

ENVIRONMENT | PLANNING | DEVELOPMENT SOLUTIONS, INC.

Memorandum

To: Noah Rau, City of Hemet
From: Meghan Macias, T.E., Abby Pal, Senior Transportation Planner
Date: August 9, 2023
Subject: Analysis of the proposed General Plan Amendment (GPA) for the removal of the extension of Whittier Avenue segment through APN: 456-030-020

This memorandum presents an analysis of the proposed General Plan Amendment (GPA) to remove a segment of Whittier Avenue from the City of Hemet General Plan Roadway Circulation Master Plan. Currently, Whittier Avenue runs east-west extending 900 feet as a paved two-lane road originating at Warren Road providing access to pallet racking facility located at the southeast corner of the intersection of Warren Road/Whittier Avenue. Beyond these 900 feet, Whittier Avenue is a paved/unpaved dirt road terminating at the northwestern access point to Hemet-Ryan Airport. It is to be noted that primary access to Hemet-Ryan Airport is provided through Stetson Avenue.

As shown in *Figure 1* (all figures attached), per the General Plan Circulation element, Whittier Avenue is a paved Secondary 4 U between Warren Road and Sanderson Avenue. Between Sanderson Avenue and Kirby Avenue, Whittier Avenue is classified as Collector 2 U. Considering parcel configuration between Sanderson Avenue and Kirby Avenue, Whittier Avenue per General Plan Circulation element is planned edging the south of APN 456-030-010, north of APNs 456-030-038 and 456-030-038, and across parcel APN: 456-030-020 terminating at Kirby Street. The proposed GPA consists of realignment of the proposed extension of Whittier Avenue, (hereafter referred to as Whittier Avenue study segment) turning north at the terminus of Olympia Way on the east border of the Sanderson Square Specific Plan and providing access to properties to be developed in APNs 456-030-020 and 456-030-010. A parcel map is shown in *Figure 2* and the Sanderson Square Specific Plan circulation is shown in *Figure 4* for reference. Please note that the City of Hemet Zoning Map as shown in *Figure 3* does not reflect the extension of Whittier Avenue as Collector 2 U between Sanderson Avenue and Kirby Street.

Per the Zoning Map, the land use designations of the block bounded by Acacia Avenue to the north, Sanderson Avenue to the west, Kirby Street to the east and the railroad tracks to the south are comprised of C-2 (General Commercial), SP 05-3 (Sanderson Square Specific Plan), C-M (Commercial Manufacturing, and B-P (Business Park). The Sanderson Square Specific Plan, located to the west of APN: 456-030-020 identifies the termination of Whittier Avenue at the eastern boundary of the Sanderson Square Specific Plan abutting Olympia Way as shown in *Figure 4*. Given the layout of the parcels zoned B-P, namely parcels APN: 456-030-020, 456-030-018 and 456-030-019, it can be assumed that any proposed business park developments would provide project driveways from Acacia Avenue and/or Kirby Street. This GPA analysis evaluates whether Whittier Avenue could be realigned to turn north from Olympia Way on the east end of

the Sanderson Square Specific Plan to provide access to properties developed in APNs 456-030-020 and 456-030-010 without causing significant diversion of trips to adjacent roadways.

It is to be noted that although it is expected that a change in major roadways circulation may result in a change in vehicle miles traveled (VMT), no significant change is expected in terms of Citywide VMT as a result of the proposed GPA. The Whittier Avenue study segment functions as a collector in the City of Hemet General Plan Circulation Element. Collector streets are typically meant to provide access to parcels from major roadways such as primary and secondary arterials. Because Collector streets do not provide regional access, the change in regional circulation resulting from their realignment would be minimal. Therefore, no significant change in Citywide VMT is expected as a result of the proposed GPA.

Existing and Future Traffic Volumes

Existing average daily traffic (ADT) volumes on the following roadways were collected in February 2022:

- 1) Warren Road between SR-74 and Stetson Avenue
- 2) Sanderson Avenue between Acacia Avenue and Stetson Avenue
- 3) Kirby Street between Acacia Avenue and Stetson Avenue
- 4) SR-74 between Warren Avenue and Acacia Avenue
- 5) Acacia Avenue between SR-74 and Kirby Street
- 6) Stetson Avenue between Warren Road and Kirby Street

It should be noted that Stetson Avenue between Warren Road and Kirby Street can be divided into three segments: 1) between Warren Road and the railroad track; 2) between the railroad track and Sanderson Avenue; and 3) between Sanderson Avenue and Kirby Street. The existing count was taken in Segment 2 (between the railroad track and Sanderson Avenue). Segments 1 and 3 were calculated by factoring the existing roadway volume from the validated 2018 conditions from the Riverside County Transportation Analysis Model (RIVCOM). An evaluation of the existing roadway level of service (LOS) was prepared using roadway capacities from the County of Riverside General Plan Circulation Element, Figure C3. The existing traffic volumes and roadway LOS is shown in Table 1.

Table 1: Existing Roadway Volumes and Level of Service

Roadway	Limits	Classification	# of Lanes	Capacity ¹	Volume	V/C Ratio	LOS
Warren Rd	SR-74 and Stetson Ave	Arterial	6	43,100	13,190	0.306	A
Sanderson Ave	Acacia Ave and Stetson Ave	Major	4	30,700	30,746	1.001	F
Kirby St	Acacia Ave and Stetson Ave	Secondary	4	20,700	14,701	0.710	C
SR-74	Warren Ave and Acacia Ave	Arterial	6	43,100	22,184	0.515	A
Acacia Ave	SR-74 and Kirby St	Secondary	4	20,700	3,124	0.151	A
Stetson Ave	Warren Rd and RR Tracks ²	Collector	2	10,400	8,081	0.777	C
Stetson Ave	RR Tracks and Sanderson Ave	Arterial	6	43,100	8,829	0.205	A
Stetson Ave	Sanderson Ave and Kirby St ²	Major	4	27,300	21,699	0.795	C

¹ Roadway Capacities from County of Riverside Transportation Analysis Guidelines, Appendix D.

² Daily Volume on these segments was derived from the ratio between roadway segments on Stetson in the RIVCOM 2018 volumes and actual count taken on February 10, 2022 on Stetson just east of the RR tracks.

As per the City of Hemet General Plan, the acceptable roadway segment standard is LOS C. As shown in Table 1, one roadway segment is currently operating at worse than LOS C. The segment of Sanderson Avenue between Acacia Avenue and Stetson Avenue currently operates at LOS F with a volume of 30,746 vehicles per day.

General Plan Amendment Analysis

In order to evaluate the potential changes in traffic with the realignment of Whittier Avenue study to north of Olympia Way, the following traffic volumes forecasts were prepared using the RIVCOM model.

- Horizon Year (2045) with Whittier Avenue (includes Whittier Ave between Warren Rd and Kirby St)
- Horizon Year (2045) without Whittier Avenue (GPA configuration – Includes Whittier Ave between Warren Rd and Sanderson Ave only)

The baseline RIVCOM 2018 and 2045 model networks do not include Whittier Avenue between Warren Road and Sanderson Avenue as part of the network. For both the analysis scenarios stated above, Whittier Avenue between Warren Road and Sanderson Avenue was added to the network. For the Horizon Year (2045) with Whittier Avenue analysis scenario, the RIVCOM network included the Whittier Avenue study segment between Sanderson Avenue and Kirby Street as well. For the Horizon Year (2045) without Whittier Avenue, the added network was terminated at Sanderson Avenue. Two full model runs were completed for both the analysis scenarios. The trip generation and distribution to the added Whittier Avenue segments in the model runs is automatically forecast by RIVCOM as a part of the model run process based on the County model input data and parameters included in the model.

It should be noted that the realignment of Whittier Avenue to north of Olympia Way is only to provide access to properties in APNs 456-030-020 and 456-030-010. No traffic thorough fare is planned as a part of the realignment. Any traffic volumes utilizing the realigned segment of Whittier Avenue would serve future development of these parcels. As such, the two above stated model run scenarios which forecast trip distribution with Whittier Avenue terminating at Kirby Street, and with Whittier Avenue terminating at Sanderson Avenue, are sufficient to provide a comparative analysis of the proposed realignment of Whittier Avenue to north of Olympia Way and the Whittier Avenue extension to Kirby Street.

The model data was post-processed to identify the yearly growth on each roadway segment between the 2018 RIVCOM base year and the two 2045 RIVCOM Horizon year conditions for each circulation network. The growth was then applied to the existing traffic volumes shown in Table 1.

The loaded network plots from the RIVCOM model as well as the post-processing calculations are provided as an attachment. The traffic volume on each roadway segment with and without Whittier Avenue study segment are shown in Tables 2 and 3.

Table 2: 2045 Roadway Volumes and Level of Service with Whittier Avenue Study Segment

Roadway	Limits	Classification	# of Lanes	Capacity ¹	Volume	V/C Ratio	LOS
Warren Rd	SR-74 and Stetson Ave	Arterial	6	43,100	21,071	0.489	A
Sanderson Ave	Acacia Ave and Stetson Ave	Major	4	30,700	31,505	1.026	F
Kirby St	Acacia Ave and Stetson Ave	Secondary	4	20,700	18,820	0.909	E
SR-74	Warren Ave and Acacia Ave	Arterial	6	43,100	27,665	0.642	B
Acacia Ave	SR-74 and Kirby St	Secondary	4	20,700	4,067	0.196	A
Stetson Ave	Warren Rd and RR Tracks	Collector	2	10,400	18,117	1.742	F
Stetson Ave	RR Tracks and Sanderson Ave	Arterial	6	43,100	15,829	0.367	A
Stetson Ave	Sanderson Ave and Kirby St	Major	4	27,300	24,575	0.900	E

¹ Roadway Capacities from County of Riverside Transportation Analysis Guidelines, Appendix D.

Table 3: 2045 Roadway Volumes and Level of Service without Whittier Avenue Study Segment

Roadway	Limits	Classification	# of Lanes	Capacity ¹	Volume	V/C Ratio	LOS
Warren Rd	SR-74 and Stetson Ave	Arterial	6	43,100	21,089	0.489	A
Sanderson Ave	Acacia Ave and Stetson Ave	Major	4	30,700	32,122	1.046	F
Kirby St	Acacia Ave and Stetson Ave	Secondary	4	20,700	17,646	0.852	D
SR-74	Warren Ave and Acacia Ave	Arterial	6	43,100	27,656	0.642	B
Acacia Ave	SR-74 and Kirby St	Secondary	4	20,700	4,116	0.199	A
Stetson Ave	Warren Rd and RR Tracks	Collector	2	10,400	18,246	1.754	F
Stetson Ave	RR Tracks and Sanderson Ave	Arterial	6	43,100	15,830	0.367	A
Stetson Ave	Sanderson Ave and Kirby St	Major	4	27,300	25,057	0.918	E

¹ Roadway Capacities from County of Riverside Transportation Analysis Guidelines, Appendix D.

As shown in Tables 2 and 3, four of the eight study area roadway segments would operate at worse than LOS C in the 2045 condition, both with and without Whittier Avenue study segment. The same roadway segments would be deficient in both the with Whittier Avenue study segment and without Whittier Avenue study segment. Table 4 shows a comparison of the conditions in the with and without Whittier Avenue study segment Conditions for the four affected roadway segments.

Table 4: 2045 Comparison of without and with Whittier Avenue for Deficient Roadway Segments

Roadway	Limits	With Whittier Avenue Study Segment		Without Whittier Avenue Study Segment		Difference With Whittier Avenue Study Segment Removed	
		Volume	V/C Ratio	Volume	V/C Ratio	Volume	V/C Ratio
Sanderson Ave	Acacia Ave and Stetson Ave	31,505	1.026	32,122	1.046	617	0.020
Kirby St	Acacia Ave and Stetson Ave	18,820	0.909	17,646	0.852	-1,175	-0.057
SR-74	Warren Ave and Acacia Ave	27,665	0.642	27,656	0.642	-9	0.000
Stetson Ave	RR Tracks and Sanderson Ave	15,829	0.367	15,830	0.367	1	0.000

¹ Roadway Capacities from County of Riverside Transportation Analysis Guidelines, Appendix D.

As shown in Table 4, the volume and V/C ratio on Kirby Street between Acacia Avenue and Stetson Avenue would be lower with Whittier Avenue study segment removed, however it would be higher on the remaining four segments. The largest increase in volume would be 617 daily vehicles on Sanderson Avenue with an increase in the V/C ratio of 0.020. From the comparative study above, it can be concluded that the realignment of Whittier Avenue study segment to north of Olympia Way would not cause the LOS to worsen on any of the studied roadway segments and would not cause any roadway segment to deteriorate from satisfactory to unsatisfactory conditions or result in a significant impact.

Table 5 shows the current General Plan classification and the roadway configuration that would be required to achieve satisfactory roadway segment LOS on the three deficient roadway segments. It should be noted that these configurations would be required in both the without and with Whittier Avenue realignment. The proposed GPA would not cause the need for the roadway improvements and therefore is considered to have a negligible effect on roadway operations.

Table 5: Recommended Improvements for Deficient Roadway Segments

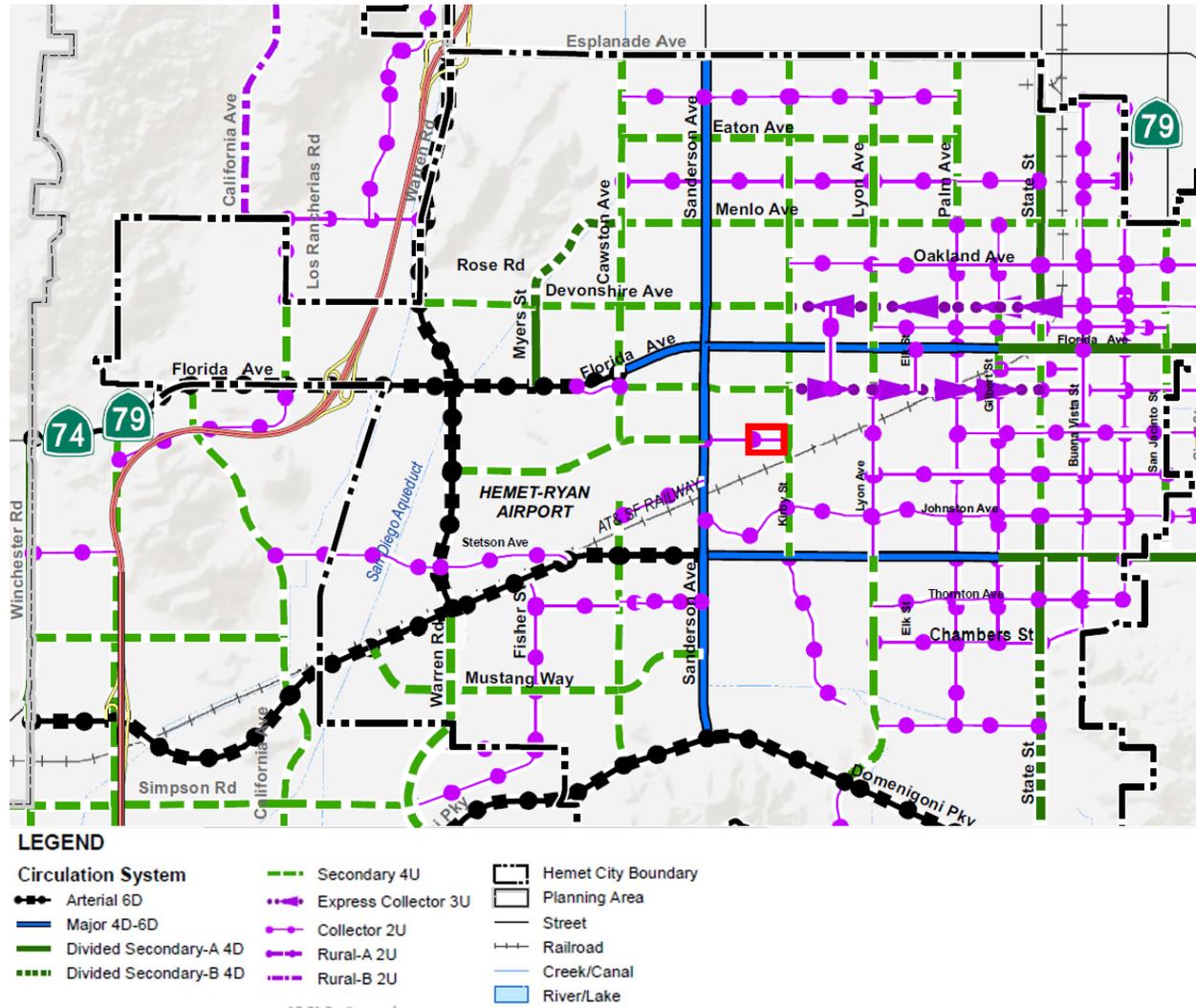
Roadway	Limits	Classification	# of Lanes	Capacity ¹	Volume	V/C Ratio	LOS
Kirby St	Acacia Ave and Stetson Ave	Secondary	4	20,700	17,646	0.852	D
		Upgrade to 4 Lane Major	4	27,300		0.646	B
Stetson Ave	Warren Rd and RR Tracks	Collector	2	10,400	18,246	1.754	F
		Upgrade to 4 Lane Major	4	27,300		0.668	B
Stetson Ave	Sanderson Ave and Kirby St	Major	4	27,300	25,057	0.918	E
		Upgrade to 6 Lane Arterial	6	43,100		0.581	A

¹ Roadway Capacities from County of Riverside General Plan Circulation Element, Figure C-3.

The City of Hemet General Plan 2030 Section 4.4.1 *Measuring Traffic Flow* states that ‘The City accepts a Level of Service below “D” for roadways and intersections at Florida and Sanderson Avenues, and at Devonshire and Sanderson Avenues, where Level of Service is affected by delays at Florida and Sanderson Avenues. As early as 1992 during a comprehensive General Plan update, the City has recognized that certain segments and intersections would exceed Level of Service “D”. These segments included portions of Florida Avenue, Stetson Avenue, and Sanderson Avenue. Measure C incorporated these problematic roads in the measure language, and portions of Florida, Sanderson and Stetson do not need to comply with Measure C’s standard. The land uses and circulation system in this General Plan have resolved the service level problems identified for Stetson Avenue; however, Florida Avenue and Sanderson Avenue would still operate below Level of Service “D” with implementation of the General Plan.’ Thus, the City has determined that any segments that operate below LOS D would not require improvements. Therefore, consistent with the City’s General Plan, no improvements are recommended on Sanderson Avenue

Section 4.4.2 *Improvements to Traffic Flow* of the City of Hemet General Plan 2030 recommends the implementation of programs that increase roadway capacity and efficiency. The section states that the City will support measures such as coordination of signal timing and spacing as well as optimizing intersection capacity and turning movements. It is recommended that the City adopt a program for coordination of signal timing and spacing for corridors where both the intersections and roadways operate at unacceptable LOS. Upcoming developments may pay fair share into the signal timing and spacing program adopted by the City to improve these corridors.

Figure 1: Existing Circulation Plan showing Proposed Segment to be Realigned



Section of Whittier Ave Extension proposed to be realigned as a part of GPA.

Figure 2: APN Map

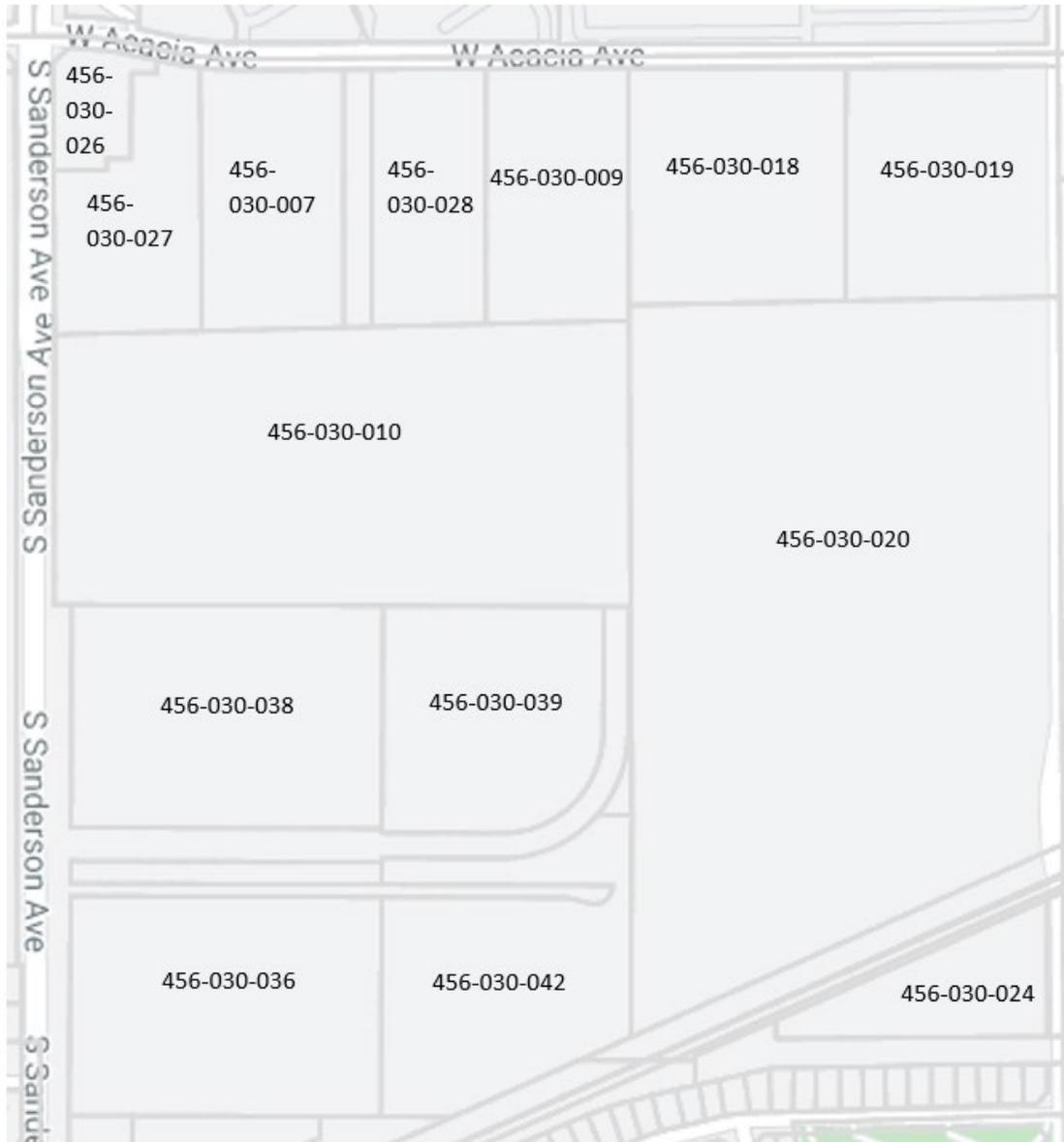
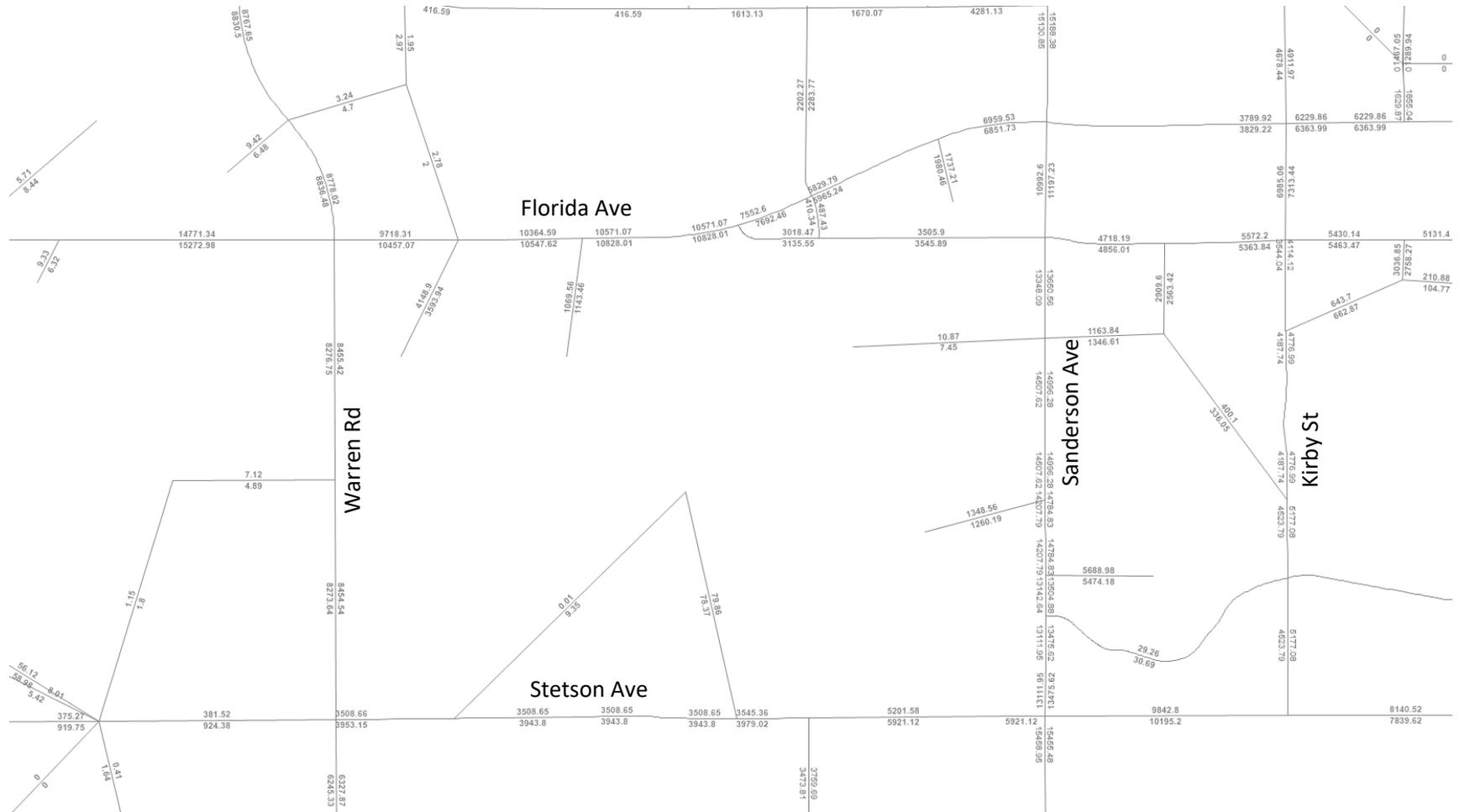


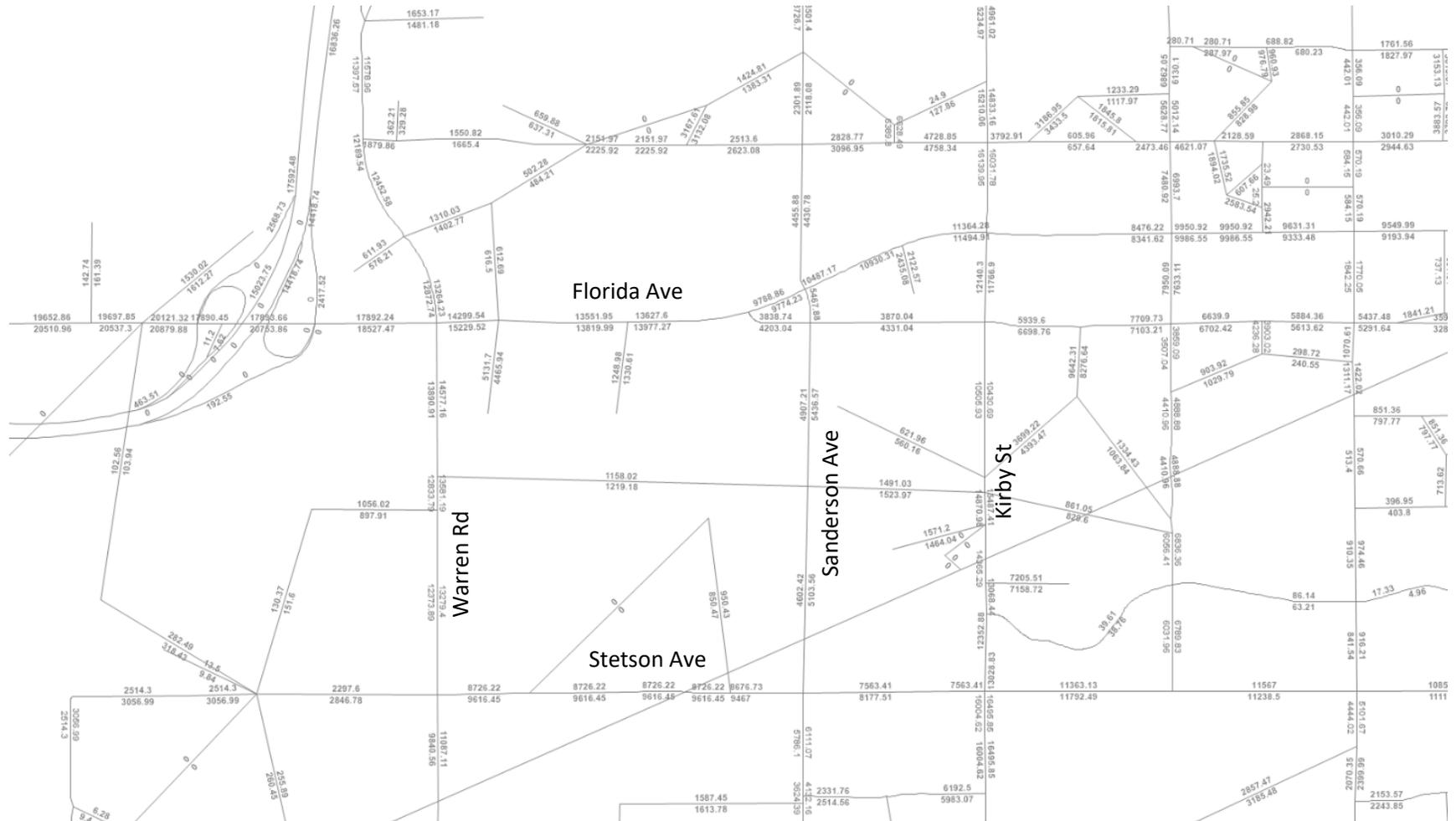
Figure 4: Sanderson Specific Plan



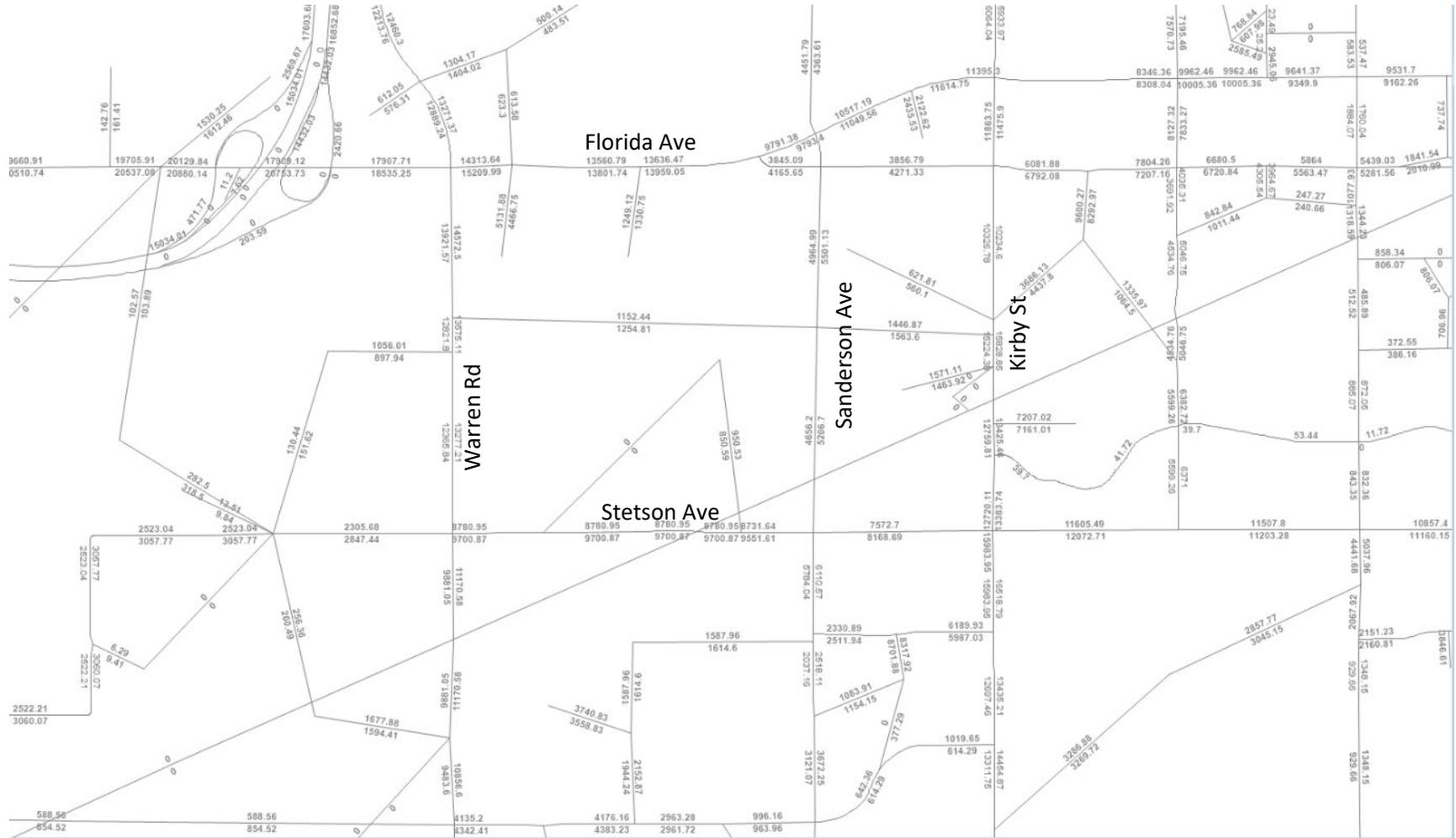
2018 RIVCOM Loaded Network Plot



2045 with Whittier Avenue RIVCOM Loaded Network Plot



2045 without Whittier Avenue RIVCOM Loaded Network Plot



Volume Development Calculations

2018 Modeled Volume		
Roadway	Limits	Volume
Warren Rd	SR-74 and Stetson Ave	16,732
Sanderson Ave	Acacia Ave and Stetson Ave	29,503
Kirby St	Acacia Ave and Stetson Ave	9,701
SR-74	Warren Ave and Acacia Ave	21,399
Acacia Ave	SR-74 and Kirby St	10,936
Stetson Ave	Warren Rd and RR Tracks	7,462
Stetson Ave	RR Tracks and Sanderson Ave	8,153
Stetson Ave	Sanderson Ave and Kirby St	20,038

2045 Modeled Volume (With Whittier)		
Roadway	Limits	Volume
Warren Rd	SR-74 and Stetson Ave	28,468
Sanderson Ave	Acacia Ave and Stetson Ave	30,358
Kirby St	Acacia Ave and Stetson Ave	12,892
SR-74	Warren Ave and Acacia Ave	27,605
Acacia Ave	SR-74 and Kirby St	14,812
Stetson Ave	Warren Rd and RR Tracks	18,342
Stetson Ave	RR Tracks and Sanderson Ave	15,741
Stetson Ave	Sanderson Ave and Kirby St	23,156

Calculate Yearly Growth Rate (with Whittier)				
Roadway	Limits	2018 - 2045 Growth	Total % Growth	Growth % per Year
Warren Rd	SR-74 and Stetson Ave	11,736	70.1%	2.60%
Sanderson Ave	Acacia Ave and Stetson Ave	855	2.9%	0.11%
Kirby St	Acacia Ave and Stetson Ave	3,191	32.9%	1.22%
SR-74	Warren Ave and Acacia Ave	6,206	29.0%	1.07%
Acacia Ave	SR-74 and Kirby St	3,876	35.4%	1.31%
Stetson Ave	Warren Rd and RR Tracks	10,880	145.8%	5.40%
Stetson Ave	RR Tracks and Sanderson Ave	7,588	93.1%	3.45%
Stetson Ave	Sanderson Ave and Kirby St	3,118	15.6%	0.58%

2045 Modeled Volume (Without Whittier)		
Roadway	Limits	Volume
Warren Rd	SR-74 and Stetson Ave	28,495
Sanderson Ave	Acacia Ave and Stetson Ave	31,053
Kirby St	Acacia Ave and Stetson Ave	11,982
SR-74	Warren Ave and Acacia Ave	27,595
Acacia Ave	SR-74 and Kirby St	15,011
Stetson Ave	Warren Rd and RR Tracks	18,482
Stetson Ave	RR Tracks and Sanderson Ave	15,742
Stetson Ave	Sanderson Ave and Kirby St	23,678

Calculate Yearly Growth Rate (with Whittier)				
Roadway	Limits	2018 - 2045 Growth	Total % Growth	Growth % per Year
Warren Rd	SR-74 and Stetson Ave	11,763	70.3%	2.60%
Sanderson Ave	Acacia Ave and Stetson Ave	1,550	5.3%	0.19%
Kirby St	Acacia Ave and Stetson Ave	2,281	23.5%	0.87%
SR-74	Warren Ave and Acacia Ave	6,196	29.0%	1.07%
Acacia Ave	SR-74 and Kirby St	4,075	37.3%	1.38%
Stetson Ave	Warren Rd and RR Tracks	11,020	147.7%	5.47%
Stetson Ave	RR Tracks and Sanderson Ave	7,589	93.1%	3.45%
Stetson Ave	Sanderson Ave and Kirby St	3,640	18.2%	0.67%

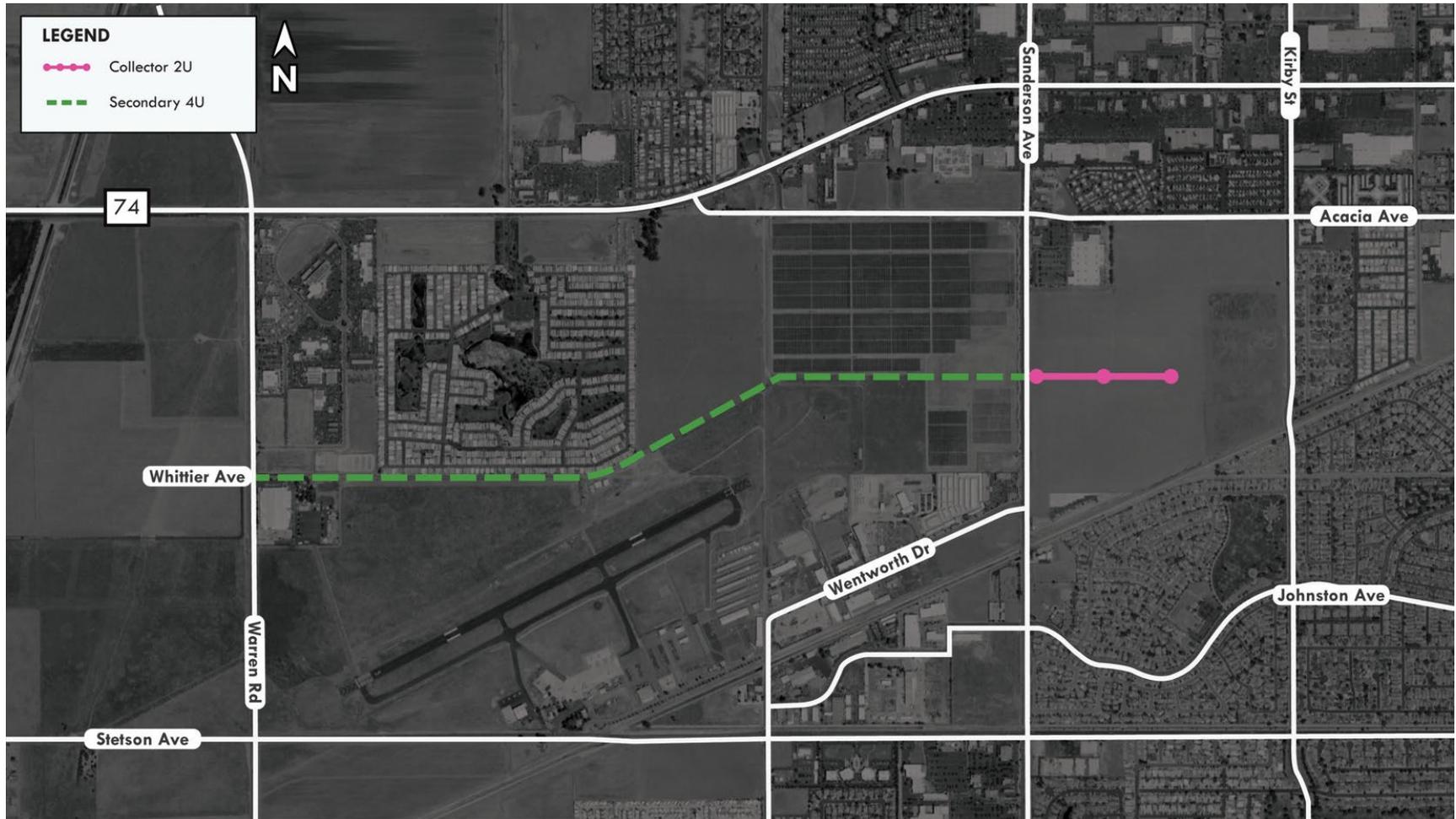
Existing Whittier Avenue Conditions



Existing Whittier Avenue Per City of Hemet General Plan Circulation Element



Whittier Avenue Per Sanderson Specific Plan



Whittier Avenue Per Proposed GPA

