaluated truck routes including the ADT and axle count locations.

Figure 14 shows the ADT, truck volume, and truck volume percentage overlayed on the evaluated truck route map.

Figure 12 – Evaluated Truck Routes based on Input from Stakeholder Meetings and Observations

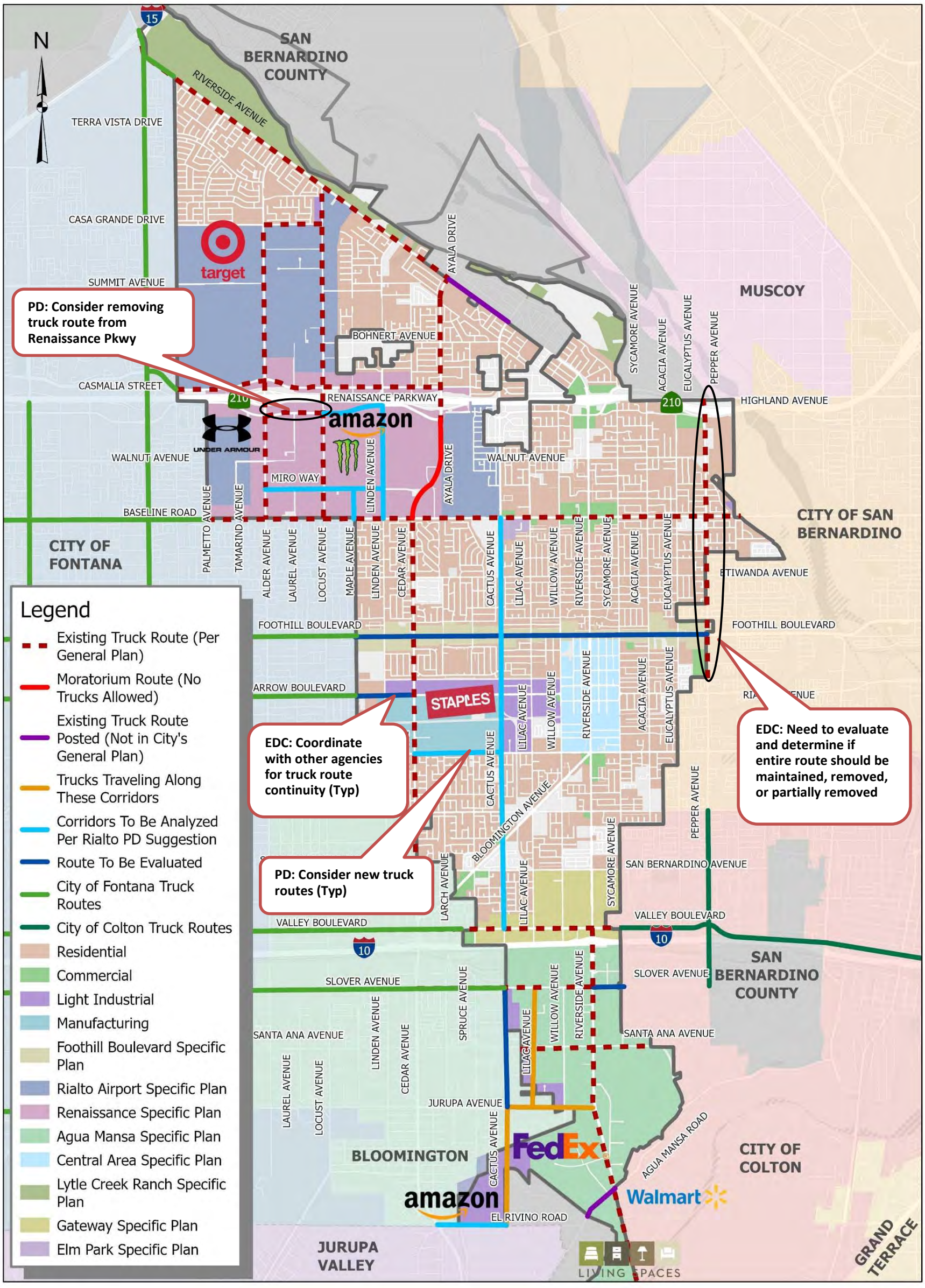


Figure 13 – Evaluated Truck Routes With ADT And Axle Count Locations

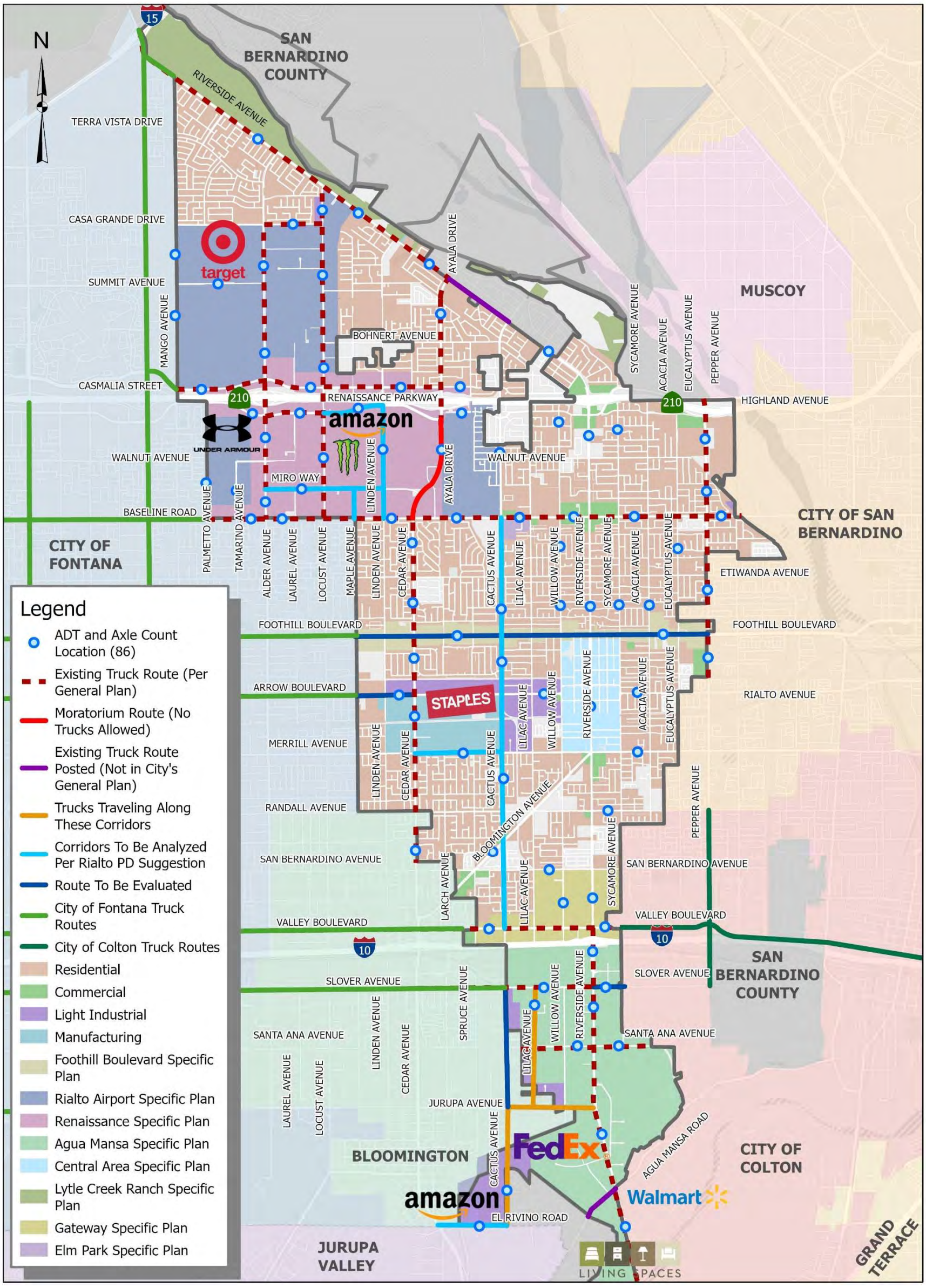


Figure 14 – Existing and Evaluated Truck Routes With ADT, Truck Volumes, and Truck Volume Percentage

8.0 RECOMMENDATIONS

Roadway characteristics are critical in determining the appropriateness of a particular truck route segment due to physical and operational limitations that need to be accounted for to accommodate trucks. For instance, adequate truck routes are roadways that are typically wider to accommodate trucks, have multiple lanes for passing, are located along industrial or commercial areas, and connect to other major roads that are part of a regional truck network. In addition to geometric limitations, there are also codes and regulations that govern when deciding on establishing a new truck route or when analyzing an existing truck route. These codes, such as the California Vehicle Code and the Rialto Municipal code, exist to assist the City in creating a strategic truck route network that will facilitate the movement of goods within the city and throughout the region.

Although codes and regulations create an integral foundation to the truck route networks, there are other aspects to consider when establishing new truck routes. These include analyzing existing truck volumes, analyzing the existing truck routes, and conducting public outreach. Each of these has been thoroughly discussed in the previous sections and have been utilized when establishing the following recommendations.

Recommendation 1—Enforcing Truck Routes

- ✓ Provide clear language within the Municipal Code to specify that MUTCD Truck Route signs (specified in Section 4 of this report) are enforceable and could result in a violation per CVC Section 21451a.
- ✓ Coordinate with Rialto Police Department for the enforcement of the established truck routes to keep trucks from using non-designated streets.
- ✓ Clarify language within the Municipal Code to specify that delivery/moving vans, garbage/recycle trucks, buses, utility service/maintenance vehicles, street sweepers, tow trucks, and emergency vehicles are exempt from truck route restriction.
- ✓ Trucks shall be allowed to detour from any designated truck route to a specific commercial or non-commercial destination so long as the alternate route selected is the most direct. The route the detouring truck takes shall impact as few residential properties as possible.

Recommendation 2—Facilitate delivery/pick up locations to official truck routes

- ✓ Designate new truck routes at areas of new industrial developments (i.e. Renaissance and Agua Mansa Specific Plans) to provide designated access to distribution centers.
- ✓ Inform concerned residents and Rialto Police Department of Municipal Code 10.40.010 and CVC Section 35703 stating that trucks cannot be prohibited from using non-designated streets if necessary to complete a delivery or a pick-up of goods.

Recommendation 3—Coordinate truck routes with existing adjacent jurisdictions

- ✓ Review surrounding jurisdictions' approved truck route maps to identify any gaps in regional truck network occurring within City boundaries. (General Plan Policy 4-10.2)
- ✓ Designate new truck routes, where feasible, along routes that adjoin with existing truck routes in neighboring cities.

Recommendation 4—Remove Truck Routes

- ✓ Remove truck routes from sensitive areas such as residential areas. (General Plan Policy 4-10.3)
- ✓ Designate alternate routes when restricting routes from any roadway (CVC 35702).

Recommendation 5—New Truck Routes

- ✓ Designate Federal Highway Administration (FHWA) National State Highway (NHS) routes as designated truck routes.
- ✓ Designate new truck routes where traffic volumes show high truck usage. Since heavy vehicle impacts can lead to roadway damages, designating a street as a truck route can facilitate the City with budgeting for street maintenance costs.

Recommendation 6—Truck Signs

- ✓ Verify all designated truck routes have truck route signs along the routes. Provide R81B "End" signs at the end of traffic routes to adequate notice to truck drivers.
- ✓ Erect restriction signs along roadways that are repeatedly in violation of the truck route policy and at locations where the amount of truck traffic substantially greater than what would be expected of a typical street of that classification.
- ✓ Develop an education program and provide necessary training for Police Department enforcement personnel, so there is a clear understanding of how to enforce the truck route signage.

PRINCIPLES FOR TRUCK ROUTE DESIGNATION

Cities are obligated to ensure that adequate, convenient truck access is provided from the regional transportation system to commercial and industrial areas. Truck routes are established, signed, and enforced to ensure that trucks use streets that are designed for the heavier vehicles. These are normally streets designated as Major or Secondary Arterial streets in the City's General Plan. Designation of truck routes permits enforcement when trucks use residential streets. In this way, truck routes are intended to support the protection of residential areas from unnecessary intrusion by trucks. The protection of residential areas can be reinforced using regulatory "No Trucks" signing. This signage can only be enforced if reasonable truck route alternatives are provided and clearly signed. However, it is not possible to define routes in Rialto that do not impact some residential areas since the arterial streets are often fronted by residential uses. This philosophy suggests that the selection and designation of truck routes should be based on the following principals:

- ✓ Adequate and convenient truck routes must be provided to commercial and industrial areas of Rialto;
- ✓ Designated routes should reflect current truck access patterns and should not attract additional trucks to streets not currently used by trucks;
- ✓ Routes should be as direct as possible and should impact as few residential properties as possible;
- ✓ The number of routes should be minimized; and
- ✓ Routes should be defined from the regional system to the commercial or industrial areas and need not define circulation within the commercial areas.

SUMMARY OF RECOMMENDATIONS

Considering the factors described above, ADVANTEC recommends designating specific routes to provide direct access from the freeway/state route system to commercial areas requiring deliveries as official truck routes. Where possible, use existing arterial streets as designated truck routes. These routes would provide truck access to the majority of truck traffic producing land uses.

8.1. RECOMMENDED TRUCK ROUTES

The following truck routes are recommended for the City of Rialto to approve and adopt as part of their truck route policy and incorporate into the City's General Plan.

- ✓ Maintain the following truck routes:
  - Riverside Avenue between Mango Avenue and Ayala Drive
  - Casa Grande Drive between Alder Avenue and Locust Avenue
  - Casmalia Street between Mango Avenue and Ayala Drive
  - Renaissance Parkway between Alder Avenue and Locust Avenue
  - Baseline Road between west city limits and east city limits
  - Valley Boulevard between west city limits and east city limits
  - Alder Avenue between Baseline Road and Casa Grande Drive
  - Locust Avenue between Baseline Road and Riverside Avenue

- Ayala Drive between I-210 freeway and Riverside Avenue
- Cedar Avenue between south city limits and Baseline Road
- Riverside Avenue between south city limits and I-10 freeway

✓ Add the following truck routes:

- Foothill Boulevard between Maple Avenue and Cedar Avenue
  - Foothill Boulevard is designated as a truck route in the City of Fontana. Therefore, this segment provides continuity as a truck route with the City of Fontana. It also provides direct access to Cedar Avenue, which is a north-south street and is designated as a truck route.
- Rialto Avenue between Maple Avenue and Cedar Avenue
  - Arrow Boulevard is designated as a truck route in the City of Fontana. It turns into Rialto Avenue in the City of Rialto. Therefore, this segment provides continuity as a truck route with the City of Fontana. It also provides direct access to Cedar Avenue, which is a north-south street and is designated as a truck route.
- Agua Mansa Road between south city limits and Riverside Avenue
  - This roadway segment is in the southerly end of the City, where the majority of land uses are "big box" type warehouses, commercial, railroad, and industrial land uses. It is also a primary route to Riverside Avenue, which is designated as a truck route. Therefore, it is recommended to add this segment as a truck route.

✓ Remove the following truck routes:

- Ayala Drive between Baseline Road and I-210 freeway
  - This truck route had a moratorium that prohibited trucks due to the redevelopment in the area until the end of 2019. Currently, the truck route wayfinding signage and truck prohibited signage along this segment are in place since moratorium, so there are not high truck volumes on this corridor.
  - Therefore, the truck travel patterns with the official removal of the truck route will relatively remain the same and provide minimal impacts to truck drivers and their routes.
  - In addition, this area has other on-going and future planned development. Due to the planned land uses (residential, shopping centers, mixed-use, etc.), it is recommended to prohibit trucks along this segment.
- Pepper Avenue between Highland Avenue and Rialto Avenue
  - Along portions of this street segment, one side of the street is the City of Rialto, and the other side is the City of San Bernardino. Currently, the City San Bernardino does not have designated truck routes in their city.
  - Between Baseline Road and Highland Avenue, there are two northbound lanes and two southbound lanes. This segment primarily provides access to residential neighborhoods.
  - Between Foothill Boulevard and Baseline Road, there is one northbound lane and two southbound lanes, and there is an all-way stop at Pepper Avenue and Etiwanda Road. The all-way stop has painted yellow crosswalks, which represents

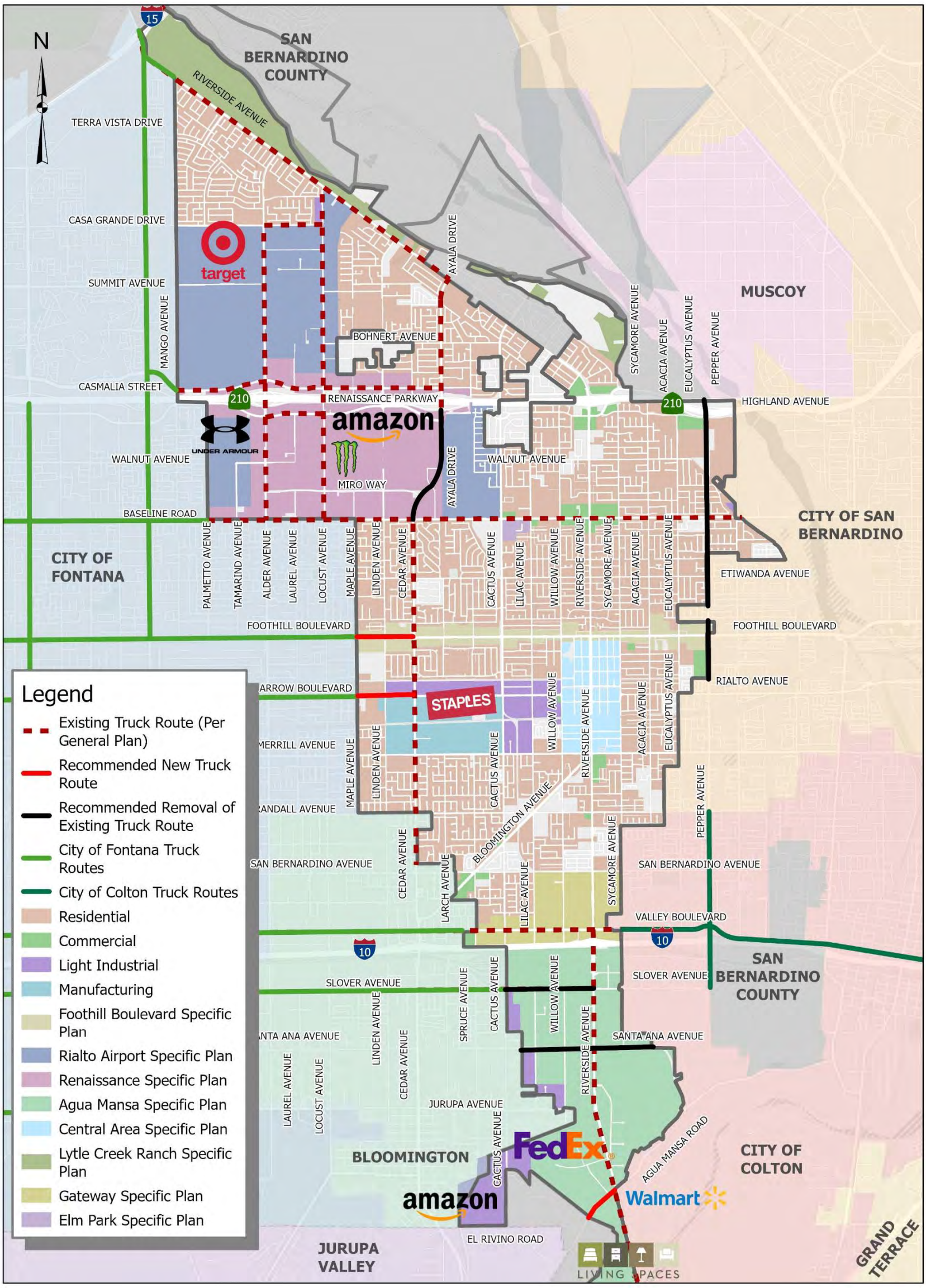
a school route, and Bemis Elementary School is located to the west. This segment primarily provides access to residential neighborhoods.

- Between Rialto Avenue and Foothill Boulevard, there is one northbound lane and one southbound lane. This has mixed use development and access to a residential neighborhood.
- Since this street segment is, 1) shared with the City of San Bernardino (which does not have designated truck routes), 2) there is an all-way stop at Pepper Avenue and Etiwanda Road and it is a school route crossing, and 3) approximately two-thirds of the segment provides access to residential, it is recommended to remove this segment as a truck route.
- Although, the segment will not be designated as a truck route, trucks may use this roadway to get to their destination per CVC Section 35703.

- Slover Avenue between Cactus Avenue and Riverside Avenue
  - Due to the provisions in CVC Section 35703, it is recommended that designating this roadway segment as a truck route is not necessary.
- Santa Ana Avenue between west city limits and east city limits
  - Due to the provisions in CVC Section 35703, it is recommended that designating this roadway segment as a truck route is not necessary.

Figure 15 illustrates the recommended truck routes.

Figure 15 – Recommended Truck Routes



8.2. RECOMMENDED SIGNAGE

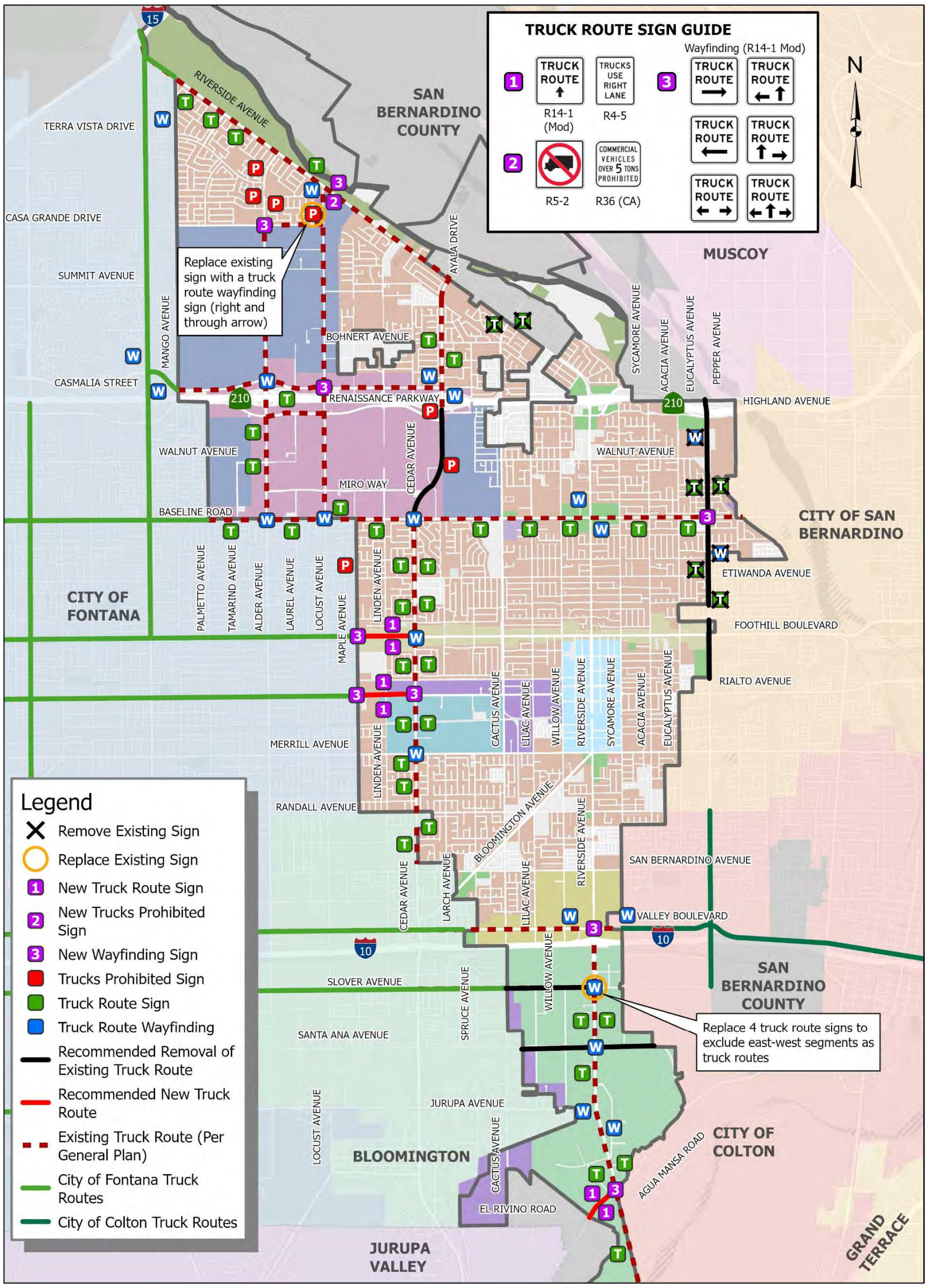
The placement of recommend signage installation and removal is based on truck route signage from the field review and truck route signage per the CAMUTCD. A summary is provided below.

- ✓ Replace existing truck wayfinding sign (Modified R14-1) for eastbound traffic at Riverside Avenue and Locust Avenue. Existing sign indicates that the truck route continues east; Replace with sign showing only right arrow.
- ✓ Install new R5-2 signs along Riverside Avenue south of Ayala Drive and north of Casmalia Street.
  - Remove existing truck route signs in each direction on this segment.
- ✓ Install new truck route wayfinding sign (modified R14-1) for the northbound traffic along Alder Avenue south of Casa Grande Drive. New sign should indicate to truck drivers that the truck route continues to the east (right arrow).
- ✓ Install new truck route wayfinding sign (modified R14-1) for the westbound traffic along Casa Grande Drive east of Alder Avenue. New sign should indicate to truck drivers that the truck route continues south (left arrow).
- ✓ Install new truck route wayfinding signs (modified R14-1) at the intersection of Casmalia Street and Locust Avenue. Truck route signs shall be for all directions and each sign shall include a through, left, and right arrow.
- ✓ Install new truck route wayfinding signs (modified R14-1) at the intersection of Baseline Road at Pepper Avenue. Truck route signs shall be posted for all directions, except for north and south of Baseline Road.
  - Remove existing truck route and wayfinding signage along Pepper Avenue.
- ✓ Install truck route signs along Foothill Boulevard east of Cedar Avenue.
- ✓ Install truck route signs along Rialto Avenue east of Cedar Avenue.
- ✓ Install new truck route wayfinding signs (modified R14-1) at the intersection of Riverside Avenue and Slover Avenue. Truck route signs shall be posted for all directions, except for west and east of Slover Avenue.
- ✓ Install new truck route wayfinding signs (modified R14-1) at the intersection of Riverside Avenue and Santa Ana Avenue. Truck route signs shall be posted for all directions, except for west and east of Santa Ana Avenue.
- ✓ Install new truck route wayfinding signs (modified R14-1) at the intersection of Riverside Avenue and Agua Mansa Road. Truck route signs shall be posted for all directions, except for east of Agua Mansa Road.
- ✓ Install truck route signs along Agua Mansa Road east of Riverside Avenue.

It is recommended for the City to install, remove, or replace the truck signage after the new truck routes are formally approved by City Council. This shall follow the City's Truck Route Policy and the CAMUTCD.

Figure 16 illustrates the recommended truck route signage and removals.

Figure 16 – Recommended Truck Route Signage



8.3. FINAL TRUCK ROUTE MAP

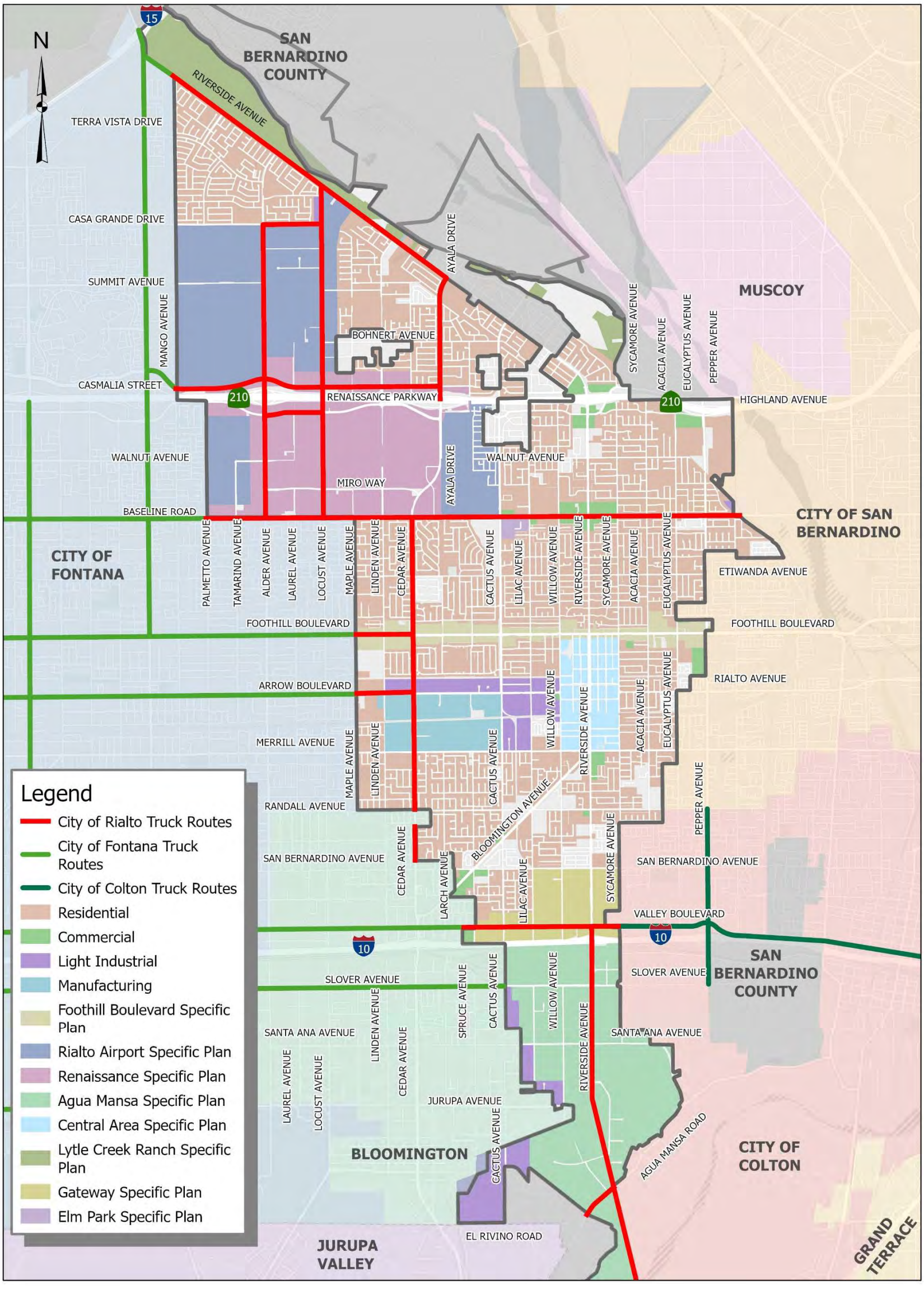
Based on the evaluation and recommendations, the following summarizes the designated truck routes Citywide including the roadway and roadway segments.

- ✓ Riverside Avenue between Mango Avenue and Ayala Drive
- ✓ Casa Grande Drive between Alder Avenue and Locust Avenue
- ✓ Casmalia Street between Mango Avenue and Ayala Drive
- ✓ Renaissance Parkway between Alder Avenue and Locust Avenue
- ✓ Baseline Road between west city limits and east city limits
- ✓ Valley Boulevard between west city limits and east city limits
- ✓ Alder Avenue between Baseline Road and Casa Grande Drive
- ✓ Locust Avenue between Baseline Road and Riverside Avenue
- ✓ Ayala Drive between I-210 freeway and Riverside Avenue
- ✓ Cedar Avenue between south city limits and Baseline Road
- ✓ Riverside Avenue between south city limits and I-10 freeway
- ✓ Foothill Boulevard between Maple Avenue and Cedar Avenue
- ✓ Rialto Avenue between Maple Avenue and Cedar Avenue
- ✓ Agua Mansa Road between south city limits and Riverside Avenue

It is recommended for these truck routes and mapping to be adopted as an amendment to the City's General Plan.

Figure 17 illustrates the final citywide truck route map.

Figure 17 – Citywide Truck Route (Final Map)



smart cities
connected vehicles
traffic engineering
traffic signal synchronization
intelligent transportation systems
transportation planning/design
landscape architecture
active transportation
civil engineering
public works

1200 Roosevelt • Irvine, CA 92620 • Tel: (949) 861-4999
21700 Copley Drive, Suite 350 • Diamond Bar, CA 91765
445 S. Figueroa St., 31st Floor, Los Angeles, CA 90071
1300 Clay Street, Suite 600 • Oakland, CA 94612
3200 E. Guasti Rd., Suite 100 • Ontario, CA 91761
1008 W. Ave. M14, Suite A/D115 • Palmdale, CA 93551
73710 Fred Waring Dr., Suite 120, Palm Desert, CA 92260
111 North Market Street, Suite 300 • San Jose, CA 95113
506 Second Ave., Suite 1400 • Seattle, WA 98104

www.advantec-usa.com